

The Finance – State – Society Triangle in Europe

The past and the next forty years

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Reader

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Title: Digitalisierung: Was Steckt Hinter der Blockchain-Technologie? Author: Andreas Nolte From: Allianz Bank Date: n.d.

Für die einen ist es eine Revolution, für die anderen eine Randnotiz der Technik-Geschichte. Es herrscht ein Riesen-Hype um die Blockchain. 24,6 Millionen Treffer spuckt Google in 0,32 Sekunden dazu aus, und in den Überschriften ist die Rede von "Gefahr", "Top-Trend", einem "Mysterium" und dem "wahren Disruptor". Fakt ist: Blockchain ist eine noch junge, extrem spannende Technologie mit großem Potenzial. Und dieses Potenzial gilt es nun zu erkunden und auszuschöpfen. Was kann Blockchain leisten und was nicht?

Das Konzept der Blockchain – auch wenn der Name damals nicht verwendet wurde – wurde erstmals 2008 beschrieben von einer Person (oder einer Gruppe von Personen) mit dem Pseudonym Satoshi Nakamoto in "Bitcoin: A Peer-to-Peer Electronic Cash System" (https://bitcoin.org/bitcoin.pdf). Die wichtigste Neuerung, die die Blockchain brachte, ist die Kombination von asymmetrischer Kryptographie (Verschlüsselung) und verteilten Netzwerken.

Erinnern Sie sich noch an Napster?

Die asymmetrische Kryptographie ermöglicht unveränderliche Aufzeichnungen und sichere Transaktionen. Erfunden wurde sie in den 1970er-Jahren von Rivest, Shamir und Adleman – deren Namen im berühmten RSA-Algorithmus verewigt sind. Verteilte Netzwerke bedeutet: Die Netzwerke sind nicht von einer zentralen Instanz abhängig, sondern von der Rechenpower und dem Datenspeicher aller teilnehmenden Rechner. Viele tausend Geräte sind dabei miteinander verknüpft.

Erinnern Sie sich zurück an eines der ersten verteilten Netzwerke der Computergeschichte: die Musiktauschbörse Napster. Die Napster-Software ermöglichte es, dass ein Kunde sich eine MP3-Datei vom Rechner eines anderen Kunden herunterlädt (Peer-to-Peer). Nach demselben Prinzip funktioniert die Blockchain. Alle Computer eines Netzwerks werden miteinander verknüpft, und auf jedem dieser Computer wird eine Blockchain als sich ständig aktualisierende Kette aller im System getätigten Transaktionen eingerichtet.

Datenübertragung direkt zwischen den handelnden Parteien

Die Daten werden verschlüsselt übertragen, und das direkt zwischen den handelnden Parteien. Will ein Kunde Aktien kaufen, braucht er dafür keine Börse mehr. Will er Geld überweisen, muss er keine Bank bemühen. Und die Transaktionen werden in exakt der zeitlichen Abfolge dokumentiert, in der sie erfolgten und sind nachträglich nicht mehr veränderbar.

Die Blockchain-Technologie ermöglicht also einen schnellen, kostengünstigen, direkten und sicheren Austausch von Informationen, welcher in Zeiten des Internets nahezu überall anzutreffen ist. Das macht die Blockchain so interessant für viele Branchen – auch für den Finanz- und Versicherungssektor. Derzeit wird viel geforscht, getestet und experimentiert. Auch bei der Allianz.

Seit ihrer Gründung im Oktober 2016 hat die Blockchain-Initiative B3i MItgliedsunternehmen in Asien, Europa und auf dem amerikanischen Kontinent gewonnen. So förderte zum Beispiel

der französische Allianz Accelerator das Start-up Everledger. Everledger sorgt für sichere Transaktionen, wenn es um Diamanten geht – Everledger schreibt in der Blockchain fest, dass die Steine echt sind, nicht gefälscht und nicht gestohlen.

Die Allianz Risk Transfer AG und Nephila haben im vergangenen Jahr erfolgreich die Durchführung einer Naturkatastrophen-Anleihe getestet. Fazit: Die Handelbarkeit von Katastrophenanleihen verbesserte sich. Der Einsatz der Blockchain-Technologie ist auch in anderen Versicherungstransaktionen absolut denkbar. Theoretisch möglich wäre zum Beispiel, sein Auto via Blockchain zu kaufen, zu versichern und zuzulassen. Alles vom Sofa aus, mit dem Smartphone in der Hand. In der Kette wird festgeschmiedet, wer der Eigentümer und wer der Versicherer des Kfz ist, einer Online-Zulassung stünde damit nichts mehr im Weg.

Die Blockchain-Technologie lässt sich auf verschiedensten Ebenen einsetzen. Innerhalb eines Unternehmens. Branchenübergreifend. Oder branchenintern. Allianz, Aegon, Munich RE, Swiss Re und Zurich haben im Oktober 2016 die Blockchain Insurance Industry Initiative B3i gegründet. Gemeinsam wollen die Mitglieder von B3i die Möglichkeiten ausloten, diese neue Technologie zu nutzen. Das Ziel: schnelle, nützliche und sichere Services für Kunden zu entwickeln. Die Blockchain-Technologie eröffnet zahlreiche Anwendungsmöglichkeiten. Nicht alle von ihnen sind sinnvoll, das ist klar. Wichtig ist jetzt, mit der neuen Technologie zu experimentieren, mögliche Anwendungen zu testen und neue Erkenntnisse zu gewinnen.

Title: The Truth About Blockhain Author: Marco Iansiti and Karim R. Lakhani From: Harvard Business Review Date: January-February, 2017

Contracts, transactions, and the records of them are among the defining structures in our economic, legal, and political systems. They protect assets and set organizational boundaries. They establish and verify identities and chronicle events. They govern interactions among nations, organizations, communities, and individuals. They guide managerial and social action. And yet these critical tools and the bureaucracies formed to manage them have not kept up with the economy's digital transformation. They're like a rush-hour gridlock trapping a Formula 1 race car. In a digital world, the way we regulate and maintain administrative control has to change.

Blockchain promises to solve this problem. The technology at the heart of bitcoin and other virtual currencies, blockchain is an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way. The ledger itself can also be programmed to trigger transactions automatically.

How Blockchain Works

Here are five basic principles underlying the technology.

1. Distributed Database

Each party on a blockchain has access to the entire database and its complete history. No single party controls the data or the information. Every party can verify the records of its transaction partners directly, without an intermediary.

2. Peer-to-Peer Transmission

Communication occurs directly between peers instead of through a central node. Each node stores and forwards information to all other nodes.

3. Transparency with Pseudonymity

Every transaction and its associated value are visible to anyone with access to the system. Each node, or user, on a blockchain has a unique 30-plus-character alphanumeric address that identifies it. Users can choose to remain anonymous or provide proof of their identity to others. Transactions occur between blockchain addresses.

4. Irreversibility of Records

Once a transaction is entered in the database and the accounts are updated, the records cannot be altered, because they're linked to every transaction record that came before them (hence the term "chain"). Various computational algorithms and approaches are deployed to ensure that the recording on the database is permanent, chronologically ordered, and available to all others on the network.

5. Computational Logic

The digital nature of the ledger means that blockchain transactions can be tied to computational logic and in essence programmed. So users can set up algorithms and rules that automatically trigger transactions between nodes.

With blockchain, we can imagine a world in which contracts are embedded in digital code and stored in transparent, shared databases, where they are protected from deletion, tampering, and revision. In this world every agreement, every process, every task, and every payment would have a digital record and signature that could be identified, validated, stored, and shared. Intermediaries like lawyers, brokers, and bankers might no longer be necessary. Individuals, organizations, machines, and algorithms would freely transact and interact with one another with little friction. This is the immense potential of blockchain.

Indeed, virtually everyone has heard the claim that blockchain will revolutionize business and redefine companies and economies. Although we share the enthusiasm for its potential, we worry about the hype. It's not just security issues (such as the 2014 collapse of one bitcoin exchange and the more recent hacks of others) that concern us. Our experience studying technological innovation tells us that if there's to be a blockchain revolution, many barriers—technological, governance, organizational, and even societal—will have to fall. It would be a mistake to rush headlong into blockchain innovation without understanding how it is likely to take hold.

True blockchain-led transformation of business and government, we believe, is still many years away. That's because blockchain is not a "disruptive" technology, which can attack a traditional business model with a lower-cost solution and overtake incumbent firms quickly. Blockchain is a foundational technology: It has the potential to create new foundations for our economic and social systems. But while the impact will be enormous, it will take decades for blockchain to seep into our economic and social infrastructure. The process of adoption will be gradual and steady, not sudden, as waves of technological and institutional change gain momentum. That insight and its strategic implications are what we'll explore in this article.

Patterns of Technology Adoption

Before jumping into blockchain strategy and investment, let's reflect on what we know about technology adoption and, in particular, the transformation process typical of other foundational technologies. One of the most relevant examples is distributed computer networking technology, seen in the adoption of TCP/IP (transmission control protocol/internet protocol), which laid the groundwork for the development of the internet.

Introduced in 1972, TCP/IP first gained traction in a single-use case: as the basis for e-mail among the researchers on ARPAnet, the U.S. Department of Defense precursor to the commercial internet. Before TCP/IP, telecommunications architecture was based on "circuit

switching," in which connections between two parties or machines had to be preestablished and sustained throughout an exchange. To ensure that any two nodes could communicate, telecom service providers and equipment manufacturers had invested billions in building dedicated lines.

TCP/IP turned that model on its head. The new protocol transmitted information by digitizing it and breaking it up into very small packets, each including address information. Once released into the network, the packets could take any route to the recipient. Smart sending and receiving nodes at the network's edges could disassemble and reassemble the packets and interpret the encoded data. There was no need for dedicated private lines or massive infrastructure. TCP/IP created an open, shared public network without any central authority or party responsible for its maintenance and improvement.

Traditional telecommunications and computing sectors looked on TCP/IP with skepticism. Few imagined that robust data, messaging, voice, and video connections could be established on the new architecture or that the associated system could be secure and scale up. But during the late 1980s and 1990s, a growing number of firms, such as Sun, NeXT, Hewlett-Packard, and Silicon Graphics, used TCP/IP, in part to create localized private networks within organizations. To do so, they developed building blocks and tools that broadened its use beyond e-mail, gradually replacing more-traditional local network technologies and standards. As organizations adopted these building blocks and tools, they saw dramatic gains in productivity.

TCP/IP burst into broad public use with the advent of the World Wide Web in the mid-1990s. New technology companies quickly emerged to provide the "plumbing"—the hardware, software, and services needed to connect to the now-public network and exchange information. Netscape commercialized browsers, web servers, and other tools and components that aided the development and adoption of internet services and applications. Sun drove the development of Java, the application-programming language. As information on the web grew exponentially, Infoseek, Excite, AltaVista, and Yahoo were born to guide users around it.

Once this basic infrastructure gained critical mass, a new generation of companies took advantage of low-cost connectivity by creating internet services that were compelling substitutes for existing businesses. CNET moved news online. Amazon offered more books for sale than any bookshop. Priceline and Expedia made it easier to buy airline tickets and brought unprecedented transparency to the process. The ability of these newcomers to get extensive reach at relatively low cost put significant pressure on traditional businesses like newspapers and brick-and-mortar retailers.

Relying on broad internet connectivity, the next wave of companies created novel, transformative applications that fundamentally changed the way businesses created and captured value. These companies were built on a new peer-to-peer architecture and generated value by coordinating distributed networks of users. Think of how eBay changed online retail through auctions, Napster changed the music industry, Skype changed telecommunications,

and Google, which exploited user-generated links to provide more relevant results, changed web search.

Companies are already using blockchain to track items through complex supply chains.

Ultimately, it took more than 30 years for TCP/IP to move through all the phases—single use, localized use, substitution, and transformation—and reshape the economy. Today more than half the world's most valuable public companies have internet-driven, platform-based business models. The very foundations of our economy have changed. Physical scale and unique intellectual property no longer confer unbeatable advantages; increasingly, the economic leaders are enterprises that act as "keystones," proactively organizing, influencing, and coordinating widespread networks of communities, users, and organizations.

The New Architecture

Blockchain—a peer-to-peer network that sits on top of the internet—was introduced in October 2008 as part of a proposal for bitcoin, a virtual currency system that eschewed a central authority for issuing currency, transferring ownership, and confirming transactions. Bitcoin is the first application of blockchain technology.

The parallels between blockchain and TCP/IP are clear. Just as e-mail enabled bilateral messaging, bitcoin enables bilateral financial transactions. The development and maintenance of blockchain is open, distributed, and shared—just like TCP/IP's. A team of volunteers around the world maintains the core software. And just like e-mail, bitcoin first caught on with an enthusiastic but relatively small community.

TCP/IP unlocked new economic value by dramatically lowering the cost of connections. Similarly, blockchain could dramatically reduce the cost of transactions. It has the potential to become the system of record for all transactions. If that happens, the economy will once again undergo a radical shift, as new, blockchain-based sources of influence and control emerge.

Consider how business works now. Keeping ongoing records of transactions is a core function of any business. Those records track past actions and performance and guide planning for the future. They provide a view not only of how the organization works internally but also of the organization's outside relationships. Every organization keeps its own records, and they're private. Many organizations have no master ledger of all their activities; instead records are distributed across internal units and functions. The problem is, reconciling transactions across individual and private ledgers takes a lot of time and is prone to error.

For example, a typical stock transaction can be executed within microseconds, often without human intervention. However, the settlement—the ownership transfer of the stock—can take as long as a week. That's because the parties have no access to each other's ledgers and can't automatically verify that the assets are in fact owned and can be transferred. Instead a series of intermediaries act as guarantors of assets as the record of the transaction traverses organizations and the ledgers are individually updated.

In a blockchain system, the ledger is replicated in a large number of identical databases, each hosted and maintained by an interested party. When changes are entered in one copy, all the other copies are simultaneously updated. So as transactions occur, records of the value and assets exchanged are permanently entered in all ledgers. There is no need for third-party intermediaries to verify or transfer ownership. If a stock transaction took place on a blockchain-based system, it would be settled within seconds, securely and verifiably. (The infamous hacks that have hit bitcoin exchanges exposed weaknesses not in the blockchain itself but in separate systems linked to parties using the blockchain.)

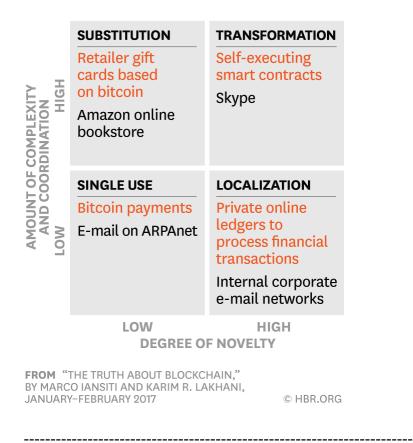
A Framework for Blockchain Adoption

If bitcoin is like early e-mail, is blockchain decades from reaching its full potential? In our view the answer is a qualified yes. We can't predict exactly how many years the transformation will take, but we can guess which kinds of applications will gain traction first and how blockchain's broad acceptance will eventually come about.

In our analysis, history suggests that two dimensions affect how a foundational technology and its business use cases evolve. The first is novelty—the degree to which an application is new to the world. The more novel it is, the more effort will be required to ensure that users understand what problems it solves. The second dimension is complexity, represented by the level of ecosystem coordination involved—the number and diversity of parties that need to work together to produce value with the technology. For example, a social network with just one member is of little use; a social network is worthwhile only when many of your own connections have signed on to it. Other users of the application must be brought on board to generate value for all participants. The same will be true for many blockchain applications. And, as the scale and impact of those applications increase, their adoption will require significant institutional change.

How Foundational Technologies Take Hold

The adoption of foundational technologies typically happens in four phases. Each phase is defined by the novelty of the applications and the complexity of the coordination efforts needed to make them workable. Applications low in novelty and complexity gain acceptance first. Applications high in novelty and complexity take decades to evolve but can transform the economy. TCP/IP technology, introduced on ARPAnet in 1972, has already reached the transformation phase, but blockchain applications (in red) are in their early days.



We've developed a framework that maps innovations against these two contextual dimensions, dividing them into quadrants. (See the exhibit "How Foundational Technologies Take Hold.") Each quadrant represents a stage of technology development. Identifying which one a blockchain innovation falls into will help executives understand the types of challenges it presents, the level of collaboration and consensus it needs, and the legislative and regulatory efforts it will require. The map will also suggest what kind of processes and infrastructure must be established to facilitate the innovation's adoption. Managers can use it to assess the state of blockchain development in any industry, as well as to evaluate strategic investments in their own blockchain capabilities.

Single use

In the first quadrant are low-novelty and low-coordination applications that create better, less costly, highly focused solutions. E-mail, a cheap alternative to phone calls, faxes, and snail mail, was a single-use application for TCP/IP (even though its value rose with the number of users). Bitcoin, too, falls into this quadrant. Even in its early days, bitcoin offered immediate value to the few people who used it simply as an alternative payment method. (You can think of it as a complex e-mail that transfers not just information but also actual value.) At the end of 2016 the value of bitcoin transactions was expected to hit \$92 billion. That's still a rounding error compared with the \$411 trillion in total global payments, but bitcoin is growing fast and increasingly important in contexts such as instant payments and foreign currency and asset trading, where the present financial system has limitations.

Localization

The second quadrant comprises innovations that are relatively high in novelty but need only a limited number of users to create immediate value, so it's still relatively easy to promote their adoption. If blockchain follows the path network technologies took in business, we can expect blockchain innovations to build on single-use applications to create local private networks on which multiple organizations are connected through a distributed ledger.

Much of the initial private blockchain-based development is taking place in the financial services sector, often within small networks of firms, so the coordination requirements are relatively modest. Nasdaq is working with Chain.com, one of many blockchain infrastructure providers, to offer technology for processing and validating financial transactions. Bank of America, JPMorgan, the New York Stock Exchange, Fidelity Investments, and Standard Chartered are testing blockchain technology as a replacement for paper-based and manual transaction processing in such areas as trade finance, foreign exchange, cross-border settlement, and securities settlement. The Bank of Canada is testing a digital currency called CAD-coin for interbank transfers. We anticipate a proliferation of private blockchains that serve specific purposes for various industries.

Substitution

The third quadrant contains applications that are relatively low in novelty because they build on existing single-use and localized applications, but are high in coordination needs because they involve broader and increasingly public uses. These innovations aim to replace entire ways of doing business. They face high barriers to adoption, however; not only do they require more coordination but the processes they hope to replace may be full-blown and deeply embedded within organizations and institutions. Examples of substitutes include cryptocurrencies—new, fully formed currency systems that have grown out of the simple bitcoin payment technology. The critical difference is that a cryptocurrency requires every party that does monetary transactions to adopt it, challenging governments and institutions that have long handled and overseen such transactions. Consumers also have to change their behavior and understand how to implement the new functional capability of the cryptocurrency.

A recent experiment at MIT highlights the challenges ahead for digital currency systems. In 2014 the MIT Bitcoin Club provided each of MIT's 4,494 undergraduates with \$100 in bitcoin. Interestingly, 30% of the students did not even sign up for the free money, and 20% of the sign-ups converted the bitcoin to cash within a few weeks. Even the technically savvy had a tough time understanding how or where to use bitcoin.

One of the most ambitious substitute blockchain applications is Stellar, a nonprofit that aims to bring affordable financial services, including banking, micropayments, and remittances, to people who've never had access to them. Stellar offers its own virtual currency, lumens, and also allows users to retain on its system a range of assets, including other currencies, telephone minutes, and data credits. Stellar initially focused on Africa, particularly Nigeria, the largest economy there. It has seen significant adoption among its target population and proved its cost-

effectiveness. But its future is by no means certain, because the ecosystem coordination challenges are high. Although grassroots adoption has demonstrated the viability of Stellar, to become a banking standard, it will need to influence government policy and persuade central banks and large organizations to use it. That could take years of concerted effort.

Transformation

Into the last quadrant fall completely novel applications that, if successful, could change the very nature of economic, social, and political systems. They involve coordinating the activity of many actors and gaining institutional agreement on standards and processes. Their adoption will require major social, legal, and political change.

"Smart contracts" may be the most transformative blockchain application at the moment. These automate payments and the transfer of currency or other assets as negotiated conditions are met. For example, a smart contract might send a payment to a supplier as soon as a shipment is delivered. A firm could signal via blockchain that a particular good has been received—or the product could have GPS functionality, which would automatically log a location update that, in turn, triggered a payment. We've already seen a few early experiments with such self-executing contracts in the areas of venture funding, banking, and digital rights management.

The implications are fascinating. Firms are built on contracts, from incorporation to buyersupplier relationships to employee relations. If contracts are automated, then what will happen to traditional firm structures, processes, and intermediaries like lawyers and accountants? And what about managers? Their roles would all radically change. Before we get too excited here, though, let's remember that we are decades away from the widespread adoption of smart contracts. They cannot be effective, for instance, without institutional buy-in. A tremendous degree of coordination and clarity on how smart contracts are designed, verified, implemented, and enforced will be required. We believe the institutions responsible for those daunting tasks will take a long time to evolve. And the technology challenges—especially security—are daunting.

Guiding Your Approach to Blockchain Investment

How should executives think about blockchain for their own organizations? Our framework can help companies identify the right opportunities.

For most, the easiest place to start is single-use applications, which minimize risk because they aren't new and involve little coordination with third parties. One strategy is to add bitcoin as a payment mechanism. The infrastructure and market for bitcoin are already well developed, and adopting the virtual currency will force a variety of functions, including IT, finance, accounting, sales, and marketing, to build blockchain capabilities. Another low-risk approach is to use blockchain internally as a database for applications like managing physical and digital assets, recording internal transactions, and verifying identities. This may be an especially useful solution for companies struggling to reconcile multiple internal databases. Testing out single-use applications will help organizations develop the skills they need for more-advanced applications. And thanks to the emergence of cloud-based blockchain services from both start-

ups and large platforms like Amazon and Microsoft, experimentation is getting easier all the time.

Localized applications are a natural next step for companies. We're seeing a lot of investment in private blockchain networks right now, and the projects involved seem poised for real shortterm impact. Financial services companies, for example, are finding that the private blockchain networks they've set up with a limited number of trusted counterparties can significantly reduce transaction costs.

Organizations can also tackle specific problems in transactions across boundaries with localized applications. Companies are already using blockchain to track items through complex supply chains, for instance. This is happening in the diamond industry, where gems are being traced from mines to consumers. The technology for such experiments is now available off-the-shelf.

Developing substitute applications requires careful planning, since existing solutions may be difficult to dislodge. One way to go may be to focus on replacements that won't require end users to change their behavior much but present alternatives to expensive or unattractive solutions. To get traction, substitutes must deliver functionality as good as a traditional solution's and must be easy for the ecosystem to absorb and adopt. First Data's foray into blockchain-based gift cards is a good example of a well-considered substitute. Retailers that offer them to consumers can dramatically lower costs per transaction and enhance security by using blockchain to track the flows of currency within accounts—without relying on external payment processors. These new gift cards even allow transfers of balances and transaction capability between merchants via the common ledger.

Blockchain could slash the cost of transactions and reshape the economy

Transformative applications are still far away. But it makes sense to evaluate their possibilities now and invest in developing technology that can enable them. They will be most powerful when tied to a new business model in which the logic of value creation and capture departs from existing approaches. Such business models are hard to adopt but can unlock future growth for companies.

Consider how law firms will have to change to make smart contracts viable. They'll need to develop new expertise in software and blockchain programming. They'll probably also have to rethink their hourly payment model and entertain the idea of charging transaction or hosting fees for contracts, to name just two possible approaches. Whatever tack they take, executives must be sure they understand and have tested the business model implications before making any switch.

Transformative scenarios will take off last, but they will also deliver enormous value. Two areas where they could have a profound impact: large-scale public identity systems for such functions as passport control, and algorithm-driven decision making in the prevention of money laundering and in complex financial transactions that involve many parties. We expect

these applications won't reach broad adoption and critical mass for at least another decade and probably more.

Transformative applications will also give rise to new platform-level players that will coordinate and govern the new ecosystems. These will be the Googles and Facebooks of the next generation. It will require patience to realize such opportunities. Though it may be premature to start making significant investments in them now, developing the required foundations for them—tools and standards—is still worthwhile.

CONCLUSION

In addition to providing a good template for blockchain's adoption, TCP/IP has most likely smoothed the way for it. TCP/IP has become ubiquitous, and blockchain applications are being built on top of the digital data, communication, and computation infrastructure, which lowers the cost of experimentation and will allow new use cases to emerge rapidly.

With our framework, executives can figure out where to start building their organizational capabilities for blockchain today. They need to ensure that their staffs learn about blockchain, to develop company-specific applications across the quadrants we've identified, and to invest in blockchain infrastructure.

But given the time horizons, barriers to adoption, and sheer complexity involved in getting to TCP/IP levels of acceptance, executives should think carefully about the risks involved in experimenting with blockchain. Clearly, starting small is a good way to develop the know-how to think bigger. But the level of investment should depend on the context of the company and the industry. Financial services companies are already well down the road to blockchain adoption. Manufacturing is not.

No matter what the context, there's a strong possibility that blockchain will affect your business. The very big question is when.

Title: The IMF Report Seeks to Provide Detailed Classifications for Distributed Ledger Technology Author: Samuel Haig From: Bitcoin News Date: June 28, 2017

IMF Publishes Report Detailing Regulatory Recommendations for the Cryptocurrency Industries

The International Monetary Fund (IMF) has released a report that focuses on advancements within the fintech industry, specifically looking at the rapidly evolving cross-border payments industry. An emphasis is placed upon discussing distributed ledger technology, which is presented as having the "potential to offer important service improvements and costs savings." Much of the report seeks to define and classify the cryptocurrency industry, whilst highlighting key concerns and recommendations with regards to regulators and lawmakers.

The report stresses that these "new technologies may require jurisdictions to revise rules governing ownership and contractual rights and obligations". Greater KYC guidelines, regulatory oversight and regulation pertaining to new cryptocurrency development, and a critical discussion pertaining to balancing privacy and transparency considerations are recommended as prospective policy considerations for governments in assessing DLTs – framing such as necessary in order to gain widespread consumer trust in distributed ledger technology (DLT). Greater regulatory oversight was also advocated for the purposes of combating money laundering, tax evasion and terrorist financing.

The IMF report seeks to provide detailed classifications for distributed ledger technology. The report categorizes DLT as being either 'permissionless', or 'permissioned'. 'Permissionless' DLTs are likened to Bitcoin, and described as "open schemes" that "could be very disruptive if successfully implemented." 'Permissioned' DLTs on the other hand, are defined as having a "validation process... [that is] controlled by a preselected group of participants ('consortium') or managed by one organization ('fully-private')".

The Report's Classifications May Inform Governments' Future Cryptocurrency Regulations

The IMF report seeks to demarcate between "intrinsic tokens", and "asset-based tokens". "DLT records the transfer of ownership of 'digital tokens', which are essentially units in a ledger. They can either have intrinsic value (an 'intrinsic token' like Bitcoin), or be digital representations of a physical or digital asset that exists outside the ledger (an 'asset-based token', representing an interest in another asset, such as securities)." This semantic differentiation is important as it could be used as the basis to develop separate juridical frameworks for tokens tied to a fully developed and functioning platform/project, and tokens that have been issued by a project that is conducting an ICO – allowing for the demarcation to be used as a basis for regulators to clamp down on the rapidly proliferating ICO industry.

The report also discusses the antagonism the decentralized trustless execution of transactions on blockchain networks increasingly becoming tied to 'real-world' transactions. "The legal status of a digital token, and the legal effect of its transfer are not clear. For example, would the transfer of an asset-backed token (e.g., representing a security) on a ledger transfer legal ownership of the security or would registration outside the ledger (e.g., in a corporate share registry) still be required? Jurisdictions are trying to develop answers to these questions but country practice varies. The resolution of these questions is crucial for the economy to function and will require more thought by policymakers."

The IMF Report Has a Number of Positive Implications for the Cryptocurrency Industry

The report advocates that "policymak[ers] will need to be nimble, experimental, and cooperative", and ultimately encourages governments to work together in developing an inclusive regulatory apparatus for distributed ledger technology. The IMF also promotes the adoption of distributed ledger technology on the part of banks and financial institutions and encourages the creation of "regulatory sandboxes" for the purposes of fostering the "innovative and dynamic" DLT industry.

The IMF report has a number of positive implications for the cryptocurrency industry. The encouragement of inclusive regulatory frameworks and promotion of governments seeking to work with the DLT industry shows that major global economic institutions are recognizing the innovative potential of bitcoin, and seeking to harness rather than oppress such. The report also recognized that the distributed ledger technology is producing an incredible array of what are essentially free technological breakthroughs.

Despite signifying a path toward mainstream adoption for cryptocurrencies and digital ledger technology, there are many within the cryptocurrency community that are deeply skeptical of the IMF's report. Some fear that blockchain and distributed ledger technology will become another tool wielded by the state for centralization and control. The report's cautious recognition of bitcoin's "disruptive potential", and classification of bitcoin as a "permissionless" token may signify a preference toward the development and use of DLT projects that compete with bitcoin's utility, but can be subject to influence from governments and institutions.

Title: A Way to Own Your Social-Media Data Author: Luigi Zingales and Guy Rolink From: New York Times Date: June 30, 2017

The European Union imposed a 2.4 billion euro (\$2.7 billion) fine on Google last Tuesday for manipulating its search engine results to favor its own comparison shopping service. It is just the latest institution to recognize the increasing monopolization of the technology industry.

Google has about a 90 percent market share in searches, while Facebook has a penetration of about 89 percent of internet users. Economists have a fancy name for this phenomenon: "network externalities." In traditional product markets, one customer's choice (for example, a particular car tire) does not directly affect other individuals' preferences for that product, and competition generally ensures that consumers enjoy the best products at the lowest possible price.

In the market for social media, by contrast, when one customer uses Facebook over Myspace, it has a direct (and positive) impact on other customers' preferences for the same social network: I want to be in the social network where my friends are. These markets naturally tend toward a monopoly.

Historically, there have been two main government interventions to reduce this risk of monopoly power. The first is price regulation. When railway companies gained excessive market power in the late 1800s, the United States government created the Interstate Commerce Commission and gave it the power to set maximum prices. (In the long run, the remedy turned out to be worse than the disease, but that's another story.)

The second is antitrust. When Standard Oil, in the early 1900s, controlled 90 percent of oil refinery capacity in the United States, the federal government used its antitrust power to break it up into more than 30 smaller companies. A similar breakup was imposed 70 years later on AT&T.

Still, there is a problem with traditional antitrust policy when looked at through the lens of network externalities: It focuses only on consumers' benefits from competition. But consumers love Google and Facebook since they do not pay a dime for their services.

What many users do not fully appreciate is that they do pay for these services, in the form of very valuable information. And those who appreciate this cost have no choice: There is no major search engine that does not store our past searches or collect information on our activities, and there is no significant social media platform that does not retain our preferences. That is the cost of using these technologies. Lack of competition also means lack of choice, which is ultimately lack of freedom. But what can be done?

For a 21st-century problem, we suggest a 21st-century solution: a reallocation of property rights via legislation to provide more incentives to compete. In fact, the idea is not new. Patent

law, for example, attributes the right to an invention to the company a scientist works for, to motivate companies to invest in research and development. Similarly, in the mobile industry, most countries have established that a cellphone number belongs to a customer, not the mobile phone provider. This redefinition of property rights (in jargon called "number portability") makes it easier to switch carriers, fostering competition by other carriers and reducing prices for consumers.

The same is possible in the social network space. It is sufficient to reassign to each customer the ownership of all the digital connections that she creates — what is known as a "social graph." If we owned our own social graph, we could sign into a Facebook competitor — call it MyBook — and, through that network, instantly reroute all our Facebook friends' messages to MyBook, as we reroute a phone call.

If I can reach my Facebook friends through a different social network and vice versa, I am more likely to try new social networks. Knowing they can attract existing Facebook customers, new social networks will emerge, restoring the benefit of competition.

Today Facebook provides developers with application-program interfaces that give them access to its customers' social graph, Facebook Connect and Graph A.P.I. Facebook controls these gates, retaining the right to cut off any developer who poses a competitive threat. Anticipating this outcome, very few developers invest seriously in creating alternatives, eliminating even the threat of competition.

By guaranteeing access to new customers' data and contacts, a Social Graph Portability Act would reduce the network externality dimension of the existing digital platforms and ensure the benefits of competition.

Google and Facebook will no doubt display their enormous lobbying power to kill this idea in its infancy. But they would do so at their own risk. If their monopoly is not curbed by competition, it will eventually be curbed by regulation, and experience suggests that will be worse, not only for consumers, but also for Google and Facebook themselves.

As the uproar over United Airlines' treatment of a passenger it ejected from a flight has shown, people's tolerance for companies' market power is running low. A "social graph to the people" revolution is in the making; Congress better be in front of it or find itself overwhelmed.

Title: Die Bank als Teil Digitaler Ökosysteme Author: Thomas Puschmann From: Neue Zürcher Zeitung Date: September 17, 2016

Die branchenübergreifende Bündelung von Angeboten gewinnt auch in der Finanzwelt an Bedeutung.

Nutzen Sie immer noch eine Bank für Finanzangelegenheiten, oder haben Sie bereits zu Ihrem persönlichen «Finanz-Ökosystem» gewechselt? Dass Banken Teile ihrer Leistungserstellung wie die Zahlungs- oder Wertschriftenabwicklung an spezialisierte Dienstleister auslagern, ist seit langem ein Trend. Dadurch wurden zwar die Wertschöpfungsketten durch die daraus entstehenden Banknetzwerke immer komplexer, bestehende Branchengrenzen wurden aber nur selten durchbrochen. Nun aber verwischen die Grenzen zwischen einzelnen Branchen immer mehr, und es bilden sich sogenannte Ökosysteme als neue Form der Leistungserstellung heraus. Diese bündeln Angebote verschiedenster Unternehmen branchenübergreifend zu kundenorientierten Lösungen. Auch die Finanzbranche ist von dieser Entwicklung immer stärker betroffen.

Bündelung von Kompetenzen

Beispiele sind Zahlungsdienstleistungen, die in Apps und Plattformen der Sharing-Economy integriert sind, oder Versicherungsangebote, die sich nahtlos für selbstfahrende Autos einbinden lassen. Der Grund für diesen Trend sind innovative Technologien und deren zunehmende Konvergenz, die einerseits zu neuen Produkten und Services führen und andererseits die Zusammenführung unterschiedlicher Kompetenzen erfordern. Als Beispiele wären etwa die Nutzung von Online-Payment-Services wie Paypal im Online-Banking oder die Integration von Crowdfunding-Plattformen wie Kickstarter in traditionelle Anlageportfolios einer Bank zu nennen.

Die kundenzentrierte Konfiguration von Finanzangeboten konkurrierender Anbieter hat eine grundlegende Veränderung der traditionellen Marktmechanik zur Folge. Beispiele aus anderen Branchen, in denen die Digitalisierung bestehende Strukturen bereits radikal verändert hat, finden sich in der Musikindustrie oder im Handel. Die Herausbildung solch neuer technologieinduzierter und kundenorientierter Ökosysteme hat gleichsam mikro- und makroökonomische Implikationen.

Aus makroökonomischer Sicht verwischen derzeit die Strukturen einzelner Branchen. Diese Entwicklung deutet auf eine Reform des bereits 1937 in den USA etablierten Standards Industrial Classification System (SIC) hin, das klassische Industrien wie etwa Retail Trade oder Finance, Insurance and Real Estate benennt. Ein Beispiel ist die Kooperation zwischen dem spanischen Telekommunikationsunternehmen Telefónica und der Fidor-Bank, die es dem Telekomunternehmen ermöglichen soll, neue, mit anderen Services verbundene Finanzdienstleistungen auf dem Smartphone anzubieten. Ein anderes Beispiel ist die Zusammenarbeit von Allianz und Panasonic, die zum Ziel hat, eine neue Hausratversicherung auf der Basis der Sensortechnik (Smart Home) zu entwickeln.

Ein wichtiges Muster hinter der Auflösung von Branchengrenzen ist der Wechsel von einer anbieter- und produktzentrierten Sicht zu einer konsumenten- und bedürfniszentrierten Sicht.

Im Mittelpunkt stehen die Konsumentenbedürfnisse hinsichtlich Mobilität, Gesundheit, Arbeit, Unterhaltung, Kommunikation, Einkauf, Wohnen und Freizeit, die sowohl von Finanz- als auch von Nicht-Finanzdienstleistungsunternehmen erbracht werden.

«Crowd-Ökonomie»

Aus mikroökonomischer Sicht steht dagegen nicht die Gesamtwirtschaft im Zentrum der Betrachtung, sondern vielmehr der einzelne Finanzdienstleister und dessen Einbindung in diese neuen Ökosysteme. Als Konsequenz der genannten Veränderungen könnten beispielsweise etablierte, hierarchisch organisierte (Gross-)Banken langfristig kleiner werden oder sogar ganz verschwinden. Stattdessen würden sich, wie sich dies bei Fintech-Firmen abzeichnet, kleinere Unternehmen als Anbieter herausbilden, die sich Büros und andere Infrastrukturen teilen, um im Ökosystem die vom Kunden geforderten Leistungen gemeinsam zu erstellen.

Diese «Crowd-Ökonomie» führt letztlich zu einer höheren Spezialisierung, die nur deshalb möglich wird, weil die Technologie deren Koordination erleichtert. Beispiele hierfür sind etwa die elektronischen Marktplätze Freelancer.com oder Innocentive. Übertragen auf die künftigen Ökosysteme bedeutet dies, dass der Konsument die relevanten Dienstleistungen über eine digitale Infrastruktur bezieht. Dabei kommt dem Bereich Finanzen und Versicherung eine übergreifende Rolle zu. Denn die Services sind für alle anderen Konsumentenbedürfnisse relevant. Beispiele sind neue übergreifende Bezahldienste für Mobilität, Crowd-basierte Finanzierungslösungen für Immobilien im Bereich Wohnen oder Versicherungslösungen für die Wohnungseinrichtung beim Vermieten von Wohnungen über elektronische Vermittlungsplattformen wie Airbnb im Bereich Freizeit.

Risiken und Chancen

Für Banken bedeutet die Evolution neuer digitaler Ökosysteme Risiko und Chance zugleich. Es ergeben sich fünf Perspektiven:

■ Erstens stärken die sich neu herausbildenden Ökosysteme die Verhandlungsmacht der Kunden. Wenn diese künftig über elektronische Marktplätze ihre individuellen Lösungen selbst zusammenstellen können, werden die jeweiligen Anbieter austauschbarer und müssen sich primär über das Leistungsangebot differenzieren. Die Tendenz zur Standardisierung reduziert zudem die Wechselkosten, etwa indem Produkte und Dienstleistungen auch online bezogen werden können.

■ Zweitens steigt durch die Standardisierung und die erhöhte Markttransparenz auch die Rivalität zwischen den Marktteilnehmern und den Fintech-Firmen. Hierzu tragen nicht zuletzt auch Vergleichsplattformen bei.

■ Drittens sinken durch die Digitalisierung die Eintrittsbarrieren für neue Anbieter. Beispiele hierfür sind etwa die Bestrebungen der Finma, eine «Banklizenz light» einzuführen, oder die Initiative der britischen Aufsichtsbehörde Financial Services Authority, technische Schnittstellen (Open API) für alle Akteure offenzulegen.

■ Viertens nimmt für Banken die Bedrohung durch substitutive Produkte und Dienstleistungen zu. Zu nennen sind die 180 Fintech-Startups in der Schweiz, aber auch grosse Technologiekonzerne wie Apple mit Apple Pay. Zudem haben sich kürzlich Amazon, Apple, Google, Paypal und Intuit zur Allianz Financial Innovation Now zusammengeschlossen, um die Entwicklung solcher Services zu intensivieren. ■ Und schliesslich nimmt, fünftens, durch die stärkere Vergleichbarkeit des Leistungsangebots auch die Verhandlungsmacht der Dienstleister der Banken ab. Beispielhaft hierfür ist DNAppstore, ein elektronischer Baukasten für Dienstleistungen für Banken, der das Angebot unterschiedlicher Lieferanten auf einer Plattform bündelt.

Sich auf Stärken besinnen

Die sich abzeichnenden Veränderungen werden schwerwiegende Konsequenzen für die Finanzbranche und damit auch für die Banken haben. Der Aufbau eigener Ökosysteme sowie die Integration in bestehende Ökosysteme erfordern grosse Investitionen, für die einige Bankinstitute bereits grosse Summen aufwenden. Der spanische Banco Santander etwa hat mit Santander Innoventures einen Fonds mit 100 Mio. € geäufnet, der auf die Schaffung künftiger Ökosysteme zielt.

Grundsätzlich sollten sich Banken in Sachen Ökosystemen auf drei ihrer Stärken konzentrieren:

■ Erstens verfügen sie über das notwendige Know-how, um auch komplexe Finanzprodukte und Prozesse abzubilden. Damit können sie dem Bedarf nach übergreifenden Finanzdienstleistungen in der digitalen Infrastruktur Rechnung tragen. Die Fintech-Firmen fokussieren sich häufig auf weniger komplexe Anwendungsfelder, so dass womöglich komplementäre Potenziale gehoben werden können. Ein Beispiel wären Anlageprodukte, die sich individuell aus Crowdfunding- und Fonds-Elementen zusammensetzen.

■ Zweitens ist die sichere Verwahrung von Geld und Daten seit je eine Domäne der Banken. Die Sicherheitslücken zeigen, dass die Verwahrung immer wichtiger wird und Banken in diesem Bereich neue Dienstleistungen anbieten könnten. Ein solches Angebot könnte beispielsweise die Verwahrung personen- und verhaltensbezogener Daten sein, bei denen künftig der Konsument (und nicht der Anbieter) über deren Verwendung durch Anbieter entscheidet.

• Drittens haben Banken im Bereich der Regulierung in den vergangenen Jahrzehnten umfangreiches Know-how aufgebaut. In dieser Hinsicht geniessen sie bei der Umsetzung neuer Lösungen gegenüber branchenfremden Anbietern einen Wettbewerbsvorteil. Die Allianz Financial Innovation Now hat beispielsweise in ihrem jüngsten Bericht die regulatorischen Hürden für die Entwicklung innovativer Finanzdienstleistungen durch Nicht-Banken dargelegt. Dies ist auch ein wesentlicher Grund dafür, dass sich Nicht-Finanzdienstleister bis jetzt vor allem auf regulatorisch weniger heikle Bereiche wie Zugang und Kanäle (Google), Servicemarktplatz (Apple) oder Entwicklungsumgebung (FidorOS) konzentrieren.

Geforderte Banken

Insgesamt betrachtet, deuten die Bewegungen in der Finanzbranche und der IT-Industrie darauf hin, dass die Komplexität digitaler Ökosysteme künftig noch zunehmen wird. Banken sind daher gefordert, nicht nur ihre eigene Leistungserstellung und deren Wertschöpfungstiefe zu überdenken. Sie müssen zudem die Entwicklung digitaler Ökosysteme in Angriff nehmen und sich darin richtig positionieren.

Title: IMF Releases "Fintech and Financial Services: Initial Considerations" Author: Chris Linton and Helen Scott From: Mondaq Date: June 26, 2017

Amidst a growing body of global thought leadership on blockchain and distributed ledger technology (DLT), the International Monetary Fund (IMF) released its "Fintech and Financial Services: Initial Considerations" staff discussion note on 19 June 2017 (IMF Paper)1.

The IMF Paper provides an excellent and accessible summary of the opportunities presented by fintech (and in particular, DLT) for the financial services sector. Given the IMF's mandate to promote the stability of the international monetary system, it focusses on rapidly changing cross-border payments. It highlights three areas:

- 1. Technology and regulation
- 2.Central bank digital currencies
- 3.Re-shaping cross-border payments.

We discuss each below.

1.Technology and regulation

The IMF Paper identifies a number of current risks (or uncertainties) with emerging technologies:

•Financial instability (due to):

- 1.accelerated speed/volumes of financial transactions;
- 2. higher asset price correlations as a result of automated transactions;
- 3.cyberattack vulnerabilities; and
- 4.concentration risk on key nodes.

•Oversight: The need to regulate the algorithms underlying fintech innovations and verify the robustness of the underlying technology;

•Privacy: Balancing privacy with the need for transparency to reduce transaction costs and conduct supervision. For example, existing laws cover data controllers – however, with DLT, there is no data controller;

•Property and contract law: Current property and contract laws may not reconcile with transfers in ownership of digital tokens. For instance would a registration outside the ledger (eg in a corporate share registry) still be required?

•Settlement finality: Some jurisdictions prohibit the reversal of payments, to ensure certainty of transaction settlements. However, this may not work in a distributed network based on technologies that provide only probabilistic (rather than settlement) finality at a definitive point in time.

The regulatory environment needs to respond, and adapt, to the emerging technologies. For example:

•Some jurisdictions (including the United Kingdom, Australia and Canada) have already established 'regulatory sandboxes'. These allow new technologies and business models to be tested in a controlled environment and enable regulators to address the potential risks of new technologies. The IMF stresses that these are not a substitute, however, for permanent regulatory frameworks.

•Ensuring AML/CFT requirements are met is another example of the regulatory challenges presented by DLT and digital currencies/wallets. The Financial Action Task Force (FATF) has issued guidance for countries to impose customer due diligence (CDD) obligations and other AML/CFT preventive measures (by clarifying the financial institution status) on some virtual currency service providers (primarily virtual currency exchanges). The European Commission is also considering imposing CDD obligations, but for wallet service providers as well.

The IMF Paper acknowledges that the current lack of consistency in regulatory approaches across jurisdictions has the potential to both undermine regulation at the national level and create incentives for regulatory arbitrage. It also acknowledges efforts to strengthen cross-border co-operation and harmonisation, including:

•Bilaterally: through co-operative arrangements for innovation and information sharing; and

•Multilaterally: a number of international standard setters have been monitoring and studying the implications of technology change. For example, the International Organisation of Securities Commissions' February 2017 Research Report on Financial Technologies, and the Committee on Payments and Market Infrastructures' February 2017 report Distributed Ledger Technology in Payment, Clearing and Settlement: An Analytical Framework. The Financial Stability Board is also working on the topic.

2.Re-shaping cross-border payments

The IMF Paper discusses how DLT could reshape the cross-border payments landscape:

•Back-end processes: DLT could be used to improve the speed, transparency and end-to-end tracking of cross-border payments, including reconciliation with invoices. Liquidity and risk management could also be optimised using DLT;

•Compliance: DLT could be used for know-your-customer utilities, digital identification, and meeting AML/CFT regulation. This, however, is currently limited by privacy and security issues;

•Means of payment: DLT-based virtual currency could be used to underpin an entirely new means of payment. It identifies two possible ways to achieve this:

°'A hub and spoke' payment network: where fiat money is exchanged with virtual currency, transferred, and then exchanged back into foreign fiat money. Although this will shorten the payments chain (cutting out correspondent banks), risks such as fluctuations in the value of virtual currency, trust issues, and lack of interoperability among networks could remain. If networks are not interoperable, network externalities could be strong and providers can take advantage of market power to charge higher fees. Existing regulators for retail payment systems, such as UK's Payment Systems Regulator, could minimise this risk.

•Central banks could offer their own digital currencies (discussed below).

3.Central bank digital currencies

The IMF Paper also suggests that central banks could offer their own digital currencies as a widely available DLT-based representation of fiat money. This would reduce the risk of lack of interoperability and trust associated with private virtual currency networks.

A DLT-based central bank digital currency may also:

•Allow the central bank to perform its role in ensuring an effective payments infrastructure (issuing currency and fulfilling its lender of last resort function) more efficiently;

•Reduce coin and note costs for the state;

•Reduce transaction costs for individuals and small enterprises that have little or costly access to banking services;

•Allow the central bank to retain control of monetary policy effectiveness, if private virtual currencies gain significant traction;

•Be more secure and resilient than current settlement systems, which are exposed to a single point of failure risk;

•By facilitating small value payments, boost the adoption and efficiency of the new, decentralised, service economy; and

•Increase trust in the technology (as the digital currency will be backed by the central bank).

Next steps, and the future of DLT

The IMF Paper is designed:

"... to showcase policy-related analysis and research being developed by IMF staff members and is published to elicit comments and to encourage debate. The views expressed ... are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management".

It concludes that fintech is an international issue, that international co-operation will be essential, and that the IMF is well placed to play a significant role.

The IMF Paper will be the subject of much deliberation and debate by central banks, regulators, and the financial services sector globally, as they continue to grapple with the rapidly changing face of technology. It highlights the transformative role of DLT (in conjunction with other technologies), the continuing role of digital currencies and wallets, and the need for an engaged, co-ordinated, and global, sector and regulatory response.

Title: Fintech: Capturing the Benefits, Avoiding the Risks Author: Christine Lagarde From: IMF Date: June 20, 2017

When you send an email, it takes one click of the mouse to deliver a message next door or across the planet. Gone are the days of special airmail stationery and colorful stamps to send letters abroad.

International payments are different. Destination still matters. You might use cash to pay for a cup of tea at a local shop, but not to order tea leaves from distant Sri Lanka. Depending on the carrier, the tea leaves might arrive before the seller can access the payment.

All of this may soon change. In a few years, cross-border payments and transactions could become as simple as sending an email.

Financial technology, or Fintech, is already touching consumers and businesses everywhere, from a local merchant seeking a loan, to the family planning for retirement, to the foreign worker sending remittances home.

But can we harness the potential while preparing for the changes? That is the purpose of the paper published today by IMF staff, Fintech and Financial Services: Initial Considerations.

The possibilities of Fintech

What is Fintech precisely? Put simply, it is the collection of new technologies whose applications may affect financial services, including artificial intelligence, big data, biometrics, and distributed ledger technologies such as blockchains.

While we encourage innovation, we also need to ensure new technologies do not become tools for fraud, money laundering and terrorist financing, and that they do not risk unsettling financial stability.

Although technological revolutions are unpredictable, there are steps we can take today to prepare.

The new IMF research looks at the potential impact of innovative technologies on the types of services that financial firms offer, on the structure and interaction among these firms, and on how regulators might respond.

As our paper shows, Fintech offers the promise of faster, cheaper, more transparent and more user-friendly financial services for millions around the world.

The possibilities are exciting

•Artificial intelligence combined with big data could automate credit scoring, so that consumers and businesses pay more competitive interest rates on loans.

•"Smart contracts" could allow investors to sell certain assets when pre-defined market conditions are satisfied, enhancing market efficiency.

•Armed with mobile phones and distributed ledger technology, individuals around the world could pay each other for goods and services, bypassing banks. Ordering tea leaves from abroad might become as easy as paying for a cup of tea next door.

These opportunities are likely to reshape the financial landscape to some degree but will also bring risks.

Intermediaries, so common to financial services—such as banks, firms specialized in messaging services, and correspondent banks clearing and settling transactions across borders—will face significant competition.

New technologies such as identity and account verification could lower transaction costs and make more information available on counterparties, making middlemen less relevant. Existing intermediaries may be pushed to specialize and outsource well-defined tasks to technology companies, possibly including customer due-diligence.

But we cannot ignore the potential advances in technology that might compromise consumer identities, or create new sources of instability in financial markets as services become increasingly automated.

Rules that will work effectively in this new environment might not look like today's rules. So, our challenge is clear—how can we effectively build new regulations for a new system?

Regulating without stifling innovation

First, oversight needs to be reimagined. Regulators now focus largely on well-defined entities, such as banks, insurance companies and brokerage firms. They may have to complement this focus with more attention on specific services, regardless of which market participants offers them. Rules would be needed to ensure sufficient consumer safeguards, including privacy protection, and to guard against money laundering and terrorist financing.

Second, international cooperation will be critical, because advances in technology know no borders, and it will be important to keep networks from moving to less regulated jurisdictions. New rules will need to clarify the legal status and ownership of digital tokens and assets.

Finally, regulation should continue to function as an essential safeguard to build trust in the stability and security of the networks and algorithms.

The launch or our paper today is one of the steps in the process of preparing for this new digital revolution. As an organization with a fully global membership, the IMF is uniquely positioned to serve as a platform for discussions among the private and public sectors on the rapidly evolving topic of Fintech.

As our research shows, adapting is not only possible, but it is the only way to ensure that the promise of Fintech is enjoyed by everybody.

Title: IMF Studies Distributed Ledger Technology on a Global Level Author: Matthew De Silva From: ETH News Date: June 21, 2017

Yesterday, the International Monetary Fund (IMF) published a Staff Discussion Note on how distributed ledger technology may enhance the global economy. The authors share insights into cross-border payments, central banking, and regulatory guidance.

IMF expresses need for blockchains

On Monday, June 20, 2017, the IMF published a 49-page paper entitled Fintech and Financial Services: Initial Considerations. Focusing on cross-border payments, the authors discuss distributed ledger technology (DLT) as well as the shifting role of central banks and regulators.

In total, the IMF's Staff Discussion Note demonstrates that the organization has an understanding of DLT and remains relevant in the evolving global economy (despite being more than 70 years old). The paper provides a detailed account of the digital economy ecosystem and adequately expresses the regulatory advances needed across the globe.

It begins with a cursory introduction that explains the importance of the IMF as a facilitator of international trade and financial stability. Highlights from the paper are as follows:

"13. As DLT can take different forms, its potential as well as challenges will vary accordingly."

In the second section, the authors acknowledge the rapid pace of FinTech innovation and describe the potential of DLT. In point 13, they discuss permissionless versus permissioned DLT (also indicating the various management structures that could control private ledgers). Furthermore, the authors mention the upcoming challenges posed by scalability, interoperability, and privacy concerns.

"16. Technological progress can promote the development and adoption of new services especially when targeted at unmet user needs—what this paper calls 'shortcomings' of services."

In the third section, the authors point to market "shortcomings" which result from technology, regulation, and/or market structure. They explain that the dynamics of each segment influence the others. None of these components exist in a silo. Instead, the three feed into one another and influence how each develops.

"22. Emerging technologies could raise financial stability risks."

In the fourth section, the authors explain that DLT might encourage greater market efficiencies, such as price discovery, but caution that widespread adoption could expose the global economy to a greater risk of cyberattacks.

"32. As new technologies operate seamlessly across borders, international cooperation is essential to ensure effective regulation."

Surreptitiously pointing out that national standards vary (or, in some cases, do not exist), the authors suggest that countries could work together to establish regulatory norms. National support and multi-lateral "harmonization" may encourage global FinTech adoption. Comparing snail mail to email, the authors ponder whether payment structures could eventually transcend borders in a similar fashion. Remittances are one potential area for growth.

"41. Token-based systems simply involve the transfer of a payments object."

In the fifth section, the authors consider how DLT could streamline the payment process. Historically comprised by capturing, messaging, settlement, and disbursement, the evolved payment system could make this bureaucratic infrastructure obsolete.

"62. A second avenue exists to leverage DLT for a novel means of payment; central banks could offer their own digital currencies."

The authors propose that central bank digital currency (CBDC) could operate in parallel with traditional fiat currencies, allowing these institutions to maintain control of monetary policy and supply.

In all, the IMF's paper shows that DLT has achieved global prominence, but sorely lacks a comprehensive framework that will expedite widespread adoption. The IMF's managing director, Christine Lagarde, offered a brief commentary on the matter. DLT remains a nascent industry with many actors and institutions searching for guidance. Continued discourse and study will be essential to ensure that the global economy thrives in its next iteration. The good news is that the IMF has taken the first step.

Title: Technological Change and the Future of Financial Intermediation Author: John Kay From: Author's personal website Date: June 24, 2017

In London I am often asked to give talks about developments in the finance sector to a general audience. One question which routinely comes up is "what do people who work in the finance sector, in those large office blocks and in the City of London and Canary Wharf, actually do?" And the answer I give is that, to an extent that almost defies belief, what they do is trade with each other.

World trade in goods and services has expanded greatly since the Second World War. But today the volume of global trading in foreign exchange is a hundred times the volume of global trade in goods and services. The total value of exposures under derivative contracts amounts to between two and three times the total value of all the assets in the world. And when I wrote about this process of financialisation in 2014, I highlighted the activity of a company called Spread Networks in building a telecommunications link across the Appalachian Mountains to reduce the time to transmit data between Chicago and New York from 7.3 to 6.6 ms. Since then, improvements in microwave technology have reduced the time required to something closer to the physical lower bound, which is the four milliseconds it takes for light to travel between the two cities.

My description of this activity typically prompts further questions. The obvious one is "what is the purpose of all this activity?" And a more sophisticated version of that question asks "what value-added can be gained from a group of people trading paper claims on existing assets with each other in secondary markets?"

Of course there can be no doubt that finance is indispensable to modern economies.

We need finance for four primary purposes.

The payment system is the essential utility of finance, the mechanism by which we receive our wages and salaries, pay our bills and enable businesses to transact with each other.

A second role of finance is to allow wealth management. We need to finance education when young, retirement when old, and we need to save in the intervening years in order to make these things possible.

Wholesale financial markets as they operate today are directed at two other functions – capital allocation, the process of directing funds from savers and investors to companies and borrowers, and risk management, the business of reducing the costs of bearing the risks inseparable from modern economic and social life.

My introduction to modern developments in finance came when I became involved in the process of reconstruction in the Lloyd's insurance market, following the near collapse of that market at the end of the 1980s. Lloyd's came into being in the 17th century. The institution famously originated in Edward Lloyd's coffee shop, where English gentlemen would gamble on many things, including the fate of ships and the state of tides. Lloyd's remains today the centre of the global marine insurance market, but by the 20th century had come to be predominantly a reinsurance market.

Lloyd's was above all the place to which brokers would bring idiosyncratic risks. The modus operandi was that a lead underwriter would price the risk and take a proportion of it. Other underwriters operating from what was known as "The Room', literally a large room, would follow that lead and determine what proportion of the overall risk they were prepared to take. The system worked on the basis of mutual knowledge and respect within the underwriting community.

But by the 1980s, the market had changed. Aggressively entrepreneurial Lloyd's brokers realised that if you could sell reinsurance you would also sell reinsurance of reinsurance. And reinsurance of reinsurance of reinsurance. In what became known as the LMX spiral, complex contracts were constructed which involve multiple layers of insurance, in which it was simply impossible to drill down and identify the structure of the underlying risks. All that could be done was to model some of these contracts and establish that in the past nothing would have been paid out on them.

I recall two particular moments of revelation as I learnt about these market developments. I asked how much of the growth in business, of which the market was so proud, had come in 'through the front door', as distinct from being generated within the market itself. My surprise was not just that it took time to establish the answers, but that people were surprised by the question. Another salutary exchange was when I asked a particularly arrogant underwriter to explain why he had not 'blown the whistle' on the colleagues whose incompetence he had been denouncing with such vehemence. His answer was simple. 'Because they were willing to buy risks at prices at which I was delighted to sell them.' The market had changed from one in which the process was primarily one of mutualisation of risks to one in which risks were being transferred from people understood a lot about them to people who knew little. The trading of risks within the market was not spreading these risks but concentrating them in the hands of those who did not realise what they were doing.

And so it proved when a series of disasters hit the insurance industry generally and the Lloyd's market in particular in the late 1980s. The first such incident was the destruction by fire of Piper Alpha, an oil rig in the North Sea. That loss was then the largest single marine insurance claim ever made, and it turned out that the total volume of claims at Lloyd's which resulted from it amounted to more than ten times the original value of the loss. People who had never heard of Piper Alpha had in fact insured it over and over again. And that was how some of the stately homes of England were emptied of furniture in order to meet the losses of Lloyd's names.

All this was preparation for understanding what was happening in the rapid credit expansion from 2003 to 2007. During that period I found myself asking 'who are the equivalent in credit markets today of those stately homeowners who did not understand the magnitude of the exposures which they had assumed?' In 2008 we found the answer to that question; much of the exposure lay in large banks, many of them in Europe.

The widespread trading of credit exposures began with the securitisation first of mortgages and then of other loans in the 1980s. The shift in emphasis from syndication of primary issues to secondary markets in securities originated by a single lender directly paralleled the prior developments I had observed at Lloyd's. But these changes represented only a small part of the overall process of financialisation of Western economies, the putting of finance at the centre of economic life, which gathered pace steadily from the 1960's. The nature of equity markets changed also.

The equity markets with which we are familiar came into being in the 19th century to finance railways and railroads. Railways and railroads were capital intensive projects, and the capital required was specific to that particular use. There is little you can do with a railway except run trains on it. The savings needed were collected in modest amounts from large numbers of moderately well-off individuals. These individuals bought both equity and bonds in the new enterprises, and were provided with a degree of liquidity through expanded capital markets.

This financing model, then closely bound up with imperialism and the development of the interior of the United States, was then extended to resource companies, and in due course to the manufacturing businesses which came to dominate Western economies in the course of the 20th century. The zenith was reached in mid-century – in the first Fortune 500 list in 1956, nine out of the 10 top companies were manufacturers. Among them were three automobile companies and three steel companies.

If one looks at the 10 largest companies by market capitalisation today, the picture has radically changed. The list is dominated by new economy businesses – Apple, Alphabet (Google), Amazon, Microsoft and Facebook. There is only one manufacturing company on the list – and that, Johnson & Johnson, is a very different kind of business from the steel and automobile makers of 50 years before. Berkshire Hathaway, sui generis, includes manufacturing businesses among its collection of investments. That company may be at once a relic of the past and portent of the future – the era of the diversified manufacturing conglomerate is coming to an end, but the holding company and the private equity house which internalizes the process of capital allocation are direct responses to the excessive costs, burdensome regulation, and weak governance characteristic of modern public equity markets.

Apple's market capitalisation today exceeds \$800 billion, and Alphabet the holding company for Google, is not far behind. For both these companies, operating assets account for about \$30 billion of that value. Modern businesses like these employ very little capital, and such assets

as they do use mostly need not be owned by the company that operates from them and typically are not.

As a source of capital for business, equity markets no longer register on the radar screen. In Britain and United States, the countries with the largest equity markets, funds withdrawn from these markets through acquisitions for cash and share buybacks have recently routinely exceeded the amounts raised in rights issues and IPOs.

At the same time, savings have become institutionalised. Initially such institutionalisation took place mainly through the investment activities of pension funds and insurance companies. Today much of their activity has been outsourced and while pension funds and insurance companies are still important players, the equity investment chain is today dominated by the major asset managers – Blackrock, Vanguard, Fidelity and their competitors. And sovereign wealth funds are an increasingly important fraction of public market equity ownership.

The paradox of modern capital markets is that although there is less and less need for market activity from the point of view of either the end users of finance, or the investors who are the ultimate beneficiaries of finance, the volume of market activity has increased exponentially. And yet policy towards capital allocation places more and more emphasis on markets. European regulation, centred inevitably around acronyms, finds M as its most frequent abbreviation, so we have MAD, the Market Abuse Directive, rather than CAD, the customer abuse directive, as though it were the market rather than the customer which required protection. The centrepiece of European financial regulation is MIFID, the Markets in Financial Instruments Directive. And today the primary objective of European financial policy is to create a capital markets union.

We have extensive discussion in Europe today of the promotion of 'simple, transparent, standardised securitisation'. It is intrinsic to securitisation that it is neither simple nor transparent. And the belief that mortgages could advantageously be standardised and securitised, perhaps with the assistance of government agencies, led more or less directly to the 2008 global financial crisis. The notion that securitisation is the answer to deficiencies in the availability of small business finance can only be promoted by people, whether policy makers or lobbyists for investment banks, who have no idea what is really involved in the provision of small business finance.

The growth of secondary market trading at the expense of an understanding of the underlying exposure led to disaster in the global financial crisis of 2008, just as it had earlier led to disaster at Lloyd's. If we think for a moment outside the context of financial markets, we see how rare it is in the modern economy that transactions are anonymous; even our everyday purchases are not simple or transparent or standardised. For small value transactions we rely on the reputation of the seller, for larger value transactions we make our own specific enquiries.

The notion that through standardisation of financial transactions we can resist the universal tendency away from standardisation in markets of all kinds represents a fundamental

misunderstanding of basic economics. Standardisation is not an answer to the problem of information provision in financial markets, nor is pervasive information asymmetry successfully resolved by insistence on the provision of detailed financial information on a standardised basis, whether in company accounts or key features documents.

I have described how excessive trading amongst intermediaries is created not solved the problems we encounter in markets for risk, markets for debt, and markets in equity securities. I believe it is time to raise question marks over the entire market based model of financial services provision. We should be talking about risk management and capital allocation without any presumption that markets are the best way of handling these issues.

It is instructive to look at the economic role that many of the new economy companies I described above now play. The primary role of intermediaries like eBay and Amazon is to enable people to transact with confidence with suppliers and providers of whom they themselves have no knowledge. Even more strikingly, Uber and Airbnb are innovative business models which have come into being to serve precisely this function; to replace traditional structures of regulation or lengthy and complex chains of intermediation by providing immediate verification of the reliability of both buyer and seller.

The rise of Uber and Airbnb is a forceful illustration that although we need less intermediation in financial markets than we have today, the right level of intermediation in future is not zero. Some people take the view that disintermediation through peer-to-peer lending and crowdfunding will transform the provision of finance to individuals and businesses. I am sceptical of this claim. The thesis I have been developing is that both investment and risk transfer are unavoidably heterogeneous, idiosyncratic transactions. In consequence, algorithmic scoring can never replace, although it may be able to assist, a qualitative and quantitative assessment of an experienced loan officer or shrewd investor. Like most people interested in business, I have never seen a business plan for a start-up which did not look superficially promising. It is only once you have seen 20 or 30 similarly promising proposals, and have experience of what happened to them, that you are able to begin to distinguish effectively between the effective entrepreneur and the perennial optimist.

I think the future of peer-to-peer lending is that the institutions which survive fraud, losses and increased regulatory scrutiny will increasingly resemble the organisations which we used to call banks.

The appropriate number of intermediaries in finance is in most cases somewhere between one and two. An intermediary who genuinely adds value will generally be one who has some specialist knowledge of one or both of the end-users of finance – either the borrowers and the beneficiaries of equity investment, or the depositors and investors whose savings are necessarily the ultimate source of such finance. A few minutes on a trading floor today demonstrates that the principal knowledge many intermediaries have is that of the behaviour of other intermediaries.

When I was a schoolboy in Scotland in the 1960s, joining the Bank of Scotland or the Royal Bank of Scotland was a career for the boys in my class who were not going to get good enough grades to go to leading universities. Even when a few years later I began my teaching career at Oxford, careers in the City of London were mostly for undergraduates who were not academically distinguished but nevertheless socially polished and well-connected. All that has changed, and not altogether for the better, as was evident when the Bank of Scotland and the Royal Bank of Scotland failed in 2008, after three centuries of prudent success, under the stewardship of able individuals with good degrees from the finest universities and business schools.

Larry Summers, former president of Harvard and US Treasury Secretary, once observed that finance had once been the preserve of people whose primary skills were those of good companions at the 19th hole of the golf course, but had become the province of people with the sophisticated mathematical skills required to price complex derivatives. Summers, with skills better adapted to solving differential equations than conviviality at the 19th hole, noted this shift with evident approval. I am not so sure.

Title: A French Case for Dismantling GAFA, America's Tech Oligarchy Author: Cécile Crouzel From: World Crunch (orig. Le Figaro) Date: July 19, 2017

PARIS — Without freedom, there is no human dignity. And yet, men have a dangerous propensity to choose bondage, either for comfort, or due to laziness or fear. Tyrants know this, and have used it time and again to impose themselves. Today, it's the large technology companies we should be watching out for lest they accumulate too much power and threaten our democratic society.

That, at least, is the thesis developed by Jean-Hervé Lorenzi, professor of economics at Paris-Dauphine University and president of the Cercle des Économistes (Circle of Economists), who co-wrote a new book called L'Avenir de notre liberté ("The Future of our Freedom"). The work's subtitle is particularly topical and seductive: "Should we dismantle Google ... and some others?"

It's urgent that political bodies reassert their authority.

The book — written in collaboration with Mickaël Berrebi, a financier and member of the Institute of Actuaries — reminds us that GAFA (Google, Apple, Facebook and Amazon) and their Chinese equivalents (Alibaba, Tencent, Baidu, etc.) control our personal data, have incomparable financial strength, and tend to grow quickly by creating monopolies. Their leaders have become the new prophets, decrypting the world of tomorrow, which further strengthens their influence.

Scientific breakthroughs could prove to be particularly perilous, the authors argue. It's urgent, therefore, that political bodies reassert their authority. Researchers already have the ability to practice genetic modifications. How, Lorenzi and Berrebi ask, can we no be worried about that? What can be used to improve health could also lead to eugenics or become a weapon of mass destruction, a failing gene that can contaminate a population in a few generations.

And what about artificial intelligence? Will it come to dominate mankind? Intrusion into private life, widespread surveillance, the establishment of a society divided between a few elected officials — a kind of "augmented men" thanks to genetics and integrated microchips — and a host of losers ... This bleak picture, the authors argue, is what awaits us if we allow ourselves to passively submit.

Individuals should have "the right to be forgotten"

Critics can certainly take issue with the book's alarmist bias. But it has the merit of proposing solutions. It's not enough, say the authors, that the GAFA companies be obliged, finally, to pay more taxes; they should be dismantled. Google's web search function, for example, could split from other domains (Gmail, Google Maps, Android, YouTube, cloud). Facebook's social

network could be separated from its advertising arm. The measures may seem radical, Lorenzi and Berrebi argue, but they're neither unfeasible nor unprecedented. The U.S. government has broken up monopolies on several occasions. Think Standard Oil and AT&T.

The authors also call for an implementation of stricter state privacy and data protection rules. Among other things, they argue, individuals should have "the right to be forgotten" — to have all personal details removed from online search engines. Lorenzi and Berrebi also consider it essential to establish compulsory ethical rules concerning genetics, and advocate for the development of international cooperation. A task nearly as immense as the internet itself.

Title: l'Époque Exige une Vision Humaniste de l'Économie Author: Philippe Mabille From: La Tribune Date: July 7, 2017

A l'ouverture des Rencontres économiques d'Aix-en-Provence 2017, le président du Cercle des économistes explique que, dix ans après la crise financière de 2008, le monde vit dans une bulle d'"incertitudes absolues" et doit inventer de nouveaux modèles pour retrouver une croissance durable. Le thème choisi, "À la recherche de nouvelles formes de prospérité", résonne avec l'époque, faite d'une montée insupportable des inégalités et du danger populiste et protectionniste. Pour Jean-Hervé Lorenzi, face à l'échec des solutions tant libérale que keynésienne, il est temps de mettre en avant l'épanouissement de l'individu.

LA TRIBUNE - Les Rencontres Économiques d'Aix-en-Provence 2017 ont choisi pour thème la prospérité. C'est la question de notre temps, dix ans après la crise financière ?

JEAN-HERVÉ LORENZI - Oui, nous le pensons. Nous sommes convaincus que les problèmes des sociétés actuelles ne se résument pas à la seule question du retour de la croissance, mais nécessitent de couvrir un champ plus large qui recouvre l'inclusion, l'équité, la durabilité. L'époque exige une vision humaniste de l'économie, parce que nous vivons une transition qui se caractérise par des bouleversements technologiques, climatiques, énergétiques, et une montée des inégalités. Cela nécessite de refonder notre contrat social et de réformer nos institutions pour prendre en compte ces nouvelles exigences.

Cette réflexion s'inspire des travaux d'Amartya Sen, Prix Nobel d'économie, mais aussi d'auteurs comme John Rawls : il est temps d'inventer un modèle économique et social de long terme, pour bâtir de nouvelles formes de prospérité, afin de concilier la qualité de vie et l'épanouissement personnel dans un contrat social humaniste. Bref, c'est une vision économique qui veut remettre l'humain au centre du jeu.

Les économistes ont-ils trop eu tendance à occulter ce facteur humain dans leurs travaux ?

Pour l'économie classique, l'homme est un agent censé être rationnel et sujet d'analyses comportementales. Mais peu de travaux ont mis en avant la question des capacités et de l'épanouissement de l'individu, sauf peut-être le Prix Nobel Edmund Phelps dans son dernier ouvrage sur La prospérité de masse [Odile Jacob, 2017, ndlr], où il met en avant ce concept de *good life*. Pour la grande majorité des économistes, l'institution dominante, celle qui garantit le contrat social, c'est soit le marché pour les libéraux, soit l'État pour les keynésiens. Poser la question de la prospérité, c'est donc remettre l'individu au centre, chercher de nouvelles réponses là où les deux écoles de pensée dominantes ont échoué.

Dix ans après la crise financière, le monde peut-il connaître un nouveau cycle de croissance ?

Je crois qu'il faut rester très prudent à ce sujet. Ce que l'on constate, c'est plutôt un changement de paradigme. La société de 2017 n'a plus rien à voir avec celle de 1997, lors de la dernière

période de croissance mondiale forte. La situation que nous vivons dix ans après la plus grave crise financière depuis les années 1930 porte d'autres exigences que le seul retour à ce que nous appelons la croissance.

Les termes du problème ont changé : face à la mondialisation ou aux progrès technologiques, on voit bien qu'il y a des gagnants et des perdants. Et que ces perdants, partout dans le monde, notamment les classes moyennes des pays avancés, se révoltent sous différentes formes. Il y a la montée des populismes et des violences sociales ou confessionnelles que nous n'avions pas connues depuis longtemps, comme le terrorisme.

Sans tomber dans le discours sur la stagnation séculaire de Robert J. Gordon, plus personne ne pense que le monde va retrouver une croissance aussi forte que celle des années 1990 et de début 2000. Cela va de pair avec la prise de conscience que la pensée économique a failli. La crise financière a démontré que le libéralisme fournit une analyse inadaptée des sociétés dans lesquelles nous vivons. Et les solutions keynésiennes mises en place à la suite de la crise n'ont pas non plus prouvé leur efficacité. Nous vivons une période d'incertitudes absolues devant l'avenir.

De la même manière que l'on voit apparaître des réflexes protectionnistes et de repli sur soi pour rejeter la mondialisation, des réactions négatives apparaissent contre les groupes technologiques géants qui veulent dominer le monde en détenant nos données personnelles. Le tout se nourrit d'une nouvelle perception des inégalités qui se creusent parce que les institutions ne parviennent plus à réguler la mondialisation et le pouvoir de la technologie. Dans des sociétés vieillissantes où le choc des générations se manifeste de façon plus nette que par le passé, tout cela invite les économistes et le monde politique à réfléchir à de nouvelles réponses.

« Si vous possédez un jardin et une bibliothèque, vous avez tout ce qu'il vous faut », a dit <u>Cicéron. C'est cela, les nouvelles formes de prospérité auxquelles il nous faut aspirer dans un</u> <u>monde plus sobre?</u>

Le point commun entre cette citation de Cicéron et nous, c'est en effet que nous devons mettre en avant l'épanouissement de l'individu ou plutôt des individus qui font la société. Il faut leur fournir un jardin et une bibliothèque, au sens de les aider à se former et à développer leurs capacités tout au long de leur vie, et non pas seulement de 3 à 16 ans, comme le propose aujourd'hui l'école. C'est cela, la nouvelle responsabilité sociale, dans un monde où il faudra apprendre à s'adapter en permanence.

Il ne faut pas compter sur les grandes politiques économiques pour nous sauver. Après dix ans de crise, les politiques monétaires et budgétaires ont épuisé leurs effets et il ne reste pas beaucoup de marges de manoeuvre en utilisant les instruments macroéconomiques traditionnels.

Face à la prochaine crise, nous sommes désarmés. La solution sera donc ailleurs : dans l'éducation et la formation, pour élever le niveau du capital humain, car c'est le meilleur moyen

pour lutter contre les inégalités. Nous vivons dans un monde très inégalitaire. Et je regrette que nous n'ayons pas assez travaillé cette question. Quels sont les ressorts des inégalités ? Quelle est la limite de ce qui, jusqu'à maintenant, était jugé acceptable et désormais ne l'est plus ? La question du revenu universel est désormais sur la table dans toutes les sociétés modernes.

Dans votre livre, L'avenir de notre liberté*, vous vous livrez à une critique virulente des Gafa, les géants technologiques de la Silicon Valley, et appelez même à démanteler Google. Ils sont une des causes de ces inégalités ?

Je voulais soulever ce débat qui m'est apparu évident : l'innovation est-elle forcément bonne pour le progrès, la croissance, l'inclusion sociale ? Selon moi, la révolution technologique est une des sources de la montée actuelle des inégalités. Il y a une captation, une concentration de richesses entre quelques mains, aux États-Unis les Gafa, dont la capitalisation boursière approche le PIB de la France. Cela pose problème car il y a aussi de leur part une vision très arrogante et dominatrice, universelle, qui est dangereuse à terme si personne n'y met un coup d'arrêt. Est-ce que cela viendra du monde politique, des clients, ou des autorités antitrust ? Personne ne peut le dire mais oui, pour un économiste, cette domination technologique pose un problème réel et sérieux.

Dans le monde à venir, la technologie devra être mise au service de l'humain, et non l'inverse, comme c'est le cas actuellement quand nous « travaillons » gratuitement pour Google. Au-delà des seuls Gafa, l'accélération des progrès dans le domaine de l'intelligence artificielle et de la génétique, la recherche sur l'embryon humain, le ciseau génétique CRISPR-Cas9, tout cela soulève des interrogations nouvelles, d'ordre éthique et philosophique : serons-nous encore humains dans ce monde-là ?

La réponse de l'économiste face à ces progrès, ce n'est bien sûr pas de proscrire l'innovation. Elle apporte aussi des avancées dans la médecine, la façon dont nous travaillons, ou nous déplaçons.

La concurrence doit permettre de réguler ces nouveaux monopoles, mais ce n'est qu'une partie du sujet. Ce qu'il faut aussi, c'est ré-humaniser la technologie. Démanteler Google, c'est adresser un signal fort en ce sens.

Google vient de se voir condamné à une très lourde amende par la Commission européenne pour abus de position dominante concernant son comparateur de prix. C'est un signal fort adressé à l'économie des plateformes ?

Nous avons ciblé Google, et quelques autres, disons-nous dans le livre avec Michael Berrebi, mais d'abord Google, parce que c'est le seul qui a créé une société holding, Alphabet, pour détenir des activités dans tous les domaines de notre vie sociale. C'est le cas le plus emblématique ; mais Facebook, Amazon et quelques autres soulèvent les mêmes questions. L'enjeu, c'est de faire comprendre aux citoyens et aux consommateurs qu'ils doivent reprendre le contrôle de leurs données personnelles. Il faut aussi, dans le domaine de la génétique, interdire la recherche sur l'embryon humain par un accord international.

Je souhaite la mise en place d'une agence mondiale de la génétique et de l'intelligence artificielle, construite sur le même modèle que celle qui lutte contre la prolifération de l'arme nucléaire. Il faut créer des institutions à la mesure des nouveaux dangers de notre temps, et fixer avant qu'il ne soit trop tard des limites claires à ne pas dépasser.

Title: Jean-Hervé Lorenzi: Il y a une Dictature de la Technologie Author: Laure-Anne Elkabbach From: Public Senat Date: April 2017

Qui gouverne vraiment aujourd'hui ? Est-ce que les responsables politiques ont encore la main sur l'économie, sur les marchés ? Pas vraiment, si on en croit l'économiste Jean-Hervé Lorenzi : « Ils ont évidemment moins de pouvoir que par le passé (...) Ce qui aujourd'hui détermine la vision du monde, ce n'est ni Monsieur Trump, ni Madame May, ni Madame Merkel, ce sont quelques dirigeants de très grandes entreprises ».

Mais pour le président du Cercle des économistes, cette situation n'est pas la faute de ces entreprises mais la nôtre et celle du pouvoir politique, qui avons laissé la place, par une «incapacité que nous avons », « consommateurs, citoyens », « de nous exprimer sur ce que nous voulons dans l'avenir ».

Pourtant Jean-Hervé Lorenzi n'est pas tendre avec les GAFA, ces géants du web : « Parce qu'ils s'approprient les données, sans qu'il y ait de contrôles, d'autodétermination de vous ou de moi, [ils] se retrouvent en réalité à nous déterminer l'endroit où nous sommes, où nous allons aller, ce que nous allons acheter, ce que nous allons penser...ce qui finit par poser un petit problème de liberté ». Et « ce n'est rien par rapport à ce qu'il va se passer » nous met en garde l'économiste.

Malgré tout, Jean-Hervé Lorenzi reste optimiste car il pense qu'un sursaut citoyen se fera dans le futur : « Vous verrez que la réaction du citoyen viendra vraisemblablement plutôt de l'autre côté de l'Atlantique. A un moment les gens auront envie de conserver leur liberté ».

Title: Handcuffed by Heritage Author: Kristian T. Sørensen, interview with Chris Skinner From: Chris Skinner Blog on the Finanser Date: July 2017

Chris Skinner needs no introduction in the fintech and banking space. His work and publications have not only described the future of financial services and banking – it is shaping it as great many of the world's leading banks look to Chris Skinner and his publications for advice and inspiration when shaping their strategies and solutions. We met Chris Skinner for a talk on the latest global banking trends and how banks mainly in Europe and North America deal with the challenges of their legacy systems and position and face the dramatic changes in the financial services market.

Legacy economies vs. Innovation economies

Chris Skinner describes how mainly Europe and North America are shaped by an ageing financial services infrastructure which was laid in place before the internet appeared and therefore needs refreshing. While both Europa and North America falls into the group of what Chris Skinner labels legacy economies, he does note that Europe is ahead of North America in terms of trying to overcome the issues because the US also struggles with an antiquated regulatory structure for financial services, which further impair innovation in banking.

An example of how the European legislators actively work to accelerate innovation and development is PSD2, but according to Chris Skinner, PSD2 is more a result of the regulators acknowledging and reacting to a more overarching global trend:

"What I see happening is the unlocking of financial data through open sourcing which is far wider than an open API for payments. It is a smorgasbord of APIs across the whole of the landscape of customer information that links front and back-office. The front office is all appsbased, and the back office is all artificial intelligence and analytics".

This trend of flexible platforms and the unbundling of financial services apply even more clearly to another group of economies – the innovation economies. Chris Skinner highlights China as the fastest movers in the financial services innovation:

"China has leapfrogged the legacy economies as they have implemented everything in the last 15 year as fresh new internet-based services. This is why Baidu, Tencent and Alibaba are offering services which are lightyears ahead of everyone else".

But not only the fast development of China is shaping the future of financial services:

"We also see completely new ways of thinking about financial services coming out of The Philippines, Indonesia, Latin America, and in particular sub-Saharan Africa – are creating a mobile wallet based financial services economy that is completely new and different from anything we have seen before", says Chris Skinner.

The legacy challenge

Chris Skinner does not shy away from having firm opinions on the state of things and clearly states that he is directly annoyed by the state of the core systems of the legacy economy banks. According to him these banks only continue to get away with building on top of this foundation as long as they have what he calls "legacy customers". When asked if there really is nothing good to be said about the legacy platforms, the response falls swiftly and bluntly:

"No, there is nothing good! It is an indictment of leadership that we've got so rotten systems at the core of our banks."

And the outlook for these banks is quite bleak according to Chris Skinner:

"If the banks' leadership do not stand up to the challenge of dealing with that issue then they are going to die. There is no way you can survive in a globalised internet economy with systems that are built for batch overnight updates – it is ridiculous."

The banks have, to a large degree, failed to solve this legacy challenge as they have only managed to embrace the new technologies as new channels for distribution on par with the branch or ATM networks. This way of thinking of distribution of products is according to Chris Skinner as outdated as the systems powering these processes:

"The distribution structure is now irrelevant because the core of the future bank is a digital structure combined with an enterprise data architecture that can analyse the customers' digital footprint in-depth and service them effectively through a front-end user experience that is based on devices. The devices are not channels – they are just access-capabilities to data".

Turning banking on its head

Understanding the ongoing paradigm shift will, according to Chris Skinner, turn banking on its head when moving from distributing products through a physical network to organisations that aggregate, curate and distribute data through digital networks. But it requires a completely new approach to the data management. Chris Skinner explains that the challenge for banks in Europe and North America is that the legacy infrastructure tie data to products and processes. Comparing that to data-driven companies like Amazon, Apple, Google, Facebook, Tencent, Baidu, Alibaba, who would never start to silo their data as they data-wise all work on a holistic enterprise level. Without the holistic data, perspective banks will have a huge problem according to Chris Skinner:

"Banks are plagued with dirty data. You cannot work efficiently in an internet age with that structure as you cannot apply machine learning and artificial intelligence to do data analytics on dirty data. It is not possible to give the customer an experience equivalent to an Amazon or an Alibaba if you got dirty data."

As an example of where the banks' services fall short due to lack of analytical capabilities and thereby open a flank for competitors, Chris Skinner quotes Ollie Perdue, the millennial CEO of the neobank Loot in the UK. According to Ollie Perdue, he and his fellow millennials cannot see the value in transaction overview provided by the traditional banks. Historical data is a view of the past, but what millennials want is a view of the future – they want to know if they can afford to go out, afford to travel and afford their tuition. According to Chris Skinner, the fact that the traditional banks cannot provide these type of service is that their legacy systems are built for branch ledger based historical debits and credits recording. They are not built for cash-flow forecasting. When asked what banks can do about the legacy challenge, Chris Skinner explains:

"we are handcuffed by heritage because the data is locked into the processing systems. If you moved the data from the AS/400 or similar engine from the 1980s into a private cloud structure where you cleanse the data into an enterprise data architecture, then the data becomes independent of the processing. Once data becomes independent of the processing you can literally take out the engines over the weekend and replace them with new ones".

This way of operating resembles what consumers are used to from the app economy of smartphones:

"On your Android or Apple phone, you wouldn't expect apps never to be updated. Typically, they are updated every week – why don't banks update system once per week? Because they can't – in fact, they are lucky if they can update them once per year," Chris Skinner concludes.

Coming together

While legacy economy banks in Chris Skinner's opinion are clearly challenged, they do also have something to bring to the table in collaboration with the fintech startups and as they all need to learn banking. Chris Skinner explains:

"I have encountered are quite naïve to financial markets. They think that banks are big, slow and ugly and then discover that yes, they are big and yes, they are slow, but they are only ugly because they are forced to be that by the regulations and by the structure of the markets. Gradually a lot of the startups learn that once they understand the regulatory requirements of financial services, they are required to be a little bit ugly themselves."

Chris Skinner believes that the two groups need to come together:

"The fintechs need some grey hairs in their boardrooms, and the banks need some diversity and youth in their boardrooms – That is what fintech is all about – the 'tech' is bright young things, and the 'fin' is people who have been around for a while.

Title: GAFA Have Already Opened Banks... Just Not In America Author: Chris Skinner From: Chris Skinner Blog on the Finanser Date: February 2017

I heard a rumour the other day. The rumour goes something like: are you not surprised that banks grow into big beasts, as it's government supported? Governments want banks to be big and regulated, because governments can then access the data the bank is keeping about their clients. IT's access to data for tracking financial flows and movements that is at the core of government interests here.

The person was alluding to a collusion between large financial firms and government snooping. The idea being that a government can spot illegal activities through the financial system. Well, of course that's true. That's why governments use banks as their online police.

But what happens when consumers stop banks and governments tracking them through the system in this way? This is the idea of a self-sovereign identity scheme: I own my identity, and give access when needed and explicitly permissioned.

If a bank needs to do KYC, I give permission for a validation of my name, address and nationality to the bank to my identity data – just those parts they need to access – for a period of up to 24 hours.

I have other parts of my record available forever to certain organisations, such as my medial data records are accessible when needed by any registered doctor, but only if I am present with that doctor. This would cover any medical emergency requirements.

Otherwise, you have to ask permission to access my record and I give you limited access to what is needed.

This turns things on the head: what happens when customers own their identity, and therefore their data, and organisations have to ask for access? There is no government authorise right of access. You can only access if I authorise.

This gets interesting. It gets even more interesting when you consider how data is generated and strode today. As an individual, I create huge amounts of digital information about myself. Originally, back in the 1990s, companies believed they could leverage their knowledge of customers using data warehousing techniques. The industries targeted to use those technologies were those that had high frequency of contact with the customer – banks, retailers, telco's – and the whole idea was to get an in-depth analysis of the customer data to cross-sell and leverage knowledge of their needs and habits. This was very crude compared to today's world where those who have the most frequent contact with the customers are the firms that never see them – namely the internet giants of GAFA (Google, Apple, Facebook and Amazon) and BAT (Baidu, Ant Financial and Tencent).

These companies interact with us many times a day in most instances, and can collect and leverage huge analytics of our digital footprints, and they do. That's what makes them sticky. By comparison, banks, retailers and telco's are luddites with data. As Vernon Hill, founder of Metro Bank, said in the papers this week, the "banks' IT systems are only one step above the quill pen".

Even with their billions being invested in digital transformation, the banks major challenge is that it is like trying to turn an elephant into a duck. It just doesn't fit.

Meantime, the GAFA's and BAT's were built on data, and so they just get data in their bones. This has led to a really interesting new development, particularly in China. China's consumers have embraced mobile services, so much so that they use mobile more than money.

This has led to a raft of new bank start-ups owned by the mobile network giants of BAT and more. Ant Financial has opened MYBank in China, and Tencent has WeBank. Baidu has Baixin Bank, a JV with CITIC. Xiaomi, one of China's biggest online smartphone sellers, bought a 30% stake in Sichuan XW Bank. Meituan.com, a website that specializes in group buying, also formed an internet bank called Jilin Yilian Bank.

It is natural if you are unshackled from history that a networked company would offer networked finance. The fact that GAFA haven't done this is therefore surprising, or maybe not. The US banks fear GAFA and would naturally try to block them from access to their cartel-controlled marketplace by lobbying Washington. Mind you, they couldn't do much about this if Amazon acquired a bank, could they? And this is just what was posted as a possibility by Banking Technology. It's never going to happen in the USA though. Wal-Mart has tried to open a bank for the past quarter century and been blocked by regulators, so why would Amazon or any other commercial firm get a bank licence when everyone else has been blocked? American Banker expands on this theme further, but the bottom-line is that if banks do not leverage data to better effect, then they are leaving a wide open gap that someone's is going to fill.

Title: Globalizing Finance through FinTech Author: Chris Skinner From: Chris Skinner Blog on the Finanser Date: July 2017

I got to thinking about yesterday's post on humanity in part due to a discussion of global banking. Global, universal banking was the mantra of the 2000s and HSBC, Citi, Bank of America, BNP Paribas, Deutsche and more were all jumping on the bandwagon. After the global financial crisis, they all jumped off it again, and most global, universal banks ambitions are now clipped back to purely being able to support their global corporate clients' needs. It's not universal, just commercial.

As this has happened, we have seen a counter-trend occurring, as the maturing FinTech specialists branch out to create global monoline services in platforms. Klarna, SoFi, Stripe, PayPal, ANT, WeChat and more are branching out to deploy their services in the marketplace of apps, APIs and analytics and succeeding to a greater or lesser extent. So, the universal model of a bank doing 1000 things averagely around the world is replaced by 1000 companies doing 1000 specialist things brilliantly, thanks to the deployment of technology for financial processing. They are also succeeding.

In fact, many of these early start-ups are now maturing into global players and looking at getting banking licences to paly across more of the spectrum of finance. Certainly, we've seen that with Klarna, SoFi and Zopa, and I expect there to be more, purely because linking credit with debit or making payments as a specialist service, avoids attacking the core function of a value store, and we need global value stores.

This is obvious when you look at the fledgling hiccups of bitcoin. There are few trusted value stores of bitcoin and the ones that exist are regulated. Many others – the most recent being bithumb and arbX – are building on the MtGox issue. They are not trusted value stores but just trading exchanges. You need to get your bitcoin off the exchange and into a trusted value store – digital or regulated – to really be able to believe in this currency.

The libertarians tell me this is all democratised and the democracy will regulate the currency. That's all well and good, until you lose your store of value, and have no comeback or say on what happened. What do you do then? Tough.

But I was equally struck by a banker who laughs at the idea of a global currency that circumvents banks. Banks will always be needed as your value store, he said. He thinks bitcoin is stupid and the kids will learn to grow up one day, and put their bitcoins in banks.

I glared at the guy, as I thought how arrogant and complacent are you? Of course, kids will find ways to democratise their value stores. They will also find ways to get around the banks, and they already are.

For example, if the specialist FinTech processors I've mentioned could combine forces with each other and then with other global platform players like Facebook, Amazon, Google, Uber, Airbnb, Snapchat and company, what would they achieve? Imagine a marketplace of global players aligning forces where they work together in partnership. This could offer global financial integration into our social and consumer lives through APIs. In fact, it already is. The fact that we can integrate our payment cards and bank accounts into PayPal, Uber and Facebook has already changed that game.

So, I am imagining the future world where full banking licenced global players from Ant Financial to Stripe work in partnership with Facebook, Uber and co, to give us a world where we still need banking but we don't need banks. Some may think that is fanciful but, give it ten years

Title: Who Is Responsible for a Declining Labor Share of Output? Michael Porter. Author: Luigi Zingales From: Pro-Market Date: November 16, 2016

Most researchers assume that the share of total output lost by labor went to the owners of capital. However, a new working paper shows that the capital share has also declined, while the profit share has gone up. Could this be related to an increase in firms' market power?

One of the issues most hotly debated in economics these days is the decline in the share of total output that goes to workers (see Figure 1). This labor share is computed simply by summing total compensation received by employees and dividing it by GDP. The recent sharp decline in this share is particularly puzzling, since in the United States it had remained roughly constant for the previous 75 years. Is this the macroeconomic consequence of stagnating median wages? What caused this decline? Possible explanations abound: from the demise of the unions to the introduction of technology that favors capital over labor, from managers' greed to Piketty's 'fundamental laws of capitalism' (for an intelligent discussion see).

In conducting this analysis, most researchers assumed that whatever was not going to labor had to flow to the owners of capital. After all, in capitalist economies profits tend to go to equity investors. Yet, economic theory distinguishes between labor share, capital share, and profits, i.e. the residuals left after both capital and labor have been paid.

In a new working paper, Simcha Barkai, a PhD student at the University of Chicago Booth School of Business and a fellow at the Stigler Center, studies what happens if we abandon the old practices and follow what theory suggests. When he separates the capital share (i.e., cost of capital times amount of capital divided by output) from the profits share (the residuals), he obtains:

Piketty's fundamental laws notwithstanding, the capital share declines as fast as the labor share. The big winner is the profit share, which goes from 2 percent of GDP in 1984 to 16 percent in 2014.

This is not just a relabeling. In a world where capital gets all of the residuals after labor is paid, a reduction in labor share automatically means an increase in return to capital, which should make investing very attractive. Thus, why are firms today so profitable but invest so little? By contrast, if we distinguish between return to capital and profits—as Barkai does—we can appreciate that sometimes profits may come from (non-replicable) barriers to entry and competition, not from capital accumulation. In these cases, additional investments may not be as profitable as past ones. In other words, if what makes Coca-Cola so profitable is its magic formula, new capital investments will have a significantly lower return, because they will be unable to add to the formula. Hence, Coke can be very profitable and not invest a lot.

Distinguishing between capital share and profits allows Barkai to gain some theoretical insights on the cause of the decline in these shares. If markups (the difference between the cost of a good and its selling price) are fixed, any change in relative prices or in technology that causes a decline in labor share must cause an equal increase in the capital share. Thus, if both labor and capital share dropped, we cannot blame a decline in the price of labor, it must be a change in markups, i.e. in the ability of firms to charge more than their cost (pricing power).

Does this mean that the decline in capital and labor shares is due to an increase in firms' market power? Barkai provides a clue this might be true: a strong cross-sectional correlation between the increase in concentration of an industrial sector between 1997 and 2012 and the corresponding decline in the labor share in that sector. This conclusion is strengthened by a recent Fed working paper, which finds that on average M&As significantly increase markups, but have no statistically significant effect on productivity.

What Barkai does not address is the ultimate source of this increase in market power. Given the phenomenon occurred in the last twenty five years, it would only be natural to attribute it to the network externalities created by the ICT revolution. But the increase in markups is not limited to the high-tech sector. It could also be the effect of the demise of antitrust enforcement. But the phenomenon seems to take place even in industries that are not very highly concentrated.

My hypothesis is that markups have increased because firms became better at creating product differentiation and erecting barriers to entry. In 1980 Michael Porter wrote Competitive Strategy, the ninth most influential book of the 20th century according to the Academy of Management. In this book, Porter explained how firms can create barriers to entry and obstacles to competition to increase their pricing power. The book became the primary textbook of all of the strategy courses taught in business schools and the gospel of the leading consulting firms. It captured also Warren Buffet's investment rule. As he famously stated: "In business, I look for economic castles protected by unbreachable 'moats'." Should we then be surprised if firms finally learned how to apply it?

If this were the case, Barkai's model clearly shows that the outcome is inefficient: economic output and welfare could be greater if there were more competition. But how to promote it? The traditional antitrust method, which looks predominantly at mergers and market shares, could be insufficient. If Barkai's conclusions prove to be robust, we may need to start thinking about new policies to promote competition.

Title: Declining Labor and Capital Shares (sel.)
Author: Simcha Barkai
From: University of Chicago, Booth – Stigler Center for the Study of the Economy and the State
Date: November 2016

Abstract

This paper shows that the decline in the labor share over the last 30 years was not offset by an increase in the capital share. I calculate payments to capital as the product of the required rate of return on capital and the value of the capital stock. I document a large decline in the capital share and a large increase in the profit share in the U.S. non-financial corporate sector over the last 30 years. I show that the decline in the capital share is robust to many calculations of the required rate of return and is unlikely to be driven by unobserved capital. I interpret these results through the lens of a standard general equilibrium model, and I show that only an increase in markups can generate a simultaneous decline in the shares of both labor and capital. I provide reduced form empirical evidence that an increase in markups plays a significant role in the decline in the labor share. These results suggest that the decline in the shares of labor and capital are due to an increase in markups and call into question the conclusion that the decline in the labor share is an efficient outcome.

[...]

4.5 Discussion

My results show that the decline in the labor share is strongly associated with an increase in concentration. This is consistent with my hypothesis that an increase in markups plays a significant role in the decline of the labor share. Unlike the aggregate results of Section 2, the results of this section do not rely on capital data and are not subject to concerns with the measurement of capital. Using alternative sources of data and variation, this section complements my aggregate findings. The results of this section are consistent with several price-setting mechanisms. First, the results are consistent with a model in which firms face barriers to entry, where prices are the result of monopolistic competition. An increase in barriers to entry results in higher concentration driven by a decline in the number of firms, higher markups driven by an increase in prices, and a decline in the labor share. The results are also consistent with a model of a dominant firm and a competitive fringe, where prices are equal to the marginal cost of the firms in the competitive fringe. In such a model, an increase in the productivity of the dominant firm also results in higher concentration driven by the growth of the dominant firm, higher markups driven by a decline in production costs of the dominant firm, and a decline in the labor share. Further research is needed to tell apart these models of competition.

5 Conclusion

In this paper I show that the decline in the labor share over the last 30 years was not offset by an increase in the capital share. I calculate payments to capital as the product of the required rate of return on capital and the value of the capital stock. Using aggregate time series data, I document a large decline in the capital share and a large increase in the profit share in the U.S. non-financial corporate sector over the last 30 years. I show that the decline in the capital share is robust to many calculations of the required rate of return on capital and is unlikely to be

driven by unobserved capital. I interpret these results through the lens of a standard general equilibrium model. The model is based on two important assumptions: first, production is homogeneous in capital and labor; second, the static first-order conditions of firms are satisfied, i.e., labor and capital inputs fully adjust to their long run levels. If we accept the assumptions of the model, then we are led to conclude that the decline in the shares of labor and capital are caused by an increase in markups and are an inefficient outcome. I provide reduced form empirical evidence that an increase in markups has played a significant role in the decline in the labor share. The reduced form results rely on cross-sectional variation, rather than time series variation, and do not rely on capital data. Taken as a whole, my results suggest that the decline in the shares of labor and capital are due to an increase in markups and call into question the conclusion that the decline in the labor share is an efficient outcome.

Title: Is There a Connection Between Market Concentration and the Rise in Inequality? (sel.) Author: Asher Schechter From: Pro-Market

Date: May 5, 2017

[...]

Much of the panel focused on the dramatic rise in corporate profits. A recent, much-discussed Stigler Center working paper by Simcha Barkai found that over the past 30 years, as labor's share of output fell by 10 percent, the capital share declined even further. This finding goes against the argument that the labor share went down due to technological changes. Barkai's paper finds no evidence to support the technological argument. "We're spending less on all inputs. If you think of this from the perspective of a firm, this is terrific. After accounting for all of my costs—material inputs, workers, capital—I am left with a large amount of money, much more so than in the past." What Barkai does find, however, is that profits have gone way up. From 1984 to 2014, the profit share increased from 2.5 percent of GDP to 15 percent.

"To give you a sense of how large these profits are, if you look over the past 30 years and you ask, 'How much have profits increased?' you can give a number in dollars. A better way to think about that is, "Per worker, how much have these dollars increased?" It's about \$14,000 per worker. That's a really large number because, in 2014, personal median income was just over \$28,000. It's about half of personal median income," said Barkai.

Barkai went on to say that these findings were more pronounced in industries that experienced an increase in concentration. "Those industries that have a large increase in concentration also have larger declines in the labor share," he said. Barkai's conclusions were echoed by a separate study that was recently published by David Autor, David Dorn, Lawrence Katz, Christina Patterson, and John Van Reenen, in which they found that higher concentration is connected to the fall in the labor share. Title: The Impact of Financialization on Management and Employment OutcomesAuthor: Rosemary L. Batt and Eileen AppelbaumFrom: Upjohn Institute for Employment ResearchDate: February 2013

Abstract

This paper examines three questions: 1) How and why have financial models of doing business emerged in the last three decades? 2) What new forms of financial capitalism have become important in the current period? 3) How do new financial intermediaries, such as private equity, and the financial strategies of nonfinancial corporations affect the management of companies and employment outcomes? The paper describes how deregulation and institutional change created the conditions for a new, more powerful role for finance capital in the governance of U.S. companies, and it synthesizes the empirical evidence on the process and outcomes of financialization in large publicly traded corporations, as well as those taken over by private equity. Areas for future research are identified to examine how financialization affects management and employment relations in the postcrisis period.

In the field of labor and employment relations, scholars have focused on product and labor market forces and institutions to explain variation in management strategies and employment outcomes. Particularly important have been the rules of industrial relations systems and how they shape and constrain managerial prerogative and the relative power of unions to bargain contracts that determine human resource practices. In addition, the field has paid close attention to the changing nature of technologies and rules governing product markets-factors that influence the relative bargaining power of capital and labor. As a result, in recent decades we have come to understand how the deregulation of labor markets, the declining power of unions, and the deregulation and globalization of product markets have shifted the balance of power from labor to capital, leading in turn to wage stagnation, increasing income inequality, and a deterioration in the quality of jobs for many working people. The field largely has failed, however, to pay serious attention to the ways in which changes in financial markets and institutions also have influenced the relationship between management and labor and labor market outcomes more generally. These changes-which have been referred to as financialization, or the rise of financial capitalism-have altered the behavior of investors and introduced new models for doing business in the current economy.

Financialization refers to a shift from managerial capitalism, in which the returns on investments derive from the value created by productive enterprises, to a new form of financial capitalism, where companies are viewed as assets to be bought and sold and as vehicles for maximizing profits through financial strategies. The purpose of this paper is to examine these changes in financial markets and in the financialization of nonfinancial firms and to assess the implications for management and employment outcomes. We focus on three questions: 1) How and why have financial models of doing business emerged in the last three decades? 2) What are the emerging forms of financial capitalism that have become important in the current period? 3) What are the specific mechanisms through which new financial intermediaries and

the financial strategies of nonfinancial corporations affect the management of firms and employment outcomes?

The paper begins by defining the concept of financialization and then turns to a brief overview of the factors that led to the unraveling of managerial capitalism from the 1950s on. These include regulatory changes that deregulated the financial services industry and altered corporate and tax laws in ways that allowed large pools of capital to accumulate and move more freely and allowed new, unregulated financial instruments and intermediaries to emerge. These were complemented by fundamental shifts in the structure of power and decision making in large corporations. We then turn to the pivotal decade of the 1980s, when new models of financial engineering and leveraged buyouts emerged, and to the 1990s, when the lessons of the 1980s were diffused through the economy more generally and became institutionalized. The third section examines the different forms of financial business models in the 2000s, comparing the financial strategies of the private equity business model with those of publicly traded firms. While they share certain features, they also have unique opportunities given their different structures and strategies. We conclude by raising the critical question for scholars of management and employment relations: What are the key avenues of research that need to be pursued in order to advance our understanding of financial capitalism and advance public policy debates.

WHAT IS FINANCIALIZATION? The concept of financialization is increasingly used to capture the idea that a fundamental shift has occurred in the character of capitalist activity over the last few decades. Central to this idea is that capitalist firms used to make money by producing or trading goods and services, but increasingly their profits depend on financial activities (Arrighi 1994; Epstein 2005; Palley 2007; Krippner 2011). Under managerial capitalism, which emerged as a business model in the first half of the 20th century, returns on investment were based on the value created by productive enterprises. Since the late 1970s, a system of financial capitalism has emerged in which companies are viewed as assets to be bought and sold and vehicles for maximizing profits through financial strategies. These financial strategies include trading, buying and selling companies or divisions of companies, selling off assets, using debt for tax advantages, or share price manipulation-strategies for making profits without regard to the effects on organizational productivity, quality, innovation, employment, or long-term competitiveness. Efforts to measure the extent of financialization that has occurred have focused on the growing size of the financial sector and the proportion of profits in the economy that are due to financial activities. For example, the financial sector has captured a growing share of corporate profits in both the United States and Europegrowing from 25.7 percent to 43 percent in the United States between 1973 and 2005 (Palley 2007, p. 36), and from 21 percent to 36 percent of EU-15 countries between 1970 and 2005 (Watt and Galgóczi 2009, p. 192).

Krippner (2011)provides two different estimates of the relationship between the financial and nonfinancial sectors: one based on the profit ratio and the other on cash flow. She argues that pure profit measures overstate the growth of the financial sector relative to the nonfinancial sector while cash flow measures (which include depreciation allowances) do the opposite. Her

analysis of these two measures brackets the range of possible change.1 She finds that both measures remained relatively stable in the 1950s and 1960s and increased modestly in the 1970s (with the ratio of profits at a somewhat higher level). Both increased sharply in the 1980s, declined somewhat in the early 1990s, and then surged in the late 1990s. By 2001, the ratios (depending on which one is used) were three to five times higher than in the 1950s and 1960s (Krippner 2011, p. 40). A second measure of financialization examines nonfinancial firms alone and estimates the relative proportion of revenue that comes from financial activities compared to productive activities. Krippner measures financial activities in nonfinancial firms as the ratio of portfolio income (dividends, capital gains, interest payments) to corporate cash flow. She finds that this ratio remained stable in the 1950s and 1960s at less than 10 percent; rose to approximately 20 percent by 1980 and 40 percent by 1989, before falling off and then stabilizing in 2000 at about 40 percent (2011, p. 36). Another measure-the ratio of net acquisition of financial assets to tangible assets in nonfinancial firms-also supports the idea of increased financialization, especially after 1980. The ratio was relatively stable at 40 percent or less till 1980, when it rose dramatically to about 100 percent in 2000 (2011, p. 39). These indicators provide substantial evidence that a process of financialization is under way and that it particularly took off in the 1980s. The process can be seen in both the growing dominance of the financial sector in the economy as a whole and the growing importance of financial activities in nonfinancial firms. These figures do not, however, capture the interaction between the financial and nonfinancial actors in the real economy. At the organizational level, financialization entails the process by which external financial actors—Wall Street analysts, investment banks, large investors and shareholders-are able to influence or control the internal organizational strategies and financial outcomes of nonfinancial firms. In this sense, the financial sector has become a primary governance agent and organizer of the real economy. Central to this mode of governance is the development of new financial instruments (e.g., junk bonds and commercial mortgage-backed securities), and new financial intermediaries, such as hedge funds and private equity funds that make capital highly mobile and available to quickly buy and sell companies or their assets. Hence, the idea of a "market for corporate control" emerged in the 1970s and 1980s (Lazonick 1992). If a company's stock is undervalued relative to its assets, it may be easily bought, reorganized, and the underperforming parts resold, with the market the final arbiter of value.

The significance of capital mobility extends beyond the fact that companies are "bundles of assets" that may be bought and sold. From a strategic perspective, it also means that companies no longer need to commit themselves to competing in any particular product market. If the competition is too steep, they can get out. This resonates with Hirschman's (1970) classic theory of exit, voice, and loyalty. In his analysis, dissatisfied customers can voice their discontent or exit. Dissatisfied workers can exercise voice through collective action or find another job. In the current period, companies can exit product markets they don't like or that are too competitive. This differs from the past, when investments in plant and equipment tied up capital in fixed investments, and managers had to figure out ways to improve productivity, quality, and innovation in order to compete. Jack Welch developed this approach as CEO of General Electric in the early 1980s. "If a business wasn't first or second in its industry or didn't have a good chance of getting there, Welch unloaded it. This knocked GE for a loop."

(Lowenstein 2004, p. 55). Lazonick (2009) has noted a related phenomenon—financial models of firms lead managers who want to avoid a takeover to focus on stock price and use retained earnings for stock buybacks rather than investments in R&D, innovation, and worker skills. In addition, the easy exit strategy provides another reason why firms may reduce their commitment to invest in R&D for long-term growth and development. Businesses following a financial business model may find it easier and more profitable to exit a competitive product market than to invest in the kinds of innovations needed to compete effectively in a tough global economy.

Once capital investments are viewed as relatively liquid, rather than fixed assets, employees also become disposable. The idea of labor as a quasi-fixed asset (Oi 1962), or human capital as valuable and firm specific (Becker 1964) becomes obsolete as well. Labor returns to its status as a variable cost to be minimized. Because firms increasingly make profits from financial activities, and their success depends less on productive activities, their welfare is less intertwined with the welfare of employees. The decoupling of this relationship, due to the high mobility of capital, unravels the incentives that management traditionally had for investing in labor skills and engaging in productive labor-management relations.

INSTITUTIONAL CHANGE AND THE EMERGENCE OF FINANCIAL CAPITALISM A series of institutional changes occurred in the United States from the 1950s on that dismantled the system of managerial capitalism that had emerged over the prior 50 years and allowed a new system of financial capitalism to emerge. Those changes were both regulatory and organizational: Legal changes altered the external environment in which firms operated, and internal organizational shifts wrought new approaches to corporate decision making.

The Decline of Managerial Capitalism The system of managerial capitalism depended on the market stability created by securities laws, put in place during the New Deal, which limited speculative behavior. The structure of decision-making and successful growth of large corporations depended on the separation of ownership and managerial control, which had emerged as an effective model in the railroad industry in the 1920s (Chandler 1954). Because ownership shares were widely dispersed, shareholders had little influence over decision making—a division that Berle and Means (1932) and more recently agency theorists (Jensen and Meckling 1976) decried as allowing managers to ignore the interests of shareholders. Business historians, however, have shown how this separation of ownership and control enabled managers to direct the accumulation of capital and use retained earnings for investments in technology, machinery, skills, and R&D, or for the strategic acquisition of other companies. Corporations hired and internally trained and developed professional managers and experts to develop new products and processes, enhance corporate growth, and expand market share. Managers were loyal to the organization and were motivated to improve firm performance because human resource practices, or internal labor markets, provided opportunities for promotion, income growth, status, and long organizational careers. In the process, they created large-scale production facilities and mass distribution of goods and services to a growing middle class. Shareholders profited from a steady stream of dividends (Chandler 1977; Lazonick 1992), and workers benefited from rising wages that supported the

growth of mass consumption (Palley 2007). This argument is not meant to paint the managerial business model as ideal, as large corporations faced their share of opportunistic managers and labor-management conflict. In the postwar period, however, employers largely abided by labor laws, if grudgingly, and union contracts linked wage growth to productivity growth, fueling demand for mass-produced goods. Large nonunion corporations imitated the employment practices of union firms to avoid unionization (Kochan, Katz, and McKersie 1986). Relative prices tracked productivity gains, falling in industries where productivity rose (Appelbaum and Schettkat 1995). As a result, employees and consumers shared in the gains from productivity growth (Chandler 1990; Davis 2009; Lazonick 1992). At the same time, primary service industries such as banking, telecommunications, airlines, transportation, health care, and education were highly regulated, producing wide distribution of basic services; service labor markets were mainly local and shielded from broader competition. The dismantling of managerial capitalism began with the rise of the diversified conglomerate in the 1950s and lasted through 1970s. The diversified conglomerate as a business model grew in response to Congressional passage of the 1950 Celler-Kefauver Act-an antitrust law designed to limit corporate monopolies that occurred when companies bought out their competitors (horizontal mergers and acquisitions), suppliers, or customers (vertical integration). Corporations responded to the Celler-Kefauver law by diversifying into unrelated businesses, leading to the emergence of very large conglomerates that controlled companies' portfolios. The development of portfolio theory in the context of financial assets justified this development, but it undermined the managerial model in several ways. Managerial opportunism was easier in these sprawling organizations, and financial performance did decline. Measures of productspecific divisional performance gave way to managing by the numbers (Lazonick 1992, p. 177), and financial numbers were the ones that were comparable across radically different lines of business. Moreover, the frequent buying and selling of companies created a new norm of viewing companies as assets to be bought and sold. These developments undermined the power of line managers to make strategic decisions and build productive organizations while shifting power to chief financial officers (CFOs) who could manage the numbers (Fligstein 1990; Hayes and Abernathy 1980).

Emergence of a New Financial Business Model By the end of the 1970s, a decade of recession and inflation, the rise of Japanese competitors, and poor performance made conglomerates vulnerable to hostile takeover bids. While not all conglomerates were poor performing, most were viewed as having excess cash on hand and poor corporate governance practices that had allowed CEOs to be complacent and take advantage of perks and a privileged lifestyle (Lowenstein 2004; pp. 6–7). For large corporations, the cash reserves kept the cost of capital low for investing in new products and processes, but corporate raiders sought to "disgorge the cash" (Jensen 1986, p. 323) and return it to shareholders. As Lazonick articulates (1992, pp. 167–168), the conflict was over the control of retained earnings: Strategic managers wanted a low dividend/earnings ratio in order to finance internal investments, while shareholders wanted a high dividend/earnings ratio for higher returns. At the same time, a series of regulatory changes freed up large pools of capital for investment in the stock market and fueled the rise of pools of private capital available to new financial intermediaries. This included pension legislation that for the first time allowed pension funds and insurance companies to hold shares of stock and high risk bonds in their portfolios (Employment Retirement Income Security Acts [ERISA] of 1974 and 1978). Based on modern portfolio theory, ERISA and Labor Department regulations governing this act substituted the "prudent investor rule" for the "prudent man mule." Under ERISA, the fiduciary must make a determination that the investment is prudent as part of the portfolio of the pension plan, taking into consideration the diversification, liquidity, and projected return of the portfolio. The fiduciary's investment decisions in individual assets are evaluated not in isolation but in the context of the portfolio as a whole (Federal Deposit Insurance Corporation 2005). This enabled pension funds to invest in riskier assets. Similarly, Reagan-era policies facilitated the mobility of capital and the break-up of conglomerates. The U.S. Supreme Court overturned state antitakeover laws, which allowed corporate raiders more opportunities (Jarrell 1983). The Federal Trade Commission made it easier to undertake horizontal mergers so laws no longer favored the acquisition of companies across diverse industries. These changes also facilitated the rise of the market for corporate control—that is, the market for external actors to buy enough shares of publicly traded stock to take control of a corporation-which could occur through hostile takeovers or through "tender offers," in which investors bypassed the CEO and boards of directors and went directly to shareholders to buy their stock at a higher-than-market price (Baker and Smith 1998, p. 18).

In addition, in 1982 Congress passed legislation allowing Savings and Loan banks (S&Ls) to make commercial loans (the Garn-St. Germain Act of 1982). This opened the door for investment in risky commercial activities, including junk bonds. High-risk bonds are rated by credit rating agencies as below investment grade because they have a higher likelihood of default (while yielding higher returns). They are more speculative in nature, and hence junk bonds. These legislative and judicial changes led to the emergence of large pools of liquid capital for junk bonds, which facilitated leveraged buyouts and the purchase of large blocks of shares of publicly traded companies by corporate raiders. Leveraged buyouts (LBOs) were used by investors to acquire companies using a small amount of their own capital and borrowing the rest based on the assets of the acquired company, which were pledged as collateral. With a debt to equity ratio of 80/20 or higher, target companies saddled with this level of debt often experienced distress or went bankrupt.

The leading architect of the leveraged buyout model of the 80s was the firm of Kohlberg, Kravis, and Roberts (KKR). With its purchase of the Houdaille Corporation in 1979, it launched a model of financial engineering that became the dominant LBO model for the decade (Anders 2002; Baker and Smith 1998). A Fortune 500 company with 7,700 employees, Houdaille had lots of cash on hand, little debt, and was undervalued in the stock market. KKR put together a highly complex financial structure for the deal, which used very little of KKR's own capital and loaded the debt on Houdaille. Debt was critical to financial gains because it disciplined managers; and the retained earnings and tax savings from the increase in leverage and extensive use of tax arbitrage were used to service the debt (Baker and Smith 1998, p. 65ff).

Within a few years, the KKR model of leveraged buyouts gained legitimacy, and more and more investors and lenders participated. During the decade, almost half of all US public

corporations had a takeover attempt (Mitchell and Mulherin 1996). Twenty-nine percent (144) of Fortune 500 firms in 1980 were subject to hostile takeovers in the following decade, and 125 of the attempted takeovers were successful. Firms that were less likely to be takeover targets had high market-to-book ratios, high debt, and more institutional ownership; while companies with finance CEOs were more likely to be targets, and older companies were more likely to be hostile targets (Davis and Stout 1992, pp. 624–625). At the same time, acquisitions during the decade were primarily horizontal mergers. Among Fortune 500 firms, the total level of diversification dropped by one-third between 1980 and 1990, and the level of unrelated diversification dropped by 44 percent (Davis, Diekmann, and Tinsley 1994, pp. 554–561).

While buyout firms provided the financial innovations, of particular importance was the growth of institutional shareholders, who were active participants in buyout funds (Useem 1996). Their overall share of ownership in the stock market almost doubled—from under 30 percent to over 50 percent—between 1980 and 1996 (Gompers and Metrick 2001). Donaldson (1994) argues that the rise of institutional shareholders was critical in shifting the balance of power in the 1980s from corporate stakeholders to shareholders. In addition, the junk bond market expanded during the decade, providing easy money for buyout targets. This source of debt financing for acquisitions became increasingly common—a practice that soon led to the rash of bankruptcies by the late 1980s.

The model was further legitimated by academic theorists. Agency theory emerged as the dominant theory that provided overarching justification for a shift to maximizing shareholder value as the exclusive goal of the corporation and provided the rationale for leveraged buyouts. In this view, the principal cause of the low profitability of firms was the principal-agent problem. Opportunistic managers (the agents) with control over decision making were able to make decisions that favored their own interests at the expense of shareholders (the principals) because they were dispersed and unable to sufficiently monitor or control managerial power (Jensen 1986; Jensen and Meckling 1976). When investment and other spending decisions are financed out of retained earnings, managerial decisions are not subject to a market test of whether they are, in fact, the best use of these funds. Managers, not markets, allocate capital (see Lazonick and O'Sullivan 2000, pp. 13-35). Agency theory argues that it is more appropriate for managers-especially those in mature firms in low-growth industries-to return free cash flow to investors and shareholders through share buy-backs and dividends and to use debt to finance new investment (Jensen and Meckling 1976). This approach subjects investment projects to scrutiny by financial firms and to a market test for efficiency (Kaufman and Englender 1993). Mature firms in particular are likely to have accumulated assets that can be used as collateral when they borrow, and their high freecash flow can repay the debt without creating financial distress. Moreover, the necessity to repay debt keeps managers focused on maximizing shareholder value (Jensen 1986, pp. 59-75). To curb managerial opportunism, agency theory suggested that shareholders needed to take a more active role. Corporate raiders could do this by purchasing the undervalued stock of companies. A small group of new owners could unseat the CEO and corporate board and insist on selling nonprofitable divisions or changing the strategic direction of the company. They could purchase companies through leveraged buyouts that loaded the companies with debt, which then subjected managers to the

discipline of the market. Managers would need to use retained earnings to pay down the debt, and if they needed credit for investment, their decisions about the use of funds would be subject to a market test.

Note that agency theory also provided justification for attacks on trade unions, which were viewed as purely rent-seeking agents of workers and an obstacle to maximizing shareholder returns. Apart from a handful of labor-management partnerships in some industries, corporate attacks on unions and concessionary bargaining accelerated in the 1980s, encouraged by Reagan's firing of the Professional Air Traffic Controllers Organization in 1981. In addition, new theories of compensation were a handmaiden to agency theory. To make managers think and act like owners, one had to turn them into owners. Theories of pay-for14 performance and awarding of generous stock options emerged in the 1980s and became dominant in the 1990s as the preferred approach in economics and strategic human resource management (Jensen and Murphy 1990).

Finally, while agency theory and compensation theory addressed the financial alignment of shareholder and managerial interests, they did not deal with organizational strategy. The theory of competitive advantage, advanced by strategic management scholars, provided a rationale and set of guidelines for organizational restructuring that was consistent with maximizing shareholder value. Prahalad and Hamel (1990) argue that firms could best compete in global markets by focusing on their core competencies and eliminating other lines of business. This was a direct attack on diversified conglomerates, many of which had performed poorly in the 1970s and 1980s. By focusing resources and talent with laser-like precision on a core business, undistracted by other product lines, companies could be best in class. While the gist of the argument did not focus on maximizing shareholder value, it nonetheless dovetailed nicely with agency theory: Selling off noncore-typically the less profitable divisions-provided immediate cash flow to shareholders while also subjecting the remaining core to more transparent shareholder scrutiny. The approach became justified in strategic management as a theory of competitive advantage in response to globalization of product markets. In sum, the interaction of changes in financial regulations, new forms of financial engineering, the rise of institutional investors, and the theories of activist academics led to the emergence of a new business model for the American corporation-one based far more on financial strategies than productive ones. By the end of the decade, U.S. corporations had restructured into substantially leaner, focused firms designed to deliver high stock prices to shareholders.

Institutionalization of the Financial Model As companies acquired in leveraged buyouts and saddled with high debt burdens filed for bankruptcy in record numbers by the early 1990s, the leveraged buyout model of the 1980s itself was discredited and viewed as dead, but many other trends continued. Despite the widespread fraud and bankruptcies of the period; for example, U.S. regulators continued to deregulate banking in a series of laws that repealed the Glass-Steagal Act of 1933—the law that separated commercial and investment banks in order to reduce speculative behavior following the Great Depression. These actions culminated in the 1999 Gramm-Leach-Bliley Act (GLBA), which allowed commercial banks, investment banks, securities firms, and insurance companies to consolidate. This provided nonbank financial

institutions with access to insured deposits at commercial banks and dramatically increased the pools of liquid capital available for trading and speculation. The financial industry also created new complex financial instruments—commercial mortgage–backed securities used to securitize the debt, collateralized debt obligations, credit default swaps, and other derivatives—which were unregulated and became useful tools for financial engineering in the 1990s and 2000s.

The successful financial strategies of the 1980s also continued or were modified in the 1990s and became institutionalized. The junk bond market, for example, soon returned. The use of junk bonds declined in the 1980s with the credit crunch, but returned to 1980s levels by the late 1990s (Holmstrom and Kaplan 2001, p. 125). Large corporations incorporated market discipline into their organizational practices through performance management and compensation programs that linked managerial pay to the extent to which returns on capital exceeded the cost of capital, thus focusing managerial attention on this cost. Board vigilance increased, and institutional investors exerted more shareholder pressure, in part due to the relaxation of SEC rules in 1992 that substantially reduced the cost to shareholders of mounting proxy contests that challenge management teams (Holmstrom and Kaplan 2001, p. 132–134). Particularly important was the dramatic rise in use of stock options that tied CEOs to Wall Street. Legitimized by their growing use in Silicon Valley and by Jensen and Murphy's influential article on executive pay in the Harvard Business Review, their use took off after 1990 (Lowenstein 2004, pp. 17-19). Academic justification for stock option pay is that it helped solve the principal-agent problem by aligning the interests of top management and shareholders so that managers would make decisions to maximize corporate performance. The logical flaw in the academic theory, however, is that unlike shareholders, top managers did not invest their own money-there was no downside risk. In addition, the only metric used to measure corporate performance was share price. Other indicators that were important under managerial capitalism and are particularly important in tough global markets-productivity, quality, innovation, market share, sustainability-were secondary. Stock option pay did realign the interests of managers, from their commitment and loyalty to organizational performance and sustainability to a commitment to managing share price to maximize their personal wealth as shareholders (Lazonick 1992, p. 175).

Stock option pay, which began in the 1950s (Lazonick 1992, p. 172), stood at 20 percent of CEO compensation in 1980, but 50 percent in 1994; this represented a tenfold increase in the sensitivity of CEO pay to performance (Hall and Liebman 1998). This heightened sensitivity to the creation of shareholder value led to the increased use of derivatives and a variety of accounting and off-balance sheet practices designed to obscure the real financial volatility of companies and manipulate earnings reports and share price—practices that in the extreme were fraudulent and brought another round of scandals by early 2000s with the downfall of global corporations such as Tyco, Global Crossing, Enron, WorldCom, and consulting firm Arthur Anderson (Lowenstein 2004). The financial engineering of the bankrupt companies threw thousands of people out of work while destroying their pensions as well. In sum, the innovations by LBO investors in the 1980s became diffused throughout U.S. corporations in the 1990s as they embraced shareholder value as the single most performance metric, leading

Steven Kaplan to write, "We are all Henry Kravis now" (1997). These innovations all contributed to the increased mobility of capital to quickly move in and out of investments. More generally, broader interest in the stock market as the single indicator of a strong economy grew. By the mid-1990s, about half of Americans owned stock, in part due to the spread of 401(k) retirement plans that were made possible through legislative changes in the early 1990s. Reflecting these trends, the media's coverage of the stock market also radically increased, thus diffusing the discourse of shareholder capitalism throughout the economy (Lowenstein 2004, pp. 22–24).

GROWTH OF FINANCIALIZATION IN THE 2000S With the new round of financial scandals in the early 2000s, Congress sought to reign in the worst excesses of earnings manipulation and fraudulent accounting behavior with the passage of the Sarbanes-Oxley Act in 2002. The law strengthened corporate governance rules, for example, by increasing the responsibilities of audit committees of boards, requiring CEOs and CFOs to swear to the accuracy of their financial statements, and prohibiting auditors from involvement in consulting activities for their clients. The New York Stock Exchange also changed its rules to require more independence of directors and subjecting stock-option plans to shareholder votes (Lowenstein 2004, pp. 205–207). At the same time, however, despite the financial scandals, dot.com bust, and the recession of 2001, the ongoing trend in financial deregulation-designed to increase the mobility of capital-continued. Under the 2000 Commodity Futures Modernization Act, for example, Congress (at the request of the Clinton administration) explicitly excluded from regulation complex financial instruments such as derivatives and credit default swaps that lacked transparency and had been tools for accounting fraud. And in 2004, the SEC allowed investment banks to hold even less capital in reserve, thereby facilitating greater use of leverage in trading activities.

In the 2000s, the on-going effects of financial deregulation and liberalization on firm behavior manifested themselves in two ways. First, many large corporations had become adept at using a variety of financial strategies to make money and had reduced their dependence on productive activities. Second, large pools of unregulated capital had emerged in the form of hedge funds and private equity funds that allowed financial engineering and the shareholder model to be taken to new levels. While these two examples have a number of things in common in their use of financial strategies, they also are different in fundamental ways. In particular, large corporations continue to rely on stock price manipulation to maximize shareholder returns. By contrast, the private equity business strategy resuscitates the LBO model of the 1980s by making extensive use of debt leveraged on the acquired companies to buy out publicly traded companies and take them private (or using debt to buy out independent companies and keep them private). Stock price strategies are irrelevant. Rather, in the case of private equity, external investors intervene directly in the internal operations of their portfolio firms and exercise a more direct form of shareholder activism than that found in large publicly traded corporations. 19

Publicly Traded Firms: Downsizing, Outsourcing, Offshoring, and Stock Buybacks In the 2000s, publicly traded companies expanded their use of stock option pay for top management,

linking their personal interests more tightly to those of shareholders. An important mechanism for stock price manipulation is the use of stock repurchases by companies and top managers, which Lazonick (2011) describes as becoming "systemic and massive" since the 1980s, when the Securities and Exchange Commission loosened the rules on stock repurchases. Because so much of executive compensation comes from stock options, top executives have a strong incentive to take steps to increase their company's stock price, and stock buybacks provide an easy tool to do so. Lazonick examines stock buybacks in the 292 companies of the S&P 500 that existed in both 1981 and 2007. In 1981, stock buybacks represented 3.6 percent of corporate net income in this sample of companies, while in 2007 they represented 89 percent (Lazonick 2011, p. 19). Stock buybacks, in turn, mean less investment in innovation and job creation. Lazonick (2009) points to this mechanism as a major force undermining the competitiveness of U.S. industry in a global economy in which competitiveness depends on massive investment in R&D, process innovations, and knowledge-intensive products and services. Importantly, he finds that the use of stock buybacks, which had been concentrated in traditional large corporations in the 1990s, spread to leading ICT corporations in the 2000sthose firms that have led the ICT revolution and been the source of U.S. competiveness and innovation over the last two decades. In the 2000s, companies such as Microsoft, Cisco, Intel, Oracle, Texas Instruments, IBM, HP, and Dell had stock repurchase payouts that exceeded their investments in R&D (p. 233).

Also notable among large publicly traded companies is the sharp rise in business strategies to cut costs via downsizing, outsourcing, and offshoring as a strategy to boost stock prices. The extent of downsizing, outsourcing, and offshoring in public corporations over the last three decades has been well documented in the economics and labor relations literature. These practices largely have been attributed to the deregulation and the globalization of product markets, the intensification of competition, and the decline in the power of unions to influence corporate restructuring and mitigate job loss. While these explanations are important, the role of financialization in creating incentives for these practices has been less explored. Financial approaches to business management are likely to exacerbate the use of downsizing, outsourcing, and offshoring, or to make these practices the first, rather than the last, resort for competing in global markets. In firms that focus on maximizing shareholder value above all, selling off less profitable businesses is a quick source of improving profit margins. The downsizing of existing operations via outsourcing and offshoring also provides a quick fix for cutting costs and boosting quarterly profits.

How has the focus on shareholder value and core competencies affected management and employment outcomes? Some recent research has documented the link between shareholder maximization strategies and employment loss in major S&P 500 corporations in the 1980s–2000s (Jung 2011). Using a continuous-time event history analysis of downsizing announcements by 681 large, publicly held companies between 1984 and 2006, Jung argues that firms, under pressure from powerful shareholder groups, have used downsizing as a strategy to increase share price. Another analysis of 95 of the largest U.S. corporations between 1996 and 2006 finds that those firms with finance-oriented CEOs and higher dividends per share were more likely to announce layoffs than other firms. In addition, corporations that

announced more layoffs offered higher compensation to CEOs in subsequent years (Shin 2010). These studies incorporate a series of controls for industry market conditions and other measures of firm characteristics and performance. They are suggestive, although it is somewhat difficult to separate the relative importance of shareholder pressures from real pressures facing firms in costcompetitive markets.

A second effect is the growth in the proportion of jobs that have relatively low wages and benefits. As large corporations have outsourced work to subcontractors, primarily as a way to either cut costs or avoid union contracts, low-wage employment has moved up the occupational scale and the proportion of low-wage jobs in industries has grown. Empirical research on inhouse versus outsourced establishments providing similar services, for example, shows that the in-house call centers offer a significant wage premium over outsourced centers, even after controlling for the level of skills and task complexity of the work (Batt and Nohara 2009).

The vertical disintegration of firms and the growth of low-wage jobs in small subcontractors are also associated with rising wage inequality. The core competency theory of management suggests that firms should continue to refine a specialized division of labor, spread across different types of firms and networks of organizations. The premium jobs that remain in primary firms represent a much smaller share of jobs compared to a much larger pool of lowpaid jobs in secondary firms and small independent organizations. Primary firms use subcontractors to cut costs and put pressure on those firms to deliver low-cost inputs, which in turn puts downward pressure on wages and benefits. Subcontractors also are less likely to be unionized or have the resources to pay wages comparable to primary firms. Davis and Cobb (2010) analyze time-series data from the United States since 1950 and from 53 countries around the world in 2006. They find that the higher the proportion of employment concentrated in large firms, the lower the income inequality. In other words, as firms vertically disintegrate, income inequality rises. Maximizing shareholder value along the lines promoted by the core competency argument may also help explain what David Weil (2010) has referred to as the "fissurization" of the labor market (2010, p. 20-22). Weil argues that there has been an explosion in the use of franchise business models across many industries. This provides another vehicle for primary firms to maintain control over operations while shifting responsibility for labor and employment relations to franchisees, who typically offer worse pay, benefits, and working conditions. Moreover, the use of multiple tiers of ownership and subcontracting has created fragmented labor markets in which it is difficult or impossible to trace who is legally liable for employment decisions and contracts.

Maximizing shareholder value via core competency strategies also undergirds the strategy of offshoring work and the expansion of global value chains, according to the work of Milberg and Winkler (2009). Based on an analysis of 35 manufacturing and service industries for the 1996–2008 period, they show that multinational corporations have raised profit margins by offshoring work to lower-cost regions, which has allowed them to lower input prices and even increase cost markups, leading to higher profit rates. This represents a shift in the sources of profits—from domestic product markets to foreign input markets. During the same period, both employment and the labor share of national income in the United States were negatively

associated with increased offshoring. This strategy also puts downward pressure on the wages and conditions of employment of U.S. workers (Milberg and Winkler 2009). Supporting the link between financialization and offshoring, Krippner (2011) finds that between 1977 and 1999, the ratio of financial to nonfinancial profits earned abroad rose much more sharply than did the same ratio for domestic profits. While the ratio of profits earned abroad starts at a much lower level in 1997, it surpasses the ratio for domestic profits by the mid23 1990s. She finds a similar trend for nonfinancial firms alone. Between 1977 and 1999, the ratio of foreign-source portfolio income to cash flow rose sharply in the 1980s, leveled off in the early 1990s, and then skyrocketed by the end of the decade. By contrast the ratio of domestic portfolio income to cash flow grew only modestly. By 1999, the ratio for foreign income was twice the level as for domestic income, indicating a much stronger trend in financialization for offshoring activities (Krippner 2011, p. 48).

Importantly, however, the increased profits that multinational corporations have made abroad often have not been used to invest in productive enterprises at home. The U.S. tax code allows corporations to defer taxes on corporate profits held abroad, which has led many corporations to continue to hold those profits in foreign accounts rather than reinvest them at home. In 2011, U.S. business corporations held an estimated \$1.4 billion in offshore accounts (Lazonick 2011, p. 28). In addition, when profits are repatriated, firms have often used these higher profits to repurchase their own stock in order to boost prices. This pattern has been well documented by Lazonick, who refers to this type of financial business model as one of creating "... profits for the sake of higher stock prices rather than creating the high value-added jobs that are the essence of a prosperous economy" (Lazonick 2011, p. 9).

New financial intermediaries: Private equity in the 2000s Private equity, which emerged as a major source of unregulated, private investment in the late 1990s, represents another approach to the financialization of firms. Its explosive growth in the 2000s took many by surprise. By 2011, they managed roughly \$1.3 trillion in funds and, with leverage, they controlled an investment portfolio that is several times the base capital (Wharton Private Equity 2011). According to one estimate, there are roughly 2,300 private equity firms in the United States, with financial control over 14,200 U.S. companies that employ 8.1 million people (Private Equity Growth Capital Council 2011) – a number slightly higher than the number of union members in the entire U.S. private sector. Private equity organizes its funds as separate business entities, and most of these funds as well as most hedge funds have avoided regulatory oversight by the SEC because their small size has exempted them from reporting requirements of national securities laws. This has allowed them, in contrast to mutual funds for example, to engage in financial practices such as making use of substantial leverage, selling securities short, and adopting performance-based fees that increase with fund gains but do not necessarily decrease with losses. The funds operate with little transparency (even to their investors) and without board oversight (Fruhan 2010, p. 10). As of 2012, however, funds with more than \$150 million in assets are required to register with the SEC and abide by basic reporting requirements in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2011. Reporting requirements include basic organizational and operational information on each fund managed by a private equity firm, the size and ownership of each fund, nature of services, types of clients. employees, advisory and nonadvisory activities, and potential conflicts of interest (Federal Register 2011; PriceWaterhouseCoopers 2011). While the industry claims that these rules are overly burdensome, it appears they will not alter their business model.

Private equity and hedge funds also benefit from U.S. tax laws, which define their earnings as carried interest rather than performance-based pay. This allows their earnings to be taxed as capital gains (currently at a 15 percent tax rate), rather than at the corporate or ordinary income rate (as high as 35 percent) (Fleischer 2008; GAO 2008, p. 72; Marples 2008). In addition, most private equity and hedge funds register offshore in order to avoid other tax requirements. They use the offshore fund for certain U.S. tax exempt investors and for non-U.S investors (Jickling and Marples 2007, p. 6). Finally, U.S. tax laws provide incentives to use the leveraged buyout model because the interest on debt is subtracted from taxable income, whereas retained earnings or dividends are taxable as profit. In the typical private equity business model, the private equity firm (the general partner) raises capital for a fund from large institutional investors or other wealthy individuals (the limited partners). The private equity firms typically buy out target companies and take them (or keep them) private, with the goal of improving financial performance and exiting the investment within five years. Each fund is a separate legal entity, so that deals made by one fund do not affect the firm's other funds. Each deal also creates a separate legal entity and is constructed using high leverage to purchase the company while using the assets of the company as collateral for debt and obligating the acquired company-not the private equity firm or the fund that acquired the company-to repay the debt. In a deal with 70 percent leverage, for example, most of the remaining 30 percent would be put up by the limited partners, with the private equity partners contributing a very small percentage (perhaps 2–3 percent of the equity). If a deal goes badly, the partners will lose their equity in that particular deal, but neither the private equity firm nor the investment fund is liable for any losses.

Private equity partners have two sources of pay. Traditionally they have collected a flat 2 percent annual management fee on all funds committed by the limited partners (20 percent of committed funds over the 10-year life of the investment fund), whether or not the funds have been invested.2 Limited partners must keep these funds in liquid assets, available for when the private equity firm calls on them. The general partners in the fund also receive 20 percent of all investment profits once a hurdle rate of return has been achieved. This pay-for-performance 2 In the postcrisis period, large LPs have been able to negotiate over management fees. It is not unusual for management fees to be set at 2 percent of total committed capital for the first 5 years and a lower percent in later years (Metrick and Yasuda 2009). model has little downside risk, as the private equity partners are not liable for losses on investments that go sour; and while they put up a fraction of the at-risk equity in the deal, they collect 20 percent of the profits.

The multiple fund structure of PE firms also creates unique incentives to maximize shareholder returns over the entire set of portfolio companies in a fund and across funds, rather than maximizing returns for any one company in particular. That is, if one or two deals go poorly, they can be written off, given the number of other deals that the private equity firm is managing.

Each portfolio company is part of a larger numbers game. Thus, private equity seeks to maximize overall returns to a fund's investors across all of its investments over a period of a few years, rather than maximizing the long-term competitiveness or sustainability of any individual operating company in its portfolio.

When private equity firms buy a target company, they have a number of ways to make money. First, they may improve operations by investing in new technologies or processes, expanding into new markets, closing less profitable establishments or divisions, or reducing labor costs via downsizing or wage or benefit reductions. Second, between the time of acquisition and exit, they may benefit from an increase in stock prices (due to operational improvements or to a generally rising stock market, as occurred in the 2000s). These two options are available to any firm.

Financial engineering strategies based on the use of very high leverage and aggressive tax arbitrage are more unique to private equity firms. For example, a study of 153 private equity buyouts between 1985 and 2006 showed that the private equity-owned firms had an average net debt to enterprise value level of 67 percent, compared to 14 percent for comparable publicly traded firms. Average net debt to EBITDA (earnings before interest, taxes, depreciation, and amortization) was 5.4 percent in the buyouts and 1.1 percent in the public firms (Axelson et al. 2007, cited in Strömberg 2008, p. 7). Purchasing companies using high leverage that is loaded on the acquired company allows private equity firms to make higher returns while reducing their risk. Debt disciplines managers to cut costs and increase revenues in order to service the debt. The interest on debt is also tax deductible, so that high use of leverage lowers taxes substantially. Private equity firms also frequently take out additional debt that is loaded on the company, in the form of high risk junk bonds, and pay themselves and their investors dividends (referred to as dividend recapitalizations) or by dipping into the company's cash flow. Private equity firms also can profit from selling off the real estate and other assets of the acquired company without regard to the effect of such actions on the long-term viability of the portfolio company.

The extensive use of debt magnifies returns when private equity successfully exits an investment, but it also raises the risk of financial distress or bankruptcy for the portfolio company that must service the debt. Asset stripping and the payment of dividends also make portfolio companies more vulnerable to failure. Thus, these financial strategies often undermine the long-term viability of the portfolio company.

How is this model different from past models in its effects on management and workers? First, because ownership is concentrated, private equity owners typically drive corporate strategy and decisions. Because the company is loaded with debt, managers are under intense pressure to produce high returns and cut costs. In the parlance of agency theory, managers are disciplined by the market: their time horizons are shorter, and they have significantly less discretion to use resources to invest in or manage their relations with labor, suppliers, or customers. Managers, who know their business and competitors well, may understand that these short-term measures undermine the capacity for innovation and longer-term

competitiveness, as well as relationships with employees, suppliers, and customers, but their power to influence decisions has shrunk. Moreover, private equity provides incentives to managers to focus on short-term returns through a form of pay-for-performance: by providing them with an opportunity to share generously in the upside returns if the private equity firm is able to exit the investment successfully.

In these circumstances, the strategies of new owners who are not familiar with the business may undermine implicit relations of trust (intentionally or unintentionally) upon which enterprises depend for long-term survival. The management literature has shown that trust-based relations, within and across organizations, are needed to achieve sustainable competitive advantage (Appelbaum, Gittell, and Leana 2008; Gittell, Seidner, and Wimbush 2010; Heckscher and Adler 2005). A case in point is the private equity leveraged buyout of Mervyn's department store by a private equity consortium led by Sun Capital in 2004. The chain depended on a decades-long relationship with a creditor in order to ensure regular shipments of merchandise from suppliers. When the new PE private equity owners took charge, they were unwilling to back the same relationship terms, and the creditor refused to front the necessary cash to suppliers. Mervyn's could not sufficiently replenish merchandise and sales plummeted (Appelbaum, Batt, and Clark forthcoming).

Second, these intense cost pressures also often lead to heightened job loss. Two comprehensive studies of the impact of private equity on employment find that overall job loss in private equity -owned firms was higher than in comparable publicly traded firms (Davis et al. 2008, 2011). A 2008 study examines 5,000 U.S. firms and 300,000 establishments to examine employment growth in target firms and establishments acquired by PE relative to employment growth in carefully matched controls in 1980–2006. The study finds that gross job creation was equal in private equity-owned establishments and comparable non-private equity-owned establishments, but gross job destruction was much higher in the former, particularly in retail trade, services, and FIRE (finance, insurance, and real estate). On average, the two-year cumulative employment difference was 6.7 percent lower in private equity-owned establishments. This is offset somewhat by higher growth of jobs in private equity-owned greenfield sites (Davis et al. 2008). The second study, using the same data set but a smaller subset of firms and establishments, also finds greater job loss at private equity-owned establishments compared to the non-private equity-owned control group: 3 percent more after two years and 6 percent over five years. At the firm level, however, the researchers argue that the effects were smaller because PE-owned firms were more likely to open greenfield sites. However, as their results show, the effects of greenfield plants on employment in private equity- owned firms was relatively small. Rather, the private equity-owned firms gained jobs by acquiring other establishments (Davis et al. 2008, 2011). These jobs, of course, were not created by private equity and do not represent net new jobs in the economy. In sum, even the more positive study still finds substantially greater job loss (or slower job gains) in private equity- owned companies than in comparable non-private equity-owned public companies.

A third important difference between private equity-owned companies and comparable publicly traded companies is their higher risk of financial distress and bankruptcy. For example, a worldwide study comparing private equity–owned firms and comparable publicly traded firms between January 1970 and June 2007, prior to the global financial crisis, finds that the former had twice the level of bankruptcy rates as the latter—1.2 percent annually versus 0.6 percent (Strömberg 2008). Since 2007, when firms faced the economic recession, bankruptcy rates have been much higher. For example, one study of highly leveraged firms (half of which were owned by private equity), finds particularly high rates for 2007–2010, when the default rate for these firms increased to 25 percent (Hotchkiss, Smith, and Strömberg 2011).

In recent years, bankruptcies of prominent private equity-owned firms include NewPage Corporation (the largest bankruptcy in 2011); Simmons Mattress, Reader's Digest, Friendly's Ice Cream; Fortunoff Jewelers in New York City; Sbarro; Harry & David; Archway and Mother's Cookie Company; Extended Stay Hotels; SSI Group, which operates Grandy's and Souper Salad restaurants; and Real Mex, which operates El Torito Restaurant and Chevys Fresh Mex (Appelbaum and Batt 2012, p. 27–29). Some major retail chains were unable to emerge from bankruptcy and were liquidated, including Linens 'n Things, Mervyn's department store chain, and Anchor Blue clothing stores. Among the businesses purchased by private equity firm Bain Capital between 1984 and 1999, 22 percent either filed for bankruptcy reorganization or were liquidated by the end of the eighth year (12 percent by the end of the fifth year) following the investment (Maremont 2012). In addition, a large number of LBOs from the 2005–2007 period have large debt loads that private equity has been able to refinance, but their futures remain uncertain. Thousands of jobs have been lost in these bankruptcies. In a number of these cases, private equity firms also have turned over pension liabilities to the U.S. government-backed insurance program, Pension Benefits Guarantee Corporation, when their portfolio firms entered bankruptcy. This strategy enables the bankrupt company to offload its pension responsibilities, while retirees receive lower pension payouts.

The risk of bankruptcy is enhanced by a frequently used private equity strategy of splitting portfolio companies into two pieces: a property company, which owns the real estate and other assets, and an operating company. Private equity typically sells the property company and pockets the returns, guaranteeing its return on its initial investment regardless of how the operating company performs, while requiring the operating company to pay rent for the real estate it previously owned. In retail, store ownership has historically protected businesses during downturns in the economy when cash flow falls. Returning to the Mervyn's example, after the private equity acquisition, the private equity owners immediately split the company in two and, after holding the properties long enough to obtain a tax advantage, sold them off to a real estate investment firm. Mervyn's stores were required to pay high rents to lease back the property— this in addition to the cost cutting strategies that had undermined employee and supplier relations. These and other strategies undermined Mervyn's capacity to compete, and it a suffered a \$64 million loss in 2007, before the onset of recession. This was less than the \$80 million annual increase in its rent payments following the LBO. Mervyn's ended up in bankruptcy in 2008, and 18,000 employees lost their jobs (Appelbaum, Batt, and Clark forthcoming).

A fourth consideration is the effect of private equity on labor management relations and collective bargaining. Here, the U.S. evidence is equivocal. There is little evidence that American private equity owners are more hostile to labor unions than American corporations more generally. There are examples of small and large private equity firms that have negotiated contracts in good faith with unions (Croft 2009) and others in which their antiunion animus has led to serious labor law violations (Appelbaum and Batt 2012). A more serious concern is that even when private equity firms have negotiated union contracts, their overall business model is one of extracting wealth for shareholders and favors private equity owners over employees; further, the risky use of leverage puts the overall sustainability of the enterprise at risk. A good example is the 2007 private equity buyout of TXU, the Texas utility company now known as Energy Future Holdings—the largest private equity buyout in history—worth \$48 billion at the time of acquisition. The private equity consortium launched an inclusive stakeholder strategy (and a \$17 million lobbying campaign) that brought together Texas politicians and environmental groups who backed the deal on the promise of the closure of coal-powered plants. It also negotiated a contract with the union (the International Brotherhood of Electrical Workers), which ensured union recognition and no job loss for three years (Beeferman 2009, Kosman 2009, pp. 10-11). Nonetheless, the enterprise was in financial distress as of 2012 because its business strategy failed. As of January 2012, it still held \$17.8 billion of an original debt of some \$40 billion. Credit default swap traders were betting a 91 percent chance that the company would not meet its financial obligations in the next three years (Childs and Johnsson 2012).

A final question is whether private equity funds fulfill their promise of paying higher returns to their investors. This is important because, like the leveraged buyouts of the 1980s, institutional investors, particularly large public pension funds, have played a critical role as key investors. In 2007, for example, the top four investors in private equity funds were CalPERS (California Public Employees' Retirement System), CalSTERS (California State Teachers' Retirement System), PSERS (Pennsylvania Public School Employees' Retirement System), and the Washington State Investment Board (Private Equity Analyst 2008, cited in Kaplan and Strömberg 2009). This involvement of workers' capital in private equity acquisitions has raised important dilemmas for these pension funds. While they invest in private equity takeovers that have resulted in plant closings, layoffs of workers, and antiunion campaigns in portfolio companies.

It is noteworthy then that the available evidence is equivocal on whether private equity firms fulfill their promise of higher returns. Kaplan and Schoar (2005), for example, examine data for the 1980 to 2001 period and find that on average returns to private equity funds, net of fees and the carried interest collected by the private equity firm, were slightly less than those of the S&P 500 index. They find that returns for funds whose performance places them in the top quarter of funds outpaced the market for publicly traded companies but the majority did not. The wide variability in the returns earned by these funds means that returns to limited partners frequently underperform the broad stock market. Other studies have reached similar conclusions (Higson 2010; Phalippou and Gottschalg 2009). More recently a New York Times

analysis of public pension funds finds that pension funds with a higher proportion of investments in alternative funds (private equity, hedge funds, and real estate funds) had lower returns than those with less risky investments. Those funds that had a third to over half of their money in alternative investments paid almost four times more in management fees than did those funds that avoided these risky investments, and they had returns that were more than a percentage point lower on average than returns of funds that avoided these investments (Creswell 2012). Thus, the justification that private equity improves the retirement income for middle-class Americans is questionable.

IMPLICATIONS FOR RESEARCH AND CONCLUSIONS Our analysis of the current research has identified some of the implications of financialization for the management of firms and the outcomes for employees and other stakeholders. The literature is suggestive of the kinds of problems linked to financialization and of the regulatory reforms that may be needed. But our theoretical and empirical understanding of financialization is at an early stage, and many unanswered questions remain. Several questions need further investigation. First, we need a better understanding of the various ways in which different financial mechanisms extract wealth from firms. We have highlighted the role of stock options, stock buybacks, aggressive tax avoidance strategies, high leverage, and asset stripping, but we need a finer-grained analysis of these and other mechanisms and their contingencies. How do differences in industry and market conditions alter the feasibility and payoffs to distinct financial strategies; the magnitude and distribution of wealth extraction, and other outcomes?

Similarly, we need to disaggregate different types of financial ownership and financial intermediaries. In this paper, we have compared examples from large publicly traded firms and private equity. This is only a starting point. For example, how do the mechanisms for value creation and extraction vary across different types of publicly traded companies and across different types of financial intermediaries: private equity, hedge funds, venture capital funds, and others? Or across companies in different market segments? How do they vary by industry or sector, and do they lead to different rates of productivity growth, bankruptcy, or profitability? Second, and related, what is the relative importance of financial and productive sources of earnings in nonfinancial corporations, and how does this differ across distinct types of firms, sectors, and regulatory contexts? How are the two interrelated? Answering these questions requires an analysis of the ways in which financial processes are linked to labor processes. How does the structure of financing and ownership affect management decisions regarding business strategies, location of activities, and organizational restructuring? How does it affect the organization of work, investment in employee skills and development, and managerial discretion?

In this paper, we have largely portrayed financial and productive strategies for profit making as producing zero-sum outcomes: Financial strategies that use retained earnings for stock buybacks rather than productive investment or those that sell off assets for short-term gains when those assets are needed for longer-term stability and growth. Of course, the outcomes depend upon the strategy, the context, and the sets of incentives driving economic behavior. Anecdotal evidence points to examples of private equity firms providing their portfolio firms with capital for technology, process improvements, or market expansion, or to gain access to financial expertise or economies of scale in purchasing or distribution. How widespread are these examples? Are they idiosyncratic and dependent upon the goodwill or ideological commitment of individual actors? Are they more common in smaller firms with smaller debt loads and with fewer assets that can be used as collateral? Or are they a response to a set of structured incentives? We need much more research to understand the factors that encourage productive investment behavior rather than financial engineering among new financial intermediaries. Third, the theoretical explanations linking financial incentives and management of incentive structures for top management so that their decisions respond to their own self-interest as shareholders rather than as long-term stewards of the companies they manage. But managers are subject to other external pressures as well. Under what conditions do managers retain independent scope of action that allows for longer time horizons or a consideration of broader stakeholder perspectives?

In the context of the sharp rise of pay-for-performance for managers, some research points to a concomitant rise in the callousness of managers' actions and behaviors-what Steve Greenhouse (2008) refers to as "the big squeeze"—as it ripples through organizational hierarchies. But is it possible to untangle the relative importance of simultaneous factorsglobal competition, deregulation, deunionization, in addition to shareholder demands-which have intensified pressure on cost-cutting and lean organizations. Recent research provides some insights into this question. Desai, Brief, and George (2010), for example, draw on psychological, sociological, and economic theories of power to argue that the rise in CEO compensation leads to enhanced perceptions of power in organizations, which empirical research has shown is associated with lower empathy and more likelihood of objectifying and stereotyping others. Their data on 261 top U.S. corporations linked CEO compensation to the Kinder, Lydenberg, Domini & Co. (KLD) Company Profile data (which rates the employee relations policies of firms among other things). They find that the higher the compensation of a company's CEO, the poorer, or "meaner," the employee relations practices. The results of their laboratory experiment were consistent with this interpretation. This type of research can begin to unpack causal explanations.

Fourth, researchers in labor and employment relations need to address the question of sustainability and broaden the range of stakeholders included in our analyses. In the examples we have studied, suppliers, creditors, consumers, and homeowners have been adversely affected by the risky behavior of private equity firms. How much leverage is too much for sustainable enterprises? Under what conditions does financial capitalism create sustainable enterprises and stable jobs? Which workers win or lose, and are there changes in the level of inequality in wages and working conditions between more and less privileged or skilled occupational groups? Are different groups of stakeholders affected differently? Do consumers win or lose, and why?

Fifth, specific studies of the labor process in the financial industry itself are needed. Recent examples include workplace ethnographies that explain the social and psychological dynamics of investment banks and other financial services organizations that create perverse incentives for employees (Ho 2009; Zaloom 2006). These provide deeper insights into how and why the financial industry has succeeded in creating the incentives that drive behavior and decisions that affect the nonfinancial sector. In sum, recent research is advancing our understanding of financial capitalism and the ways in which it changes the nature of corporate governance and decision making, and in turn, management and employment practices, and the sustainability of enterprises. Much more work is needed, however, to build a solid theoretical foundation and provide the empirical evidence that will enable new policies and institutions to be devised that can curb the worst excesses of financial engineering and provide incentives for innovation and economic growth.

Title: The Financialization of the U.S. Economy has Produced Mechanisms That Lead Toward Concentration – Interview with Gerald Berk Author: Interview by ProMarket editors with Gerald Berk From: ProMarket Date: June 2, 2017

The discourse on concentration, market power, and bigness in many U.S. industries has increased dramatically in the last year. Do you believe that we have enough empirical evidence to show that concentration is on the rise and having adverse effects on the economy?

Yes, especially in banking and retail. In banking, a long process of consolidation and intrasectoral integration since the crisis of the Savings and Loan industry in the 1980s and 1990s has produced a far more concentrated and inter-linked industry. This process was deepened and extended by state sponsored mergers in the Long Term Capital and Subprime crises through state-sponsored mergers and bailouts. While bailouts were a temporary fix, they advanced concentration by giving the largest institutions advantages in borrowing and lending. Tight linkages between far-flung parts of the industry decreases safety as formerly local crises tend to spread. And concentration tends to squeeze out small & local borrowers. In retail, studies of Wal-Mart demonstrate widespread monopsony power, which often drives down product quality and safety; while large on-line retailers, like Amazon, use predatory pricing, deferred profits, and unequal access to financial markets to drive specialized competitors to the wall. Like banking, concentration and predatory competition in retail tends to drive down product standards, safety, and the quality of service. It also drives down labor standards.

In your opinion, what are the main reasons for the rise in concentration?

While the proximate causes of concentration are economic motives for monopoly rents and government deregulation (e.g., the suspension of antitrust), as an historical institutionalist political scientist and economic sociologist, I see the deeper causes as ideational, cognitive and coalitional. In response to the economic crisis of the 1970s, a coalition of academic lawyers and economists, state officials, bankers, and managers rethought the relationship between finance, competition and the state. Together, they produced a loosely coordinated, yet common institutional project, which subordinated production to trade and finance.

Concentration, in that project, has served diverse purposes for the members of this coalition. For government regulators, it provided a logic for American competitiveness. For retailers, it has provided an instrument to take transactional rents. And for bankers, it has expanded access to tradable assets, by creating what the sociologist Gerald Davis calls the "portfolio society."

Which industries should we be concerned with when we look at questions of concentration?

Banking, retail, media, and high tech. I know less about the so-called "sharing economy" sectors, like Uber and AirBnB, but these sectors appear to be using similar predatory tactics to the ones that have resulted in concentration in other industries.

Has consolidation in the financial industry played a role in concentration or antitrust issues in the U.S.?

My answers to [questions] 1 and 2 begin to address this question, where I indicate that the financialization of the U.S. economy has produced mechanisms that lead toward concentration in finance and other sectors. However, financialization has had multiple and often contradictory effects on concentration.

By shifting the logic of corporate management from production to finance, which is documented so well by the work of H. Thomas Johnson, it made it possible to see all corporate property as tradable assets. This meant both concentration and de-concentration of American industry, as success was measured by the revenues generated by asset transactions rather than sales of products and industrial firms turned their attention to financial transactions and mergers and acquisitions instead of research and development.

The five largest internet and tech companies—Apple, Google, Amazon, Facebook, and Microsoft—have outstanding market share in their markets. Are current antitrust policies and theories able to deal with the potential problems that arise from the dominant positions of these companies and the vast data they collect on users?

No. I believe that current policies overemphasize monopolization in single markets and do little to get at the sorts of predatory tactics firms that firms can deploy by their simultaneous presence in multiple markets.

Is there a connection between the growing inequality in the U.S. and concentration, dominant firms, and winner-take-all markets?

Yes. There is a direct relationship between monopsony power in some labor markets and low wages, under-employment, sporadic hours, poor working conditions, and anti-union activity. Wal-Mart is the most obvious case, which has been documented by a number of studies. But there is also an indirect mechanism between financialization, concentration, and inequality that is currently being documented and analyzed by sociologists and political scientists. Studies have begun to show that high income earners in concentrated sectors, like finance, high tech, and retail, are far less likely to support transfer payments through government than the rest of us. Increasingly, they work longer hours in lucrative, though precarious, jobs, which lead them perceive the underemployed and working poor as fundamentally different from themselves and less deserving.

<u>President Trump has signaled before and after the election that he may block mergers and go after certain dominant companies. What kind of antitrust policies should we expect from him?</u> <u>Pro-business, pro-competition, or political antitrust?</u>

Early signs show that antitrust policy under Trump will be more of the same—mostly hands off of large scale mergers and acquisitions and little in the way of investigating or prosecuting

structural power and predatory practices. Although this perspective has been cast as procompetitive, in my view, it's anything but.

That said, Trump's style would predict political antitrust. That is, backroom threats of antitrust prosecution will be one among many of the carrots and sticks the Trump administration will use to negotiate highly visible business investments, which will be used to augment the Trump "political brand." It may be that a few highly visible antitrust cases will be necessary in order to augment the power of the presidency in these negotiations by making threats credible. This is not unlike the way Teddy Roosevelt used "trust busting."

Title: Waarom Schuldverschuiving Nederlandse Hoogconjunctuur Kwetsbaar Maakt Author: Dirk Bezemer From: Radboud Universiteit Nijmegen Date: March 14, 2017

Terwijl in het begin van de jaren '90 de meeste bankleningen naar het bedrijfsleven gingen en een kleiner deel naar vastgoed- en financiële markten, was de situatie in 2008 omgekeerd. Onze economische groei en stabiliteit zouden gebaat zijn bij het terugdringen van deze schuldverschuiving door te bevorderen dat krediet reële investeringen financiert – denk aan betere infrastructuur in het noorden van het land, of de transitie naar duurzame energie. Dat betoogt Dirk Bezemer tijdens zijn oratie op dinsdag 14 maart. 'Toepassing van Hyman Minsky's theorie over schuldverschuiving helpt ons de kwetsbaarheden van het Nederlandse groeimodel te zien, zodat we er iets aan kunnen doen', concludeert Bezemer in onderstaande blog.

Het lijkt erop dat de Nederlandse economie in 2017 de crisis van 2008 en de langdurige stagnatie die erop volgde eindelijk achter zich laat. Het consumentenvertrouwen én het producentenvertrouwen zijn hoog, de bestedingen groeien, de werkloosheid daalt, de investeringen stijgen, de bbp-groei ligt boven de 2 procent. Het CBS spreekt van een hoogconjunctuur.

Maar het is wel een boom met vreemde kenmerken. De rente blijft ongewoon laag, de bezettingsgraad in bedrijven neemt vooralsnog af. Nederland blijft in de top-3 van landen met de hoogste huishoudschulden, zoals blijkt uit onderstaande figuur.

Hoe dit te duiden? Mijn onderzoek bouwt voort op het werk van de Amerikaanse econoom Hyman Minsky (1919-1996). Hij beschreef hoe er naast de conjunctuurcyclus ook een veel langere financiële cyclus bestaat. Investeerders beginnen zo'n cyclus met veilige investeringen, maar schuiven in de loop van de cyclus op naar steeds risicovoller investeringen.

We kunnen deze theorie vertalen naar de verdeling van financiële middelen in de economie. Als maatstaf daarvoor keek ik naar de verdeling van bankkrediet. De verschuiving die Minsky beschreef doet zich dan voor als een vermindering van leningen aan niet-financiële bedrijven, en een toename van bankleningen aan financiële bedrijven en, vooral, van eigenwoninghypotheken.

In Nederland is deze schuldverschuiving bijzonder groot geweest. Terwijl in het begin van de jaren '90 nog de meeste bankleningen naar het bedrijfsleven gingen en een kleiner deel naar vastgoed- en financiële markten, was de situatie in 2008 omgekeerd, zoals te zien is in onderstaande figuur.

Schuldverschuiving in Nederland van 1990 tot aan de crisis, bron: De Nederlandsche Bank [..] Nederland staat niet op zich. Met mijn onderzoeksteam hebben we over ruim 70 economieën data verzameld. Het is opvallend dat schuldverschuiving in verreweg de meeste landen te zien is. Dat sluit aan bij recente theorieën over een wereldwijde financiële cyclus. Wat zijn de gevolgen? De groei van leningen richting vastgoed-en financiële markten financiert geen productie en consumptie. Ondersteuning van de inkomensgroei blijft daardoor achterwege. Groei van leningen richting vastgoed-en financiële markten blaast vooral bubbels op vermogensmarkten, en resulteert vooral in kapitaalinkomen voor de hogere inkomens. Uit onze statistische analyse van de data blijkt dat schuldverschuiving daarom leidt tot lagere inkomensgroei, grotere kwetsbaarheid voor schokken en een schevere verdeling van inkomens. Dat geldt ook Nederland. Na de crisis van 2008 bleek dat Nederland, na een kwart eeuw schuldverschuiving, inderdaad erg gevoelig was geworden voor financiële schokken. Banken kwamen in nood, de economie stagneerde. Met de toename van inkomensongelijkheid viel het gelukkig erg mee, dankzij onze welvaartsstaat.

Schuldverschuiving is ook nu nog geen verleden tijd. De verdeling van bankkrediet is nooit teruggeschoven naar niet-financiële bedrijven, zoals de volgende figuur laat zien. Terwijl de hypotheekverstrekking weer toeneemt, daalde de kredietverlening aan bedrijven de laatste jaren.

Schuldverschuiving in Nederland sinds 2008, bron: De Nederlandsche Bank [...] Passen we de logica van Minsky's theorie toe op de Nederlandse situatie, dan moeten we concluderen dat de huidige hoogconjunctuur wel eens fragiel zou kunnen zijn, met gevaar van bubbels en instabiliteit. In een situatie van hoge schulden kan bij een schok het sentiment snel omslaan. Dat is met name het geval als een schok de financieringsmogelijkheden zou treffen.

Eén zo'n schok komt er vrijwel zeker aan. Rentes in de VS zullen gaan stijgen als de overheid gaat investeren. Om kapitaaluitstroom te voorkomen zal Europa moeten volgen. Een kleine renteverhoging kan in geval van hoge schulden een forse aanslag op cash flows zijn. Zal dit het vertrouwen waarop de economie nu drijft niet aantasten?

Nu is Nederland een kleine open economie, waar de inkomensgroei voor een belangrijk deel afhangt van buitenlandse groei, niet slechts van binnenlands vertrouwen. De globale groei is echter zwak, alweer omdat ook internationaal de private schulden uitzonderlijk hoog zijn. Instellingen zoals het IMF, de OESO en de Bank voor Internationale Betalingen hebben hier de afgelopen jaren meerdere keren voor gewaarschuwd.

Onze economische groei en stabiliteit zouden gebaat zijn bij het terugdringen van schuldverschuiving, door te bevorderen dat krediet reële investeringen financiert – denk aan betere infrastructuur in het noorden van het land, of de transitie naar duurzame energie. We hebben kansen om duurzame groei te bevorderen en onze financiële fragiliteit te verminderen. De toepassing van Minsky's theorie op schuldverschuiving helpt ons de kwetsbaarheden van het Nederlandse groeimodel te zien, zodat we er iets aan kunnen doen.

Title: Financialization of the Economy Author: Gerald F. Davis and Suntae Kim From: Annual Review of Sociology Date: January 13, 2015

Over the past 30 years, financial markets became increasingly central to the daily activities of households, corporations, and states. Families became enmeshed in financial markets as their pensions and college savings were invested in mutual funds and their mortgages, auto loans, credit card accounts, and college debt were turned into bonds and sold to global investors (Krippner 2011). Corporations now asserted that they existed to create shareholder value and adopted a host of structures and strategies to demonstrate their primary allegiance to their shareholders (Fligstein & Shin 2007, Zuckerman 1999). After the bust-up takeover wave of the 1980s, the bloated conglomerates that provided long-term employment and stable retirement benefits were replaced by disaggregated corporate structures sanctioned by financial markets through higher valuations (Davis 2013). States around the world also adopted finance-friendly policies, from reducing capital controls and creating domestic stock markets to rendering their central banks independent from political oversight (Polillo & Guillen 2005). This was financialization. Epstein (2005, p. 3) defines financialization as "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies." By this definition, there can be little doubt that the past generation has witnessed financialization in the United States and around the world. Owing to a combination of economic theory, information technology, and a supportive turn in ideology, financial markets spread widely, both in geographic space (the number of countries with a domestic stock market doubled after 1980; Weber et al. 2009) and in social space (such as creating financial instruments based on life insurance payoffs from the terminally ill; Quinn 2008).

This article reviews recent sociological research on financialization. As our article shows, finan- cialization has implications for nearly every aspect of contemporary society, from inequality and mobility to the conduct of war. No single article could cover all this territory. We therefore focus on a central unifying theme, namely how and why financial markets have spread and with what effect on central research domains in sociology. Countless topics related to finance merit attention but are necessarily left out by this focus, e.g., the pricing of life insurance for children, the spread of payday lenders, the role of technology in market microstructure, or the economic valuation of slaves. We constrain our review primarily to recent sociological work on the antecedents and effects of the spread of financial markets since the 1970s.

The argument that emerges from our review is that how finance is intermediated in an economy—that is, how money is channeled from savers (investors) to borrowers (households, companies, governments)—shapes social institutions in fundamental ways. Households make dif- ferent choices about housing and education when mortgages and student loans can be resold as securities rather than held by banks until they are paid off (Davis 2009). Businesses funded pri- marily by financial markets, as in the United States, look different from businesses

funded by families or banks, as in Germany (Zysman 1984). When they raise money exclusively through taxes and loans, states' capacities look different from when they raise funds on financial markets (Carruthers 1996). Financialization entails a shift in which finance is intermediated by markets rather than banks and other institutions. The displacement of financial institutions by financial markets creates qualitative shifts that we are only beginning to understand.

We first present evidence on financialization and arguments about its causes. The spread of financial markets was enabled by the confluence of supportive ideology and historical circumstance, economic theories that allowed the creation of financial instruments, and information technology that sped up their valuation. We then review how financialization connects with central concerns in sociology. First, we examine the effect of the shareholder value movement on corporations, finding that financial markets have favored disaggregation of the corporation into dispersed supply chains.

Second, we survey the influence of financialization on inequality, culture, areas beyond markets, and social change. In each case, financial markets have had a surprising and pervasive influence. In the final section we argue that a fundamental feature of financialization is a shift from financial institutions to financial markets. This shift accounts for the unbalancing effect of financialization on different varieties of capitalism. We speculate that underlying these diverse outcomes is a similar dynamic: information enables markets that undermine institutions.

EVIDENCE FOR FINANCIALIZATION

Financialization describes a historical trend since the late twentieth century in which finance and financial considerations became increasingly central to the workings of the economy. The concept of financialization gained significance particularly because it marks a fundamental discontinuity between the postwar economy, driven by industrial production and trade of goods, and the current economy, focused mainly on financial indicators. Reflecting this historical transition, Krippner (2005) defines financialization as "a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production" (p. 174).

Financialization of the economy is observable at three levels: industry, firm, and household. At the industry level, the financial industry gained increasing prominence as the most profitable, and arguably the most important, industry among all in the United States. The financial sector's share of GDP increased from 15% in 1960 to approximately 23% in 2001, surpassing manufacturing in the early 1990s. The percentage of corporate profits in the financial industry increased from 20% in 1980 to 30% in early 1990s and to roughly 40% by 2000 (Krippner 2005). In the years leading up to the recent financial crisis, bank profits reached a historic high (Tregenna 2009). This soaring profitability was reflected in employee earnings. Kaplan & Rauh (2010) report that the top five hedge fund managers in 2004 earned more than all the CEOs in the S&P 500 companies combined.

At the firm level, financialization manifests itself in the form of a stronger emphasis on maximizing shareholder value and an increased engagement in financial activities by nonfinancial corporations. The rise of the financial sector was accompanied by doctrines arguing for shareholder primacy in corporate governance (Davis 2005, Fama & Jensen 1983). An increasing emphasis on shareholder value was reflected in a shift of power from traditional functions such as manufacturing and marketing to financial executives (Fligstein 1990, Zorn 2004). The change was also observed in the source of profits in nonfinancial firms, as they derived a growing proportion of their overall income from financial sources by financing the lease or purchase of their products. The proportion of portfolio income (i.e., corporate income from interest payments, dividends, and realized capital gains on investments) relative to the entire corporate cash flows had been relatively stable until the early 1970s and started to grow sharply since then through the years of financialization (Krippner 2005).

Financialization is also evident at the household level. The proportion of financial assets relative to total household assets grew significantly, and this trend was not confined to the wealthy (Keister 2005). This growth was due primarily to the long-term shift from defined benefit to defined contribution pensions, such as 401(k) plans (Hacker 2004), and soaring household involvement in the stock market through direct share ownership or mutual funds (Davis 2008). Increased household debt also played a major role (Hyman 2008). Owing to greater access to credit by the general population, accompanied by stagnant income, household consumption was increasingly maintained not by earnings but by accumulating debts. The proportion of median household debt to income grew from 0.14 in 1983 to 0.61 in 2008, and the median debt service ratio (i.e., the percentage of income devoted to required debt payment) increased from 5% in 1983 to 13% in 2007 (Dynan 2009).

ANTECEDENTS TO FINANCIALIZATION

Households, corporations, and states are increasingly connected to financial markets, which them- selves are increasingly global. What accounts for the spread of financial markets?

Macro-Level Explanations for Financialization Scholars from diverse disciplines have provided various explanations for how financialization came about at the level of the economy. Three major explanations are given from political economy, economic sociology, and political/historical sociology perspectives. The academic roots of financialization are found in the early studies of political economists and Marxist theorists. They characterized financialization as the rentier class's alternative regime of capital accumulation in the face of stagnationist tendencies of mature industrial capitalism (Sweezy & Magdoff 1987).

Marxist theorists argued that advanced industrial capitalism has a natural tendency toward stagnation because the absence of a wealth redistribution mechanism prevents market demands from keeping up with the increased production capacity of oligopolistic corporations. As the dwindling income of the general population could not afford the growing supply of industrial production, the rentier class increasingly turned to financial activities to maintain the existing

rate of wealth accumulation. Therefore, financial capitalism arose as a novel regime of accumulation alternative to industrial capitalism (Foster 2007). Related to this, world-systems theorists connect this stage theory of capitalism to the history of world hegemony and understand financialization as an effort to protect American hegemony in the world polity (Arrighi 2010). These theorists argue that similar transitions to finance happened in previous transitions, such as the final decades of Genoese, Dutch, and British hegemony, when new hegemons arose to replace those in decline. Financialization in this account is an indication of imminent decline for economic great powers.

Economic sociologists understand financialization as resulting from the confluence of diverse factors, including macroeconomic conditions, regulatory changes, and technological advances. In this perspective, financial domination over corporations was caused largely by the emergence of a corporate takeover market, which in turn is a product of disappointing corporate performance in the 1970s, deregulations of the financial industry by the Reagan administration, and a series of financial innovations such as junk bonds (Davis 2005). Through the active operation of a corporate takeover market, large conglomerates were broken into leaner and more focused firms, and compensation for executives was tied more closely to stock market performance. Along with this trend, corporate ownership became increasingly concentrated in a handful of institutional investors, who encouraged corporations to spin off inefficient parts, lay off employees, and engage in corporate restructuring, all in the name of maximizing shareholder value (Useem 1996).

Last, political sociologists place more emphasis on the role of the state and explain the rise of finance as an unintended consequence of political responses to the administrative crisis in the 1970s. At the end of postwar prosperity, the US government faced three types of crises, all of which resulted from a mismatch between increasing demands by diverse social groups and shrinking economic resources under government control: increasing tension and conflict between social groups (social crisis), the structural gap between government spending and revenue (fiscal crisis), and declining confidence in government (legitimacy crisis). Krippner (2011) explains that the US government overcame these crises essentially by delegating difficult decisions on prioritizing diverse social needs to the market mechanism and by deregulating financial markets that created the (false) sense of resource abundance through increased accessibility to credit and the influx of foreign capital. Through these moves, the government "transformed the resource constraints of the 1970s into a new era of abundant capital" (Krippner 2011, p. 22) and successfully resolved (or delayed) the crisis. However, these policy decisions created unintended but more serious consequences: explosive growth of the financial sector and the transition to structurally unstable financial capitalism.

Micro-Level Explanations for Financialization A defining feature of financialization is a shift in how capital is intermediated, or channeled, from savers to borrowers. Broadly, the shift can be seen as one from financial institutions, such as banks, to financial markets. The shift from institutions to markets was enabled by both theory and information technology. First, conceptual developments in finance were central in changing market practices. Financial economics developed a set of sophisticated mathematical tools for valuing financial assets, from discounted cash flow analysis to the capital asset pricing model to the Black-Scholes options pricing model. New tools allowed markets to develop for new kinds of financial instruments. Performativity—the idea that theories guide practices in a way that leads them to become true—is a recurring theme in finance (Callon 1998, MacKenzie et al. 2007). MacKenzie & Millo (2003) document how the Black-Scholes options pricing model shifted from being a clearly inaccurate description of pricing to a guide for trading that thereby became true. Methodologies for assessing creditworthiness, from rating systems for small businesses (Carruthers & Kim 2011) to the ratings for bonds issued by Moody's, Standard and Poor's, and Fitch (Rona-Tas & Hiss 2010), become guides to behavior for those seeking credit. All these in turn help enable tradability. These tools convey an image of impersonality and precision and contrast with the personal touch (and potential for bias) of a human banker.

Second, equally important are technological changes that enabled rapid valuation of financial assets. Discounted cash flow analysis is easier with a calculator than with a slide rule, easier still with a computerized spreadsheet. The ability to gather, analyze, and share data rapidly, combined with the elaboration of financial tools, made valuing financial assets more tractable and therefore made trading on markets more plausible. Take a simple example: What is the value of a pool of 1,000 viaticals, that is, the rights to the future payoffs of life insurance contracts for 1,000 currently living individuals? Relevant information would include the value of each policy's payoff; the age, health history, and predicted life span of the insured; the financial state of the insurer; the rate of inflation; and the Fed's discount rate; among other factors. Until fairly recently, it would have been difficult to imagine a bond based on viaticals as a reasonable investment, because the information demands for valuation were far too great. Now, owing to advanced information technology, viatical-backed bonds are entirely plausible, if not commonplace yet (cf. Quinn 2008).

One of the most critical yet underappreciated enablers of financialization is securitization. Securitization is the process of taking assets with cash flows, such as mortgages held by banks, and turning them into tradable securities (bonds). A single mortgage is illiquid and its payment is often unpredictable: The homeowner might lose his or her job due to a medical emergency, or the homeowner might win the lottery and pay off the mortgage early, or the neighborhood might be leveled by a tornado. But when bundled with hundreds of other mortgages in other parts of the country, the payoff becomes more predictable, owing to the law of large numbers, and suitable for being divided up into bonds, with different tranches having different risk profiles.

Mortgage-backed bonds are the most familiar form of securitization, but the same basic process can be done with almost any kind of cash flow, including auto loans, college loans, credit card debt, business receivables, insurance and lottery payoffs, veterans' pensions, property liens, and more. Quinn (2008) describes the origins of the viatical market, in which investors purchase the life insurance payoffs of the terminally ill or elderly. Naturally, the sooner the viator dies, the quicker (and thus more valuable) the payoff, creating some potentially malign incentives. This can work both ways: In the United Kingdom, the enhanced annuity provides better pension rates to retirees who have impaired health conditions, including those who smoke, are overweight, or have high blood pressure, under the assumption that those with impaired health condition will not live as long as their healthy counterparts, therefore requiring fewer annuity payments (French & Kneale 2012).

Securitization may seem obscure or peripheral, but it represents a fundamental shift in how finance is done. A loan represents a relationship between a bank (or other institution) and a borrower. A traditional 30-year mortgage or business loan reflected a lasting mutual commitment, and both banker and borrower had reasons to maintain that relationship for mutual benefit (cf. Carruthers 1996). From the bank's perspective, a loan is an asset. Selling that asset through securitization fundamentally changes the relationship. From the borrower's perspective, the bank looks more like an underwriter than an ongoing partner. Securitization thus shifts debt from a concrete relationship with an entity (a bank) to an abstract connection to the financial markets. This shift became clear during the mortgage meltdown, when far-flung buyers of asset-backed securities that were plummeting in value sought to locate the borrowers on the other end, relying on the haphazard paperwork documenting their ownership.

Commercial banks, traditionally the most powerful financial institutions, look very different when their loans are merely temporarily illiquid assets intended to be resold on the market. Commercial banks traditionally took in deposits (or issued bonds) and used the proceeds to fund loans to borrowers. Their marble-pillared facades conveyed a sense of permanence and security. But if the loan will be quickly resold, then the bank was little more than a one-time intermediary. There is little functional difference between underwriting a bond issue (which investment banks did) and issuing a loan that will be quickly resold and securitized (which is what commercial banks came to do). In this sense, the wall between commercial banking and investment banking erected by the Glass-Steagall Act had become largely moot. With widespread securitization, the largest American commercial banks were transformed into universal banks with substantial investment banking operations. Meanwhile, whether they knew it or not, borrowers had become issuers on financial markets. Their debt was owned not by the bank (or credit card issuer, or auto financer) that issued it, but by the market (Davis 2009).

The effects of financialization were most visible early on in changes in the strategies and structures of corporations, particularly in the United States. As markets spread more broadly, so too did their influence on social dynamics. The next two sections review recent research on each of these effects.

Corporate Governance and Strategy MSV [maximizing shareholder value] created a singleobjective yardstick for corporate performance that was visible to all. Manne (1965), a founder of the law and economics movement, argued that share price provided a continuous measure of management performance and that compensation tied to share price gaveexecutives a direct incentive to maximize shareholder value. Moreover, widespread stock ownership by the public and ubiquitous financial media meant that by the late 1990s firms were under relentless pressure to deliver. The general public now relied on stock market returns to afford college and retirement (Hacker 2006). [...] Financialization and Inequality One area with which financialization was frequently associated is increased economic inequality. Research has shown that the rise of finance heightens income inequality because the increased payback from financial investment is not reinvested in the firms for productive activities, causing stagnation of real wages and increased indebtedness of wage earners (van der Zwan 2014). [..] Summarizing these findings at the global level, Zalewski &Whalen (2010) report a weak but growing correlation between the IMF financialization index and national income inequality (0.184 in 1995 to 0.254 in 2004).

Financialization and Culture The impact of financialization extends to the everyday life of ordinary people, as participation in finance arguably reshapes the way people think about their lives and the world around them. Financialization underwrites narratives and discourses that emphasize individual responsibility, risk-taking, and the calculative nature of financial management (Martin 2002). Our physical environment is filled with pervasive images and texts of financialization, such as "advertising campaigns, money magazines, investment manuals and financial literacy campaigns" (van der Zwan 2014, p. 112). This prevalent "finance culture" creates an image of the individual as an "invest- ing subject" (Aitken 2007, p. 13), who "insures himself against the risks of the life cycle through financial literacy and selfdiscipline" (van der Zwan 2014, p. 113). For the investing subject, the uncertainty of the future is not something to be feared but to be embraced, because financial theory posits that only those who bear risks can achieve investment returns. Moving away from the security provided by the postwar welfare schemes, ordinary American citizens are told to embrace such instability as an opportunity to bear risk and be successful in the "ownership society" (Davis 2010). [...] those at the bottom of the income distribution were forced to pursue careers as "financially self-determinant professionals," otherwise known as "precarious workers" suffering from job insecurity (Chan 2013). Moreover, the flip side of the ownership society was the return of debtor's prisons not seen since the time of Charles Dickens. Stricter enforcement of individual financial responsibility by the state is reflected in the recent spike of arrest warrants to prosecute borrowers who fail to repay small debts, as low as \$250 (Lebaron & Roberts 2012).

Financialization Beyond Markets Along with the financialization of everyday life, financial interest now extends to areas traditionally considered outside the market economy. For example, financial markets and actors have become central to the production of urban spaces. The proliferation of predatory equity (i.e., private equity's extensive investment in affordable rental housing) is shaping urban living conditions. [...] Financialization beyond markets accelerated as financial practices such as securitization ex- tended to domains traditionally considered to be outside of financial transactions. Financialization of local politics provides one representative example. In the form of tax increment financing, the predicted increases in property tax receipts to local governments are securitized to raise funds for urban redevelopment, consequently leading to the financialization of urban politics, in which economic development professionals exert an unprecedented influence on municipal budgetary decisions (Pacewicz 2012). In the same vein, Chicago attracted billions of dollars from global investors by bundling and selling future property tax income, but this also subjected

administrative decisions about urban redevelopment to the logic of investment and speculative thinking, causing an oversupply of space and a property bubble in the city (Weber 2010). Even the notion of sustainability is becoming financialized by introducing devices such as sustainability accounting, which integrates noneconomic factors such as social, environmental, and ethical values into the realm of financial calculation (Hiss 2013). Although these new tools enabled corporations to measure their noneconomic impacts, they also led to the omission of key sustainability-related aspects that are difficult to objectively measure and quantify—essentially, while water usage or greenhouse gas emission attracts greater attention, complex social consequences of corporate actions on local communities are more likely to be overlooked.

Meanwhile, a wave of bank mergers reduced the number of commercial banks dramatically, and most large cities lost their major local bank to a handful of acquirers (particularly Bank of America and JPMorgan Chase). As a result, the cities' local power elite no longer had a regular connecting point. Chu & Davis (2013) found that the interlock network had largely collapsed by 2012, as boards shunned the well-connected directors they had previously sought.

FINANCIAL MARKETS AND SOCIAL STRUCTURES

Our review thus far suggests that the implementation of financial markets can reshape social institutions. Below we speculate on a theoretical account for how this happens, and how it might vary cross-nationally.

Financial Markets and Economic Power A shift in financial intermediation from institutions to markets has important implications for economic power. It is not simply a transfer from Main Street to Wall Street, but a qualitative change in the nature of power relations. Indeed, many features of contemporary financial markets have historical roots in the political struggles between the monarchy and an increasingly empowered British Parliament in the late seventeenth century. The Parliament's eventual victory in this struggle limited the discretion of the Crown, facilitated the development of an international credit market for state-building, and assured the strict enforcement of financial property rights, all of which constituted the foundation of modern financial markets (North & Weingast 1989). Strong financial markets resulted in constrained executive power and a particular framework of laws for governing finance, features that endured for centuries (Carruthers 1996). [..] the expansion of financial markets arguably transformed power relations in the broader economy in a counterintuitive way: Rather than move power from one identifiable set of actors to another, financial market expansion limited the concentration of power in the hands of any discrete actor. In contrast to the conventional belief that financialization augmented the influence of Wall Street and its international counterparts, the recent shift to the financial markets may have ultimately weakened the significance of financial institutions, both commercial and investment banks. One might hear that Wall Street has never been more powerful and that bankers exercise a shadowy but pervasive influence on society. Yet in 2008, three of the five major independent investment banks in the United States (Bear Stearns, Lehman Brothers, and Merrill Lynch) disappeared. The biggest insurance company (AIG) along with the two biggest mortgagefunding companies (Fannie Mae and Freddie Mac) were effectively seized by the state. The biggest thrift (Washington Mutual), along with the two biggest freestanding mortgage issuers (Countrywide and New Century), went bankrupt. It is a particularly cagey form of power that ends up with businesses being liquidated or taken over by the government and their top ranks of executives fired. The American case vividly illustrates this shift from institutions to markets. [..] Mizruchi (2013) describes how this and other factors led to a fracturing of the American corporate elite. Changing from a densely connected class able to act cohesively to influence state policy, business executives in the United States had become increasingly hapless and incapable of locating and acting on common interests, such as health care, taxes, investment in infrastructure, and foreign policy. In a sense, a cohesive corporate elite was a casualty of the shift from relationship- based businesses (such as commercial banking) to markets. Although this is most evident in the United States, similar effects are observable around the world.

At the surface, financialization appears to be a power shift from industrial corporations to the financial sector, but the deeper underlying trend may indicate a shift from social institutions to markets as the dominant organizing principle of contemporary societies,

Varieties of capitalism [...] Research under the rubric of varieties of capitalism suggests that national economies can be described in terms of a matrix of institutions (North 1990) that shape the appearance of economic organizations (corporations, banks) and the prevalence of different sectors. This matrix includes institutions that regulate product market competition, labor markets, capital markets, education systems, and the provision of social welfare (cf. Amable 2003, Hall & Soskice 2001). In industrialized economies, these institutions combine, akin to an institutional terroir, to enable particular types of firms and industries to thrive. The globalization of finance can shape the balance of institutions in an economy by tilting the cost profile of using markets. But how this plays out depends crucially on existing institutions. One ambitious effort to assess the influence of financial globalization on national economies is Kogut's (2012) collection The Small Worlds of Corporate Governance, which examines networks of corporate boards and corporate ownership in two dozen countries in 1990 and 2000. The study provided distinctive insights into how highly diverse economies responded differently to financial expansion. The varieties-of-capitalism approach is not without its critics. There is a hazard of devolving into neofunctionalism. Streeck (2011) points to the danger of treating economic transitions as case studies of generic processes of institutional change. But, without oversimplifying, this approach provides a useful starting point in contemplating different trajectories of financialization at a national level.

CONCLUSION

Over the past 30 years financial markets have spread broadly across geographic and social spaces. Stock markets have opened in dozens of new countries, changing the ways businesses are structured and how they operate. In some countries, as in Israel, a new class of entrepreneurs, enriched by IPOs and changing the culture of business and society, has emerged (Drori et al. 2013). Public policies have become more accommodating to both domestic and foreign investment. More types of assets, from student loans to lawsuit settlements, have been

securitized. Domains not normally considered assets were transformed into tradable financial products, such as tax increment financing premised on predicted increases in future property tax revenues (Pacewicz 2012). It seemed that almost any kind of cash flow could be securitized and turned into a financial instrument. Our review suggests that these processes introduce dynamics of financial markets into areas where they were previously absent, and as a result can have pervasive social consequences. We have explained several of these consequences, such as the transformation of the corporate sec- tor, increases in inequality, and new means and targets of social movement activism. We have also outlined some of the evidence on how financialization varies cross-nationally and how national institutions interact with the incursions of financial markets. Along the way we have aimed to summarize a unifying account. We have described how theory and technology enabled trading: Information enables markets. We have also conveyed the many ways that financial markets challenge long-standing institutions, such as banks and the notion of home ownership: Markets undermine institutions. Nearly every domain of our social life, from inequality and social mobility to local politics and urban planning to social movements and state power, has been touched by financialization. This trend makes financial markets and the logic of finance an increasingly influential force that shapes the future of our economy and society. By offering a brief and occasionally speculative overview of this emerging force, we intend to increase sociologists' awareness of a fledgling but potentially significant shift in the underlying mechanisms of the contemporary economy, and encourage a more expansive sociological focus on the issue. We have just started to comprehend the nature of change, and certainly, much work remains to be done.

Title: Evaluer l'Impact des Réformes Financières: le Défi de la Régulation Internationale Author: Pierre de Lauzun From: Les Echos Date: June 8, 2017

10 ans après le début de la crise et plusieurs vagues de réformes financières, il est urgent aujourd'hui d'évaluer les impacts sur l'économie et la croissance des régulations mises en place. Une tâche de grande ampleur, mais indispensable pour s'assurer que ces réformes prennent en charge les vrais risques et n'ont pas d'effets contreproductifs sur l'activité.

Un travail titanesque certes, compte tenu de la complexité et de l'ampleur des réformes engagées depuis 2007 au niveau du G-20 et du Conseil de la stabilité financière (CSF). Réformes concoctées au fil des ans dans des forums réunissant les autorités sectorielles, ensuite entérinées par les politiques puis appliquées de manière plus ou moins harmonisées par les pays membres du G-20. Ces forums sont peu connus du public, mais essentiels dans le dispositif, notamment le Comité de Bâle qui réunit les banques centrales et régulateurs bancaires, l'OICV (IOSCO en anglais) qui est l'organisation mondiale des régulateurs des marchés, ou le Conseil de stabilité financière (CSF) qui les coiffe et prépare les G 20 etc.

Or, on le pressent, l'appétit des autorités internationales pour retoucher ces textes est faible : outre qu'ils ont été difficilement négociés, leur déclinaison législative et leur mise en oeuvre nationale ont été souvent sources de tension. De plus, les éléments matériels à recueillir pour une telle évaluation nécessitent quantité d'expertises et des données souvent difficilement disponibles, sans parler de la méthodologie.

Pourtant le besoin d'une telle évaluation est manifeste. Non seulement la plupart des décisions et des calibrages ont été arrêtés sans véritable mesure d'impact, mais la coherence d'ensemble de l'approche est tout sauf démontrée. Ainsi, des décisions prudentielles lourdes ont été prises conduisant à une réduction sensible de l'activité de teneur de marché des banques, pour des raisons tenant exclusivement à la solidité de celles-ci (ce qui est en soi légitime), mais sans évaluation de leur impact sur la liquidité du marché, notamment en cas de secousse. De même la cohérence de ces mesures avec celles visant la sécurité des opérations elles-mêmes (appels de marges sur les dérivés) n'a pas été véritablement testée.

Ces exemples mettent en outre en lumière un déséquilibre majeur dans le poids relatif des autorités et conséquemment des points de vue qu'ils défendent. Force est de constater en effet un certain effacement des autorités de marché (en l'occurrence l'OICV) en regard de la surpuissance désormais écrasante des banques centrales, notamment à travers le puissant Comité de Bâle, mas aussi indirectement par la puissance de leurs interventions directes. Le tout relayé au niveau du CSF, qui regroupe certes superviseurs bancaires, régulateurs de marchés et représentants des Trésors, mais où les banques centrales dominent.

Dans la pratique donc, ce sont les régulateurs prudentiels qui déterminent le sens des réformes. Au risque de donner la prépondérance au renforcement des établissements, conduisant en outre à leur concentration, et cela au détriment de l'analyse de l'interaction sur le marché de ces mêmes banques, des émetteurs et des investisseurs. Car le marché est un peu le parent pauvre de la réflexion et de l'action régulatrice depuis 2008 (à l'exception notable de l'impulsion donnée en faveur des chambres de compensation, mais là encore on reste dans l'institutionnel). C'est si vrai que l'on constate désormais une tendance des banques centrales à progressivement s'occuper des marchés elles-mêmes. A titre d'illustration, des codes de conduite internationaux voient le jour sur des segments de marchés majeurs, le marché des changes par exemple avec le Forex Global Code of Conduct, demain sans doute celui des produits de taux ; mais c'est sous l'égide des banquiers centraux qu'ils se développent et surtout ce sont eux qui leur confèrent une portée internationale de fait contraignante. Notamment en obligeant les établissements qui travaillent avec eux à respecter ces codes.

Mais cela ne saurait remplacer une réflexion spécifique au bon fonctionnement des marchés, d'abord sur la liquidité certes, mais aussi sur les risques propres aux marchés, tenant aux emballements possibles, ou à la nocivité de certains produits et pratiques, avec potentiellement des effets systémiques comme on l'a vu.

En principe ce devrait être le rôle de l'OICV. Mais le format multilatéral et consensuel de l'OICV, la surpuissance américaine en son sein, et ses faibles moyens ne se prêtent guère à des initiatives fortes ou à des études en profondeur, quand, dans le même temps, les moyens plus développés et le format plus resserré du Comité de Bâle confèrent aux banquiers centraux une autorité et des pouvoirs autrement plus étendus. Pour se limiter à un seul exemple, il y aurait pourtant bien besoin, de stress-tests de marchés, pour tenter notamment d'évaluer leur résilience, de façon analogue aux stress-tests pratiqués sur les banques.

En un mot, il est impératif que l'appréhension spécifique des problématiques de marché ne soit pas occultée. On l'a dit, l'approche prudentielle ne peut être l'unique perspective lorsqu'il s'agit d'étudier les évolutions de marché.

Alors que la transcription nationale des réformes financières est en passe de s'achever, il est grand temps, au niveau international, d'en prendre la pleine mesure, avec les moyens que cela exige.

Title: Gerald Epstein – From Boring Banking to Roaring Banking Author: Alejandro Reuss From: Dollars & Sense Date: July 11, 2015

Gerald Epstein is a professor of economics and a founding co-director of the Political Economy Research Institute (PERI) at the University of Massachusetts-Amherst. He has written extensively about U.S. and global finance and recently delivered the Distinguished Faculty Lecture at UMass-Amherst titled "When Big is Too Big: Do the Financial System's Social Benefits Justify Its Size?" In April, he sat down with Dollars & Sense co-editor Alejandro Reuss to discuss major themes in his current research—the dramatic growth in the financial sector, the transformation from regulated "boring" banking to deregulated "roaring" banking, the ways the current system has ill-served the economy and society, and the need for regulation of private finance and development of alternative financial institutions.

What should we be looking at as indicators that the financial sector has grown much larger in this most recent era, compared to what it used to be?

There are a number of different indicators and dimensions to this. The size of the financial sector itself is one dimension. If you look at the profit share of banks and other financial institutions, you'll see that in the early post-war period, up until the early 1980s, they took down about 15% of all corporate profits in the United States. Just before the crisis, in 2006, they took down 40% of all profits, which is pretty astonishing.

Another measure of size is total financial assets as a percentage of gross domestic product. If you look at the postwar period, it's pretty constant from 1945 to 1981, with the ratio of financial assets to the size of the economy—of GDP—at about 4 to 1. But starting in 1981, it started climbing. By 2007, total financial assets were ten times the size of GDP. If you look at almost any metric about the overall size of the financial sector—credit-to-GDP ratios, debt-to-GDP ratios, etc.—you see this massive increase starting around 1981, going up to a peak just before the financial crisis, in 2006.

Two more, related, dimensions are the sizes of the biggest financial firms and the concentration of the industry. For example, the share of total securities-industry assets held by the top five investment banks was 65% in 2007. The share of the total deposits held by the top seven commercial banks went from roughly 20% in the early postwar period to over 50%. If you look at derivatives trading, you find that the top five investment banks control about 97% of that. So there's a massive concentration in the financial system, and that hasn't declined—in some ways, it's gotten worse—since the financial crisis.

Could you describe the qualitative changes in financial institution behavior in this same era, and the origins of these changes? When we hear that year 1981, we immediately think of deregulation. Is it just deregulation, or is there more to it than that?

We can roughly think about two periods of banking and finance in the post-World War II era. Coming out of the Great Depression, when there was a lot of financial regulation, the Glass-Steagall Act separated investment from commercial banking, there were rules governing the issuing of complex and risky securities, rules for different kinds of financial institutions in terms of what kinds of assets they could hold. Savings and loans could mostly focus on housing, commercial banks primarily on business loans, investment banks couldn't take deposits and mostly engaged in underwriting and those kinds of activities. There were interest-rate ceilings, high capital requirements, leverage requirements. During this period, most of the activity of banks, commercial banks particularly, was in terms of taking in deposits and making individual loans—business loans, mortgages, real-estate loans. Many people call this the age of "boring banking." It was also called the age of "3-6-3" banking—bankers paid 3% interest, lent out at 6%, and got to the golf course by 3:00 in the afternoon.

Then starting in the late 1970s and early 1980s, their activities really changed, partly as a result of financial deregulation, partly as a result of increased competition from other kinds of financial institutions. Relatively unregulated banks could pay depositors higher interest rates, could charge higher interest rates on their loans, and could engage in new kinds of financial innovation—such as securitization, which is placing a bunch of loans into a bundle, such as an asset-backed security or mortgage-backed security, and selling these things off. "Boring banking" could no longer compete, so instead of engaging in one-to-one lending, they started engaging in more activities with the capital markets—bundling up or securitizing loans, selling them off, using derivatives to hedge risks but also to make bets. They kind of became like hedge funds in the sense of doing a lot of trading, buying and selling a lot of derivatives, engaging with the securities and capital markets. But they still had the government guarantees like they were banks.

How does finance measure up, during this most recent era of deregulated finance, against the key claims that are made about its socially constructive role?

If you look at the textbook description of the positive roles that finance plays, basically it comes down to six things: channel savings to productive investment, provide mechanisms for households to save for retirement, help businesses and households reduce risk, provide stable and flexible liquidity, provide an efficient payments mechanism, and come up with new financial innovations, that will make it cheaper, simpler, and better to do all these other five things. If you go through the way finance operated in the period of "roaring" banking, one can raise questions about the productive role of banking in all of these dimensions.

Taking the first role, channeling finance to productive investment, in the early post-war period, nonfinancial corporations on average got about 15-20% of their funding for productive investment from outside sources, from banks and from the capital markets. For the rest, they used retained earnings. In the latter period, after around 1980 or so, this was cut more or less in half—to 7-10%. So finance didn't really provide a huge percentage of funds for nonfinancial corporate investment in the age of roaring banking. So you have this paradoxical situation where the income going to finance grew significantly while the real contribution to providing

funding for investment went down. During the 1960s, finance got about 40 cents for every dollar they gave to nonfinancial corporations for investment. By the 2000s, it was up to 66 cents.

What was finance doing instead? As Juan Montecino, Iren Levina, and I point out in a paper we wrote, they started lending to each other, instead of to the real economy or nonfinancial corporations. So we looked at intra-financial sector lending as a share of total lending from 1950 to 2010 and we found that, from 1950 up to around 1980 or so, they were only doing about 10% of total lending to each other. Just before the crisis in 2008 or so, they were doing almost 30% of all lending to each other. This lending to each other really was a way of providing finance for derivatives trading and other kinds of betting, rather than financing real investment.

The second role is providing mechanisms for households to save for retirement. There are a lot of studies that show that banks didn't do a very good job in the period of roaring banking. Part of the problem is that the savings vehicles that finance provides for households come at a very high cost. If you put your money in a mutual fund, say, with Fidelity or one of these other companies, oftentimes the fees that you have to pay are very high, and the returns that you get aren't any better—sometimes worse—than if you put your money in a broad portfolio of stocks, like the S&P 500 or something like that. There are a lot of studies that show that the returns that you get from putting your money in these active funds is more than 2% less than if you just put it into a broad stock portfolio. Well, this 2% is going directly to the company, to Fidelity and the people who work for them, so it's a way that finance is overcharging.

The way in which finance has failed in helping households save for retirement is even more stark if you realize that, for most households in the United States, most of the wealth that people have is in their homes. If you think about what the financial sector did to people's savings in their houses in that period, it's a pretty dismal record—especially for African-American and Hispanic and other minority households, much more so than for white households. Already, African Americans' wealth is just a fraction of white wealth, and most of their wealth was in their houses. The financial crisis of 2006-2007 pretty much wiped out a large percentage of African-American wealth during this period. So clearly, roaring banking didn't do much to help households save for retirement.

The third role is to reduce risk. You just need to look at the kinds of financial products that banks were selling under the guise of reducing risk—like credit default swaps, mortgagebacked securities, asset-backed securities, etc. These products lost enormous amounts of value during the financial crisis, and would have lost almost all of their value if the government hadn't bailed them out. The financial sector was a source of enormous risk, rather than a source of reducing risk.

The same can be easily said of the fourth function, providing stable and flexible liquidity. If you look at the housing bubble and the tremendous run-up in asset prices provided by the tremendous increase in liquidity from the financial sector—through asset-backed securities,

subprime lending, and so forth—you realize that it was not stable. It was actually what led to the asset bubble and crash. So private banking does not provide stable or flexible liquidity. In the end, in 2008, the Federal Reserve had to come in and provide enormous amounts of liquidity to the system to keep it from melting down entirely.

For the fifth role, to provide an efficient payments mechanism, we see a similar kind of thing. The only thing that kept the payments system operating after the financial crisis was the enormous amounts of liquidity that the Federal Reserve flooded into the financial system.

Moreover, if anyone has ever tried to transfer money from one bank to another, or overseas, you realize that our payments mechanism—even in normal times—is very inefficient. Banks can hold onto your funds for two or three or four days before making them available to you, when you try to transfer from one bank to another, just as a way of extracting more money from households. Both in abnormal times and in normal times, the payments mechanism in the period of roaring banking is very poor.

Finally, that brings us to banking innovations. Paul Volcker famously told a group of bankers in 2009 that the only financial innovation that he could see in the last 20 years that had been at all efficient was the ATM. There's no evidence that financial innovations have led to more economic growth. Jim Crotty and I did a literature survey that showed that at the minimum 30-40% of financial innovations over the last 20 years or so are used at least to some extent, if not largely, to evade regulations or to evade taxes—that is, to shift around pieces of the pie from the public to the banks, rather than to increase the size of the pie.

In short, roaring banking has done a pretty dismal job of providing any of these functions that the textbook case says finance should provide.

Of course, bubbles burst and exacerbate the severity of downturns. One of the amazing things about the aftermath of the recent crisis has been the apparent imperviousness of the financial sector to serious reform—especially in contrast to the Great Crash of 1929 and the Great Depression. How do you make sense of that?

You have to use a political economy approach to understand the sources of political support for finance. I call these multilayered sources of support the "bankers' club."

The lead group in the bankers' club is the bankers themselves, and the politicians that they're able to buy off with financial contributions and so forth. Their ability to do that, of course, has become much greater with changes in the campaign finance reform laws and Citizens United and so forth, so it makes it much easier for the banks to throw enormous amounts of money at politicians and prevent significant reform. This is true for both parties, for the Republicans and for the Democrats. We know how important finance was to Bill Clinton's political coalition in raising money. That's been true for Democrats for many years, not just Republicans.

The bankers have a lot of other support as well. Historically, the Federal Reserve has been one of the main orchestrators of the bankers' club. You can clearly see that in the role that Timothy

Geithner played—when he was at the New York Fed, and then after he became Treasury Secretary under Obama—in fighting tooth-and-nail against any significant reform. He was one of the main figures in the opposition to tough reform through the Dodd-Frank Act. The Federal Reserve, through many mechanisms—the "revolving door" mechanism, the fact that they regulate banks, and so on—is a very strong member of the bankers' club.

A perhaps surprising group in the bankers' club has been many economists, especially academic economists who work on finance. Some of them take quite a bit of money from financial firms as consulting fees or are on the boards of directors of financial firms. Jessica Carrick-Hagenbarth and I studied this, looking at a group of 19 well-known academic economists who were working with two groups, the Pew Charitable Trusts Financial Reform Project and the Squam Lake Working Group on Financial Regulation, on financial reform issues. And they were coming up with financial reforms that, while some of them were OK, a lot really lacked teeth. We found that many of them, if not most of them, had some kind of association with financial firms, but were not disclosing this when they would write their academic papers speak on the radio or on TV or give testimony.

An important source of power of the bankers' club is that bankers can threaten to fail if we don't bail them out. They can threaten to leave—to move to London, Frankfurt, Hong Kong, or Shanghai—if we don't give them what they want. So this threat is the ultimate "club" that the bankers hold over our heads, and they use that all the time in the fight over financial reform.

On top of that, there's an important member of the bankers' club that in the 1930s wasn't a member—nonfinancial corporations. This time around, if you look at the fight over Dodd-Frank, you find very little opposition to banks from other members of the capitalist class. They were either silent or supported the banks. This is a big contrast to the 1930s when a lot of industrial firms did not support the banks, and in fact joined with FDR on financial regulation. Why is this? Why didn't we see more opposition from other capitalists to what the banks had done? After all, what the banks did led to this massive recession and hurt profits, at least initially, created all sorts of problems for nonfinancial corporations—and yet they supported the banks. Part of the answer may be that nonfinancial corporations have now become financialized themselves. The CEOs of these corporations get a lot of their incomes and wealth through stock options and other kinds of financial activities. Some nonfinancial firms have large financial components themselves. GE, for example, is now spinning off its financial subsidiary, GE Capital. But for many years it was getting quite a lot of income from GE Capital. And it's not just GE but also many other large nonfinancial corporations.

So there was a united front among the capitalists to oppose strong financial reform. Finance had plenty of money to buy off politicians. And while there was strong and valiant effort on the part of Americans for Financial Reform, Better Markets, some academic economists who were opposing what the banks did, and important roles played by Elizabeth Warren and some other senators—it just wasn't enough, given this united front of capitalists, the money machine, and the academic economists who were giving legitimacy to what the banks were doing.

That brings us to the question of a reform agenda for now. We've heard a lot about the need for re-regulation of finance, with an eye toward the restoration of the boring banking of the 1950s-1970s. The other question is whether the functions of finance require capitalist banks at all, even within a capitalist economy. Could all the functions of finance be done better by public and cooperative financial institutions, rather than private capitalist banks?

The way I've been thinking about it is that we need both—that they're complements to each other. Short of complete overthrow of capitalism, and having a totally socialist economy, which is unlikely to happen in the immediate future, what I think we should argue for is both reregulation of private finance and a much stronger push for what I call "banks without bankers." We need to have re-regulation of private finance as long as it continues to exist, for two reasons.

First, as we've seen—and as John Maynard Keynes and Hyman Minsky and others argued private finance can create a lot of problems if it's not regulated. As Keynes put it, when "enterprise is a bubble on a whirlpool of speculation," we're in big trouble. You have to bring private finance under control so that it can't continue to generate these massive bubbles and then crashes, which create enormous problems for workers and for households all over the world.

Second, as long as there's private finance out there and the bankers are making enormous profits and incomes, not only does that generate a worsening of the income distribution—it's an engine for inequality—it also makes it hard to have a stable and productive public financial sector. If you have public or cooperative banks, and you have people running those institutions and they think of themselves as financiers or bankers, and they realize that they could jump ship and work for the private financial sector and make five, ten, fifteen, twenty times what they're making in the public interest, this can be extremely tempting. Or it can get them to reorient the activities that they engage in to make them more profitable and look more like private banks. This is what happened to a number of public financial institutions around the world in the run-in up to the financial crisis. The first financial institution that really got into trouble, or one of the first, was a Landesbank, a regional provincial public bank in Germany that was supposed to be making boring banking investments, but instead was making roaring banking investments, because they wanted to keep up with the private financial institutions.

You can't let there be too big a gap between the activities and the incomes and pay between the public sector and the private sector if the public sector is going to do the job it needs to do. Of course, you can have a gap, and it can be somewhat large, but it can't get as big as it got in the 2000s. So for both of those reasons I do think that we do need to control private finance.

But in order to break up the bankers' club and to provide the real kind of finance that society needs, we do need to promote more cooperative finance and public finance. How do you do that? Well, there are a bunch of different ways. For example, there's the State Bank of North Dakota, and there are a number of organizations that are trying to promote state banks in other states. I know there's been an organization in Massachusetts, for example, that's been trying

to do this. There are credit unions all over the country, so building the credit unions by having a national credit union bank to support them. These are all things that should be done.

The government should stop subsidizing the "too big to fail" banks by bailing them out. This lowers the cost of funds for these banks, allows them to grow larger and squeeze out cooperative and other kinds of community banks. So the government should end too big to fail as a way to make more room for these other kinds of public and cooperative banks. The Federal Reserve could serve as a backstop for these types of banks, by agreeing to act as a lender of last resort, to let them use their securities as collateral for borrowing. So there are all different kinds of ways that the government could support the creation or expansion of these sorts of institutions.

I think that's necessary for us to get out of the trap that we're in.

Title: Financialization Has Turned the Global Economy Into a House of Cards. Interview Gerald Epstein Author: C. J. Polychroniou From: Truth Out Date: July 23, 2017

To rein in financial instability and other destructive financial practices, we not only must reregulate finance -- we must develop more public options in finance.

Contemporary capitalism revolves around neoliberalism, globalization and financialization, with the latter being the dominant force in this triad. Yet, there is still confusion about the nature and dynamics of financialization, including its impact on the economy. What is clear, however, is that capitalism has become quite prone to regular and systemic crises under financialization as the system now thrives ever increasingly on debt and quick profits. In this interview, professor of economics and co-director of the Political Economy Research Institute at the University of Massachusetts at Amherst, Gerald Epstein, a leading authority on financialization, sheds light on finance capital and why it needs to be brought under control.

Since the 1980s, the financial sector and its role have increased significantly, allowing us thereby to speak of the financialization of the economy. In your view, what's the best way to define financialization, and does it represent a distinct stage in the evolution of capitalism?

"Financialization" is the latest, and probably most widely used term by analysts trying to "name" and understand the contemporary rise of finance and its powerful role. The term had been developed long before the crisis of 2008 but, understandably, since the crisis hit, it has become even more popular. This vast and rapidly expanding literature on financialization has a number of important strands....

I have defined the term quite broadly and generally as: "The increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies." This definition focuses on financialization as a process, and is quite agnostic on the issue of whether it constitutes a new mode of accumulation or broadly characterizes an entire new phase of capitalism. Broad definitions like mine have the advantage of incorporating many features, but have the disadvantage, perhaps, of lacking specificity....

Another important debate is on the periodization of "financialization." Is it only a recent phenomenon -- say, important since the 1980s? Or does it go back at least 5,000 years, as Malcolm Sawyer has suggested? If it goes back a long time, does it come in waves, perhaps linked with broader waves of production, commerce and technology, or is it a relatively independent process driven by government policy, such as the degree of financial regulation or liberalization? [Italian scholar of political economy and sociology Giovanni] Arrighi famously argued that over the course of capitalist history, financialization tends to become a dominant force when the productive economy is in decline, and when the dominant global power (or "hegemon") is in retreat. Think, for example, the early 20th century when Great Britain was losing power relative to Germany and the US, and the UK economy was stagnating. This was a period also of a great increase in financial speculation and instability.

In this way of thinking, financialization represents a new phase of capitalism, perhaps one that signals a decline in the power of the hegemonic country, in this case, the United States.

I hesitate to make such a sweeping claim. I think it is clear that financialization is a highly important phenomenon that is having big impacts on our economy. Does it define our epoch? This is a crowded stage. Financialization can cause massive problems, but unlike climate change, it is not likely to destroy the planet.

In saying this, does it mean that we can speak of the macroeconomics of financialization? And if so, how does financialization impact on investment, consumption and distribution?

Yes. There has been important research on the macroeconomics of financialization. Eckhard Hein and Til Van Treeck from Berlin, Tom Palley of the US and Engelbert Stockhammer from the UK have been among the forerunners in this research area. These researchers identify three key channels through which financialization can affect macro variables and outcomes: 1) The objectives of firms and the restrictions that finance places on firm behavior; 2) New opportunities for households' wealth-based and debt-financed consumption; and 3) The distribution of income and wealth between capital and labor on the one hand, and between management and workers on the other hand.

Financialization almost always increases inequality. In addition, it almost always leads to financial instability and even crises.

The net effect of these factors can mean that financialization can lead to economic expansion or stagnation, depending on the relative size of these factors. But it almost always increases inequality. In addition, it almost always leads to financial instability and even crises.

Empirical work has looked at more specific impacts. Much of the macroeconomic literature on financialization concerns the impact of financialization on crucial macroeconomic outcomes, such as economic growth, investment, productivity growth, employment, stability and income distribution. Stockhammer pioneered the theoretical analysis of the impact of financialized manager motives on investment. He showed that finance-oriented management might choose to undertake lower investment levels than managers with less financialized orientations. [Lecturer in the department of economics at the University of Massachusetts at Amherst] Özgür Orhangazi used firm level data to study the impact of financialization on real capital accumulation in the United States. He used data from a sample of non-financial corporations from 1973 to 2003, and finds a negative relationship between real investment and financialization.

[Assistant professor of economics at Middlebury College] Leila Davis provided further evidence of negative impact of financialization on real investment. Her results are consistent with the concerns expressed by heterodox analysts and others that financialization will tend to reduce real investment.

Many chief financial officers are willing to sacrifice longer-term investments in research and development in order to meet short-term earnings per share targets.

An increasing chorus of analysts have expressed concerns that "short-termism" associated with financialization may be coming at the expense of investments in human capital, research and development, employment and productivity growth. In a set of surveys of corporate managers, economists have shown that many chief financial officers are willing to sacrifice longer-term investments in research and development and hold on to value employees in order to meet short-term earnings per share targets. Other empirical studies show that managers are willing to trade off investments and employment for stock repurchases that allow them to meet earnings per share forecasts. [In their book Private Equity at Work: When Wall Street Manages Main Street] Eileen Appelbaum and Rosemary Batt find in a survey of econometric studies of private equity firms that especially large firms that use financial engineering to extract value from target companies have a negative impact on investment, employment, and research and development in these companies. In short, there is significant empirical evidence that "short-termism" and other aspects of financial orientation have negative impacts on workers' well-being, productivity and longer-term growth.

In the US, the top earners -- the 1% or even .01% -- get the bulk of their incomes from CEO pay or from finance.

This raises the issue of the overall impact of financialization on income distribution. There has been some empirical work to look at the impact of financialization on income and wealth distribution. Descriptive analysis in the US indicates that the top earners -- the 1% or even .01% of the income distribution -- get the bulk of their incomes from CEO pay or from finance.

There has also been interesting research on the relationship between financialization and economic growth. As the massive recession stemming from the great financial crisis makes clear, there is no linear relationship between the size and complexity of financial markets and economic growth. Several econometric studies have suggested an inverted U-shaped relationship between the size of the financial sector and economic growth. A larger financial sector raises the rate of economic growth up to a point, but when the financial sector gets too large relative to the size of the economy, economic growth begins to decline. To the extent that this relationship is true, economists are still searching for the explanation. One argument is that as the financial sector increases in size, because of its relatively high pay levels, it pulls talented and highly educated employees away from other sectors that might contribute more to economic growth and productivity. As a university professor teaching economics since the 1980s, I can verify that many of my undergraduate students had the dream of going to work on Wall Street. Perhaps some of them could have contributed more elsewhere.

Adding up all these factors in the case of the United States, Juan Montecino and I estimated that, at the margin, the US financial sector in its current configuration has had a net negative on the US economy. We estimate that it has cost the US economy as much as \$22 trillion over a 30-year period.

Is financialization linked to globalization?

Yes, definitely. In fact, modern globalization has, as one of its key components, a massive amount and increase in the level of financial transactions of all kinds. To take one stark measure, according to the Bank for International Settlements (BIS), there were \$5.1 trillion in foreign exchange trades per day in 2016, compared with only \$80 billion of trades in goods and services per day. In short, there are more than \$6 of foreign exchange trading for every \$1 of foreign trade. What's being done with all this foreign exchange trading? Presumably, the buying and selling of foreign financial assets and liabilities -- much of this for speculation. The interconnection -- financialization and globalization in this sense -- is so intertwined that for years, mainstream economists and some policymakers have been referring to the current era in financial economic relations as one of "financial globalization" -- even before the term "financialization" became popular. Another clear sign of the global nature of "financialization" comes from the international nature of financial crises in recent decades -- the most recent one being the great financial crisis of 2008. In this case, European banks in particular were greatly implicated in the deals that led up to the crisis, and a number of them are still paying the price.

But it is not just the international banks that are involved in global aspects of financialization. Much of global investment by multinational corporations (MNCs) have highly financialized components to them. The New School's William Milberg and his co-author, Deborah Winkler, have written a terrific book called Outsourcing Economics that describes the financial activities of MNCs. They argue that these financial activities can sometimes support real investment that creates jobs and enhances productivity, but that much of it can also be engaged in other, less productive activities, such as tax evasion through the purchasing of financial assets or other financial dealings, and also various forms of financial speculation. [For further information, see: "Financialization: There is Something Happening Here"; Citizens for Tax Justice; Nicholas Shaxson's Treasure Islands; Uncovering the Damage of Offshore Banking and Tax Havens; and James Henry, who has written widely on global aspects of the financial underground.]

There have been scores of financial crises from the late 1970s onwards, more than any other time in the history of capitalism, with the financial crisis of 2008 having by far the most destabilizing effects. What makes financialization such a destabilizing force?

Finance is inherently destabilizing because it is based on a promise about the future that can be reneged on, or just plain miscalculated.

For centuries, finance and banking have been associated with financial crises, both domestic and international. The late, great economic historian Charles Kindleberger wrote in his famous book Manias, Panics and Crashes that international financial crises are a "hardy perennial." Going back to the 16th century, Kindleberger estimated that a financial crisis happened someplace in the world once every seven years on average.

Finance is inherently destabilizing because it is based on a promise about the future that can be reneged on, or just plain miscalculated, since, as Keynes reminded us, the future is highly uncertain. And finance can easily lead to a whole chain of fragile interconnections through the economy which can come down like a house of cards. Now this would not matter much if finance wasn't important to the operations of modern economies, but it is. And this is especially true of "financialized economies" ... in financialized economies, finance has become more and more central to the operations of the economy ... finance has insinuated itself into almost every nook and cranny, and so, when something goes wrong, the vulnerability can spread and wreak havoc. And I am not talking only about instability and crises, but also about destructive aspects of the everyday operations of the economy.

Interestingly, economists Carmen Reinhart and Kenneth Rogoff showed in their book This Time is Different: Eight Centuries of Financial Folly, this cycle was interrupted in the first 35 years or so after the Second World War, when there was virtually no financial crisis anywhere in the world. Why was this the case? The reason was that private finance, and especially global private finance, played a relatively small role in the period 1945-1980. This is because public finance was so important, because financial regulations were so stringent, and also because private finance had crashed so badly in the 1930s and it took decades for it to recover.

The financial deregulation pushed by the bankers and their allies in the decades following the Second World War eventually succeeded, and for the last several decades, we have been back in the world of the "hardy perennial" financial crisis.

A certain segment of the left advocates a return to the era of industrial capitalism as a means of countering the destructive effects of financialization. First, is this a realistic policy stance, and second, is it one that should be embraced by those who identify with the vision of the left for a more rational and humane socioeconomic order?

I think the impulse to bring finance under social control and reduce its role and destructive economic and political behaviors is absolutely correct and must be accomplished if we are going to make significant progress on reining in financial instability and other destructive financial practices. To do this, we need to not only re-regulate finance, but also need to develop and spread more public options in finance, what I have called "finance without financiers" -- more "stakeholder financial institutions" -- banks, savings institutions, insurance providers that are controlled by stakeholders and not shareholders.

Now that doesn't necessarily mean that these set of financial initiatives ought to be accompanied by more "industrial" activities as our salvation. This is a very complex question

that I cannot pretend to answer, especially in a short interview. But suffice it to point out the obvious problem that we are faced with: an existential threat of climate change. This means that our economic alternatives must confront this problem. As my colleague Robert Pollin and his colleagues have shown, a significant push in the US and elsewhere toward the production of renewable energy and energy conservation can have many corollary benefits, including job creation and reduction in income inequality. It is these initiatives that a reformed and revitalized finance can help to promote and that we should focus on, especially in the US and other rich countries.

One final question: Before the next financial crisis erupts, as it will surely erupt, what signs in the economy should we be looking for in order to predict it?

While it is true that no two financial crises are ever exactly the same, and that massive crises like the one we had in the 1930s and then again in 2007-2008 are infrequent, there are, nonetheless, a few common signs to watch out for.

First, massive increases in private debt in relation to the size of the economy. High levels and large increases in "leverage," as this debt ratio is called, has been shown to be one clear sign of financial vulnerability.

Second, big asset bubbles, such as we saw in the housing market in 2004-2007, or that we saw in the US stock market in the 1920s, or in tulips in Amsterdam in the 17th century -- these can be very dangerous because they are usually fed by massive increases in debt -- the first point above -- which leads to dangerous interconnections and the building of a financial house of cards.

Finally, complacency. The idea that "this time is different," we have reached a "new age," such that bubbles and massive increases in private debt aren't dangerous this time because of some new invention or strategy ... these self-delusional ideas are always present in the buildup to crisis, and are always wrong.

Title: Don't Forget Culture Author: William Rhodes From: Breaking Views Date: July 18, 2017

The U.S. Treasury's recent 147-page report, "A Financial System That Creates Economic Opportunities," details a rollback of many of the measures imposed to make banking safe and sound after the financial crisis. The proposals include substantial weakening of the Dodd-Frank financial-reform law. At the same time, White House appointments to several bank regulatory agencies are likely to promote measures that result in reductions in bank compliance costs, capital requirements and liquidity constraints.

Right now, consideration is also being given in the euro zone to ease regulatory requirements on banks to promote more lending and add stimulus to the economy. And, in the UK, measures are also likely to lighten the regulatory burdens to incentivize banks in the City to stay in a post-Brexit Britain.

The moves toward a new era of relaxed regulation and supervision make it all the more necessary that still greater attention be given to the important issues of banking culture and conduct.

It is a decade since the financial crisis started, and public confidence in the system remains low because some large banks continue to behave improperly. A number of banks still put short-term profit maximization ahead of serving their communities and customers.

The Group of 30, an international group of public- and private-sector financial leaders, continues to monitor this situation, having published a major report two years ago that called for far-reaching reforms. The G30 has now decided to launch a further review later this year with the aim of publishing a new report in 2018. The G30's report made comprehensive reform recommendations, but implementation by a number of financial institutions has been less than satisfactory.

The UK decision to prosecute former senior executives of Barclays over alleged wrongdoing at the height of the financial crisis has again placed issues of banking integrity into the headlines. But new cases of wrongdoing abound, from recent major settlements agreed by Deutsche Bank to resolve misdeeds on both sides of the Atlantic, to the creation of fake consumer retail accounts at Wells Fargo.

The financial costs are large. Boston Consulting Group has estimated that the banks have paid \$321 billion in fines since the financial crisis for all manner of violations, including \$42 billion alone in 2016. And the cost is still rising in 2017, with RBS being ordered to pay \$5.5 billion for miss-selling most recently. Investors should view cultural failure as material to the profitability and long-term success and sustainability of the banks.

As the wrongdoing continues and the fines rise, so it seems at times as if some bankers believe that the enormous settlements are just a cost of doing business. Bank employees and board directors who take this view should be replaced.

I believe there are bankers who do not appreciate that cultural reform needs to be a continuous process, not a single destination at which point they can announce "job done." There are also some senior bankers who make the right integrity statements in public, but their actions speak louder – especially when they appear to be more interested in their compensation.

CEOs who constantly blame a few rogue employees every time another set of illegal or unethical actions is exposed are sending the wrong message. They need to take responsibility and place more importance on the culture and conduct of their institutions.

And one crucial area that needs to be addressed is whistle-blowing. Employees who see abuse must be encouraged to believe that if they speak up they will be listened to, not victimized. They must be confident that their actions are treated confidentially, rather than fear management actions to unmask them. They can be a positive force for sound risk management, but if they believe both that they will be ignored and that they have reason to fear their supervisors, then, as happened at Wells Fargo, they will first inform the press or regulators. Only after the full scandal erupted did the Wells Fargo board acknowledge that top management was to blame for the extensive wrongdoing that damaged customer trust in the bank and, more generally, its overall reputation.

A corporation's culture is a unique blend of tradition, history and values – it cannot be imposed by laws and regulatory decrees. But regulators, by gathering experiences from many firms, can provide insights and exchange information on best practices in this area with boards of directors and senior managers – and they need to do more of this.

The new U.S. Treasury report for financial deregulation contains a section on the Consumer Financial Protection Bureau that was established under Dodd-Frank and that took the lead in the recent Wells Fargo case. The Treasury's plans call for curbs on the CFPB's powers, its reach and its independence. But there is not a single mention in the report of the importance of banking culture and conduct.

Having worked in a major bank for my entire professional career I understand why so many bankers complain of regulatory overreach and are likely to welcome further deregulation. However, if banks do not address the deficits in reputational management and conduct, then there will be a future backlash – more regulation, more shareholder anger, and a further public decline in public confidence.

Title: Deutsche Bundesbank Exposes the Lies of Mainstream Monetary Theory Author: Bill Mitchell From: Author's personal blog Date: April 26, 2017

On one side of the Atlantic, it seems that central bankers understand the way the monetary system operates, while on the other side, central bankers are either not cognisant of how the system really works or choose to publish fake knowledge as a means to leverage political and/or ideological advantage. Yesterday, the Deutsche Bundesbank released their Monthly Report April 2017, which carried an article – Die Rolle von Banken, Nichtbanken und Zentralbank im Geldschöpfungsprozess (The Role of Banks, Non-banks and the central bank in the money-creation process). The article is only in German and provides an excellent overview of the way the system operates. We can compare that to coverage of the same topic by American central bankers, which choose to perpetuate the myths that students are taught in mainstream macroeconomic and monetary textbooks.

Today's blog will also help people who are struggling with the Modern Monetary Theory (MMT) claim that a sovereign government is never revenue constrained because it is the monopoly issuer of the currency and the fact that private bank's create money through loans. There is no contradiction. Remember that MMT prefers to concentrate on net financial assets in the currency of issue rather than 'money' because that focus allows the intrinsic nature of the currency monopoly to be understood.

A succinct summary of the full article in the Deutsche Bundesbank's Monthly Review can be found here (again in German) – How money is generated (published April 25, 2017).

The full article begins by noting that during the GFC, the ECB and its national central bank partners (in the Eurosystem) ran a very expansionary monetary policy which "caused a sharp increase in the central bank assets of the (commercial) banks in the euro area".

These assets are what we call bank reserves.

Please note the quotes begin and end where I have translated the German. For brevity, I will typically not include the original German text.

But, "the annual growth rate of the money supply M3" (that is, broad money) has "nevertheless remained at a moderate level over the last two years, which has rekindled the interest in the links between the creation of central bank deposits and the growth of broader money supply". In most university courses on banking, money and macroeconomics, students are taught what I call fake knowledge (aka lies).

By way of summary:

1. The mainstream textbooks claim that the money multiplier transmits changes in the so-called monetary base (the sum of bank reserves and currency at issue) into changes in the money supply (M).

2. By controlling the monetary base, the central bank then is alleged to control the broader money supply, via the money multiplier, which is a formula that depends on various monetary parameters (required reserves, cash-to-deposit ratio etc).

3. The 'money creation' causality is alleged to be as follows: Say \$100 is deposited in a bank (which is constructed as a financial intermediary seeking deposits in order to loan them out), which is required by the central bank to hold 10 per cent in reserves. The bank loans out \$90 which is then deposited elsewhere and that deposit receiving bank then loans out 90 per cent of that (\$81) and so on.

4. The "important job" of the central bank (according to Mankiw's textbook) "is to control the quantity of money that is made available to the economy, called the money supply. Decisions by policymakers concerning the money supply constitute monetary policy (emphasis in original).

5. Mankiw claims the central bank maintains that control by conducting "open market operations – the purchase and sale of ... government bonds" and can deprive banks of deposits (reducing bank reserves) by selling bonds, which reduces the money supply and vice versa.

6. The mainstream also believe that an increase in bank reserves is immediately translated into a multiplied into a larger increase in the broad money supply because banks have more 'money' to loan out.

7. It follows that the central bank is responsible for causing inflation because the mainstream allege that inflation is the result of excessive growth in the money supply.

All of which is fake knowledge.

The Bundesbank clearly understand the false nature of the mainstream story as has the Bank of England and some divisions of the Federal Reserve Bank in the US.

For example, please read:

1. The New York Federal Reserve Bank's 2008 paper – Divorcing Money from Monetary Policy.

2. The Bank of England's 2015 working paper – Banks are not intermediaries of loanable funds – and why this matters.

The Bundesbank article seeks to address the links (if any) between bank reserves and broad money and also analysis the claims that banks (credit institutions) should cover 100 per cent of their deposits with reserves, a populist proposal of late.

The Bundesbank start by noting that commercial banks create most of the broad money supply via transactions with their customers.

They emphasise that when a credit worthy customer seeks a loan, the commercial bank approval creates, with the stroke of a pen (or computer key) a deposit (a credit to a bank account).

This is, of course, the familiar MMT statement: Loans create deposits.

Why that is important to understand (getting the causality right) is that it negates the mainstream view of the bank as an intermediary who waits for customers to make deposits before it loans them out again.

The Bundesbank establishes two important principles at the outset.

First:

Das widerlegt einen weitverbreiteten Irrtum, wonach die Bank im Augenblick der Kreditvergabe nur als Intermediär auftritt, also Kredite lediglich mit Mitteln vergeben kann, die sie zuvor als Einlage von anderen Kunden erhalten hat

Which means that the central bankers clearly understand that the commercial banks are not intermediaries in the way depicted in the mainstream monetary theory.

Second:

Ebenso sind vorhandene überschüssige Zentralbankguthaben keine notwendige Voraussetzung für die Kreditvergabe (und die Geldschöpfung) einer Bank.

That existing reserves (excess or otherwise) are not a prerequisite for lending (and money creation) by the commercial banks.

That position was also supported by the Bank of England in the paper cited above. They said: The currently dominant intermediation of loanable funds (ILF) model views banks as barter institutions that intermediate deposits of pre-existing real loanable funds between depositors and borrowers. The problem with this view is that, in the real world, there are no pre-existing loanable funds, and ILF-type institutions do not exist.

They said:

... in the real world, there is no deposit multiplier mechanism that imposes quantitative constraints on banks' ability to create money in this fashion. The main constraint is banks' expectations concerning their profitability and solvency.

The BoE paper correctly noted that:

... banks technically face no limits to increasing the stocks of loans and deposits instantaneously and discontinuously does not, of course, mean that they do not face other limits to doing so. But the most important limit, especially during the boom periods of financial cycles when all banks simultaneously decide to lend more, is their own assessment of the implications of new lending for their profitability and solvency.

Banks lend if they can make a margin given risk considerations. That is the real world. If they are not lending it doesn't mean they do not have 'enough money' (deposits). It means that there are not enough credit-worthy customers lining up for loans.

Banks lend by creating deposits and then adjust their reserve positions later to deal with their responsibilities within the payments system, knowing always that the central bank will supply reserves to them collectively in the event of a system-wide shortage.

The Bundesbank notes that the money-creating capacity of the commercial banks is finite ("Unendlich sind die Geldschöpfungsmöglichkeiten der Geschäftsbanken allerdings nicht.") Why? Because there are regulutions (capital adequacy) and "not least by the profit maximisation calculus of the bank's themselves ... a bank needs to finance the created loans despite its ability to create money, since it require central bank reserves to settle transactions drawn on the deposits they create".

How it finances the loans depends on relative costs of the different available sources. As costs rise, the capacity to make loans declines.

The banks' capacity to create money is also "is limited by the behavior of companies and households, in particular by their credit demand and investment decisions" ("Die Geldschöpfungsmöglichkeiten des Bankensystems werden zudem durch das Verhalten von Unternehmen und Haushalten begrenzt, insbesondere durch ihre Kreditnachfrage sowie ihre Anlageentscheidungen.").

MMT adopts the endogenous money theory that is the hallmark of the Post Keynesian approach, and, stands in stark contradistinction to the mainstream monetary theory of exogenous money (that is, central bank control of the money supply).

The mainstream monetarist approach claims that the money supply will reflect the central bank injection of high-powered (base) money and the preferences of private agents to hold that money via the money multiplier. So the central bank is alleged to exploit this multiplier (based on private portfolio preferences for cash and the reserve ratio of banks) and manipulate its control over base money to control the money supply.

It has been demonstrated beyond doubt that there is no unique relationship of the sort characterised by the erroneous money multiplier model in mainstream economics textbooks between bank reserves and the "stock of money".

When we talk about endogenous money we are referring to the outcomes that are arrived at after market participants respond to their own market prospects and central bank policy settings and make decisions about the liquid assets they will hold (deposits) and new liquid assets they will seek (loans).

The essential idea is that the "money supply" in an "entrepreneurial economy" is demanddetermined – as the demand for credit expands so does the money supply. As credit is repaid the money supply shrinks. These flows are going on all the time and the stock measure we choose to call the money supply, say M3 is just an arbitrary reflection of the credit circuit.

So the supply of money is determined endogenously by the level of GDP, which means it is a dynamic (rather than a static) concept.

Central banks clearly do not determine the volume of deposits held each day. These arise from decisions by commercial banks to make loans.

The central bank can determine the price of "money" by setting the interest rate on bank reserves. Further expanding the monetary base (bank reserves) as we have argued in recent blogs – Building bank reserves will not expand credit and Building bank reserves is not inflationary – does not lead to an expansion of credit.

The Bank of England paper is categorical:

The deposit multiplier (DM) model of banking suggests that the availability of central bank high-powered money (reserves or cash) imposes another limit to rapid changes in the size of bank balance sheets. In the deposit multiplier model, the creation of additional broad monetary aggregates requires a prior injection of high-powered money, because private banks can only create such aggregates by repeated re-lending of the initial injection. This view is fundamentally mistaken. First, it ignores the fact that central bank reserves cannot be lent to non-banks (and that cash is never lent directly but only withdrawn against deposits that have first been created through lending). Second, and more importantly, it does not recognise that modern central banks target interest rates, and are committed to supplying as many reserves (and cash) as banks demand at that rate, in order to safeguard financial stability. The quantity of reserves is therefore a consequence, not a cause, of lending and money creation.

The Bundesbank article makes it clear that bank lending is not reserve-constrained.

Geldschöpfung erfolgt zunächst unabhängig von bestehenden Zentralbank-guthaben der Banken ... Geldschöpfung zeigt im Besonderen, dass die Kreditvergabe grundsätzlich ohne vorherige Zu üsse von Kundeneinlagen statt finden kann.

Or, "Money is first created independent of the banks' existing bank balances ..." at the central bank and that bank "lending can always take place without prior inflow of customer deposits."

The Bundesbank says that this insight:

Dies widerlegt einen weitverbreiteten Irrtum, wonach die Bank im Augenblick der Kreditvergabe nur als Intermediär auftritt, also Kredite lediglich mit Mitteln vergeben kann, die sie zuvor als Einlage von anderen Kunden erhalten hat.

Or, this insight "rejects the widespread error" that sees the bank as a intermediary allocating loans with funds "previously received as deposits from other customers".

So the idea that building up central bank balances (reserves) will enable commercial banks to expand loans is dismissed as lies as is the idea that the bank relies on deposits to make loans – two central propositions of mainstream monetary theory that MMT has exposed in the past. This also bears on the arguments early in the crisis that Quantitative Easing would help to expand loans because it would expand bank reserves.

It also rejects the mainstream claim that bank reserves are loaned out.

Banks do not lend out reserves and a particular bank's ability to expand its balance sheet by lending is not constrained by the quantity of reserves it holds or any fractional reserve requirements that might be imposed by the central bank.

Loans create deposits, which are then backed by reserves after the fact.

Building up reserves at the central bank does nothing to enhance the capacity of the commercial banks to make loans, which is why there is no direct link between the central bank balance sheet and the broad money supply measures.

Compare that to the narrative provided by the Federal Reserve Bank of Minneapolis in its December 2015 issue of The Region, an in-house publication – Should We Worry About Excess Reserves (December 17, 2015).

I analysed that article in this blog, a few days after it was published – Central bank propaganda from Minneapolis.

I concluded that the article suggested that the author hasn't really been able to see beyond his intermediate macroeconomics textbook and understand what is really been going on over the last several years.

It was all about how the excess reserves in the US banking system were a time bomb because the banks now had a massive extra capacity to make loans and this "greater liquidity is associated with higher prices".

The standard Monetarist lies.

The banks do not loan out reserves to retail customers. They shuffle them between themselves to cover daily shortfalls in liquidity in order to ensure all the transactions are settled (cheques do not bounce) but that is it.

The Bank of England also highlighted the:

... related misconception ... that banks can lend out their reserves ... Reserves can only be lent between banks ... consumers do not have access ... [to central bank reserve accounts].

This insight is also confirmed in an interesting article published in September 2008 by the Federal Reserve Bank of New York in their Economic Policy Review entitled – Divorcing money from monetary policy.

We learn that commercial banks require bank reserves for two main reasons. First, from time to time, central banks will impose reserve requirements, which means that the bank has to hold

a certain non-zero volume of reserves at the central bank. Most nations only require the banks to keep their reserves in the black on a daily basis.

Second, the FRNBY states that "reserve balances are used to make interbank payments; thus, they serve as the final form of settlement for a vast array of transactions".

There is daily uncertainty among banks surrounding the payments flows in and out as cheques are presented and other transactions between banks are accounted for.

The banks can get funds from the other banks in the interbank market to cover any shortfalls, but also will choose to hold some extra reserves just in case. If all else fails the central bank maintains a role as lender of last resort, which means they will lend reserves on demand from the commercial banks to facilitate the payments system.

The Bank of England also concludes that the existence of new reserves, even if they are well in excess of the banks' requirements to operate an orderly clearing system, "do not, by themselves ... change the incentives for the banks to create new broad money by lending".

The question then is, why are students in our universities forced to learn material that has no foundation in the system they are purporting to understand? The answer is that the educational opportunity is replaced by a propaganda exercise to suit ideological agendas.

The other question is, why does a branch of the Federal Reserve Bank in America allow an author to publish such misrepresentations of the way the banking system operates?

Finally, what about 100 per cent reserve regulations?

I have written about this in this blog – 100-percent reserve banking and state banks.

The Bundesbank paper notes the tension in the public debate where there are calls for a 100 per cent reserve system to be imposed as part of banking reform.

The claim is that by restricting the credit creation capacity of banks (the fractional reserve system noted above), the banks would be more stable and there would be less chance of crisis. So if banks had to always have reserves equal to their loan book then stability would be enhanced.

But the Bundesbank is as on to that nonsense as MMT is.

It emphasises that banks make loans which create deposits in response to demands from credit worthy customers (borrowers).

So forcing banks to hold reserves equal to their loan book would have "little effect on the banks' credit facilities".

The provision of bank reserves is not really a choice factor for the central bank unless it desires to run a zero interest rate policy or is willing to pay interest on excess reserves.

So if the banks are making loans which then have to be backed by reserves, the central bank has to ensure there is sufficient liquidity in the system to accompany that level of banking activity or else lose control of its short-term policy interest rate.

The Bundesbank note that the only way to restrict credit creation is for:

In einem System der vollständigen Deckung von Sichteinlagen durch Zentralbankgeld müssen vielmehr zusätzlich die institutionellen Voraussetzungen oder bestehende Regulierungsvorschriften so geändert werden, dass eine Geldschöpfung durch Geschäftsbanken de facto nicht mehr möglich ist.

Or, "the institutional requirements or existing regulatory regulations must be modified in such a way that it is no longer possible to create money by commercial banks."

Which would represent a major break on economic activity and largely undesirable consequences.

There is a case (which we outline in our upcoming book) for the nationalisation of banks. But to only allow banks to loan out deposits it has already gleaned is highly restrictive and would certainly limit economic activity.

Conclusion

The Bundesbank article is worth reading (if you handle German okay). I have summarised its main message which is becoming a common narrative from the more enlightened central banks. Unfortunately, there are still nonsensical claims coming out of some divisions of the central bank in the US but they are becoming a minority.

But, still the classrooms continue to make these nonsensical misrepresentations of the way the banking system operates, which only serve to condition students attitudes in favour of poor and irresponsible macroeconomic policies, of the sort that have led to and prolonged the crisis.

The academy is slow to change unfortunately.

Title: How Market Power Leads to Corporate Political Influence Author: Asher Schechter From: ProMarket Date: July 12, 2017

Neoclassical economic theory assumes that firms have no power to influence the rules of the game. A new paper by Luigi Zingales argues: This is true only in competitive product markets. When firms have market power, they will seek and obtain political influence and vice versa.

In 2016, the advocacy group Global Justice Now published a report showing that 69 of the world's largest 100 economic entities are now corporations, not governments. With annual revenues of \$485.9 billion, Walmart topped all but nine countries. As the world's corporations continue to grow bigger and more profitable, so does the power and influence they wield: multinational corporations employ vast armies of lobbyists, lawyers, and PR people across borders and continents, and they have more than enough resources to capture regulators and elected representatives the world over.

Yet, the prevailing economic definition views firms as merely "a nexus of contracts" with "no power of fiat, no authority, no disciplinary action any different in the slightest degree from ordinary market contracting between two people." How is it possible to reconcile these two views? A new paper by Luigi Zingales (Faculty Director of the Stigler Center and one of the editors of this blog) tries to bridge this gap.

The Medici vicious circle

The neoclassical model of the firm, notes Zingales, is a reasonable description of firms operating in highly competitive markets, where firms have little incentives and fewer resources to distort the rules of the game. Little incentives because in a neoclassical framework firms are relatively small, and thus the costs of these activities tend to exceed their share of the benefits. Fewer resources, because a competitive market does not provide firms with abnormal profits to spend in lobbying activities.

The opposite is true in concentrated markets, where firms enjoy sufficiently high profits to spend in lobbying activity. Some market power is particularly important to gain political influence when cash bribes are relatively rare, writes Zingales. In such an environment, firms gain political power through promises of future benefits. Only if firms have significant market power do they have rents to allocate. At the same time, firms' promises of future rents are credible only to the extent that firms are expected to be around in the future, a prospect greatly enhanced by the existence of some barrier to entry in the markets in which they operate. Thus, firms can gain political power only when they have significant market power.

If market power is needed to acquire political influence, political influence is needed to protect market power. In fact, whenever prices are greater than marginal cost, the government can intervene to appropriate part of the difference, without affecting the quantity of goods produced. Consistently, writes Zingales, governments tend to expropriate firms only when they enjoy rents due to the ownership of scarce natural resources (e.g., oil) or natural

monopolies (as the postal service was historically). In democratic regimes there is a political justification to expropriate monopolistic firms: the government can claim that it does so to redress market distortions. Thus, firms with market power fear expropriation the most, and therefore they will try to control the government as a preemptive move, to avoid ending up being owned by the government.

In sum, market concentration can easily lead to what Zingales refers to as the "Medici vicious circle." Named after the banking family that ruled Florence throughout the Italian Renaissance, the Medici vicious circle can be summed up as: "money is used to gain political power and political power is then used to make more money."

A balance between state and private power

Is it necessarily bad for firms to have political power? The more a state is predatory, the more firms need political influence to prevent political expropriation, contends Zingales. But the more political influence firms have, the more the state will meddle with the economy, transforming itself from an impartial arbiter to an arbitrary dictator.

The ideal state of affairs, writes Zingales, would be a balance between the power of the state and the power of firms. "A state that is too weak is unable to enforce property rights, and as a result, firms will either resort to enforcing these rights by themselves (through private violence) or collapse. If a state is too strong, rather than enforcing property rights it will be tempted to expropriate from firms," he argues. On the other hand, if firms are too powerful, "they may end up shaping the definition of property rights and its enforcement in their own interest and not in the interest of the public at large." Finding a balance between the two hinges on the existence of a strong, impartial administrative state and a competitive private sector economy. Perfect balance is unattainable, given the various tradeoffs involved with each approach, writes Zingales, but there are countries that are relatively close to that ideal, like the Nordic countries and the U.S. during the latter half of the 20th century. While the United States does relatively well in international and historical comparisons, this result should not be taken for granted.

The last two decades have seen a significant decline in competition across most sectors of the U.S. economy. In conjunction with the rise in concentration, political engagement by corporations has grown substantially. To mitigate the risks of the United States falling into a Medici vicious circle, Zingales proposes several reforms, such as improvements in corporate democracy, better rules against revolving doors, and more attention to the risk that economists end up being captured by corporate interests.

A key policy tool would be a more aggressive enforcement of antitrust laws. "The size of many corporations exceeds the modern state. As such, they run the risk of transforming small- and even medium-sized states into modern versions of banana republics, while posing economic and political risks even for the large high-income economies," he writes.

Yet the single most important remedy, argues Zingales, may be raising public awareness. The ultimate genius of democracy is to extract some crucial economic decisions from the hands of vested interests and allocate them to the public at large. This transfer, however, does not deliver the desired outcome if the public is not aware of the risks it faces.

Without public awareness of the risks that the U.S. political system is facing today, the possibility of a Medici vicious circle looms large. By the time the Medicis' rule ended, notes Zingales, Florence had turned from one of Europe's most industrialized and powerful cities to a marginal province occupied by a foreign empire. "At least the Medici period left some

examples of great artistic beauty in Florence," he remarks. "I am not sure that the market capitalism of the 21st century will be able to do the same."

Title: European Union – More Integration is Still the Right Goal for Europe Author: Karl Lamers and Wolfgang Schäuble From: Financial Times Date: August 31, 2014

Ideally, Europe would be a political union. As such it would be best placed to meet the challenges of the 21st century in a way that serves its own interests. This was also the original idea behind the move to bring about European unity after the second world war. Those efforts were stymied as early as 1954, when the French National Assembly failed to ratify the European Defence Community. As a result, the decision was made to focus on economic co-operation. This enjoyed legitimacy: the people of Europe rightly expected rising prosperity.

Since then, the project of European integration has been a process in which each step forward has been the step that was feasible at the time. This was also the case 20 years ago when disputes arose over whether to widen or deepen the EU. In 1994, when we published "Reflections on European policy", we argued that what Europe needed first was a constitution. And second we argued that because of the varying appetites of individual member states for integration Europe had to be flexible in moving forward. But we were convinced that within this flexibility Europe needed a solid core to press forward with integration.

This became reality with the establishment of monetary union in 1999. That event was preceded by a huge debate over what should come first: political or monetary union? We said at the time: start with the monetary union and conclude a stability pact with rules that every member has to observe. But sadly Germany and France undermined the pact in 2003, setting a bad example that others followed. We all know what happened after that. Today, after much effort, we are emerging from the crisis step by step.

The task now is to keep moving forward along this path. This will include a focus on Europe's "core" – in every sense of the word. It is necessary to undertake a review of Europe's core tasks, and to distribute responsibilities in accordance with the subsidiarity principle, whereby power resides locally wherever possible – just as we argued 20 years ago. We look forward to specific proposals from the UK on these issues as well.

We believe that the EU should focus mainly on the following areas: a fair and open internal market; trade; currency and financial markets; climate, environment and energy; and foreign and security policy. In these areas lasting success can be achieved only if member states act at the European level.

EU-level action is also required to deal effectively with demographic challenges and the concomitant shortage of skilled labour. If we want to remain strong and competitive, we need enough qualified workers. The EU's fundamental freedoms will help us to achieve this aim. We must uphold the freedom of establishment – the right of people and companies to carry out business wherever they want. But even here, it is essential to set the right incentives in order to prevent "benefit tourism" and a wave of poverty-driven immigration. Levels of economic

wellbeing still diverge greatly throughout Europe; for this reason, when it comes to legislation on access to social security systems, we have to find EU-level solutions that take these differences into account.

Once responsibility for these tasks is situated where they can be tackled most effectively, each tier of government – regional, national or supranational – must be given the appropriate legislative powers and the authority to enforce the rules.

To do this, we have to revisit the EU's core institutions and procedures. Consider two proposals. Why not have a European budget commissioner with powers to reject national budgets if they do not correspond to the rules we jointly agreed? We also favour a "eurozone parliament" comprising the MEPs of eurozone countries to strengthen the democratic legitimacy of decisions affecting the single currency bloc.

However, most member states are currently unwilling to transfer additional authority to Europe. And that brings us back to the heated debates over European policy in 1954 and 1994. Then, as now, our conclusion remains the same. We must continue to advance the European project using the imperfect and incomplete instruments and institutions that we have today. To this end, our efforts in the coming years must focus on policy areas that are decisive for boosting growth and employment. This means ensuring sound public finances, continuing to regulate financial markets and to reform labour markets, deepening the internal market, concluding a transatlantic free-trade agreement and curbing harmful tax competition. And it means building an energy union and a digital union in Europe.

In order to make progress in all of these areas, we should keep using the approach that proved its mettle back in 1994: to establish cores of co-operation within the EU that enable smaller, willing groups of member states to forge ahead.

Title: Dr Schäuble's Plan for Europe: Do Europeans Approve? Author: Yanis Varoufakis From: Author's personal website Date: July 17, 2015

The reason five months of negotiations between Greece and Europe led to impasse is that Dr Schäuble was determined that they would.

By the time I attended my first Brussels meetings in early February, a powerful majority within the Eurogroup had already formed. Revolving around the earnest figure of Germany's Minister of Finance, its mission was to block any deal building on the common ground between our freshly elected government and the rest of the Eurozone.

Thus five months of intense negotiations never had a chance. Condemned to lead to impasse, their purpose was to pave the ground for what Dr Schäuble had decided was 'optimal' well before our government was even elected: That Greece should be eased out of the Eurozone in order to discipline member-states resisting his very specific plan for re-structuring the Eurozone. This is no theory of mine. How do I know Grexit is an important part of Dr Schäuble's plan for Europe? Because he told me so!

I am writing this not as a Greek politician critical of the German press' denigration of our sensible proposals, of Berlin's refusal seriously to consider our moderate debt re-profiling plan, of the European Central Bank's highly political decision to asphyxiate our government, of the Eurogroup's decision to give the ECB the green light to shut down our banks. I am writing this as a European observing the unfolding of a particular Plan for Europe – Dr Schäuble's Plan. And I am asking a simple question of Die Zeit's informed readers:

Is this a Plan that you approve of? Is this Plan good for Europe?

Dr Schäuble's Plan for the Eurozone

The avalanche of toxic bailouts that followed the Eurozone's first financial crisis offers ample proof that the non-credible 'no bailout clause' was a terrible substitute for political union. Wolfgang Schäuble knows this and has made clear his plan to forge a closer union. "Ideally, Europe would be a political union", he wrote in a joint article with Karl Lamers, the CDU's former foreign affairs chief (Financial Times, 1st September 2014).

Dr Schäuble is right to advocate institutional changes that might provide the Eurozone with its missing political mechanisms. Not only because it is impossible otherwise to address the Eurozone's current crisis but also for the purpose of preparing our monetary union for the next crisis. The question is: Is his specific plan a good one? Is it one that Europeans should want? How do its authors propose that it be implemented?

The Schäuble-Lamers Plan rests on two ideas: "Why not have a European budget commissioner" asked Schäuble and Lamers "with powers to reject national budgets if they do not correspond to the rules we jointly agreed?" "We also favour", they added "a 'Eurozone parliament' comprising the MEPs of Eurozone countries to strengthen the democratic legitimacy of decisions affecting the single currency bloc."

The first point to raise about the Schäuble-Lamers Plan is that it is at odds with any notion of democratic federalism. A federal democracy, like Germany, the United States or Australia, is

founded on the sovereignty of its citizens as reflected in the positive power of their representatives to legislate what must be done on the sovereign people's behalf.

In sharp contrast, the Schäuble-Lamers Plan envisages only negative powers: A Eurozonal budget overlord (possibly a glorified version of the Eurogroup's President) equipped solely with negative, or veto, powers over national Parliaments. The problem with this is twofold. First, it would not help sufficiently to safeguard the Eurozone's macro-economy. Secondly, it would violate basic principles of Western liberal democracy.

Consider events both prior to the eruption of the euro crisis, in 2010, and afterwards. Before the crisis, had Dr Schäuble's fiscal overlord existed, she or he might have been able to veto the Greek government's profligacy but would be in no position to do anything regarding the tsunami of loans flowing from the private banks of Frankfurt and Paris to the Periphery's private banks. Those capital outflows underpinned unsustainable debt that, unavoidably, got transferred back onto the public's shoulders the moment financial markets imploded. Postcrisis, Dr Schäuble's budget Leviathan would also be powerless, in the face of potential insolvency of several states caused by their bailing out (directly or indirectly) the private banks. In short, the new high office envisioned by the Schäuble-Lamers Plan would have been impotent to prevent the causes of the crisis and to deal with its repercussions. Moreover, every time it did act, by vetoing a national budget, the new high office would be annulling the sovereignty of a European people without having replaced it by a higher-order sovereignty at a federal or supra-national level.

Dr Schäuble has been impressively consistent in his espousal of a political union that runs contrary to the basic principles of a democratic federation. In an article in Die Welt published on 15th June 1995, he dismissed the "academic debate" over whether Europe should be "...a federation or an alliance of states". Was he right that there is no difference between a federation and an 'alliance of states'? I submit that a failure to distinguish between the two constitutes a major threat to European democracy.

Forgotten prerequisites for a liberal democratic, multinational political union

One often forgotten fact about liberal democracies is that the legitimacy of its laws and constitution is determined not by its legal content but by politics. To claim, as Dr Schäuble did in 1995, and implied again in 2014, that it makes no difference whether the Eurozone is an alliance of sovereign states or a federal state is purposely to ignore that the latter can create political authority whereas the former cannot.

An 'alliance of states' can, of course, come to mutually beneficial arrangements against a common aggressor (e.g. in the context of a defensive military alliance), or in agreeing to common industry standards, or even effect a free trade zone. But, such an alliance of sovereign states can never legitimately create an overlord with the right to strike down a states' sovereignty, since there is no collective, alliance-wide sovereignty from which to draw the necessary political authority to do so.

This is why the difference between a federation and an 'alliance of states' matters hugely. For while a federation replaces the sovereignty forfeited at the national or state level with a newfangled sovereignty at the unitary, federal level, centralising power within an 'alliance of states' is, by definition, illegitimate, and lacks any sovereign body politic that can anoint it. Nor can any Euro Chamber of the European Parliament, itself lacking the power to legislate at will, legitimise the Budget Commissioner's veto power over national Parliaments.

To put it slightly differently, small sovereign nations, e.g. Iceland, have choices to make within the broader constraints created for them by nature and by the rest of humanity. However limited these choices, Iceland's body politic retains absolute authority to hold their elected officials accountable for the decisions they have reached within the nation's exogenous constraints and to strike down every piece of legislation that it has decided upon in the past. In juxtaposition, the Eurozone's finance ministers often return from Eurogroup meetings decrying the decisions that they have just signed up to, using the standard excuse that "it was the best we could negotiate within the Eurogroup".

The euro crisis has expanded this lacuna at the centre of Europe hideously. An informal body, the Eurogroup, that keeps no minutes, abides by no written rules, and is answerable to precisely no one, is running the world's largest macro-economy, with a Central Bank struggling to stay within vague rules that it creates as it goes along, and no body politic to provide the necessary bedrock of political legitimacy on which fiscal and monetary decisions may rest.

Will Dr Schäuble's Plan remedy this indefensible system of governance? If anything, it would dress up the Eurogroup's present ineffective macro-governance and political authoritarianism in a cloak of pseudo-legitimacy. The malignancies of the present 'Alliance of States' would be cast in stone and the dream of a democratic European federation would be pushed further into an uncertain future.

Dr Schäuble's perilous strategy for implementing the Schäuble-Lamers Plan

Back in May, in the sidelines of yet another Eurogroup meeting, I had had the privilege of a fascinating conversation with Dr Schäuble. We talked extensively both about Greece and regarding the future of the Eurozone. Later on that day, the Eurogroup meeting's agenda included an item on future institutional changes to bolster the Eurozone. In that conversation, it was abundantly clear that Dr Schäuble's Plan was the axis around which the majority of finance ministers were revolving.

Though Grexit was not referred to directly in that Eurogroup meeting of nineteen ministers, plus the institutions' leaders, veiled references were most certainly made to it. I heard a colleague say that member-states that cannot meet their commitments should not count on the Eurozone's indivisibility, since reinforced discipline was of the essence. Some mentioned the importance of bestowing upon a permanent Eurogroup President the power to veto national budgets. Others discussed the need to convene a Euro Chamber of Parliamentarians to legitimise her or his authority. Echoes of Dr Schäuble's Plan reverberated throughout the room. Judging from that Eurogroup conversation, and from my discussions with Germany's Finance Minister, Grexit features in Dr Schäuble's Plan as a crucial move that would kickstart the process of its implementation. A controlled escalation of the long suffering Greeks' pains, intensified by shut banks while ameliorated by some humanitarian aid, was foreshadowed as the harbinger of the New Eurozone. On the one hand, the fate of the prodigal Greeks would act as a morality tale for governments toying with the idea of challenging the existing 'rules' (e.g. Italy), or of resisting the transfer of national sovereignty over budgets to the Eurogroup (e.g. France). On the other hand, the prospect of (limited) fiscal transfers (e.g. a closer banking union

and a common unemployment benefit pool) would offer the requisite carrot (that smaller nations craved).

Setting aside any moral or philosophical objections to the idea of forging a better union through controlled boosts in the suffering of a constituent member-state, several broader questions pose themselves urgently:

Are the means fit for the ends?

Is the abrogation of the Eurozone's constitutional indivisibility a safe means of securing its future as a realm of shared prosperity?

Will the ritual sacrifice of a member-state help bring Europeans closer together?

Does the argument that elections cannot change anything in indebted member-states inspire trust in Europe's institutions?

Or might it have the precise opposite effect, as fear and loathing become established parts of Europe's intercourse?

Conclusion: Europe at a crossroads

The Eurozone's faulty foundations revealed themselves first in Greece, before the crisis spread elsewhere. Five years later, Greece is again in the limelight as Germany's sole surviving statesman from the era that forged the euro, Dr Wolfgang Schäuble, has a plan to refurbish Europe's monetary union that involves jettisoning Greece on the excuse that the Greek government has no 'credible' reforms on offer.

The reality is that a Eurogroup sold to Dr Schäuble's Plan, and strategy, never had any serious intention to strike a New Deal with Greece reflecting the common interests of creditors and of a nation whose income had been crushed, and whose society was fragmented, as a result of a terribly designed 'Program'. Official Europe's insistence that this failed 'Program' be adopted by our new government 'or else' was nothing but the trigger for the implementation of Dr Schäuble's Plan.

It is quite telling that, the moment negotiations collapsed, our government's argument that Greece's debt had to be restructured as part of any viable agreement was, belatedly, acknowledged. The International Monetary Fund was the first institution to do so. Remarkably Dr Schäuble himself also acknowledged that debt relief was needed but hastened to add that it was politically "impossible". What I am sure he really meant was that it was undesirable, to him, because his aim is to justify a Grexit that triggers the implementation of his Plan for Europe.

Perhaps it is true that, as a Greek and a protagonist in the past five months of negotiations, my assessment of the Schäuble-Lamers Plan, and of their chosen means, is too biased to matter in Germany. Germany has been a loyal European 'citizen' and the German people, to their credit, have always yearned to embed their nation-state, to lose themselves in an important sense, within a united Europe. So, setting aside my views on the matter, the question is this:

What do you, dear reader, think of it? Is Dr Schäuble's Plan consistent with your dream of a democratic Europe? Or will its implementation, beginning with the treatment of Greece as something between a pariah state and a sacrificial lamb, spark off a never-ending feedback between economic instability and the authoritarianism that feeds off it?

Title: Schäuble's Gathering Storm Author: Yanis Varoufakis From: Project Syndicate Date: October 23, 2015

ATHENS – Europe's crisis is poised to enter its most dangerous phase. After forcing Greece to accept another "extend-and-pretend" bailout agreement, fresh battle lines are being drawn. And, with the refugee influx exposing the damage caused by divergent economic prospects and sky-high youth unemployment in Europe's periphery, the ramifications are ominous, as recent statements by three European politicians – Italian Prime Minister Matteo Renzi, French Economy Minister Emmanuel Macron, and German Finance Minister Wolfgang Schäuble – have made clear.

Renzi has come close to demolishing, at least rhetorically, the fiscal rules that Germany has defended for so long. In a remarkable act of defiance, he threatened that if the European Commission rejected Italy's national budget, he would re-submit it without change.

This was not the first time Renzi had alienated Germany's leaders. And it was no accident that his statement followed a months-long effort by his own finance minister, Pier Carlo Padoan, to demonstrate Italy's commitment to the eurozone's German-backed "rules." Renzi understands that adherence to German-inspired parsimony is leading Italy's economy and public finances into deeper stagnation, accompanied by further deterioration of the debt-to-GDP ratio. A consummate politician, Renzi knows that this is a short path to electoral disaster.

Macron is very different from Renzi in both style and substance. A banker-turned-politician, he is President François Hollande's only minister who combines a serious understanding of France's and Europe's macroeconomic challenges with a reputation in Germany as a reformer and skillful interlocutor. So when he speaks of an impending religious war in Europe, between the Calvinist German-dominated northeast and the largely Catholic periphery, it is time to take notice.

Schäuble's recent statements about the European economy's current trajectory similarly highlight Europe's cul-de-sac. For years, Schäuble has played a long game to realize his vision of the optimal architecture Europe can achieve within the political and cultural constraints that he takes as given.

The "Schäuble plan," as I have dubbed it, calls for a limited political union to support the euro. In brief, Schäuble favors a formalized Eurogroup (composed of the eurozone's finance ministers), presided over by a president who wields veto power – legitimized by a Euro Chamber comprising parliamentarians from the eurozone member states – over national budgets. In exchange for forfeiting control over their budgets, Schäuble offers France and Italy – the primary targets of his plan – the promise of a small eurozone-wide common budget that would partly fund unemployment and deposit-insurance schemes.

Such a disciplinarian, minimalist political union does not go down well in France, where elites have always resisted forfeiting sovereignty. While politicians like Macron have moved a long way toward accepting the need to transfer powers over national budgets to the "center," they fear that Schäuble's plan asks too much and offers too little: severe limits on France's fiscal space and a macroeconomically insignificant common budget.

But even if Macron could persuade Hollande to accept Schäuble's plan, it is not clear whether German Chancellor Angela Merkel would consent to it. Schäuble's ideas have so far failed to persuade her or, indeed, the Bundesbank (which, through its president, Jens Weidmann, has been hugely negative toward any degree of fiscal mutualization, even the limited version that Schäuble is willing to trade for control over the French and Italian budgets).

Caught between a reluctant German chancellor and an indisposed France, Schäuble imagined that the turbulence caused by a Greek exit from the eurozone would help persuade the French, as well as his cabinet colleagues, of his plan's necessity. Now, while waiting for the current Greek "program" to collapse under the weight of its inherent contradictions, Germany's finance ministry is preparing for the battles ahead.

In September, Schäuble distributed to his Eurogroup colleagues an outline of three proposals for preventing a new euro crisis. First, eurozone government bonds should include clauses that make it easy to "bail in" bondholders. Second, the European Central Bank's rules ought to be altered to prevent commercial banks from counting such bonds as ultra-safe, liquid assets. And, third, Europe should ditch the idea of common deposit insurance, replacing it with a commitment to let banks fail when they no longer fulfill the ECB's collateral rules.

Implementing these proposals in, say, 1999, might have limited the gush of capital to the periphery immediately following the single currency's introduction. Alas, in 2015, given the eurozone members' legacy public debts and banking losses, such a scheme would cause a deeper recession in the periphery and almost certainly lead to the monetary union's breakup. Exasperated by Schäuble's backtracking from his own plan for political union, Macron recently vented his frustration: "The Calvinists want to make others pay until the end of their life," he complained. "They want reforms with no contributions toward any solidarity."

The most troubling aspect of Renzi's and Macron's statements is the hopelessness they convey. Renzi's defiance of fiscal rules that push Italy further into an avoidable debt-deflationary spiral is understandable; but, in the absence of proposals for alternative rules, it leads nowhere. Macron's difficulty is that there seems to be no set of painful reforms that he can offer Schäuble to persuade the German government to accept the degree of surplus recycling necessary to stabilize France and the eurozone.

Meanwhile, Germany's commitment to "rules" that are incompatible with the eurozone's survival undermines those French and Italian politicians who were, until recently, hoping for an alliance with Europe's largest economy. Some, like Renzi, respond with acts of blind rebellion. Others, like Macron, are beginning gloomily to accept that the eurozone's current

institutional framework and policy mix will ultimately lead either to a formal breakup or to a death by a thousand cuts, in the form of continued economic divergence.

The silver lining in the gathering storm cloud is that minimalist proposals for political union, like Schäuble's plan, are losing ground. Nothing short of macroeconomically significant institutional reforms will stabilize Europe. And only a pan-European democratic alliance of citizens can generate the groundswell needed for such reforms to take root.

Title: Europe's Gradualist Fallacy Author: Yanis Varoufakis From: Project Syndicate Date: June 27, 2017

ATHENS – Europe is at the mercy of a common currency that not only was unnecessary for European integration, but that is actually undermining the European Union itself. So what should be done about a currency without a state to back it – or about the 19 European states without a currency that they control?

The logical answer is either to dismantle the euro or to provide it with the federal state it needs. The problem is that the first solution would be hugely costly, while the second is not feasible in a political climate favoring the re-nationalization of sovereignty.

Those who agree that the cost of dismantling the euro is too high to contemplate are being forced into a species of wishful thinking that is now very much in vogue, especially after the election of Emmanuel Macron to the French presidency. Their idea is that, somehow, by some unspecified means, Europe will find a way to move toward federation. "Just hang in there," seems to be their motto.

Macron's idea is to move beyond idle optimism by gaining German consent to turn the eurozone into a state-like entity - a federation-lite. In exchange for making French labor markets more Germanic, as well as reining in France's budget deficit, Germany is being asked to agree in principle to a common budget, a common finance ministry, and a eurozone parliament to provide democratic legitimacy.

To make this proposal palatable to Germany's government, the suggested common budget is tiny (around 1% of aggregate eurozone income) and will fund only the basic structures that a federation-lite entails, like common deposit insurance to give substance to Europe's (so-called) banking union and a portion of unemployment benefits. The plan also envisages common bonds, or Eurobonds, which will cover but a fraction of new debt and explicitly prohibit mutualization of member states' mountainous legacy debt.

Macron knows that such a federation would be macroeconomically insignificant, given the depth of the debt, banking, investment, and poverty crisis unfolding across the eurozone. But, in the spirit of the EU's traditional gradualism, he thinks that such a move would be politically momentous and a decisive step toward a meaningful federation.

"Once the Germans accept the principle, the economics will force them to accept the necessary magnitudes," is how a French official put it to me recently. Such optimism may seem justified in light of proposals along those lines made in the past by none other than Wolfgang Schäuble, Germany's finance minister. But there are two powerful reasons to be skeptical.

First, Chancellor Angela Merkel and Schäuble were not born yesterday. If Macron's people imagine a federation-lite as an entering wedge for full-blown political integration, so will

Merkel, Schäuble, and the reinvigorated Free Democrats (who will most likely join a coalition government with Merkel's Christian Democrats after the September federal election). And they will politely but firmly reject the French overtures.

Second, in the unlikely event that Germany gives federation-lite the go-ahead, any change to the functioning of the eurozone would, undoubtedly, devour large portions of the reformers' political capital. If it does not produce economic and social results that improve, rather than annul, the chances of a proper federation, as I suspect it will not, a political backlash could ensue, ending any prospect of a more substantial federation in the future. In that case, the euro's dismantling will become inevitable, will cost more, and will leave Europe in even greater shambles.

If I am right that Macron's gradualism and his federation-lite will prove to be a failure foretold, what is the alternative? My answer is straightforward: Re-deploy existing European institutions to simulate a functioning federation in the four realms where the euro crisis is evolving: public debt, banking, investment, and social deprivation.

Once these four sub-crises have been stabilized, hope will be restored, and the idea of Europe rehabilitated. Then – and only then – should we embark on the constitutional assembly process underpinning any agenda for constructing a full-fledged democratic federation.

But how can we simulate a macroeconomically – and macro-sociologically – significant federation now, under the existing treaties and institutions?

Imagine a press conference featuring the presidents of the European Council, the European Commission, the European Central Bank (ECB), and the European Investment Bank (EIB). They issue a joint declaration launching – as of tomorrow morning – four new initiatives requiring no treaty change or new institution.

First, the EIB will embark on a large-scale green investment-led recovery program to the tune of 5% of eurozone income, funded entirely through issues of EIB bonds, which the ECB will purchase in secondary markets, if necessary, to keep their yields ultra-low.

Second, the ECB will service (without buying) the Maastricht-compliant part (60% of GDP) of maturing eurozone sovereign bonds, by issuing its own ECB bonds. These bonds are to be redeemed by the member state whose debt has been partly serviced by the ECB at the very low yields that the ECB can secure.

Third, failing banks will be de-nationalized. Based on an informal intergovernmental agreement, the ECB's banking supervisor will appoint a new board of directors, and any recapitalization will be funded directly by the European Stability Mechanism. In exchange, the ESM will keep banks' shares, in order to sell them back to the private sector at some future date.

Fourth, all profits from the ECB's bond purchases, along with any profits from its internal Target2 accounting system, will fund a eurozone-wide, US-style food-stamp program that provides for the basic nutritional needs of European families falling below some poverty threshold.

Notice how one press conference suffices to announce to the world that the eurozone is about to simulate a political federation that uses existing institutions to restructure all public debt (without any haircuts), create a proper banking union, boost aggregate investment, and alleviate poverty on a continental scale. Notice also that this simulated federation can indeed be brought about tomorrow morning, without falling afoul of the existing EU treaties.

The euro crisis resulted from the fallacy that a monetary union would evolve into a political union. Today, a new gradualist fallacy threatens Europe: the belief that a federation-lite will evolve into a viable democratic federation. As paradoxical as it may sound, announcing a simulated federation today may be the last chance to rescue the dream of a proper European Union.

Title: A New Deal for the 21st Century Author: Yanis Varoufakis From: Author's personal website – op-ed in the New York Times Date: July 6, 2017

ATHENS — The recent elections in France and Britain have confirmed the political establishment's simultaneous vulnerability and vigor in the face of a nationalist insurgency. This contradiction is the motif of the moment — personified by the new French president, Emmanuel Macron, whose résumé made him a darling of the elites but who rode a wave of anti-establishment enthusiasm to power.

A similar paradox is visible in Britain in the surprising electoral success of the Labour Party leader, Jeremy Corbyn, in depriving Theresa May's Conservatives of an outright governing majority — not least because the resulting hung Parliament seemingly gives the establishment some hope of a change in approach from Mrs. May's initial recalcitrant stance toward the European Union on the Brexit negotiations that have just begun.

Outsiders are having a field day almost everywhere in the West — not necessarily in a manner that weakens the insiders, but neither also in a way that helps consolidate the insiders' position. The result is a situation in which the political establishment's once unassailable authority has died, but before any credible replacement has been born. The cloud of uncertainty and volatility that envelops us today is the product of this gap.

For too long, the political establishment in the West saw no threat on the horizon to its political monopoly. Just as with asset markets, in which price stability begets instability by encouraging excessive risk-taking, so, too, in Western politics the insiders took absurd risks, convinced that outsiders were never a real threat.

One example of the establishment's recklessness was releasing the financial sector from the restrictions that the New Deal and the postwar Bretton Woods agreement had imposed upon financiers to prevent them from repeating the damage seen with the crash of 1929 and the Great Depression. Another was building a system of world trade and credit that depended on the booming United States trade deficit to stabilize global aggregate demand. It is a measure of the sheer hubris of the Western establishment that it portrayed these steps as "riskless."

When the ensuing financialization of Western economies led to the great financial crisis of 2007-8, leaders on both sides of the Atlantic showed no compunction about practicing welfare socialism for bankers. Meanwhile, more vulnerable citizens were abandoned to the mercy of unfettered markets, which saw them as too expensive to hire at a decent wage and too indebted to court otherwise.

When the insiders' rescue schemes — including quantitative easing, the buying up of toxic assets, the eurozone's bailouts and temporary nationalizations of banks — succeeded in refloating banks and asset prices, they also left whole regions in the United States, and whole countries on Europe's periphery, stagnant. It was not rising inequality that provoked undying anger among these discarded people. It was the loss of dignity, of the dream of social mobility, as well as the experience of living in communities that were leveled down, so that a majority of people were increasingly equal but equally miserable.

As more and more voters became mad as hell, governing parties lost elections between 2008 and 2012 in the United States, Britain, France, Italy, Spain, Portugal, Ireland, Greece and

elsewhere. The problem was that the incoming administrations were as much part of the establishment as the outgoing ones. And so they made bipartisan the very approach that had caused the wave of anger that carried them into office.

That approach was doomed, not least because economic forces were already working against the new governments. After the 2008 crash, the monetary easing by central bank institutions like the Federal Reserve, the Bank of Japan and the Bank of England fended off a global repeat of the Great Depression. China's unleashing of a huge credit-fueled construction boom, which saw investment rise to 48 percent of national income in 2010, from 42 percent in 2007, and total credit climb to 220 percent of national income by 2014, from 130 percent in 2007, also softened the financial market failures of the West.

Unsurprisingly, though, these central bank money-creation schemes and the Chinese credit bubble proved unable to prevent severe regional depressions, which struck from Detroit to Athens. Nor could they prevent sharp global deflation from 2012 to 2015.

By 2014, voters had begun to give up on the new administrations they had voted for after 2008 in the false hope that the establishment's loyal opposition could provide new solutions. Thus, 2015 saw the first challenges to the insiders' authority start to surface.

In Greece — a small country, yet one that has proved to be a bellwether thanks to its gargantuan and systemically significant debt — protests against the debt bondage imposed on the population evolved into a progressive, internationalist coalition led by the Syriza party that came from nowhere to win government. In Spain, a similar movement, Podemos, began to rise in the polls, threatening to do the same.

In Britain, a left-wing internationalist tendency that had been marginal in the Labour Party coalesced around the leadership campaign of Jeremy Corbyn — and surprised itself by winning. Soon after, the independent socialist senator from Vermont, Bernie Sanders, carried the same spirit into the Democratic Party primaries.

Everywhere, the political establishment treated these left-of-center, progressive internationalists with a mixture of contempt, ridicule, character assassination and brute force — the worst case, of course, being the treatment of the Greek government in which I served during the first half of 2015. Historians may mark that year as when the establishment turned truly illiberal.

By 2016, the establishment's arrogance met its first, frightful nemesis: Brexit. The shock waves from the insiders' unheralded defeat in that referendum rippled across the West. They brought new energy to Donald Trump's outsider campaign in the American presidential election, and they invigorated Marine Le Pen's National Front in France.

From the West to the East, a new Nationalist International — an allied front of right-wing chauvinist parties and movements — arose.

The clash between the Nationalist International and the establishment was both real and illusory. The venom between Hillary Clinton and Donald Trump was genuine, as was the loathing in Britain between the Remain camp and the Leavers. But these combatants are accomplices, as much as foes, creating a feedback loop of mutual reinforcement that defines them and mobilizes their supporters.

The trick is to get outside the closed system of that loop. The progressive internationalism of Mr. Corbyn's Labour Party, Mr. Sanders's supporters and the Greek anti-austerity movement came to offer an alternative to the deceptive binaries of establishment insiders and nationalist

outsiders. An interesting dynamic ensued: As the insiders defeated or sidelined the progressive internationalist outsiders, it was the nationalist outsiders who benefited. But once Mr. Trump, the Brexiteers and Ms. Le Pen were strengthened, a remarkable new alignment took place, with a series of unstable mergers between outsider forces and the establishment.

In Britain, we saw the Conservative Party, a standard-bearer of the establishment, adopt the pro-Brexit program of the tiny, extreme nationalist U.K. Independence Party. In the United States, the outsider in chief, Mr. Trump, formed an administration made up of Wall Street executives, oil company oligarchs and Washington lobbyists. As for France, the anti-establishment new president, Mr. Macron, is about to embark on an austerity agenda straight out of the insiders' manual. This will, most probably, end by fueling the current of isolationist nationalism in France.

Where does this prey-predator game between the globalist establishment and the isolationist blood-and-soil nationalists leave us?

The recent elections in Britain and France confirm that both strands are alive and kicking, reinforcing each other, as they tussle, to the detriment of a vast majority of their populations. Both Mrs. May's and the European Union's negotiating teams in Brussels are investing their efforts in an inevitable impasse, which each believes will bolster their political authority, even though it will disadvantage the populations on both sides of the English Channel that must live with the consequences.

In the United States, Mr. Trump is pursuing an economic policy that, if it has any effect, will set off a run on Treasury bonds at a time when the Fed is tightening monetary policy. A result will be a panicked administration whose reflex will be to impose austerity measures before the midterm elections. Those policies will further disadvantage precisely the regions and social groups that carried Mr. Trump into the White House.

So, what will it take to end this destructive dynamic of mutual reinforcement by the largely liberal establishment insiders and the regressive nationalist outsiders?

The answer lies in ditching both globalism and isolationism in favor of an authentic internationalism. It lies neither in more deregulation nor in greater Keynesian stimulus, but in finding ways to put to useful purpose the global glut of savings.

This would amount to an International New Deal, borrowing from Franklin D. Roosevelt's plan the basic idea of mobilizing idle private money for public purposes. But rather than through tax-and-spend programs at the level of national economies, this new New Deal should be administered by a partnership of central banks (like the Fed, the European Central Bank and others) and public investment banks (like the World Bank, Germany's KfW Development Bank, the Asian Infrastructure Investment Bank and so on). Under the auspices and direction of the Group of 20, the investment banks could issue bonds in a coordinated fashion, which these central banks would be ready to purchase, if necessary.

By this means, the available pool of global savings would provide the funds for major investments in the jobs, the regions, the health and education projects and the green technologies that humanity needs. A further step would be to generate more, better-balanced trade by establishing a new international clearing union, to be run by the International Monetary Fund. The new clearing union would help to rebalance trade and create an International Wealth Fund to fund programs to alleviate poverty, develop human capital and support marginalized communities in the United States, Europe and beyond.

Today's false feud between globalization and nationalism is undermining the future of humanity, and spreading dread and loathing. It must end. A new internationalist spirit that would build institutions to serve the interests of the many is as pertinent today across the world as Roosevelt's New Deal was for America in the 1930s.

Title: The Banking Union: An Overview and Open Issues Author: Dirk Schoenmaker From: Bruegel Date: May 2, 2017

Dirk Schoenmaker's chapter in 'The Palgrave Handbook of European Banking', a handbook that collates the expertise and research of leading academic and senior policy makers in the field of European banking. This paper was published as chapter 17 of The Palgrave Handbook of European Banking.

The move to European Banking Union involving the supervision and resolution of banks at euro-area level was stimulated by the sovereign debt crisis in the euro area in 2012. However, the long-term objective of Banking Union is dealing with intensified cross-border banking.

The share of the assets of national banking systems that come from other EU countries was rising before the financial and economic crisis of 2007, but went into decline thereafter in the context of a general retrenchment of international banking. Most recent data, however, suggests the decline has been halted.

While a crisis-prevention framework for the euro area has largely been completed, the crisismanagement framework remains incomplete, potentially creating instability. Most importantly, risk-sharing mechanisms do not adequately address the sovereign-bank loop, with a lack of clarity about the divide between bail-in and bail-out. To complete Banking Union, the lenderof-last-resort and deposit insurance functions should move to the euro-area level. Title: Les Banques Européennes se Retirent – Elles de la Scène Internationale? Author: Dirk Schoenmaker From: Bruegel Date: May 2017

[As a result of the global financial crisis and the subsequent euro area crisis, it seems that European banks have been withdrawing from the international banking system. In addition, they seemed to have withdrawn from the investment banking market. Is this a correct assessment? In this paper, Dirk Schoenmaker conducts a comparative analysis and examines the evolution of global systemically important banks (G-SIBs). The first part of the paper presents data on G-SIBs. Then the second part analyzes several aspects of these G-SIBs (size, cross-border activities and investment banking activities) before studying these different aspects country by country. The third part deals with the policy implications. The fourth part serves as a conclusion.]

3. CONSÉQUENCES EN MATIÈRE DE POLITIQUES PUBLIQUES

Quelles sont les conséquences de notre constat empirique sur la politique de la zone euro ? La première concerne la transition du financement bancaire vers le financement de marché et relève de

l'Union des marchés de capitaux. La deuxième porte sur le mécanisme de soutien budgétaire du système bancaire européen qui s'inscrit dans le programme d'achèvement de l'Union bancaire (Juncker et al., 2015).

Faire avancer l'Union des marchés de capitaux

Avec le Brexit, les marchés de capitaux de l'UE sont confrontés à un double défi. Le projet d'Union des marchés de capitaux (pour faciliter la transition du financement bancaire vers le financement sur le marché) est devenu plus urgent face à la perte éventuelle pour l'UE des marchés bancaires de gros de Londres. Les vingt-sept États membres de l'UE restants devront façonner leurs propres marchés financiers au service des ménages et des entreprises. Conjointement avec Sapir et Véron (Sapir et al., 2017), nous posons la question politique suivante : les vingt-sept pays de l'UE souhaitent-ils créer un marché financier intégré ou les différents marchés peuvent-ils servir efficacement l'économie ?

La fragmentation des marchés financiers pourrait entraîner une augmentation des coûts d'emprunt pour les ménages (crédits hypothécaires et crédits à la consommation) et les entreprises (prêts bancaires et obligations) au sein des vingt-sept pays de l'UE. En utilisant différents systèmes de négociation et contreparties centrales, les banques renoncent aux synergies liées aux marges croisées entre produits. Les banques doivent également accroître leurs effectifs et développer leurs systèmes pour se conformer aux diverses réglementations locales. La négociation de gros de titres, devises et produits dérivés (pour la gestion des risques sur le bilan des banques) devient ainsi plus coûteuse pour les banques sur un marché fragmenté.

L'intégration ne requiert pas nécessairement un marché unique car les interactions entre les bourses centrales et les systèmes multilatéraux de négociation facilitent une meilleure

exécution. Toutefois l'intégration requiert un corpus unique de règles, une chambre de compensation centrale et un modèle en étoile pour la supervision et la mise en application afin de garantir les mêmes conditions à tous les acteurs du marché. La Commission européenne transformerait ainsi les directives liées au marché en règlements directement applicables dans tous les pays de l'UE pour promouvoir la mise en oeuvre d'un règlement uniforme pour tous les acteurs du marché. Concernant la supervision du marché et sa mise en application, le rapport des cinq présidents (Juncker et al., 2015) préconise « un superviseur unique des marchés de capitaux européens ». L'AEMF deviendrait ainsi le superviseur central des marchés, selon un modèle en étoile avec les superviseurs nationaux des marchés, de la même façon que la Banque centrale européenne (BCE) est au centre du Mécanisme de surveillance unique.

La mise en place de marchés de capitaux intégrés et dynamiques dans les vingt-sept pays de l'UE permettrait d'accélérer la transition d'un système financier basé sur les banques vers un système davantage basé sur les marchés.

Achever l'Union bancaire

Le Royaume-Uni et la Suisse ont clairement instauré une politique de restructuration de leur système bancaire pour réduire la responsabilité potentielle de l'État. Dans des travaux antérieurs, nous avons conclu que les banques internationales étaient trop grandes pour ces pays de taille moyenne (Schoenmaker, 2016). Pour les banques internationales basées dans l'Union bancaire européenne, comme BNP Paribas, Deutsche Bank, ING, Société générale et UniCredit, les coûts budgétaires d'un éventuel sauvetage pourraient être très élevés au niveau national. La crédibilité du mécanisme de soutien budgétaire aux banques internationales de ces pays peut être mise en doute. Si le mécanisme de soutien budgétaire était instauré à l'échelle de la zone euro, les coûts (en pourcentage du PIB) diminueraient et le mécanisme deviendrait aussi crédible que celui des États-Unis et de la Chine.

Les pays de l'Union bancaire sont donc confrontés à un choix politique qui est important non seulement sur le plan de la stabilité financière, mais également d'un point de vue géopolitique. Si ces pays veulent rester sur un pied d'égalité avec les deux autres puissances mondiales, ils doivent mettre en place le mécanisme de soutien budgétaire au niveau de la zone euro et achever l'Union bancaire (Juncker et al., 2015). Le MES a été mis en oeuvre en tant que mécanisme de soutien budgétaire pour les États membres. En l'état actuel, il apporte un soutien très partiel au système bancaire de l'Union bancaire. Un État membre peut bénéficier d'un prêt du MES pour recapitaliser ses banques (recapitalisation indirecte prévue par l'article 15 du traité instituant le MES). Ce n'est que lorsque la viabilité des finances publiques d'un État membre est en danger (MES, 2014) que le MES peut recapitaliser directement les banques de cet État membre à certaines conditions (par exemple, contribution propre de l'État membre et renflouement en interne représentant au minimum 8 % du passif total de la banque) et par un vote à l'unanimité, ce qui pourrait

entraîner de longues négociations à l'issue incertaine. L'instrument de recapitalisation directe actuel du MES ne constitue donc pas un mécanisme de soutien budgétaire crédible ex ante au niveau de la zone euro. Pour faire du MES un mécanisme de soutien budgétaire crédible pour le système bancaire, il faudrait en premier lieu permettre la recapitalisation directe des banques par le MES sans attendre que le pays fasse faillite et soit ensuite confronté à des procédures de vote et à des conditions prohibitives. La deuxième étape consiste à mettre en place un fonds de résolution (et de garantie des dépôts) unique, avec une ligne de crédit du MES, similaire au Federal Deposit Insurance Corporation (FDIC) qui bénéficie d'une ligne de crédit du Trésor américain (Gros et Schoenmaker, 2014).

Anticiper les répercussions budgétaires de l'Union bancaire est une étape indispensable pour renforcer la stabilité de la zone euro. C'est également essentiel pour pouvoir faire face à de grandes crises bancaires systémiques. S'engager dans cette voie est compliqué en raison de l'éventuel partage des risques budgétaires à grande échelle qui en découlerait et du fait de la perception actuelle selon laquelle les risques ne sont pas uniformément répartis au sein de l'Union bancaire. Outre les différences de taille des banques internationales, les banques ne sont pas exposées de la même manière à la dette souveraine. D'un point de vue politique, il est absolument nécessaire de s'atteler à la réduction des risques pour parvenir à finaliser l'Union bancaire.

Conclusion

Notre analyse pays par pays indique que les banques de la zone euro se trouvent dans une situation intermédiaire : elles se restructurent tout en préservant leur présence à l'international. Les responsables politiques doivent faire un choix : ils peuvent suivre la voie du Royaume-Uni et de la Suisse ou celle des États-Unis et de la Chine. Le cadre de l'Union bancaire a été conçu comme une réponse à la crise de la zone euro. Nous préconisons l'achèvement de l'Union bancaire afin d'instaurer un cadre solide pour le système bancaire de la zone euro. Cela placerait en outre la zone euro sur un pied d'égalité avec les États-Unis et la Chine, qui disposent d'un mécanisme de soutien budgétaire crédible pour leur système bancaire.

Cette recommandation est par ailleurs pertinente pour la construction des marchés de capitaux de l'UE après le Brexit. Les grandes banques sont les acteurs clés sur ces marchés. Un solide cadre de supervision prudentielle instauré par la BCE, appuyée par l'AEMF en tant que superviseur central des marchés, pourrait soutenir la création de marchés de capitaux dynamiques sur lesquels les banques d'investissement européennes pourraient jouer un rôle et pas seulement les banques d'investissement américaines.

Title: Conversation avec Michel Aglietta: Comment Redonner Vie Au Project Européen? Author: Isabelle Bensidoun, Jézabel Couppey-Soubeyran From: The Conversation Date: April 10, 2017

L'intégration européenne fait face à de sérieuses difficultés. Comment l'expliquez-vous ? La crise financière et économique mondiale a été un révélateur de problèmes profonds qui tiennent à la conception de la construction européenne. La méthode communautaire a recherché l'intégration en faisant prévaloir le droit européen sur les droits nationaux. Or ce droit promeut un seul principe : concurrence libre et non faussée, libre mobilité de tout ce qui peut se déplacer. La prolifération de ce droit, qui s'impose aux législations nationales, dépossède les parlements nationaux de leurs prérogatives souveraines.

C'est une illusion de croire que la priorité du droit de la concurrence sur les politiques publiques permet un surcroît d'efficacité économique. Jointe à l'union monétaire, elle a conduit à une concentration industrielle dans les pays qui possédaient déjà des avantages comparatifs, au dépérissement des territoires dans les régions désindustrialisées, et à la divergence macroéconomique au lieu de la convergence attendue.

Mais est-il possible de faire émerger une puissance publique européenne tout en renforçant les souverainetés nationales ?

Non seulement c'est possible, mais c'est indispensable. Les avancées ponctuelles par compromis entre les États membres ne permettent pas de conduire une politique macroéconomique commune, parce que les dirigeants politiques ne défendent que les intérêts nationaux au sein du Conseil européen. Aucun intérêt européen ne s'en dégage. Ce divorce est devenu patent avec l'institution de l'euro et la création de la Banque centrale européenne (BCE).

L'affirmation de la BCE en tant qu'autorité monétaire fédérale a accentué le déséquilibre avec l'absence d'autorité politique européenne. Cette absence a été compensée par un carcan de règles budgétaires arbitraires dans le pacte de stabilité et de croissance, aggravé par le traité budgétaire de 2012. La solution réside non pas dans un englobement fédéral subordonnant les souverainetés politiques des pays membres, mais dans une double démocratie faisant interagir les niveaux européen et nationaux de puissances publiques.

Cela implique un pacte européen, qui institue un budget doté de ressources fiscales propres sous l'autorité d'un Parlement européen. En effet, le budget est une dimension constitutive du politique par la capacité de lever l'impôt et d'émettre une dette de la société vis-à-vis d'ellemême pour produire des biens communs. La puissance publique budgétaire vient compléter l'union monétaire. Le pacte doit définir les compétences des deux niveaux de puissance publique, européenne et nationale, pour que les deux niveaux se renforcent mutuellement.

Comment envisagez-vous l'orientation d'un budget de la zone euro incorporé dans celui de l'Union européenne ?

Il doit être tourné vers le long terme, agissant en emprunteur et investisseur en dernier ressort. Faire de l'Europe une puissance publique revivifiant les souverainetés nationales implique un budget commun dont la dépense crée une valeur ajoutée, parce qu'elle investira dans des domaines où la subsidiarité est inefficace. La valeur ajoutée doit être additionnelle de celle que les pays membres peuvent créer.

Un budget étoffé par des ressources propres supplémentaires de l'Union fournirait l'assise d'un investisseur en dernier ressort recherchant la complémentarité entre investisseurs publics et privés. Son rôle serait de garantir un système financier reposant sur un réseau de banques publiques de développement et sur des clubs d'investisseurs à long terme responsables pour briser la tragédie des horizons.

Le développement d'un marché d'obligations européennes donnerait à la BCE l'outil pour soutenir la croissance. Il y aura double démocratie si le budget européen fortifie les puissances publiques nationales.

Cela permettrait-il des politiques de stabilisation plus coopératives ?

La recomposition des responsabilités entre le niveau européen et celui des pays membres rendrait les politiques de stabilisation plus intelligentes et démocratiquement légitimes en réformant en profondeur le semestre européen (cycle annuel mis en place en 2010 pour coordonner les politiques économiques et budgétaires des membres de l'UE).

La remontée de la croissance par l'investissement de long terme financé par le budget européen donnerait des marges de manœuvre pour rendre les ajustements nationaux plus symétriques. Le principe consiste à définir un ajustement budgétaire pour l'ensemble de la zone euro, qui tienne compte du cycle économique pour mener une politique contra-cyclique en collaboration avec la BCE, avant de convenir du partage entre les budgets nationaux.

La résolution adoptée par le Parlement européen en février 2017 suggère que ce soit une agence budgétaire au sein de la Commission européenne qui propose la répartition des soldes budgétaires primaires à réaliser entre les budgets nationaux. Cette proposition serait soumise à une conférence interparlementaire des pays membres, dont la résolution devrait obligatoirement être prise en compte par le Conseil européen.

Les évolutions géopolitiques (Brexit, Trump) ne font-elles pas obstacle à ces évolutions ? Non, au contraire, elles renforcent la nécessité d'une affirmation de l'Europe.

L'ordre international, qui reposait sur l'hégémonie des États-Unis, est en train de disparaître avec la séparation britannique, l'affirmation du néo mercantilisme américain et le rejet des institutions internationales de la sécurité collective sous la présidence Trump.

Le Brexit a l'avantage de lever une ambiguïté qui a hanté la construction européenne depuis plus de quarante ans. Les pays fondateurs ont visé la construction progressive d'une Europe politique, tandis que le Royaume-Uni est parvenu à imposer son objectif exclusif de zone de libre-échange par l'extension aux pays de l'Est.

Mais la politique américaine déstabilise les relations internationales. Politiquement, c'est l'affirmation du néomercantilisme ; économiquement, c'est le dangereux cycle d'appréciation du dollar dans une économie mondiale surendettée. Face à ces menaces, il revient à l'Europe de rejeter le repli nationaliste et de se doter des moyens politiques d'œuvrer pour un développement inclusif et soutenable dans un monde ouvert et multilatéral.

Title: For A Treat Democratizing Euro Area Governance (T-Dem) Author: Stéphanie Hennette, Thomas Piketty, Guillaume Sacriste and Antoine Vauchez From: Social Europe Date: April 27, 2017

Over the last ten years of economic and financial crisis, a new centre of European power has taken shape: the 'government' of the Euro Area (that we would reform). The expression may seem badly chosen as it remains hard to identify the democratically accountable 'institution' which today implements European economic policies. We are indeed aiming at a moving and blurred target. Characterized by its informality and opacity, the central institution of that government, the European treaties and is in no way accountable to the European Parliament, nor to national parliaments. Worse, the institutions that form the backbone of that government – from the European Central Bank (ECB) and the Commission to the European and the European Council – operate following combinations that constantly vary from one policy to the other (Troika Memoranda, European Semester 'budgetary recommendations' and bank 'evaluations' under the Banking Union).

However scattered they may be, these different policies are truly 'governed', as a hard core emerged from the ever closer union of national and European economic and financial bureaucracies – French and German national treasuries, ECB executive board, senior economic officials from the European Commission. As matters stand, this is where the Euro Area is supposedly governed and where the proper political tasks of coordination, mediation and balancing among the current economic and social interests are carried out. In 2012, as he gave up reforming the Treaty on Stability, Coordination and Governance, a cornerstone of this Euro Area governance, François Hollande contributed to consolidating this new power structure. From then onwards, this European executive pole has only seen its competences expand. Over a decade, its scope for intervention has become significant, ranging from 'budgetary consolidation' (austerity) policies to far-reaching coordination of national economic policies (Six Pack and Two Pack), the set-up of rescue plans for member states facing financial distress (Memorandum and Troika), the supervision of all private banks.

Both mighty and elusive, the government of the Euro Area evolved in a blind spot of political controls, in some sort of democratic black hole. Who indeed controls the drafting process of Memoranda of Understanding, which impose significant structural reforms in return for the financial assistance of the European Stability Mechanism? Who scrutinizes the executive operations of the institutions making up the Troika? Who monitors the decisions taken within the European Council of the Heads of State or Government of the Euro Area? Who knows exactly what is negotiated within the two core committees of the Eurogroup, i.e. the Economic Policy Committee and the Economic and Financial Committee? Neither national parliaments, which at best simply control their own executive, nor the European Parliament, which has carefully been sidelined from Euro Area governance. In view of its opacity and isolation, the many criticisms voiced against that Euro Area government seem well deserved, starting with Jürgen Habermas' denunciation of a "post-democratic autocracy".

While considering this democratic black hole, it is critical to keep in mind that it is not just a matter of principle, neither an issue of checks and balances. It has a real impact on the very

substance of the economic policies carried out in the Euro Area. It leads to a form of generalised indifference towards whistleblowers and other discording voices – as is best exemplified today vis-à-vis the quasi-unanimous chorus of economists emphasising the ineluctability of a renegotiation of Greece's debt. It favours a significant lack of responsiveness to the very pointed signals sent by national electoral processes, which persistently feature the rise of far right populism. From a more substantive point of view, this power structure overstates the stakes associated with financial stability and market confidence, and downplays the issues which are the most relevant for the majority (employment, growth, fiscal convergence, social cohesion and solidarity) and which only come to the fore with great difficulty.

There is, therefore, an urgent need to upgrade democratic values and place representative politics at the core of European economic policies. It is high time to get rid of the opacity and lack of political accountability which have so far characterised this new European power by inserting a democratically elected institution at its heart. Only a Parliamentary Assembly (see details here) would indeed have the sufficient legitimacy to hold this Euro Area government politically accountable. Some will argue that strengthening the position of the European Parliament may here suffice, but things are not (no longer) that simple. The government of the Euro Area is not a Europe like any other: it is no longer about organising a common market, it is now about coordinating economic policies, harmonising tax systems and fostering convergence among national budgetary policies, thereby entering the very heart of member states' social contracts. It would thus be difficult not to directly involve national parliaments, unless they are to be progressively stripped of their main constitutional powers and if the institutions of national democracy are now left to run idle. As they remain closely connected to political life in the individual member states, national parliaments are the sole institutions with sufficient legitimacy to democratise this mighty intergovernmental network of bureaucracies which has emerged over the last decade. This, moreover, echoes the proposal Joschka Fischer made in his speech at Humboldt University on May 12 2000 (and more recently in his Europeanizing Europe op-ed on 27 October 2011), when he argued that the creation of a European chamber composed of national parliament representatives would be the crucial step towards Political Union.

An Assembly That Matters

But this assembly would need to be entrusted with the necessary resources to effectively counter-balance this governing structure whose influence does not only derive from the institutional prerogatives it has accumulated over a decade, but stems first and foremost from its ability to expertly define the scope of any potential policies. In order to avoid a rump Parliament, constantly faced with a fait accompli, or one that merely rubberstamps diagnoses or decisions made elsewhere, this assembly must be given the capacities to fully participate in managing the Euro Area. This implies that it can effectively weigh on the political agenda: first, by co-producing the agenda of Euro-Summit meetings and the bi-annual work program of the Eurogroup but also by exercising this power of legislative initiative which the European Parliament lacks so far, rendering it unable to choose its own battles. It also implies that this Assembly will step in at every crucial juncture of that Euro Area governance process, whether under the European Semester (country-specific recommendations, the Annual Growth Survey), the financial conditionality of Memoranda of Understanding, the selection of the main executive leaders of the Euro Area. This finally requires setting up an autonomous and pluralist

expert capacity, as well as investigative powers vis-à-vis all institutions constituting that government.

Under this treaty democratizing the Euro Area, member states would thus be delegating to the Assembly voting on the base rate of corporation tax and on a common tax rate to finance the Euro Area budget. The member states will remain able to vote on any additional tax rate, applicable to the same base. The Assembly would also be empowered to generalize across the Euro Area the automatic exchange of bank details, and pursue a concerted policy for restoring progressive income and wealth taxes, while jointly and actively combatting external tax havens. Europe must be able to bring tax justice and political voluntarism within the framework of globalization: these proposals will achieve substantial and tangible progress in that direction. The treaty would also allow legislative action to mutualize public debt over 60% of each member state's GDP. Such debt-mutualization would enable the adoption of a common interest rate and the promulgation of a partial or total debt moratorium, in conjunction with the ECB. This proposal echoes that of a European Redemption Fund made in 2011 by the German Council of Economic Experts, while adding a political dimension to it. Only a democratic body, namely the Parliamentary Assembly of the Euro Area, would be entitled to fix yearly investment and deficit levels, on the basis inter alia of the economic and social conditions pertaining within the Euro Area.

Of course, there is no institutional panacea. No institutional reform, however well-thought-out it may be, has ever sufficed to change course. Everyone is conscious that a new body will not by itself change Europe's political destiny. Ultimately, a thorough review of the European project will become unavoidable. But along this path, setting up an assembly for the Euro Area stands as code for a wider political and cultural fight for the democratization of the European project and a new direction for the policies carried out on its behalf.

As the T-Dem shows (see here, here and here), it is possible to act swiftly, without necessarily going through a highly cumbersome process of treaty revision involving all 27 member states, and open new democratic opportunities within the European executive bloc itself. It is now up to political parties and civil society organizations to seize this opportunity to liberate European politics from these technocratic trenches and remove us from this pernicious alternative of helpless national retreat and the status quo of Brussels economic policies.

Title: The Coming Global Monetary (Dis)Order (sel.) Author: Benjamin J. Cohen From: UCSB Political Science Date: 2013

In the Westphalian system, reform does not come about without a struggle. As the Bretton Woods experience suggests, what is needed is an effective political strategy combining two critical elements.

First is the need to find some common ground on key issues that goes beyond vague pronouncements of principle.

And second is the need to assemble a winning coalition of influential states.

All that is easier said than done, of course. But when the alternative could be outright chaos, neither element seems entirely out of reach. My own guess is that as the threat of disorder looms ever larger, some modest improvements are likely to emerge over the medium term. To make exchange rate surveillance at least a bit more effective, for instance, the IMF may well be given some additional authority to "name and shame" errant governments, as Jeffrey Chwieroth (2010) has proposed, in hopes of persuading policymakers to mend their ways. Likewise, governments can be expected to continue to tinker with their regulatory systems to temper the dangerous volatility of financial markets, as Randall Germain (2010) has suggested. And, as monetary power continues to diffuse, more states are likely to come to appreciate the need to share in the responsibility of leadership. Some semblance of governance will be provided. It will, however, be imperfect governance. Even more than it does now, the international monetary system will come out looking something like the proverbial camel – a horse designed by a committee. The patchwork will not be pretty. But even a distinctly sub-optimal outcome will be preferable to no action at all. Better to muddle through than to succumb to crisis.

Title: Why Can't Europe Save Itself? A Note on a Structural Failure (sel.) Author: Benjamin J. Cohen From: UCSB Political Science Date: 2015

The dilemma can be simply put. Begin with the irrefutable fact that occasional payments problems are a virtual certainty in a group of states as heterogeneous as the membership of EMU. Any country can unexpectedly find itself in trouble. We may recall Germany at the time of the euro's birth, then labelled by some the 'sick man' of Europe. Or think of one-time high flyers like Ireland or Spain, brought down by banking crises not of their own making. In the absence of a permanent and automatic transfer union, every instance of serious imbalance must be negotiated anew; and since as a practical matter terms are invariably set by creditors, pressures to adjust tend to be fatally skewed, falling mainly on debtors. As John Maynard Keynes wrote about the classical gold standard: 'The process of adjustment is compulsory for the debtor and voluntary for the creditor' (as quoted by Moggridge, 1980, p. 28; emphasis in the original). While healthier countries can afford to be relatively passive, distressed states have little choice but to respond more proactively.

But what can they do? Trade or capital controls are ruled out by their membership of the EU. Likewise, an independent monetary policy or exchange-rate devaluation is ruled out by their membership of EMU. Effectively, all that is left to them is what is politely called 'internal devaluation' – another synonym for austerity. An anti-growth bias is created.

Not everyone would agree with this interpretation, which is essentially Keynesian in nature. There is also a respectable alternative line of argument represented by Bundesbank president Jens Weidmann and others, variously labelled 'Austrian school' or 'ordo-liberalism'. According to this line of argument, austerity is precisely what is needed to promote growth, by restoring trust in public finances. But after half a decade of exceedingly disappointing performance, it is hard to accord much credence to that sanguine point of view. Fiscal consolidation has generated not growth in Europe but repeated recessions, mass unemployment, and most recently the creeping onset of deflation. An anti-growth bias seems undeniable. Indeed, matters might even be worse were it not for the actions of the ECB, which after some hesitation has moved vigorously to counter the risk of deflation. At the outset of the global crisis, the ECB hewed closely to its traditional anti-inflation mandate, even briefly raising interest rates in mid-2011. But a turning point came a year later, when the troubles of the PIGS seemed to threaten a break-up of the eurozone. The paucity of action on the fiscal front finally prompted Mario Draghi, president of the ECB, to intervene in a now celebrated speech to the London financial community in July 2012. The ECB, he pledged, would do 'whatever it takes to preserve the euro', adding 'believe me, it will be enough'. Specifically the ECB would now begin, under certain conditions, to buy up some of the debt of troubled sovereigns under a new programme given the label of 'outright monetary transactions'. Although in fact no such purchases have yet been made, the impact of Draghi's words was positive, easing some of the sense of panic that had taken hold in Europe's financial markets. And since then a broad range of measures have been undertaken to reduce interest rates and expand bank lending. At best, however, the ECB has been able to hold the fort, forestalling further deterioration. Its initiatives have done nothing to address the euro's underlying structural defect. EMU's anti-growth bias remains largely untouched.

Of course, the bias is nowhere to be found in the charter of the ESM or the fine print of the Fiscal Compact. De facto, however, it is plainly there for all to see. In effect, EMU has succeeded in resurrecting at the regional level the nineteenth-century rules of the game, when exchange rates were rigidly fixed, capital controls were verboten, and the preferred method of adjustment was domestic contraction – an updated version of the gold standard without gold. 'You shall not crucify mankind upon a cross of gold,' declared William Jennings Bryan in 1896. Today Europe's economic fortunes are being crucified upon a 'cross of euros' (O'Rourke & Taylor, 2013).

Conclusion

The bottom line, therefore, is clear. Europe's arrangements for coping with regional financial crisis, even after recent reforms, are inadequate; and barring a fundamental change in European political culture, are likely to remain so. The opportunity to take a lesson from the American experience has been brushed aside. EMU's structural failure remains unremedied, and the cost of that failure is high.

This does not mean that EMU must necessarily be abandoned, as the French intellectual Francois Heisbourg (2013) has argued in a recent book, La Fin du Rêve Européen (The end of the European dream). In his view, the euro cannot survive without a major shift towards a more federal structure, which he deems unlikely. Hence the common currency, he says, is doomed. But that is too extreme. Europe is capable of saving its monetary union from outright collapse. As I have argued elsewhere (Cohen, 2012), lack of success does not mean outright failure. What it means, rather, is more of the same sub-optimal performance that has plagued Europe since the crisis began, including sluggish growth, persistent unemployment and financial instability. The eurozone will endure, but it will not prosper.

Title: L'UE Peut-Elle Sortir de l'Autoritarisme Techno-Libéral? Author: Jérôme Skalski From: l'Humanité Date: March 31, 2017

Table ronde avec Anne Sabourin, responsable du PCF aux questions européennes, Marc Joly, sociologue, chercheur au CNRS, auteur de l'Europe de Jean Monnet. Éléments pour une sociologie historique de la construction européenne (CNRS éditions) et Michel Aglietta, professeur émérite à l'université Paris-Ouest et conseiller au CEPII et à France Stratégie, coauteur de la Double Démocratie (Seuil).

Rappel des faits. Le Brexit marque le recul de la construction de l'Europe devant une stratégie de repli national conduite sous la houlette des forces les plus réactionnaires. L'exigence d'une alternative à la fuite en avant ultralibérale est incontournable.

La défiance à l'égard du projet européen est-elle conjoncturelle ou est-elle l'indice d'une crise durable ?

Anne Sabourin - De toute évidence, il s'agit d'une crise de légitimité profonde, qui dure depuis des années, au moins depuis le passage en force du traité de Lisbonne après que plusieurs peuples ont voté contre le traité constitutionnel européen. Mais rappelons que le traité de Maastricht a été adopté en France avec une très courte majorité dès 1992. La « nouveauté », c'est que, avec le krach financier de 2008, sa gestion par l'austérité, le chantage à la dette et le harcèlement permanent vis-à-vis de la Grèce, l'insupportable a été atteint. Les tenants des traités se font sanctionner les uns après les autres aux élections. Regardez le sort réservé à Sarkozy, Hollande et Valls à la primaire ! La social-démocratie s'effondre et les extrêmes droites ont désormais atteint un niveau critique. Le Brexit est le premier signe d'éclatement de l'Union européenne (UE). La colère des peuples ne doit pas être étouffée ou nous irons vers de sombres années. Nous sommes dans un moment d'accélération de la crise, de grande polarisation des débats, de recompositions politiques.

Marc Joly - La défiance concerne d'abord les représentants politiques nationaux. Ou, plus précisément, c'est lorsqu'il y a défiance à l'égard de ces représentants que les institutions européennes cessent de laisser indifférent. La crise est donc structurelle : les institutions de l'UE symbolisent, par leur fonctionnement même, intrinsèquement consensualiste (au niveau des négociations intergouvernementales, de la comitologie, de la Commission européenne, comme dans l'enceinte du Parlement européen), le faible contrôle que les « représentés » ont sur leurs « représentants » ainsi que les liens de ces derniers avec les grands intérêts industriels. Michel Aglietta - Le projet européen est né des bouleversements sociaux issus de la Seconde Guerre mondiale. Le progrès social a été son ciment dans le cadre d'un capitalisme contractuel et dans l'espace de stabilité monétaire de Bretton Woods, laissant une large autonomie aux États de conduire leur politique économique. Le désordre monétaire international et la crise du capitalisme contractuel ont entraîné un danger de désintégration dans les années 1970. Il n'a été surmonté que par la clairvoyance des dirigeants franco-allemands dans la quête du lien social le plus fondamental : la monnaie. Mais la résolution de la crise inflationniste mondiale a consacré la victoire de l'ultralibéralisme anglo-saxon, qui a fait muter le régime de croissance en imposant la prépondérance de la finance. Le modèle social européen en a été profondément affecté depuis les années 1980. Les économies ont été ballottées par des cycles financiers successifs et de plus en plus amples qui ont culminé avec la crise systémique de 2008. Celleci a engagé une nouvelle mutation du capitalisme qui peut s'étendre sur plusieurs décennies. L'Europe joue son destin dans des conditions difficiles qui croisent l'érosion du modèle social, la dévalorisation du travail et la dégradation de l'environnement. La finance a exacerbé les divergences de politique économique dans la première décennie de l'euro, ce qui a rendu la zone euro très vulnérable aux contrecoups de la grande crise financière. Les répercussions dévastatrices sur les pays du sud de l'Europe ont révélé au grand jour l'absence de coordination politique entre les pays membres de l'union monétaire. La terrible récession des années 2011-2013 nourrit l'amalgame d'une hostilité à l'Union européenne en tant que système institutionnel et à l'establishment politique dans les pays membres.

Une transformation des institutions européennes dans le sens de plus de démocratie n'est-elle pas nécessaire ? Quels seraient ses effets ?

Michel Aglietta - Le problème est profond. Il faut parvenir à régénérer le modèle social par une double démocratie de citoyens à la fois nationaux et européens en s'appliquant aux domaines d'intérêt commun : revaloriser le travail et la créativité, renforcer la sécurité collective, promouvoir la compétitivité de toute l'Europe en développant les biens communs. Le principe consiste à investir au niveau de l'Europe dans tout ce qui apporte une valeur ajoutée européenne. Ce sont les investissements qui apportent un bien-être plus grand à tous les pays s'ils sont mis en œuvre au niveau européen que s'ils sont effectués dans chaque pays séparément. Parce que le progrès social peut être retrouvé dans un régime de croissance inclusif et soutenable, les domaines ne manquent pas de coopération européenne : dans la recherche et développement, les associations universitaires d'excellence, les réseaux transnationaux de numérique, de transports, de distribution d'électricité pour maximiser l'essor des énergies renouvelables. Il faut faire de la mise en application des résolutions de la COP21 le domaine par excellence de la valeur ajoutée européenne pour un leadership d'innovations. Plus qu'une opportunité, il y a une exigence politique dans un monde devenu multipolaire avec l'émergence d'États continents et avec le déclin irréversible de l'hégémonie occidentale.

L'Europe doit être une puissance publique unie pour participer à la formation des normes internationales de l'avenir. Pour ce faire, les nouveaux dirigeants français et allemand devraient proposer un pacte dès la fin de l'année. Deux dimensions sont indispensables : d'une part, pourvoir l'Europe d'un budget ayant des ressources propres pour mener les politiques européennes d'investissement dans un développement du plan Juncker sous le contrôle du Parlement européen ; d'autre part, réformer le Semestre européen par une coordination des budgets des pays membres de la zone euro pour une politique contracyclique de la zone euro favorisant une convergence entre les pays.

Marc Joly - La majorité des parlementaires européens vous répondraient qu'il suffirait d'accroître leurs pouvoirs pour aller dans le sens de la « démocratie », puisqu'ils sont élus au suffrage universel. Le président de la Commission dirait, lui, que son institution incarne l'intérêt général européen et que ses missions devraient été mieux définies pour correspondre à celles d'un véritable exécutif (ce que prescrit un récent Livre blanc). On retrouve l'idée d'une démocratie représentative à l'échelle européenne, avec partis politiques transnationaux, européanisation de l'espace public et de l'opposition droite-gauche. Or, à tous points de vue,

c'est irréalisable. Mais, avant de se lancer dans de grandes envolées sur l'existence ou non d'un « demos » européen ou de dénoncer un complot de l'UE, encore faut-il analyser sociologiquement le processus de mise en place d'un espace décisionnel témoignant d'une reconfiguration symbolique (la légitimité représentative) et effective des rapports de forces entre le législatif et l'exécutif au sein des nations, et, conséquemment, d'une sorte de transmutation de la souveraineté nationale externe en une souveraineté européenne interne sui generis, incompréhensible pour les peuples concernés par son déploiement.

L'Union européenne est d'abord le produit et la manifestation des marges de liberté que le système de la démocratie représentative (le meilleur hormis tous les autres, c'est bien connu !) et l'idéologie de la souveraineté nationale confèrent aux élites politiques dirigeantes. Logiquement, il n'y a pas de critique de l'UE qui tienne sans critique de ce système et de cette idéologie.

Anne Sabourin - La démocratisation des institutions est un objectif prioritaire pour une refondation de l'Union européenne. Nous voulons une « Union de peuples et de nations libres, souverains et associés ». Ce projet implique une mise en cause des pouvoirs colossaux cédés aux institutions financières. Cela pourrait commencer très concrètement avec un Fonds de développement social et environnemental et cela doit, in fine, aboutir à une révision des statuts et des missions de la Banque centrale européenne.

Deuxième idée : le respect des souverainetés populaires et l'égalité des pays. Comment est-il possible que l'on refuse encore à la Grèce le rétablissement des conventions collectives ? Comment est-il possible que les ministres de la France se rendent sans mandat du Parlement à l'Eurogroupe ou au Conseil européen ? Troisième principe : la primauté des instances élues dans l'initiative et la prise de décision. Les parlements nationaux et le Parlement européen doivent avoir le dernier mot et tout projet majeur doit être soumis par référendum aux citoyens. Les nombreuses transformations nécessaires de l'UE doivent faire l'objet d'un grand débat national. Lorsqu'on veut plus de démocratie, il faut proposer une démarche démocratique.

<u>Cette démocratisation permettrait-elle de sortir des carcans économiques libéraux dans le sens</u> <u>d'un projet coopératif et social ?</u>

Marc Joly - C'est le pari du récent projet T-Dem, proposé par Piketty. Je pense, à la réflexion, que ce n'est pas une bonne solution. En gros, la voie d'une amélioration générale se trouve quelque part entre, premièrement, une analyse objective des dysfonctionnements de l'UE (ce qui suppose, de mon point de vue, de poser en termes sociologiques le problème structurel de la souveraineté, de relancer sur des bases saines la question de l'adhésion turque, de trouver les moyens de tirer le meilleur parti possible de l'euro). Deuxièmement, une certaine prise de liberté concertée des États en matière économique et sociale.

Enfin, hors du système de l'Union européenne, une initiative franco-allemande positive, à l'image du projet de Ceca, par exemple, une Haute Autorité de la transition énergétique. Cela reviendrait à renouer avec la « vraie » méthode Monnet, via la création d'instances pleinement « souveraines » dans des domaines nettement circonscrits revêtant une portée symbolique et susceptibles de dénouer des problèmes vitaux. Et cela supposerait d'inventer une forme de légitimation démocratique différente du modèle représentatif classique, une forme participative, branchée sur la société civile, en soutien de cette Haute Autorité exclusivement compétente dans le domaine de la planification énergétique – et qui, étant capable de s'imposer

aux institutions de l'UE, aux États et aux entreprises, redynamiserait le conflit politique à l'échelle européenne en même temps qu'elle symboliserait l'espoir en un monde meilleur et en une gestion rationnelle des interdépendances.

Anne Sabourin - Il est illusoire de penser qu'un seul changement institutionnel peut permettre la transformation sociale. C'est la raison pour laquelle je suis sceptique face à la proposition de Parlement de la zone euro. Quel changement avec une nouvelle institution truffée de libéraux ? Si l'on veut sortir des carcans et engager de profonds changements, c'est à la construction d'un rapport de forces favorable aux idées et aux forces de progrès qu'il faut s'atteler : la conquête des pouvoirs gouvernementaux pour la gauche, la mobilisation des travailleurs, des jeunes, des femmes, mais aussi, et, indissociablement, la construction d'un front d'idées et d'actions européen. Je prends un exemple concret : si l'on veut mettre en cause l'austérité, il ne suffit pas de « réviser la gouvernance de la zone euro ». Il faut qu'une coalition de gouvernements de gauche pose ce débat au Conseil, éventuellement en prenant des mesures de résistance au niveau national, que les salariés et les usagers, les services publics se mobilisent et que cet objectif fasse l'objet d'une bataille commune des forces de progrès au niveau européen.

Title: Brexit – Towards a New Global Phase of Organized Capitalism? (sel.) Author: Andres Nölke From: Competition and Change Vol 21 No 2 Date: April 2017

Theories about the historical development of the global political economy: Brexit as an element of a new phase of organized capitalism2

In perspective, the Brexit vote is only one development among many in the global crisis of liberal-cosmopolitan capitalism. Other cases include the election of US President Trump, the rise of right-wing neo-populist parties throughout Europe, the rise of state capitalism in emerging markets and the crisis of liberal global economic institutions, including the multiple crises of the EU. The global political economy, therefore, seems to have turned against liberal-cosmopolitan capitalism. These various developments are not coincidental. The 2007/ 2008 global financial crisis played an important role in delegitimizing this form of capitalism, bolstered by the stagnating incomes of Western labour and the lower middle classes as austerity measures were widely implemented (Lakner and Milanovic, 2013). However, many of the developments listed above had been in the making over an extended period, and therefore, it is necessary to take a longer historical view.

This is not the first time that there has been a global tendency away from liberal capitalism. Parallels between the current situation and that of the 1930s have already been identified after the 2008 global financial crisis (Eichengreen, 2015). While this debate focused, firstly, on comparisons between the depression of the late 1920s and the post-2008 recession, more recently, the debate has turned to drawing the parallels between the political reactions to these crises, with a particular focus on the rise of right-wing political extremism.

[...]

A promising option for capturing both current developments and the 1930s appears to be the notion of 'organized capitalism'. This notion has been developed by a number of German and Austrian theorists in the early twentieth century, including Hilferding (1910), Naphtali (1928), Sombart (1932) and Pollock (1933), when focusing on the strong role of finance capital and cartels in the European and US economies.3 In a nutshell, the core question about organized capitalism is whether firms are the 'private business of their owners and insiders' or 'quasipublic infrastructures' and, therefore, constrained in their economic decisions by institutionally sanctioned 'collective interests' (Ho[°]pner, 2007: 6–7). The latter is called 'organized capitalism', with the collective interests ranging from sectoral interests over class interests to political interests, such as supporting a war economy.

Organizing capitalism usually takes place on a national basis, although it can take different forms. From this perspective, German 1930s Monopoly Capitalism has much in common with 1930s US Fordism, given that both share a high degree of organization of economic activity, as well as opposing highly competitive liberal capitalism. Both models, including cartels, trusts

and monopolies on the one side, and corporate interlocks and corporatism on the other, share a high degree of organization. In both cases, the leadership of a private company has to accommodate the whole cartel and/or consider the impact on the national economy. Moreover, due to this high degree of organization, this type of capitalism potentially becomes more amenable to purpose-driven societal influence than competitive capitalism (Hilferding, 1910). Thus, the General Commission of the German Federation of Trade Unions led by Naphtali (1928) saw the development towards organized capitalism as a major step towards economic democracy, whereas the demand for a return to more competitive capitalism has been rejected as reactionary by observers such as Sombart (1932). Fascism, however, destroyed any positive connotation of the phrase 'organized capitalism', at least in Germany.

However, organized capitalism endured in Western economies until the 1980s, when it encountered a new phase of (neo-) liberal 'disorganized' capitalism (Lash and Urry, 1987). Arguably, both the re-industrialization strategies proposed by the Conservative government in the UK under Prime Minister Theresa May, the US, Poland and Hungary and the state capitalist strategies followed by the large emerging markets on the other, can be subsumed under the broad heading of organized capitalism. Individual companies may pursue their profit motives but have to do so in the context of over-arching policies relating to industrial (re-) development. By turning against liberal capitalism, these governments may even be considered as an avantgarde with regard to future global economic developments. To date, conservative or even rightwing neo-populist governments have been best able to ride this wave of socio-economic discontent. Organized capitalism, however, does not have to be reactionary – it opens up wider options for societal influences on the economy can therefore be a source of social reforms.

If we combine the theoretical arguments outlined above, the Brexit vote – and the postBrexit UK government strategy – thus can be seen as one element among many in the broader development of capitalism. These events point towards a counter-movement against liberal capitalism, inter alia triggered by the global financial crisis and the stagnation of the living standards of Western labour and lower middle classes. In a historical perspective, this movement is part of long-term cycles between liberal and organized capitalism and represents a new phase of organized capitalism. Similar to the developments in the 1930s, this phase can both take a progressive or a reactionary direction.

Conclusion

This article has pointed to significant parallels between the Brexit vote and other recent developments in the global political economy. Not only the election of President Trump but also the outcomes of recent elections in Continental Europe, the outlook of the current Japanese government and the long-term trajectory of major emerging markets all point in the same direction. This direction is a turn away from cosmopolitan liberal principles of economic organization and towards a more organized form of capitalism, with a stronger focus on the national level.

Arguably, an organized form of capitalism has already become established in the large emerging markets of China and India and during a decade in Brazil. Moreover, these developments are not confined to the national level in the most important economies, but increasingly can be seen at the level of global economic order, where liberal institutions are slowly being eroded. With hindsight, historians in 50- to 100-year time may record the Brexit vote as one among many developments that have signalled the advent of a new phase of capitalism. By embedding these observations in theories about the long-term development of capitalism, we argue that we are currently witnessing a long-term turn towards a phase of organized capitalism, similar to the previous turn of the 1930s. Whether this turn towards organized capitalism will be a benevolent development, similar to the US New Deal in the 1930s, or a historical disaster such as the rise of Fascism, is too early to tell. Arguably, an interlude between two phases is more fluid and more open to political agency than a period within an institutionally stable phase of capitalism. This also applies to Brexit and related developments. The Brexit vote may lead to a political economy that is xenophobic, nationalist and authoritarian, but it may also lead to a political economy that caters much better for the working and the lower middle classes, based on successful re-industrialization and social reforms. Much will depend on whether domestic political forces and inter-governmental cooperation will be able to manage the tensions arising from the current development towards a new phase of organized capitalism. The US New Deal and the three decades after the Second World War have proven that this is not completely impossible.

Title: Savings Banks and Cooperative Banks in Europe Author: Dilek Bülbül, Reinhard H. Schmidt and Ulrich Schüwer From: SAFE White papers Date: August 20, 2013

1. The aim and the structure of the paper

Historically, savings banks and cooperative or mutual banks have played an important role in the financial systems of almost all European countries. However, the wave of financial deregulation, liberalization and privatization in the late 20th century has changed the role and the institutional forms of these banks in most European countries. The general tendency of the past years was to regard these types of banks as somehow old-fashioned, outdated and inefficient, and to advocate and even imple-ment policies that correspond to this view. In some European countries, savings and cooperative banks have completely disappeared as specific groups of financial institutions, and in some others, they have changed so much that it suggests asking whether there is still today any substantial difference between these banks and conventional national and international commercial banks in the legal form of a corporation and with the set of objectives that private banks can be assumed to have.

However, under the influence of the financial crisis, the formerly widely held critical view of savings and cooperative banks might give way to a more friendly assessment. After all, many big private banks had incurred so much risk that policy makers and regulators have adopted a skeptical view of their merits and are now trying to find ways of limiting their riskiness. Indeed, many current policy initiatives try to make all banks behave a bit more like the savings banks and cooperative banks of yesteryear.

Apart from the important role that savings banks and cooperative or mutual banks play in several European banking systems, studying these two groups of banks is particularly interesting because of their unconventional organizational design, which sets them apart from private banks that solely operate in the interests of their shareholders. This is why this paper puts special emphasis on the aspect of institutional design.

The aim of this article is to characterize the former and the current roles of savings banks and cooper-ative banks, to provide a brief account of the recent changes and also to speculate about their future prospects. This aim determines the structure of the article. In the next section, we characterize savings and cooperative banks in Europe by pointing out their former characteristic features. Then we turn to their recent development in different countries. We first address the German case, which is almost unique in so far as the German savings banks and cooperative banks have maintained most of their traditional features, and then take a brief look at other European countries. The article concludes with a plea for diversity of institutional forms of banks and argues that it is important to safeguard the strengths of those types of banks that do not conform to the model of a large shareholder-oriented commercial bank.

2. The definition and the nature of savings banks and cooperative banks

The discussion of the nature of savings banks and cooperative banks focuses on two aspects: their business models and their institutional features. Both banking groups share the regional focus of their business models; nevertheless, they traditionally have very different institutional

features that, for each banking group, proved quite successful over the last two hundred years. Importantly, the banks' busi-ness models and their institutional features are interdependent and complementary to each other.3 As the last decade documented and as will be elaborated in this paper, changes in banks' institutional features immediately affect their business models and vice-versa.

It is almost impossible to define the savings banks of the 21st century in a general and meaningful way that is applicable to every institution that goes under that name today. They are a very heterogeneous group. Even across countries in Europe, they have few common features and the distinction between savings banks and other banks is becoming less and less clear. There are now only two features that all savings banks in Europe have in common: (1) their focus on savings and savings mobilization and (2) their clear regional and even local focus.

Until about 25 years ago, these two features of the business model of most European savings banks were closely connected to five institutional features. The most preeminent feature was 3) that of being "public" banks which were in a certain sense owned or sponsored and governed by some regional or local public body such as a city or a county or a region. This does not imply that these authorities had property rights that owners of a private bank have, but it implies that they had certain rights and also certain obligations with respect to "their" savings banks. As public banks, savings banks were (4) organized under a public law regime. The next feature was (5) their dual objective: They were expected to support the local economy and the local people, and at the same time to operate according to common business rules and thus to be financially sustainable enterprises.

Another common feature was (6) their adherence to the so-called regional principle, which restricts the operations of a savings bank to the area for which the public body is responsible. As banks that adhere to the regional principle and are firmly rooted in the local economy do not compete with each other, the different savings banks in a country or region had reasons to consider each other more as peers and colleagues than as competitors. This is why it is easy and attractive for them to cooperate, and it leads to the seventh traditional feature of savings banks in Europe: They were (7) part of dense and closely (3) that of being "public" banks which were in a certain sense owned or sponsored and governed by some regional or local public body such as a city or a county or a region. This does not imply that these authorities had property rights that owners of a private bank have, but it implies that they had certain rights and also certain obligations with respect to "their" savings banks. As public banks, savings banks were (4) organized under a public law regime. The next feature was (5) their dual objective: They were expected to support the local economy and the local people, and at the same time to operate according to common business rules and thus to be financially sustainable enterprises.

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not compete with each other, the different savings banks in a country or region had reasons to consider each other more as peers and colleagues than as competitors. This is why it is easy and attractive for them to cooperate, and it leads to the seventh traditional feature of savings banks in Europe: They were (7) part of dense and closely cooperating networks of legally independent institutions that constitute a special banking group.

This list of seven features constitutes the "prototype" of a savings bank. In the past, it was also valid as a description and allowed to distinguish savings banks from other banks. However, as we said before, today not all national savings bank systems exhibit all of these features any more.

These networks offer the opportunity to have a common appearance vis-à-vis clients and the general public, share information and, most importantly, "outsource" certain functions in which economies of scale can be achieved to central institutions that are also part of the networks. Being part of such networks strengthens their competitive position within the respective national banking system.

Most cooperative banks are still today in many respects similar to how savings banks used to be. They are regional banks; they adhere to the regional principle; they are parts of dense networks that foster within-group cooperation, and they also have a dual objective. In their case, the mandate is to support the economic undertakings of their clients and to be cost-covering and profitable businesses. The specific feature of any cooperative bank – and thus also a criterion of demarcation from other banks – is their legal structure. Although they have some features of corporations, cooperatives are organized almost like clubs. Therefore the owners and providers of equity are not called shareholders but members. Three principles shape the institutional structure of financial and other cooperatives. The "principle of self-help" implies that they are self-governed private organizations. According to the "principle of identity", members are their main clients and conversely many of their clients are also members. Then there is the "democratic principle". It manifests itself in the rule that one member has only one vote in the annual general meetings, irrespective of how many shares he or she may hold.

In some countries savings banks are no longer public and municipal institutions operating under a public law regime and are no longer part of dense networks of affiliated institutions. Therefore one must restrict oneself today to defining savings banks simply as savings-oriented locally focused financial institutions that are called savings banks according to tradition and/or national laws and regulations.

Since cooperatives are structured like clubs, members cannot sell their shares if they want to exit. They can only hand them back to the cooperative and in return get back what they have once invested, plus their part of accumulated profits. This feature has both negative and positive implications. Ownermembers' incentives to monitor the performance of the managers are weak due to the fact that they can hardly benefit from policies that would increase the value of their shares because they cannot sell their shares at a higher market price, and they cannot exert

pressure on management due to the fact that they cannot accumulate a sufficient number of voting rights. As a consequence, the incentives of the managements to perform well and to increase the going-concern value of cooperative banks are also weak. Evidently, this constitutes a handicap for cooperative banks in their competition with other banks. At the same time the "democratic principle" and the limited incentives for management to make high profits imply that potentially powerful members cannot dominate a cooperative and make management exploit weaker members for instance by paying low interest rates on deposits. For the same reason, the incentives to incur high risks as a means of achieving high profits are weak in a financial cooperative.

3. Savings banks and cooperative banks across Europe **3.1** Overview

The role of savings banks and cooperative banks varies significantly between European countries. This is related both to historical reasons and to developments over the last decades. Figure 1 presents the market share of total assets of savings banks and cooperative banks (including total assets of the respective central institutions) in terms of total banking assets in selected countries over the last years. As illustrated in the left panel, until today savings banks play an important role particular in Spain and Germany, but not so any more in several other countries.

In the remainder of this section, we first discuss the development of savings banks and cooperative banks in Germany at somewhat greater length. We do this for two reasons: First, historically, the German savings banks and in particular the German cooperative banks served as a role model for similar banks in other European countries and around the world. Second, much more than those in almost any other country, the German savings and cooperative banks have maintained most of their traditional features over the last decades, and therefore arguably still correspond best to what one might call their prototypes. Subsequently, we briefly describe the developments and the current positions of savings and cooperative banks in selected other European countries, i.e., Austria, France, Italy and Spain.10

3.2 Germany

3.2.1 Historical development

The establishment of savings and cooperative banks in Germany goes back to the 19th century. The first savings banks were created about 200 years ago. They were foundations established by well-intentioned citizens with the mission of encouraging and enabling people of a low social standing to set aside some savings for a rainy day, a wedding or some other purpose. Then very soon municipal and public savings banks were created, and they soon became the dominant form. Over the years, the number of savings banks increased continuously, associations of savings banks were created and with the introduction of giro transactions in the early 20th century, regional clearing banks, which are now called Landesbanken, were established to support the savings banks operating in a larger region that would correspond to what are now different federal states in Germany. Together with the local savings banks, the Landesbanken and the associations formed a dense network of institutions. Later, additional

institutions for special purposes, such as building societies, were founded and added to the network. However, the local banks remained the heart and the basis of the group.

The cooperative banks in Germany date back to the middle of the 19th century. Two groups of cooper-ative banks emerged at that time. The founder of the first group was Friedrich Wilhelm Raiffeisen. He laid the foundations for what was to become an extensive network of rural cooperative banks in Germany, which provided the model for cooperative banks in other European countries and finally in the entire world.

Cooperative banking expanded as much as savings banks and soon covered all of Germany and also some neighboring countries, and like the savings banks they established dense networks of associa- The second important group of cooperative banks was founded in an eastern part of Germany. They adopted the common name of people's banks (Volksbanken). The founder of this group was Hermann Schulze-Delitzsch, a former public administrator and a politician.

Cooperative banking expanded as much as savings banks and soon covered all of Germany and also some neighboring countries, and like the savings banks they established dense networks of associations, clearing banks and affiliated specialized service providers. The German Banking Act of 1934 placed savings and cooperative banks under the same regulatory regime as all other banks. As a consequence, they became universal banks by law and in practice. For many decades, the two cooperative networks remained separate until they finally merged in 1972. As of then, cooperative banks may also conduct business with clients who are not members.

The German savings banks and cooperative banks have until today adhered to the regional principle described above, which implies that they are not competing with other banks in their respective bank-ing group. This has enabled them to cooperate within their groups and to benefit greatly from being organized as parts of networks of closely connected, but legally independent institutions. Therefore, they are in a position to offer a full range of services to their customers without having to produce all of these services themselves, which would be too costly or, because of the small size of the local institutions, simply not feasible. Over time, and especially in the 30 to 40 years after World War II, both groups of regional banks underwent a process of professionalization and concentration - reducing the number of local institutions to less than one half over time – and of deepening the cooperation in their respective networks. During these years, the savings and cooperative banks were the most successful groups in the German banking system; they gained market share, were quite profitable and stable, and enjoyed a good reputation with clients and in the general public. In the early postwar years, the German banking market had been rather segmented, allowing savings and cooperative banks to become the main providers of retail banking services to German households and SMEs. The big private banks only started to serve the general public in the mid-1960s. This put some pressure on savings and cooperative banks, but they remained strong contenders in the banking market.

In 2001, the German government agreed with the EU Commission to phase out the former public guarantees for local savings banks and Landesbanken by the year 2005. While this had serious conse-quences for the Landesbanken, the local savings banks were hardly affected by

this change since, first, they are largely financed by retail deposits, and second, for decades the group's internal risk control proved successful such that there was not a single case in which the public guarantees had been invoked. Further, in contrast to the business model of Landesbanken, that of the local savings banks has always been very safe, as their focus remained on their core business of operating locally.

3.2.2 The structure of banking networks

The savings bank group is organized in a three-level network. Savings banks operate at the local level. At the end of 2012, there existed 423 savings banks. Regional financial institutions such as Landesbanken12, building societies and insurance companies typically operate at the state level.

Other institutions, like DekaBank or Deutsche Leasing, operate at the national level. This threelevel structure of financial institutions is mirrored in the structure of associations, with the German Savings Banks Association (DSGV) at the top representing the savings banks group to policy makers, public authorities and the general public. This national association also plays a certain role in shaping the general policy of the group. However, it is important to note that the savings banks group is neither by law and statute nor de facto a hierarchical system with central power residing at the top.

As in the case of the savings banks, the local cooperative banks – currently 1.104 – are the basis and the heart of the cooperative banking network. In addition, this network includes two central financial institutions and a certain number of specialized service providers operating nationwide13

3.2.3 Market situation .

The central financial institutions are DZ-Bank-AG and WGZ-Bank-AG. The larger one, DZ-Bank, is not only the central bank for most local cooperative banks but at the same time also one of the largest commercial banks in Germany. It operates on the national level and also to a certain extent internationally. WGZ-Bank is a regional central bank for the cooperative banks in the Rhineland and the only regional central or clearing bank that still exists today; the others have been merged into DZ-Bank over time. Similar to the case of the savings banks group, there are regional associations of cooperative banks and one national association. The latter plays a role that closely resembles that of the DSGV.

Until today, the German banking system is a so-called "three-pillar system". The first pillar is formed by the private banks. It includes the "big banks" which have nationwide branch networks.14 The savings bank group is the second pillar, and the cooperative banking group is the third pillar.15

Table 2 contains information on the groups' market shares with respect to total assets, loans to non-banks and deposits and borrowing from non-banks for the years 2000 and 2012.

Over the years the local savings and cooperative banks have been able to prosper and at times even outperform the commercial and purely shareholder oriented banks. The following Figure 2 provides performance indicators of German branch banking and allows for an assessment of the financial situa-tion of those banks in the three-pillars that have extended branch networks and are therefore to some extent comparable. The left panel of Figure 2 shows that the cost-income ratio is lower for savings banks and cooperative banks than for the large commercial banks. As shown in the middle panel, return on equity is on average higher and clearly more stable for savings banks and cooperative banks. Finally, the right panel shows that the interest margins for all banks have been steadily declining, but throughout the years the interest margins are higher for savings banks and cooperative banks than for big banks.

Not only standard performance indicators show that the local banks performed about as well and at times even better than the private big banks, but also more elaborate ways of analyzing and comparing performance confirm this result for the years before the financial crisis began in 2007. For example, Altunbas et al. (2001) examine a sample of German banks between 1989 and 1996. They find that public and mutual banks are not less efficient, but rather have slight cost and profit advantages over their private sector competitors. This may appear particularly surprising given that savings and cooperative banks pursue the dual objective of profit and benefit for their customers, an effect that cannot be included in standard performance measurements.

Probably less surprising, but equally relevant, is the empirical evidence for Germany that savings banks and cooperative banks are on average less risky than privately-owned commercial banks (Beck et al., 2009). Note that some earlier cross-country studies find that publicly owned banks are more risky than privately owned banks (e.g. Iannotta et al., 2007),18 or that a higher share of government ownership results in higher banking fragility (La Porta et al., 2002).

Further, Behr et al. (2013) find that the lending of German savings banks is less cyclical compared to that of the private banks and that German small and medium-sized enterprises that increase their borrowing from savings banks are less credit constrained, based on a sample for the period 1995 to 2007. Hence, the high financial stability of German savings banks also benefits their clients.

These studies, however, focus on large publicly owned banks and therefore do not provide any contradicting evidence as regards the stability of locally oriented savings banks.

3.2.4 German branch banks during the financial crisis

In contrast to the large banks which experienced large losses due to overly risky investments and offbalance sheet activities of a precarious nature in the years preceding the financial crisis, German local savings and cooperative banks weathered the storm largely unharmed. Almost all of them managed to remain stable and profitable during the crisis years.20 This is foremost due to their traditional business model concentrating on the core-business of banking and corresponds to their mission and tradition. The local banks benefitted from their strong customer deposit-gathering ability and their established close relationships with their business clients. Moreover, their rather conservative business models prevented them from becoming involved in those lines of risky business that created great damage to most large private banks. Moreover, in contrast to other banks, the savings and cooperative banks have not curtailed lending in the crisis.

Nevertheless, like almost every financial group, the savings banks group as a whole was also affected by the financial crisis. Four Landesbanken (HSH Nord, BayernLB, SachsenLB and WestLB,) suffered greatly, indirectly also causing large losses to local savings banks and other institutions in the banking group in their roles as co-owners, guarantors and business partners. This is one reason why some Landesbanken are currently undergoing major reforms (HSH Nordbank and BayernLB), were merged (SachsenLB with LBBW), were largely liquidated (WestLB), or are re-aligning their business models. Other Landesbanken such as Helaba did relatively well during the financial crisis, and thus strengthened their positions within the savings banks group.

Being even less involved in structured finance and capital markets products than the savings banks, the cooperative banks have survived the financial crisis better than any other banking group in Germany, even though their central financial institutions DZ-Bank also had some problems and needed help, which it got from other institutions belonging to the network. Very soon, these problems were over-come, and DZ-Bank returned to profitability.

In concluding, one can say that despite some problems with their central financial institutions, savings banks and cooperative banks have proved to be a stabilizing factor for the German financial system and economy. The financial crisis has strengthened the positions of the two groups of banks and thereby also stabilized the traditional three-pillar structure of the German banking system.

3.3 Austria

The Austrian savings bank group currently consists of Erste Bank Österreich ("Erste Bank"), which is the largest Austrian savings bank and the group's central financial institution, further 47 regional and local savings banks, the holding company Erste Group Bank AG ("Erste Group"), and several associ-ated service institutions. As in many European countries, Austrian savings banks were founded in the 19th century. They were created with similar intentions and in much the same way as their peers in Germany: They were local initiatives, created in most cases by public authorities or by groups of citizens with a strong sense of social commitment.

Over the last decades the Austrian savings banks sector went through profound structural changes. Only in 1979 the Austrian Savings Banks Law allowed them to become truly universal banks. This reform also abolished the regional principle, which encouraged several savings banks to start operating at the national level. In 1986, a revision of the Savings Banks Law permitted splitting up a savings bank into two entities with different legal forms. The operating part of the bank was offered the option to become a "savings bank stock corporation", while the former savings banks continued to exists as the owners of their shares. The reform

led to a complex structure of cross-ownerships with some savings banks holding shares in other savings banks. In 1997, Erste Bank acquired the former central institution of the savings banks, GiroCredit, and subsequently became publicly listed on the Vienna Stock Exchange. As the dominant savings bank in Austria with more than half of the total assets of all savings banks, Erste Bank seems to have to a certain extent pushed the other savings banks into a secondary role. As of 2008, Erste Group was created as a holding company for Erste Bank, as well as the bank's holdings in Eastern European banks and in other Austrian savings banks.

There are two groups of cooperative banks in Austria, the larger group of Raiffeisen banks operating mainly in rural areas and the smaller Österreichische Volksbanken-Gruppe (ÖVB group) with an urban business focus. In contrast to the German case, these two groups still exist side by side. The central institutions of both groups, Raiffeisen Zentralbank Österreich AG and Österreichische Volksbanken AG, respectively, are at the same time large commercial banks in their own right. As in the case of Erste Bank, the relative importance of the central institutions for the cooperative banking groups is quite large.

For many years, savings banks and cooperative banks have played a major role in the Austrian banking market. Their market share in terms of total assets, loans and deposits is around 50%.

The Austrian banking market in the 1970 and 1980s was characterized by an over-expansion of bank branches and a tight squeeze on the banks' profitability. In this situation all banks felt the pressure to look for new markets. In view of the history and geographical position of Austria it is not surprising that they all seized the opportunity to expand into the neighboring countries of central and southeast Europe after 1989. As regards the Austrian savings banks and cooperative banks, this move proved to be very successful for many years, and it strengthened the position of their respective central institu-tions even more, since the Eastern European business was organized by them and the profits made by them accrued at their level. This development has changed the former characteristics of savings and cooperative banks of being decentralized and non-hierarchical networks of independent institutions, which has caused some consternation among the truly regional and even local savings and cooperative banks.

Because of their rather conventional business model, the smaller local savings banks and cooperative banks in Austria were not directly affected by the financial crisis. They had relatively few investments in high-risk assets, and their lending operations have been quite conservative, which corresponds to their mission and tradition. The situation for the central institutions of the savings banks and coopera-tive banks is different and clearly worse. Business operations in Eastern Europe are much more risky than domestic banking, in particular for banks that are very active in consumer lending, as it is the case for several Austrian banks in the neighboring countries. The impact of the crisis on the Austrian banks in Eastern Europe was very strong, and as a consequence the central institutions have incurred losses, which adversely affected the respective banking groups, especially that of the Volksbanken.

3.4 France

Savings banks have a long tradition in France: The first savings bank was founded in Paris in 1818 as a private initiative, and they were recognized as private institutions of public utility since the late 19th century. Until the 1950s, their mandate was restricted to promote, collect and manage popular savings. In return, the savings banks were granted some tax privileges, e.g., as regards the popular savings account livret A. Since the 1950s, several reforms allowed the savings banks to widen the scope of their services, and to become more similar to locally oriented universal banks. With the aim of making the savings banks more competitive, a merger wave led to a sharp decline in their number, from a peak of around 500 to only 31 in the early 1990s. However, the pressure on savings banks remained high during the 1990s because of their low profitability and of constant criticism from private competitors concerning their status as public institutions. In 1999, a law transformed savings banks merged with the cooperative banks, and in 2009 the group of cooperative savings banks merged with the cooperative group Banque Populaires. Today, French savings banks still exist as a brand under the group Banque Populaire Caisse d'Epargne (BPCE), but they are no longer comparable to publicly owned savings banks in the traditional sense.

In contrast to the former public savings banks, the cooperative banks continue to be an important element of the French banking system. Today, the cooperative sector comprises three distinct groups: Banques Populaires Caisses d'Épargne (BPCE), Crédit Mutuel (CM) and Crédit Agricole (CA). Together they hold market shares of nearly half of total banking assets, loans to households and businesses and customer deposits. Each one of them consists of a network of local banks and a powerful central institution, which are all among the largest banks in France. While the local banks are private cooperatives in the traditional sense of the term, the central institutions are corporations whose shares are, in different proportions, held by the local cooperatives and outside institutional and retail investors. All of these groups have existed since the turn of the 19th to the 20th century, and in contrast to private commercial banks, they traditionally mainly served smaller communities and less developed and thinly populated parts of the country. Until the mid-1980s, all cooperative banking groups have to a certain extent been controlled by the French government.

There are several noteworthy features of the French cooperative banks. One is their sheer size and their remarkable market share. Another one is how they have gained their current status. This came about in the course of the reform of French banking in the 1980s. When the former tightly regulated, government controlled and fragmented banking system was liberalized, several large private and public banks found it difficult to adjust to the new more competitive environment and involved themselves in some very risky lines of business. The cooperative banks, in contrast, were more cautious, stuck to their local roots and came out of this process of political change as stronger institutions. As such, they were then in a position – and legally allowed – to take over formerly private and public banks. The first one of these take-overs was that of the former private bank CIC by Crédit Mutuel in 1998. The most spectacular one was that of the large commercial bank Crédit Lyonnais by Crédit Agricole in 2003, which made Crédit Agricole one of the largest banks in France. Several other acquisitions and take-overs of banks that had formerly not been cooperative banks followed. The last major episode of that kind was the merger in 2009 of Banque Populaire with the former savings banks.

Although they are by now no longer restricted by law to limit their activities to a narrowly described area, the local cooperative banks essentially adhere to the regional principle, which makes it easier for them to cooperate in their respective networks.

In the years after the initial liberalization, the cooperative banking groups did not only grow internally and through acquisitions. They were also more profitable and less risky than the large private banks. Throughout the years, the French cooperative banks retained their role of being important providers of loans to all segments of the population and to businesses, especially to SMEs.

The French local cooperative banks have survived the crisis largely unscathed. However, their central institutions suffered considerably and, like the large private banks, were forced to accept government support in the crisis. By now, state funding has been paid back in all cases. As a general conclusion, one can say that by adjusting their institutional design to the requirements of the new banking regime in France and becoming a hybrid between local cooperatives and stock market listed corporations, the French cooperative banking groups have succeeded in retaining and even expanding their strong position in the French banking market.

3.5 Italy

In Italy, municipal or public savings banks and cooperative banks had existed since the late 19th century, in many cases designed according to German models. They were small local banks cooperat-ing in networks and serving the local population more or less well. However, they have not gained as much importance as their German, Austrian and French peers. During the long period in which Italian banking was fragmented, repressed and overregulated, they survived, though with considerable prob-lems of efficiency and profitability.

The privatization of Italian savings banks started in the late 1980s. The Amato banking reform of 1990 further pushed the privatization of the numerous Italian state-owned banks. The savings banks were first transformed into joint-stock companies and then privatized by transferring the ownership of the majority of the shares to private charitable foundations. Additional legislative changes in the 1990s abolished of geographical restrictions, limited the fraction of the shares that any one foundation could hold in one savings bank and finally led to the merger with banks of various types and the creation of large nationally as well as internationally operating banks such as UniCredit and Intesa-San Paolo. Thus one can say that with a few exceptions, savings banks have disappeared in Italy. Those large institutions which resulted from this transformation of the formerly public savings banks may be quite successful banks, but they no longer have any features of local savings banks.

Of course, some savings banks such as that of the province of Lombardy had been large and successful before they were integrated into the big banking groups. But the majority was not, and they would in all likelihood not have been able to survive in the new liberalized and more competitive environment of the 1990s and the following decade. Nevertheless, it is interesting to ask whether the far-reaching transformation - and de facto abolishment - of the former local savings banks was beneficial for their clients and the Italian economy, which after all relies heavily on medium-sized, small and very small firms. Several studies of this issue have come to the conclusion that it has led to a reduction of credit availability for Italian SMEs.

The Italian cooperative banking sector consists of two cooperative networks: Banche di Credito Cooperativo (BBC) and Banche Popolari (BP). While the BBCs are smaller as individual institutions and as a group and more active in rural areas, the BPs are typically larger and mainly conduct business in towns and cities. These two cooperative banking groups also differ in their lending business. While for the BBCs small business lending amounts to roughly 70 percent of their total loans, this share is much lower for BPs, accounting for one third up to one half. and Carletti at al. (2005) draw the lesson from the Italian experience that privatizing and transforming savings banks in the way in which this has been done in Italy would certainly not be recommendable for other countries such as Germany.

The legislative changes in the 1990s encouraged the BBCs to keep on their original model as far as their organization as cooperatives and their local business focus are concerned. Furthermore, through certain tax rules they were encouraged to retain their profits and to build up reserves. In contrast to the BBCs, the BPs have been transformed in a way that makes them almost "normal" banks. The relevant laws largely removed the former restrictions and allowed the BPs to drift away from their former cooperative and local roots. They are now permitted to issue shares which are transferrable with almost no restrictions and to expanding their business geographically and operationally. A wave of mergers has lead to more concentration and to the development of large cooperative banks belonging to the BP banking network.

3.6 Spain

Not long ago, the Spanish savings banks (cajas) appeared to be very successful. They had an impres-sive and growing market share of around 50 % and by and large were so profitable and efficient that one would not be able to see any difference in their performance to the private banks including the giant Spanish banks Santander and BBVA.

Until the 1970s, the Spanish savings banks had been public institutions. As such they had always been exposed to far-reaching political interventions and their activities were restricted to narrowly defined areas and in terms of which operations they could undertake. There were many local savings banks, and they were small and not particularly efficient institutions. With the reforms and the economic liberalization that began in the 1970s, they were reshaped to become modern financial institutions. They were privatized, the regional principle was abolished and they were granted the freedom to provide a broad range of financial services in all parts of the country. This transformed them into universal banks and important competitors to other institutions in the banking sector. However, for many of them this new business model proved to be unsustainable.

The financial crisis has had a significant impact on the Spanish economy. It brought about an abrupt end of the real estate boom and in its wake severe losses for all Spanish banks. But the savings banks had been most exposed to commercial real estate and were therefore most affected by the downturn. Losses mounted and many savings banks were de facto bankrupt. In spite of their recently acquired status of being private institutions, they were rescued with public funds and/or were forced to merge with other banks. Before the crisis there had been 45 independent institutions, and within only four years, this number was reduced to 11. Nonperforming loans, which had been as low as 1 percent in 2007, soared to 10 percent on

average and much more in certain savings banks including Bankia, a new institution that had been formed during the crisis by merging several ailing savings banks in the Madrid metropolitan area.

There are essentially two reasons for the crisis of the Spanish savings bank sector. One is the half-hearted privatization, which endowed the savings banks with the status of a private corporation that were allowed and perhaps even expected to operate on a nationwide scale, but at the same time left local politicians in very powerful positions. When ownership and governance are not adjusted to each other, failure can easily be expected.

The second, and in fact complementary, reason for the serious problems that only surfaced during the past five years is the demise of the regional principle in 1988. This allowed the savings banks to expand their branch network to other regions, and many of them made use of this opportunity. As a consequence, savings banks opened so many branches outside of their traditional catchment areas that the branch density in Spain became two times as high as the euro-area average. As one could have expected, this growth intensified competition in the Spanish banking sector, put pressure on profitability and, as a reaction, induced several savings banks to engage in high-margin, high-risk lines of business, most notably commercial real estate lending. There are also cooperative or mutual banks in Spain. They are small institutions, in most cases firmly rooted in their respective local economy. However, they have always been of much less importance than the savings banks. Their market share has never surpassed 10 percent. Also their growth during the boom years of the 1990s and the early years of the new century was less pronounced. With only minor modifications, they also maintained their former institutional features and their strong local roots. This enabled them to achieve equally stable earnings and profits for many years. Of course, the real estate crisis and the ensuing general economic crisis in Spain also have had an adverse impact on the cooperative banks. But because of their conservative business model, at least so far, they have

been less exposed to the crisis and retained relatively high repayment rates in their lending operations. When the real estate bubble burst in the years 2009 and 2010, the savings banks, and in fact also the whole country, were in deep trouble.

3.7 Summary and assessment

Until about 25 years ago, almost all European countries had a so-called "three pillar" banking system comprising private banks, (public) savings banks and (mutual) cooperative banks. Since that time, several European countries have implemented far-reaching changes in their banking systems, which have more than anything else affected the two "pillars" of the savings and cooperative banks. The most important changes in Germany, Austria, France, Italy and Spain have been described above. The following few brief remarks on other European countries show that in some countries the changes have gone even further.

In Belgium savings and cooperative banks have essentially disappeared. In Great Britain the former public savings bank (TSB) was sold to Lloyds Banking Group, and several cooperative banks, the socalled building societies, were converted into corporations and some of them were sold to large private commercial banks. In the Netherlands savings banks have disappeared and the formerly independent cooperative banks have been amalgamated into one big national bank (Rabobank). In Sweden, the former local savings banks have been converted into joint stock

corporations in the 1990s, and most of them were consolidated into a single national savings bank (Swedbank).27 Only Germany stands out as the special case in which there was no substantial change during the last decades. As far as their legal and institutional structures are concerned, the German savings and cooperative banks are today almost exactly as they had been 50 and even 80 years ago.

There have been several factors that drove the changes in Europe. Certainly, the political climate of the time and EU-wide harmonization were important. However, there was also the presumption that in their former set-up the regional banks were not competitive.

To a certain extent, this may have been true, and it may have been due to the fact that in most countries savings and cooperative banks had long been subject to different and more restrictive regulation than "normal" banks and/or to the small size of most local banks and/or to their "unconventional" institutional and governance features.

As one of the motives for initiating far reaching reforms was the belief that the efficiency of local savings and cooperative banks is lower than that of other banks with comparably large branch networks, it is instructive to take a closer look at this aspect. As already discussed in this paper, evidence from the German banking market does not support the belief that local savings banks and cooperative banks are less efficient. Further, in two cross country studies of regional banks in Europe for the period 2000 to 2008 and 1996 to 2006, Ayadi et al. (2009 and 2010) have investigated whether banking groups with different institutional features also differ in terms of efficiency. Like several earlier studies29

But there is one important difference: the savings banks and cooperative banks in many countries displayed systematically lower variability of the efficiency indicators over time than the large private banks, suggesting that they were systematically less risky during the time periods covered in the studies. , these two studies did not find any systematic differences. The frequently used indicators of efficiency – return on assets, return on equity and cost-income ratio – are essentially the same for savings banks, cooperative banks and large private branch banks in almost all countries considered in the studies. Of course, this could only be shown for countries in which savings and cooperative banks still existed during the years covered in the analyses, which were essentially the pre-crisis years.

As is well known, the former similarity concerning efficiency across countries was not maintained during the financial crisis of 2007 to 2009 and the debt crisis that erupted in 2010. Most savings and cooperative banks also fared relatively well in the crisis and better than most of their competitors from the ranks of large private banks. This is due to the fact that, by virtue of their institutional design, they have limited incentives to take on greater risks, while their strong local roots and their embeddedness in close networks puts limits on their possibilities to do so.

However, there are exceptions. As discussed above, the most important one is that of the Spanish savings banks. They were very seriously affected by the crises. For researchers who regard incentive systems and institutional design as important, their structural weakness does not really come as a surprise. Most probably their current problems are related to the fact that

the cajas were transformed in an unbalanced way a few years before the crisis hit, and the regional principle was abolished by law and statute as well as in practice. As a consequence, the cajas started to compete vigorously among themselves, putting pressure on their profitability. This could also explain why there is now hardly any cooperation between them, nor is there a network that could provide support and impose discipline on the individual cajas.

4. Lessons and perspectives

The preceding comparison of the developments of savings banks and cooperative banks in several European countries holds a number of interesting lessons that also serve as a basis for some speculations concerning the future of these types of banks.

The first lesson refers to the degree to which the national systems of savings and cooperative banks have become different in recent years. Savings banks in some countries, if they still exist at all, do not share the traditional institutional features that savings banks used to have 25 years ago. It is indeed stunning, and, as discussed in the following, some of these changes are unconvincing from an economic and political perspective, and tend to undermine the genuine strengths of savings banks.

The second lesson concerns the question whether decentralized networks of local banks are at all viable over the longer term. It is of course impossible to make any general statement concerning how the locally rooted banks would have fared if there had not been any reforms and how those that no longer exist would have fared if they still existed. However, for those that survived one can say that, compared to private commercial banks, they performed well and thereby showed their ability to survive in an increasingly tough market environment in the pre-crisis years and in most cases also during the crisis. As it seems, they are on average as efficient and clearly less risk-prone than comparable private banks. Their unusual institutional designs seem to lend them substantial competitive strength.

The third lesson is based on the experience during the crisis years. Here substantial differences between national regional bank systems showed up. Referring again to the case of the Spanish savings banks, we argue that the specific design features of national systems of local banks are of paramount importance. Creating an institutional environment that does not support withingroup cooperation of public and member-owned decentralized local banks or even militates against coopera-tion, thereby weakening their governance, is a recipe for failure. It is highly unlikely that relatively small local or at most regional banks can survive as stand-alone institutions under competitive pressure. But this assessment can also be turned around leading to the proposition that maintaining an appropriate business model and institutional structure may be the recipe for (relative) success and survival. The appropriate business model is that of being firmly rooted in the local economy and aspiring to strike a balance between the need to make a profit and the aim of serving members and clients; and the appropriate institutional structure is that of being embedded in a decentralized and dense network of affiliated financial and non-financial institutions.

In concluding, we want to turn to a more political aspect of the possible future of regional banks. Among other things, the financial crisis has led to a change in the prevailing political assessment of the various types of banks in Europe. Before the crisis, banks that did not conform to the "model" of how a good modern bank should be structured and operated were

considered to be old-fashioned and outdated. This assessment referred primarily to savings banks in so far as they were public banks. But at least indirectly cooperative banks were also under suspicion since they are also not purely profit oriented institutions and not large centrally coordinated and stock exchange listed corporations.

One additional consideration points in the same direction. The financial crisis has generated the insight that in the area of banking there can be too much profit orientation, too much profit pressure emanating from the capital market on listed banks and too much financial sophistication. Working together these factors can lead to banks accepting and even generating too much risk for themselves as institu-tions and for society. Local and regional banks are less risky and this contributes to the stability of entire financial systems. Their contribution to financial system stability might suggest that from an overall perspective they might simply be the better banks. However, such a claim would go much too far. But the converse is also not true. The "modern" view that all financial systems should resemble as much as possible the model of a financial system in which capital markets are the most important force and in which banks are large, private, purely shareholder-oriented and exchange-listed corporations has been severely discredited by the experiences from the recent financial crisis. We simply do not know which type of bank and which structure of a financial system are better under different circumstances. After the crisis, this attitude has changed. Banks with public ownership and member or client based financial institutions have regained some recognition, because the vast majority of them had fared better than their larger purely private competitors and also because they have held up their supply of loans to the economy at a time when big banks cut back lending. This political reassessment bodes well for their future.

This agnostic position leads to the argument of diversity. In the life sciences, the value of diversity has been widely recognized in recent years, and there is a crucial underling argument why biodiversity is so important: Even the best experts do not know, and in fact cannot know, what the future challenges to human life and health and to the environment may be. There is the possibility that some specific species might in the future turn out to be extremely important, for example, for curing a disease that may not even exist today. This is why protecting this species – and endangered species in general – is important: Once they are extinct they cannot be revitalized even if they would be urgently needed.

Much the same applies to the types of banks and banking groups that are the topic of this article. As we simply do not know which type of bank is best if regarded in isolation and which mix of different types of banks within a financial system is best for the economy and for society at large, we regard it as very important to "preserve" these types of banks and prevent them from being sidelined or even abolished. They are like an endangered species. If they cannot continue to exist and thrive today as what they are and cannot adapt to changing circumstances, then the valuable knowledge and the social capital that they use and transfer to future generations might be lost once and for all. After all, these banks – and even more so the networks of such banks - are rather subtle organizations that have so far managed quite well to cope with the delicate tension between the business imperative of being successful enterprises and their social mandate to support their clients and members. If they disappeared it would most likely be

impossible to bring them back to life if later generations should come to the conclusion that it would be good to have strong and prospering banks that serve public or client interests more than, or at least as much as, the interests of shareholders. If policy makers accept this argument and act accordingly, they would not only ensure the good prospects of savings banks and cooperative banks, but also provide for the future development of the banking systems in Europe.

Title: Amazon Is Trying to Control the Underlying Infrastructure of Our Economy Author: Stacy Mitchell From: VICE Date: June 25, 2017

We often talk about Amazon as though it were a retailer. It's an understandable mistake. After all, Amazon sells more clothing, electronics, toys, and books than any other company. Last year, Amazon captured nearly \$1 of every \$2 Americans spent online. As recently as 2015, most people looking to buy something online started at a search engine. Today, a majority go straight to Amazon.

But to describe Amazon as a retailer is to misunderstand what the company actually is, and to miss the depth of the threat that it poses to our liberty and the very idea of an open, competitive market.

It's not just that Amazon does many things besides sell stuff—that it manufactures thousands of products, from dress shirts to baby wipes, produces hit movies and television shows, delivers restaurant orders, offers loans, and may soon dispense prescription drugs. Jeff Bezos is after something so much bigger than any of this. His vision is for Amazon to control the underlying infrastructure of the economy. Amazon's website is already the dominant platform for digital commerce. Its Web Services division controls 44 percent of the world's cloud computing capacity and is relied on by everyone from Netflix to the Central Intelligence Agency. And the company has recently built out a vast network of distribution infrastructure to handle package delivery for itself and others.

Companies that want to reach the market increasingly have no choice but to ride Amazon's rails. With Prime and digital assistant Alexa, from GE appliances to Ford cars, Bezos has lured a majority of households into making Amazon the default provider of everything they order online. Most Prime members no longer comparison shop. This has forced competitors of all sizes—from major brands like Levi's and KitchenAid to small-scale producers, e-commerce innovators, and independent brick-and-mortar stores—to abandon the idea of reaching consumers directly. Instead, they have to rely on Amazon's platform to sell their goods.

Amazon exploits this dependence to dictate terms and prices to suppliers, and it uses the data it gathers from companies selling on its platform to weaken them as competitors. A company that designs a popular product and builds a market for it on Amazon's site can suddenly find that Amazon has introduced a nearly identical version and given it top billing in search results. One study found that, after a retailer becomes a seller on Amazon, it's only a matter of weeks before Amazon brings the merchant's most popular items into its own inventory.

Being both a direct retailer and a platform for other sellers gives Amazon novel weapons for shaking down suppliers. Last week, Amazon offered to police the many counterfeiters that sell fake Nike shoes on its site as a bargaining chip to get Nike to agree, for the first time, to offer a full line of its products to Amazon. Similarly, when the publisher Hachette resisted Amazon's

demands in negotiations over book pricing, it found the buy-buttons removed from all of its titles, putting thousands of books off-limits to both buyers and sellers.

With commerce rapidly moving online, Amazon has positioned itself as lord of the realm, which means that online commerce is no longer a market in any meaningful sense of the word. It's now a privately controlled arena where a single company sets the terms by which we may exchange goods with one another and decides which products—which new authors, which new innovations—get to find an audience.

Investors are fully aware of the implications of this. As Silicon Valley venture capitalist Chamath Palihapitiya put it last year, Amazon is "a multi-trillion-dollar monopoly hiding in plain sight." That assessment explains why Wall Street has bid up Amazon's stock value to a level that bears little relationship to its current profits. Investors are eyeing a future of spectacular, monopoly-style returns.

Last week, investors got to see this future taking firmer shape when Amazon announced its intention to buy Whole Foods. In the hours after the news broke, Amazon's stock did the opposite of what usually happens in such deals: It surged by almost as much as the \$13.4 billion purchase price, which means the acquisition essentially paid for itself.

What investors see in Amazon, though, federal antitrust regulators have so far failed to grasp. The Whole Foods deal, which requires federal approval, will be a fresh test. If regulators look at the deal in conventional terms, they may decide that it should go ahead on the grounds that brick-and-mortar grocery is a separate market from online shopping, and that the transaction would give Amazon only a modest share of the supermarket industry.

Buying Whole Foods would help Amazon expand its control of commerce. It would provide a new stream of exploitable data by enabling Amazon to surveil customers offline as well as online. Indeed, the company recently filed patents for technologies that would keep digital tabs on us and block our phones from visiting competitors' websites while we're in its stores.

Amazon would also gain a network of fresh-food warehouses that it could use to quickly leapfrog into being the only viable online grocer. The 460 Whole Foods stores offer prime locations, too, for making last-mile deliveries. This is critical because controlling the infrastructure needed to quickly deliver packages to doorsteps is a key component of sustaining a monopoly in online commerce. Should Amazon succeed in weakening UPS and FedEx, it would harm other online sellers and leave them dependent on their biggest competitor, Amazon, to deliver their goods.

Jeff Bezos's big bet is that he can make buying from Amazon so effortless that we won't notice the company's creeping grip on commerce and its underlying infrastructure, and that we won't notice what that dominance costs us. Amazon has unprecedented power to steer our choices. Ask Alexa to send you batteries and you won't get the option of Duracell or Energizer; you'll be shipped Amazon-branded batteries. Browse the Kindle bestseller list and you'll see many books published by Amazon. Peruse the "customers also bought" carousel and Amazon's algorithms will favor displaying its own products, even when they're not the best match.

Amazon's bid to buy Whole Foods should be a wake-up call. Our anti-monopoly policies have fallen into disuse and today's big tech monopolies have used that opening to seize too much power. As Senator John Sherman, co-author of the Sherman Antitrust Act, declared as his bill came up for a vote in 1890, "If we will not endure a king as a political power, we should not endure a king over the production, transportation, and sale of any of the necessaries of life."

Title: Amazon wil de vrije markt privatiseren Author: Arthur Debruyne From: Knack.be Date: July 15, 2017

De Amerikaanse e-commercegigant Amazon is inmiddels veel meer dan enkel dat, schrijft journalist en auteur George Packer: 'Amazon produceert hardware, net als Apple, en is ook een nutsbedrijf, zoals Con Edison, en een videodistributeur, zoals Netflix, en een boekenuitgever, zoals Random House, en een productiestudio, zoals Paramount, en een literair tijdschrift, zoals The Paris Review, en een boodschappenleverancier, zoals Fresh Direct, en ooit wordt het misschien een koerierbedrijf zoals UPS.'

Amazon is, kortom, 'iets radicaal nieuw in de geschiedenis van de Amerikaanse handel.' Het bedrijf werd opgericht in 1994 door ondernemer Jeff Bezos, die ook vandaag nog CEO is, en begon als een online boekenwinkel. Volgens zijn biografe koos Bezos koos de naam 'Amazon' omdat het zijn ambitie is om net als de rivier de grootste ter wereld te worden.

Zoveel jaar later staat Bezos op het punt na Microsoft-oprichter Bill Gates de tweede rijkste persoon op aarde te worden en heeft hij inmiddels zelfs een ruimtevaartbedrijf opgericht. Hij zou die ambitie nog kunnen waarmaken.

In juni kondigde Amazon aan dat het de Amerikaanse supermarktketen Whole Foods zou overnemen, voor meer dan dertien miljard dollar. Een uur later was de aandelenkoers van Amazon met drie procent gestegen, het tegengestelde van wat normaal gebeurt bij een overname: Amazon was plotsklaps veertien miljard dollar meer waard. Het bedrijf had de zesde grootste Amerikaanse supermarktketen gratis verworven.

'Investeerders beseffen wat de overheid nog niet inziet: dat Amazon een ontluikend monopolie is, en monopolies hebben het potentieel enorme winsten te genereren', zegt onderzoeker Stacy Mitchell, co-directeur van het Amerikaanse Institute for Local Self-Reliance, een ngo die de ontwikkeling van lokale gemeenschappen stimuleert.

'Amazon wil het centrale zenuwstelsel van alle handel worden. Het bedrijf breidt uit in elke richting. Het wil niet enkel een groot deel van de markt voor zich, zoals Walmart, maar het wil de markt zélf controleren, de markt privatiseren.'

Het verdwijnen van kleine handelszaken overal in de VS, het spreekwoordelijke 'Main Street', is grotendeels het toedoen van Amazon, stelt u. Spelen er ook geen andere fenomenen, zoals de delokalisering van heel wat productiesectoren, en daarbij het verlies van werkgelegenheid en dus koopkracht?

STACY MITCHELL: Dat is één en hetzelfde verhaal. Tijdens de voorbije veertig jaar kwamen grote handelszaken zoals Walmart op. De enorme uitbreiding van Walmart in de jaren '90 en begin 2000 betekende het einde voor tienduizenden kleine winkels verspreid over de VS.

Walmart eist bovendien onverbiddelijk lage prijzen van leveranciers, waardoor veel Amerikaanse producenten naar lageloonlanden gingen delokaliseren.

Walmart luidde het begin in van een enorme consolidering in de Amerikaanse economie en ook het einde van een aantal steunpilaren van de middenklasse: de middenstand ging erop achteruit, en ook degelijke productiejobs beschermd door vakbonden moesten er op grote schaal aan geloven. In de plaats daarvan kwamen slechtbetaalde Walmartjobs zonder ziekteverzekering.

Nu, naarmate Amazon groeit verdwijnen ook die jobs: het bedrijf heeft dan wel mensen in dienst, maar veel minder dan de fysieke winkels die het uit de markt duwt. Sommige gemeenschappen in de VS hebben op die manier het ene na het andere verlies te verwerken gekregen. De voorbije twaalf jaar is er een nettoverlies geweest van meer dan 100.000 onafhankelijke handelszaken. Dat heeft verschillende oorzaken, maar in peilingen wijzen die handelaars Amazon aan als veruit de grootste bedreiging voor hun handel.

Denkt u dat het ongenoegen over het verdwijnen van 'Main Street' een verklaring is waarom mensen hoop vinden in de slogan 'Make America Great Again' van president Trump?

MITCHELL: De fenomenen van bedrijfsconcentratie en de achteruitgang van kleine handelszaken hebben ongetwijfeld lelijk huisgehouden in kleinere steden en landelijke gebieden. Samen met het onvermogen van de regering-Obama om te vermijden dat mensen uit hun huizen gezet werden vanaf 2008 - waardoor normale mensen moesten opdraaien voor de bankencrisis in plaats van die banken zelf - is dat inderdaad een vruchtbare voedingsbodem voor de woedepolitiek die Trump heeft voortgestuwd. Al spelen hier ook andere factoren, waaronder racisme en identiteitspolitiek.

Hoe beïnvloeden deze evoluties de gemeenschap waar u zelf woont, het stadje Portland in de noordoostelijke staat Maine?

MITCHELL: Het eigenaardige aan Amazon is dat het ongemerkt, op een sluipende manier bijna, een gemeenschap binnentreedt. Iedereen kent het bedrijf, maar tegelijk is het onzichtbaar. De lokale krant bericht uitvoerig over de economie van onze stad maar heeft nog nooit een verhaal gebracht over Amazon, terwijl het inmiddels toch een groot deel van onze uitgaven incasseert. Toen Walmart in het begin een vestiging wilde openen in de buurt, was dat de talk of the town en werd er gedebatteerd en ontstond er soms protest. Niet zo met Amazon, dat onder de radar vliegt, maar voor aanzienlijke druk zorgt op die handelszaken die alledaagse behoeftes lenigen, zoals ijzerwinkels, en die belangrijk zijn voor het sociale weefsel.

<u>U schrijft dat Amazon eigenlijk de antipode is van die typisch Amerikaanse ondernemingsspirit</u> <u>en dat het een open en vrije markt wil vervangen door een privéversie. Hoe precies doet het</u> <u>dat volgens u?</u> MITCHELL: Zowat de helft van wat Amerikanen online spenderen, is voor Amazon. Het bedrijf is bijzonder doeltreffend in het insluiten van nieuwe klanten en ervoor te zorgen dat ze dan nergens anders meer winkelen. Wat Bezos wil, is dat men zelfs niet meer nadenkt over een bestelling bij Amazon, dat de keuze voor Amazon evident is. Onderzoek toont aan dat mensen vandaag beginnen bij Amazon wanneer ze iets willen kopen online, en niet meer bij een zoekmachine, zoals enkele jaren geleden nog.

Concurrerende handelaars of producenten kunnen hun naambordje dan wel blijven uithangen op hun eigen website, maar dat straatje is inmiddels een stoffig plattelandsweggetje waar amper meer mensen voorbijwandelen. Zowat de enige optie is verkoper worden op het platform van Amazon, maar er is inmiddels veel bewijs dat Amazon die positie gebruikt om concurrenten te verzwakken, want het produceert zelf steeds meer onder allerlei merknamen.

Amazon lijkt de essentie te belichamen van de eenentwintigste-eeuwse succesbedrijven: digitaal, datagestuurd, innovatief, zelfs fiscaal geoptimaliseerd met postbusadressen in belastingparadijzen, met de ambitie dat model te herhalen over heel de wereld. Is de machtsconcentratie van Amazon een teken des tijds?

MITCHELL: We leven inderdaad in een tijdperk van enorme machtsconcentratie. Dat is echter niet natuurlijk of onvermijdelijk, maar het gevolg van beleidskeuzes. Tot ver in de jaren '70 voerde de VS een sterk anti-monopoliebeleid. Dat leverde een heel competitieve economie op en een markt die open stond voor iedereen. Er werd veel welvaart gecreëerd en de middenklasse groeide.

Vanaf de jaren '80 werd dat beleid omgegooid, onder invloed van de Chicago school of economics (met onder andere stereconoom Milton Friedman, adviseur van zowel Reagan als de voormalige Britse premier Margaret Thatcher, nvdr.) en president Ronald Reagan: de focus zou voortaan op groei en productiviteit liggen en men ging dubbel inzetten op big business. Die filosofie heeft sindsdien veel van ons economisch beleid beïnvloed, en zorgt ervoor dat we een oogje dichtknijpen wanneer een groot bedrijf als Amazon zijn winst elders parkeert om belastingen te ontwijken.

Het gevolg van die beleidsshift is 35 jaar van ongeziene machtsconsolidering. Bedrijven als Google en Facebook zijn machtige digitale gatekeepers geworden: het eerste controleert een groot deel van de online advertentiemarkt en het andere bepaalt welk nieuws we te zien krijgen. Deze bedrijven bepalen wie de winners en de losers zijn in hun sectoren.

Lokale overheden in de VS hebben Amazon nogal wat subsidies en fiscale voordelen toegekend, in de hoop dat het bedrijf die productiejobs van weleer vervangt. Toch is dat geen goede strategie denkt u. Waarom niet?

MITCHELL: Amazon heeft inderdaad al meer dan een miljard dollar aan lokale en staatssubsidies ontvangen om distributiecentra te openen. Volgens ons onderzoek elimineert Amazon echter twee jobs in de traditionele verkoop voor elke baan dat het creëert in een opslagplaats. Amazon subsidiëren voor jobcreatie is averechts beleid, want dat belastinggeld voedt louter de groei van Amazon, met als gevolg een nettoverlies aan werk.

Veel gemeenschappen zijn inderdaad wanhopig op zoek naar werkgevers. Amazon lijkt op het eerste zicht jobs in de aanbieding te hebben, maar het bedrijf investeert tegelijk heel veel in automatisering, dus die lageloonjobs die erbij komen zullen mogelijk zelfs verdwijnen in afzienbare tijd.

Lijkt het waarschijnlijk dat de overname van Whole Foods meer anti-monopoliecontrole zal uitnodigen? Hoe ligt Amazon in Washington?

MITCHELL: Er ontstaat geleidelijk een uitgesproken anti-monopoliebeweging van economen, activisten en zelfs verkozenen. Senator Elizabeth Warren (een vooraanstaande Democrate, nvdr.) gaf er vorig jaar een baanbrekende speech over, en kaart de kwestie sindsdien regelmatig aan. Er is een groeiend besef dat kwesties zoals de remming op productiviteit, groeiende ongelijkheid en stagnerende lonen gelinkt zijn aan concentratie. Men begint te beseffen dat er nieuwe monopolies ontstaan, maar dat besef staat nog maar in zijn kinderschoenen.

Nu, de benoemingen van Donald Trump zitten ook heel sterk in het pro-businesskamp. Op dat niveau is niet veel veranderd. De man die hij aan het hoofd heeft gezet van de antitrustafdeling van het ministerie van Justitie heeft een lange staat van dienst bij grote bedrijven, waaronder Google, en wil allicht de teugels vieren. Dat zal waarschijnlijk doorwegen.

Men zou kunnen opwerpen dat u hopeloos conservatief vasthoudt aan een versie van 'Main Street'-Amerika die niet meer bestaat. Wat antwoordt u daarop?

MITCHELL: Jeff Bezos wil maar al te graag dat we de dominantie van zijn bedrijf gelijkstellen met technologische vooruitgang. Iedereen die zijn bedrijf bekritiseert schildert hij graag af als conservatievelingen die tegen technologische vooruitgang zijn. Dat is niet zo: ik heb er iets tegen dat één enkel bedrijf de technologie domineert ten koste van de concurrentie.

Ik beeld me liever een toekomst in waarin het internet een vehikel wordt voor vrij en onafhankelijk zakendoen. Dat is geen argument om terug te keren naar het verleden, maar eerder naar een toekomst die meer democratisch en competitief is dan de toekomst van Amazon. Title: The Rise and Fall of the Word 'Monopoly' in American Life Author: Stacy Mitchell From: The Atlantic Date: June 20, 2017

If "monopoly" sounds like a word from another era, that's because, until recently, it was. Throughout the middle of the 20th century, the term was frequently used in newspaper headlines, campaign speeches, and State of the Union addresses delivered by Republican and Democratic presidents alike. Breaking up too-powerful companies was a bipartisan goal and on the minds of many voters. But, starting in the 1970s, the word retreated from the public consciousness. Not coincidentally, at the same time, the enforcement of anti-monopoly policy grew increasingly toothless.

The story of why the word and the movement dropped off the map in tandem carries lessons about how an economic policy's effectiveness can be its own undoing, and about how people are thinking about corporate power today. Because monopoly is back. As concentration has soared to levels not seen in decades, economists are talking about monopoly again; recent scholarship has linked consolidation with rising inequality and other economic ills. Politicians on both the left and right are talking about it, too—the announcement last week that Amazon is planning to buy Whole Foods has refocused some politicians' attention on the subject.

Sentiments were similar back in the 1920s, the last period of high levels of corporate concentration and inequality. Isolated protests against big business erupted periodically then as they do now. People who lived in small towns fought the grocery giant A&P's displacement of local retailers; farmers rallied against the control Wall Street banks had over the agricultural industry; and residents of big cities protested the high prices charged by holding companies that had gained control of the electricity supply.

It was Franklin Roosevelt who helped define these scattered struggles as being about the same root problem: monopoly. At the Democratic Party's national convention in 1936, Roosevelt devoted much of his speech to the problem of "industrial dictatorship." A small group of powerful corporations and banks, Roosevelt declared, "had concentrated into their own hands an almost complete control," such that many Americans were "no longer free" and throughout the nation, "opportunity was limited by monopoly."

With voters' support, Roosevelt set about taking up the country's dormant antitrust laws and empowering those charged with their enforcement in the Justice Department's antitrust division. He hired Thurman Arnold, a former small-town mayor and feisty lawyer from Wyoming, to run the division. Arnold believed that, in order to take on behemoths like DuPont and AT&T, he had to connect the division's work directly with people's lives. Soon after assuming his post in 1938, he published his thoughts on the matter in The New York Times Magazine. Titled "An Inquiry into the Monopoly Issue," the piece made the case that the concentrated control of industry "is a tax on the public and a threat to democracy." It was illustrated with a drawing of a larger-than-life cop keeping the road to opportunity clear for a stream of workers, farmers, and small businesspeople.

Under Arnold's direction, the antitrust division opened field offices across the country to detect and investigate violations. By 1940, its caseload had grown eight-fold. With each case it prosecuted, the division began issuing extensive statements explaining to citizens what was at stake and why it was acting.

Anti-monopoly policies remained a cornerstone of American politics for decades to come, under both Democrats and Republicans. Harry Truman returned repeatedly to the issue in his State of the Union addresses. In 1950, he urged a redoubling of efforts to curb monopoly, lest the economy "fall under the control of a few dominant economic groups whose powers will be so great that they will be a challenge to democratic institutions." Later that year, he signed legislation giving federal regulators more leeway to block mergers.

Dwight Eisenhower also embraced the importance of "checking monopoly," as he put it in his 1956 State of the Union. Eisenhower had grown up in a Kansas farming community, where, for a time, his father owned a general store. As president, he created the Small Business Administration to "make certain that small business has a fair opportunity to compete." In his last State of the Union address, delivered in 1961, he attributed the strength of the U.S. economy to his administration's "vigorous enforcement of antitrust laws over the last eight years and a continuing effort to ... enhance our economic liberties."

Many industries became steadily more competitive from the 1930s to the 1970s. Innovation accelerated, as dominant firms like IBM and AT&T were compelled by the antitrust division to unbundle their products and license their patented technologies to competitors, including some, like the electronic transistor, that would birth the information-technology sector.

The overall number of businesses rose, especially banks and farms. This economic dynamism was not the only factor contributing to the period's exceptional prosperity—among other theories, some economists have argued for the significance of high rates of unionization and an unprecedentedly high rate of technological breakthroughs—but it was an important one. It helped lift wages, shrink the gap between the rich and poor, and move more Americans into the middle class. And while this prosperity and the opportunities it afforded still weren't equally available to all, women and people of color saw gains in these years too. Indeed, by the 1970s, there were more black-owned banks and businesses than there are today.

By the '70s, though, the political mood had begun to change, and public attention was turning away from the issue. In 1970, The New York Times published fewer than half as many articles about monopoly as it had in 1940. According to data from Google, mentions of monopoly in published books, as the graph below shows, began a steady decline starting from its peak in 1949. That decline accelerated in earnest around 1970, suggesting the issue was falling out of the national conversation.

In many ways, the success of antitrust enforcement led to its undoing. "Once the United States had an antitrust movement without antitrust prosecutions," the historian Richard Hofstadter observed in the mid-'60s. "In our time, there have been antitrust prosecutions without an antitrust movement." Hofstadter predicted that after decades of an effective enforcement regime, people would much more rarely encounter the monopolistic practices that had, earlier, prompted public backlash. And so the issue would become politically irrelevant, which, in turn, could open the way for less vigorous enforcement.

Hofstadter was right. Since 1962, no president has ever featured the problem of monopoly in a State of the Union address. As the chart above makes plain, the issue of monopolies had all but disappeared from the public forum by the time Ronald Reagan took office in 1981. It was in this climate that his Justice Department radically revised the interpretation of U.S. antitrust

laws, weakening enforcement and allowing companies to consolidate to an extent that hadn't been seen, or allowed, before. Twelve years later, when President Bill Clinton ushered through Congress the repeal of laws that had constrained the size and scope of banks and telecom companies for decades, there was scant protest.

One thing that helped lay the groundwork for this sweeping shift in policy was that, beginning in the late 1970s, the work of the antitrust division increasingly receded into the bureaucratic shadows. This was at once a consequence of public inattention and a cause of it. Over time, antitrust became the secluded domain of technical experts, "captured by lawyers and economists advancing their own self-referential goals, free of political control and economic accountability," as the legal scholars Harry First and Spencer Weber Waller put it in a paper in 2013. They contend that antitrust enforcement now suffers from a crippling "democracy deficit."

Unlike in the days when Thurman Arnold was in charge, the Justice Department regularly closes investigations and approves mergers with no explanation to the public. When the agency closed a three-year investigation of the agricultural-chemical producer Monsanto in 2012, for example, it didn't issue a statement. It also declined to explain its decision to abruptly reverse course on the merger of US Airways and American Airlines, first suing to block the deal and then, three months later, approving it with only modest concessions. (When asked about the department's public-communications rationale, a spokesperson noted that it follows department protocols, established in 2003, that offer guidance on when to issue public statements explaining why an investigation was closed.) And with rare exceptions, like its 1998 suit against Microsoft, the government has largely retreated from bringing monopoly cases against high-profile companies.

One way to measure the shift from monopolies being a central concern of voters to being a technical matter left to the experts is by tracking the rise and fall of the word antitrust, a technocratic term used mainly by specialists. It's distinct from monopoly, which is a more political word that carries with it a whiff of values like liberty and equality, and thus has much broader use and reach. (It's worth pointing out that monopoly does not have to be reserved for cases in which a single company controls a market; the Federal Trade Commission explains that a firm with significant and durable market power, even one with rivals, can be called a monopolist.)

In the 1960s and 1970s, antitrust rose in circulation as monopoly declined, as the graph below shows. Antitrust enforcement was robust in these years, but it was increasingly removed from everyday politics. So there was no substantial resistance when Reagan came in, bringing with him a new theory of antitrust enforcement put forward by Robert Bork and others affiliated with the Chicago school of economics. They and a new generation of like-minded congressional Democrats insisted that big corporations delivered efficiencies that outweighed other concerns about their power. After 1982, as seen below, antitrust joined monopoly as a fading idea.

Since Reagan took office, corporate concentration has increased dramatically. Two corporations make 69 percent of the beer Americans drink, five banks control about 47 percent of the nation's \$17 trillion in banking assets, Walmart captures half or more of grocery spending in 40 metro areas; four airlines dominate the skies, and 75 percent of households have, at most, only one provider to choose from for high-speed internet access.

One issue with monopolies is that too little competition can lead to higher prices. But new evidence indicates that high levels of concentration may be to blame for a variety of economic problems American now faces: stagnant wages, rising inequality, and the steep drop in the number of new businesses launched each year. Concentration appears to be encouraging regional inequality, too, as corporations cluster their headquarters in a handful of big cities while the rest of the country loses its economic anchors and local businesses.

Plenty of Americans seem to be troubled by these effects and the hands-off policy that led to them. Although monopoly has yet to return to the popular lexicon, about two-thirds of Americans now say the economic system "unfairly favors powerful interests," and real-world examples suggest anti-monopoly political platforms would have broad appeal. In liberal Portland, Oregon, the city council recently voted to stop the city from investing any of its money in any corporations. In conservative Oklahoma, more than 60 percent of voters opted to put a cap on the size of agricultural businesses in a statewide referendum last November.

As the downsides of monopoly become more a part of the public conversation, the likelihood increases that a political movement responding to them will take shape. It wouldn't be surprising if politicians' diction changes too, as they look to replace murkier terms like antitrust and oligopoly with a more resonant common vocabulary. Monopoly could be just the word they reach for.

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Although we work through financial markets, our goal is to help Main Street, not Wall Street. (J. Yellen in her first speech as Chairwoman of the Federal Reserve, 2014)

1. Introduction

Following the global financial crisis, the European Commission proposed taxing repos and reigning in securitisation – the two financial markets at the heart of European shadow banking. Several years and policy battles later, repos are exempt from the financial transactions tax proposal, while reviving securitisation is a top EU policy priority. Why did financial-sector interests prevail? An important of the answer, this article argues, lies at the intersection of banking and central banking – a classic example of a space 'beneath open and immediate political conflict' that students of political power tend to overlook (Pierson 2016: 129). Much has been written about the politics leading up to and protecting central bank independence, which both stems from and entrenches unequal power between capital and labour in a low-salience, technocratic policy area. By contrast, the literature has less to say about how, once central bank independence is established, power operates at the intersection of public monetary authority and private financial markets. How – beyond keeping the lid on inflation – does monetary technocracy benefit financial interests and foster financialisation? Does it matter that central banks 'work through financial markets' in order to 'help Main Street' (Yellen, 2014)?

Students of financial systems consider the marketisation of financial intermediation the most consequential aspect of financialisation (Davis and Kim, 2015; Godechot, 2015). The rise of what has variously been labelled 'shadow banking' (Mehrling, 2010), 'securitized banking' (Gorton and Metrick, 2012) or 'market-based banking' (Hardie et al., 2013a) has been a boon to the financial sector. Fee-based income, bigger balance sheets and higher leverage ratios boosted profits and remuneration (Godechot, 2015; Helgadóttir, 2016; Goldstein and Fligstein, 2017). Since the 2008 financial crisis, shadow banking – despite being widely seen as the chief culprit – has shown remarkable resilience (Ban et al., 2016). In Europe, following a brief period of stigmatisation, it is at the heart of Capital Markets Union, the European Commission's flagship project that seeks to build a more market-based financial system. Which state actors supported the rise and resilience of market-based banking, and what explains this support?

The political economy literature emphasises two forms of political power wielded by the financial sector – instrumental power, which mostly takes the form of lobbying, and structural power, which derives from the financial sector's privileged position in financialised economies (Culpepper and Reinke, 2014; Woll, 2016; Pagliari and Young, 2016).

This article argues that by conceptualising state-economy interactions as 'regulation and governance

through rule making and rule enforcement' (Levi-Faur, 2005: 17), these approaches fail to capture market-based forms of state agency. In particular at the centre of the monetary and financial system, where state and market actors form a hybrid public-private partnership (Ingham 2004; Mehrling 2010; Knafo 2013; Pistor, 2013), state actors appear not just as regulators of but also as participants in financial markets (Hockett and Omarova, 2014). Where state actors govern through financial markets, they create infrastructural entanglements that constitute a distinct channel of financial-sector power. In the case at hand, repo and securitisation markets – the two main pillars of market-based banking – provide the infrastructure through which the monetary policy of the European Central Bank (ECB) is implemented and transmitted to the economy. Explaining the strategic alliance between market-based banking and central banking that results from this infrastructural entanglement, this article argues, requires a concept of infrastructural power.

Scholars have long studied financial markets as 'vehicles of state power' (Konings, 2011: 3; cf. Krippner, 2011; Knafo, 2013; Lagna, 2016; Quinn, 2017). Infrastructural entanglement may even chart a path towards the democratisation of finance (Block, 2014; Hockett and Omarova, 2017). However, relatively little is known about the relationship between state actors governing through financial infrastructures and the political power of finance. Tackling this issue, the present article sheds new light on the question of the autonomy of the state from business power (Miliband, 1969; Poulantzas, 1973; Evans et al., 1985). Explaining the ECB's support for repo and securitisation markets by the central bank's dependence on these financial infrastructures, the article adds an important piece to the puzzle of how finance wins, while at the same time highlighting an facet of central banking that, at a time of heightened concerns about central bank independence and legitimacy, deserves greater scrutiny (cf. Fontan et al., 2016; Jacobs and King, 2016; Braun 2017). Methodologically, the article follows an inductive process tracing approach (Trampusch and Palier, 2016). It studies the ECB's involvement in post-crisis financial policymaking to determine whether accounting for infrastructural power makes a difference when it comes to reconstructing the causal mechanism that brought about the outcome, namely political support for market-based banking. Empirical evidence is drawn from the full range of official ECB documentation for the period from 1999 to 2017. In addition, the analysis draws on 14 interviews (not coded) with key officials at the ECB and other regulatory and policymaking bodies, as well as with financial market participants, conducted between March 2013 and March 2017 in Frankfurt, Brussels, and London (see Appendix 1). Inevitably, there are limitations to the data. As a rule, central bankers do not divulge confidential information, while their public pronouncements are strategic and need to be taken with a grain of salt. Wherever possible, the article therefore uses multiple sources for triangulation. Given the absence of 'smoking guns' or counterfactuals, the focus of the analysis is on establishing the temporal sequence of events and on tracing the origins of concepts and policies. To avoid potential researcher bias, all sources are transparently referenced.

The article proceeds as follows. The next section develops a concept of central bank agency that is based on market transactions rather than on administrative authority. Section three opens with a brief account of the nature and significance of market-based banking in the euro area, explains why existing concepts of financial sector power are insufficient to explain its rise and resilience, and introduces infrastructural power as an important sub-type of structural power. Section four focuses on the marketisation of bank funding via the repo market, and on the ECB's key role in preventing a financial transactions tax on repo. The securitisation of bank lending is covered in section five, which traces the ECB's efforts to redesign

and revive the securitisation market. Section five concludes with an outlook on the growing role in economic governance for market-based state agency.

2. Taking central banking seriously: Governing by transaction

The function of central banking has always occupied a hybrid position, perched precariously between the state and the financial system (Mehrling, 2010; Knafo 2013; Pistor, 2013). It is market-based in the sense that the implementation and transmission of monetary policy occurs through financial markets. The challenge of implementation arises from the fact that the operational target of monetary policy – usually the over-night interbank interest rate – is a market price. The challenge of transmission arises from the gap between this short-term interest rate and the rates of employment, growth, and inflation, which constitute the ultimate targets of monetary policy. Transmission, then, is about making policy rate signals have real effects on aggregate economic activity.

That said, the instruments through which central banks establish and maintain control over the economy change over time, with important implications for the political economy of money and finance. Up until the 1980s, many central banks cultivated organised private associations, seeking to achieve coordination and governability in a neo-corporatist fashion. Central banks such as the Bundesbank championed strong trade unions (Hall and Franzese, 1998) and supported relationship-based banking systems (Rajan and Zingales, 2003: 38). For their monetary policy operations, central banks relied on 'direct' instruments such as interest rate controls and credit ceilings (Baliño and Zamalloa, 1997). For a time, then, central banking resembled the administrative and regulatory agency through which other parts of the state act on the economy. Since then, the political economy literature has largely adhered to an administrative conception of central bank agency. While this approach has yielded important insights into the politics of delegating power to central bank technocrats (McNamara, 2002; Conti-Brown, 2016), it has obscured the politics of how, once empowered, central bankers act on the economy.

In the context of financial liberalisation in the 1980s, the pendulum swung back towards a more market-based form of central bank agency, as central banks shifted from 'direct' to 'indirect' monetary policy instruments – the triad of reserve requirements, standing facilities, and open market operations (Baliño and Zamalloa, 1997). As part of the latter, central banks – most notably the ECB – have adopted financial practices from the private sector, including mark-to-market techniques, margin calls, and haircuts (Gabor and Ban, 2016). A handful of authors have examined this shift towards market-based central banking and its effects on the the state-finance nexus. In his study of the Fed during the 2007-08 financial crisis, Perry Mehrling (2010, p. 15) has shown that because it is 'only one bank and ultimately small

relative to the system it engages', and therefore 'not all-powerful', the Fed's room for manoeuvre was severely restricted (cf. Murau, 2017). Putting this insight in a broader political context, Greta Krippner (2011, p. 147) has shown how, during the 1990s, a shift in monetary policy implementation 'from state institutions to markets' accelerated the financialisation of the US economy. This central banking-financialisation nexus operates beyond the world's financial centres (Gabor, 2011). Most recently, Lawrence Jacobs and Desmond King (2016, p. 9) important critique of the Fed as the chief 'institutional enabler' of finance and financialisation has brought the politics of market-based state agency to the attention of a broader political science audience.

Building on this literature, this article argues that the ECB is different from other EU governance bodies. It is not only a central bank that holds and exerts administrative authority – 'setting, interpreting and applying statutory rules' – but also as a central bank that trades in financial claims with other, private-sector banks (Hellwig, 2014: 5). Its control over macroeconomic conditions depends on market transactions into which private actors enter at their own discretion, both with the ECB and among themselves. The flipside of this market-based

nature of central bank agency is infrastructural entanglement with those financial markets that serve as the conduits for monetary policy.

3. Market-based banking and the infrastructural power of finance

The period since the Maastricht Treaty of 1992 has coincided with the transformation of continental Europe's traditionally bank-based financial landscape into a system based more on arms-length market transactions. Regarding the latter, European banks have traditionally engaged in relationship-based lending financed by customer deposits. Profit accrued from the interest rate margin between long-term loans on the asset side and short-term deposits on the liability side of banks' balance sheets. While banks continue to play a central role in European credit intermediation, their business model has changed, especially since the introduction of the euro in 1999. The hallmark of the new model is the marketisation of both sides of banks' balance sheets (Hardie et al., 2013a, b). On the asset side, banks complement deposit financing by borrowing in the secured money market, where securities (including securitised loans) serve as collateral. Importantly, market-based banking is part of the broader shadow banking system that includes non-bank financial institutions such as money market mutual funds and asset managers (Lysandrou and Nesvetailova 2015).

Political economists should care about market-based banking, and shadow banking more broadly, for three main reasons – systemic risk, corporate finance, and inequality. In late 2008, a combination of losses on securitised loans on the asset side and the evaporation of

short-term money market funding on the liability side of banks' balance sheets caused a systemic crisis in the global shadow banking system (Acharya et al, 2013; Gorton and Metrick, 2012).

Second, the buffer function associated with relationship-based banking (Zysman, 1983) is strongly diminished with market-based banking, under which borrowing conditions for firms and households depend much more directly on developments in global capital markets (Hardie et al., 2013a).

Third, the marketisation of financial intermediation has been identified as a key contributor to the growth in inequality in OECD countries between 1970 and 2011 (Godechot, 2015; cf. Flaherty, 2015; Hopkin and Shaw, 2016; Herzog, 2017).

In light of this overriding importance of the phenomenon, how do political economists explain the rise of market-based banking? The authors who have brought market-based banking onto the map of comparative political economy have placed the business decisions of profit-oriented private actors at the centre of their explanatory framework, emphasising 'the role of bankers themselves as an autonomous and primary driver of change' (Hardie et al., 2013b: 10). This view is consistent with structural explanations of the rise of the shadow banking system, including both 'endogenous' (regulatory arbitrage and financial innovation) – and 'exogenous' (search for yield among investors) explanations (Lysandrou and Nesvetailova 2015).

However, the resilience of repo and securitisation markets in an unfriendly post-crisis environment depended crucially on political support. The two dominant explanations of how finance musters such political support highlight instrumental power and structural power, respectively. Conceptualising 'politics as organized combat' (Hacker and Pierson, 2011), the literature on instrumental power emphasizes organised interests, lobbying, and regulatory capture to explain how financial sector actors achieve into favourable political outcomes. It shows that while the relative unity of financial sector interests means that finance often wins (Pagliari and Young, 2016; Young and Pagliari, 2017), civil society-based advocacy can sometimes carry the day (Kastner, 2014; Ziegler and

Woolley, 2016).

The second explanation emphasises the dependence of the state on private investment to generate growth and employment, and the resulting structural power of business in general (Lindblom, 1977) and finance in particular (Bell and Hindmoor, 2014; Culpepper, 2015; Woll, 2016; Hopkin and Shaw, 2016). While business actors can deploy structural power 'deliberately, with strategic intent' (Culpepper and Reinke, 2014, p. 430; Woll, 2014), its distinguishing feature is that it does not require business to organise – policymakers abide in anticipation of the expected consequences of not abiding with business interests (Pierson, 2016).

Each of these two approaches explains important aspects of the rise of market-based banking prior to the 2008 financial crisis. Lobbying and regulatory capture shaped Basel II, which paved the way for the regulatory arbitrage fuelling the securitization boom (Thiemann, 2014), while governments championed financialisation calculating that credit creation would boost growth and employment (Hopkin and Shaw, 2016).

These explanations of economic policymaking are valid, but they miss an important part of the picture by conceptualising economic governance as primarily an administrative activity. In this view, economic governance takes place on the turf and according to the rules of the

(regulatory) state, taking the form of 'rule making and rule enforcement' (Levi-Faur, 2005: 17). Crucially, this perspective remains blind to forms of economic governance that take place on the turf and according to the rules of markets. Such market-based forms of state agency feature particularly prominently at the hybrid centre of the financial system, where state actors – notably the central bank and the treasury2 [2 This article focuses on monetary policy. For recent research on state-market transactions in sovereign debt management, see Fastenrath et al. (2016), Lagna (2016), and Livne and Yonay (2016).] – routinely enter transactions with private sector

counterparties – buying and selling financial claims at market prices – for public policy purposes (Hockett and Omarova, 2014). The leverage that specific financial markets enjoy by virtue of being conduits for economic governance is similar but not identical to structural power – it constitutes a distinct sub-type best captured by the concept of infrastructural power, understood here as power of non-state actors over state actors.

In order to distinguish bureaucratic-democratic states from their absolutist predecessors, which relied primarily on 'despotic power', Michael Mann defined 'infrastructural power' as the 'capacity of the state to [...] penetrate civil society, and to implement logistically political decisions' (Mann, 1984: 189). Mann subsequently acknowledged that in contemporary societies both spheres penetrate each other to the point where the organisational boundaries of the state are no longer clearly delimited (Mann, 1993: 61; cf. Konings, 2011: 5; Mayrl and Quinn, 2016). Under these conditions, infrastructural power becomes 'a two-way street' that not only strengthens control by the state but also allows for better control of the state by civil society actors (Mann, 1993: 59). In other words, infrastructural entanglement creates power both ways – the flipside of the infrastructural power of the state is the infrastructural power of those parts of civil society that serve as the conduits for state agency.

Infrastructural power is similar to structural power in that it operates without extensive organisation of business interests. However, the concept captures a causal mechanism that escapes the structural power approach. According to the latter, policymakers placate business interests for fear that not doing so would harm economic growth. By contrast, infrastructural power operates via policymakers' expectation that harming particular markets would blunt their own policy instruments and thus diminish their control over the economy.

The difference in causal mechanisms may appear subtle, but the added analytical value added is significant. Above all, accounting for infrastructural power allows for a disaggregated, more fine-grained analysis of 'the state' – or, in this case, the European policymaking apparatus. Both instrumental and structural power approaches conceptualise governments as unitary actors that are targeted by and react to competing private sector interests. From this perspective, explaining outcome variation in closely related policy areas (e.g., more stringent capital requirements for banks but no financial transactions tax on repos) requires variation in the instrumental or structural power competing interests can muster in those policy areas vis-à-vis policymakers. The concept of infrastructural power offers a parsimonious explanation for such variation by disaggregating the governmental apparatus into different actors and by focusing on differences in their governance methods. The

European Commission and the ECB may be working towards complementary and compatible goals, but they do so through different channels – the Commission governs by issuing directives and regulations, the ECB by issuing liabilities. Harnessing this variance as an explanatory resource yields a more nuanced theory of the scope and reach of the political power of finance. This power is boosted if and when the interests of actors in specific financial markets align with the interests of technocrats who are mandated (or have chosen) to govern through those markets.

4. Monetary policy and the marketization of bank funding: Repo

Implementing monetary policy through 'indirect' instruments – most notably, open market operations – poses two main challenges for monetary policy implementation.

The first - forecasting the amount of reserves the central bank must inject into the interbank market in order to align the market interest rate with its target rate – became irrelevant in the euro area

when, in October 2008, the ECB began to provide unlimited reserves under its 'fixed-rate full allotment policy'.

Second, the central bank needs to devise financial instruments to inject (and absorb) these reserves in sufficient quantities and without distorting private money markets (too much). Crucially, that choice is both a consequence and a cause of market development (Gabor, 2016b, pp. 974-82). While central banks choose instruments on the basis of existing financial market conditions, their structural position as the monopoly suppliers of reserves means that these choices are themselves major drivers of financial market development.

While there was still considerable instrument diversity in the 1990s, by 1997 most EMU central banks had converged on reverse repurchase transactions as their primary reserve-providing

instrument (Borio 1997: 40), thus paving the way for them to become the standard instrument for all open market operations of the Eurosystem (i.e., the ECB and the national central banks). A sale and repurchase agreement, or repo, consists of an exchange of cash for securities between two parties. The cash borrower ('repo seller') agrees to repurchase the securities from the cash lender ('repo buyer') at a specified date in the future. Interest is paid by the cash borrower in the form of a mark-up on the repurchase price, the repo rate. Repo markets are at the heart of the global shadow banking system, where they connect banks in search of short-term funding, and non-bank institutions seeking safe and liquid, money-like assets (Financial Stability Board, 2012; Hardie et al., 2013a: 715). Following the crisis, repo markets came under scrutiny for their effects on pro-cyclicality and leverage in the banking system, as well as on the bank-sovereign nexus (Financial Stability Board, 2012; Gabor and Ban, 2016; Gabor, 2016b). There are currently \$12 trillion of repo and reverse repo transactions outstanding globally, of which about \$9 trillion are collateralized by government bonds. At \$2.8 trillion, the euro area repo market is the world's largest (CGFS, 2017).

4.1 Building the infrastructure: integrating and standardizing interbank repos

As late as 1996, the Bundesbank opposed deregulating the private German repo market on the grounds that liberalisation would undermine the control it exerted on interbank liquidity conditions via its own repo transactions (Gabor, 2016b, pp. 977). Over the course of the following years, however, central bankers preparing for the euro rallied around a radically different view. At that time, several high-level repo market studies identified the transnational integration of the European collateralised interbank market as a crucial prerequisite for the single monetary policy. Most importantly, the Giovannini Group, which reported to the European Commission, bemoaned that Europe still had 'essentially 15 separate repo markets' and argued that a 'truly unified repo market' would facilitate central bank control over interbank rates (Giovannini, 1999: 2, 8). A study commissioned by DG Economic and Financial Affairs also emphasised that it would be 'in the interest of the central bank to have an efficient repo market', which would enable 'interest rate changes [to] feed through to the real economy more quickly and more evenly' (Stadler and Lannoo, 2000: 12). Finally, a working group of leading central banks published its own survey of the interaction of monetary policy and repo markets in the G10 countries. The report emphasised central banks' key role 'in the promotion and development of repo markets' and predicted a growing European repo market as a result of its centrality in the operational framework of the nascent Eurosystem (Bank for International Settlements, 1999: 14).

Nevertheless, when the Eurosystem began its operations in January 1999, interbank money markets were not transnationally integrated and in some countries, such as Ireland and Finland, 'there was no money market' at all – 'this segment was missing' (CB Interview 2). Aiming at improving the financial infrastructure for monetary policy implementation, the ECB used its operational framework strategically to foster 'unification and standardisation' in the interbank money market (Santillan et al., 2000: 7). Although all banks subject to the reserve requirement had access to the Eurosystem's refinancing operations, only the larger ones – roughly 10 per cent, or 700 to 800 banks in mid-2000 – participated directly (ECB, 2000c: 42). The remaining 90 per cent of banks satisfied their liquidity needs in the interbank market, which acted as 'a redistributor of central bank liquidity' (Interview 3). The 'home bias' that initially characterised the German money market was quickly eliminated (Interview 4) and banks in countries with previous repo experience soon 'acted as liquidity providers for the banks of other countries' (Interview 2), thus spurring 'a significant increase in [private] cross-border transactions in the euro money market' (Santillan et al., 2000: 12-13).

In short, 'increasing collateralisation in private wholesale markets' and 'relatively high consumption of collateral by the Eurosystem' reinforced each other (ECB, 2006: 76), increasing the

infrastructural entanglement between market-based banking and central banking. The Eurosystem also fostered market integration by acting as a standard setter. The two main types of repo contracts are special repos, with specific securities as collateral, and general collateral (GC) repos, in which any securities from a defined class of securities can serve as collateral. By paving the way for GC baskets consisting of euro-area government bonds, the ECB set an important standard in the repo market. Again, the ECB's actions were motivated by considerations relating to monetary policy implementation. While the collateral framework did not discriminate between bonds issued by different national governments de jure, the haircuts it imposed on a mark-to-market basis depended on current market valuations (ECB, 2000b: 43). Realising that this de facto discrimination stood in the way of further market integration, the ECB argued that integration 'would benefit from the extension of a euro GC approach' that would put all government bonds in the same collateral basket (ECB, 2002: 66, quoted in Gabor and Ban, 2016: 626). GC baskets for standardised repo contracts became market practice when the two leading central counterparty firms introduced them in 2005 (Eurex) and 2007 (LCH Clearnet), respectively (Gabor and Ban, 2016: 626). After that, GC repos saw rapid growth – between 2008 and 2013, the volume of outstanding Eurex GC repos rose from €22 billion to €165 billion (Bundesbank, 2013: 65).

4.2 Infrastructural power and the financial transactions tax

The alliance between the ECB and the interbank repo market faced a major test when, in the aftermath of the global financial crisis, the idea of a financial transactions tax (FTT) gained traction among European policymakers, and was actively pursued by the Commission's DG TAXUD. After its first FTT proposal failed to find unanimous support in the Council (ECOFIN) in 2012, the Commission, then supported by eleven (today: ten) member states, introduced a largely unaltered draft directive under the 'enhanced cooperation' procedure in early 2013 (Kalaitzake 2017b: 5). That proposal listed repos among the financial instruments that would be taxed at a rate of 0.1 per cent. By the end of 2016, however, the 'EU-10' finance ministers had agreed to exempt repos from the FTT proposal (ECOFIN, 2016, p. 6). Analysis of the evidence and the available literature reveals that infrastructural power and the ECB have been crucial in bringing about this exemption.

France and Germany had initially advocated taxing repos on the grounds that they facilitated – at that time highly unpopular – short-selling practices. The Commission linked the inclusion of repos to a broader financial stability argument, citing research by the Financial Stability Board (2012) on the potentially destabilising consequences of the excessive, pro-cyclical liquidity creation enabled by the repo market (Gabor, 2016a: 934-936). Once the proposal was on the table in the Council, however, two counter-arguments gained traction. On the one hand, finance ministries worried about the impact of a repo tax on the liquidity of government bond markets, and ultimately on government borrowing costs. The ECB, on the other hand, insisted on the beneficial effects of liquidity for overall market efficiency and warned that 'the proposal may have negative implications for the implementation of monetary policy' (ECB, 2013c, p. 109).

The repo lobby pushed both arguments in a lobbying campaign that was directed not at the Commission but at the ECB and the national central banks (Gabor, 2016a, pp. 936-39; Kalaitzake 2017a: 8-12). As detailed by Kalaitzake (2017a: 11), this concerted effort included letters from the main financial sector associations to central bankers warning of the negative consequences of the FTT for repo market liquidity. This not only suggests that the repo lobby was aware that infrastructural entanglement made the ECB more amenable to these arguments than the Commission – lobbyists were actually 'pushing against an open door' in Frankfurt (Kalaitzake, 2017, p. 11). Jean-Claude Trichet had expressed opposition to the FTT even before the Commission's 2011 proposal, questioning whether it would be 'the right thing to

do to put sand in the machine' (Pignal 2011). Indeed, there was no need for market participants to seek out central bankers. The ECB reached out proactively via its 'contact groups' for bond, foreign exchange, and money markets. These groups meet on a quarterly basis on the ECB premises; each group is chaired by senior DG Market Operations officials and comprises around 20 private bank representatives. The meeting summaries show that each group received the same presentation from an ECB official, detailing the specifications and comprehensive scope of the FTT proposal without endorsing it (ECB 2013a). Importantly, the earliest such presentation was given to the 'Money market contact group' in March and thus preceded the repo lobby campaign described by Gabor and Kalaitzake. In mid-2013, several ECB Executive Board members and national central bank governors publicly voiced opposition to the FTT proposal arguing that the tax would reduce repo market activity, hamper the efficient distribution of central bank liquidity throughout the euro area, and therefore have 'possible negative implications for the implementation of monetary policy' (Mersch 2013a; Kalaitzake, 2017, p. 11). ECB representatives also communicated their opposition at a meeting of the Council and in two meetings with the Commission, which offered time adjustments to address the ECB's concern that a tax would make the shortmaturity repo business unviable (Interview 14). The outcome, however, was a resounding victory for the ECB-repo alliance. By the end of 2016, 'EU-10' finance ministers had agreed to exempt repo transactions, alongside other money market instruments, bonds, and derivatives linked to government bonds, from the tax (ECOFIN, 2016, p. 6). At the time of writing (May 2017), the Council had yet to approve this watered-down FTT proposal.

Starting in 2010, the Commission, then supported by the largest member states, advocated taxing repos on the grounds that the market contributed to excessive and pro-cyclical leverage and thus to financial instability. The ECB, by contrast, opposed the FTT on the grounds that a tax on repo would harm the market that served as the conduit for the implementation and transmission of its open market operations. This divergent assessment of the consequences of an FTT sits uneasily with a structural power explanation, while the sequence of events calls into question that instrumental was decisive. Even if it was assumed that financial-sector lobbying had an impact on the ECB, infrastructural power is needed to explain why the repo lobby pushed against an open door in Frankfurt but not in Brussels.

5. Monetary policy and the marketization of bank lending: Securitisation

Securitisation is the process of creating asset-backed securities (ABSs). The value and interest payments of an ABS are based on and collateralized by a pool of underlying loans – residential or commercial mortgages, as well as loans to firms and consumers. The creation of an ABS usually begins with a bank that originates loans, bundles them together, and sells them to a special purpose vehicle (SPV). The SPV is constructed as a legally separate entity, thus ensuring its bankruptcy remoteness in case of insolvency of the originating bank. The SPV finances the purchase of the loan pool by issuing (asset-backed) securities, sliced into tranches of different seniority (Gorton and Metrick, 2012, p. 430). Prior to the US subprime crisis, central bankers and regulators praised securitisation as a tool for risk diversification. After 2008, securitisation was seen as riddled with asymmetric information and moral hazard

problems, abetting excessive lending, fraudulent mis-selling, and financial instability (Financial Crisis Inquiry Commission, 2011). Regardless of the normative assessment, the reorganization of risks and of incentives that securitisation entails 'represents a fundamental shift in how finance is done' (Davis and Kim, 2015, p. 208). Figure 1. Issuance and use in Eurosystem refinancing operations of eurodenominated

ABS, EUR billion. [...]

Although the European securitisation industry never reached the scale of its US counterpart, it grew rapidly following the introduction of the euro, from €78.2 billion in 2000 to €453.7 billion in 2007 (Hardie et al., 2013a: 712, numbers include the UK). The infrastructural entanglement between the ECB and the securitisation market originated with the decision to make ABSs eligible collateral for Eurosystem open market operations (ECB 2000b, p. 39). More recently, in the wake of the failure of Lehman Brothers, the ECB assumed the role of 'dealer of last resort' for ABSs, thus further increasing infrastructural entanglement. The securitisation case illustrates the 'two-way street' nature of infrastructural power (Mann, 1993, p. 59) – by taking suddenly-illiquid ABSs onto its balance sheet the ECB gained leverage over the securitisation market, while at the same time becoming more dependent on it. This increased infrastructural entanglement brought material advantages for the securitisation market in the form of early and sustained, economic and political support from the ECB. Coming at a time when politics still steered clear of securitisation, this support paved the way for the later political revival of this financial technology, which culminated in the Juncker Commission's embrace of securitisation as a key pillar of its Capital Markets Union project (Howarth et al., 2016, pp. 196-97).

5.1 (Re-)building the infrastructure: The ABS loan-level initiative (2008-2012)

In 2007/08, banks went from placing virtually all the ABS they issued to retaining more than \in 500 billion (black columns in Figure 1). Banks did not hold on to those securities, however, but pledged them as collateral to obtain reserves from the ECB, which accepted ABSs down to a minimum credit rating of A-. As a result, the total value of ABSs pledged with the Eurosystem increased by a factor of five, reaching almost \in 500 billion in 2010 (solid line in Figure 1). As the head of the Risk Strategy Division of the ECB put it, '[a] vibrant market with many ABS buyers and sellers gave way to a situation in which the only absorber of new and old ABS was the ECB' (Gonzalez, 2014: 32). The ECB had little choice but to put a floor under the market – not allowing banks to use securitisation as a collateral-generating mechanism to obtain central bank liquidity would have put upward pressure on interbank interest rates at a moment when the ECB was eager to aggressively ease monetary policy.

The post-Lehman avalanche of ABS collateral was an 'eye opener' that alerted the ECB to the lack of transparency in European securitisation, especially regarding the quality and status of the underlying loans (Interview 5). While problematic from a regulatory perspective more generally, the immediate problem for the ECB was risk management. First, the ECB was unable to determine the value of the ABSs it had taken onto its balance sheet (Interview 5). The second concern was market liquidity – since counterparty defaults could have forced the

ECB to take ownership of and subsequently to sell significant volumes of ABSs, it had a strong interest in having a liquid market for these securities (Gonzalez, 2014: 32). These risk management considerations were at the bottom of the ECB's 'ABS loan-level initiative'. The initiative was an unprecedented effort to get issuers of ABSs to provide and regularly update information on each underlying loan, and to create the IT infrastructure to make this data available to investors and, crucially, to the ECB.3 [*3 In principle, pre-crisis transparency*]

was higher in the US where loan-level data for non-agency mortgage-backed securities was collected and supplied by private firms (Ossa, 2012: 12).]

Notwithstanding the ECB's positive summary of the responses to its December 2009 public consultation (ECB, 2010: 1), ABS issuers strongly opposed the idea of a loan-level information requirement on the grounds of confidentiality and cost considerations (Interviews 6 & 7). The ECB put together six technical working groups, one for each ABS sector.4 [*4 The six sectors comprised residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), small and medium-sized enterprise (SME) loan securitisations, auto loan ABS, consumer finance ABS, and leasing ABS.*] The groups, consisting of an ECB chair and up to 15 securitisation market participants, devised templates that defined which information on the underlying loans ABS issuers would have to provide. The ECB phased in the reporting requirements for collateral-eligible ABSs between January 2013 and April 2014. At the heart of this new informational architecture stood the European DataWarehouse (ED). Established in 2012 as a private company in Frankfurt, the ED is owned by a shareholder consortium of 17 financial sector firms. The ECB and national central banks hold observer status on both the supervisory board and the pricing committee.

Without ECB leadership, no comparable set of standards would have emerged. The central bank brought market participants in line by incorporating loan-level data into the collateral eligibility criteria of its refinancing operations: 'We want to have loan-level data – if you don't have the loan-level data you are out of the game' (Interview 5). This interpretation of events is confirmed by private-sector members of the ABS working groups (Interview 6), by industry reports (Ossa, 2012, p. 15), as well as by the data – in 2010, ABS accounted for 24 per cent of the assets pledged in transactions with the Eurosystem, the largest share of any asset class (ECB, 2011, p. 6).

The ECB's insistence on pursuing the initiative in spite of what it perceived as 'very strong pushback' (Interview 5) illustrates the 'two-way street' nature of infrastructural power. Both instrumental and structural power approaches would interpret this development as a 'defeat' for the securitisation lobby. But the loan-level initiative was tied directly to the ECB's commitment to provide almost €500 billion in central bank liquidity against ABS collateral, which represented an unalloyed 'good' from a financial-sector perspective.

In addition to this 'collateral easing', the loan level initiative turned out to also be indirectly tied to two further securitisation-friendly ECB actions, quantitative easing and 'regulatory easing', described in more detail below. First, although there is no evidence of premeditation, the initiative became a stepping-stone for the ECB as it moved towards an asset purchase programme that included ABSs. Given the ECB's conservatism regarding risk on its balance sheet, loan-level data was effectively a precondition – as one ECB official put

it, 'without the loan-level data information we would probably not have an ABS programme in the first place' (Interview 5). Second, the loan level initiative laid the groundwork for the discursive reframing of securitisation that culminated in the European Commission's (2015b) proposed regulation on a 'framework for simple, transparent and standardised securitisation'. In short, the ABS loan-level initiative was not, by any means, a defeat for the financial sector. What it does show is that infrastructural entanglement creates mutual dependence that gives both sides, bankers and central bankers, leverage over each other.

5.2 Infrastructural power and securitisation: collateral, quantitative and regulatory easing (2012-2017)

After Mario Draghi's 'whatever it takes' speech had calmed sovereign debt markets in the summer of 2012, the ECB's primary concern was that 'financial fragmentation' and 'heterogeneous' credit conditions for non-financial firms continued to prevent the 'homogeneous pass-through of its key interest rates' across the euro area (ECB, 2012d, p. 63). Identifying securitisation as a means to 'restore the impaired monetary policy transmission mechanism' (Cœuré, 2012), the ECB provided support to the ABS market through collateral, quantitative and (advocacy for) regulatory easing.

First, securitisation generates securities that serve as collateral, allowing banks to refinance via the repo market. The ECB has advocated a liquid ABS market as a means for weak banks to free up their balance sheets by securitising and selling off loans to (foreign) investors, with beneficial effects for monetary policy transmission (ECB and Bank of England, 2014; Mersch, 2014).

In addition to this private refinancing mechanism, securitisation also generates Eurosystemeligible collateral. As described above, during the early phase of the financial crisis, the ECB acted as the dealer of last resort for ABSs. In doing so, the ECB – in its own words – encouraged banks to switch their securitisation business model 'from the "originate-to-distribute" model up to the summer of 2007 to some form of "originate-to-repo" model', thus providing 'a great support to this market segment' (González-Páramo, 2010).

When the sovereign debt crisis put banks under renewed stress, three ECB decisions between December 2011 and July 2014 lowered the rating threshold for ABSs from AAA to BBB-(Wolff, 2014: 5). Effectively engaging in 'collateral easing' through its refinancing operations, the ECB absorbed almost €500 billion of ABSs in 2010 (solid line in Figure 1). Subsequently, the share of eligible ABSs pledged with the Eurosystem increased even while the total amount of ABSs collateral fell, reaching 50 per cent in 2015 (dotted line in Figure 1). At the inaugural meeting of the 'Bond Market Contact Group', an ECB representative explained that this collateral easing for ABSs was part of a strategy of targeting 'those assets that were deemed to be more effective for fostering bank lending' (ECB, 2013d, p. 2).

Second, the ECB supported the securitisation market through quantitative easing (QE). In June 2014, Mario Draghi announced the Asset-Backed Securities Purchase Programme (ABSPP) as a measure 'to enhance the functioning of the monetary policy transmission mechanism' (Draghi, 2014). Compared with its peers, the ECB was a latecomer to QE. Legal

and political opposition, primarily from Germany, had blocked the path to large-scale purchases of sovereign debt. As for private securities, the securitisation market would have been the ECB's preferred choice. Unlike covered and corporate bonds – which are concentrated in the core countries and issued by large banks and corporations – securitised loans would have allowed for purchases targeted to ailing sectors in the vulnerable countries. However, low issuance activity meant that the ABS market was too small for large-scale central bank purchases (Interview 3). Indeed, since its launch in November 2014, the ABSPP has remained fairly small compared to the other components of the ECB's QE programme. 5 [5 *By the end of April 2017, the ECB held securities worth EUR 23.7 billion under the ABSPP, compared to EUR 1,512 billion under the Public Sector Purchase Programme*.]

Third, and most important, the ECB pushed for the revival of the securitisation market in Europe by advocating 'regulatory easing'. In late 2013, the ECB Executive Board member in charge of market operations and policy implementation warned of the 'potentially uneven and disproportionate treatment of ABS in forthcoming regulations' (Mersch, 2013b). In June 2014, Mario Draghi followed up with an appeal to regulators to revisit their treatment of ABSs in order to 'eliminate some of the undue discriminations towards this specific product when this product is simple, real and transparent' (Draghi, 2014; cf. Mersch, 2014). These statements referred to the then-circulating proposals for a Solvency II Directive and a new Capital Requirements for insurers and banks holding ABSs (ECB and Bank of England, 2014, p. 3; Hübner, 2016, p. 14). In sum, the single most important factor – certainly more important than other post-crisis policy or market developments – to explain the continued existence of ABS as an asset has been the ECB's consistent support.

Instrumental or structural power alone do not offer a satisfactory explanation of the ECB's consistent support for securitisation. To see why, timing is, again, crucial. The ECB consistently cast securitisation as part of the solution at a time when other European and national policymakers still regarded it as part of the problem. In late 2014, one market participant expressed relief 'that the ECB leads ABS out of its dodgy corner' while 'the regulator is still convinced that it all is somehow a devilish thing' (Interview 6). This initial divergence between the ECB and the Commission is the main thorn in the side of a potential structural power explanation, which lacks a theoretical rationale for why different parts of the EU governance apparatus should hold such different views of the effects of regulating securitisation more tightly. By contrast, accounting for the market-based nature of central bank agency, and the resulting infrastructural entanglement, easily explains the alignment of the interests of the ECB with those of the securitisation sector.

The sequence of events also resists an instrumental power explanation. The ECB sought to revive the securitisation market before the securitisation industry started its lobbying campaign. When an ECB Executive Board member told a group of securitisation professionals that they could 'potentially play a vital role' and wondered, 'how do we bring back investors to the securitisation markets?'

(González-Páramo, 2010), he did so at a time when securitisation was stigmatised even among investors, and when it was thus too early to lobby lawmakers.

In the absence of a counterfactual scenario, a final way to illustrate that the ECB has indeed made a difference in the political resuscitation of securitisation is to trace the origins of the notion – enshrined in EU law as of 2017 – of 'simple, transparent and standardised securitisation' (STS). To the best knowledge of the author, the first time a high-level European policymaker touched upon this notion was in June 2010, when an ECB Executive Board member told a securitisation industry conference in London that the ECB's loan-level data initiative 'would become an important building block along the path towards standardisation, simpler structures, and better post trade price transparency' (GonzálezPáramo, 2010, author's emphasis). Over the following the years, the ECB consistently described its own role in the securitisation standard-setting process – which had been sparked by the ECB's loan level initiative – as 'leading or acting as a catalyst' (Cœuré, 2012). In that particular speech, Benoît Cœuré used the phrase to describe the ECB's role with regard to 'Prime Collateralised Securities', an industry-led standard-setting initiative that developed and awarded a 'label for high quality securitisations which meet best practice in terms of quality, transparency, simplicity, and standardisation' (PCS, 2012, author's emphasis). Three years later, Yves Mersch (2013b), highlighting regulatory agreement on 'principles for high quality ABSs' as a scenario for a 'quick win', pointed out that the ECB's collateral eligibility criteria for ABSs 'could serve as a starting point for such discussion'. After the Commission (2013, pp. 12, 17) had merely paid lip service to securitisation in its early-2013 Green Paper on Long-Term Financing, in December that year it asked the European Banking Authority for advice on 'promoting a safe and stable securitisation market' (EBA, 2013). At that point, the notion of simple and transparent securitisation, invented by central bankers, became a focal point for the work of global and European regulators (BCBS and IOSCO 2014; ESMA, EBA and EIOPIA, 2015) and a key goal of the European Commission's (2015a, b) flagship project of a 'Capital Markets Union'. After protracted negotiations, the Parliament and the Council reached an agreement over the STS proposal in May 2017 (Council of the EU, 2017).

6. Conclusion

One of the central questions for political economists in recent years has been why and how finance wins. The post-crisis resilience of market-based banking in the euro area represents a significant victory for large banks because repo and securitisation markets boost profits via higher leverage and income from fees. In order to explain that victory, this article developed a concept of infrastructural power. It argued that the political power of repo and securitisation market actors derived not primarily from their privileged position in the economy (structural power), but from their infrastructural entanglement with the European Central Bank.

There is an important historical dimension to this argument. While infrastructural entanglement is an

inevitable feature of the hybrid core of capitalist financial systems, where private banking and public central banking co-evolve, the degree of entanglement has varied. Under the post-war co-evolutionary equilibrium between deposit-based banking and lender-of-last-resort central banking, national European central banks regarded relationship-based banking (and strong

social partners) as pillars of monetary governability. By contrast, the ECB's consistent support for integrated and 'efficient' repo and securitisation markets helped establish a new equilibrium between market-based banking and dealer-of-last-resort central banking.

The concept of infrastructural power enables a more fine-grained analysis of the workings of financial-sector power vis-à-vis state actors. In particular, it casts a spotlight on the ECB as a de-facto financial policymaker – a role that is not, except in supervisory matters, part of its mandate. As shown in this article, the ECB has helped establish, expand, protect and revive repo and securitisation markets, which serve as infrastructures for the implementation and transmission of monetary policy. Market-based agency and infrastructural entanglement offer a parsimonious explanation of why the ECB opposed the Commission's financial stability oriented

proposal for a tax on repo, and why it advocated regulatory easing for securitisation at a time when other policymakers still considered the ABS market toxic. In both cases, the interests of (central) bankers prevailed. Today, the (pending) FTT proposal exempts repo 20

transactions, while 'simple, transparent, and standardised' securitisation is a key pillar of the Commission's Capital Markets Union project, which aims at engineering a more marketbased European financial system. If elsewhere 'it takes a village to maintain a dangerous financial system' (Admati, 2017), in the EU it takes two – financial-sector interests were poised for defeat in Brussels had it not been for steadfast support in Frankfurt.

While this article elaborated and adapted the concept of infrastructural power on the basis of two specific case studies, infrastructural entanglement is very much a global phenomenon. First of all, in addition to the cases discussed above, the ECB has partly 'nationalised' the settlement of securities trades via TARGET2-Securities (Krarup, 2016), and has become active in securities lending to ease collateral scarcity in the financial system.

In the US, infrastructural entanglement was at the heart of the Fed's discretionary decisions during the financial crisis to backstop certain forms of private, money-like liabilities created in the

shadow-banking sector (Murau, 2017).

The Bank of Japan has moved beyond bond purchases to buy exchange-traded fund shares and is now one of the country's largest equities investors (Kitanaka et al., 2016).

Fiscal authorities, too, have embraced increasingly market-based sovereign debt management practices (Lagna, 2016; Livne and Yonay, 2016; Fastenrath et al., 2017).

In areas other than monetary and fiscal policy, classic examples include public procurement and sovereign wealth funds, but the toolkit of financial statecraft has become increasingly diverse. In China, aggressive equity investments by a growing number of public entities have created a 'shareholder state' (Wang, 2015). In addition to public entities purchasing assets in existing markets, they also seek to achieve policy goals via state-led financial innovation, as illustrated by the European Investment Bank and national promotional banks becoming pivotal actors in the SME securitisation market (Mertens and Thiemann, 2017). The upshot of the present article is that such infrastructural entanglements, often in obscure corners of the financial system, tend to align key state actors with the interests of their financial-sector counterparties, thus boosting the political power of the latter.

Marked-based governance and state-led financial innovation can improve state capacity. Indeed, grasping the extent to which 'private' financial markets are entangled with central banks and governments (and their liabilities) is a necessary first step towards envisioning a more equitable and democratic financial system (Block, 2014; Herzog 2017; Hockett and Omarova, 2017). Short of such transformative changes, however, the analysis in this article calls for caution. Other things being equal, greater reliance on market-based forms of state agency tends to strengthen the infrastructural power of finance. Working 'through financial markets' may limit the ability of public authorities 'to help Main Street, not Wall Street'. Title: ECB Criticised for Overstepping Mandate in Eurozone Crisis (sel.) Author: Mehreen Khan From: Financial Times Date: April 19, 2017

The European Central Bank improperly veered into political activity during the eurozone crisis and should withdraw from the "troika" of international bailout monitors, according to anticorruption watchdog Transparency International.

In a review of the central bank's actions, carried out in co-operation with ECB officials, the report called on the ECB to be placed under greater scrutiny by EU institutions, saying its mandate to ensure price stability in the eurozone had been pushed to "breaking point" in tackling the crisis. "The ECB's accountability framework is not appropriate for the far-reaching political decisions taken by the governing council," said the report written by Benjamin Braun, an economist at Harvard. The report's findings echo criticism of the ECB from several eurozone governments for its role during the bloc's financial crisis, but are likely to be taken seriously within the bank because of its role in allowing Transparency International to review its actions.

The warnings come as the ECB has assumed greater power to regulate eurozone banks in recent years and as EU authorities prepare to "bail in" Italy's oldest bank, Monte dei Paschi di Siena, this year. The ECB is also still part of the lenders involved in Greece's third international bailout. As part of its recommendations, Transparency International urged the ECB to make public all its decisions and opinions, and praised the central bank's decision to publish the diaries of its senior policymakers. It also recommended the central bank no longer monitor international bailouts, something it has been doing alongside the European Commission and International Monetary Fund. Under EU treaty law, the ECB has a narrow but strict mandate to ensure "price stability", which has been interpreted as an inflation target of just under 2 per cent. However, Transparency International warned that the bank's sacrosanct independence had afforded the ECB "an extraordinary degree of latitude" to make significant decisions during the eurozone crisis, which first engulfed Ireland, Portugal and Greece in 2010 before spreading to Spain and Cyprus in the years that followed. These included "secret" letters sent from the bank to the governments of Spain and Italy, which made clear that ECB bond-buying was conditional on economic reform efforts and a decision to remove ordinary funding for Greek banks following the election of the Syriza government in 2015.

Such episodes highlighted the "severe strain on the institutional arrangement that underpins the ECB's partial exemption from the principle of democratic accountability", said the report. This powerful role, where the ECB has pressured governments and financial systems, risked repeating itself in the upcoming negotiations with Greece and with the recapitalisation of Italian bank MPS, "which threaten the eurozone's current fragile stability", added the report. Italy's government has already lashed out at the ECB's role in the MPS rescue after the central bank's supervisory arm increased the lender's projected capital black hole from \in 5bn to \notin 8.8bn late last year. The ECB had been forced to make public the diaries of its governing council members after its top central bankers came under fire for meeting bankers and asset managers hours before big policy decisions. Its role in banking bailouts has also been questioned. In 2015, former ECB president Jean-Claude Trichet appeared before a parliamentary committee

in Ireland, where he denied ordering the government to bail out its financial system at all costs. As part of its third bailout, Greece has urged the ECB to include the country in its eurozonewide quantitative easing measures to help ease the strain on the economy. But the central bank has said it will not take on the risk of buying Greek bonds before it has assurances about the sustainability of its debt. To avoid "mission creep" and political interference, the report urged the ECB to first gain the assent of the president of the eurozone's finance ministers and the European Parliament before making any demands on governments in exchange for its financial support.

Mario Draghi, ECB president, welcomed Transparency International's recommendations, but added that some of them would fall outside of the bank's mandate and its obligations as set out in the eurozone's treaties. "It is the duty of European institutions to further strengthen their legitimacy both by reinforcing their democratic accountability and by showing that they meet the objectives they've been entrusted with," said Mr Draghi. The report also criticised the role of national governments and authorities who were "all too keen to shirk their responsibilities and let unelected technocrats to do the 'dirty work' for them".

Title: Capital Markets Union: Agreement Reached on Securitisation Author: -From: Council of the European Union Date: May 30, 2017

On 30 May 2017, the presidency reached agreement with European Parliament representatives on proposals aimed at facilitating the development of a securitisation market in Europe.

A framework for securitisation is one of the main elements of the EU's 2015 plan to develop a fully functioning capital markets union by the end of 2019. [*Council Conclusions on the Commission Action Plan on building a Capital Markets Union -2015*] Developing a securitisation market will help create new investment possibilities and provide an additional source of finance, particularly for SMEs and start-ups.

"This initiative will encourage financial market integration in Europe and make it easier to lend to households and businesses", said Edward Scicluna, minister for finance of Malta, which currently holds the Council presidency. "Tonight's agreement with MEPs will allow us to relaunch the securitisation market, defining a model for simple, transparent and standardised securitisations."

The agreement will be submitted to EU ambassadors for endorsement on behalf of the Council, following technical finalisation of the text. Parliament and Council will then be called on to adopt the proposed regulation at first reading.

Securitisation is the process by which a lender - typically a bank - refinances a set of loans or assets, such as mortgages, automobile leases, consumer loans or credit card accounts, by converting them into securities. The repackaged loans are divided into different risk categories, tailored to the risk/reward appetite of investors.

Following the US subprime crisis of 2007-08, public authorities took steps to make securitisation transactions safer and simpler, and to ensure that incentives are in place to manage risk. As a result of these reforms, all securitisations in the EU are now strictly regulated. However, in contrast to the United States where markets have recovered, European securitisation markets have remained subdued. This despite the fact that EU securitisation markets withstood the crisis relatively well.

Building on what has been put into place to address risk, the proposals differentiate simple, transparent and standardised (STS) products. The concept of 'simple, transparent and standardised' refers not to the underlying quality of the assets involved, but to the process by which the securitisation is structured.

Issues resolved

One of the main political issues resolved relates to a so-called risk retention requirement. This refers to the interest in the securitisation that originators, sponsors or original lenders of securitisations need to retain themselves. The requirement will ensure that securitised products

are not created solely for the purpose of distribution to investors. The negotiators agreed to set the risk retention requirement at 5%, in accordance with existing international standards and in line with the Council's negotiating position.

Other elements agreed with the Parliament include:

the creation of a data repository system for securitisation transactions, which will increase market transparency;

a light-touch authorisation process for third parties that assist in verifying compliance with STS securitisation requirements.

The aim is to prevent conflicts of interest. The text makes clear that, even when a third party is involved in the STS certification process, liability for compliance with the rules remains completely with originators, sponsors, original lenders and securitisation special purpose entities.

Two regulations

The agreement with the Parliament covers two draft regulations:

one setting rules on securitisations and establishing criteria to define STS securitisation;

the other amending regulation 575/2013 on bank capital requirements.

The first brings together rules that apply to all securitisations, including STS securitisation, that are currently scattered amongst different legal acts. It thus ensures consistency and convergence across sectors (such as banking, asset management and insurance), and streamlines and simplifies existing rules. It also establishes a general and cross-sector regime to define STS securitisation.

The text amending regulation 575/2013 sets out capital requirements for positions in securitisation. It provides for a more risksensitive regulatory treatment for STS securitisations. The regulations require a qualified majority for adoption by the Council, in agreement with the European Parliament. (Legal basis: article 114 of the Treaty on the Functioning of the European Union.)

Title: Independence and Accountability in a Changing World (transcr.)Author: Benoît CœuréFrom: Transparency International EU Event (introductory talk)Date: March 28, 2017

General considerations

Thank you for your invitation to today's event. I am looking forward to a discussion with a panel representing such a wide range of stakeholders and views.

The ECB fully shares the values that underpin Transparency International's work, such as integrity and accountability. At a time when many people are expressing doubts about public institutions, it is clear that these principles are vital for their legitimacy. And we are convinced that greater responsibility and integration at euro area level, which are much needed to strengthen our Economic and Monetary Union, should go hand in hand with greater democratic accountability.

So Transparency International's work regarding the EU's economic governance is certainly useful. This is why the ECB has facilitated this project by inviting the researchers to a series of meetings with senior staff. We were offered the opportunity to comment on the draft of the report. But as the study and its recommendations are entirely owned by Transparency International, we exclusively provided factual observations and abstained from commenting on the substance.

Before offering some observations on the four chapters of the report - independence, transparency, accountability and integrity - I would like to make two preliminary, more general remarks:

First, and to answer the question raised in the title of the report: yes, for the ECB independence and accountability are two sides of the same coin. The ECB was given a democratic mandate. Independence ensures that the ECB can act in line with its mandate. Accountability, on the other hand, ensures that the ECB does act in line with its mandate. This can be measured ex post against outcomes - the ECB did indeed take decisive action to preserve price stability during the crisis - and it relies ex ante on having a strong accountability framework.

Second, the ECB is quite unique in the EU institutional context. I understand that Transparency International has published similar reports on the European Investment Bank and the European Stability Mechanism. There are important differences between the three bodies - not only as regards their mandate and purpose, but also in terms of their institutional setup, governance structures, funding and, in this context more importantly, accountability. Of course, we are an EU institution (like the European Parliament or the European Commission). But we are also a central bank and, as of 2014, a banking supervisor. These specific tasks require a dedicated governance framework considered so crucial by the EU legislators that it was laid down in the EU Treaty and, as regards banking supervision, in the regulation establishing the Single Supervisory Mechanism (SSM).

In my remarks I will cover each aspect of the report briefly.

Independence

In the European Union, the principle of central bank independence has a quasi-constitutional basis. Article 108 of the Treaty establishing the European Community states that: "neither the ECB, nor a national central bank - shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body".

Looking at the debate around independence, which is also taking place outside the EU, it becomes clear that safeguarding our independence requires more than a series of legal provisions.

It requires an explanation of why independence is important for a central bank. As guardians of price stability in the euro area, the ECB creates the foundation for a healthy and stable European economy. Independence is essential in that respect, as it protects the ECB from any temptation by governments to seek changes in monetary policy to favour short-term economic gains over price stability, or to pander to private interest groups.

It is equally important to correct misperceptions, and all stakeholders do have a responsibility in this respect. The ECB communicates clear conditions for accepting credit institutions as counterparts, for quality of collateral, for emergency liquidity assistance extended by national central banks so as not to interfere with monetary policy, for accepting securities under its asset purchase programme, etc. These conditions are transparent and equal for all counterparties in the euro area. Therefore, the ECB does not aim for political buy in, it merely clarifies the conditions which govern its monetary policy for all euro area countries, and this is needed to ensure that it stays within its mandate and, thus, to safeguard its independence.

As for the ECB's current role in the macroeconomic adjustment programmes, this is enshrined in a legal framework that is not for the ECB to alter. We believe that financial issues are where the ECB's advice is of particular relevance. If there were political willingness to change the framework, we would be happy to engage and, based on our experience, help clarify how best to support the other institutions while safeguarding our independence.

Accountability

Independence does not mean arbitrariness. The ECB was given a democratic mandate. It is held accountable for acting in line with this mandate, both democratically and legally.

From a democratic perspective, the ECB is accountable for its policies to the representation of EU citizens. As described in the Report, the ECB's President participates in quarterly hearings of the Committee on Economic and Monetary Affairs of the European Parliament. As MEP Tremosa i Balcells knows very well, these are not "dialogues de sourds". The MEPs do not shy away from asking critical questions. As the President emphasised at his September 2016 hearing, the ECB takes these exchanges very seriously.

In addition to the regular quarterly hearings, my Executive Board colleagues and I also participate in hearings of this Committee to explain the ECB's reasoning and decisions on specific topics. Just last year, I visited the European Parliament twice to discuss the proposal for a euro area budgetary capacity and the ECB's involvement in Greece.

In about ten days' time the ECB, as it does every year, will publish its Annual Report and the Vice-President will present it before the European Parliament. Later in the year, the President will also attend the plenary debate on it, which precedes the Parliament adopting its official position on our activities.

This European Parliament Resolution is an important contribution for our work, as it summarises the views of the representatives of the European people on our actions and policies, also in the fields of independence, transparency, accountability and integrity. We take the European Parliament's comments and suggestions very seriously.

I could continue with other examples showing the health of the relationship between the European Parliament and the ECB: from the Governing Council decision to adopt principles that increase transparency in developing ECB regulations on European statistics, to the ECB's readiness to discuss questions on the work it is engaged in in the Basel Committee, of course within the confines imposed by confidentiality requirements. And I could mention the separate accountability channels foreseen with the establishment of ECB Banking Supervision, based on the Interinstitutional Agreement (2013/694/EU) between the European Parliament and the ECB. Last week, the Chair of the ECB Supervisory Board was at the European Parliament to present the ECB Annual Report on supervisory activities 2016.

Of course, I leave it to MEP Tremosa i Balcells to express the Parliament's judgement on the robustness of our accountability framework towards the Parliament. From the ECB's perspective, our accountability framework as defined in the Treaty is working well, and has been adapted to the challenges we have faced in recent years by expanding our interactions where and when necessary.

Transparency

Transparency is crucial to the ECB's work and it attaches great importance to communicating effectively with the public. Transparency helps people understand the ECB's monetary policy, and better public understanding, in turn, makes the ECB's monetary policy more credible and effective.

Against this background, communication with financial market participants deserves particular attention. I see it as a double-edged sword. Clear communication with financial markets enhances the implementation and transmission of monetary policy, but on the other hand it may risk central banks being captured by private interests, or worse, disclosing privileged information. And even the perception of such risks would be harmful.

Please allow me to present some examples.

The European Central Bank has made significant progress on matters of transparency and good governance. This was noted by the European Ombudsman, who commended the ECB for adopting the "Guiding principles for external communication by members of the Executive Board" and "encourage[d] it to lead the field on all aspects of good governance". The Ombudsman more generally acknowledged, when presenting her Annual Report for 2015 to the European Parliament, that the ECB has "boosted its transparency".

The Guiding Principles provide a more concrete and very practical expression of the rules that are already binding on Executive Board members. They enshrine the ECB's approach to ensuring that financial market-sensitive information is not disclosed to select groups and avoiding giving the impression that an event organiser has a "prestige advantage" allowing it to benefit financially from the perception of exclusive contacts with the members of the Executive Board. The Guiding Principles also advise the Executive Board members to include, as a matter of principle, an ECB staff member in bilateral meetings. These principles have also been subscribed to by the Chair of the ECB's Supervisory Board and the other ECB Representatives to the Supervisory Board.

In addition, the members of the Governing Council (including the Executive Board members) observe a "quiet period" before monetary policy meetings. This means they avoid making comments or attending meetings that could influence expectations about monetary policy decisions in the seven days before a scheduled meeting on this issue. This also covers meetings with the media, market participants or any other outside parties with interests in monetary policy matters.

As you probably know, the Executive Board Members - including myself - as well as the Chair of the Supervisory Board have been publishing their diaries since November 2015. I find that the diaries provide a very comprehensive overview of our interactions with external parties; they cover all our professional meetings with the private and public sectors (at national and international level). No other EU institution - including via the Transparency Register - or central bank provides such extensive information in terms of transparency.

The ECB has also established high-level fora such as the Institutional Investor Dialogue and the Banking Industry Dialogue to collect relevant market intelligence from stakeholders in a transparent way. These fora are underpinned by a published charter that sets out the participation rules; the agendas and meeting summaries are also published. This makes the ECB's interactions in terms of gathering information from stakeholders highly transparent for the public.

Since January 2015 the ECB has also been publishing regular accounts of the Governing Council's monetary policy discussions. They contain an overview of financial market, economic and monetary developments, followed by a summary of the discussion, in an unattributed form, on the economic and monetary analyses and on the monetary policy stance. In doing so, we aim to provide the rationale behind monetary policy decisions and enable anyone who is interested to read the Governing Council's assessment of the economy within a short period of time after the discussion takes place.

Integrity

However, independence, accountability and transparency are not enough if they are not flanked by a robust integrity system. Or as Mario Draghi put it in an address to staff: a stronger business culture has to be complemented by a stronger ethical culture.

An enhanced ECB Ethics Framework applicable to all staff members became effective in January 2015, and a dedicated Compliance and Governance Office was established to implement this new framework, among other tasks. Mandatory ethics training for all staff members should further enhance our strong ethical culture. Moreover, a high-level Ethics

Committee has been established to advise Governing Council, Executive Board and Supervisory Board members on conduct matters.

In my view the ECB's Ethics Framework is probably the strictest of any EU institution or central bank. All our staff members - including Executive Board members - need to provide a list of their bank accounts and powers of attorney conferred on them by third parties, to facilitate regular compliance checks of their private financial transactions by our external auditor.

While we are convinced of the robustness of our Ethics Framework, such frameworks must, of course, be regularly reviewed against international best practice. The review of our whistleblowing regime is just one example in that regard.

Concluding remarks

Let me conclude. While we certainly have to strive constantly for improvements, I believe one has to admit that the ECB has made tremendous efforts and indeed made significant progress in strengthening its accountability, boosting its transparency and further enhancing its integrity mechanisms and good governance.

The ECB is, and has always been, open to a balanced dialogue with stakeholders, including the general public, and strives to keep up to date with fast-evolving communication practices, such as Q&A sessions on Twitter.

This study, containing interviews of ECB senior managers and the report by Transparency International, is indeed a good example of how the ECB engages in a balanced dialogue with diverse representatives.

As mentioned earlier, we are convinced that independence requires accountability, and that accountability requires transparency. Integrity is a foundation of any good administration.

We are confident about what we have achieved, but as central bankers we are always "vigilant" and never complacent.

Thank you for listening, and I look forward to hearing your views.

Title: Interview with Benoît Cœuré Author: Sophie Fay and Pascal Riché From: L'Obs Date: May 23, 2017

In the United States, the administration wants to reconsider the banking regulations put in place after the 2008 financial crisis. The United Kingdom is tempted to do the same in the context of Brexit. In France, Emmanuel Macron also thinks that the steps taken were excessive. Is this a threat to the stability of the financial system?

Yes, the threat of deregulation exists. In many places there appears to be a temptation to revisit the financial regulation adopted by the G20 countries, which has been a huge project: we have strengthened the capital requirements and liquidity of banks, limited their size, regulated potentially dangerous products, such as derivatives, and started to put in order what's known as shadow banking, which takes place outside the banking sector.

It comes as no surprise that the financial industry dislikes these new rules. The large banks say that they hinder lending and increase the cost of capital. But this is not the case in the euro area, and even less so in France. Banks have significantly strengthened their capital base since 2010 and yet they have never made so many loans at such low rates.

The temptation of a regulatory race to the bottom exists in any industry, but it is even stronger in finance. It took enormous political energy on the part of the Heads of State or Government, following the financial crisis, not to give in to it. But whenever this political will weakens, the temptation of a race to the bottom returns. Such a temptation exists in the United States, although for the time being the new administration has not expressed any desire to backtrack on financial cooperation, either in the G7 or the G20, which is comforting.

Emmanuel Macron has also said that he wants to reconsider certain banking rules, notably on the required level of own funds.

His comment was born of good intentions: to facilitate the financing of SMEs. But there are other instruments available for that purpose. It would be useful if, once a year, the ministers of finance and economic affairs of the EU were to examine the impact of regulation on the financing of businesses. But that must not be a pretext for dismantling what has been achieved at international level.

Don't technocrats have too much power now in relation to these issues?

The agreements reached in the Basel Committee, which brings together central banks and supervisory authorities, have to be transposed into national law. As such, they are not binding. Politicians can always take back control. They are the ones who draw up and adopt the banking regulations. Should international technocratic fora be more transparent? Yes, probably. Mario Draghi has agreed to keep the European Parliament better informed about ongoing discussions.

What needs to be done in order to limit the porous boundaries between the banking sector and the world of politics?

In Europe, the answer is simple: the banking union should be taken seriously. The essence of the project is to "denationalise" supervision of large banks by entrusting it to the ECB, in order to harmonise supervisory methods and create distance between the supervisor and the supervised entity. Before the banking union, regulation and supervision of banks in each country was a kind of ecosystem, a co-production between the banks, the government and the banking supervisor. And we saw the results: some banks took excessive risks in the markets, while others, which were no longer viable, continued without sufficient supervision to finance projects which no longer made economic sense. Taxpayers had to clean up the mess. The banking union reduces the sociological proximity between banks and the administrative and political powers.

As regards "sociological proximity", the new French President is a former banker. Will the ECB will be more vigilant with regard to him?

One should avoid accusations. Georges Pompidou and Henri Emmanuelli also worked for Rothschild! The French political authorities were in the vanguard of the banking union: it is an achievement and it was not self-evident in France. What matters today is continuing in that direction.

Is financial deregulation a factor in the rise of inequality, as some are saying?

Financial regulation has its rightful place within a framework for combating inequality. As the economists Philippe Aghion and Angus Deaton have said, combating inequality involves combating rent-seeking. And yet the big forces of change today, globalisation and technological progress, create rents. Tackling these is not easy, because there are "good" and "bad" rents. If we want innovation to flourish, rent-seeking has to be accepted, at least temporarily.

Rent-seeking that obtains patents, for instance-

Yes. In order to encourage people to innovate they need to be able to enjoy the fruits of their innovation. But if rents are excessive, a minority appropriates the benefits of globalisation and technological progress. Finance is necessary to fund innovation, but it may itself become an excessive source of rent-seeking.

How?

Large financial institutions naturally tend to grow in size in order to exploit economies of scale, diversify, and reduce their financing costs. If they are too large, that creates a problem of competition and this creates rents. It also encourages a phenomenon specific to finance: being "too big to fail". A large financial institution may take unreasonable risks because it knows that the public authorities will have no choice but to rescue it if something goes wrong- That race for size must be avoided by way of regulation.

Another phenomenon specific to finance is rents being built up by individuals. A proportion of financial industry employees are remunerated at unreasonable levels when measured against their value to society, as Thomas Philippon and Ariell Reshef have clearly shown. This misappropriation is socially unjust and must be regulated. Hence the EU legislation aimed at regulating the distribution of bonuses. Some countries, such as the United Kingdom, have gone

further in making senior bank managers criminally liable in the event of excessive risk-taking or lack of control. It is a political choice. France also could do it.

All these rules reduce the risk of financial crises, which tend to deepen inequality. Too often in the past, taxpayers have borne the cost of bank recapitalisation post-crisis. And banking crises, by causing economic activity and employment to fall, hit the most vulnerable in our societies the hardest. Europe is endeavouring, with a set of new rules, to avoid the costs of these crises being borne by taxpayers, by calling on bank shareholders and creditors.

What is Europe doing otherwise to combat inequality?

To reduce inequality, redistribution instruments are needed, i.e. taxes and transfers. Only a legitimate, elected parliament can decide to tax some people to give to others. At global level, such a legislature obviously does not exist. At European level, it does. This is an extraordinary opportunity! It should be used effectively.

The paradox of globalisation is that the greater the need for redistribution instruments, the more they are called into question. For example, it is becoming increasingly difficult to tax large companies, which are now operating on a global scale. The European Commission's action in relation to Apple in Ireland is a good example of what needs to be done to regain control of globalisation. And its plan to harmonise the corporate tax base is a move in the same direction.

The planets finally seem to be aligned in a way that permits the functioning of the euro area to be reformed. What do you think?

A window of opportunity is opening. It must be seized. In electing Emmanuel Macron, the people of France have confirmed their attachment to the single currency. This gives the new president a strong mandate but also a responsibility to bring forward proposals to reform the euro area. For the ECB, this is good news.

In the first round, half of the votes went to candidates who were very critical of the euro...

This shows just how much the reform of the euro area is needed! The ECB is mindful of this every day, having to ensure the stability of a single currency with 19 different governments which are often pulling in different directions and labouring to manage and resolve crises. That lack of efficiency takes a toll on economic activity and employment.

The euro brought stability during the financial crisis. The ECB's monetary policy is supporting the economic recovery. The euro area has created around five million jobs since mid-2013. But there is still a major, existential problem of lack of trust in Europe and lack of trust between Europeans, as shown for example by cultural prejudices between the north and the south.

Is this only a problem of trust? Isn't there also a mechanical problem, a design defect, which makes the euro a cause of divergence, rather than convergence, between Germany and the other countries?

It is not because of the euro that the unemployment rate is currently 4% in Germany and 10% in France. It's because the economic policy responses before and after the outbreak of the crisis were very different in the two countries. Admittedly, at European level, there has sometimes been a lack of coordination; solidarity instruments need to be improved. But there has also been a lack of commitment to reform in some countries.

Is Germany ready to accept more instruments of "solidarity": a European budget, Eurobonds, etc.?

There is a German prejudice - that Germany pays for the rest of Europe. This is largely untrue. Germany contributes to the European rescue plans in accordance with its economic weight, as do France and Italy. There are symmetrical prejudices in France; for example, the idea that unemployment in France can be explained by the euro being undervalued for German industry and overvalued for French factories. In fact, if unemployment is higher in France it is because the labour market is performing less well. We must overcome these prejudices, which fuel populism. Everyone needs to do their bit.

This is something that Emmanuel Macron has understood very well. France is expected to make proposals about reforming the euro area. But to be credible, it must itself undertake the reforms necessary to bring the French unemployment rate closer to the best performers within the EU.

Title: Market Complexity Also Makes for Instability Author: Mark Buchanan From: Physics of Finance Date: April 11, 2017

Since the financial crisis of 2008, an explosion of research has aimed to understand what makes financial markets prone to sporadic crises. The potential sources of trouble are many, including debt and leverage, financial concentration and the problem of "too big to fail," as well as perverse incentives for bankers to take on large risks. Markets go wrong in any of a thousand ways, and, unfortunately, it seems that understanding each one requires intimate familiarity with the fine details of the financial architecture, contracts, legal regulations, individual incentives and so on.

Yet a narrow focus on details can distract attention from profund similarities. Network scientists know that the topology of a network – the pattern of links or relationships that hold it together – can have a decisive influence on its properties. In the context of financial networks, new research suggests that subtle changes in network topology may be the key to understanding a common pathway by which financial markets become unstable. For all the forbidding complexity of the modern financial system, they suggest, instability tends to follow from the emergence of particular cycles or closed circuits of dependence within the network topology, as these tend to amplify disturbances or distress.

I'll explain the basic logic of the work briefly below. It's a theoretical paper, and not meant as a recipe for detailed practical policy. But it does help clarify a basic mechanism that drives instability, and offers broad insights on the kinds of policies that could avoid it.

First, a little background. Some of the motivation for this work comes from the history of thinking in ecology. Back in the 1970s, ecologists widely believed that the stability of an ecosystem would generally be enhanced by increasing complexity, as reflected in the presence of a large number of interactions between a diverse set of species. But the theoretical ecologist Robert May overturned this intuition, at least partly, by showing in simplified network models of food webs that complexity can in some cases undermine stability. His analysis indicated that networks with a larger number of interactions could be less stable, and inspired ecologists to begin searching for possible new factors that might account for ecosystem stability – for example, the presence of specific topological motifs within food webs.

Just after the financial crisis, May – who was formerly the Chief Science Advisor to the UK Government – joined with the Bank of England's Andrew Haldane in arguing for the relevance of this insight to the stability of financial systems as well. Financial networks have grown enormously more complex in the past 30 years, and, as May and Haldane noted, the pre-crisis literature in economics and finance mostly viewed this as a good thing. Traditional thinking held that more complexity, achieved through a wider spectrum of financial instruments, greater diversification and wider spreading of risks, would improve stability. Yet May and Haldane

pointed to a handful of studies, mostly in the last decade, linking rising complexity with increasing instability.

Six years later, this idea that too much complexity can cause trouble is becoming less "radical," although the story also remains unsatisfyingly complicated. Models serving as examples tend to include fairly intricate details of how financial institutions interact – particulars of contracts, for example, or mechanisms for debt default resolution. Do such details always play a decisive role? Or is there a simple and general story about how changes in network topology create instability that stands above the details?

This is the question asked – and answered, in the affirmative – by this paper. What Marco Bardoscia and colleagues do is to study a class of models of the Interbank network, and probe the stability of the network as they vary two parameters characterizing its complexity. These are 1) market integration, reflecting the number of banks participating in the financial system, and 2) diversification, referring to the proliferation of financial contracts. Importantly, the study doesn't test stability in the usual way of running stress tests and estimating the total losses likely to amount from some assumed shocks to the system. This approach requires specific assumptions on the nature of the financial contracts and mechanisms of distress propagation, making it difficult to draw general conclusions.

Instead, Bardoscia and colleagues study how gradual changes in the interconnection pathways in the network can create mechanisms that tend to amplify small disturbances, rather than dampening them away. For example, the figure below illustrates how the network goes from being stable to unstable just due to gradual diversification, normally thought of as beneficial for risk management. It shows a network eigenvalue λ max reflecting whether the propagation dynamics of the network dampen ($\lambda max < 1$) or amplify ($\lambda max > 1$) small disturbances. The researchers used the balance sheets of the top 50 listed banks in the European Union as a starting point, and then simulated a process in which banks gradually increase the degree of diversifi cation by creating further exposures towards additional counterparties. They carefully rebalanced the network at each stage to keep the assets and liabilities consistent with the original balance sheets and the interbank leverages of all banks fixed. As the degree of diversi fication increases, a bank's exposures spread out across ever more counterparties. Even though the total interbank exposure of each bank remains constant, the banking system eventually goes unstable, and it doesn't even take a lot of diversification to make it happen. As the figure shows, instability first arises when contracts link together just 3% of all the possible pairs that could in principle be linked.

This example illustrates the transition from stability to instability as complexity increases through diversification. The paper equally establishes that a simular transition takes place if complexity rises just through an increase in the number of banks.

The conclusion is that more complex and highly networked markets should generically tend toward instability. A financial system can go unstable as the number of banks increases, or as the number of contracts among banks increases, even if the individual leverage of banks does not increase. In either case, instability appears as a holistic, network effect, even though each bank individually has an unchanging risk profi le. The implication: financial policies that seem wise from the point of view of the risks to individual banks can actually – and counter-intuitively – increase fi nancial instability to the whole system.

The paper also goes into some detail on the origin of such instability, which lies in the fact that in both processes banks get increasingly involved in multiple cycles (i.e. closed chains) of contracts. This is an interesting technical detail that I won't get into, although such factors might well prove useful as targets for monitoring by authorities. In any event, it's clear that systemic risk cannot be reduced through measures long thought to reduce risks in standard economics. Banking proliferation and diversification, if excessive, can create worse problems than they solve. Title: To Understand Finance, Embrace Complexity Author: Mark Buchanan From: Bloomberg Date: March 10, 2013

A highly unusual collaboration between economists and scientists offers an important insight for those who want to fix the world's crisis-prone financial system: There's no simple way to understand a complex network.

This month's issue of the research journal Nature Physics features a handful of papers in which physicists, other natural scientists and leading experts in economics and finance -- including prominent banking regulators and Nobel Prize-winning economist Joseph Stiglitz -- put their minds together to figure out finance. What the scientists bring to the table is experience in studying networks, bewildering tangles of interlinked and interdependent things such as an ecological food web or the Internet.

Take a look at any diagram showing the interconnections among the world's banks and other financial institutions -- links established through ordinary loans, but far more extensively through financial derivatives -- and what you see will be very complex. We barely understand how such complexity changes the way networks operate. What we do know suggests we should worry when there's too much of it.

Fifty years ago, ecologists interested in the stability of food webs at first mistakenly concluded that more complexity -- more species and a greater density of links among them -- would tend to make an ecosystem more stable. This turned out to be wrong. Later work by noted ecologist Robert May demonstrated that while healthy ecological networks are rich and diverse, too much complexity tends to make them unstable and prone to collapse. Loosely speaking, networks with too much complexity can go wrong in too many ways.

Explosive Complexity

Sound familiar? The complexity of the financial system exploded over the past few decades, primarily through the proliferation of derivatives of all kinds. Then the system itself blew up. What the papers in Nature Physics argue is that any really deep understanding must focus on the detailed pattern of links among institutions, or the network "topology." (Full disclosure: I write a monthly column for Nature Physics.)

I've touched on networks several times in earlier Bloomberg View columns. It's worth emphasizing again how the most basic insights emerging from this new line of work run contrary to received wisdom from economics. For example, banks that create and sell derivatives often argue that their proliferation is beneficial, as it makes markets more "complete," meaning that it brings us closer to a world in which essentially any kind of trade or bet can be undertaken at any time. Standard financial theory assumes that such completeness is associated with greater financial stability, as it allows anyone with information to bring it into the marketplace. How can that be bad?

Well, achieving completeness entails a vast increase in complexity, with consequences that traditional finance models fail to capture. These models suppose that the actions of individuals or firms in the market are too small to affect its behavior in any serious way, much as we used to think that our fishing the oceans would have minimal influence on the abundance of fish. But a network study from several years ago demonstrated that the seemingly tiny influence that trading has on the market becomes increasingly significant as the number and complexity of financial instruments increases. The generic result is violent market fluctuations and instability. Financial institutions still find ways to profit by creating and selling new derivatives, even if these deliver no benefits to the market and actually drive the system toward trouble. (See my blog for further details.)

Hiding Risks

Complexity also helps financial institutions hide the risks they create. Despite the advertising of the International Swaps and Derivatives Association and others who create and sell derivatives, these products are only sometimes used for hedging and much more frequently for speculation. In the latter case, they are exceedingly useful in obscuring information that would be crucial to the proper judgment of values and risks.[..] Anyone making deals with a bank enmeshed in a largely invisible web of contracts with far-flung counterparties does so with a very incomplete view of the risks involved.

The basic complexity of the market allows for the completion of deals that would never get signed in a world of full transparency and understanding. Unfortunately, traditional financial theory -- which assumes that individual actors have perfect knowledge and make only rational decisions -- ignores this point, blinding itself to a huge source of systemic risk.

Any science has to begin with basic insights first, learning which details really matter and which may not. The network perspective is still some way from making confident proclamations of recipes for specific regulations on derivatives, banking transparency and so on. But some of its insights already eclipse those of traditional financial economics, and any work on crafting better regulations should certainly take these insights into account.

I'm a physicist, so it should come as no surprise that I like this kind of stuff. That said, leading economists are beginning to pay attention, too. Even more importantly, so are regulators. Economists are often most concerned with doing work that supports their existing theories, whereas regulators are concerned with finding anything that is useful. As an author of several of the Nature Physics papers told me, their ideas have already been adopted and put into use by several central bankers who clearly see this work as valuable.

The ideas aren't terribly profound: The networks approach simply acknowledges that the details of how financial systems are wired up, of who is linked to whom, play a crucial role in financial stability. The linkages determine how shocks travel through any market and strongly influence who has access to what information.

It's hard to imagine that any system of regulation will be effective without taking this kind of detailed information into account. It would be almost miraculous. We should stop hoping for miracles and undertake the hard work required to really understand the financial system and to build networks that are both stable and socially useful.

Title: With Global Financial Markets, How Much Control Do Countries Have Over Economic Policies? Author: Selim Ali Elekdag and Gaston Gelos From: IMF Date: June 4, 2017

The outlook for further interest-rate increases by the US Federal Reserve revives interest in a compelling question: In an increasingly integrated global financial system, how much control do countries outside of the US retain over their economic policies?

For policymakers around the world, the question is more than academic. Their concern: global events have such a large impact on financial markets that there's little scope left to pursue their own objectives, such as full employment or low inflation.

Unwelcome development

Here's a simple example of why that's the case. A decision by the Fed to raise interest rates increases yields on US assets, attracting capital from other countries. As a result, interest rates in those countries may go up, making it harder for consumers and companies to obtain the credit they need to buy more goods or invest in new machinery. That could be an unwelcome development in a country that is trying to keep borrowing costs low to combat unemployment, for example, or sustain economic growth.

To find out how much freedom central banks still have to pursue their own policy objectives, the latest IMF *Global Financial Stability Report* develops indexes that measure changes in financial conditions in a broad array of advanced and developing economies. Financial conditions refer to how easy or difficult it is to borrow money, and they can be influenced by bond prices and exchange rates. A measure of those conditions is a useful tool for assessing the likely impact of policy decisions.

Financial shocks

Our indexes show that global events account for between 20 percent and 40 percent of local conditions across countries, leaving policymakers considerable scope for action. And even as financial markets have become more integrated, the degree of control countries exert over domestic conditions has only diminished mildly over the past two decades. Still, the rapid speed and the strength by which external financial shocks tend to affect local markets often makes it difficult for policymakers to react in a timely and effective manner.

Global conditions appear to be strongly driven by the United States, in part because the dollar is the predominant currency in international transactions. We found that the global financial conditions index correlates strongly with those in the United States and with the Chicago Board Options Exchange Volatility Index, or VIX, a gauge of perceived risk in US equities.

Emerging markets, which are more sensitive to global conditions than advanced economies, should take steps to bolster their resilience to global shocks. They should deepen domestic

financial markets and develop a local investor base, making their markets less susceptible to fluctuations in flows of money across borders.

Such steps are particularly important now, when financial conditions are tightening in response to the Fed's rate hike.

Title: "Predatory" Margins and the Regulation and Supervision of Central Counterparty Clearing Houses (CCPS)Author: Jan P. Krahnen and Loriana PelizzonFrom: SAFE FrankfurtDate: September 9, 2016

1. Introduction This paper discusses the benefits and risks emanating from an increased reliance on central counterparty clearing houses (CCPs) in financial markets and implications on CCP regulation and supervision. Specifically, it addresses an important policy issue which has been neglected in the recent regulatory reforms in the U.S. and Europe. We argue that the rise of CCPs in OTC derivative markets, itself a highly welcome development, poses a systemic risk problem which requires an adjustment of the existing regulatory and supervisory framework.

We are not the first to discuss that, and how, CCPs may create systemic risk (see Bernanke, 2011, Yellen, 2013, Culp, 2010, Stulz, 2010, Singh, 2010, Duffie/Zhu, 2011, Heller/Vause, 2012, Pirrong, 2011 and 2013, Cont/Kokholm, 2014, Duffie et al., 2015, Duffie, 2016, France/Kahn, 2015). However, this paper strives to stress the importance of centralizing regulation and particularly supervision at the supra-national level in order to avoid a potential race to the bottom in collateral standards and a commensurate rise of systemic risk.

Central clearing of OTC derivatives has been mandatory for some asset classes since 2012 in the U.S. (Dodd-Frank Act) and since 2014 in Europe (EMIR). Today, i.e. after a relatively short period of time, an estimated 50% of all interest rate and credit derivatives are cleared via a CCP according to a recent FSB study (Domanski et. al., 2015). The notional values of cleared contracts are huge, approaching USD 100 trillion for interest rate swaps alone. In the coming years, these numbers are expected to grow even further when the coverage of the regulation will be gradually extended to additional user groups.

The regulatory focus on CCPs was signed off at the 2009 Pittsburgh G-20 summit, the second gathering of heads of state after the outbreak of the financial crisis in 2007. The closing document of the G-20 summit proposes a transfer of derivatives transactions from intransparent OTC markets to supervised exchanges, relying on the CCP model that has been successfully applied to futures markets for a long time. A CCP requirement for standardized derivatives contracts was first introduced in the U.S. as part of the Dodd Frank Act in 2010, and later also in the EU, as part of the EMIR regulatory project in 2014. Both regulations envisage multi-year implementation periods. In this paper, we discuss first the economic role of CCPs and the issues regarding financial stability. Second, we consider the CCP industry and its market structure, and the bearing of CCP competition on financial stability. Based on these considerations, we derive several policy conclusions regarding the future design of supervision, regulation and resolution of CCPs.

2. The economics of risk transformation through CCPs and financial stability We develop the economic analysis of risk transformation through the operation of a CCP in 3 steps, starting at the level of the individual CCP and then moving on to the market level with several competing

CCPs by investigating: (2.1) the benefits of risk aggregation, (2.2) the importance of adequate margining for financial stability and the compromising role of CCP competition, and finally, (2.3), the importance of regulation and centralized supervision for systemic risk containment. 2.1 Risk aggregation benefits ("multilateral netting") and the robust-yet-fragile property Derivative transactions are intertemporal by nature and thus require some sort of credit relationship between the counterparties. For example, investor A enters into an interest rate swap with investor B in order to hedge his/her exposure from a Libor-based debt contract by exchanging it against a nominally fixed schedule. Both parties to the trade are committing to deliver a particular schedule over an agreed time horizon. If B defaults on the swap, investor A will suddenly be unhedged, facing the payoff request from his/her original Libor contract. Therefore, a counterparty credit default is an important risk inherent to any derivative contract.

Markets have developed standard methods to deal with this risk, mostly by requiring each party to post some collateral. In organized markets, such as futures markets, the technique of defining mutual collateral requirements has been combined with the role of the exchange as the single counterparty for both contracting partners. That way, the exchange (the clearing house) will be located in the middle of each individual trade, becoming the CCP to all customers. The centrally cleared OTC markets are quite similar to the futures markets. The main difference is that contracts are initially traded bilaterally and then novated to a CCP, such that there is not a centralization of the price, i.e. the same contract can be traded at the same time with different prices. The assessment of each participant's creditworthiness can be achieved at the transactional level. Bilateral negotiations between a CCP and each trading partner are required in order to determine an appropriate amount of collateral for each counterparty and for every instrument. The CCP will request collateral postings from its customers based on the value-at-risk-methodology4. These requests will be adjusted continuously, usually once a day, such that the aspired safety level of 99% should be kept up throughout the life of the contract.

If a customer has more than one derivative exposure, for example in different instruments, or with different maturities, or at different market places, the sum of the counterparty risk involved in each transaction may be reduced through diversification (or hedging if exposures are of different sign). As a consequence, bringing two different exposures (e.g. to different counterparties) of the same client on one CCP gives room for a reduction of the required collateral. Unless the two exposures are perfectly positively correlated, the X% VaR of the combined position is lower in absolute value than the sum of the X% VaR requirement of the same exposures treated separately. This advantage of multilateral netting is the driving force behind the natural monopoly characteristic of CCP operations. That said, it is also conceivable – at least in theory – that the decreasing average risk of multilateral netting can be replicated relying solely on bilateral contracting without a CCP. In this case, the VaR calculation has to take into consideration all other exposures the counterparty has entered into. Thus, the advantage of multilateral netting without a central counterparty requires full transparency about everybody's mutual exposures; since this is a rather unrealistic assumption, we have labeled this case as ,theoretical'.

Leaving the theoretical case aside, the CCP is an efficient way to reap the benefits of multilateral netting even in absence of full transparency. The CCP becomes a kind of relationship intermediary, allowing to focus on net risk exposure, and commensurably building a desired level of safety on a smaller amount of collateral (see Duffie/Zhu, 2011).

The collateral-efficiency of CCPs encourages market participants to migrate from noncentrally cleared to centrally cleared transactions. The regulators encourage the move towards CCPs (and therefore centrally cleared transactions) by requesting minimum levels of collateral and/or capital for non-centrally cleared OTC transactions.

Thus, a well-managed CCP renders derivatives markets safer by eliminating counterparty risk – at least most of the time. The use of the VaR methodology defines collateral levels for all counterparties of the CCP in a novation process. The choice of the VaR confidence level allows to lower a CCP's own default risk to any desired level.

The process of dynamic margining keeps the default risk of each exposure at the desired level at any point in time. Nevertheless, the CCP's default risk will not vanish completely unless collateral for the underlying individual exposures is very high. The loss distribution for a typical CCP resembles (but is not necessarily equal to) a two-point distribution. With very high probability, say 99.9%, the realized loss is zero and with a very small probability the loss is extremely large. This latter extreme-loss event represents the case when shortfalls from the entire portfolio of exposures managed by the CCP exceed the available collateral, including possible safety cushions the CCP may have set up. By all unlikeliness, this would be an extreme systemic risk event, resulting in all major financial institutions in the relevant market covered by the CCP having trouble fulfilling their financial obligations. The larger the CCP, the more severe will be the respective systemic risk event. Despite a waterfall of safety lavers in the CCPs' liability structure, ranging from initial margin, variation margin, credit enhancement (default fund, variation gains haircuts) all the way down to CCP equity, it is likely that such an event will trigger a complete collapse of the financial system due to a run on its banks and other runnable institutions. Government bailout will be inevitable in this case. Haldane (2009) has characterized such a (financial) system aptly as robust-yet-fragile: robust in that it serves as a risk absorber in most of the cases while suddenly it may become a risk-spreader where fragility prevails (for an analysis of the properties of a robust-yet-fragile system see Acemoglu/Ozdaglar/Tahbaz- Salehi, 2015).

2.2 Margining, competition, and financial stability As was argued in the previous subsection, a CCP exhibits decreasing average risk to scale and thus exhibits the properties of a natural monopoly. In principle, these scale benefits can be reached either through complete transparency concerning all concurrent exposures between customers and CCPs, or through the merger of CCPs, eventually leading to a single, monopolistic CCP. In both cases, the less-than-perfect correlation of individual exposure risks decreases aggregate, system-wise risk and allows to lower the cost of default risk protection. As a result, margin requirements for a given set of exposures can be reduced, once the overall network of exposures is taken into consideration.

In a recent working paper by the U.S. Office of Finance Research (OFR), Glasserman/Moallemi/Yuan 2016 show that the stability of a financial system with multiple CCPs critically depends on margin requirements at each CCP properly reflecting the fact that clients (dealers) hold additional exposures with other CCPs. Margins need to internalize the risk externality arising from multiple relations of clients with CCPs across products. The reason is that to capture liquidity costs at default, margin requirements need to increase superlinearly in position size. The externality could theoretically be internalized with full transparency about all concurrent exposures of clients, as is shown in Acharya/Bisin (2014), or through a CoMargin algorithm as suggested by Lopez/Harris (2015) that allows to internalize the externality of having several CCPs; a similar proposal can be found in Menkveld (2016).

However, the most natural way to internalize this externality is to have a single CCP. In fact, it is likely to expect that competition among CCPs would end up in an equilibrium with only few (or maybe just one) CCPs with very low margin requirements. The reasoning behind this conclusion is very simple. With more than one CCP operating in a particular market, which is servicing the same customers (with different products) or the same products (with different customers), there is competition for market share. The competition is fueled by the natural monopoly property of the CCP business, which promises decreasing average default risk if more trades are combined at one exchange. In one of the rare empirical studies on CCP performance, Abruzzo and Park (2015) find that margin differences between CME and ICE, the two largest CCPs in the U.S., explain subsequent margin changes; the authors interpret this as evidence for the competition sensitivity of observed margins.

However, if competitive pressure leads to an undercutting in margin levels and if asset values are correlated, the CCPs may end up having insufficient collateral. In particular, they will implicitly lower the VaR level. This brings us to a second consequence of merger activity, besides the economies of scale just mentioned, namely the emergence of competitive underpricing which we call "predatory margining" (in line with the industrial organization literature on oligopolistic goods markets). While the first motive for integration, economies of scale realization, leads unambiguously to efficiency gains, the second motive, rent realization, does not. It is, however, fundamental for identifying the right design and regulation of the OTC derivatives market.

The current literature focuses primarily on the first consolidation motive, economies of scale. For example the natural monopoly character of CCPs is discussed in Duffie/Zhu (2011). Lewandowska (JMCB 2015) compares different clearing models in a numerical exercise, effectively analyzing their natural monopoly properties. She finds that netting efficiency critically depends on bundling all asset classes at the same CCP. In particular, there should be no clearing exemption for certain asset classes, e.g. forex derivatives, nor for certain market participants, e.g. dealers.

On the second motive for market consolidation, winning market share to increase profitability through recouping a monopoly rent later, there is less academic literature to rely on. In short,

from the perspective of an individual CCP, margin undercutting may prove to be a profitable strategy if it remains temporary and serves the purpose of winning over market share from a competitor. Due to decreasing average cost (or rather risk), an increase in business volume effectively lowers margin requirements. At the level of the individual firm, the industrial organization literature teaches us that predatory margining may be used to expand market share at the expense of competing CCPs. The resulting lower earnings will be compensated by potentially higher margins in the future, once current competitors are driven out of business.

At the level of the market as a whole, however, predatory margining implies concurrent suboptimal levels of collateral, thereby increasing the risk of a CCP default. Moreover, lowering margin requirements may be the strategy pursued by all competing CCPs simultaneously. This imposes an external effect on the systemic risk level in the market (which will increase). This externality is difficult to observe, and it is unpriced.

Thus unfettered competition among CCPs may lead to a "bad" equilibrium in which the likelihood of a systemic risk event is rising.

2.3 The importance of regulation and centralized supervision for systemic risk containment Supervision of CCPs is currently organized in a decentralized setting. While the European Securities and Markets Authority (ESMA), the regulator in charge of market supervisory standards, defines the general supervisory principles and rules, the actual supervisory job of CCPs is done by the relevant national institutions, accompanied by international colleges. A CCP in Germany, for example, is under the control of the banking supervisor at the Federal Financial Supervisory Authority (BaFin)5. Given that most large clients have exposures with several CCPs in more than one country at the same time, the information about counterparty risk is necessarily incomplete. This alone renders supervision of CCPs by national agencies inefficient.

A second limitation of national supervision, in the case of CCP, follows from the influence of competition in the CCP industry.

Regulatory standards are set uniformly across the EU through EMIR and the applicable regulatory technical standards set by ESMA6. Standard setting bodies at the supra-national level (for example the Financial Stability Board, FSB) have discussed the systemic risk problems relating to CCPs for quite some time (see FSB 2016), and have therefore included some very large CCPs in the group of systemically important financial institutions, deserving special supervisory attention. But is this enough?

We think not. An effective implementation of any desired regulatory standard requires consolidated supervision at the CCP level in order to internalize any indirect margining effect caused by the existence of concurrent exposures between any one counterparty with different CCPs. An additional argument in favor of a unified supervisory responsibility emerges from capture potential that follows from a more regional or national approach to supervision.

Therefore, a proper regulation, comprising comprehensive oversight of margin processes, is relevant for financial stability.

European regulators have turned their attention to recovery and resolution policy recently. Steven Maijoor, the Chair of ESMA, has described in a speech on 24 June 2016 how CCPs are supposed to prepare for a possible major default shock. The relevant regulation EMIR has defined a so-called "cover-2" requirement, which demands enough safety cushion in a CCP's financing structure to withstand the default of its two most important clearing members. The FSB is also advocating stringent rules for CCP resolution (see FSB 2016).

Moreover, a first EU-wide stress test covering major CCPs was carried out recently (see ESMA 2016, Report on the EU-wide CCP stress test 2015), again presupposing the default of two major clearing members. These tests were assuming "extreme but plausible" market conditions. This is certainly not a completely outlandish scenario, underscoring the relative softness of the stress test. E.g., the correlation among exposures was generally set at zero, a very benign assumption. In his speech, Maijoor concedes that no adequate resolution tool is available today. The European Commission is preparing a proposal for resolution for the design of such a tool, which should be presented by the end of 2016.

For a set of modest default states, when losses from a major fallout are significant but not too large, a structured recovery and resolution framework is of great importance, see BIS-IOASCO (2014) on basic concepts of infrastructure recovery, and FSB (2015) for details on effectiveness of resolution regimes. An effective framework for recovery and resolution will also set proper incentives for CCP owners and management to hold sufficient cushions of equity, and for clients to monitor the soundness of a CCP's margining policy.

Without prejudice to the outcome of these preparations, we argue from the robust-yet-fragile nature of CCP loss distribution that a simple copy-and-paste of the EU recovery and resolution procedures in banking, emphasizing the concept of bail-in and total loss absorbing capital, will most likely be insufficient for CCPs. The reason is that a bail-in tool, as introduced in the EU banking regulation recently, is restricted to loss events of rather limited size. Assuming a two-point (binomial) loss distribution, according to which losses are either zero or very large, where the former has a very high probability, the CCP will not have sufficient capital for the rare but disastrous loss event. In this case, when extreme loss states are materializing, a sophisticated bail-in methodology with pre-defined layers of subordinate debt and equity will unfortunately be "for the birds". The only feasible remedy in a CCP loss event will then require a government backup, and/or a central bank life-line. Incidentally, under similarly extreme conditions concerning a tail risk event, a government bailout is also the instrument of choice in today's banking regulation. There, too, a true systemic risk event will suspend the legal force of the Bank Recovery and Resolution Directive (BRRD, EU 2014/59), giving room for a full-fledged government intervention.

3. Reality check: Is CCP competition a likely threat to financial stability? If we look at the market structure of the CCP industry, we find that most CCP services are organized as

subsidiaries to exchanges. For example, LCH.Clearnet belongs to London Stock Exchange, Clearstream to Eurex which itself is a part of Deutsche Börse Group. Some other CCPs are mutually owned by major dealers, like DTCC (Depository Trust & Clearing Corporation)7 in the U.S. Given the recent regulation of derivatives markets in the U.S. (Dodd Frank Act) and Europe (EMIR) and the subsequent transfer of OTC derivative business to CCPs, clearing operations are now expected to become increasingly important for the bottom line of exchanges.

A recent statistic compiled by the FSB sees a strong tendency of clearing houses to be owned by stock exchanges (right panel). However, the number of major clients of CCPs, its members, is roughly constant, averaging less than 100 counterparties, mostly banks and dealer-brokers.

Given the high level of competition among trading platforms, including internalizers and crossing networks, CCPs are expected to remain a (or the) core activity of major exchanges' business model. In fact, competition between CCPs is escalating. First, the European Commission has advocated market access in clearing and settlement for years. The European Commission has taken a strong stance against so-called vertical silos, like Deutsche Börse, combining trading, clearing and settlement services in a single corporation with a single bottom line. Only recently, ESMA has issued an open access requirement, giving Eurex customers the option to clear via other clearer such as LSE's LCH.Clearnet8.

Currently, there are 32 CCPs active in the European Union, of which 16 are authorized CCPs located in the EU, and 16 are recognized ("passported") third-country CCPs (see ESMA 2016, Report on Risks and Vulnerabilities).

While hard evidence for an increase in competition is not available, several arguments point in that direction. The large number of active CCPs renders competitive pressure likely, given the natural monopoly character of the business model. Moreover, CCPs from the U.S. market, like DTCC and ICE, are now entering the deregulated European market. Steven Maijoor in his June 24, 2016 speech has emphasized the signs of increased competition in the CCP industry in Europe.

As was argued above, a rise in competition may lead to insufficient margining (or predatory pricing) in these markets. Incumbent CCPs may feel compelled to soften their collateral standards to defend their position against new entrants, just as entrants may use undermargining to gain some market share. It will be critical how CCP supervisors respond to such developments. We are, however, pessimistic about their role in fending off undermargining problems. Firstly, it may be difficult to identify undermargining with sufficient precision, as margin requirements are based on simulations that may be sensitive to assumptions and data selection. Secondly, even if undermargining can be identified unequivocally, the supervisor may implicitly partner with the supervised entity in order to protect the CCP's superior business model and also to protect the agency's own role.

Taken together, these arguments suggest that competitive undercutting of CCP margins may go unchallenged in an internationally open access CCP market with national supervision. Such a scenario opens the perspective to a race to the bottom, in which an ever decreasing margining policy increases the systemic risk emerging from the operation of one or several CCPs – which leads eventually to a government bailout of the CCP when the systemic event finally happens.

4. Summary and conclusions We summarize our analysis of the CCP industry and its role for financial stability in six lessons: 1. Under current regulatory conditions, the growing role of CCPs in derivatives markets greatly improves the stability of the financial system by imposing collateral requirements (margins) on a large fraction of bilateral derivative transactions, thereby reducing contagion risk among market participants (banks in particular). 2. In line with its robust-but-fragile property, a CCP triggers a systemic risk event with small but positive probability. In these extreme loss events, the banking system will be severely affected, and multiple bank defaults will be looming. 3. In case of a systemic CCP default, a government rescue operation (bailout) is not only unavoidable, it is also efficient as there will be not enough capital available at the CCP level to counter the severity of the loss experience. 4. CCP loss events of a more modest size, i.e. smaller than extreme systemic events, may be dealt with adequately by a suitable recovery and resolution framework. 5. The market structure of CCP services may itself affect systemic risk. In particular, if there is competition for market share between different CCPs, rather than a monopoly CCP, and transparency about individual exposures is incomplete, society faces the risk of undermargining. Firstly, due to a lack of transparency, CCP-specific margin estimates do not reflect the increased risk from exposures vis-à-vis multiple CCPs. Secondly, owing to economies to scale, unfettered competition will invite undermargining by aggressive CCPs. 6. Lessons 1-5 provide guidance for the efficient design of CCP regulation and supervision. Firstly, the supervisory practice (and their standards) should be the same for all CCPs, irrespective of their location, in order to avoid a race to the bottom of regulatory standards. Secondly, and consistent with the first argument, supervisory standards should be uniformly applied without regard to local champions. The latter is particularly relevant if CCPs are operating at the national level and relevant supervisory agencies are national rather than supranational authorities. 7. Consequently, regulation and supervision should be centralized in one agency covering the entire "relevant market", which is defined as including all (national) economies in which CCP counterparties are domiciled. This definition of relevant market ties in with the set of countries that would ultimately face the bailout bill should a systemic risk event ever happen.

These lessons can be applied to the regulatory status quo in Europe, suggesting two policy conclusions:

Need for a single supervisory agency A potential race to the bottom could be avoided if supervisors coordinate among themselves, fixing margining requirements at a uniform level, and abstracting from any competitive considerations. Since such a behavior is difficult to achieve in a college of independent supervisors, for reasons of political economy, one possible way out is to establish a unified regulatory and supervisory agency in charge of all competing CCPs. The objective of the single CCP supervisor would be to preserve a minimum VaR of the

entire financial system, encompassing all CCPs in a single market model. Given the current institutional set-up in Europe, the single supervisor for the CCPs could be either ESMA, who now serves as the single regulator, the Single Supervisory Mechanism for banks (SSM) or a new institution that could be established from scratch.

In light of the important role of systemic risk in understanding the potential costs and benefits of CCPs, we argue in favor of the SSM as the single CCP supervisor. The reasoning is straightforward: A sound estimation of margining standards, as it is required for the supervisor to monitor safety standards in derivatives markets, requires comprehensive information about the major counterparties of the CCPs; these major counterparties are predominantly commercial and investment banks as well as broker-dealer institutions. The SSM has already deep knowledge about all risks of these institutions. Thus, no double data collection efforts would be required to set up the single CCP supervisor.

Conversely, we advise strongly against a role of national supervisors for CCP supervision. The European CCP market today is still strongly structured along national market lines. Therefore, if the supervisory mandate would remain with national supervisory agencies, there is a risk of regulatory capture. This risk is elevated by the fact that much of the cost of lax supervision comes in the form of an externality: an increased probability of a systemic risk event, borne by all countries in the relevant market.

Bail-in rules and TLAC requirements for CCPs are of limited importance Provided that a single supervisor along with the existing single regulator is established, the issue of recovery and resolution emerges. Of course, the same issue emerges when there are multiple supervisors, or a college of supervisors, like today. The question is: Do CCPs allow for a resolution along the BRRD lines, i.e. building on bail-inable debt?

The current debate in Brussels focuses on establishing several layers of bail-inable capital, ranging from equity to senior debt. Its setup resembles the minimum total loss-absorbing capacity (TLAC) model now preferred in banking regulation in Europe9. For CCPs, the waterfall starts with the layers of variation margin reserves held by individual customers, then bails in initial margins, followed by accumulated loss reserves of the CCP. After those, haircutting the margins of all other customers is called for, followed by the CCP's own equity, and potentially other bail-inable debt held by the CCP. While the list of bail-inable layers of loss absorbing capital seems impressive, it will not make the CCP immune against a default. The reason is that correlated shocks to assets of many or all CCP customers may lead to a downward spiral of collateral values and, ultimately, of customers' own capital that will render the haircutting of other clients' margin reserves illusive.

The current EU proposal requires bailing in these layers of capital before outside rescue funds, provided by a government or a central bank, can be injected. This is a good thing, as it ensures proper incentives at the level of the individual CCP, and it is also in line with the treatment of other financial institutions under BRRD.

However, the bail-in of a CCP under market stress has not yet been tested. Historically, there are only a few CCP defaults on record. These are U.S. Options Clearing Corporation in 1973, Paris 1974, New York Mercantile Exchange, Inc. in 1976, Commodities Exchange Inc. in 1985, Hong Kong's futures clearinghouse in 1987 (requiring a government bailout), and U.S. Board of Trade Clearing Corporation in 1992 (see Jones/Pérignon, 2008, Kroszner, 2000 and 2006)

Our major concern with a TLAC-compliant strategy is that it will not work well for a CCP. The main reason is that a CCP, unlike a bank, is almost by construction too big and too interconnected to fail. Its robust-yet-fragile nature, producing a two-point (bimodal) loss distribution, is hard to reconcile with the on-balance-sheet loss absorption implied by a bail-in procedure. We rather expect to see a self-enforcing loss contagion process, once margin haircutting sets in at a broader level. In such a situation, a destabilizing effect on the entire financial system will only be averted with explicit government and/or central bank guarantees. It is worth remembering that the systemic importance of a CCP, and thus the potential financial implication of a default, rises with its market share.

The larger the CCP, the more efficient its multilateral netting facilities, the more important is the credibility of a bailout guarantee by the domestic governments. In fact, the guarantee has to be issued by those states that are home to the clients of the CCP, not necessarily the home of the CCP itself10. An explicit guarantee will stabilize the CCP ex-ante, but it may also induce moral hazard and adverse selection risks. The consolidated supervisor, overseeing all CCPs operating in Europe (including the UK), would have to rule out predatory margining, and other sources of systemic externalities.

Title: The Market Is Head for a "Minsky Moment" – It Can Happen Quickly, Too Author: John Mauldin From: Forbes Date: June 20, 2017

Economics has a lot of overused themes and phrases. One of them is highly relevant today yet forgotten by many. It's "Minsky moment," the point at which excess debt sparks a financial crisis. The late Hyman Minsky said that such moments arise naturally when a long period of stability and complacency eventually leads to the buildup of excess debt and overleveraging. At some point the branch breaks, and gravity takes over. It can happen quickly, too.

Three Types of Debt

Hyman Minsky spent most of his academic career studying financial crises. He wanted to know what caused them and what triggered them.

His research all led up to his Financial Instability Hypothesis. He thought crises had a lot to do with debt. Minsky wasn't against all debt, though. He separated it into three categories.

The safest kind of debt Minsky called "hedge financing." For example, a business borrows to increase production capacity and uses a reasonable part of its current cash flow to repay the interest and principal. The debt is not risk-free, but failures generally have only limited consequences.

Minsky's second and riskier category is "speculative financing." The difference between speculative and hedge debt is that the holder of speculative debt uses current cash flow to pay interest but assumes it will be able to roll over the principal and repay it later. Sometimes that works out. Borrowers can play the game for years and finally repay speculative debt. But it's one of those arrangements that tends to work well until it doesn't.

It's the third kind of debt that Minsky said was most dangerous: Ponzi financing is where borrowers lack the cash flow to cover either interest or principal. Their plan, if you can call it that, is to flip the underlying asset at a higher price, repay the debt, and book a profit.

How Ponzi Financing Triggers a Full-Blown Crisis

Ponzi financing can work. Sometimes people have good timing (or just good luck) and buy a leveraged asset before it tops out.

During the housing bull market of 2003–07, people with almost no credit were flipping houses and making money. It attracted more and more people, which created a soaring market. The phenomenon fed on itself.

Bull markets in houses, stocks, or anything else can go higher and persist longer than we skeptics think is possible. That is what makes them so dangerous.

Minsky's unique contribution here is the sequencing of events. Protracted stable periods where hedge financing works encourage both borrowers and lenders to take more risk.

Eventually, once-prudent practices give way to Ponzi schemes. At some point, asset values stop going up. They don't have to fall, mind you, just stop rising. That's when crisis hits.

The Economist described this process well in a 2016 Minsky profile article:

Economies dominated by hedge financing – that is, those with strong cashflows and low debt levels – are the most stable. When speculative and, especially, Ponzi financing come to the fore, financial systems are more vulnerable. If asset values start to fall, either because of monetary tightening or some external shock, the most overstretched firms will be forced to sell their positions. This further undermines asset values, causing pain for even more firms. They could avoid this trouble by restricting themselves to hedge financing. But over time, particularly when the economy is in fine fettle, the temptation to take on debt is irresistible. When growth looks assured, why not borrow more? Banks add to the dynamic, lowering their credit standards the longer booms last. If defaults are minimal, why not lend more? Minsky's conclusion was unsettling. Economic stability breeds instability. Periods of prosperity give way to financial fragility.

Markets Are Not Efficient Whatsoever

Minsky's conclusions are indeed unsettling. He called into question the belief that markets, left to operate unimpeded, will deliver stability and prosperity to all. Minsky thought the opposite. Markets are not efficient at all, and the result is an occasional financial crisis.

Complacency in the midst of a wanton debt buildup was beautifully expressed in a remark by Citigroup Chairman Chuck Prince in 2007:

The Citigroup chief executive told the Financial Times that the party would end at some point, but there was so much liquidity it would not be disrupted by the turmoil in the US subprime mortgage market. He denied that Citigroup, one of the biggest providers of finance to private equity deals, was pulling back. "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing."

Minsky wasn't around to see the 2008 crisis that fit right into his theory. Paul McCulley attached Minsky's name to it, though, and now we refer to these crises as "Minsky moments."

Title: Can We Avoid Another Financial Crisis? Book Review. Author: Edward Chancellor From: Reuters Breaking Views Date: May 5, 2017

The late Hyman Minsky described capitalism as an inherently unstable system. The Australianborn economist Steve Keen was a prominent follower of Minsky's long before the global financial crisis made his unorthodox views fashionable. Thus, we can anticipate the answer to the question posed in the title of Keen's new book, "Can We Avoid Another Financial Crisis?" A capitalist economy can no better avoid another financial crisis than a dog can avoid picking up fleas - it's only a matter of time. And, if Keen is correct, we don't have long to wait before the next blowup arrives.

Mainstream economists notoriously failed to anticipate the subprime debacle. It was not for want of smarts. This group got to pick up most of the Nobel Prizes in their field, dominated the dismal-science departments at the most esteemed universities, sat on the editorial boards of the most prestigious journals and, crucially, dictated monetary policy. Keen, by contrast, is an outsider: he is currently head of the economics department at Kingston University. Yet it was Keen who successfully anticipated the last financial crisis at a time when most academic economists around the world were hailing that chimera known as the Great Moderation.

Why did Keen get it right when the grandees of his profession flunked? Institutional dominance appears to have placed the mainstream economists at an intellectual disadvantage. Long before they were blindsided by the Lehman Brothers bust, many in the economics elite had become a self-regarding bunch, worldly from a careerist perspective, eager to dominate policy discussions but cut off from the real world, inhabiting an echo chamber where only received opinions were entertained.

Last year, one of the clerisy broke ranks. In a withering speech, Paul Romer, the chief economist of the World Bank and a former New York University professor, accused his fellow macroeconomists of forming a monolithic intellectual community, which deferred to authority, disregarded the opinions of those outside of their group and ignored unwelcome facts. They behaved more like cult members than genuine scientists. Romer compared modern macroeconomics to string theory, famously described as "not even wrong."

The preference for high theory and abstruse mathematical modeling meant that mainstream economics had come to rest on a number of gloriously improbable assumptions. In their models, millions of households were reduced to a single "representative agent," a God-like being, omniscient and immortal. This unreal creature inhabited a world where peace – or equilibrium – ruled. Crises were impossible in such an Eden, unless a mischievous serpent entered from abroad. But such an outcome was naturally impossible to predict.

Both Romer and Keen agree that the most serious error of modern macroeconomics is that it ignores finance. Money is seen as a "veil" placed over the activities of the real economy, a mere contrivance to get around the inconveniences of barter. Minsky, by contrast, saw capitalism as a financial system in which millions of balance sheets and cash flows were intertwined in a highly complex fashion. Money and credit are the essence of capitalism: economic transactions can only take place after financing.

The trouble is that credit is inherently unstable, prone to expand excessively and to inflate asset price bubbles, which in time collapse, causing a cascade of defaults throughout the economy. In Minsky's world, the tail of finance wags the real economy dog.

Anyone who paid serious attention to credit, as Keen did prior to 2008, could hardly have failed to notice that something was amiss. After all, credit was growing very rapidly in the United States, in Australia and across much of Europe. Keen's own contribution at the time was to point out that it wouldn't take a collapse of credit to cause a serious economic downturn – a mere slowdown in the rate of lending would do the job. This prediction was vindicated in 2008, when credit growth slowed sharply but remained positive, sending the U.S. economy into a tailspin.

Keen is now calling for the dominant macroeconomic models to be jettisoned and replaced by ones that take account of credit. In his book, he develops a simple credit-based macro model. The economists at the Bank for International Settlements have constructed a "financial cycle" model along similar lines. In the end, the money-free macro models appear doomed. Yet progress has been painfully slow to date. As Max Planck said, science advances one funeral at a time - failing death, retirement would do the trick.

So what of the next crisis? With his eye on credit growth, Keen sees China as a terminal case. The People's Republic has expanded credit at an annualized rate of around 25 per cent for years on end. Private-sector debt exceeds 200 per cent of GDP, making China resemble the over-indebted economies of Ireland and Spain prior to 2008, but obviously far more significant to the global economy. "This bubble has to burst," writes Keen unequivocally.

Nor does he have much hope for his native Australia, whose credit and housing bubbles failed to burst in 2008, thanks in part to government measures to support the housing market, lower interest rates and massive mining investment to meet China's insatiable demand for raw materials. Last year, Australian private-sector credit nudged above 200 per cent of GDP, up more than 20 percentage points since the global financial crisis. Australia shows, says Keen, that "you can avoid a debt crisis today only by putting it off till later."

Keen doesn't have much to say about post-crisis America, where household credit has contracted (relative to GDP) since 2008. Yet in the era of unconventional monetary policy, the growth of U.S. corporate credit has picked up and its quality has deteriorated. As economist and former Treasury Secretary Larry Summers has pointed out, America's economy only seems to thrive nowadays during bubble periods. The current value of U.S. financial assets is more inflated relative to GDP than at any time in the country's history. As Minsky said, it is only a matter of time before the next crisis arrives.

Title: Zet de geldpers aan en weg zijn alle schulden. Steve Keen geeft advise aan Rutte-III Author: Jonathan Witteman From: Volkskrant Date: May 13, 2017

De crisis is voorbij, klinkt het. Toch komen we niet goed uit de startblokken. Dat lukt ook pas, zegt de econoom Steve Keen, als we alle schulden kwijtschelden. [...]

In zijn pas verschenen boek Can we avoid another financial crisis? verdeelt Keen de schuldenlasten van de geïndustrialiseerde landen in drie categorieën. Er is een select gezelschap van landen waar geen vuiltje aan de lucht is: de schulden blijven er binnen de perken en de economische groei is niet al te zeer afhankelijk van leningen. In de eurozone voldoen in Keens ogen alleen Duitsland en Oostenrijk aan dit profiel, plus landen als Polen, Israël, Tsjechië en Zuid-Afrika.

Dan zijn er de walking dead of debt, waaronder Keen behalve Nederland ook Japan, de VS, Denemarken, Ierland, Nieuw-Zeeland, Portugal, Spanje en het Verenigd Koninkrijk schaart. Deze landen hebben al een zware crisis achter de rug - Japan in 1990, de rest in 2008 - maar worstelen met de schuldenerfenis van de crisis.

'Toekomstige schuldenzombies': landen waar de schulden zo snel oplopen dat een kladderadatsch onvermijdelijk is

De gevaarlijkste categorie vormen de 'toekomstige schuldenzombies': landen waar de schulden van huishoudens en/of bedrijven zo snel oplopen dat een kladderadatsch onvermijdelijk is. Australië, België, Zweden, Canada, Zuid-Korea en Noorwegen horen volgens Keen in dit rijtje, maar bovenal Ierland (opnieuw), Hongkong en de gevaarlijkste voor de wereldeconomie van allemaal: China.

Dat Keen de vraag uit de titel van zijn boek - kunnen we een nieuwe financiële crisis ontlopen? - met nee beantwoordt, heeft vooral te maken met China. Keen vreest een Chinese crisis binnen vijf jaar. Het gevaar zit hem in de kolossale schuldenberg van Chinese bedrijven. Toen in 2008 de crisis uitbrak, droeg de Chinese regering de staatsbanken op om massaal geld te lenen aan lokale vastgoedontwikkelaars. Door de crisis was de export naar het Westen dan wel ingestort, maar dat compenseerde China met 'de grootste door krediet gedreven hausse uit de geschiedenis'. Appartementen, wolkenkrabbers, bioscopen en winkelcentra schoten uit de grond. De Chinese private schulden explodeerden van 120 procent van het bbp in 2008 naar 210 procent vorig jaar.

En nu staat de Chinese vastgoedzeepbel op knappen, vreest Keen. Als dat gebeurt, kan de rest van de wereld beter een paraplu opsteken. In het communistische China kan de regering misschien makkelijker dan elders schulden afschrijven, staatsbanken overeind houden of de geldkraan openzetten. Maar hoe dan ook zal de Chinese vraag naar buitenlandse producten enorm teruglopen, verwacht Keen. En dat dus in de tweede economie van de wereld, goed voor een-zesde van het mondiale bbp. 'De gevolgen voor het Westen, waar de economieën toch al nauwelijks groeien, zullen groot zijn.'

U schrijft dat China en de andere toekomstige 'schuldenzombies' voor het dilemma van de junkie staan: nu afkicken, of je blijven volspuiten met krediet en dan later een nog grotere ontwenningskater.

'China heeft het de afgelopen dertig jaar extreem goed gedaan, maar dat kunstje kunnen de Chinezen niet herhalen, omdat ze nu zelfs meer schulden hebben dan de Amerikanen. Je kunt niet eeuwig meer blijven lenen dan dat je inkomen stijgt; er komt een moment dat de schulden je boven het hoofd groeien. En zelfs als mensen dan in staat blijven om hun schulden af te lossen en rente te betalen, houden ze geen geld meer over om te consumeren. Dan knalt je economie tegen een muur.'

Vlak bij China, maar economisch gezien een lichtjaar verderop, ligt Japan, het schrikbeeld van de rest van de wereldeconomie. 'In een kwart eeuw tijd is Japan veranderd van een rijzende supermacht in een land dat je eigenlijk kunt negeren. De Japanse economie stagneert al sinds begin jaren negentig, doordat de private schulden er te hoog zijn.'

In de jaren tachtig surfte de Japanse industrie onbekommerd op de golven van het krediet. Toen de economie begin jaren negentig instortte, raakten de Japanners gevangen in een val van schulden en deflatie. Uit die val zijn ze nog steeds niet ontsnapt. De Japanse schulden zijn zo hoog dat bedrijven het zich nauwelijks kunnen veroorloven nieuwe leningen aan te gaan. Met het opdrogen van de leningen is de hele economie opgedroogd, doordat er veel minder geld is voor investeringen. En elke yen waarmee de Japanners hun schulden afbetalen, kunnen ze niet uitgeven aan iets anders. Daardoor groeit de economie niet of nauwelijks en blijven de schulden, als percentage van het bbp, verlammend hoog. En zo langzamerhand, vreest Keen, dreigen we allemaal Japanners te worden - in economische zin dan.

De markt alleen kan ons niet uit de klauwen van de schulden redden, zegt Keen. Dat komt door een paradox waarop de Amerikaanse econoom Irving Fisher tijdens de Grote Depressie op wees: hoe meer schulden we afbetalen, hoe meer schulden we hebben.

De paradox werkt ongeveer zo: geld ontstaat vooral doordat banken leningen verstrekken. Op het moment dat iemand bijvoorbeeld voor 250 duizend euro een hypotheek neemt, schept de bank dus 250 duizend euro aan nieuw geld, in de vorm van een tegoed van 250 duizend euro voor de klant, en een vordering van ditzelfde bedrag van de bank op de klant. Maar als met een nieuwe schuld dus nieuw geld ontstaat, leidt het afbetalen van de schuld tot het tegenovergestelde: geldvernietiging. En de vernietiging van geld leidt, zeker als de inflatie toch al laag is, tot minder economische activiteit. Daardoor krimpt de economie, waardoor de schuld, als percentage van het bbp, nauwelijks daalt.

Dus is grover geschut nodig om de schuldenberg te verkleinen. En daar komt Keens voorstel voor een 'schuldenjubileum' om de hoek kijken. Het klinkt radicaal, maar in werkelijkheid heeft

Keens idee een intellectuele stamboom van zeker vierenhalf millennium. Van de Soemeriërs zijn kleitabletten teruggevonden van tussen 2400 en 1600 voor Christus, waarop koningen in spijkerschrift de kwijtschelding van alle schulden afkondigden. De Soemerische vorsten deden dit eens in de zoveel jaar, omdat de schulden nu eenmaal harder groeiden dan de opbrengst van de landbouw - al was het maar doordat oogsten af en toe mislukten - en omdat na verloop van tijd meer en meer mensen met onbetaalbare schulden als slaven moesten werken op de akkers van hun schuldeisers. En slaven mochten niet vechten in het leger, waardoor er steeds minder soldaten waren om de Soemerische stadstaten te verdedigen.

In Nederland en andere zombie-economieën is de nood bijna net zo hoog. Daarom Keens voorstel: laat de centrale banken de geldpers aanzetten en een sloot euro's op ieders bankrekening storten, is zijn voorstel. Heeft u schulden? Dan ziet u de euro's helemaal niet, omdat uw bank ze gebruikt voor een aflossing. Er stiekem tussenuit glippen met het geld voor een cruise naar de Seychellen is niet mogelijk. De banken gaan dus ook niet massaal failliet: de schulden worden niet van hun balansen gevaagd, maar netjes afgelost met het door de centrale bank geschapen geld - zij het dat banken zo wel rente mislopen.

En is uw hypotheek al afbetaald en heeft u ook geen andere schulden (meer)? Gefeliciteerd, dan mag u het geld houden. Zo voorkomen we dat vlijtige spaarders in het nadeel zijn. En door de centrale banken nieuw geld te laten drukken voor de schuldaflossing, in plaats van bestaand geld te gebruiken, doen we ook niet aan de geldvernietiging uit de paradox van Fisher, zodat we de economie juist stimuleren.

Hoeveel van onze schulden moeten worden kwijtgescholden?

'Dit is in deze vorm nog niet eerder gedaan op nationaal niveau, dus we moeten beginnen met kleine doses: 5 of 10 procent van de schuld, bijvoorbeeld tienduizend euro. En dan kijken wat de gevolgen zijn, voor de groei, de inflatie, de schulden en de im- en export. Als het werkt en de bijwerkingen zijn draaglijk, kun je het nog eens doen.'

Hoe voorkom je dat de schulden er daarna weer aan vliegen en we binnen de kortste keren terug zijn bij af?

'We moeten de hypotheekregels hervormen. De huizenmarkt is nu net een vorm van ponzifraude: hoe meer hypotheek de banken verstrekken, des te meer de huizenprijzen stijgen, waardoor mensen meer hypotheek nodig hebben, et cetera. Als twee kopers met een vergelijkbaar inkomen om een huis concurreren, dan wint nu diegene die zich het meest in de schulden kan steken. Dat is vragen om zeepbellen.'

Keen stelt onder meer voor om de hoogte van hypotheken niet zozeer te laten afhangen van het inkomen van de huizenkoper, maar van het geld dat het huis zou opleveren als het werd verhuurd. Stel: een huis kan 30 duizend euro per jaar aan huur opleveren; dan zou een koper bijvoorbeeld hooguit een tienvoud - 3 ton - aan hypotheek mogen krijgen. Zo krijgt iedereen even veel hypotheek voor hetzelfde huis. Als dan twee kopers concurreren, wint niet wie zich het meest in de schulden steekt, maar wie het meest heeft gespaard.

Tegelijkertijd schrijft u over uw eigen ideeën: dit gaan de politiek en de banken helemaal niet doen.

De financiële sector zou erop achteruitgaan en zij hebben het oor van de politiek. Dat maakt de uitvoering onwaarschijnlijk

Toch ziet Keen voor Nederland en de andere zombies geen andere manier om aan hun schuldenverslaving te ontsnappen. 'Het grootste gevaar voor het kapitalisme komt niet van revolutionairen die het systeem omver willen werpen. Het grootste gevaar komt van binnenuit, van mensen die vast willen houden aan de vastgeroeste ideeën.' Title: How Healthy is the Global Financial System? Author: Mohamed A. El-Erian From: Project Syndicate Date: July 10, 2017

LONDON – In recent weeks, policymakers on both sides of the Atlantic have affirmed that the financial system is sound and stable. The US Federal Reserve announced in June that all US banks passed its latest annual stress test. And Fed Chair Janet Yellen has now suggested that we might not experience another financial crisis "in our lifetimes."

At the same time, the Financial Stability Board (FSB) – which monitors regulatory practices around the world to ensure that they meet globally-agreed standards – has declared, in a letter to G20 leaders, that "toxic forms of shadow banking" are being eliminated.

In short, ongoing measures to buttress the global financial system have undoubtedly paid off, especially when it comes to strengthening capital cushions and cleaning up balance sheets in important parts of the banking system. The latest assurances from policymakers are comforting to those of us who worry that not enough has been done to reduce systemic financial risk and to ensure that banks serve the real economy, rather than threaten its wellbeing.

Yet it is too soon to give the financial system as a whole a clean bill of health. Efforts to shore up the banking sector in some parts of Europe are still lagging far behind. And, more important, financial risks have continued to migrate to non-bank activities.

After irresponsible risk-taking almost tipped the global economy into a multi-year depression in 2007-2008, regulators and central banks in advanced economies launched a major effort to strengthen their financial systems. To that end, they focused initially on banks, which have since bolstered their risk-absorbing capital cushions, cleansed murky balance sheets, increased liquidity, enhanced transparency, narrowed the scope of high-risk activities, and partly realigned internal incentives to discourage reckless behavior. Moreover, the process for resolving failing and failed banks has been improved.

In addition to strengthening the banking sector, policymakers have also made progress toward standardizing derivative markets and making them more robust and transparent, which also reduces the risk of future taxpayer bailouts for irresponsible institutions. Moreover, the system for payments and settlement has been made safer, thereby lowering the threat of a "sudden stop" in economic activity, like the one that occurred in the fourth quarter of 2008.

It has been encouraging to watch national authorities coordinate their efforts under the auspices of the FSB. Better coordination has reduced the risk of regulatory arbitrage, and address the threat that banks will be, as former Bank of England Governor Mervyn King memorably put it, "international in life but national in death."

The United States and the United Kingdom took the lead on reform, and Europe has been catching up. Assuming that it does, as policymakers there intend, Yellen's assurance of a "much stronger" banking system in the US will apply to all of the other systemically important banking jurisdictions in the developed world, too. And the FSB's confident assertion that "reforms have addressed the fault lines that caused the global financial crisis" will receive more support.

Still, it is too early to declare victory. Although the FSB describes the financial system as "safer, simpler and fairer," it also acknowledges "nascent risks that, if left unchecked, could undermine the G20's objective for strong, sustainable and balanced growth."

As an observer and participant in global capital markets, three of these risks stand out to me.

First, as more carefully regulated banks have ceased certain activities, voluntarily or otherwise, they have been replaced by non-banks that are not subject to the same supervisory and regulatory standards.

Second, certain segments of the non-bank system are now in the grips of a "liquidity delusion," in which some products risk over-promising the liquidity they can provide for clients transacting in some areas – such as high-yield and emerging-market corporate bonds – that are particularly vulnerable to market volatility. And at the same time, exchange-traded funds have proliferated, while financial intermediaries have shrunk relative to bigger and more complex end users.

Third, the financial system has yet to feel the full impact of technological disruptions fueled by advances in big data, artificial intelligence, and mobility, which already are in the process of upending a growing number of other established sectors. And the financial-technology (fintech) activities that have expanded are inadequately regulated, and have yet to be tested by a full market cycle.

To be sure, another systemic financial crisis that threatens growth and economic prosperity worldwide likely won't originate in the banking system. But it would be premature to assert that we have put all the risks confronting the financial system behind us.

Because risks have morphed – and migrated out of the banking system – regulators and supervisors will have to step up their efforts and widen their focus to see beyond the banks. After all, as Greg Ip of the Wall Street Journal pointed out in 2015, "Squeezing risk out of the economy can be like pressing on a water bed: the risk often re-emerges elsewhere. So it goes with efforts to make the financial system safer since the financial crisis."

Title: Derivatives Are Still Weapons of Mass Destruction and are Likely to Cause Big Trouble Author: n.a. From: Penny Stocks Blog Date: n.d.

After all these years, the most famous investor in the world still believes that derivatives are financial weapons of mass destruction. And you know what? He is exactly right. The next great global financial collapse that so many are warning about is nearly upon us, and when it arrives derivatives are going to play a starring role. When many people hear the word "derivatives", they tend to tune out because it is a word that sounds very complicated. And without a doubt, derivatives can be enormously complex. But what I try to do is to take complex subjects and break them down into simple terms. At their core, derivatives represent nothing more than a legalized form of gambling. A derivative is essentially a bet that something either will or will not happen in the future. Ultimately, someone will win money and someone will lose money. There are hundreds of trillions of dollars worth of these bets floating around out there, and one of these days this gigantic time bomb is going to go off and absolutely cripple the entire global financial system.

Back in 2002, legendary investor Warren Buffett shared the following thoughts about derivatives with shareholders of Berkshire Hathaway...

The derivatives genie is now well out of the bottle, and these instruments will almost certainly multiply in variety and number until some event makes their toxicity clear. Central banks and governments have so far found no effective way to control, or even monitor, the risks posed by these contracts. In my view, derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal.

Those words turned out to be quite prophetic. Derivatives have definitely multiplied in variety and number since that time, and it has become abundantly clear how toxic they are. Derivatives played a substantial role in the financial meltdown of 2008, but we still haven't learned our lessons. Today, the derivatives bubble is even larger than it was just before the last financial crisis, and it could absolutely devastate the global financial system at any time.

During one recent interview, Buffett was asked if he is still convinced that derivatives are "weapons of mass destruction". He told the interviewer that he believes that they are, and that "at some point, they are likely to cause big trouble"...

Thirteen years after describing derivatives as "weapons of mass destruction" Warren Buffett has reaffirmed his view that they pose a threat to the global economy and financial markets.

In an interview with Chanticleer this week, Buffett said that "at some point they are likely to cause big trouble".

"Derivatives, lend themselves to huge amounts of speculation," he said.

Most of the time, the big banks that do most of the trading in these derivatives do very well. They use extremely sophisticated computer algorithms that help them come out on the winning end of these bets most of the time.

But when there is some sort of unforeseen event that suddenly causes a massive shift in the marketplace, that can cause tremendous problems. This is something that Buffett discussed during his recent interview...

"The problem arises when there is a discontinuity in the market for some reason or another.

"When the markets closed like it was for a few days after 9/11 or in World War I the market was closed for four or five months – anything that disrupts the continuity of the market when you have trillions of dollars of nominal amounts outstanding and no ability to settle up and who knows what happens when the market reopens," he said.

So if the markets behave fairly calmly and predictably, the derivatives bubble probably will not burst.

But no balancing act of this nature ever lasts forever. Just remember what happened in 2008. Lehman Brothers collapsed and then the financial system virtually froze up. According to Forbes, at that time almost everyone was afraid to deal with the big banks because nobody was quite sure how much exposure they had to these risky derivatives...

Fast forward to the financial meltdown of 2008 and what do we see? America again was celebrating. The economy was booming. Everyone seemed to be getting wealthier, even though the warning signs were everywhere: too much borrowing, foolish investments, greedy banks, regulators asleep at the wheel, politicians eager to promote home-ownership for those who couldn't afford it, and distinguished analysts openly predicting this could only end badly. And then, when Lehman Bros fell, the financial system froze and world economy almost collapsed. Why?

The root cause wasn't just the reckless lending and the excessive risk taking. The problem at the core was a lack of transparency. After Lehman's collapse, no one could understand any particular bank's risks from derivative trading and so no bank wanted to lend to or trade with any other bank. Because all the big banks' had been involved to an unknown degree in risky derivative trading, no one could tell whether any particular financial institution might suddenly implode.

After the crisis, we were promised that something would be done about the "too big to fail" problem. But instead, the problem of "too big to fail" is now larger than ever.

Since the last financial crisis, the four largest banks in the country have gotten approximately 40 percent larger. Today, the five largest banks account for approximately 42 percent of all loans in the United States, and the six largest banks account for approximately 67 percent of all assets in our financial system. Without those banks, we would not have much of an economy left at all.

Meanwhile, smaller banks have been going out of business or have been swallowed up by the big banks at a staggering rate. Incredibly, there are 1,400 fewer small banks in operation today than there were when the last financial crisis erupted.

So we cannot afford for these "too big to fail" banks to actually fail. Even the failure of a single one would cause a national financial nightmare. The "too big to fail" banks that I am talking about are JPMorgan Chase, Citibank, Goldman Sachs, Bank of America, Morgan Stanley and Wells Fargo. When you total up the exposure to derivatives that all of them currently have, it comes to a grand total of more than 278 trillion dollars. But when you total up all of the assets of all six banks combined, it only comes to a grand total of about 9.8 trillion dollars. In other words, the "too big to fail" banks have exposure to derivatives that is more than 28 times the size of their total assets.

I have shared the following numbers with my readers before, but it is absolutely crucial that we all understand how exceedingly vulnerable our financial system really is. These numbers come directly from the OCC's most recent quarterly report, and they reveal a recklessness that is almost beyond words...

JPMorgan Chase

Total Assets: \$2,573,126,000,000 (about 2.6 trillion dollars) Total Exposure To Derivatives: \$63,600,246,000,000 (more than 63 trillion dollars)

Citibank

Total Assets: \$1,842,530,000,000 (more than 1.8 trillion dollars) Total Exposure To Derivatives: \$59,951,603,000,000 (more than 59 trillion dollars)

Goldman Sachs Total Assets: \$856,301,000,000 (less than a trillion dollars) Total Exposure To Derivatives: \$57,312,558,000,000 (more than 57 trillion dollars)

Bank Of America Total Assets: \$2,106,796,000,000 (a little bit more than 2.1 trillion dollars) Total Exposure To Derivatives: \$54,224,084,000,000 (more than 54 trillion dollars)

Morgan Stanley

Total Assets: \$801,382,000,000 (less than a trillion dollars) Total Exposure To Derivatives: \$38,546,879,000,000 (more than 38 trillion dollars)

Wells Fargo Total Assets: \$1,687,155,000,000 (about 1.7 trillion dollars) Total Exposure To Derivatives: \$5,302,422,000,000 (more than 5 trillion dollars)

Since the United States was first established, the U.S. government has run up a total debt of a bit more than 18 trillion dollars. It is the biggest mountain of debt in the history of the planet, and it has grown so large that it is literally impossible for us to pay it off at this point.

But the top five banks in the list above each have exposure to derivatives that is more than twice the size of the national debt, and several of them have exposure to derivatives that is more than three times the size of the national debt.

That is why I keep saying that there will not be enough money in the entire world to bail everyone out when this derivatives bubble finally implodes.

Warren Buffett is entirely correct about derivatives – they truly are weapons of mass destruction that could destroy the entire global financial system at any time.

So as we move into the second half of this year and beyond, you will want to watch for terms like "derivatives crisis" or "derivatives crash" in news reports. When derivatives start making front page news, that will be a really, really bad sign.

Our financial system has been transformed into the largest casino in the history of the planet. For the moment, the roulette wheels are still spinning and everyone is happy. But sooner or later, a "black swan event" will happen that nobody expected, and then all hell will break loose. Title: Trumponomics, Firm Governance and US Property (sel.) Author: Robert R. Locke From: PAE Review Date: n.d.

Financialization

One is that among the top twenty US firms there are many drivers of financialization (Berkshire-Hathaway, Fannie Mae, Bank of America, JP Morgan Chase Co, Citi-Group, and GE Financial), or US firms that are the creation of financialization (Hewlett-Packard: IPO 1957; Apple: IPO 1980). On the German list, there are none, i.e., not one is a financial institution, not one is a stock market IPO creation.

The financialization referred to is not limited to the concentration on financial outcomes that had become the preoccupation of top management in large firms, although that is part of it. Rather it is the change during the last three decades of the 20th century from viewing a business as a vehicle for earning "returns on investment... based on the value created by productive enterprise" to viewing a business "as assets to be bought and sold for maximizing profits through financial strategies" (Ball & Appelbaum, 2). This is the world that Donald Trump knows and in which he operates.

Dünhaupt describes five ways in which financialization changed executive behavior:

1. It shifted the basis of enterprise finance from banks to capital markets;

2. It reinvigorated the "rentier" class that had been on the decline by creating institutional investors (e.g., pension funds) that base investment decisions solely on stock prices and short-term return on investment;

3. It linked financial trading to new financial institutions (e.g., investment banks, hedge funds, and private equity firms) and new financial instruments (e.g., derivatives, stock options, and credit swaps);

4. It stressed profit-making through financial activities instead of through real productive activity;

5. Under the guise of increasing shareholder value in a firm, it subordinated the interests of stockholders in nonfinancial firms to those of directors (and, implicitly, those of Wall Street analysts, investment bankers, and large investors) (Dünhaupt, 2011, 10).

Financialization of US capitalism expanded the emphasis on maximizing financial gain that top management emphasized in large firms in broader institutional ways – through the spawning of venture capitalist firms, angel investor networks, and IPOs, through the promotion of private equity buyouts, amalgamations, and other schemes of privatization that whet the appetites of the investor class and fill the wallets of their agents with lucrative

commissions for dealmakers in hedge funds, private equity firms, and investment banks.

The growth of finance inevitably transformed US management education. Carnegie Institute of Technology's Graduate School of Industrial Administration (to become the Tepper School of Business in 2003) set up a Financial Analyst Security Trading Center (FAST) in 1989, one of the first US educational institutions to replicate successfully the live international data feeds and sophisticated software of Wall Street trading firms. (Bach, 1958) The business school at Carnegie Mellon introduced an MBA in computational finance, an MS in quantitative economics and an MS in computation finance in which the students studied equities, bond portfolio management, and the stochastic models upon which derivative trading, i.e., the Black-Scholes formula, is based. Although early off the mark, there was nothing exceptional in the last decade of the 20th century about the program in mathematical finance at CarnegieMellon; all the top business schools developed them.

MBAs increasingly found jobs in the banks, hedge funds, and investment houses of the expanding financialization sector. Khurana's study of Harvard Business School MBAs cites a survey of first jobs for graduating Harvard Business School students: Between 1965 and 1985 students' entry into financial services and consulting "rose from 23 percent to 52 percent" of graduates (Khurana, 2007, 328-29). The same shift happened in "other elite schools, such as Wharton and the business schools at Stanford and the University of Chicago." By 2005 "among the 180 principals and managing directors in the 20 largest investment firms, 73...[held] an MBA from one of the six elite schools (Harvard 51, Chicago 7, Columbia 6, Stanford 5, Dartmouth's Tuck 3, and Northwestern 1" (349).

British and American financialization affected the business of German private commercial banks in their own country; the Anglo-Saxon firms so dominated internationally that by 2004 German financial institutions only transacted 38.3% of the German merger and acquisition business, 21.8 percent of the German equity market business, and 16.3% of the debt market business (The Economist 1.11. 2004, 82).

German private commercial banks, fighting back, began trading in securities and engaging in business consultancy. They also, following the UK and US banks, marketed new products and services, including selling loan packages, credit cards, and insurance, and organizing electronic banking through automated machines and on-line services.

But educational and banking traditions hindered Germany from developing institutional arrangements that followed those pushing US and UK financial development. One difference was educational. In the US, the UK, and France members of an ambitious elite, like Trump, study in top-ranked schools; that is, where people study is more important to their careers than the subject studied. In Germany what people studied was more important than where. The absence of national elite schools made recruitment of financially savvy high flyers more difficult, especially when there were few MBA study programs in German institutions of higher education.

When big German commercial banks in the 1990s decided to adopt the US-UK investment banking model, therefore, they had trouble recruiting in Germany. The banks decided to acquire the required expertise through acquisition. Deutsche Bank bought Morgan Grenfell, the British merchant bank, in 1989 and Bankers Trust, the US specialist in hedge funds, in 1999, and moved its investment banking headquarters to London. Dresdner Bank acquired UK-based Kleinwort Benson in 1995 and US-based Wasserstein Parella in 2000, attempting to expand into the global big leagues of underwriting, sales and trading, and merger advice. In other words, running the risk of generalization, it could be said without exaggeration that US and UK financialization, because first off the block and more highly developed globally, coopted German.

Manufacturing

The second big difference gleaned from a comparison of the top twenty German and US firms pertains to manufacturing. Few of the manufacturing firms on the US list were famous before World War II (Ford, GM, GE), but such firms dominate the list of the German top twenty, many of them prominent even before World War I (Deutsche Post, Robert Bosch, Daimler, BASF, Thyssen Krupp, Bayer, and Deutsche Bahn). The US list would have been different had it been drawn up before the Japanese challenge to mass production US manufacturing had taken effect. In 1996, I described the rapid disappearance of the American staple industries in the early 1980s that the Japanese challenge caused in automobiles and in the related industries of steel, glass, and tires:

"The total number of workers in the automobile industry declined from 802,800 in December 1978 to 478,000 in January 1983. By 1980 Japan had become the world's major automobile producing nation. American automakers' world market share declined from 27.9 percent in 1970 to 19 percent in 1982. The story in steel was even worse. In 1982 eighteen major steel companies recorded a combined loss in that year of \$3.2 billion. Half of the routine steelmakers' jobs vanished between 1977 and 1988 (from 489,000 to 260,000.) To these horror stories could be added many others about American failure in mass-production industries – transistor radios, cameras, binoculars, sewing machines, color televisions, VCRs, compact discs, as well as in glass and tire manufacturing..." (Locke, 1996, 160).

Whatever Donald Trump thinks about the prowess of US management, it is clear that US mass production firms suffered an existential crisis after 1980, and a plethora of comparative management books and articles published in the 1980s and 1990s blamed the outcomes on the superiority of Japanese management to American.

H. Thomas Johnson, for one, traced the US failure in an industry they once dominated (automobiles) to the transformation of management through the financialization of top management, expressed in firm control mechanisms, whose philosophy of managerialism had permeated management school research and teaching. He wrote

"[US] managers believed they could make decisions without knowing the company's products, technologies, or customers. They had only to understand the intricacies of financial reporting

... [B]y the 1970s managers came primarily from the ranks of accountants and controllers, rather than from the ranks of engineers, designers, and marketers. [This new managerial class] moved frequently among companies without regard to the industry or markets they served... A synergistic relationship developed between the management accounting taught in MBA programs and the practices emanating from corporate controllers' offices, imparting to management accounting a life of its own and shaping the way managers ran businesses" (Johnson and Bröms, 2000, 57).

"At first the abstract information compiled and transmitted by these computer systems merely supplemented the perspectives of managers who were already familiar with concrete details of the operations they managed, no matter how complicated and confused those operations became. Such individuals, prevalent in top management ranks before 1970, had a clear sense of the difference between 'the map' created by abstract computer calculations and 'the territory' that people inhabited in the workplace. Increasingly after 1970, however, managers lacking in shop floor experience or in engineering training, often trained in graduate business schools, came to dominate American and European manufacturing establishments. In their hands the 'map was the territory.' In other words, they considered reality to be the abstract quantitative models, the management accounting reports, and the computer scheduling algorithms" (Johnson and Bröms, 186-87).

Johnson observed, in his comparative study of US Big Three automakers with Toyota's Georgetown, Kentucky plant, that the American firms operated under different forms of management than their increasingly successful competitor. He called the American mass production system "management by results", which he presented under seven rubrics:

- 1. the individual is responsible
- 2. control results
- 3. follow finance-driven rules
- 4. manipulate output to control costs
- 5. increase speed of work
- 6. specialize and decouple processes
- 7. the individual is the cause blame

By comparison the Toyota Kata at Georgetown operated under "management by means", a system wherein:

- 1. relationships are reality, and management
- 2. nurtures relationships,
- 3. masters life-oriented practices,
- 4. provides output as needed on time,
- 5. changes how work is done,
- 6. enhances continuous flow, and

7. when troubleshooting, considers mutual interaction as the cause of a problem - not individuals (Johnson and Bröms, 2000, 186-87).

Toyota's management at Georgetown reflects Japanese classroom education K-9 of

intragroup cooperation that stresses "the process through which results are obtained, not the results themselves" (Locke, 1996, 141); US automobile production management mirrors educational traditions that evaluate an individual's performance (Cummings, 1980, 117). The US system of management by results is not only different from management by means but inimical to its adoption. Management by results served the needs of top managers and firm outsiders (stockholders, capital markets, and institutional investors) who based decisionmaking on financial results, but it frustrated management by means, which required attention to work process and people. In the competition between the two, management by means was more efficient.

Johnson's studies have been taken up and explored by other production engineers. Mike Rother and his team spent five years investigating the Toyota Kata (2004-2009), a system of "unseen management routines and thinking" through which the investigator has to find his way "along unpredictable paths through a systematic process of discovery and adjustments". This became particularly challenging to this group of management consultants when they tried to teach management by means in Western firms whose executives have a command and control mindset. Rother ran into the difficulty especially when teaching Western managers about empowerments. "[A command and control approach] is insufficient for tapping the brainpower inside an organization in a purposeful way. If people in organizations are expected to make decisions and navigate rapidly at their level, rather than waiting to be told what to do, they need to be taught effective skills for how to do it" (Rother, 2014, 4).

To appreciate management by means requires the historian's investigative methods, not just those of a mathematically shaped scientific paradigm codified and taught in departments of economics and business schools.

American manufacturing, therefore, has not ignored the Japanese challenge, but the impulse came primarily from manufactures themselves, production engineers, and from regionally or nationally organized associations like the Deming societies, the Association of Manufacturing Excellence organized in 1985, and the current Kata movement in industrial management, which economists ignore.

US business schools in their MBA education neglected the Japanese challenge. Only 1-2% of them had truly been affected, as of early 1991, by the Total Quality Management revolution that sought to install and make permanent a management climate in which the organization continuously improves its ability to deliver high-quality products and services to customers. Instead, beginning in the 1980s, financial strategists in academia and practice increasingly worked with corporate lawyers, stockholders, and financial promoters in various kinds of deal making.

Some converted quite successful public firms through leveraged buyout schemes into private equity companies. Only firms with significant untapped borrowing capacity, undervalued assets, and high cash flows – "common characteristics of many, if not most, of America's largest and more prosperous corporations" (Shad, 1984, 6) – could get involved because

buyouts were financed from money borrowed on a target company's own credit line, and the huge debt incurred was paid back from a target company's own cash flow (Kosman, 2010, 151-52).

These deals made money for institutional investment funds that lent the money (e.g., public employees' pension plans), the deal makers, the target company shareholders (who received 50 percent to 100 percent premiums over the current market price of their stock), and managers, who were given golden handshakes. But the buyouts did not do much for stakeholders in the target firms.

Other deal makers targeted firms in economic trouble, especially older firms with high legacy costs (e.g., retirees defined-benefit pensions), in which management sought to shed the fixed costs in a variety of legal ways provided for in takeovers, mergers, and chapter eleven bankruptcies.

The management caste's desire to break pension and benefit agreements motivated it the most. There were 112,000 defined-benefit private pension plans, entered into during the pre-1980s, in the US in 1983, each guaranteeing fixed levels of income to retirees. Many were not fully funded, that is, management, pressed by stockholder desires for good quarterly income statements and dividends to keep the stock price high, had made funding the employee pension plan a low priority.

Tough-minded managers preferred to eliminate pension and benefit plans altogether and to move employees into undefined contribution schemes that did not guarantee fixed incomes for retirees, or, failing that, to establish individual pension savings accounts that greatly reduced company contributions and obligations.

The ruthless, relentless, and radical transformation of private pension plans that the financial management caste carried out during the chaos and restructuring of failed US mass production firms, impoverished white middle class Americans in the country's industrial heartland.

"From Reagan through [George W.] Bush," Jack Rasmus reported in 2004, "business schools and financial crisis corporations have been terminating and undermining group pension plans by shutting down plants and moving companies, underfunding the plans, diverting funds to other corporate use when they can get away with it, and then, when the plan is in jeopardy, with the assistance of government and the courts, funneling whatever remains into 401-K type personal savings plans. From the passage of the Employee Retirement Income Security Act (ERISA) in 1974 until 2003, more than 160,000 Defined Benefits plans have gone under in the US" (Rasmus, 2004, 3).

During the same time the number of personal retirement accounts mushroomed. Very few households had such accounts in 1982, but by 1995 23 percent of households had a 401-K or an equivalent individual retirement account. That percentage reached 67 in 2004.

Management justifies its behavior on practical grounds: it is looking after shareholder interests. Those who terminated legacy costs even became management heroes, like Richard S. Miller, CEO of Bethlehem Steel, who jettisoned the company's \$3.7 billion unfunded pension obligation to its retirees. This obligation removed venture capitalist Wilbur Ross bought the firm, combined it with four other derelict steel firms, and then sold the amalgamated firm, which had cost him \$400 million, for \$4.5 billion (Walsh, 2005). The language that managers and business school academics use in articles about restructuring, mergers, acquisitions, leveraged buyouts and the like rarely, if ever, touches on how employees are affected. Mostly discussions focus on stockholder benefits, profits, and stock market valuation, before and after a deal, and on firm survival rates. These are the concerns of people in the proprietary firm; and it is they who determine judgments about agency conflict. Since an entity conception of the firm is not in their consciousness, they as management scientists care little about what happens to the firm's employees or retirees. Moreover, they do not look for entity solutions to these problems because employees are not integral to management structures. It is the management caste's show, with the unions kept on the outside.

"What bothered Mr. Conway, the union leader [at the demise of Bethlehem Steel]," New York Times reporter M. W. Walsh wrote, "was not so much Mr. Ross's inability to wring more money out of the pension system or his remarkable profit on the deal. What troubled him, he said, was that the country seemed unable to take any lessons away from the demise of the steel companies and how it affected so many working people. 'It just staggers us that America's not caught on to what's happening to it,' he said" (Walsh, 2).

American managerialism, therefore, failed the white middle class manufacturing communities twice: once, when it did not save the US mass production firms in which they worked from the Japanese managerial challenge, the second time, when in the shakedown of these industries in the 1980s and after, it made employees pay the price of this failure.

On the other hand, the finance instrumentalities financial deal makers invented promoted the ever yawning income gap between the bottom 90 percentile of income earners and the top one percent. Dünhaupt in fact claims that the increased inequality in incomes can be attributed almost exclusively to one of them: stock options, i.e., that the introduction of stock options into American CEO pay is solely responsible for increasing their share of total incomes from two percent in 2000 to eight percent in 2007 (p. 19).

Why did German manufacturers not fail too? It could not be said that Asian manufacturers did not threaten them. They did, Germans were aware of it, and they, with those allied with them in government and education, carried on a twenty-year campaign to save their manufacturing firms – with success as the 2012 list of German top 20 firms reveals.

One advantage the Germans had over the US when confronting the Japanese challenge was their relative failure in financialization. Whereas it consumed US educational and business energies, its relative absence in Germany meant that it could and did not there.

Moreover, German business economics (BWL, Betriebswirtschaftslehre), when the crisis began, had a special hybrid degree in business economics (Wirtschafts-Ingenieur) – that Willy

Prion, a business economist (no engineering degrees) organized in the technical university of Charlottenburg (Berlin) in 1923 and from where it spread to other venues – which kept professors in BWL and their students, unlike in US business schools, from turning their backs on industrial reform. By the late 1960s 11.11% (2,614) of students in German business economics (19,294) were in economics-engineering programs.

A third advantage German reformers enjoyed was the legacy of shareholder management that grew up postwar at the same time director primacy took control over American firm governance.

In 1994 I visited Germany to investigate the German response to the Japanese challenge to their manufacuring. I learned how the difference in management and management education just mentioned helps explain German success and the US failure. Before leaving for Europe, I asked Robert W. Hall, founding member of the Association of Manufacturing Excellence, about Germans to contact. In his response, he described Horst Wildemann as the "repository of nearly all the coming of manufacturing excellence practice to Germany, a part of it almost from the beginning" (Letter, June 25, 1994).

In 1994, Wildemann was professor of business economics, with emphasis on logistics, in the Munich Technical University, teaching courses primarily to engineering students on workprocess innovation. He headed a substantial group of over 100 research-consultants (30% with degrees in business economics, Diplom-Kaufleute, 50% with Wirtschafts-Ingenieur degrees, 20% with engineering degrees, Diplom-Ingenieur), which included 35 graduate assistants. Their work was heavily oriented to mathematical modeling and computer simulations.

By 1994 the team had already introduced Japanese inspired production processes in 200 European (mostly German) firms, including Daimler-Benz, Grundig, Philips, and Volkswagen, over an eleven-year period. At Volkswagen his group had just (1994) spent three years teaching small-group quality control management techniques in five-day courses to over 2,500 managers. Thirty to fifty percent of German industry had already by that year successfully implemented Total Quality Management, including Just in Time, Kaizen, and/or other Japanese work-process techniques. German business economics through its Wirtschafts-Ingenieur engineering education tradition made a significant contribution to their work.

Wildemann also reported that in the four years at Volkwagen his group worked closely with works councils and IG Metall shop stewards. The group taught the new techniques to the shop stewards at the same time that they taught them to management. He reported that the works councillors fully appreciated the need to improve work processes but also understood the impact that the changes would have on jobs numbers in the workplace and on the need to reduce work time and pay. The union (IG Metall) not only promoted the implementation of Just-In-Time and other work processes but often led management in their implementation. The success of the reform did not require German working communities to make heavy financial sacrifices in order to keep their firms. German supervisory boards in large German

joint stock corporations have been generous to their managing directors, but never as generous as boards in America's system of director primacy, under which CEOs set their own salaries. With the inclusion of stock options in executive pay packages, adopted in 1997, German executive income in stock market-listed public corporations started to track the skyrocketing incomes of America's CEOs. CEO-to-worker pay ratio in Germany reached a ratio of 1:147 in 2012 compared to US CEO-to-worker pay ratios that year of 1:354, the highest income disparity in the developed world.

Conclusion

Donald Trump is famous for having a sense of his own infallibility. This character trait suits the American director primacy mode of management. Trump and his team of billionaires might jawbone US companies into keeping production facilities in the country, but it is highly doubtful that they will restore the private pension plans and other benefits managers jettisoned over the past quarter century that underpinned white middle class rank and file prosperity. As comparative discussions of the German case illuminate, this would require a shareholder form of firm governance where, as in Germany, employee-elected members of works councils and supervisory boards share in management, for in today's amoral business world employees can protect their interests only if given a voice in the running of firms. Nor is it possible that the Republican-controlled Congress will do anything to promote government-sponsored entitlement for working people in order to redress the losses in the private sector. This is an important point, because, as Stephen Paul Miller notes, "We have not passed beyond the New Deal's assumption, since we have institutionalized much that saves us. Medicare, Medicaid, disability and unemployment insurance, progressive income taxes, and food stamps prevent[ed] a full scale depression after the 2008 economic collapse by keeping consumer demand and the economy afloat" (Miller, 2016, 15).

As Congressional Republicans set their sights on the elimination of the programs, the prospect that a new Trump administration will restore prosperity in white middle class rust belt communities, through governmental any more than through private means, is dim. With regard to how economists as well as Trump can benefit from this presentation: Until they include systems of firm governance in their calculations, they will never appreciate European economic achievements that the German example in the paper illustrates.

Title: Rhenish Capitalism Meets Activist Hedge Funds: Blockholders and the Impact of Impatient Capital Author: Jan Fichtner From: Competition & Change Vol 19, no 4 Date: May 2015

Introduction

'Patient capital' is seen as fundamental to non-market types of coordination (Yamamura & Streeck, 2003). Culpepper (2011: 26) defines it as 'ownership that allows for the realization of long-term management strategies'. Patient capital represents a central feature of coordinated market economies (CMEs), such as Germany or Japan, because it shields firms from hostile take overs, 'thus freeing them from obsessive concern with short -term market indicators' (Culpepper, 2005: 175). German, or 'Rhenish', capitalism (Albert, 1993) is often portrayed as a prototypical example of CMEs. According to the Varieties of Capitalism (VoC) approach, CME firms pursue long-term strategies and rely not exclusively on competitive market mechanisms but also on cooperative forms of non-market strategic coordination (Hall & Soskice, 2001). Financial markets traditionally did not play a pivotal role, neither as sources for external finance nor in terms of corporate control. This is in contrast to the liberal market economy (LME) of Anglo-American pedigree, in which financial markets play a paramount role (see Table 1).

Competitive arms-length market mechanisms dominate the LME variety of capitalism and firm behavior is much more oriented towards short-term financial profits. Hence, Anglo-American corporate governance in general prioritizes the interests of the shareholders (outsider control), whereas Rhenish capitalism traditionally has been a stakeholder-oriented model (insider control). Since the 1990s, there has been a discussion about the convergence of CMEs towards the LME model. In the case of Germany, this debate has been about the erosion of Rhenish capitalism provoked by foreign corporations pursuing hostile takeovers or accounting standards (Höpner & Jackson, 2006; Nölke & Perry, 2007). Another strand of literature argues that it is less erosion, but rather a bifurcation or hybridization of Rhenish capitalism in heterogeneous subsystems dominated by different logics (Deeg, 2005). This development has also been discussed as the increasing 'internal diversity' within CMEs (Lane & Wood, 2009; Deeg, 2009). This article argues that a general decline of blockholdings since the 1990s could have created new opportunities for foreign investors to influence German corporate governance. Foreign investors, including activist hedge funds, have increased their holdings in German publicly listed companies. In contrast to traditional Rhenish blockholders, the paramount objective for activist hedge funds is the maximization of returns. Thus, by putting pressure on German corporations to focus on profit maximization, hedge funds could function as transnational agents of change towards a system of outsider control. This is relevant as 'the continued viability of this institutional diversity [of capitalism] hinges on the ability of coordinated financial systems, such as those in Germany and Japan, to shield company managers from the short-term imperatives characteristic of LMEs' (Culpepper, 2005 : 173). However, the purpose of this paper is not a dichotomous comparison of LME vs CME actors to see who prevails, but rather a nuanced exploration of the complex identities and interactions between hedge funds and target firms. The VoC-approach is used primarily as a heuristic

against which the behavior of both actors is evaluated. The internationalization of companies has increasingly challenged the narrow national focus of the VoC-framework (Leaver & Montalban, 2013). Moreover, most industrialized countries, including Germany, have witnessed a generally increased importance of financial actors and financial markets - in short, financialization (Epstein, 2005). Thus, VoC is unable to capture the growing complexity of socio-economic change, but nonetheless is useful as a research heuristic.

This paper is organized as follows: Section 2 analyzes continuity and change of blockholdings in Germany since the 1990s. Section 3 conceptualizes how activist hedge funds influence corporate governance. Section 4 describes case selection, followed by the discussion of the results of three case studies in section 5. Finally, section 6 concludes.

Blockholding in Germany: continuity and change since the 1990s

The German economy has often been characterized as the prototypical example of a corporate governance system that is insider controlled, stakeholder oriented, and in which banks play a central role (Hackethal et al ., 2005). For over a century, large private banks had been at the heart of a dense web of controlling block- and crossholdings. Together with mandatory co-determination of labor and other German blockholders such as private investors (often founding families of corporations) and non-financial corporations (NFCs), banks formed the 'governing coalition' (ibid.) of the German variety of capitalism. Traditionally, this governing coalition dominated corporate control in Germany. Combined with the virtual absence of hostile takeovers, this institutional configuration allowed management to promote long-term company growth instead of short-term profitability (Deeg, 2005).

Traditional blockholding in Germany

The ownership structure has been of central importance to the long-term strategies of many German firms. Banks ('Hausbanken') and controlling blockholders (patient capital) not only had financial interests in the firm, but more importantly, they had strategic interests in the company that were long-term in nature. This configuration generally led to comparatively lowrisk investments and long-term strategies of German corporations : 'In coordinated market economies like Germany, long-term finance is hypothesized to support production strategies based on long-term relations and investment, as well as incremental innovation' (Deeg, 2010: 125). The connection between the interests of the governing coalition and the ownership structure is reflected in statistics from the early 1990s. According to Franks & Mayer (2001), 85.4% of 171 large quoted companies in Germany had a blockholder owning more than 25% of company shares in 1990. NFCs accounted for 27.5% of these blockholdings followed by private investors with 20.5%. Trusts held 12.9% while foreign investors accounted for 9.9%. Banks accounted for only 5.8% of blockholdings, but they were more prominent at the top of pyramid structures of control. Last, the state accounted for 4.7%, trailed only by insurance companies with 1.8%. Becht & Boehmer (2003) provide an overview of eight studies on the ownership of German listed companies during the 1990s; the studies find that 75% to 88% of all companies had 25%-blockholdings. This traditional ownership structure of listed companies in Germany, effectively controlled by insiders, left little to no room for shareholder activism by outsiders. This configuration of the German system of corporate governance began to undergo profound changes in the 1990s when the globalization of financial markets increased cross-border competition between financial institutions. Hence, the large private banks and the big insurance corporations began to sell their blockholdings and disentangled their web of controlling crossholdings (Wójcik, 2003); their aim was to expand into new profitable markets such as investment banking (Streeck, 2010).

This process of the 'unbundling of corporate Germany' was particularly catalyzed by the abolishment of voting caps in 1998 (KonTraG law) and the corporate tax reform of 2000, which abolished capital gains tax on profits from the sale of blockholdings (Nowak, 2004). As a result, blockholdings in listed companies decreased notably during the 2000s.

Blockholdings in Germany in late 2011

Research by the author involving the 160 largest quoted German corporations shows that by 2011 the proportion of companies with a shareholder exceeding 25% has dropped to 57.5% (Table 2). Thus, the share of listed corporations that have blockholders has declined notably by about 28 percentage points since 1990. The only groups that have increased their blockholdings considerably are private investors (by nearly half to 30.0%), and foreign investors (by more than one tenth to 11.25%). There has been no foreign blockholder in the 30 largest German corporations in 2011. However, in 2012 foreign investors owned 55% of total issued shares by these companies (Braunberger, 2013). [Insert Table 2 here] The findings of this paper seem to contradict the claim by Culpepper (2011: 66) that for Germany 'the net effect was no change in the extent of patient capital.' Although the empirical findings of this study confirm that private investors have increased their blockholdings since the 1990s, all other groups associated with patient capital have decreased significantly. Concurrently, foreign investors have increased their holdings. However, it could be argued that private investors, such as family groups, have partly taken over the role of the 'governing coalition'; they held blockholdings in 30% of the 160 largest publicly listed corporations in 2011. According to these data, we can conclude that the ownership structure of listed companies is becoming less concentrated – albeit at a slow rate. Blockholdings have fallen continuously since the early 1990s. Less than half of the 160 largest listed corporations now have a German blockholder. The changes in the ownership structure of publicly listed companies have improved the conditions for shareholder activism in Germany - as foreign investors are more inclined to support Anglo-American-style activism that seeks the creation of high returns for shareholders. However, established institutions such as co-determination may restrain the effectiveness of hedge fund activism. Goyer (2006, 2011) has argued that hedge funds have preferred France to Germany, because the management of French companies is able to implement strategies unilaterally without restrictions from firm-level institutional arrangements. Vitols (2004) has coined the term 'negotiated shareholder value', as other stakeholders have to be consulted in Germany. Such institutional arrangements may restrain shareholder activism to some degree, but they are certainly not able to prevent it entirely. Hence, we would expect that decreased blockholdings have enabled activist hedge funds to exert greater influence on German corporations.

The role of activist hedge funds

The hedge fund industry is diverse; hedge funds pursue various investment strategies involving different financial markets and different levels of leverage and risk in order to generate 'absolute returns' for their investors. Hedge funds have in common that they increase the role of financial markets vis-à-vis the real economy. Hence, they could be characterized as agents of change for financialization ' (Fichtner , 2013). Activist hedge funds represent a subgroup of the industry; they try to create value for their investors by 'improving' the corporate

governance of target firms, which presumably leads to higher profits and thus to a higher share price. In contrast to traditional Rhenish blockholders, the paramount objective of activist hedge funds is the maximization of investor returns. Activist hedge funds understand the corporation primarily as a collection of tradable assets that should be utilized to the benefit of shareholders. This is in contrast to the traditional Rhenish corporation, where stakeholders play an important role and the co-determination of labor is mandatory; the same is true for Japan where the 'community firm' is understood to be more than an entity that should maximize profits for its shareholders (Buchanan et al ., 2012). Hedge fund activism comprises three main components. First, activist hedge funds try to increase the market value of the targeted company. Second, they try to benefit from prices that they believe are out of equilibrium. Third, activist hedge funds often benefit from asset transfers at the expense of other stakeholders such as workers, suppliers or creditors (Schmidt & Spindler, 2008). According to Buchanan et al . (2012: 67), an activist hedge fund is a hedge fund that carries out proprietary research on individual companies to identify potential for improved returns and uses shareholder activism to agitate for changes which will realise those returns.'

Alone or 'in concert' with other funds, activist hedge funds acquire shares of listed companies and pressure the management to implement their demands. This 'teamwork' was aptly called 'wolf pack' tactics by Briggs (2006). There are three typical demands that activist hedge funds pose to listed companies to realize high returns: First, the initiation of share buy-back programs in which the company buys its own stocks with the goal to increase the share price. Second, the payment of special dividends either taken from 'surplus' capital of the company or by raising debt. The third demand is the sale of divisions not deemed part of the 'core competencies' of the company.

A body of literature suggests that the diversification of corporations entails a considerable reduction in firm value, often called the 'conglomerate discount': 'An underlying theme of this literature is that conglomerates tend to misallocate their investment funds by cross-subsidizing poorly performing divisions' (Mansi& Reeb, 2002: 2167). This line of reasoning is clearly paradigmatic for the LME model with its paramount objective of maximizing profits: 'Such refocusing is a standard requirement of Anglo-Saxon institutional investors, who criticize the conglomerate form of corporations' (Amable, 2003: 256). However, for CME companies diversification makes sense, because it potentially increases bondholder value and lowers firm risk due to the exposure to different product markets. Long-term low-risk strategies and incremental innovation are cornerstones of traditional Rhenish capitalism. According to Jackson & Petraki (2011:5), 'short-termism involves situations where corporate stakeholders show a preference for strategies that add less value but have an earlier payoff relative to strategies that would add more value in the long run.' Special dividends and share buy-backs represent immediate payoffs to shareholders. Thus, the typical demands of activist hedge funds represent a clash of opposing interests as Rhenish blockholders traditionally have sought to ensure stability and long-term growth of corporations, not the maximization of profits exclusively beneficial to shareholders. Activist hedge funds may therefore be characterized as 'impatient capital' (Goyer, 2006, 2011) whose demands are opposed to traditional German patient capital. Most studies on hedge fund activism have used quantitative approaches. Important findings for the US include that the stock performance of target firms has been higher than that of comparable firms that have not been targeted by activist funds. Furthermore, the average target firm has significantly increased its long-term debt load, while doubling dividends and significantly decreasing both its short-term investments and cash position (Klein & Zur, 2009). Boyson & Mooradian (2011) report that the targets of hedge funds have generally been small and undervalued firms with low leverage. Klein & Zur (2011: 1737) find that hedge fund activism significantly reduces bondholder wealth, resulting in an 'expropriation of wealth from bond holders to shareholders'. Hence, hedge funds often benefit at the expense of other investors or stakeholders (Fichtner, 2014). Becht et al. (2010) analyze 362 interventions by activist hedge funds in eight European countries from 2000 to 2008. They find that with 43 public interventions Germany is the second most targeted country behind the UK. Furthermore, Germany shows the highest returns of all eight countries. Their findings suggests that a less public form of activism could be an alternative to confrontational US-style hedge fund activism. A study on hedge fund activism in Japan by Buchanan et al. (2012), using both quantitative and qualitative methods, finds that confrontational or 'noisy' shareholder activism by hedge funds did not fundamentally affect the traditional community firm model. In particular, they suggest that cooperative or 'quiet' activism is much more compatible with the Japanese model. For Germany, the quantitative study by Bessler et al. (2008) finds that the engagement of activist hedge funds in the target firms results in increased shareholder value. Drerup (2011) uses a sample of 278 events across 170 German firms between 1999 and 2010. He observes that the market reacts significantly when hearing about stakes purchased with an activist intention. However, Drerup (2011: 18) concludes that 'firm fundamentals do not show any significant change or improvement subsequent to the activists' presence.'

A quantitative study by Katelouzou covers 432 activist campaigns across 17 countries between 2000 and 2010. Based on holding periods she finds that 'activist hedge funds are not short-term in focus, as some critics have claimed' (Katelouzou, 2013: 1). However, the holding period alone says very little about the effects of hedge fund activism on target companies. This example shows the limits of quantitative research on hedge fund activism. The problem with most quantitative studies on activist hedge funds is that they primarily perceive them as a potential remedy to the classic corporate governance problem of the separation of ownership and control in publicly listed corporations; their potential for institutional change is rarely addressed. However, as Börsch (2007: 4) has argued, case studies are an essential complement for studying how the globalization of financial markets of which the spread of activist hedge funds is one element – affects corporate governance: 'Investigating and disaggregating the behavior of firms allows for a more subtle understanding of the effects of globalization. The behavior and strategies of firms are critical variables that mediate between globalization and its effects on corporate governance.'

Research design

This article pursues a qualitative approach to activist hedge funds using case studies (Seawright & Gerring, 2008). The aims of this study are 1) to better understand the processes through which hedge fund activism affects German target corporations and 2) to probe the plausibility of the hypothesis that the decrease of blockholdings has enabled activist hedge funds to have a greater impact on German publicly listed corporations. This is accomplished through in-depth case studies of 'most likely' and 'least -likely' cases, as they are particularly well-suited for the purpose of theory testing (George & Bennett, 2005). The shareholding of activist hedge funds in the target firm is adopted as the independent variable. Accordingly, the dependent

variable is the implementation of measures to maximize returns for shareholders (share buybacks, special dividends or sale of divisions). The presence of Rhenish blockholders is theorized as an antecedent variable that counteracts the independent variable, as it is expected that 'patient' blockholders will protect the target firm from activist demands. Consequently, a least-likely case (of success by activist hedge funds) would be an instance in which the difference between shareholdings of Rhenish blockholders and hedge funds is maximal. A most-likely case would be an instance in which the difference between shareholdings of Rhenish blockholders and hedge funds is minimal.

Case selection procedure

The 170 target companies identified by Drerup (2011) are adopted as the universe of cases for this study. As hedge funds are able to follow whatever investment strategy they believe is profitable, it is difficult to permanently classify funds as 'activist'. Hedge funds may have followed activist strategies in the past, but that does not necessarily mean that they adhere to this strategy. They could have switched to a passive strategy or they could even oscillate between activist and passive strategies. This problem is bypassed by Drerup (2011) as he classifies funds as activist if 1) the fund describes itself as one taking activist stances towards a firm's management on its website; 2) industry publications or news surrounding the launch of the fund describe it as activist; 3) author contacts the hedge fund and activism is named as the applied strategy; 4) overt cases of activism by the fund have been observed in the past or upon entry into the company. Drerup admits that this classification is not perfect. However, since the focus is the reaction of the market, this case selection procedure clearly seems sufficient for large- N studies. Case selection for this qualitative study, being small- N, has to be as rigorous as possible, since the focus is not the reaction of the market, but the impact of impatient capital on the target company. In order to identify whether hedge funds have indeed pursued activist strategies in each particular case, LexisNexis has been searched for every single target company using the category 'German Language News' that covers 215 daily and weekly newspapers. The chosen period ranged from 1999 to 2010. All 170 target company names have been searched for thrice; first together with the term 'Hedge-Fonds', second together with the term 'Hedgefonds' as both spellings are common, and third together with the term 'Finanzinvestor' – a term used by German media for private equity and hedge funds. If articles have been found for the particular combination, they were manually searched for proof that hedge funds have indeed pursued activist strategies. Hedge funds have been classified as activist if one of the three typical demands was voiced: 1) the initiation of a share buy-back program, 2) the payment of a special dividend or 3) the sale of divisions that are not part of the 'core competencies' of the company. This case selection procedure is admittedly very restrictive and the number of identified cases is likely to be significantly understated. However, finding newspaper articles seems to be the only possibility for ensuring the selection of cases in which hedge funds have really used activist strategies. Out of the total 170 German listed companies identified by Drerup (2011) eleven could be unequivocally identified as targets of activist hedge funds - much less than the 41 cases reported by Becht et al. (2010). From these eleven target companies six had to be removed. Balda was targeted by activist hedge funds, but its blockholder was based in Taiwan. Hence, the case lies outside the focus of this study. The same is valid for TUI, as its blockholders were Russian and Norwegian. The case of Deutsche Börse has already been covered by Watson (2005); he has found that hedge funds have been mostly successful in demanding measures to maximize returns. In the cases of Daimler, Munich Re and Siemens individual activist funds stayed under the reporting threshold of 3% and only anonymous reports about the funds' demands exist. Table 3 provides an overview about the remaining five target companies and the criterion for case selection the difference in shareholdings between patient and impatient capital. We expect that the larger this difference, the greater the differential in influence be. Hence, Rheinmetall is selected as the least-likely case, as the difference between Rhenish blockholders and hedge funds is maximal with +60%. However, during the course of the case study Rheinmetall turned out to be very deviant from the theorized outcome. For this reason, an additional least-likely case has been studied – not primarily to confirm or refute the research hypothesis, but to explore the identities and interests of both hedge funds and target firms. Cewe Color is selected because the difference in shareholdings between patient and impatient capital is the second largest with +13%. Studying two least-likely cases has the additional advantage that this approximates a most-similar case design in this universe of cases (Seawright & Gerring 2008). Most-similar in this context means that the two cases are (approximately) similar on the independent and antecedent variables, but differ on the dependent variable. Finally, we select IWKA/KUKA as the most-likely case because the difference between Rhenish blockholders and activist hedge funds is minimal with -20%. This case selection procedure surely understates the total number of cases. However, this does not seem problematic, because this study is not about determining the exact influence of activist hedge funds, but rather about exploring this phenomenon and probing the hypothesis that these funds have gained more room for maneuver in Germany 12 [Insert Table 3 here]

Case study results

IWKA/KUKA. We have selected IWKA/KUKA as the most-likely case, because the shareholdings of hedge funds have been larger than those of Rhenish blockholders by 20%. Hence, we would expect a success of hedge fund activism. In 1970, the Quandt family merged KUKA GmbH and Industrie-Werke Karlsruhe AG, to form IWKA AG. The company had three main divisions, environmental technology, welding technology and defense technology, but was also active in other fields. In 1980, Quandt sold its blockholding leaving IWKA as a public corporation with all shares in free float. In 1999, IWKA bought the packaging machinery activities of Rheinmetall and sold its defense engineering activities in exchange (KUKA, 2013a). In October 2003, the US-based activist hedge fund Wyser-Pratte bought 5% of IWKA shares, which immediately rose 6% to about €14. The holding was increased to 6.6% in January 2004 - when the stock price reached $\in 19 -$ along with the demand to sell non-core activities and focus on industrial robots. In April 2004, IWKA management announced plans to sell activities comprising 15% of company revenues. From mid-2004 to mid-2005 the US-based activist hedge fund K Capital Partners and three other institutional investors each bought around 5% of IWKA stock and supported the demands by Wyser-Pratte. The investors included Hermes Focus Asset Management (UK), The Capital Group (US) and Schroders (UK). Thus, together they controlled about one quarter of IWKA shares (Handelsblatt, 2005). In December 2004 the Landesbank Baden-Wuerttemberg, owned by local savings banks and one federal state of Germany, bought 5% of IWKA shares and voiced opposition against a break-up of IWKA – an indication that German Landesbanks provide patient capital even if they have not been long-term blockholders of the target company. The 'wolf pack' led by Wyser-Pratte

prevailed over this 'Rhenish' investor and ousted the IWKA management in June 2005, as it controlled five times the shares held by the Landesbank. The free float of shares and especially the loose structure of the corporation with 200 individual companies under the roof of the IWKA holding was described by Interviewee 2 as 'a gigantic gateway for Wyser-Pratte', making it attractive for institutional investors to follow the lead of the hedge fund. IWKA sold activities in other business areas until 2007, as demanded by impatient capital. The remaining company has been focused on industrial robots and renamed KUKA. Impatient capital has successfully broken up the conglomerate structure in order to maximize investor returns – the share price surged to €30 in mid-2007. Thus, IWKA/KUKA confirms our hypothesis that impatient capital can have a significant impact on companies without a Rhenish blockholder. According to Interviewee 2, the disadvantages of this concentration on one division became apparent during the economic crisis in 2008/2009 as robotics had the 'most massive slump of all divisions, due to the dependence on the automotive industry'.

Consequently, the KUKA share price fell to €10 in late 2008; the family-owned German company Grenzebach took advantage of the low share price and bought a blockholding of 25% in KUKA, ringing the company back under the control of a Rhenish blockholder after thirty years of free float. Interviewee 2 said that KUKA asked Grenzebach to become an 'anchor investor' as a 'counterpole' to Wyser -Pratte. This could be seen as a typical example of CME firms that value stable long-term ownership. Interestingly, in 2010 Wyser-Pratte sold some of its shares to Grenzebach and its CEO became a board member of KUKA at the request of Grenzebach, thus aligning its interests to those of the blockholder (Bloomberg, 2010). Hence, this is an indication that hedge funds are indeed difficult to classify, because they oscillate between activist and passive strategies. One explanation for this behavior is that hedge funds are essentially opportunistic investors; their aim is to generate maximum profits with minimum efforts (managerial resources and capital). Hedge fund activism is costly, and Wyser-Pratte had successfully focused the company on one of the world's leading manufacturers of industrial robots. Arguably, the hedge fund then had no need to further pursue costly activist strategies; it could wait until the 'true' value of the company began to be reflected in the share price. Indeed, the KUKA share price surged from roughly \in 12 in 2010 to \in 35 in early 2013; consequently, Wyser-Pratte sold most of its remaining stake in 2013 making a profit of approximately 150% (KUKA, 2013b). In the latest twist of this case, Grenzebach has sold its blockholding in late 2014 at around €60 per share to the German family-owned com pany Voith, which portrays itself as a 'stable anchor shareholder with a long-term focus' (Voith, 2014).

Rheinmetall. We select Rheinmetall as the least-likely case, because the shareholdings of Rhenish blockholders have been 60% larger than those of activist hedge funds. Thus, we expect failure of impatient capital in this case. In 1956, the Röchling family took a majority stake in Rheinmetall, a manufacturer of defense equipment. Subsequently Rheinmetall began diversification into mechanical engineering and electronics, but was still dependent on defense. During the 1980s and 1990s, Rheinmetall intensified its diversification with acquisitions in the fields of automotive, electronics and engineering. In 2000, Rheinmetall had three core divisions: defense, automotive and electronics (Rheinmetall, 2012). In February 2001, the activist hedge fund Wyser-Pratte bought 5% of Rheinmetall shares, despite the fact that the Röchling family controlled 66% of voting shares. The stock price rose 19% on the day after

the investment had been disclosed (Drerup, 2011); this is an indication that other investors followed the lead of the hedge fund. The activist hedge fund demanded that Rheinmetall focus exclusively on defense technology. Thus, the automotive and electronics divisions should be sold to maximize shareholder value. The management objected to these demands and emphasized the benefits of diversification. Interviewee 4 mentioned that Rheinmetall was probably not an ideal target for hedge funds as the planning horizon for defense technology is extremely long, sometimes decades. In the end, Wyser-Pratte sold its shares to the Röchling family in November 2001, leaving them with 72% of voting shares (DW, 2002). Thus, in late 2001 the case looked like the defeat of an impatient activist hedge fund by a patient Rhenish blockholder owning a dominant two thirds of voting stock, thereby shielding Rheinmetall from pressure to focus on short-term shareholder value. However, the case turned out to be more complex. The share- price of Rheinmetall surged from €10 in early 2001 to €20 in late 2001 driven by speculation that the conglomerate will be broken up. Thus, Wyser-Pratte had no need to keep the Rheinmetall shares, as they had doubled in value. In a joint press release with Röchling, Wyser-Pratte wrote: 'we believe we assisted the company in closing what we perceived was a large conglomerate discount' (Business Wire, 2001). Simultaneously, the rise of the Rheinmetall share price that was induced by hedge fund activism seemed to have catalyzed an ongoing belief shift within the Röchling family. The joint press release confirms this: 'We acknowledge the import ant role played by Wyser-Pratte in highlighting the inherent values of Rheinmetall 's businesses to the international investment community. We believe that through our increased shareholding we will be in a better position to realize those values to the benefit of all Rheinmetall 's shareholders' (Ibid.). In

December 2001, the Röchling family announced the introduction of a shareholder value program for Rheinmetall, including performance-related incentives for the management. This led to the sale of all divisions pertaining to electronics and engineering between 2002 and 2004 leaving Rheinmetall with the two core sectors of defense and automotive. In 2004, Röchling announced the complete sale of its blockholding to a group of foreign institutional investors – Interviewee 3 said that this was probably due to a changed mentality of the young members of the large Röchling family who had no personal ties to the company and wanted to diversify their financial assets. Thenceforward, Rheinmetall shares have been widely dispersed. Interviewee 3 said about this situation: 'since then we regularly received information who were our shareholders, and then it became clear that there was a strong dominance of Anglo-Saxon investors. What changed was a stronger orientation to what the investors want and towards the development of the share price. A clear shareholder value orientation has established itself at Rheinmetall with the inevitability that then the corporation was exhaustively restructured.'

Interviewee 4 said that after 2004 hedge funds temporarily held over 30% of Rheinmetall shares – however, this included activist, passive and event-driven strategies that were difficult to distinguish. In addition, Interviewee 4 remarked that the majority of hedge funds stayed under the reporting threshold of 3% and that communication with the fund managers remained private and was mostly cooperative. One hedge fund even remained invested for nearly five years. In general, though, Rheinmetall tried to avoid having too many hedge funds as investors, because they were seen as overly short-term in focus. The implementation of typical shareholder-value measures despite the dominant blockholder Röchling and the subsequent defection of the blockholder from the patient capital paradigm make Rheinmetall a deviant

case. A deviant case is an instance that 'by reference to some general understanding of a topic, demonstrates a surprising value. The deviant case is therefore closely linked to the investigation of theoretical anomalies' (Seawright & Gerring, 2008: 302). According to George & Bennett (2005: 20) 'case studies have powerful advantages in the heuristic identification of new variables and hypotheses through the study of deviant or outlier cases'. Hence, the case of Rheinmetall challenges the assumption that Rhenish blockholders adhere to the patient capital paradigm and shield target firms against shareholder value seeking investors such as hedge funds. As shown in section 2, private German investors (including families such as Röchling) have increased blockholdings in the largest listed corporations from 20% to 30% during the last twenty years. Thus, Rheinmetall is an exception in this regard, but could be an indication of an ongoing belief-shift in younger German investors. Family blockholders might slowly become less patient in the future, demanding more shareholder value – though without necessarily selling their blockholdings.

Cewe Color. After Rheinmetall turned out to be a deviant case, Cewe Color has been selected as an additional least likely case, because Rhenish blockholders owned 13% more shares than activist hedge funds. Hence, we would expect failure of impatient capital in this case. Cewe Color was privately founded in 1961 and became a publicly listed company in 1993 with the community of heirs of the founder holding a 27% blockholding (Cewe Color 2012b). By 2005, Cewe Color had become Europe's largest photo processing company, but was increasingly struggling with the steep decline of analog photography and the change to digital photo processing. The company planned to invest heavily in digital photo processing equipment and the development of new products. In mid-2005, the activist hedge funds K Capital Partners and MarCap together acquired 15% of Cewe Color shares. Cewe Color stock more than doubled from under €25 in early 2005 to over €50 in late 2005.

According to Interviewee 1, many institutional investors had been attracted by the low leverage ratio and the stable cash flow of Cewe Color, interpreted as a potential to take on debt that could be used for share buy-backs or special dividends. In late 2006 the two activist hedge funds declared that they had lost confidence in the Cewe Color management and that the company was overcapitalized and hence should pay a special dividend of 5€ per share, to be debt-financed by the company (Spiegel Online, 2007). Cewe Color only wanted to pay the normal dividend of 1.20€ per share and keep investment in digital photography high in order to restructure the company for growth in the medium and long-term. In March 2007, Wyser-Pratte announced the acquisition of 5% of Cewe Color shares supporting a special dividend. Communication by the hedge funds then became increasingly confrontational. Interviewee 1 reported what a senior Cewe Color manager had witnessed: 'It had been arranged that he was alone with a hedge fund manager in his Manhattan office. And in this office there were antique rifles from the American-Indian Wars attached to the walls. And he took a rifle and aimed at his knee saying: managers that don't cooperate get shot in the knee!' One possible reason for this aggressive stance is the fact that MarCap's returns dropped to a meager 5% in 2006 and the hedge fund needed the special dividend to quickly boost its returns. Finally, the AGM of Cewe Color in April 2007 has been the decisive showdown between impatient capital led by activist hedge funds and patient capital led by the community of heirs and Nord/LB - a German Landesbank owned by two federal states and local savings banks -, which in the meantime had acquired nearly 6% of Cewe Color shares. In the end, the 'home team' won with 57% of votes supporting patient capital (Economist, 2007). Subsequently, the activist hedge funds sold their shareholdings and Cewe Color continued restructuring. In retrospect, the management position seems to have been justified. Turnover rose 5% in 2011, while earnings increased by 7% as new digital products such as photo books and online printing more than compensated for the decline of traditional analog photo processing (Cewe Color, 2012a).

The additional case of Cewe Color seems to confirm our hypothesis that (traditional) Rhenish blockholders are able to protect target companies against shareholder activists such as hedge funds. Together the two least-likely cases of Rheinmetall and Cewe Color approximate a mostsimilar case design, being similar in that both have been family-controlled German corporations that faced activist hedge funds aiming at maximizing shareholder value. One major conclusion from comparing these two cases is that for future research the 'Rhenishness' (i.e. patience) of blockholders cannot be taken for granted, but has to be evaluated on a case by case basis. Indeed, one of the major conclusions from all three case studies is that the identities, interests and strategies of both activist hedge funds and German blockholders are more complex than commonly theorized. The aim of activist hedge funds is to increase the share price of their target companies. In order to reach this aim they employ activist strategies. However, they may switch to passive strategies, as activist strategies are costly. The case of KUKA suggests that hedge funds may even align themselves to blockholders in order to 'ride' a rising stock price. Conversely, German blockholders may use activist hedge funds to attract the interest of international institutional investors in order to boost the share price with the aim to sell their holdings at a maximum value; this behavior could be characterized as 'displacement through defection', which is taking place when ' actors defect to a new system, [and] previously deviant, aberrant, anachronistic, or "foreign" practices gain salience at the expense of traditional institutional forms and behaviors ' (Streeck & Thelen, 2005: 20). Hence, some activist hedge funds adopt their strategies to the German context and even show commitment to the target companies, while some German blockholders utilize activist hedge funds to increase the value of their holdings, thus changing their preferences from commitment to liquidity.

The potential disciplinary power of activist hedge funds

Another important point, which has implicitly been mentioned by all interviewees, is the potential disciplinary power of activist hedge funds. Virtually all listed companies in Germany today have investor relations departments that monitor the investor base; according to Interviewee 4, activist investors are often identified even when they stay under the reporting threshold. Hence, listed companies that do not have a blockholder probably anticipate the situation that activist hedge funds invest in their shares. In such a situation, it would be logical to envisage the typical activist demands and already implement some of them to make the corporation less attractive. Roberts et al. (2006: 289) have found indications for the disciplinary power of fund managers: 'A key point here is that the changes, while prompted by shareholder pressure, preceded any pressure on the share price, or market discipline as commonly understood. Instead the discipline is realised in anticipation within the self.' It has been rightly noted that only a relatively small number of companies is listed in Germany (Deeg, 2009), and this study has found that still about half of the largest listed corporations have a German blockholder. However, the other half is exposed to the potential disciplinary effects of activist hedge funds.

Conclusion

The purpose of this paper has been two-fold. First, the study of blockholdings in the 160 largest listed corporations updated our understanding of corporate control in Germany. Second, the study of three cases of hedge fund activism advanced our understanding of the processes involved in the interactions between Anglo-American investors that primarily seek high returns, and blockholders with long-term strategic interests traditional to Rhenish capitalism. In contrast to the institution of patient capital, activist hedge funds may be characterized as impatient capital whose demands are opposed to the interests of traditional Rhenish blockholders. Analysis of the 160 largest listed German corporations shows that from the early 1990s to 2011 the proportion of companies that have blockholders has declined by nearly 28 percentage points to 57.5%. The significant drop in blockholdings since the 1990s increased the room for maneuver of activist hedge funds. The most-likely case of IWKA/KUKA could be interpreted as supporting this thesis, as the activist hedge funds have been successful with most of their demands. Then again, 46.5% of the 160 largest listed corporations still have a German blockholder. Hence, it could be argued that about half of these listed corporations are protected against pressure to maximize investor returns. This could be a sign for the hybridization of Rhenish capitalism, as half the largest listed companies are now potentially exposed to hedge fund activism. The least-likely case of Cewe Color shows that German blockholders are able to fend off hedge funds. However, the aim of this study has not been to establish their precise degree of influence, but rather to advance our understanding of the processes through which activist hedge funds affect German publicly listed corporations, as the cogency of a small number of interview-based case studies is limited. The deviant case of Rheinmetall suggests that blockholders that had behaved in a 'Rhenish' way for decades may defect from the institution of patient capital and turn towards shareholder value - utilizing activist hedge funds to gain the attention of the international investment community. This could be an indication that a new generation of German family groups may develop a mindset that is more inclined towards shareholder value. This study has shown that the identities and strategies of both activist hedge funds and German blockholders are more complex than commonly theorized. In the most-likely case of IWKA/KUKA the family-owned company Grenzebach has been asked by KUKA to become a stable 'counterpole' to impatient investors. Then Grenzebach convinced the activist hedge fund to become a board member. Thus, the hedge fund aligned its interests to those of the blockholder and remained passive until selling its stake. Finally, Grenzebach sold its blockholding to another German family-owned company, realizing enormous profits from its stake in KUKA. The complexity of interests and identities revealed by these case studies confirms some of the limitations of the VoC-framework (Bruff & Horn 2012). However, VoC remains useful as a research heuristic. Despite the complex identities and interests of blockholders and hedge funds, it seems certain that the influence of activist hedge funds in CMEs is unlikely to wane. In early 2013, these funds have reached a new all-time high in assets under management (Economist, 2013). Recent episodes of activist hedge funds investing in large German (Thyssen-Krupp) and Japanese (Sony) conglomerates - demanding the sale of divisions that are not part of the 'core competencies' - show that they will continue to press for measures to increase investor returns, though the number of cases is likely to remain low. On balance, the impact of impatient capital on Rhenish capitalism and other CMEs is arguably not revolutionary but rather evolutionary. Activist hedge funds

contribute towards what Lane & Wood (2009: 537) have called 'creeping, but nevertheless cumulative change.' The potential disciplinary power is clearly one of the most promising avenues of future research about the impact of impatient capital in Germany and other non-liberal political economies.

Title: Perpetual Decline or Persistent Dominance? Uncovering Anglo-America's True Structural Power in Global FinanceAuthor: Jan FichtnerFrom: Review of International Studies, Vol 43 No 1Date: November 2015

Introduction

The last fifty years have been rife with predictions that America's hegemony in the international political economy has peaked. According to this stance, the United States would be bound to face a steady decline of its power position from that point onwards. In fact, some scholars have even claimed in the 1980s that US hegemony had already been lost.

According to Immanuel Wallerstein and other proponents of the world-system approach, hegemony is cyclical; once a hegemon has reached the apogee it is bound to face perpetual decline vis-à-vis the rising power(s): 'The decline of the United States is not the result of poor decisions by its president, but of structural realities in the world-system'.

This declinism also pertains to the field of global finance, the focus of this paper. Many observers saw the end of the Bretton-Woods system in the early 1970s as an unmistakable sign of vanishing dominance of the US in the international financial system. Only a minority of scholars disagreed arguing that the demise of Bretton-Woods rather represented a shift or transformation of US hegemony from forms of direct power articulated via inter-governmental channels to forms of indirect or structural power exerted through private markets.

The latest wave of US declinism came in the years after the global financial crisis. Post-2008, the debate about America's position in the global political economy has mainly focused on the 'rise of the rest', such as the BRIC countries, and especially on the rise of China. The basic argument is that in a 'Post-American World' we witness a 'relative erosion of the power, and political influence, of the United States in general'.

This is not to say that there was a complete absence of observers who argued for the persistence of US power in the international political economy. However, declinism generally prevailed. In 2015, the Asian Infrastructure Investment Bank (AIIB), proposed by China, became the latest supposed piece of evidence for the continuous decline of America's dominance and the seemingly unstoppable rise of China. Sceptics of US power claim that the AIIB could become a means for China to 'establish a parallel global financial order.'

Moreover, the fact that key allies of the United States, such as Australia and the UK, announced to join the AIIB was widely seen as a clear indication of vanishing US economic power. Or, in the words of the Financial Times, 'the decision by several US allies to sign up to an institution Washington had effectively said was off-limits is one of the most powerful symbols to date of the eastward shift of global power'. Larry Summers even said that 'this past month may be remembered as the moment the US lost its role as the underwriter of the global economic system'.

The data analysed in this paper suggest that these conclusions are premature. Granted, the AIIB surely has symbolical importance as an institution that in all likelihood is going to be strongly influenced by Beijing. However, we have to put the discussion about this new development bank into perspective. The planned loan portfolio of the AIIB of about USD100 billion may sound much, but is really very little when compared to total international bank loans, which

stand at more than USD20 trillion. This new development bank will just be too small to create 'a parallel global financial order'. Moreover, the primarily symbolic importance of the AIIB case is not suited to draw the conclusion that economic and political relations between the US and its closest allies, such as Australia and the UK, have deteriorated. In short, the AIIB does not represent a 'crucial case' from which we could conclude that America's dominance in global finance is in fact vanishing. On the contrary, I would argue that the way the case of the AIIB has been interpreted by many commentators underestimates the persistence of America's dominance in global finance. The argument of this paper is that we have to analyse the United States as a part (though of course the by far most powerful one) of a wider Anglo-America. Only then can we determine the true structural power of America in global finance.

Hence, section 2 explains why such an approach is cogent. In addition to analysing Anglo-America as a whole, this paper is based on the view that many data used by declinists are not really as decisive as they should be. Starrs has convincingly argued that in the age of globalization, conventional national measures of economic power such as GDP are not as meaningful as they had been during the Bretton-Woods era when corporations and finance were largely confined to the nation-state.

Or, in the words of Germain, 'the key question [is] not the weight of the American economy in the global economy, but the control exerted by American corporations and lawmakers over global markets.'

Hence, we have to dig deeper to uncover truly relevant data. Starrs has analysed the top 2000 global corporations and found that US companies dominate virtually all segments – and that US dominance measured in this way has in fact increased from 2006 to 2012. GDP certainly has not become useless, but the power position of a country in the international political economy is just too complex to be captured by such a single measure. Schwartz's nuanced analysis has shown that American power in global finance can only be analysed by taking into account all financial segments, including real-estate markets.

Furthermore, it is imperative to uncover fine-grained data that actually shed light on the nature of US dominance. Thus, section 3 proceeds to analyse data on nine different key segments of global finance. Against predominant statistical conventions, the Anglo-American countries and territories are analysed here as a transnationally integrated whole and not on the grounds where they are located geographically. In virtually all statistics the UK and Ireland are treated as part of the EU, Australia as part of 'Asia-Pacific', and UK dependencies such as the British Virgin Islands and the Cayman Islands as Caribbean, even though the Anglophone countries and territories generally have more in common with Anglo-America than with neighbouring countries. The inclusion of UK dependencies – which, in legal terms, may still be called British 'colonies' – is crucial, because most of them act as large offshore financial centres that facilitate Anglo-American (global) finance; the Cayman Islands, for example, acts as the global jurisdiction of choice for the hedge fund industry. This novel analysis reveals that from around the year 2000 until 2014 Anglo-America's structural power in global finance has not declined but proved to be remarkably persistent. Finally, section 4 concludes.

Anglo-America in International Political Economy

Three different terms have been used by scholars studying the group of the Anglophone countries in International Relations (IR) and International Political Economy (IPE): Anglosphere, Lockean heartland, and Anglo-America. The Anglosphere approach by Vucetic

conceptualises the community of the English-speaking countries as based on a racialized Anglo-Saxon identity, 'a social kind that exists because people believe it exists'. Vucetic bases his analysis on historical case studies about crucial interactions between the core countries of the Anglosphere. He deliberately chose episodes that concern the field of national security as this domain is commonly theorised to represent the least-likely case for cooperation. He argues that it clearly is a puzzle for most conventional IR theories how the 'Anglo-American war became "unthinkable" while peace and cooperation became dependable'.

Vucetic has shed much needed light on Anglo-American cooperation; however, he has largely restricted his analysis to the field of IR, mostly excluding economic and financial aspects. The Lockean heartland concept, developed by van der Pijl, is an IPE approach integrating both political and economic dimensions. The approach is named after John Locke who had generally argued for the withdrawal of the state from social and economic life and for self-regulation of civil society. According to van der Pijl, the Lockean state/society complex became recognizable in England in the late seventeenth century. The Glorious Revolution of 1688 led to the constitutional limitation of state power and the protection of the genuinely 'private'. The pattern of self-government that settlers from Britain brought with them to North America and Australia enabled the subsequent transnationalisation of the Lockean state/society complex. This formed the basis for the subsequent development of a transnational Lockean heartland spanning across the English-speaking countries: 'with the Lockean pattern transmitted to the new areas of settlement, there emerged, on the foundations of industrial/commercial centrality and predominance, a heartland of the global political economy'.

The counter model to this Lockean state is the 'Hobbesian' state, which is characterised by the primacy of the state. The Hobbesian state generally has an explicit doctrine of national interest and relies on a powerful administration to regulate economy and society. In contrast, the Lockean state generally relies much on free markets that are largely seen as 'self-regulating'. The mode of expansion of the Lockean state is transnational, whereas that of Hobbesian states is international. One of the primary purposes of the Lockean state is to foster free (capitalist) enterprise that 'civil society' (i.e. primarily the financial and business elites) pursues at home and abroad. The predominance of the Lockean heartland over the international political economy has been challenged by other states that rose to power. Such 'Hobbesian contender states' included Imperial Japan, Nazi Germany and the Soviet Union. China could become the next contender in a few decades; as a Hobbesian state it seeks to steer and regulate its economy tightly – particularly its financial markets. In addition to Anglosphere and Lockean heartland, there is also the term Anglo-America. Gamble argues that Anglo-America is an 'imagined community' that is 'encompassing both ideals and interests, which is constructed and sustained through various narratives and embodied in particular institutions.' Furthermore, Anglo-America has not one distinct centre, but consists of different states and nations, such as Australia, Britain, Canada, Ireland, Scotland, Wales, and the US. He argues that 'Anglo-America is a political space constituted by wider economic, political, ideological and cultural relationships, and is as a consequence many-sided'. Similarly, Katzenstein argues that Anglo-America is 'fluid, not fixed.' According to Gamble, the hegemony of Anglo-America has four main dimensions. The first is military and has arguably been the most apparent dimension during the last century. The second and third dimensions are political, respectively cultural in nature: the political model advocated by Anglo-America is based on the idea of selfgovernment, and the importance of (transnational) civil society; Anglo-American culture, shaped by Protestantism and individualism, manifests today primarily as consumerism. Finally, the fourth dimension has been the dominant Anglo-American model of capitalism – which is characterised by the primacy of markets, short-term goals, and the confinement of the state to enabling free enterprise rather than actively steering economic development –, and particularly the dissemination of this liberal economic order around the world. Gamble summarises the position of Anglo-America:

Global hegemony is how Anglo-America appears to those outside it, as a hegemonic order fashioned over two hundred years, in which the differences between its various states are less important than what they have in common.

Empirical evidence for the existence of an Anglo-American model of capitalism has been found by a number of scholars. Hall and Soskice as well as Amable argue that the Anglophone economies constitute a distinct socio-economic model – 'liberal market economies' or 'market-based economies;' whereas countries pursuing an opposing model, such as China, have been dubbed 'state-permeated market economies.' Schwartz uses the term 'Americanized Rich' to characterise the group of Anglophone countries (plus the Netherlands, Sweden and tentatively Switzerland). He finds that the group of the Americanized Rich has similar housing markets and corporate finance systems to those of the US. In addition, these countries exhibit an overseas investment pattern comparable to the US, and their inward and outward direct investment from/to America is disproportionately high compared to other countries, such as the 'Repressed Rich' (Germany, France, Japan and others). The exceptionally close transnational ties between the Anglo-American countries are reflected in various statistics pertaining to global finance. For example, the UK is by far the largest source of direct investment into the US when measured by country of ultimate beneficial owner.

The bilateral private portfolio investment relation between the US and the UK is the largest one in the world by far with almost USD2 trillion. Banking claims by foreign investors on the US, and vice versa US banking claims on foreigners, are dominated by the Anglosphere – over 60% in each category. Furthermore, investment banking, hedge funds, private equity, and burgeoning passive asset management (e.g. BlackRock) are quintessentially Anglo-American financial industries, based around New York and London – and virtually nowhere else. The same is true for the top global law firms. Wójcik uses the apt term 'NY-LON' to capture the joint global dominance of both intertwined financial centres.

Green argues that there has been a close interaction between the Federal Reserve-Treasury-Wall Street nexus in the US and the City-Bank-Treasury nexus in the UK. Moreover, a 'transatlantic regulatory feedback loop' between the US and the UK fostered international financial liberalization and deregulation, making Anglo-America fundamental to the process of financial globalisation.

The dominance of Anglo-America in finance is underpinned by common law, which provides extensive freedom of contract. The legal systems of all Anglophone countries and territories are based on common law, in which law evolves in a bottom-up fashion from individual case decisions, thus significantly facilitating (transnational) finance. Under civil law (Germany, France, Japan etc.) the state creates law in a top-down manner, which is rather hampering finance – this contrast between common and civil law reflects the Lockean/Hobbesian dichotomy by van der Pijl. 'Smoking-gun observations' are quite rare in the fields of IR and

IPE. I would argue that the revelations on the intelligence cooperation of the 'Five Eyes' countries (US, UK, Canada, Australia, and New Zealand) represent smoking-gun evidence for the unique cooperation of the Anglo-American countries. The English-speaking countries cooperate extremely closely in defence and intelligence, which represent the least-likely fields of cooperation by sovereign states.

The unparalleled signals intelligence and internet surveillance activities operated by the 'Five Eyes' countries can hardly be explained by conventional concepts such as national security. Indeed, the revelation of this pervasive joint global intelligence operation should have opened the eyes of all keen observers of international affairs that the group of Anglo-American countries represents something sui generis, as 'latecomers from outside the Anglosphere are not welcome to join the club'.

Glenn Greenwald summarises the Anglosphere community as such:

It is not as though this is five distinctive countries trying to find common ground – the alliance is incredibly integrated. It is surprising, really. You would think that the different political cultures and histories of each country might mean they had different approaches but there is no indication of that.

The key implication of this section is that it makes sense to analyse the group of the Englishspeaking countries together. The argument here is not that there is a completely unified agency in Anglo-America, however. The Anglophone countries are politically sovereign, of course, and occasionally disagree on certain topics (such as the AIIB). Nonetheless, as argued above, Anglo-America is deeply integrated in crucial domains, such as finance and intelligence, and the Anglophone countries constitute each other's closest allies by far. I would argue that in the structure of finance authority and decision-making power in Anglo-America form a set of concentric layers. At the very centre is NY-LON where the most important financial actors and institutions reside and where the primary decision-making power is located. NY-LON, in turn, is embedded in the two central Anglophone countries in finance, the US and the UK. Private finance has a strong influence in both countries – inter alia through the revolving doors between Wall Street and Washington and the fact that the majority of donations to the Tories are coming from the financial sector, especially hedge funds.

Surrounding this layered core is a group of crucial Anglophone offshore financial centres that are ancillary to NY-LON. These jurisdictions include the Cayman Islands, Bermuda, Jersey, and Ireland (the main destination of US corporate 'inversions'). On the one hand, these common law tax havens enable Anglo-American financial actors and large corporations to gain advantage in international markets. On the other hand, they facilitate the flow of capital from around the world to the Anglo-American core. Finally, the outer layer is constituted by Australia and Canada, which do not act as tax havens but play a much more prominent role in global finance than the vast majority of similarly sized economies, thus helping to sustain the open global financial order centred on the US and the UK. In 2013, Anglo-America has accounted for only between 6% and 7% of the world's population (or about 450 million people), but its combined economies have produced about 31% of global GDP (measured by market exchange rates), with the US accounting for roughly 22%.

In 2000, Anglo-America's share of the world economy had been roughly 40%. Most conventional analyses of power would see this as a clear indication of decline. However, GDP is too blunt a measure of economic power. The analysis of nine different indicators, conducted

in the next section, shows that Anglo-America's structural power in global finance is not in seemingly perpetual decline, but has remained persistent.

Anglo-America's Structural Power in Global Finance

Power can be analytically separated into two modes: relational and structural power. The former is 'the power of A to get B to do something they would not otherwise do.' Susan Strange defined the latter as 'the power to choose and to shape the structures of the global political economy within which other states, their political institutions, their economic enterprises, and (not least) their professional people have to operate'.

Crucially, the concept of structural power enables the analysis of forms of private authority much better than conventional relational power; Strange stressed that 'the global articulation of power [is] constituted by a complicated amalgam of public and private authority.' Here, Konings has shed light on the institutional basis of US structural power in global finance by analysing the interlinkages between private American finance and the US state. However, as Green has noted, Konings underweights the role of the UK (and especially the City) in the emergence of the Euromarkets; instead, Green finds that the pivotal Euromarkets emerged in the City of London due to 'co-constitutive Anglo-American development processes.'

Since the global financial crisis, there has been a significant revival of research on structural power in finance. Helleiner argues that the absence of a dollar crisis and role of the US as de facto international lender of last resort are evidence for persisting US financial power. According to Schwartz, the US still has a unique ability to create credit (and consequently demand) in the global economy, which derives from dominance in international production and a pivotal position in global credit networks. Strange defined the structure of global finance as 'the sum of all the arrangements governing the availability of credit plus all the factors determining the terms on which currencies are exchanged for one another'.

I would argue that this definition has become too narrow during the last twenty years. Global finance is now much broader and includes derivatives, large equity markets as well as enormous stocks of cross- border investment. Therefore, we need a broad analysis of fine-grained data on structural power indicators. Consequently, this paper analyses nine key segments that together cover the entire breadth of global finance. Hence, this paper extends the literature by providing the most comprehensive analysis of structural power indicators in global finance.

The following segments are the focus of this section: 1) over-the-counter (OTC) derivatives trading, 2) OTC foreign exchange trading, 3) currency composition of official foreign exchange reserves, 4) market capitalization of publicly listed domestic corporations, and internationally-significant markets for raising capital, 5) external bank deposits, 6) inward direct investment, 7) outward direct investment, 8) international portfolio investment, and 9) financial and total wealth.

In most segments I compare how the market shares by Anglo-America, the eurozone (excluding Ireland), and Japan have changed. The development of absolute numbers is not as important as the relative change of market shares, because power in the global political economy is primarily about differential growth. I focus on the period from around 2000 to 2014. Crucially, this period includes the global financial crisis, which according to many analysts has debilitated America's position in global finance. The Chinese share (including Hong Kong, HK) is presented to put the rise of the People's Republic into perspective, as

China is the only conceivable challenger to Anglo-America's structural power. The spectacular rise of financial derivatives during the last three decades is a major development for the global political economy. Forms of derivatives have been around for centuries, but their trading volume only surged after the end of Bretton-Woods and the subsequent liberalization and deregulation of finance pursued by Anglo-America in the 1980s. For Bryan and Rafferty one of the main consequences of modern financial derivatives is a significant intensification of competition between corporations. Wigan argues that 'derivatives have profoundly altered a host of financial practices so that the financial sphere sits on top of the world economy.' One of the central factors here is certainly that derivatives have increased complexity significantly – tilting the playing field towards large sophisticated financial actors. There is no space to discuss all the effects of financial derivatives or their central role for the global financial crisis. The focus is on the role of Anglo-America for the OTC derivatives industry. In 2013, the notional value of all outstanding global OTC derivatives has amounted to USD693trillion – the five large US banks JPMorganChase, Citigroup, Bank of America, Morgan Stanley, and Goldman Sachs have been responsible for almost 42% of this gigantic value.

The Bank for International Settlements (BIS) conducts a triannual survey among central banks concerning the turnover of OTC interest rate derivatives. Interest rate derivatives represent the largest type of OTC derivative by far, amounting to USD577 trillion. Interest rate derivatives can be used as hedging instruments against changes in interest rates or as speculative instruments to profit from interest rate movements in a specific direction. Figure 1 shows the development of market shares in the trading of OTC interest rate derivatives from 1995 to 2013. Daily average turnover increased in this period more than thirteenfold from about USD209 billion to almost USD2.8 trillion. Anglo-America's share has risen from nearly 48% to over 75%, while the share of eurozone countries declined from 24% to 14%. Japan's share dropped dramatically from almost 13% to just over 2%. China's share (including HK) is only 1.5%. [Insert Figure 1 about here] The UK has an astonishing lead in the trading of OTC interest rate derivatives with a market share of almost 49%, reflecting the position of London as one of the two eminent global financial centres besides New York. Anglo-America (or rather, NY-LON) absolutely dominates global OTC derivatives trading. The dominance is so clear that it could be argued that financial derivatives represent a thoroughly Anglo-American phenomenon. Two authors from the BIS are seemingly puzzled by the Anglo-American dominance in OTC derivatives trading. Gyntelberg and Upper note that

(...) contracts in most currencies are more heavily traded outside than inside their country, reflecting the market's global character. ... Paradoxically, the least internationalised currencies include the British pound and the US dollar, the home currencies of the two largest financial centres.

The opposite is true; it is not paradoxical that OTC interest rate derivatives in US dollar or British pound are not heavily traded in other financial centres, but rather logical because both countries absolutely dominate the worldwide trading in these financial derivatives – this market does not have a global character, it undoubtedly has an Anglo- American character. The BIS survey also covers another key segment of global finance – foreign exchange. According to the BIS, the daily average turnover in the global market for foreign exchange increased more than tenfold from USD620 billion in 1989 to almost USD6.7 trillion in 2013. This enormous growth is primarily due to the end of the Bretton Woods system induced by the US in the early

1970s and the concomitant transition from an international monetary system led by governments towards one dominated by markets. Since then, private market actors determine the exchange rates of most currencies worldwide (the Chinese renminbi being the most important exception). Figure 2 shows the development of market shares in foreign exchange trading from 1995 to 2013. The situation is similar to OTC derivatives but less drastic. Anglo-America's share increased from 51% to 64%, while the eurozone declined from 17% to 9% and Japan dropped from 10% to 6%. China (including HK) has a share of 5%. Similar to the situation in OTC interest rate derivatives, the UK (i.e. the City of London) is also by far the largest financial centre in the global market for foreign exchange trading with 40%. This is followed by the US, which, however has less than half that market share. On balance, Anglo-America (i.e. NY-LON) has increased its dominance in OTC interest rate derivatives as well as in global foreign exchange trading significantly.

Next, I analyse the composition of official currency reserves from around the world. This indicator reveals how important Anglo-American currencies are as a perceived secure store of value for central banks of different countries.

Currency Composition of Foreign Exchange Reserves

This indicator is based on data from the COFER (Currency Composition of Official Foreign Exchange Reserves) database maintained by the IMF. COFER offers the most comprehensive data on the composition of global foreign exchange reserves – however, some key countries, such China, do not participate.

Figure 3 shows the changing composition of global foreign exchange reserves from 1999 to 2013. Anglo-America's share (i.e. the Australian, Canadian, and US dollar as well as the British pound) declined from 74% in 1999 to 68% in 2003. This is due to the introduction of the euro, whose share increased in this period from 18% to 25%. The share of the Japanese yen declined from over 6% in 1999 to about 4% in 2013. From 2003 to 2013, the market shares of all three groups have remained more or less constant.

The US dollar is still the unrivalled global reserve currency. In 2013, the Chinese renminbi has overtaken the euro to become the second most used currency in trade finance. However, the US dollar still dominates trade finance with a share of over 81% – almost ten times the share of the renminbi (8.6%). Recently, the renminbi became the fifth largest world payments currency. Nevertheless, its share is still just about 2%, while Anglo-American currencies account for almost 57% of all global payments.

The global financial crisis that originated in the US does not seem to have significantly changed the dominant global position of the greenback. Given the domestic economic instabilities as well as the persisting budget and current account deficits, some observers have proclaimed the demise of the US dollar. However, this has repeatedly been done since the 1970s but never actually happened.

Central reasons for the dominance of the US dollar as the global reserve currency are the position of Wall Street as one of only two truly global financial centres (besides London), and especially the role of US treasuries as the largest and most liquid financial instrument in the world. Prasad has aptly characterised this situation as the 'Dollar Trap', in which countries such as China and Japan have fallen. The Australian and the Canadian dollar are also among the top global reserves currencies, together playing a role comparable to the Japanese yen. Neither the euro nor the Japanese yen are in any position to challenge the US dollar. The

renminbi will surely become more important in the future. However, the existence of capital controls is going to prevent the Chinese currency from seriously challenging the greenback. Abolishing capital controls would severely reduce Beijing's control over financial markets, hence anything beyond a gradual and ultimately limited loosening of capital controls seems improbable.

The next indicator regarding the position of Anglo-America in global finance is not a particular global financial market, such as OTC derivatives or foreign exchange trading, but rather reflects the standing of Anglo-American publicly listed corporations vis-à-vis the publicly listed corporations of the rest of the world.

Market Capitalization of Publicly Listed Corporations

There is a growing multidisciplinary body of research focusing on corporations as the relevant objects of study, which has found evidence for strong Anglo-American integration. Heemskerk and Takes analyse how the largest one million global corporations are interconnected through interlocking directorates utilizing community detection through modularity maximisation. They report the existence of a globally dominant 'North Atlantic & Commonwealth Community' that integrates the Anglophone countries with former colonies such as India and South Africa. According to Haberly and Wójcik, corporations from Anglophone countries form an international direct investment network, which they call 'Anglo-Alliance'. This subsection looks at the market capitalization of listed corporations and the largest markets for raising capital internationally. The market capitalization of public corporations is calculated by multiplying the number of issued shares with the current share price. Capitalization is always forward looking. In general, it can be said that 'capitalization represents the present value of a future stream of earnings: it tells us how much a capitalist would be prepared to pay now to receive a flow of money later'.

Nitzan and Bichler stress the pivotal importance of capitalization for contemporary capitalism: 'The real thing is the nominal capitalization of future earnings. This capitalization is not "connected" to reality; it is the reality.'

There is no space here for going into all the details of capitalization; it shall suffice to note that the market capitalization is an important indicator for the power difference between publicly listed corporations. Because most large corporations in the world today are listed, it should be expected that the position of Anglo-America is significantly less dominant in this domain of global finance than in the previous segments. Figure 4 displays the development of the market capitalization of publicly listed domestic corporations. [Insert Figure 4 about here] Anglo-America's share decreased from 62% in 1998 to 44% in 2008 when panic paralysed US stock markets. Since then, however, the share has recovered to almost 53%, reflecting the powerful position of Anglo-American corporations vis-à-vis the rest of the world. For listed companies from the eurozone and Japan the year 2008 has been a true watershed; their shares have declined significantly since then, the former from 15% to 11% and the latter from 9% to 7%. Taking into account that nowadays most large corporations are publicly listed, this is a surprisingly dominant position of Anglo-America. Nitzan and Bichler argue that 'since relative capitalization represents power, increases in relative capitalization represent the augmentation of power.'

Thus, paradoxical as it might seem, the global financial crisis has not reduced the power of Anglo-American corporations, but augmented it. This segment is the first in which the rise of

China becomes apparent. The share of China (including HK) increased sixfold from just 2% in 1998 to 12% in 2014. During the first half of 2015, Chinese stock markets have grown rapidly with the Shanghai Composite Index increasing from 3,300 to 5,000 points. However, we have to be careful when comparing Chinese market capitalization to the rest of the world, because access to mainland markets is still heavily restricted for foreign investors. The recent extraordinary stock market boom has been driven primarily by private Chinese capital, as real estate prices were falling and virtually all other investment possibilities are restricted by the state. In China, private investors play a much larger role in the stock market than in highly developed financial markets, making Chinese markets much more volatile and unstable. Hence, the 2015-2016 stock market crash should not be surprising. Beijing has managed to halt the crash only in a very 'Hobbesian' way through outright banning stock sales by certain investor groups and through massive stock purchases of approximately USD234 billion, resulting in the situation that the 'national team' now holds at least 6% of the Chinese stock market.

China has witnessed a high number of initial public offerings (IPOs) during the last decade, as many corporations had been privately held or state-owned. However, what is relevant for structural power in global finance is which countries act as significant markets for cross-border IPOs. Again, NY-LON dominates: from 2002-2011 41% of cross-border IPOs took place in London and 23% in New York. In 2014, New York even accounted for 52% of all global cross-border IPOs and 81% by capital raised. This staggering figure is due to the largest IPO of all-time, the Chinese e-commerce giant Alibaba that listed in New York via a holding company domiciled in the common law tax haven of the Cayman Islands. The Cayman Islands also plays an important role in the issuance of international debt securities – another way to raise capital for corporations. Anglo-America accounted for 43% of all cross-border debt securities by residence of issuer in mid-2015.

International Banking Relations

Most segments discussed so far have analysed particular financial markets without distinguishing between domestic and cross-border transactions. The next four segments – external deposits of banks, inward and outward direct investment, and portfolio investment, on the other hand, only cover cross-border holdings. Portfolio investment is the largest segment (USD47 trillion), followed by direct investment (USD28 trillion). External bank deposits represent the smallest of the three segments (USD21 trillion). These three segments complement each other; together they comprise the vast majority of cross-border financial holdings (roughly USD96 trillion). To analyse cross-border banking activities, I use data on external deposits of banks in individual reporting countries in all currencies vis-à-vis all sectors.

Total external deposits of banks at end-2014 amounted to USD20.7 trillion. Figure 5 shows that from 2000 to 2014 the share of Anglo-America has increased from about 46% to over 53%. Apparently, the global financial crisis did not have negative consequences for the attractiveness of Anglo-America for foreign deposits. However, there have been some internal shifts; the share of the UK declined from 23% of all international deposits in 2007 to 20% in 2014, while the share of the US increased from 13% to 19% and the rest of Anglo-America (e.g. the Cayman Islands and Canada) increased from 10% to 14%. The share of the eurozone declined from 31% in 2000 to under 25% in 2014.

For Japan, we only have data for 2013 and 2014 – the share remained comparably low at 6%. China does not report data to the BIS, but due to Chinese capital controls, the amount of foreign bank deposits is likely to be negligible. HK's share dropped from almost 4% in 2000 to under 2% in 2006 and then rose again to 4% in 2014. We can see that the trajectories of Anglo-America and the eurozone roughly mirror each other, the former increased by about 7% during these fourteen years while the latter dropped 6%. [Insert Figure 5 about here] In the next step, I use bilateral data for 2012 on consolidated foreign claims by domestically owned reporting banks (immediate borrower basis) by the BIS to visualize Anglo-American dominance in cross-border banking activities.

Specifically, I use data for the top 19 global banking jurisdictions, which account for over 90% of all external deposits. I add the two bilateral claims to get one value describing the scale of bilateral banking activity. This procedure reduces the detail of the graph (e.g. that UK banks reported claims on the US of over USD1 trillion while American banks reported claims on the UK of 'only' USD500 billion) but enhances clarity significantly. The purpose of Figure 6 (and the following three visualizations) is not to give the greatest possible amount of detail, but to present a broad overview. Winecoff provides a more detailed discussion about persistent American structural power in international banking after the financial crisis. He concludes that 'despite being the epicentre of the crisis, the United States has increased in prestige according to some measures and remained at the core in others.'

Figure 6 displays bilateral banking claims amounting to almost USD17 trillion. The top 19 jurisdictions have been arranged in a way that the largest ones are at the centre and the smallest ones are at the periphery. Anglo-American jurisdictions are shown in red, all others in grey. The size of the jurisdictions is derived from the value of banking relations with the other 18 jurisdictions; in other words, the magnitude of the spheres in the visualization is equivalent to the sum of all their bilateral banking relations. Connections between Anglo-American jurisdictions are red, connections outside of Anglo-America are grey, and those between the two are mixed. [Insert Figure 6 about here] It is immediately visible that international banking is extremely concentrated at the Anglo-American centre. Except for very few countries such as Italy and Belgium, all jurisdictions have their largest bilateral banking relations with Anglo-America. The four largest individual cross-border positions are all claims on the US: 1) by Japan (USD1.2 trillion), 2) by the UK (USD1.1 trillion), 3) by Canada (USD716 billion), 4) by Switzerland (USD625 billion), and the fifth largest is claims by US banks on the UK (USD547 billion). Connections between jurisdictions at the periphery are barely noticeable. As Oatley et al. have argued, the international banking network is not flat, but hierarchical with the US and the UK as the only global hubs.

The next subsection analyses cross-border investment by corporations.

International direct investment

When an investor or a company owns more than 10% of the voting rights of a foreign corporation this is conceptualised as direct investment. Direct investment is commonly theorised to be more stable and long-term than portfolio investment and is made 'in order to control or exert significant influence over the management of that [foreign] enterprise'; direct investment comprises 'greenfield' investment (the building of new facilities) as well as mergers and acquisitions (M&A). The data for this indicator are taken from the Coordinated Direct Investment Survey (CDIS) conducted by the IMF. I use CDIS data on both inward direct

investment (IDI) and outward direct investment (ODI) to evaluate the position of the Anglo-American countries and jurisdictions in this segment of global finance. However, I exclude the Netherlands and Luxembourg, because the IMF has identified both jurisdictions as the two eminent global direct investment conduits; both countries act as huge black boxes that obscure the true origin of direct investment flows as they are routed through these two entrepôts. The exclusion of the Netherlands and Luxembourg is not likely to overstate the position of Anglo-America in the field of direct investment, because Anglo-America accounts for most of IDI and ODI of both conduits. Bilateral direct investment data are only available from 2009 onwards. Total direct investment has increased from USD20 trillion in 2009 to about USD28 trillion in 2013. Figure 7 shows that Anglo-America's share in IDI is significantly lower than in any segment before, declining slightly from 29% to 28%. The share of the eurozone has declined from 20% to 14%; Japan is too small to matter in this case. Foreign direct investment has played an important role for the rise of China. Hence, it is not surprising that China's share in global IDI (including HK) has increased from close to 14% in 2009 to over 17% in 2013, thus surpassing the eurozone in 2011. [Insert Figure 7 about here] The situation is very different in ODI, as Figure 8 shows. Here, China's share has increased only slightly from 7% to 9%. Japan is much stronger in ODI than in IDI, with its share remaining constant around 5%. The eurozone decreased slightly from 22% to 19%. But what is really significant here is Anglo-America's persistently high share of about 45% between 2009 and 2013. The discrepancy between a share of 28% in global IDI and 45% in ODI is what Schwartz has called 'global financial arbitrage' by America (and the Americanized Rich countries).

Foreigners tend to hold mostly low-yielding assets such as US treasuries. Japan and China, for example, together hold nearly USD3 trillion of US long-term debt. These giant holdings of US treasury and agency bonds provide some level of autonomy to Beijing and Tokyo, as they enable protection against sudden currency crises. However, these holdings yield very low or even negative returns when taking inflation into account and due to their enormous size they bind China and Japan to the US.

The US, on the other hand, mostly holds much higher yielding assets, such as direct investment. Hence, America earns much more with its overseas investment than foreign investors earn with investment in the US. The high American share of global ODI is also a reflection of US dominance in cross-border M&A. As a result, US corporations have occupied central nodes in international value chains, which enables them to sustain their dominant position.

Similar to the segment of banking, it is instructive to visualise the bilateral relations in the field of direct investment. Here, I include the Netherlands and Luxembourg in order to show their important international position in direct investment and their close relation to Anglo-America. I use 2012 data for the top 24 jurisdictions that collectively have been responsible for almost 90% of all global direct investment. Again, the two bilateral investment stocks have been merged to display the scale of direct investment relations. Figure 9 shows bilateral direct investment to the tune of USD25 trillion – USD8 trillion more than the segment of banking. Four countries constitute the core of international direct investment: the Netherlands, the US, Luxembourg, and the UK. Only China and HK are not strongly bound to this core (both are, however, strongly connected to the Anglophone British Virgin Islands, which Chinese corporations use for roundtripping investment, thus gaining tax and legal benefits). [Insert Figure 9 about here] The largest bilateral direct investment relations are 1) between the

Netherlands and the US (USD1.35 trillion), 2) between China and HK (USD1.34 trillion), 3) between the US and the UK (1.08 trillion), 4) between the Netherlands and Luxembourg (USD1.02 trillion), and 5) between the Netherlands and the UK (USD1.01 trillion). Thus, the Netherlands and Luxembourg largely act as conduits for Anglo-American direct investment. This leaves only one major segment of global finance missing from the analysis, international portfolio investment.

International Portfolio Investment

The data for this indicator are taken from the Coordinated Portfolio Investment Survey (CPIS) conducted by the IMF. The IMF defines portfolio investment as 'cross border transactions and positions involving debt or equity securities, other than those included in direct investment or reserve assets.'

Hence, CPIS data only include assets (mostly stocks and bonds) held by private investors abroad and consequently exclude both portfolio investment held domestically and portfolio investment held by central banks (such as the large holdings by China and Japan). Portfolio investment can be assessed in two different ways. The first, and most obvious way, is to take the assets that have been reported to the IMF by the 78 participating jurisdictions. The second one is to use 'derived liabilities' that are calculated by the IMF for over 200 jurisdictions using the data reported by the participants. Derived liabilities thus have the advantage that data for many more jurisdictions can be utilised, including offshore financial centres that underreport significantly. The most striking example in this regard is the Cayman Islands, which does not report the vast hedge fund sector - thus reporting assets of only about USD50 billion instead of over USD2 trillion. Total global portfolio investment increased from almost USD13 trillion in 2001 to nearly USD47 trillion in 2013, making it the largest cross-border segment analysed here. Figure 10 shows that Anglo-America's share has remained almost constant (decreasing slightly from 45% to 43%). However, there have been some internal shifts; the shares of the UK and the US declined from 10% and 24% to 8% respectively 20%. Concomitantly, the aggregated share of Australia, Canada, the Cayman Islands, and Ireland increased from 8.5% to 12.5%. The share of the eurozone declined slightly from 30% to 27%, Japan remained constant at 4%. Due to restrictions for foreign investors, the share of China (including HK) increased only from 1% to 2.5%. [Insert Figure 10 about here]

In the next step, I visualise the global network of portfolio investment. I use the 25 largest jurisdictions that have accounted for over 90% of total portfolio investment. Once more, I add the two bilateral stocks of derived portfolio investment to one value describing the scale of portfolio investment between two jurisdictions. Figure 11 shows portfolio investment amounting to USD32 trillion. Again, the jurisdictions have been arranged in a way that the largest ones are at the centre and the smallest ones are at the periphery. This visualization clearly shows Anglo-American dominance in private global portfolio investment. Eight of the ten largest bilateral portfolio investment relations in the world involve Anglo-America – the largest by far is between the US and the UK. Moreover, the vast majority of countries have their largest bilateral investment relation with a jurisdiction of Anglo-America. Japan in particular is strongly integrated with Anglo-America (both directly with the US, but also via the Cayman Islands); the clusters of France, Germany, Italy and Luxembourg as well as China and HK represent two notable exceptions that have significant investment relations outside of

Anglo-America. However, both are still strongly integrated with the Anglo-American centre. [Insert Figure 11 about here]

Each of the three visualizations presented here sheds light on the position of Anglo-America in different cross-border segments of private global finance. Now, I aggregate all three visualizations (portfolio investment, direct investment, and banking claims) to one in order to present a unique overview of global finance. The purpose is to show the 'big picture' of global finance. Figure 12 displays bilateral financial relations between the largest 34 jurisdictions, which in 2012 have amounted to an astounding USD81.6 trillion, slightly more than global GDP; note that this sum is by almost USD8 trillion larger than the three individual visualizations presented above, because I have not simply merged the data of the three visualizations, but added missing values. For example, China does not appear in the visualization of banking claims. The international banking relations of China (as reported by the other jurisdictions), however, appear in Figure 12. I have also added India, which has not been large enough to appear in any of the three previous visualizations, because it is widely believed to play an important role in the future. Data for Jersey and Guernsey (historically treated as 'Channel Islands' for statistical purposes) have been merged, because each on its own is too small to appear here, seen together, however, they play a larger role in global finance than India or Finland. [Insert Figure 12 about here]

Figure 12 represents one of the most complete visualizations of cross-border global finance to date. The graph clearly shows that Anglo-America is the undisputed core of global finance, with the US-UK axis being the largest private bilateral financial relation on the planet with almost USD4.7 trillion. Japan is strongly integrated with Anglo-America and US-Japan financial relations represent the second largest bilateral connection (USD3.7 trillion). The following ten largest bilateral relations all involve the US or the UK - the only exception is China-HK on place six with USD1.6 trillion. The vast majority of countries have their largest bilateral financial relations with Anglo-America - the few exceptions are Austria, Belgium, Denmark, Finland, Italy, and of course China-HK. Thus, the contemporary system of global finance is unequivocally hierarchical with Anglo-America constituting the centre around which virtually all other countries revolve. Even if domestic political elites of European or Asian countries wanted to distance their economies from Anglo-America, it would be extremely difficult for them to escape the enormous financial gravity of the centre. The next subsection provides indications about how the shares of different countries in global (financial) wealth have developed since 2000 - i.e. who has benefited most from the system of global finance shaped by Anglo-America.

Total and Financial Wealth

The final and most comprehensive segment is wealth, particularly financial wealth. Wealth is a much better proxy of economic power in a globalised world than GDP: first, because wealth can be used transnationally to gain control over assets, while GDP is just an aggregate measure of production (or income or expenditure, depending on the perspective) within national borders; second, because estimated global wealth (USD263 trillion in 2014) is more than three times the size of global GDP (USD77 trillion). Financial wealth – which is especially relevant for the topic of this paper – amounted to USD165 trillion in 2014, more than two times global GDP. I use data by Shorrocks et al., which provide estimates of 'total wealth' and 'financial wealth' for 200 jurisdictions.

Figure 13 shows the share of Anglo-America in world GDP, total wealth and financial wealth from 2000 to 2014. [Insert Figure 13 about here] Anglo-America's share of global GDP has continually decreased from 41% in 2002 to 30% in 2011. This reflects the 'rise of the rest', as China and other emerging economies have been able to generate higher rates of economic growth. Most conventional analyses would interpret this as a clear sign for Anglo-America's share in global GDP has stabilised at 31%. More importantly, Anglo-America's share in global total wealth has been much higher than its share in world GDP. It declined from a peak of 47% in 2001 to a nadir of 37% in 2008/2009. Since then the trend has reversed and the share of the Anglophone countries has risen again to 43% in 2014. Hence, despite a slowly decreasing share in global GDP, Anglo-America has been able to increase its share in total wealth.

This uncoupling is an important finding. The development of Anglo-America's share in global financial wealth is even more significant. From the early 2000s to 2009, it has declined from a high of 54% to a low of 46% in 2009. Since then, however, the share of the Anglophone countries has increased again to an astounding 52% of global financial wealth in 2014. Remarkably, Anglo-America's share in financial wealth has increased faster than its share in total wealth. Before the global financial crisis, the distance between both shares had been mostly six or seven percentage points. Since 2008, the gap has been nine percentage points in most years. Thus, even though the financial crisis broke out in Anglo-America, these countries managed to increase their share of global total wealth in recent years – and they increased their share in financial wealth even faster. In the Anglophone countries, wealth is highly concentrated in the hands of the top 1% of the population.

Thus, we can conclude that these wealthy political and economic elites have benefited significantly from the dominant structural power of Anglo-America in global finance. The eurozone and Japan show a different development. In 2000, the eurozone had 19% of total wealth and 16% of financial wealth. This increased to 25%, respectively 20% in 2009. Probably due to the European sovereign debt crisis, both values have declined during the next five years to below 22%, respectively 17% in 2014, slightly above the shares of the eurozone in 2000. Japan, on the other hand has declined throughout the whole period from more than 16% in both categories in 2000 to 9% in total wealth and 10% in financial wealth in 2014. China (including HK), on the contrary, roughly doubled its share in these two segments of wealth from around 4% in 2000 to approximately 8% in 2014 (still much lower than China's share of global GDP, which stands at 12%). Hence, in the pivotal segment of financial wealth Anglo-America (52%) accounts for a much larger share than the eurozone, Japan and China combined (35%).

Conclusion

The nine segments discussed in this paper allow for a truly comprehensive analysis of Anglo-America's structural power in global finance roughly from 2000 until 2014. There is no space in this article to attribute different weights to the nine segments (if that is indeed possible) – however, it is clear that financial wealth is by far the largest segment. All nine segments together constitute contemporary global finance – the financial structure in which other states and foreign corporations have to operate. Table 1 provides an overview of the different segments, specifying the latest share of Anglo-America (also split up into the share of the US and that of the other Anglo-American jurisdictions) as well as the trajectory observed in the period for which data have been available. The market shares in the different segments have to

be seen against the backdrop that Anglo-America represents about 31% of global GDP. In all segments, except inward direct investment, Anglo-America has a much higher share than this 31%. Anglo-American dominance has been particularly strong (and increasing) in the first two segments of OTC trading. Here, NY-LON has a very dominant position. The third segment is about foreign exchange reserves. Here, the US dollar clearly dominates globally (being also the leading international payments currency). The US is the dominant country in terms of the market capitalization of domestic publicly listed corporations, the subject of segment four. America accounts for about 22% of global GDP, yet its corporations are responsible for 41% of total global market capitalization. Thus, US corporations are in a very powerful position globally, as also found by Starrs.

Anglo-America as a whole even accounts for 53% of global market capitalization. This dominant position is similar in segment five, external bank deposits. Again, the UK plays an important role here, helping to increase Anglo-America's share in recent years. Segments six, seven and eight have to be seen together. Segment six, inward direct investment, is the only one in which Anglo-America (28%) has a global share below 43%. However, this should not be interpreted as a weakness, because it is a manifestation of what Schwartz has called 'global financial arbitrage'; the US (and Anglo-America in general) invests more in high-yielding outward direct investment, whereas non-Anglophone investors mostly hold lower yielding portfolio investment (including US treasuries) and significantly less inward direct investment into (Anglo-) America.

The four novel visualisations presented in this paper show very clearly that the US-UK axis is the fulcrum of private global finance and that Anglo-America as a whole has a very dominant position in cross-border finance. The vast majority of non-Anglophone countries shown in the different visualizations is profoundly integrated into Anglo-American structures of global finance, making it extremely difficult for them to decouple. Finally, the analysis of global financial wealth – a good proxy for financial power – is very instructive. Contrary to conventional wisdom, Anglo-America's share in financial wealth has increased since the financial crisis and remained stable since the early 2000s. If we assume that hegemony in international political economy is cyclical, as many world-system analysis scholars seem to suggest, than it would be logical to conclude that the US is on a trajectory of perpetual decline vis-à-vis the rising powers, such as China. Analysing the power position of the US in isolation misses the big picture, however. America has a 'family', so to speak, which is the group of the Anglophone countries. The Anglo-American countries and territories have deep common roots that manifest themselves in similar socio-economic systems, likewise legal systems based on common law, and comparable overseas investment patterns. Moreover, the Anglosphere has its own corporate community via board interlocks as well as a distinct cross-border direct investment network.

Finally, the unparalleled global intelligence cooperation of the Anglophone countries is the most obvious indication that we should analyse Anglo-America together and not classify the individual jurisdictions solely on geographical grounds. Van der Pijl calls this formation the Lockean heartland of the global political economy, in which Anglo-American 'civil society' (i.e. primarily the business and financial elites) operates transnationally. That is arguably why Anglo-America is strongly integrated by private financial holdings. The very nature of the Lockean state/society complex implies that Anglo-America is not a formally organised and

politically centralised entity. Instead, integration is more informal and often private (i.e. the Five Eyes cooperation, board interlocks or ownership patterns), resulting in extremely elastic and flexible yet robust and 'deep' ties that are frequently overlooked by conventional analyses, but nonetheless bind. Occasional disagreements (e.g. about joining the AIIB) do not contradict this. On the contrary, they are an immanent feature of the Anglo-American 'family' and should not be overrated.

The findings of this paper show that Anglo-America clearly dominates the structure of global finance with market shares in eight key segments between 43% and 75%. Hence, Anglo-America exerts dominant structural power in global finance. Arguably, today Anglo-American global finance – a complex amalgam of public and private authority – permeates almost every political economy in the world and influences political and economic decision-making. At least in the OECD-world, finance has become the 'super-structure', increasingly dominating the structures of production and knowledge (though not necessarily security). The global financial crisis, which developed in Anglo-America and then spread internationally, certainly has led to growing scepticism and even resistance against the liberal Anglo-American model of global finance amongst citizens and politicians in a number of countries.

However, business and financial elites of most countries are still strongly attracted towards Anglo-American markets and corporations. Once countries have integrated themselves into the open international financial order created and dominated by Anglo-America it becomes extremely costly to extricate themselves from it. This is comparable to what Mead has called the 'sticky' power of America.

The eurozone and Japan are certainly stuck to this Anglo-American global financial order. At present, the only conceivable challenger to Anglo-America is China, which is actively trying to increase its autonomy, e.g. through the AIIB. The findings of this paper suggest a coming dilemma for Beijing; if China wants to truly challenge Anglo-America in the global structure of finance, it eventually will need to abolish capital controls. This, however, would diminish Beijing's control over domestic finance significantly and the interests of Chinese business and financial elites would, over time, increasingly align themselves to the Anglo-American centre, which, contrary to conventional wisdom, is not in perpetual decline but enjoys persistent structural power in global finance. A final note is in order, though. The dominance of Anglo-America in global finance is unambiguous yet at the same time marked by a high degree of latent fragility. Global finance has not been re-regulated drastically after the global financial crisis; significant imbalances, inequalities and contradictions persist and are even likely to grow, potentially undermining the legitimacy and the stability of the whole system. However, most OECD countries (and increasingly China too), have integrated themselves in the open global financial order dominated by Anglo-America and are hence not inclined to directly challenge it - even though the Anglophone centre (i.e. NY-LON) seems to reap significantly larger benefits than them.

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Elites and American Structural Power in the Global Economy

What mechanisms make elite decisions meaningful? The other papers in this issue focus largely on elites' instrumental and agenda setting power. Is a study of elites and elite networks compatible with a third (structural) face understanding of power? Elites' ability to exploit the opportunities created by structural power makes them the prime beneficiaries of that power. This looks like an instrumental use of power. But instrumental power – control over the machinery – is effective only to the degree that the machinery is effective. The other articles here show that a dense and self-reproducing network of elites drawn from the corporate and financial world dominate decision making in the US and elsewhere. The cohort and socialization effects that select individuals into elite networks generally assure that these individuals act in the interests of the organizations and institutions that they represent. They thus tend to reproduce, albeit imperfectly, the sources of structural power.

This article shows the structural basis for why those decisions matter. American global economic power has two structural foundations: the ability to unilaterally create credit in the global economy, and control over a disproportionate share of global production flows and the resulting stream of profits.1 This is not to say that US firms control all of global credit and production, but rather that US financial firms are central to global financial flows, and that the US financial system and state create much of the net increment to global credit. The US thus bridges the gap between what would otherwise be excess global supply and deficient global demand. By bridging that gap, US credit creation enables US firms that dominate the production of goods and services to reap high rates of return. In short, it is US structural power that makes US elites' relational power meaningful (Barnett and Duvall, 2005).

This article thus has three parts.

Part one shows why and how the US has power over credit creation. It locates US structural power in the creation of new demand by sketching out the structural features of the US economy that allow for easy credit creation, and the corresponding, mirror image structural demand deficiency in the domestic political economy of the major trade surplus economies (China, Japan, Germany).

Part two explores continued US control over production. US MNCs continue to capture the lion's share of global profit, and dominate output in high tech and other dynamic sectors.

Part three considers the relationship between elite networks and the various forms of power, including the limitations on US structural power.

US structural power over credit

US structural power derives from its ability to generate substantial new demand in the global economy, and thus bring global supply and demand into something closer to rough balance. The central problem in the international political economy over the past two or three decades has been the disjuncture between increases in productivity (and thus supply) and increases in demand (see, e.g. Brenner, 2003, but also Shonfield, 1965). Susan Strange (1989: 168) defined financial power as the ability to generate or supply credit to world markets. She argued that the

United States retained the ability to create credit, and that 'How much credit is provided by governments, by international organizations, and by banks, and to whom, and on what terms is more important than what they produce or sell on the world markets.' Strange edged away from orthodox understandings of banking towards what we might now recognize as a modern monetary theory understanding of credit and money. She (1994: 30) downplayed the idea that credit had its roots in the accumulation of profits: 'Many [marxists] still entertain the old fashioned notion that before you invest you must accumulate capital by piling up this year's profits on last year's, that capitalism somehow depends on the accumulation of capital. What they do not understand is that what is invested in an advanced economy is not money but credit, and that credit can be created. It does not have to be accumulated.'

In modern monetary theory (MMT), banks create credit simply by making bookkeeping entries in their clients' accounts (Wray, 1998; Tymoigne and Wray, 2013). Those entries then immediately flow back into the banking system as deposits when the bank's clients park the new loan prior to spending it, or when they spend loan proceeds running (or expanding) their businesses. For MMT, deposits are the end point of credit creation, rather than the starting point that the textbook view of banks assumes. Even if a given bank's clients take their newly created money out of the issuing bank, they have to deposit it somewhere, so in the aggregate banks fund their own deposits, validating the initial loan. Money, on this view, is a means to extinguish debt through the circulation of tokens that banks and states will accept as payment for debts; credit is prior to money. Credit creation is endogenous to banks, rather than banks being passive recipients of deposits (or inducing more deposits via higher interest rates).

MMT implies that the state can create money by providing it to citizens who are then obliged to pay taxes in that money. Nothing constrains the state except the possibility of capital flight in reaction to 1 Military power, including and perhaps especially the ability to interdict global flows of oil also matters. See the other essays in this issue for discussions of elites and geostrategic power. unacceptably high levels of inflation (Wray, 2002: 59). This is unlikely in the advanced economies. At the same time, states that cede the right to issue currency - as with the individual states of the Eurozone – find it difficult to pursue expansionary fiscal policy, particularly when the central bank is legally constrained from monetizing that deficit. The second implication of MMT is, as noted above, that banks can similarly create demand by creating credit. Only state regulation limits banks' ability to credit their accountholders and validate this credit with subsequent deposits. The US federal deficit creates global money in the form of dollars and US government guaranteed debt, although the transmission mechanism is somewhat roundabout. This debt obviously includes direct US federal debt instruments, like T-bonds and bills. But the US federal government also creates money by implicitly or explicitly guaranteeing debts created by private banks, as well as those of Fannie Mae and Freddie Mac. Similarly, banks can and did create a self-fulfilling dynamic of rising housing prices by extending credit, via mortgages, against home equity, thus spurring US aggregate demand (Schwartz, 2009). The federal government supports this extension of credit.

Before the 2008 financial crisis and recession, the volume of debt instruments guaranteed by the US government exceeded publicly held US federal debt. Roughly 80% or \$7.7 trillion of the total stock of \$9.4 trillion in securitized debt in US financial markets as of March 2014 had the full faith and credit of the US federal government behind it (Cecchetti, 2014). Most of that debt is mortgage backed securities. Combining publicly held US federal debt (\$12.6 trillion)

with US government guaranteed debt gives a total of roughly \$20.3 trillion. US government debt and guaranteed debt thus accounted for about 20% of the total global debt securities market of \$100 trillion at March 2014. As Len Seabrooke (2006) has argued, this credit creation allows the US economy and thus the US state to claim a disproportionate share of global resources, exchanging pieces of paper for tangible goods and services.

The US state has both the will and the ability to create credit more or less unilaterally. With respect to will, US elites have structured its domestic political economy, and in particular, its housing finance market, in ways that promote new credit creation (Seabrooke, 2006; Schwartz, 2009; Snowden, 2010). Financial elites constitute something of an oligarchy, as Johnson and Kwak (2011) have argued, and as the detailed studies in this issue show. The specific form that regulation of finance takes permits firms to magnify the volume of credit they can create (Nesvetailova, 2007). With respect to ability, the US dollar's position as the global reserve currency makes the United States central to global financial markets (Germain, 1997; Oatley et al., 2013). By expanding its money supply and domestic demand, the United States expands the global money base as US domestic demand creates extra demand for imports. The divergence between the income elasticity of US imports and exports noted by Houthakker and Magee (1969) as far back as the 1960s rests on the state supported ability of the US financial system to generate new credit.

In principle, other states with solid currencies, like Japan and the eurozone, could also create and emit excess credit. Yet they lack the political will and thus the ability to do so. In these trade surplus countries elites also matter, but their goals differ from those of US financial elites. These elites have constructed political economies that suppress domestic demand, and thus prevent them from fully absorbing their own output. Representatives from export-oriented firms dominate elite networks in Germany, Japan and China (Deubner, 1994; Höpner and Krempel, 2004; Schoppa, 2008; Huang 2008; Pettis, 2013). Channeling resources into exports boosts both their cash flow and power. German lending to southern Europe is a recycling of trade surpluses, rather than the pure credit creation behind US trade deficits. Put simply, the institutional power of export elites in Germany, Japan and China depressed the growth of consumption there, while also generating chronic excess supply. German employers and unions in the politically dominant automobile, machinery, and chemicals industries collaborated to restrain wages in the late 1990s, reducing the wage share of GDP by roughly four percentage points from 1998 to 2007.

Meanwhile, partial privatization of the public pension induced precautionary saving by Germans of all ages. German domestic demand growth thus lagged well behind its major European trading partners and the United States, producing current account surpluses averaging roughly 5.4% of GDP from 2001 to 2012 (IMF WEO database). In part this reflected a massive export of German savings rather than investment in Germany itself. Net public investment has been negative in Germany for a decade, and only 34% of the \in 1,626 billion available to German actors as savings from 2002 to 2010 was invested domestically (Sinn, 2011).

Similarly, Japan's slow recovery from its 1990 financial crash and the export of thousands of manufacturing jobs to the United States and Asia hobbled wage growth and thus demand in Japan. Competitive Japanese firms slowly exited the national economy by off-shoring production (Schoppa 2008). Large firms burdened with debts acquired during the 1980s bubble

were loath to invest in more capacity in Japan. Thus Japanese employment actually declined absolutely by 1.7 million jobs from 1995 to 2006, hours worked on average declined 12.1% from 1990 to 2007, and real wages declined 0.3% annually in the 2000s (OECD, 2013; IMF WEO database). Japanese domestic demand growth also lagged that in the United States, producing current account surpluses averaging 3.0% of GDP from 1999 to 2012. Tellingly, an open exchange rate conversion of Japanese incomes into dollars gave them a per capita income of nearly \$43,000 in 2010. But a purchasing power parity conversion – which measures the actual volume of goods a nominal income can buy, thus accounting for divergent costs of living across countries – dropped that below \$34,000. Equally telling, import penetration for Japan in 2010 was just under 10 per cent of total final expenditure, versus 14% for the US and nearly 30% for Germany. Excess exports respectively contributed 27% and 20% of cumulative GDP growth in Japan and Germany from 1995 to 2009 - yet both countries' growth lagged average OECD growth despite this export bonus (Hoshi and Kashyap 2011: 62). Real GDP for Japan and Germany respectively grew only 7.5 and 15.9% in total from 1995 to 2009, versus 41.9% for the United States and even higher rates for other deficit countries (IMF WEO database). Ironically, both Germany and Japan grew faster post-crisis than precrisis, because the crisis motivated domestic stimulus programs they otherwise would not have undertaken, and because they piggy-backed on China's even larger crisis-response stimulus.

Figure 1 shows cumulative GDP growth for three chronic trade surplus countries (Japan, Germany, the Netherlands) and four chronic deficit countries. Finally, China averaged current account surpluses of 4% of GDP from 1999 to 2014 (IMF WEO database). Though the wage share of GDP is difficult to calculate precisely, the World Bank estimates that Chinese household final consumption fell from 46% of GDP in 2000 to 35% in 2008 - a level well below that of every other Asian developing economy (except Singapore, which has systematic forced saving). Although real GDP per capita nearly doubled from 2000 to 2008, much of that gain went into infrastructure investment and the creation of export capacity. Exports jumped from roughly 20% to 39% of China's GDP from 1998 to 2008. China's repressed financial system captured and channeled household savings towards the large state-owned or quasi stateowned firms possessing varying degrees of monopoly power in the Chinese economy. These firms systematically captured profits but did not distribute them back to the economy as wages or dividends. Instead they either expanded their own productive capacity, aggravating the gap between supply and demand, or speculated with these funds in real estate markets. Close ties with the Party elite assured that these firms were rarely punished for this mal-investment given that party insiders skimmed an estimated \$1 trillion of SOE profits after 2009 (Anderlini 2014). By creating domestic political economies that repress local demand, elites in the other major economies necessarily create massive global imbalances - 6 % of global GDP in 2006, falling to 4 % of global GDP in 2012 – that center on the US trade deficit (Cecchetti, 2011: 1). Figure 2 partially disaggregates those flows, showing that over half of capital inflows in the 2000s went to the US. China and Japan generated about one-third of all outflows. Germany and the oil exporters accounted for another third. Figure 2 is slightly deceptive, in showing a shrinking of US claims on global capital flows from 2003 forward. This is because it shows percentage change; absolutely, the US trade deficit rose continuously through 2007 and then subsided to the 2003 level after the crisis. By definition, aggregate global trade surpluses must match aggregate trade deficits. But these surpluses and deficits reflect specific constellations of domestic and global power rather than 'natural' economic outcomes. In the surplus countries it reflects elite determination to privilege export firms' profits over domestic growth. Similarly, US elites bailed out Northeast and Southeast Asia after the 1997 financial crisis by accommodating those emerging market economies when they opted to protect themselves by accumulating large foreign exchange reserves (Brender and Pisani, 2010). By 2000, developing countries were net lenders on a large scale to developed countries, and moreover mostly in the form of government-to-government transfers (Figure 3). Along with the oil exporters, the reverse flow of mostly Asian emerging markets money represented a huge recycling of repressed demand. The post 1997-98 reversal is notable in Figure 3, with the peak corresponding to the contemporaneous peak of the US business cycle (and housing bubble) in 2006. For US financial elites, the recycling of Asian trade surpluses represented a once in a lifetime opportunity to profit off mortgage refinancing, home equity extraction and the lag between falling interest rates on the deposit side and the subsequent fall on the lending side.

What enables the US to drive credit creation? Put simply, two external structural features and two internal structural features empower the US. The first external feature is US centrality in global banking networks. The second is the role the US dollar plays as the global reserve currency. The third, internal feature is the housing finance system's ability to create new sellable assets, particularly in a loosely regulated financial system. Finally, even though the US economy's share of global GDP has been shrinking since 1945, it is and will remain for at least another decade the largest economy in the world on a market exchange rate basis (which, being more so a function of US domestic growth I will arbitrarily code as internal). In reverse order, this means that US credit creation occurs on a scale large enough to influence the global economy, that it can create collateral for new credit, that it can denominate that credit in a globally acceptable currency, and that it can push that credit into the global banking system. No other country has all four features.

Oatley, et al., (OWPD, 2013) and Jan Fichtner (2016) use social network analytics to show that the US occupies a central position in banking and portfolio flows globally. Fichtner documents the dominance of the US, in conjunction with the other 4 Anglo-economies, over thirteen different spheres of finance. Most importantly, the five Anglo-economies accounted for roughly half of global financial wealth during the 2000s. OWPD show that the United States is financially connected to more countries, and more strongly tied to more countries than any other node in the global banking system. Though they do not make this point, secondary nodes (e.g. Germany and Japan) tend to have more regionally oriented networks. Van der Pijl, Holman and Raviv (2011), however, make a contrary argument that German banking elites have penetrated and dominate a variety of US networks. They focus on the number of corporate interconnections and the rising German presence on US corporate and especially banking boards, so the disagreement is about quantity versus quality. OWPD focus on the size of bilateral flows of capital, the plurality of which derive from the United States or closely connected banking centers like Britain.

The dollar's centrality as an international reserve currency also enables credit / demand transmission by making US Treasury debt and related Agency debt readily acceptable assets as compared to euro or even more so renminbi (RMB) denominated debt. Over the 2000s, the euro accounted for only 20-24% of disclosed reserve holdings, versus the dollar's 60-65% share. About 35% of foreign exchange transactions out of a notional 200% are in euro, versus

about 85% for the US dollar. But the most telling statistic is the continuing low rate of nonresident issuance of euro-denominated debt, which remains stuck at no more than 14% of all euro-denominated debt (ECB 2011). These data suggest the euro functions only as a regional currency, given that the EU constitutes about 25% of world GDP, and that euro denominated credit does not contribute to global growth outside of the EU (Germain and Schwartz, 2014). The Chinese RMB is now the second largest currency for denominating letters of credit in transactions through the global SWIFT (Society for Worldwide Interbank Financial Telecommunication) network. But the RMB's share is roughly 9% versus 90% for the US dollar, and fully 80% of those transactions occur among Chinese and Hong Kong entities. The RMB thus barely functions as a regional currency for China's periphery (Cohen and Benney 2014; SWIFT 2014).

Finally, the sheer size of the US economy and capital markets mean that these new assets can move global markets. The United States maintained a relatively stable share of nominal global GDP, and a rising share of OECD GDP from 1995 to 2012, at respectively 27% and 22%. Given that financial assets and liabilities are denominated in nominal terms, the former measure is probably more significant, despite considerable exchange rate volatility in the measure. Moreover, the US financial system is uniquely able to generate large quantities of sellable assets (Schwartz, 2009). US generated mortgage backed securities occupy a disproportionate space in global finance, accounting for 7.7% of all public and private bonds globally in 2008, and, with un-securitized US mortgages, 4.8% of all public and private Schwartz for Parmar / Ledwidge – p. 8 bonds and bank assets. Put differently, the roughly \$1.5 trillion in foreign held Agency (Fannie Mae and Freddie Mac) mortgage backed securities in December 2013 was roughly equal to the entire stock of international bonds issued by French entities at that time, and 75% of the stock of international bonds issued by German entities (BIS 2014).

Control over production

The power to create credit is the power to create demand. But to whose benefit? Control over production is as important as control over new credit creation (Schwartz, 2009: 4, 8-10). Otherwise US efforts to keep the world out of deflation might simply help other countries and their firms grow faster than the United States and its firms. Beyond this narrow state-centric 'realist' perspective (Grieco, 1988), any expansion of production by non-US firms would threaten US firms' ability to exert pricing power in global markets and to resist hostile takeover by other firms (Nitzan, 1998). A claim that the US has structural power over production thus requires showing that US firms have disproportionate share of control over global turnover and assets, rates of return above the global average (an indicator of pricing power and, implicitly, power in the takeover market), and a large enough position in each global region to reap the fruits of US credit expansion.

In the 19th century, global capital flows largely went into passive investment, or, when active, typically involved control over transportation infrastructure. Where directly controlled firms outlasted their (foreign) founder, they often naturalized, as with Cockerill in Belgium (British founders), or Imperial Chemical Industries in Britain (German founders). By contrast, US firms in the 19th century pioneered new forms of direct control over foreign subsidiaries in conjunction with their more general move towards corporate, and thus long-lived, organizational forms. The post-war period experienced an enormous expansion of direct investment. In the Bretton Woods era, US firms largely dominated the multinational and then

transnational corporate (TNC) league tables. US firms comprised more than half of all global direct investment well into the 1980s, and Jean-Jacques Servan-Schreiber could write with some alarm that US firms in Europe would soon constitute the third largest economy in the world after the United States and the USSR.

This US quantitative dominance receded. But US firms' foreign production still accounts for a significant share of global output, albeit one that has grown erratically over time. From 2007 to 2010, US TNCs' total turnover averaged 8.25% of global GDP, substantially more than Japan's 2.8%, Germany's 2.5%, France's 2%, and ten times more than Canada's share (OECD.iLibrary.org database). The US share of offshore production is proportional to the relative size of the US economy at about 25% of total production by all foreign affiliates (UNCTAD 2013). It is lower than the corresponding proportions for the Europeans and Japanese. However, much investment by European firms occurs inside the EU, skewing the comparison. Roughly 60% of the stock of outward French and German FDI is located inside the EU (and in particular, Luxembourg, the Netherlands, Britain and each other), while somewhat less than 44% of British FDI goes to the EU (calculated from IMF, CDIS Table 6). A more appropriate comparison of continental economies would net out intra EU-investment. This reduces their share of global turnover by roughly the same 60%. A similar reduction for the US firms, netting out investment Canada and Mexico, only shrinks US FDI by 10%. 2

US FDI is also not only profitable, but disproportionately so, indicating significant control over global value chains. Table 1 shows the ratio of FDI income receipts to expenditures for the major OECD economies plus the Netherlands (technically a major outward investor by virtue of equally large inflows using Netherlands as a conduit). The United States has the second highest ratio of receipts to 2 *And, arguably, Mexico and Canada retain far more sovereignty than the typical EU member state.* expenditures, after Japan, reflecting the highest rate of return in the OECD. (Omitted OECD countries all have income ratios lower than Britain's, and, except for Sweden, rate of return ratios below Germany). Equally important, the United States has substantial positive cash flow on its FDI balance sheet, reflecting a combination a large ratio of outward to inward FDI and higher rates of return on its outward FDI than investors into the United States enjoy. US based firms enjoy the highest rate of return among the major investors. During the 2000s, OECD based MNCs averaged a 7.6% rate of return on outward investment, but Swedish and US firms enjoyed substantially higher returns at 12.5 and 11.8% respectively (OECD 2010: 98). These returns exceeded returns in their domestic markets, at 8.2% and 6.2% respectively (and explain the incentive for outward investment).

Note that there are only a handful of Swedish MNCs – three in the top 100 non-financial firms – making the US average of its 22 entrants in the top 100 rather remarkable. By contrast, German and French firms experienced a much smaller reward for going overseas, with only a 1.5 percentage point differential between domestic and overseas returns. These numbers, however, are at best broad estimates. Rates of return are subject to tax related accounting games, and determining the actual beneficial owners of FDI is complicated not only by the use of conduits like the Cayman Islands and Ireland, but also by the practice of recording FDI data by residence rather than nationality. Thus, when General Motors directs its Spanish subsidiary to invest in Hungary, this is recorded as Spanish outward investment. But cash holdings are not subject to gamesmanship (aside from fraud) or recording conventions. While US firms accounted for only about 25% of total global outward FDI and foreign affiliate turnover from

2000 to 2013, they currently hold about 35% of the total cash holdings of the 5100 largest global firms. Of this, much accrued to firms in dynamic sectors, like Apple, which alone accounted for 2.5% of the \$5.7 trillion in corporate cash holdings in 2014.

Two recent articles by Sean Starrs (2013, 2014) provide more fine-grained evidence that US firms remain dominant in global markets, giving US corporate elites control over much of the distribution of economic activity on the supply side. Starrs analyzes the 2000 largest global TNCs (the Forbes Global 2000). He finds that US firms hold the top positions in 18 out of 25 sectors, with profit and sales shares more than double the set of the next national competitor. In 10 of those sectors the aggregate US profit share is above 40%. And in the sectors typically associated with high technology – healthcare equipment, pharmaceuticals, computer hard- and software, electronics, aerospace, chemicals – US dominance is Schwartz for Parmar / Ledwidge – p. 10 even more marked, with a weighted profit share of 56% in 2013 (calculated from Starrs, 2014: 85-86). This should be scaled against a US share of global GDP amounting to between 20 and 25%. Table 2 compares the relative share of profits captured by US, German and Japanese firms in the Forbes Global 2000 lists from 2005 through 2014 [..]

Meanwhile – divide et impera – rivals to America's firms hail from a broad array of countries, even if one considers the EU to be a discreet entity. Each of these countries has a distinct sectoral competitive advantage stemming from the peculiarities of their national political economy: France, public sector goods like heavy construction and aerospace; Germany, private sector investment goods and automobiles; Japan, electronics; China, anything requiring large scale capital investment and thus benefitting from a repressed financial system. But only the US has strengths across the board. Moreover, US FDI is predominant in more economies than any other outward investor. We can also judge the degree to which foreign firms control local output in a number of ways. On most measures the United States economy is the major economy that is least subject to foreign control, with the salient exception of Japan. Table 3 reports foreign control in manufacturing. Table 4 reports the same for services. The greater degree of local control translates into a greater degree of domestic value added in exports. The United States had the highest share of domestic value in total value exported among the developed economies, at 89% in 2010, versus 82% for Japan, 69% for France, and 63% for Germany (UNCTAD 2013:124)

Finally, as Starrs (2013: 824-825) notes, US citizens also own substantial slices of foreign firms via US mutual funds, just as foreigners own substantial, but smaller slices of US firms. He estimates that US entities own roughly 46 % of all listed equities for the 500 largest firms globally in 2012. This is consistent with earlier data showing that the US owned share of the Morgan-Stanley MSCI All Country World ex-US market index rose from 10% to 24% of total market capitalization, 1994 to 2006, while foreign holdings of US equities rose more slowly from 5.1% to only 9.7% of US market capitalization (Schwartz, 2009: 4). To the extent that the power and profit share of firms from China, Brazil, Russia and India has been rising, this has largely come at the expense of firms from countries besides the US (Starrs, 2013: 87).

More recent data from the IMF Coordinated Portfolio Investment support this conclusion.3 The CPIS data suggest – there are reporting difficulties – that roughly 32% of global market capitalization is held via foreign portfolio investment in equities. US holdings account for roughly 33% of this portfolio investment, or, put differently, US foreign portfolio investment

accounts for just over 10% of total global stock market capitalization. In the 25 economies, ex-US, that account for 73% of inward portfolio investment, US entities hold more than 40% of all inward portfolio investment in equities in 16 out of those 25 countries. The weighted average for the remaining eight, net of Luxembourg, is 32%.

Conclusion: Control over Credit and Production

What gives elites power? Focusing only on the fact that elite networks exist and that they can exercise relational (i.e. instrumental and agenda setting power) misses the point that making decisions about where the ship of state will sail only matters if that ship is a supertanker and not a dinghy. US elite networks command a superpower that possesses considerable economic and military structural power. Financial and corporate elites at the center of the US state apparatus control a set of institutions that control both credit creation and much of global production. The US housing finance system, and its financial system more generally, is a mechanism for creating credit. While many see China's steady accumulation of roughly \$3 trillion in US Treasury Bonds and housing related debt as a sign of Chinese control over credit creation, this misses the very important fact that the United States borrows in dollars, in instruments that it creates, and at interest rates over which its state has some control. This is the very opposite of Riccardo Hausmann's 'original sin,' i.e. the fundamental weakness involved in borrowing in a currency not one's own. A Chinese refusal to continue to lend does not constitute a 3 http://cpis.imf.org/Default.aspx 'sudden stop' akin to that which confronted Latin America in 1982 or Southeast Asia in 2007. Indeed, a Chinese refusal to fund the US trade deficit necessarily reduces China's trade surplus, and thus its own growth.

At the same time, US firms continue to control the most important global commodity chains. China may be the ultimate source of most of the world's cell phone production, but the Chinese economy captures very little value from that production. Actual production is, of course, done by the Foxconn subsidiary of Taiwan headquartered and Taiwan and US owned Hon Hai Precision Industry. The bulk of value accrues to the providers of software (e.g. Apple) or critical components (e.g. Samsung or Toshiba). And firms like Apple and Samsung Electronics (for which US entities hold roughly 16% of equity) organize the global production networks that bring components to China.

As the other articles in this issue show, representatives of these financial and production elites continuously circulate within the US state. The selection mechanisms that sort individuals into elite networks, via cohort and socialization effects, assure that these individuals generally act in the interests of the organizations and institutions that they represent reproducing structural power. And as Parmar (this issue) and van Apeldoorn and de Graaff (this issue) show, those elite networks both assure that the ship of state sails a remarkably steady course, despite the contestation between different elite networks. Those networks also reach out to other elite networks (de Graaff and van Apeldoorn, this issue) in a search for global stability and predictability. They do so not out a generalized concern for the well-being of the global population, but rather to assure continued profitability and continued organizational power for their firms and for the US state. This can be seen in their handling of the current global macro-economic disequilibrium.

That disequilibrium arises from the steadily growing global imbalance between aggregate supply and the aggregate demand available from primary incomes that was already visible in 1980 (Strange and Tooze, 1981). Workers everywhere have seen declining shares of national

income. While income disparities were worst in China, they also rose in the United States, Japan and Germany. The gini coefficient for wages rose from .31 to .39 in Germany from the mid-1980s to the mid-2000s, while that for the United States rose from .38 to .434 (OECD 2013: 235). Both shifts exceeded the OECD-14 average. Though comparable data for Japan and China are not available, estimates suggest a Chinese gini in excess of 0.5 and possibly as high as 0.6. Put simply, there is not enough money at the bottom of the income distribution to absorb the steadily increasing volume of global production. Elites in all four major economies have been unwilling to disturb the dynamics driving this steady shift in the distribution of domestic income in their respective societies. Instead, those elites were content to have the United States use its structural power to create credit – its ability to generate globally acceptable assets – to bridge the gap between supply and demand and absorb excess global production. During the Reagan and Bush (I) years, Treasuries dominated these exportable assets; from Clinton through Bush (II) housing derived assets assumed a larger and larger role. US exchange of assets for imports reflected and reinforced its structural power over global credit creation. This was not a particularly stable solution to the supply-demand imbalance, as the 2008 crash shows. But it was one that was acceptable to financial and corporate elites.

Consequently, the world's largest debtor is the source of new demand via its domestic credit creation. This power rests on the centrality of the US dollar, domestic political economies in trade surplus nations, and the ability of banks to create money by crediting their customers' accounts. This ability is most developed in the United States, where it rests on what was a liquid and deep housing market whose major financial institutions are creatures of the state (Seabrooke 2006). Until elites in other societies replicate that housing market, or are willing to retool their economies so that they constitute a source of demand for global markets, the United States will retain its structural power in the realm of finance. Its Schwartz for Parmar / Ledwidge – p. 13 political economy permits it to create sellable assets more easily than is the case in other major economies. Its banks and financial firms sit at the center of the global web of finance. And its ability to create and sell those assets means that it can create demand in a demand short world economy.

By contrast, most of the European economies and Japan are unable to generate sufficient aggregate demand to sustain growth in their own economies. The Abe administration in Japan has repeatedly failed to stimulate domestic demand. Relatively strong wage demands by German unions in 2014 perhaps signal some change, but German trade surpluses continue apace. German elites are wedded to deflationary strategies that promote expanded production and exports at the expanse of expanded domestic demand. Nothing shows this more vividly than Germany's demands for expanded fiscal austerity after the euro-crisis. That crisis in large part emerged from the German elite's inability or unwillingness to invest in their own economy - as noted above, only one-third of German savings 2002- 2010 was invested at home (Sinn, 2011). Both Europe and Japan thus remain structurally reliant on the United States for continued growth. The current situation thus resembles the 1920s as Keynes understood it. In the 1920s, like today, imbalances are not resolved through normal economic mechanisms. Political elites in export surplus countries recycle their trade surpluses as debt to sustain their flow of exports, leading to unsustainable levels of debt in import surplus countries. American elites are all too willing to abet this by translating their rising income into exportable assets (which then become US foreign debt). It is precisely in these deviations from the mechanisms that normal economic theory posits that we can see the hands of elites on the helms of various ships of state. Those various ships ran aground in 2008, and elites have still not discovered a way to refloat them that they believe is consistent with their own interests. Giving more money to the bottom of the income distribution – to non-elites – apparently remains off an agenda controlled by those elites, even though it would probably redound to their own benefit. The Obama administration made small steps towards ameliorating the situation at the bottom, most notably via health insurance reform and changes to the rules governing overtime payment. It remains to be seen whether the new Clinton administration carries through on its promises to expand social services and raise the minimum wage.

Title: Financial Regulations and Macroeconomic Stability Author: Nellie Liang From: International Finance and Banking Society Date: July 15, 2017

It is now about ten years since the beginning of the financial crisis, when the financial system began to unravel as subprime mortgage lenders failed and investors ran on asset-backed commercial paper programs in the summer of 2007. As a result of the crisis, major regulatory reforms were introduced in the U.S., with the Dodd-Frank Act in July 2010, and recommendations for implementing global banking regulations, known as Basel III, in June 2011. Now that the US financial system is considerably stronger, many are reviewing the effects of the regulations, to assess what has been working and what has not.

Some in the US have proposed to scale back some regulations. They argue that the pendulum has swung too far and regulations have become oppressive and too intrusive. At the same time, research on the effects of regulations has surged, and can provide some new insights to the debate. The link between financial regulations, both micro- and macro-prudential, and macroeconomic stability is the topic of many papers at this conference.

Today I will focus on one piece of the current debate, bank capital and credit to borrowers, and its links to macroeconomic growth and stability. It will be in the context of whether we are on track to achieve the financial stability goals of regulations, whether there are unanticipated costs, and whether changes should be made.

I will make three points: First, current bank capital requirements yield net benefits and there is little to no evidence that credit availability is constrained.

Second, given the severe economic costs of credit busts, it is important to continue to build out countercyclical policy options, such as the countercyclical capital buffer and stress tests.

Third, some current proposals to reduce regulatory burden have merit, but some proposals to scale back capital requirements and stress tests would risk long-run macroeconomic stability.

I. Optimal bank capital ratios By the fall of 2008, it was evident that investors had lost confidence that banks had enough capital to absorb losses on credit they had extended even though regulatory capital ratios remained above minimum requirements. Moreover, some U.S. banks continued to face intense scrutiny even after the government injected \$125 billion into the eight largest and most complex firms, including the two still-standing investment banks that had converted to bank holding companies in order to avoid failure. Clearly, something was wrong with the regulatory capital regime.

Stress tests were an important step, taken in early 2009, to restore confidence in the largest banks. They evaluated credit losses under a hypothetical severe economic recession, for both

on-balance and off-balance sheet assets, and led the way to substantial infusions of private capital where needed, with a public capital backstop.

What did we learn from this experience about how much capital is needed to promote economic stability? First, bank capital regulations are needed not only to mitigate moral hazard from limited liability, deposit insurance, and Fed liquidity provision. They also are needed because individual banks do not internalize costly spillovers that could harm the broader financial system and economy.

New bank capital requirements now include a higher quantity and better quality of capital to reduce the probability of failure, a capital surcharge for those banks whose failure would impose significant costs on other firms and the economy, and a countercyclical capital buffer (CCyB) to build capital in good times that can be released safely when the cycle turns.

These actions would enable banks to continue to lend even in downturns, reducing the risk that a downturn would worsen because banks stop lending.

In a static framework, optimal capital requirements are set where costs, as measured by the higher cost of borrowing, equal the benefits, specifically a lower expected cost of a severe recession or financial crisis. The Basel Committee on Banking Supervision (BCBS) estimated costs and benefit estimates based on a review of then-existing studies in 2010.

There have been some updates since then from researchers at the Federal Reserve Board and Bank of England based on new data and research which highlight the sensitivity of bank capital requirements to various assumptions, and importantly how capital might interact with other regulatory reforms.

The framework is conceptually straight-forward, but calibration depends on many important parameter estimates. The table below summarizes the estimated costs and benefits to calibrate optimal capital requirements from the three papers.

A. Costs of bank capital requirements The cost of higher bank capital requirements is a higher cost of funds for banks, since equity is more expensive than debt, unless Modigliani-Miller (M-M) holds fully. In the case of full M-M, debt costs would decline as equity increases. But there are a number of reasons why M-M may not apply for banks, including that banks offer deposit services in addition to loans, bank balance sheets and risks are fairly opaque, and interest payments are tax-deductible. As shown by the first column in Table 1, Fed researchers estimate that a percentage point increase in capital would increase bank funding costs by 3 to 7 basis points higher, and BoE researchers estimate that costs would be 5 to 10 basis points higher. The range of estimates reflect differences about what is assumed for the required return on equity and for the size of the M-M offset. Note that the BCBS paper had higher estimates of 13 basis points, which assumed a required return on equity of 15 percent and no M-M offset.

To translate the higher costs to loss of GDP, the costs are run through existing econometric macro models, such as FRB-US for the U.S. Such models incorporate lending rates, and higher lending rates would reduce borrowing and investment. These models, however, do not have a financial sector, and any benefits to the economy of a more stable banking sector would not be incorporated. Estimates of the loss on the level of GDP in the long run from FRB and BoE, shown in the second column of Table 1, range from 1 to 7 basis points, and are modest, for a percentage point of additional common equity. This is an estimate for the long-run because monetary policy is expected to be able to respond to the effects of higher borrowing costs. However, at the time when Basel III began to roll out, many economies were operating with monetary policy at or near the zero-lower-bound so monetary policy was not able to offer additional cushion to the economy from higher borrowing costs. Thus, Basel III was phased into ease in the costs. Initially, it was to be phased in during 2013 to 2015, though that was extended to 2019 as economic growth remained lackluster. Note that monetary policy cannot fully offset the higher borrowing costs in these models even in the long run, in part because there is some lost investment and productivity.

B. Benefits of bank capital requirements and optimal capital ratios The expected benefits of bank capital requirements are equal to the reduced probability of a crisis and the severity of the crisis. Since the recent crisis, there has been a lot of new research that indicates that recessions associated with banking crises are more severe. Notably these findings are in Schularick and Taylor (2012) for 14 advanced economies, with data going back for some as early as 1870s (see also Bordo et al, 2001).

In particular, Schularick and Taylor (2012) show that real GDP per capita many years after the cyclical peak is considerably lower after a financial recession than in a normal recession. (Financial recessions are defined as those in which banks required an infusion of capital.) Following up on that work, Jordà, Schularick and Taylor (2013), and others such as Claessens et al. (2012), show that higher excess credit growth leads to worse economic performance.

Excess credit growth is defined by Jordà et al as credit growth in the upturn of a current cycle above credit growth in the upturn of the previous cycle. The negative effect of excess credit growth is greater in financial recessions than in normal recessions.

Another determinant of the expected costs is whether severe recessions have a permanent or temporary depressing effect on output. Furceri and Mourougane (2012) suggests that crises have permanent effects on potential, with estimates of permanently lower output of 1.5 to 2.4 percent. In contrast, Romer and Romer (2015) argue that the effects are temporary, and generally last as long as disruptions in the financial sector persist.

The benefits of higher capital are shown in the third column in Table 1, expressed here as estimates when capital is increased by one percentage point from 12.5 to 13.5 percent (based

on Firestone et al, 2017), since the benefit function is nonlinear, with decreasing benefits at higher levels. Benefits range from 2 to 27 basis points in terms of reduced costs of a crisis.

The fourth column shows the optimal capital ratios provided by these papers, which range from 9 percent to as high as 25 percent. Not surprisingly, given the range of estimates for the inputs, the papers offer a wide range for optimal bank capital requirements. Some key assumptions are: (i) the benefits of new liquidity requirements for reducing the probability of failure, and (ii) the benefits of TLAC and orderly liquidation authorities (OLA), which can reduce the probability of failure, the severity of crises, and whether the crisis would have permanent or transitory effects on GDP. At the high end, the 25 percent estimate assumes a recession leads to permanent losses in output and there are no benefits from OLA. The lower capital ratios from the BoE paper assume substantial benefits from OLA. In particular, OLA is assumed to reduce the probability of a crisis by reducing risk-taking incentives and it would lead to a less severe crisis.

While the range of optimal capital ratios is wide, the analysis supports much higher bank capital requirements than before the crisis. Moreover, the lower end of the ranges of the studies are largely consistent with current requirements for the largest institutions.

While this framework offers discipline and is helpful, the importance of the various assumptions and model dependence suggest looking elsewhere also for evidence of the costs of higher capital regulations. In that regard, evidence on bank loans, lending standards, and borrower demand is important. Evidence on whether credit provision is shifting to alternative sources is also important.

C. Is credit constrained? In the US, banks have substantially increased their capital. The largest now all meet fully phased-in capital ratios. As shown in Figure 1, Tier 1 common equity capital to assets for banks was 12 percent at the end of 2016.

For the banks subject to the Dodd-Frank stress tests and CCAR, the Tier 1 common equity capital ratio more than doubled from early 2009.

Are there signs that credit is constrained because of the higher capital requirements? In my view, no, not in the US. To be sure, credit is probably more expensive compared to risk-free rates -- a healthy development considering how overstretched the pre-crisis financial system was —but the effects on flows appear to have been small. Starting with loans made by commercial banks, growth has been strong outside of residential mortgages. From 2012-16, C&I loans grew at an average rate of 9.2 percent each year, and commercial real estate loans grew at a 5.9 percent rate. Residential mortgages barely grew, but much of the sluggish growth is likely due to the lack of clarity on the future of the structure of mortgage finance, mortgage putback risks, and the number of households who remained underwater on their mortgages. Consumer credit grew at a moderate rate, a bit above 4 percent per year.

The next charts show broader measures of credit to businesses and households, including borrowing from banks, other lenders, and bond markets. While it is not clear how much credit is necessary to support economic growth, it is clear, however, that it was too high before the crisis, so growth rates at that time are not the right benchmark. Often, credit is assessed against GDP, since credit that rises significantly faster than GDP (adjusted for long-run trends) could be an early warning of future problems, especially if it is associated with loose financial conditions (see Borio and Lowe, 2002).

Ultimately, the credit must be serviced out of income flows embodied in GDP.

As shown in Figures 2 and 3, total private nonfinancial credit rose rapidly before the crisis, and has come off of its peaks. Figure 3 disaggregates household and business borrowing. The credit-to-GDP ratio for households, the red line, more than fully accounts for the total decline since 2009, and has only recently flattened out. For businesses, the credit-to-GDP ratios have been rising. 12 For corporates, the dark blue line, growth has been fairly strong (2.2 percent annual rate since 2012), especially from bond issuance, and current levels match record highs since 1990. For non-corporates, the light blue line, often used as a proxy for small business, credit has been rising slightly faster than GDP, at 1.7 percent at an annual rate. But the main form of that borrowing by non-corporate business borrowers is through mortgages; roughly 70 percent of its loans are mortgages, and it is not surprising that this collateral was less valued after the crisis, limiting these businesses' borrowing capacity.

Survey evidence helps distinguish between supply and demand factors determining the amount of credit for small businesses. As shown in Figure 4, banks' responses to the Fed's Senior Loan Officer Opinion Surveys show that after having tightened substantially in the crisis, and easing substantially after, lending standards have bounced around zero in recent years, suggesting neither substantial net tightening or loosening. Moreover, they do not report that lending standards for C&I loans to small firms have tightened or eased on net more than for large firms. When asking small businesses themselves, the NFIB survey of its members finds that among the roughly 30 percent of small businesses in their survey that borrow about once every three months, loan availability has improved considerably since the depths of the crisis, and is about the levels of the mid-2000s.

Finally, following the release of the Fed's stress tests / CCAR results in late June, many banks have announced large increases in shareholder payouts.13

Some firms announced dividends and share repurchases that totaled close to 100 percent of expected income. Four large firms announced sizable increases in share repurchases, from less than \$40 billion to about \$60 billion. To the extent the CCAR results were interpreted as lower capital requirements, these actions do not suggest that banks would greatly expand lending if only capital requirements were loosened.

In summary, I do not see much evidence that credit is restrained (aside from residential mortgages which are part of a larger mortgage finance system that has still not been reformed).

The implications from some research being presented at this conference, that links higher bankspecific capital to more loan growth, not less loan growth, also reinforces this information available based on credit aggregates. Stronger banks and stronger economies are supportive of stronger loan growth.

II. Cyclical factors for bank capital and macroeconomic stability Those who propose scaling back bank capital requirements argue that cutting capital requirements would boost lending, and thereby boost growth and jobs. Credit-to-GDP measures are not definitive about credit restraints, since it could be that GDP growth itself has been held down by restrictive credit. However, a key question is whether such credit growth, if any, would be sustainable growth. That is, is there an intertemporal tradeoff between current financial conditions and risks to future growth?

For this question, I will add a cyclical, time-varying dimension to the discussion of capital requirements. Both the G-20 and Basel III recommendations featured a recognition that financial vulnerabilities can build during stable growth periods, and can increase risks in the future to financial and macroeconomic stability.

A. Improving capital requirements by reducing procyclicality Many things are procyclical. Risk-taking by investors and borrowers responds to current conditions, not just long-run average conditions. Such behavior can lead to Minsky-type boombust cycles.

Capital regulations themselves can be procyclical. Repullo and Suarez (2013) illustrate how capital requirements that depend on default rates can be procyclical, and therefore amplify the effect of an increase in borrower defaults on the economy. In their model, bank capital helps to prevent failure but also affects credit rationing of businesses, especially those that rely on banks for financing. For a given average level of capital over a business cycle, a constant requirement such as Basel I would lead to a higher failure rate, but less credit rationing. A timevarying requirement, such as in Basel II, would lead to a lower failure rate, but more procyclicality. This is because Basel II capital requirements would rise when realized default rates rise. Their model offers a way to interpret Basel III, which it supports. Both higher structural capital levels and a countercyclical buffer would lead to higher social welfare when the social costs of bank failure are high.

This combination would reduce the probability of failure in good times (expansions) and preserve the capacity to lend in bad times (recessions) when borrower default rates are high. In Basel III, the new countercyclical capital buffer is the primary feature to offset procyclicality to which countries have agreed. In the U.S., the new capital buffer would be applied equally to the domestic exposures of banks which are covered (generally SIFIs and those with global businesses), and could range from 0 percent to 2.5 percent. Generally, banks would be given a year or more to raise capital if authorities were to increase the CCyB, but banks could release it immediately if authorities were to decrease the CCyB. This would free capital to be available to lend. Countries could choose to set it higher than 2.5 percent, although bank regulators from foreign countries may not agree to accept the additional charge above 2.5 percent for its assets.

In practice, policymakers are establishing and publishing frameworks about how they would use the CCyB. BCBS recommended that authorities should look at credit-to-GDP gaps, among other measures, as a guide for implementation, based on the empirical relationship found between credit-to-GDP gaps and recessions.

If the gap is high or predicted to be high, expected losses to banks are expected to increase in the future. By raising the CCyB before the losses are realized would mean that banks would be raising capital when it is less expensive. Once the credit cycle turns, authorities would release the CCyB, to offset natural tendencies by banks to tighten credit standards when defaults are high.

Most policymakers appear to believe the CCyB will work mostly to increase the resilience of banks to future losses rather than to slow down a building credit boom, that is to "lean against the wind." While 2.5 percent of additional capital is significant, its effects on lending costs is not especially large and credit could be available from other lenders, especially when asset prices are rising.

The new CCyB has been adopted by many countries. In a study of macroprudential authorities (Edge and Liang, prelim 2017), 53 of 58 countries in our sample had established an authority to set the CCyB. This authority resides mostly with central banks (many of which also are prudential regulators) and independent prudential regulators; in only two countries, the U.K. and France, does the financial stability committee have the authority on its own to implement the CCyB.

To date, eight countries have raised the CCyB above zero at least once, largely in response to rapidly rising house prices and high mortgage debt in their countries.20

In the US, regulators also are reducing procyclicality through the bank stress tests. In particular, regulators specify the stress scenario to include a severe recession, defined typically as an increase in the unemployment rate of 4 percentage points. However, when the economy has been growing and unemployment is low, they impose a floor of 10 percent for the unemployment rate to help offset procyclicality—that is, the rise in the unemployment rate will be larger in good times than in bad. In practice, we have seen that even with these countercyclical scenarios, loss rates exhibit procyclicality as the economy improves and balance sheets improve – basically because the starting positions of the banks and the economy are stronger.

B. Research on credit and macroeconomic stability How does research on credit, as a financial vulnerability, and macroeconomic stability help to evaluate the use of countercyclical tools? There has been progress on a number of fronts, starting from the financial accelerator model (Bernanke and Gertler, 1989), which incorporated asymmetric information between the lender and the borrower.

When borrowers net worth falls as asset prices fall, lending spreads would increase proportionately more because of the asymmetric information, leading to an amplification of the initial fall in asset prices.

Models that incorporate the net worth of lenders also can lead to a reduction in the supply of credit (Gertler and Kiyotaki, 2010).

In general, however, the mechanisms in these models are not viewed as sufficiently large to on their own to generate a financial crisis. There is more recent work to these types of models to add bank runs that could lead to a non-linear, crisis-like outcome (Gertler, Kiyotaki, Prespitino, prelim 2017).

Endogenous risk-taking also can lead to discontinuous, crisis-like outcomes. A lower price of risk as reflected in higher asset prices can lead intermediaries and borrowers to increase leverage or increase maturity mismatch. For example, the supply of credit responds endogenously to low volatility given risk management practices which increase leverage and short-term funding, which will generate greater amplification of shocks (Adrian and Shin, 2008, 2014; Gorton and Ordonez, 2014).

In addition, the net worth of financial intermediaries could affect the risk-bearing capacity of the marginal investor and hence the risk premia for asset prices (He and Krishnamurthy, 2013).

Note that this research focuses on behavior, build-ups of vulnerabilities like credit and leverage, and their effects on the economy, but not on the role of capital regulations. In part, this is because capital regulations have not been designed or implemented in the past to address risks of the financial system as a whole, as they are now being considered.

C. Empirical model of financial conditions, credit, and growth in the US I will use ongoing empirical work from Aikman, Lehnert, Liang, Modugno (2016) to illustrate the transmission of financial conditions through nonfinancial credit on economic stability in the U.S.25 Specifically, we look at financial conditions and nonfinancial credit in a vectorautoregressive (VAR) model which allows for nonlinearities. Financial conditions are measured by asset prices and underwriting standards for household and business credit. Nonfinancial credit is the potential vulnerability, measured by the credit-to-GDP gap or by credit-to-GDP growth.

Figure 5 shows financial conditions and credit growth from 1975 to 2014 in the US. Credit-to GDP growth estimated with long lags shows two distinct boom-bust cycles. Financial conditions are more volatile. Also, financial conditions also tend to lead credit-to-GDP growth, and the highest correlation is at seven and eight quarters. At the end of the sample period 2014, creditto-GDP growth (on a moving average basis) was still quite low, though financial conditions had moved back up to averages. Since then, credit-to-GDP growth has been rising, but it is not yet above its long-run average.

We allow for nonlinear effects in our VAR by defining a threshold based on credit, by whether it is above or below zero. Given the fairly long credit cycles, the economy is not crossing back and forth across the threshold in the estimations. We use a fairly standard VAR, with GDP, prices, unemployment rate, and the federal funds rate. We add a financial conditions index and credit-to-GDP gap (or growth). We look at impulse responses to shocks to financial conditions and to monetary policy.

The effects of shocks to financial conditions are shown in Figure 6. The blue lines show the results for estimations when the credit-to-GDP gap is low, and the red lines show the results for when the credit-to-GDP gap is high. A shock to financial conditions would be expected to lead to an expansion. We find that in a low credit state, a positive shock is expansionary – GDP rises, price deflator rises, unemployment falls. But in a high credit gap economy, shown by the red lines, the shock initially is expansionary as well, but also leads to higher credit growth. This growth appears to be followed by a sharp reversal in financial conditions and a recession, which we interpret as sustained high credit leaves the economy more vulnerable in the future to a shock.

Overall, these empirical results based on a nonlinear specification indicate that financial conditions can affect the sustainability of economic performance. When vulnerabilities as measured by nonfinancial credit are high, the economy is more prone to a future recession. I would note that while credit since 2014 does not appear constrained, and credit-to-GDP has been growing, the gap relative to a long-run trend remains negative.

This paper is part of a growing body of research of financial conditions and macroeconomic stability. The research cannot directly evaluate macroprudential tools because they have not been used in that way in the past. But empirical work along these lines may be able to provide estimates for structural models, which can be used to evaluate dynamic macroprudential tools. Importantly, such models also could help to evaluate how macroprudential policies might interact with monetary policy. Both types of policies can work to offset natural tendencies for borrowers and lenders to increase debt, and could help to avoid high costs from future recessions.

III. Implications for some proposed reforms I will conclude with comments on some important proposed changes to US bank capital regulations. The Treasury recently issued a report with recommended changes to bank capital regulations. Its aim is to reduce unnecessary regulatory burden, which it says would unleash new lending and create new jobs.

Some of the proposals are easy to support. In particular, the Treasury recommends that community banks get significant capital regulatory relief, such as from mandatory stress tests and parts of Basel III. Such proposals would significantly reduce burden without increasing risks of another financial crisis. Some can be implemented directly by the regulators. For example, the Fed can scale back the qualitative assessments of CCAR for many BHCs, as it already did this year. But it cannot eliminate the mandatory stress test requirements in the

Dodd-Frank Act for banks and BHCs of between \$10 billion and \$50 billion. That action would require an amendment to Dodd-Frank.

The Treasury also proposes changes that would effectively reduce capital requirements and supervision of the largest, most complex firms. In my view, these changes would increase risks to financial stability, and go too far. As discussed earlier, current bank capital requirements are near the low end of the range of estimates for optimal bank capital ratios. One proposal is to reduce the frequency of supervisory-run stress tests, from once a year to once every two years. But stress tests provide many benefits than just a measure of capital.28

In particular, they require firms to invest in serious risk management analytics and to make forward-looking assessments of risks. Risk management for macro stress tests need to be done fairly frequently, as risks can change rapidly. Moreover, stress tests should be done no less frequently than decisions for dividends and share repurchases, which they do each year. A second proposal is to require the Federal Reserve to put out its models, economic scenarios, and other material methodologies for public notice and comment. I think such a change would make stress tests much less effective. Regulators would become reluctant to make changes and models would become rigid. Banks would adjust their balance sheets to reduce capital requirements for a specific scenario, and then re-adjust once the starting balance sheet values used for the stress tests were determined. The process would make the stress tests essentially a take-home exam for the banks. While the Federal Reserve does need to continue to improve the transparency of the stress tests, this proposal goes too far. A third proposal is to alter the calculation of the leverage ratio. It would deduct certain assets- reserves at the central bank, Treasury securities, and initial margin held at clearing houses - from the denominator of the leverage ratio. But the main point of a leverage ratio is that it should serve as a simple, transparent, backstop capital ratio that does not distinguish among

Another proposal is an off-ramp from significant regulation and supervision for institutions that maintain a 10 percent leverage ratio. While a tradeoff of higher capital and less regulation is very compelling, the proposal changes would significantly increase risks to financial stability. While an off-ramp based on a 10 percent leverage ratio might lead initially to higher capital, and thus less risk, this proposal would lead to more risk over time. Banks would have incentives to increase their risk exposures since they would not be penalized for higher risks. And banks not required to do stress tests would have less incentive to maintain strong risk management practices.

A fifth proposal is to consider not implementing the CCyB, but to add countercyclical elements only through the stress tests. As discussed earlier, there are important procyclical elements in capital requirements and in market participants' behaviors. The macroeconomic scenarios for the stress tests are designed in the U.S. to help offset some of the procyclicality. But they provide only a modest counterbalance, in that stress losses depend importantly on the starting positions for the economy and bank balance sheets. The CCyB would be calibrated based on expected financial and credit market developments, and would be a more effective way to build a buffer when future risks are not easily captured by current conditions.

An important proposal in the House Financial CHOICE legislation is to repeal the Orderly Liquidation Authority (OLA) in Title II of the Dodd-Frank Act. The Treasury has not yet addressed this issue. The OLA is a mechanism to resolve a large, complex institution outside of bankruptcy, in order to reduce the systemic fallout from a failure. It is not a taxpayer bailout – indeed, it reduces the likelihood of that outcome since without OLA, policymakers may see no better alternative because of the potential systemic consequences of bankruptcy.

In the framework for capital requirement discussed earlier, if OLA were eliminated, it would increase the expected costs of failure, by increasing both the probability of failure and increasing the severity of a crisis. The higher expected costs of failure would then indicate that optimal capital requirements should be raised. For example, in the BoE paper, they assumed that TLAC and orderly resolution would reduce the expected severity of a crisis by about 60 percent, so the effect on optimal capital requirements would be significant. Finally, in terms of research, it is important to continue to fill the gap on the effects of the financial sector and the macroeconomy, to evaluate the effectiveness of macroprudential policies and its interactions with monetary policy. Also, I have talked today mostly about capital, but new liquidity requirements are an important regulatory change, and it will be important to evaluate its effects and its interaction with capital. There is more to be done, and many papers at this conference are tackling these important issues.

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1 The rise of passive index funds

Since the outbreak of the global financial crisis, private as well as institutional investors have massively shifted capital from expensive, actively managed mutual funds to cheap, index mutual funds and exchange traded funds (ETFs), which we subsume under the term passive index funds. ETFs and index mutual funds are technically different, but they share the fundamental feature that both seek to replicate existing stock indices while minimizing expense ratios. In contrast, active funds employ fund managers who strive to buy stocks that will outperform, which leads to higher expense ratios. Hence, we are dividing asset management into two categories-actively and passively managed funds. Between 2008 and 2015 investors sold holdings of actively managed equity mutual funds worth roughly U.S. \$800 billion, while at the same time buying passively managed funds to the tune of approximately U.S. \$1 trillion-a historically unprecedented swing in investment behavior. As of year-end 2015, passive index funds managed total assets invested in equities of more than U.S. \$4 trillion. Crucially, this large and growing industry is dominated by just three asset management firms: BlackRock, Vanguard, and State Street. In recent years they acquired significant shareholdings in thousands of publicly listed corporations both in the United States and internationally. The rise of passive index funds is leading to a marked concentration of corporate ownership in the hands of the Big Three.

In 2008, Gerald Davis pointed at the historically unique situation in the United States that had emerged when a small number of active mutual funds, such as Fidelity, became large shareholders in a surprisingly high number of firms. This situation was reminiscent of the early twentieth-century system of finance capital when business was under the control of tycoons such as J.P. Morgan and J.D. Rockefeller. But contrary to this earlier phase in the development of capitalism, and despite their great potential power, the large, early twenty-first-century actively managed mutual funds eschewed active participation in corporate governance. The large active funds preferred to "exit" rather than to exert direct influence over corporate governance. Davis coined this system of concentrated ownership without control the "new finance capitalism."

The rise of the Big Three over the past decade marks a fundamental transformation of the new finance capitalism. Unlike active mutual funds, the majority of passive index funds replicate existing stock indices by buying shares of the member firms of the particular index—or a representative selection of stocks in the case of indices comprising small firms that have less liquid stocks—and then hold them "forever" (unless the composition of the index changes). What the consequences are of the combination of concentrated ownership with passive investment strategies is becoming a central and contested issue. On the one hand, passive investors have little incentives to be concerned with firm-level governance performance, because they simply aim to replicate the performance of a group of firms. On the other hand, the concentration of corporate ownership may entail a re-concentration of corporate control, since passive asset managers have the ability to exercise the voting power of the shares owned

by their funds. Indeed, there are indications that the Big Three are beginning to actively exert influence on the corporations in which they hold ownership stakes. In the words of William McNabb, Chairman and CEO of Vanguard: "In the past, some have mistakenly assumed that our predominantly passive management style suggests a passive attitude with respect to corporate governance. Nothing could be further from the truth." In a similar vein, Larry Fink, founder, CEO and Chairman of BlackRock writes in a letter to all S&P 500 CEOs that he requires them to engage with the long-term providers of capital, i.e., himself.

Our aim here is to shed new light on the rise of the Big Three passive asset managers and the potential consequences for corporate governance. We present novel empirical findings, but we also identify possible channels of influence that should be the focus of future research. In other words, the purpose of this paper is both to contribute new empirics on the Big Three as well as to shape the research agenda concerning the momentous rise of passive index funds. The paper continues as follows. The next section expands on theoretical discussions about ownership concentration in the United States and its impact on corporate control in the age of asset management. Furthermore, we discuss the pivotal shift from active to passive asset management and the sources of potential shareholder power for both types of investors. Subsequently, in section three we comprehensively map and visualize the ownership positions of the Big Three in American listed corporations. The analysis of the voting behavior of BlackRock, Vanguard, and State Street is conducted in section four, while section five is devoted to discussing the potential avenues of "structural" or "hidden power" by the Big Three. In section six, we highlight how passive index funds may contribute to the development of new financial risk. Finally, section seven concludes.

2 The age of asset management capitalism

2.1 New finance capitalism

In the early 1930s, Adolf Berle and Gardiner Means famously coined the phrase of the "separation of ownership and control," meaning that there were not anymore blocks of ownership large enough to wield effective control over U.S. publicly listed corporations. The dispersion of corporate ownership that Berle and Means observed empirically represented a markedly changed situation compared to the first decades of the twentieth century, when most large corporations had been owned and controlled by banks and bankers-what Rudolf Hilferding referred to as Finanzkapitalismus (finance capitalism). Dispersed ownership however entailed that instead of the owners, it was the managers and directors who wielded control. This, in turn, led to the recognition of the principal-agent problem that underlies modern corporate governance theory: Given their collective action problem, how can the suppliers of capital (principals) ensure that the managers (agents) act in their best interests? In response to this question, corporate governance regulation has progressively shifted towards a more powerful position for shareholders. The extent to which the separation of ownership and control took shape has been a debate ever since. Nonetheless, there is an overwhelming consensus that since the second half of the twentieth century corporate ownership in the United States is by and large fragmented and dispersed.

Early signs of a fundamental change in the organization of corporate ownership emerged in the late twentieth century. Useem signaled the growing importance of mutual funds in the early 1990s and argued that we have moved from shareholder towards investor capitalism. After the

turn of the century and more than seven decades after Berle and Means, Davis went a step further and argued that the rapid rise of assets invested by actively managed mutual funds in equity markets and the ensuing re-concentration of corporate ownership led to a "new finance capitalism." Davis found that by 2005 active mutual funds had accumulated 5 percent blockholdings in hundreds of publicly listed U.S. companies. Being the single largest shareholder thus gave the biggest mutual funds—such as his running example Fidelity potential power over the corporate governance of these listed companies by means of dominating corporate elections.

However, despite this great potential power, actively managed mutual funds at that time did not seek to influence corporate decision-making. Davis mentions three reasons for this. First, he points out that owners holding more than 10 percent of voting rights are considered as "insiders," which significantly restricts their trading possibilities. Second, actively managed mutual funds are faced with potential conflicts of interest because the firms they are invested in are often also their clients. Particularly eminent is this where mutual funds are large providers of pension fund management for corporations. This curbs the willingness of funds to pursue shareholder activism. Third, and more general, shareholder activism is always costlyand the costs are borne only by the activist, while the benefits are enjoyed by all shareholders. Hence, Davis concluded that "networks of concentrated yet liquid ownership without control seem to be the distinctive feature of the new finance capitalism." Davis pointed out that this observed new finance capitalism is historically unique, but also cautiously concluded that its durability remains to be seen. One decade later, we can safely conclude that the reconcentration of corporate ownership was not a temporary market anomaly, but a fundamental reorganization of the system of corporate governance. However, the period 2005–15 is also one of significant transformation of the new finance capitalism.

2.2 From active to passive asset management and the rise of the Big Three

Passive index funds have enjoyed rapid growth during the last ten years, at the expense of actively managed funds. Passive funds have increased their market share from 4 percent of total equity mutual fund assets in 1995 to 16 percent in 2005. From 2005 to 2015, index funds have doubled their market share to 34 percent. The main reason of this rise is the lower cost for investors compared to actively managed funds. In the boom times before the global financial crisis, most investors tolerated high fees, hoping that mutual fund and hedge fund managers would deliver superior returns because of their active trading strategy. However, it is has been becoming increasingly clear in recent years that the majority of both actively managed mutual funds as well as hedge funds are not able to consistently generate higher returns than established benchmark indices, such as the S&P 500. In fact, only 16 percent of large-capitalization mutual funds are forecasted to beat their particular indices in 2016—the worst performance on record.

Figure 1 shows the rapid growth of passive index funds that invest in equities. Note that we have excluded assets invested in bonds or commodities because they do not influence corporate governance. Index mutual funds remained the larger category until 2007 when ETFs took the lead. Since 2008, both categories have grown with a roughly similar pace, doubling their assets under management in just three years from 2011 to 2014. In total, passive index funds (equity)

had at least U.S. \$4 trillion in assets under management at end-2015, thus surpassing the assets under management of the entire hedge fund industry.

A remarkable feature of the passive index fund industry is its high level of concentration. In the ETF segment, the market shares in December 2016 have been 37 percent for BlackRock, 18.5 percent for Vanguard, and 15.5 percent for State Street, respectively. Hence, together these three firms stand for a stunning 71 percent of the entire ETF market; all other ETF providers have market shares below 3.3 percent. Data about market shares in index mutual funds are not publicly available, but it seems clear that Vanguard dominates this segment with probably at least 75 percent market share.

Existing rankings of asset managers typically include both assets in equites and in bonds, which are not of principal concern in regards to corporate control. Table 1 gives a novel presentation of the top U.S. asset managers in equities and illustrates that BlackRock, Vanguard, and State Street dominate the passive index fund industry. Together they manage over 90 percent of all Assets under Management (AuM) in passive equity funds. The share of AuM in passive funds is well over 80 percent for BlackRock, Vanguard, and State Street, thus making them the only three decidedly passive asset managers in the market. Therefore, we can fittingly refer to them as the Big Three passive asset managers.

Although the Big Three have in common that they are passive asset managers, they are quite different in their own corporate governance structures. BlackRock is the largest of the Big Three—and represents the biggest asset manager in the world. At mid-2016, BlackRock had U.S. \$4.5 trillion in assets under management. BlackRock is a publicly listed corporation and thus finds itself under pressure to maximize profits for its shareholders. Vanguard-with U.S. \$3.6 trillion in assets under management in mid-2016—is currently the fastest growing asset manager of the Big Three. In 2015, the group had inflows of U.S. \$236 billion, the largest annual flow of money to an asset managing company of all-time. The main reason for the high growth of Vanguard is that it has the lowest fee-structure in the entire asset management industry. Vanguard is mutually owned by its individual funds and thus ultimately by the investors in these funds. Consequently, the group does not strive to maximize profits for external shareholders but instead operates "at-cost," which allows Vanguard to offer the lowest fees in the industry. Vanguard pioneered passive investing by creating the "First Index Investment Trust" in 1975, however this investment approach was attacked as "un-American" at the time. State Street is slightly smaller than BlackRock and Vanguard, but still one of the largest global asset managers. In mid-2016, it had U.S. \$2.3 trillion in assets under management.

Most observers predict that passively managed funds will continue to grow (and at the expense of actively managed funds, inevitably). As global economic growth rates are not picking up— a situation which has been characterized as "secular stagnation" or the "new mediocre"— average returns for most international equity and debt markets are expected to be comparatively low in the near to medium future. McKinsey Global Institute has even forecasted that over the next twenty years average returns for U.S. and European equities could be as low as 4 percent per year, while U.S. and European government bonds could even have return rates of zero. This further bolsters the competitive advantage of low-cost passive investors vis-à-vis actively managed funds. Ernst & Young has forecasted annual growth rates for the ETF industry of between 15 and 30 percent in the next few years. According to PwC, assets invested in ETFs

are predicted to double until 2020. These forecasts make it imperative that we study the different sources of potential shareholder power of these large and growing passive asset management corporations, and the Big Three in particular.

2.3 The power of passive asset managers

When we talk about the power of large asset managers, we are concerned with their influence over corporate control and as such their capacity to influence the outcomes of corporate decision-making. Shareholders can exert power through three mechanisms. First, they can participate directly in the decision making process through the (proxy) votes attached to their investments. In a situation of dispersed and fragmented ownership, the voting power of each individual shareholder is rather limited. But blockholders with at least five percent of the shares are generally considered highly influential, and shareholders that hold more than 10 percent are already considered "insiders" to the firm under U.S. law. The growing equity positions that passive asset managers hold thus increase this potential power.

However, this potential to influence corporate decision-making does not imply that shareholders will actually exercise their power. According to Davis, the large active asset managers in the early twenty-first century, such as Fidelity, preferred to sell their shares when they were dissatisfied with the performance of a particular firm, because the "Wall Street Walk" is easier than activism. This exit option is a second, indirect way of exerting shareholder power. If a considerable amount of shares are sold this negatively impacts the share price and puts pressure on the management team. In order to contain competition in the market for corporate control, management teams thus have an incentive to make sure their decisions are appreciated by their shareholders.

Third, shareholders can influence corporate decisions by direct engagements and "voice" their concerns directly to management. A recent survey found that 63 percent of very large institutional investors have engaged in direct discussions with management over the past five years, and 45 percent had had private discussions with a company's board outside of management presence. The dominant view in the literature is that the mechanisms of exit and voice are complementary devices, with intervention typically occurring prior to a potential exit. The threat of exit is the base that allows the exercise of power through voice. Passive asset managers however do not "exit." This may have important implications for the power of passive investors because they cannot credibly claim to exit a firm based on performance assessments.

More fundamentally, a passive investment strategy leads to the question of why passive investors would be interested at all to concern themselves with corporate governance at the level of individual firms. If a fund holds—for instance—500 stocks the risk of any individual stock will be irrelevant. Indeed the incentive structure of passive index fund managers is such that they are rewarded more for keeping the costs low than for improving firm governance. Since passive managers are willing to take whatever return-risk relationship the market offers, why vote at all?

In addition, the decentralized attribution of ownership in separate funds and ETFs may hamper a centralized voting strategy in at least two ways. BlackRock for instance has more than 200 mutual funds and equity ETFs as well as several closed end equity funds and hedge funds—all of which could have positions in a particular firm. These portfolios may have different interests when it comes to shareholder vote. Even more differences occur because BlackRock holds some shares in short positions. Any vote that helps the long positions in BlackRock will hurt the short positions. So which way will BlackRock vote? These decentralized ownership structures may also hamper the ability to systematically use the voting power at all as it demands a serious coordination effort on behalf of the asset managers. Still in 2015, BlackRock faced a record U.S. \$3.25 million fine by the German financial watchdog BaFin for misrepresenting their stakes in German firms. BlackRock admitted that they had to reorganize their internal procedures in order to be able to report on their aggregated ownership. If BlackRock already struggles with reporting on their ownership stakes, it may be even more difficult for them to consistently use their proxy votes, even if they wanted to do so.

Passive investors, active owners?

At the same time, the Big Three explicitly state that they want to be active shareholders. State Street for instance highlights that they follow "a centralized governance and stewardship process covering all discretionary holdings across our global investment centers. This allows us to ensure we speak and act with a single voice and maximize our influence with companies by leveraging the weight of our assets." BlackRock established a central team to report on and direct its proxy voting and corporate governance recommendations in 2009 and states that it "will cast votes on behalf of each of the funds on specific proxy issues." In 2016, BlackRock, Vanguard, and State Street significantly expanded their corporate governance teams. What, then, are the opportunities and the incentives the Big Three have for an active corporate governance strategy?

Arguably, the reasons Davis used to explain the inactivity of active investors in terms of corporate governance may not apply to passive investors-or are at least diminished significantly. First, unlike active funds, passive funds rarely hold ownership stakes in listed corporations larger than 10 percent, which would make them "insiders" under U.S. law. This means that they are less restrained to use their shareholder power. Second, Davis argued that actively managed funds may revert from voting on their shares because the firms they are invested in are often also their clients, particularly in pension fund management. While pension business still amounts to hundreds of billions for the Big Three, the proportion of this line of business seems to be smaller than for Fidelity. And third, now that the Big Three have reached such a large scale, shareholder activism has become much "cheaper" for them in relative terms. This all increases the opportunities for the Big Three to use their shareholder power. And while it is true that they cannot credibly threaten management with permanent exit (only with temporary exit via share lending to short-sellers), they can threaten to vote against management at the annual general meeting (AGM). This is generally considered as a clear signal of discontent towards management, which gives management teams an incentive to keep large shareholders from voting against their proposals. Management teams may also want to keep a good relationship with their passive blockholders because their votes are particularly important during key moments such as proxy fights or takeover bids. Because they are blockholders, the voting power attached to their equity investments therefore serves as leverage for private engagements as well.

This leaves the question of what incentives passive investors have to pursue centralized corporate governance strategies. After all, as pointed out above, the risks of individual stocks

are largely irrelevant to their business model. There are, however, at least two types of incentives to pursue an active corporate governance strategy. The first relates to their role and responsibility as a shareholder. Whereas in previous times the concentration of corporate control and the concomitant influence of large blockholders was seen as problematic, today the opposite is true: Large blockholders are expected to vote because otherwise managers would be too powerful. Legally, the fiduciary responsibility of institutional investors towards their clients includes that they are expected to fulfill their role as a shareholder, including voting at the AGM. Different funds within the same group may seek to minimize the costs associated with monitoring a company and centralize this monitoring role internally. This leads at least to a form of reticent behavior: "a generally reactive, low cost activism."

Second, while active investors can and will sell shares when they observe or anticipate diminishing (future) returns, passive investors are generally "stuck." This means that their main interest is not short or medium term value creation, as is the case for most investors. Instead, their main interest is in long-term value creation. As Vanguard explains: "Because the funds' holdings tend to be long term in nature (in the case of index funds, we're essentially permanent shareholders), it's crucial that we demand the highest standards of stewardship from the companies in which our funds invest." Although the Big Three are not fully similar, they have shared incentives as passive long-term investors. And together, they are a force to be reckoned with. For example, in 2015 activist investor Nelson Peltz rallied against DuPont's CEO Ellen Kullman over whose slate of directors should be elected to DuPont's board. The outcome of this high profile proxy contest was determined when the Big Three disclosed that they were voting all their shares in favor of Kullman. The Big Three did not follow Institutional Shareholder Services (ISS) recommendations and as such voted against most of the regular short and medium term oriented shareholders. This illustrates that the Big Three at times may have a conflict of interest with short-term oriented investors. For this reason, they have an incentive to influence management to act in their interests. Indeed, McCahery et al find that large institutional investors with a longer time horizon and less concern about stock liquidity intervene more intensively with management teams through private engagements.

2.4 Research approach and data

In order to shed light on the opposing views on the power position of the Big Three, the first step must be to develop a better understanding of their ownership positions in contemporary equity markets. Information on the ownership profiles of the Big Three is anecdotal, incomplete, or difficult to compare. We therefore engage in a comprehensive mapping of the ownership positions of the Big Three. In addition, we examine how concentrated corporate ownership is when we combine the positions of the Big Three. The second step is to investigate the extent to which the Big Three are able and willing to use their proxy votes and follow a centralized proxy voting strategy. If the Big Three follow a strategy where they pursue influence through their proxy votes, we expect a high level of similarity of the voting behavior of their funds. Therefore, we investigate the voting records of the Big Three to other asset managers. Third, once we have established the level of internal consistency of proxy voting, we conduct an explorative analysis of the type of proposals where the Big Three oppose

management. We use this analysis to see how active the Big Three actually are and if they indeed can be seen as reticent investors.

In order to analyze the voting behavior of asset managers, we used data from the ISS website. ISS is a major proxy voting advisory firm that records the voting behavior of investors. Proxy votes are collated by ISS for their clients and are publicly available. We collected a set of 8.6 million votes on 2.7 million unique proposals at AGMs worldwide. These votes are cast through 3,545 funds that are part of a set of 131 Asset Managers. From this we created a cleaned set of 117 asset managers and 1.45 million proposals voted on by their funds at AGMs. These disclosures are legally mandated in the United States, which means the data on the voting of U.S. asset managers voting in U.S. companies is of very high quality.

For the analysis of ownership concentration, we use data from the Orbis database by Bureau van Dijk. Orbis provides information on over 200 million firms worldwide, with over 59 million in the Americas, giving expansive coverage of the ownership holdings of all major asset managers. Over 140 providers collect data from commercial registers, Annual Reports and SEC Filings to create the database, enabling unprecedented insight into the scale and scope of asset managers. Compared to Thomson One, another database often used for studies on corporate governance, Orbis is as accurate but more complete (Orbis also reports on families as owners which is crucial in determining where the Big Three are the largest owner). For the analysis of the United States we downloaded all 3,882 publicly listed companies, corresponding to the exchanges: "NYSE MKT," "NYSE ARCA," "NASDAQ/NMS," "NASDAQ National Market," and "New York Stock Exchange (NYSE)." We excluded the following two company categories: "Mutual and pension fund/Nominee/Trust/Trustee" (932 companies) and "Private equity firm" (thirty-eight companies), because we focus on the ownership of U.S. publicly listed corporations and entities belonging to these two categories are not owned and controlled by public shareholders. We excluded among shareholders "State Street Bank and Trust Co." because this subsidiary of State Street acts as a custodian, holding the shares for the respective ultimate owners. Public ownership (many small ownership stakes combined) was also excluded.

3 The power position of the Big Three in the network of corporate ownership 3.1 Breadth and depth of the Big Three's blockholdings

In this section, we conduct a comprehensive analysis of the significant ownership positions of the Big Three. We focus on two central dimensions of ownership by institutional investors breadth and depth. An investor has broad ownership when being invested in a large number of corporations. In addition to this "breadth" dimension, it is also important to take into account the "depth" scale of ownership—the size of the individual holdings. Thus, breadth and depth together provide a comprehensive picture of the ownership profile of an investor. Table 2 presents the fifteen largest global holders of 3 percent blocks in publicly listed corporations—the higher the number of holdings the broader the ownership profile of the asset manager. Furthermore, we show three different levels of ownership depth: >3 percent, >5 percent, and >10 percent blockholdings.

BlackRock and Vanguard are by far the broadest global blockholders in listed corporations according to both the 3 percent and 5 percent thresholds. These blockholdings are located in a number of countries around the world; the majority, however, is in the United States.

BlackRock has about two thousand 5 percent holdings in the United States; a non-negligible number when taking into account that in total there are only about 3,900 publicly listed U.S. corporations. In other words, BlackRock holds 5 percent blocks in more than one-half of all listed companies in the United States. That is significantly more than five years ago; According to Davis, in 2011 BlackRock had owned roughly 1,800 five percent blockholdings in the United States, while Fidelity owned 680.

Vanguard's ownership positions also concentrate in the United States. Of the 1,855 five percent blockholdings, about 1,750 are in U.S. listed companies. As Table 2 shows, both BlackRock and Vanguard hold relatively few 10 percent blocks; the former owns about 300 of these positions in U.S. listed companies and the latter only 160 – note that this refers to the asset manager as a whole, the US 10 percent "insider" law only pertains to individual funds, however. State Street is much smaller in the large blockholdings, as its ownership profile is both narrower and shallower. With about 1,000 three percent holdings in U.S. companies, State Street is the fifth largest asset manager in the segment of these small blockholdings. Above the 5 percent threshold, however, State Street only has 260 blocks in U.S. listed corporationsand twelve above the 10 percent level. Two other asset managers shown in Table 2 are also noteworthy: Fidelity and Dimensional Fund Advisors (DFA). Fidelity is by far the largest actively managed mutual fund group (see also Table 1). In contrast to the Big Three, Fidelity has a much narrower and deeper ownership profile; it holds roughly 700 five percent blockholdings in U.S. corporations (the other 600 are international), and of this about 300 are 10 percent blocks. DFA has a very broad and shallow ownership profile that resembles that of a passive index fund; it holds approximately 1,100 three percent holdings and 540 five percent blocks in U.S. publicly listed companies, but virtually no 10 percent ones. Arguably, the reason is that DFA builds its own in-house quantitative models, using different company parameters, which focus primarily on small and undervalued companies. The Big Three, on the other hand, replicate large and established stock indices, such as the S&P 500, which are publicly available. This necessarily leads to the situation that BlackRock, Vanguard, and State Street hold parallel ownership positions in an increasing number of publicly listed companies.

3.2 Combined ownership of the Big Three in the United States

As a consequence of their dominance in the asset management industry, a large and growing number of publicly listed companies in the United States face the Big Three—seen together—as their the largest shareholder. In 2015, this has been the case in 1,662 listed U.S. corporations, with mean ownership of the Big Three of over 17.6 percent (Figure 2). The total number of publicly listed firms in the United States amounts to approximately 3,900. Thus, when combined, BlackRock, Vanguard, and State Street constitute the single largest shareholder in at least 40 percent of all listed companies in the United States. Together, these 1,662 American publicly listed corporations have operating revenues of about U.S. \$9.1 trillion, a current market capitalization of more than U.S. \$17 trillion, possess assets worth almost U.S. \$23.8 trillion, and employ more than 23.5 million people.

When restricted to the pivotal S&P 500 stock index, the Big Three combined constitute the largest owner in 438 of the 500 most important American corporations, or roughly in 88 percent of all member firms. These 438 co-owned corporations account for about 82 percent of S&P 500 market capitalization. Large companies where the Big Three are not the main shareholders

are typically dominated by private individuals: Alphabet (Sergey Brin and Larry Page), Berkshire Hathaway (Warren Buffett), Amazon.com (Jeff Bezos), Facebook (Mark Zuckerberg), Walmart (Walton family), Oracle (Larry Ellison), Comcast (Roberts family) and Kraft-Heinz (Berkshire Hathaway and 3G Capital). In the vast majority of the member firms of the S&P 500, however, the Big Three combined represent the single largest owner.

In Figure 3 we visualize the network of owners of publicly listed corporations in United States, focusing on ownership ties larger than 3 percent. The size of each node shown reflects the sum of its ownership positions in U.S. listed companies (in percent, only counting positions above the three percent threshold). The 1,662 firms in which the Big Three (themselves in magenta) together are the largest shareholder are shown in green; firms in which they constitute the second largest shareholder are orange, and blue denotes cases where they represent the third largest owner. Finally, cyan nodes are companies in which the Big Three are not among the three largest shareholders. Grey nodes correspond to shareholders of publicly listed companies that are not themselves listed—e.g., Fidelity, DFA, and Capital Group. This visualization underscores the central position of BlackRock and Vanguard in the network of corporate ownership. Both are significantly larger than all other owners of listed U.S. corporations. Fidelity has the third biggest size, followed by State Street and Dimensional Fund Advisors. All three, however, are considerably smaller than Vanguard and BlackRock.

The size of a node in the visualization can be interpreted as the potential shareholder power of the particular owner within the network of control over listed companies in the United States. Thus, when seen together, the Big Three occupy a position of unrivaled potential power over corporate America. The graph gives a good impression of the fact that we witness a concentration of corporate ownership, not seen since the days of J.P. Morgan and J.D. Rockefeller. However, these finance capitalists of the gilded age exerted their power over corporations directly and overtly, through board memberships and interlocking directorates. This is not the case with the Big Three. Hence, we now examine the more hidden forms of corporate governance behavior of the Big Three.

4 Do the Big Three follow a centralized voting strategy?

The next question is to what extent the Big Three use their potential shareholder power through an active centralized corporate governance strategy. We therefore measure how coordinated voting behavior of asset managers is in corporate elections across their funds, as well as how often they vote with management. The voting data records the management recommendation and the shareholders vote. Shareholder votes were recorded as either, "For," "Against," "Abstain," or "Withhold." We grouped the shareholder votes into two categories: votes agreeing with the management recommendation are voting with management; all others are voting not with management.

Figure 4 shows the result of the analysis and includes the voting behavior of 117 distinct asset managers in our database, all with at least two funds voting in the same AGM at the same time. Internal disagreement measures the percentage of proposals where funds within an asset manager voted in different directions. External disagreement measures the percentage of cases where an asset manager voted against the management recommendation. Take for instance Calvert Investment, an activist investor. Figure 4 shows that over 40 percent of Calvert votes are against the management recommendation. Their management-unfriendly strategy goes

together with a high level of internal agreement: in 99.985 percent of the proposals, all their funds voted in the same direction.

If we now turn to the voting behavior of the Big Three, a number of observations can be made. Overall, the internal agreement in proxy voting among the Big Three's funds is remarkably high. In fact, BlackRock and Vanguard are on the forefront of asset managers with internally consistent proxy voting behavior. At BlackRock, in 18 per 100,000 of the proposals one of their funds did not vote along with the other funds, and for Vanguard this is even more consistent with only 6 per 100,000 of the proposals receiving mixed votes. State Street also shows a low level of internal disagreement, 195 per 100,000, though somewhat higher than BlackRock and Vanguard. This clearly evidences that the Big Three are able and do indeed apply centralized voting strategies. The very high level of consistency also implies that there is no difference between the passive and the active funds under their management, disregarding the funds' arguably different interests as discussed in section 2. In fact, at least one prominent case has been reported where the active side of BlackRock convinced the central corporate governance team to adopt its stance. Active asset managers show higher levels of disagreement, reflecting the freedom of its fund managers to cast the proxy votes. Fidelity, for instance, displays significantly higher levels of disagreement in its proxy voting, with internal disagreement in 3,144 per 100,000 votes.

Friends or foes of management?

The external agreement on the horizontal axis indicates the share of proposals where the fund votes against management. Figure 4 shows that by and large, management can count on the support of asset managers. The voting behavior of BlackRock, Vanguard, and State Street is similar to that of most active mutual funds: They side with management in more than 90 percent of votes. This echoes increasing concerns of various stakeholders about the lacking response of investment funds on critical corporate governance issues such as executive pay. Understanding the topics on which the Big Three oppose management is therefore an important research issue. A thorough analysis requires coding and categorizing all the 8.6 million proposals in our database, a laborious undertaking that we leave for future research. We did, however, conduct an exploratory analysis of the cases where the Big Three do not vote with management.

Management can recommend to vote for or against a proposal, and the Big Three can choose to follow or oppose. A first telling observation is that only a small fraction of the opposition of the Big Three against management occurs in proposals where management recommends voting against (BlackRock 6 percent; Vanguard 2 percent; State Street 5 percent). Proposals that management recommends to oppose are typically issues put on the agenda by activist shareholders. This implies that the Big Three ally with management against such shareholder proposals—in fact, the ability to repel unwelcome activist investors may be an important part of the potential influence of the Big Three over management. Consistent with this finding is that a large majority of proposals where the Big Three vote against (against the proposal itself, not against the management recommendation) are related to Environmental, Social, and Governance (ESG), which are mainly proposed by activist shareholders. Based on additional data from ProxyInsight we know that 77 percent of BlackRock's "against" votes are in the domain of ESG, followed by 44 percent of Vanguard's and 43 percent of State Street's.

Perhaps most interesting are the proposals where the Big Three oppose a positive management recommendation. We found that about half of them concern the (re)election of the board of directors (BlackRock 50 percent; Vanguard 46 percent; State Street 45 percent). This suggests a proxy voting strategy where the Big Three typically support management, but will use their shareholder power to vote against management when they are dissatisfied. This leads to two conclusions. First, the voting behavior of the Big Three at AGMs is by and large managementfriendly and does not reflect a highly engaged activist corporate governance policy. Second, the high propensity to vote against management (re)elections is consistent with the idea that the Big Three use their voting power to make sure they have the ear of management. Instead of open activism, the Big Three may prefer private influence. In the words of Larry Fink, CEO of BlackRock: "As an indexer, our only action is our voice and so we are taking a more active dialogue with our companies and are imposing more of what we think is correct." BlackRock reports in detail on how many times it informally engages with management, including statistics broken down by type of meeting and region going back to 2010. From mid-2014 to mid-2015, BlackRock has performed over 1,500 private "engagements" with companies held in their portfolio, 670 in the Americas and about 850 in the rest of the world—Vanguard had over 800 company engagements. Hence, the Big Three may choose not to oppose management overtly but rely on private "engagements" with their invested companies. In fact, BlackRock reportedly believes that "meetings behind closed doors can go further than votes against management"-and that the asset manager typically gives opposing corporations one year before voting against them. 50 Each of the Big Three alone holds considerable ownership and thus potential to influence hundreds of U.S. corporations in such private encounters. In addition to the direct influence of the Big Three, they may also exert a form of indirect or structural power.

5 Structural power of passive investors?

The analysis of the voting behavior underscores that the Big Three may be passive investors, but they are certainly not passive owners. They evidently have developed the ability to pursue a centralized voting strategy—a fundamental prerequisite to using their shareholder power effectively. In addition to this direct exercise of shareholder power, the extent of the concentration of ownership in the hands of the Big Three may also lead to a position of structural power. Structural power emerges from a set of fundamental (asymmetrical) interdependencies between actors, such that one actor pro-actively takes into account the interests of a structurally powerful other. Structural power arises from the occupation of core positions within interconnected structures, such as global financial markets. In comparative political economy it typically refers to the structural power business holds over the state, because firms and capital holders control the investment decisions on which the economy depends for growth. A similar logic underpins the concept of systemically important financial institutions: They are important because the system is dependent on them to function well. The dominant position of the Big Three in the network of ownership as visualized by Figure 3 provides them with what Young calls "structural prominence" in corporate governance. This position of prominence may potentially lead to a kind of "disciplinary power" over management as Roberts et al. have found for active funds: "the discipline is realised in

anticipation within the self, or at least is rationalised in a defensive way that presents the self as already wanting what the investor wants.""

The exact extent of the structural power exerted by passive index funds is a crucial question for future empirical research, as it may have far-reaching consequences. For instance, passive index funds have no reason to support aggressive price cuts or other measures that aim to take away revenue from competitors, because in many concentrated industries they own most of the competing firms. Elhauge calls the hundreds of parallel ownership positions by the Big Three "horizontal shareholding"-the constellation in which "a common set of investors own significant shares in corporations that are horizontal competitors in a product market." And when firms proactively internalize the objectives of the Big Three, their common ownership in competing firms could entail significant anticompetitive consequences. A small but growing body of empirical research suggests that this anticompetitive effect may indeed be significant. Recent work shows that for the U.S. airline industry common ownership has contributed to 3-11 percent increases in ticket prices. Azar et al. analyzed within-route airline ticket price variation over time to identify a significant effect of common ownership. In addition, they have confirmed their findings with a panel-instrumental-variable analysis that utilizes the variation caused by BlackRock's acquisition of Barclays Global Investors in 2009. They conclude that, while enabling private benefits such as diversified low-cost investment, common ownership by large asset managers leads to decreased macroeconomic efficiency through reduced product market competition and thus has significant hidden social costs.

Another study on banking competition in the United States has found that common ownership by asset managers and cross-ownership (the situation in which banks own shares in each other) are strongly correlated with higher client fees and higher deposit rate spreads. An additional study, using the variations in ownership by passive funds that are due to the inclusion of stocks in the Russell 1,000 and 2,000 indices, found that index funds influence the corporate governance of firms, leading to more independent directors and the removal of takeover defenses.

These findings support the thesis that the Big Three may exert structural power over hundreds, if not thousands, of publicly listed corporations in a way that is "hidden" from direct view. In most cases, BlackRock, Vanguard, and State Street need not overtly enforce their opinion on firms by voting against management, because it is rational for managers to act in a way that conforms to the interests of the Big Three. The large and growing concentration of ownership of the Big Three together with their centralized corporate governance strategies we uncovered underscores the importance of a research agenda that further investigates the consequences of this form of new finance capitalism where passive asset managers occupy positions of structural prominence.

6 Asset management capitalism and new financial risk

The recent rise of the Big Three has already led to serious concerns that "it cannot be good for capitalism." A first and major concern is that a further increasing market share of passive index funds could impair efficient price finding on equity markets, as the proportion of actively traded shares would continue to shrink. This concern already led some to polemically argue that because passive funds take active fund managers out of the role of allocating capital, the outcome is "stealth socialism." One of the most outspoken regulators concerning this topic is

Andrew Haldane from the Bank of England. In a speech in 2014, he argued that we have potentially entered the "age of asset management" due to enormous growth of assets under management in the last decades and the relative retreat of banks after the global financial crisis. He sees indications that passive investing could increase investor herding and thus lead to more correlated movements of markets. In this way, passive index funds could intensify the procyclicality of financial markets.

A second concern regarding increased risk relates to the practice of securities lending. Passive asset managers regularly lend out shares to short-sellers to generate additional income. According to Cetorelli, BlackRock has increased its securities lending operations significantly in recent years. Indemnification of securities on loan by BlackRock more than tripled from U.S. \$40 billion in 2012 to over U.S. \$130 billion in 2014, while for State Street the value was even U.S. \$320 billion one year before. Such securities lending—like most activities of large passive asset managers—seems to be unproblematic in good times, but could impair liquidity significantly in times of serious market stress. These developments have led global regulators to examine whether large asset managers, such as BlackRock, should be labeled "systemically-important financial institutions." In mid-2015, the Financial Stability Board in Basel decided not (yet) to apply this label—after fierce lobbying by the industry. On the other hand, concerns about reduced liquidity due to passive investment strategies may be moderated by the observation that ETFs themselves have become the object of active trading strategies. The first passive stock tracker—the SPDR S&P 500 ETF—is the single most heavily traded listed security on the planet.

The active trading of passive index funds may have far reaching consequences. When passive index funds do indeed become the main building blocks for active investment, we are confronted with a fundamental reorganization of contemporary corporate governance. Because the voting rights reside with the asset managers who supply the passive index funds, and because the passive index fund industry is concentrated in the hands of the Big Three, this effectively means that the separation of ownership and control may potentially come to an end. After all, the active investors who trade with the passive building blocks no longer have access to the voting rights. And the Big Three accumulate the voting rights without much concern for short-term considerations. What is more, their interests are not restricted to the well-being of any particular firm. As mentioned, passive index fund managers arguably have little interest in fierce competition between their co-owned corporations, because this constitutes a zero-sum (or even negative-sum) game for them. Rather, they have industry or market-wide interests. Such developments may lead to a situation where the large owners of corporate businesses have limited incentives to engage with firm-level corporate governance beyond fulfilling their fiduciary obligations.

7 Conclusion

Since 2008, an unprecedented shift has occurred from active towards passive investment strategies. We showed that the passive index fund industry is dominated by BlackRock, Vanguard, and State Street. Seen together, these three giant, passive asset managers already constitute the largest shareholder in at least 40 percent of all U.S. listed companies and 88 percent of the S&P 500 firms. Hence, the Big Three, through their corporate governance

activities, could already be seen as the new "de facto permanent governing board" for over 40 percent of all listed U.S. corporations.

An original and compressive mapping of blockholdings revealed that in the United States the market for corporate control shows unprecedented levels of concentrated corporate ownership. The Big Three occupy a position of "structural prominence" in this network of corporate governance. We furthermore found that while the proxy voting strategies of the Big Three show signs of coordination, they by and large support management. However, BlackRock, Vanguard, and State Street may be able to influence management through private engagements. Moreover, management of co-owned companies are well aware that the Big Three are permanently invested in them, which makes it possible that through this "disciplinary" effect they may internalize some common objectives of the passive index managers. On balance, we find significant indications that the Big Three might be able to exert forms of power over the companies held in their portfolios that are hidden from direct inspection.

When Vanguard pioneered its index fund concept in the mid-1970s it was attacked as "un-American," exactly because they held shares in all the firms of an index and did not try to find the companies that would perform best. Therefore, the new tripartite governing board of BlackRock, Vanguard, and State Street is potentially conflicting with the image of America as a very liberal market economy, in which corporations compete vigorously, ownership is generally fragmented, and capital is generally seen as "impatient." Benjamin Braun has argued that passive investors may, in principle, act as "patient" capital and thus facilitate long-term strategies. Hence, the Big Three have the potential to cause significant change to the political economy of the United States, including through influencing important topics for corporations, such as short-termism versus long-termism, the (in)adequacy of management remuneration, and mergers and acquisitions.

We reflected on a number of anticompetitive effects that come with the rise of passive asset management, which could have negative consequences for economic growth and even for economic equality. As well, we signaled how the continuing growth of ETFs and other passive index funds can create new financial risk, including increased investor herding and greater volatility in times of severe financial instabilities. The ongoing rise of the Big Three and the concomitant fundamental transformation of corporate ownership today clearly warrants more research to examine their impact on financial markets and corporate control—in the United States but also internationally.

Title: Supermacht Indexfonds – Wie Blackrock & Co Unternehmen Beeinflussen Author: Nils Röper From: Frankfurter Allgemeine; Finanzen Date: November 22, 2016

Der Siegeszug von Indexfonds und den dahinterstehenden Vermögensverwaltern beeindruckt: Mehr als eine Billion Dollar sind ihnen seit 2009 zugeflossen. Für rund ein Drittel des täglichen amerikanischen Aktienhandels sind sie verantwortlich.

Auch in Deutschland ist Branchenprimus Blackrock der mit Abstand größte Aktionär. Zunächst als simple und harmlose Anlageform gefeiert, wird zunehmend deutlich: Wenn Indexfonds entgleisen, bedeutet das Unruhe an den Finanzmärkten. Ihr Einfluss auf Unternehmen fand bisher wenig Beachtung. Neue Studien verheißen wenig Gutes.

Nach der Finanzkrise kamen die leicht verständlichen und vermeintlich neutralen Indexfonds gerade recht. Neutral deshalb, weil sie die Zusammensetzung eines Indexes wie dem Dax lediglich nachbilden, statt aktiv auf einzelne Unternehmen oder Branchen zu wetten. Verständlich, da sich die Meldung in der Tagesschau, der Dax habe zugelegt, direkt für den Anleger auf dem eigenen Konto nachvollziehen lässt.

Indexfonds wurden als willkommene Antithese zu komplexen und aggressiven "Heuschrecken" präsentiert - Hedgefonds, die erfahrungsgemäß nur selten den Markt schlagen und hohe Gebühren verschlingen. Dass Indexfonds für Sparer eine attraktive Anlagealternative sind, bestreitet weiterhin kaum jemand. Die Sorgen über die möglichen Gefahren dieser gewaltigen Kapitalkonzentration werden jedoch immer größer.

Gefährlich aktiv oder gefährlich passiv?

Indexfonds kaufen und verkaufen Aktien, um die schwankenden Marktwerte von Unternehmen abzubilden. Weil sie dies im Gleichschritt und riesigem Umfang tun, können sie an volatilen Tagen Kursausschläge verschärfen und so Panik entfachen.

Der 24. August des vergangenen Jahres gab einen Vorgeschmack darauf, wie heftig dieser Verstärkereffekt sein kann. Der Dow Jones stürzte um mehr als 1000 Punkte, um nur Minuten später fast 600 Punkte wieder gutzumachen.

Auch die amerikanische Börsenaufsicht SEC beobachtet die Indexfonds schon länger mit Argwohn, erst recht seit der heftigen Marktbewegung vom August 2015.

Statt Märkte zu überhitzen, können Indexfonds sie auch ersticken - das behaupten zumindest Analysten des amerikanischen Vermögensverwalters Bernstein. Die Argumentation leuchtet ein: Damit ein Markt effizient ist - also Preise akkurat ermittelt - müssen möglichst viele Teilnehmer sich bewusst für oder gegen Produkte entscheiden, um so gemeinsam zur "unsichtbaren Hand" zu werden. Wenn nun immer mehr Papiere aufgrund bloßer Portfolioanpassungen von Indexfonds, statt aktiver Entscheidungen von Investoren, gehandelt werden, untergräbt das die Funktion der Märkte. Werden sie einmal von passiven Investoren dominiert, sind nach Ansicht von Bernstein sogar marxistische Planwirtschaften effizienter, da hier wenigstens der Staat bewusste Entscheidungen trifft.

Überraschend aktive "Verwalter"

Kürzlich erschienene Studien der University of Pennsylvania legen nahe, dass Indexfonds weder passiv noch neutral sind. Ganz im Gegenteil: Die Vermögensverwalter nehmen Einfluss auf die Unternehmen, an denen sie beteiligt sind, und befeuern sogar Aktionärs-Aktivismus.

Dass Indexfonds das tun, ist paradoxerweise ihrem neutralen Geschäftsmodell geschuldet. Herkömmliche Investoren können ihre Mittel abziehen, wenn ihnen etwas missfällt. Vermögensverwalter haben diese Option des Ausstiegs nicht. Schließlich bilden sie Indizes unabhängig davon ab, wie sich einzelne Unternehmen aus ihrer Sicht entwickeln.

Dass Vermögensverwalter tatsächlich Einfluss haben, begründen die Ökonomen mit der so wohl noch die dagewesenen Konzentration von Unternehmensanteilen. Die "großen Drei" Blackrock, Vanguard und State Street sind die größten Anteilseigner von 438 der 500 größten börsennotierten amerikanischen Unternehmen, wie Forscher von der Universität von Amsterdam jüngst dokumentiert haben. In Deutschland ist Blackrock bei einem Drittel der Dax-Unternehmen größter Aktionär. Wenn diese Riesen ihre Stimme erheben, finden sie Gehör.

Damit kommt eine neue Dimension potentieller Gefahren zur Diskussion um Indexfonds hinzu: Wofür setzen Blackrock & Co ihre Macht in den Unternehmen ein? Die Ökonomen aus Pennsylvania zeigen, dass Vermögensverwalter häufig bei Kampagnen von aggressiven Minderheitsaktionären, sogenannten Shareholder Activists, aufspringen. Diese pochen bevorzugt auf geringere Hürden für feindliche Übernahmen und höhere Dividendenzahlungen - zumeist mit dem Ziel, den Aktienkurs in die Höhe zu treiben.

Enorme Kapitalkonzentration hemmt Wettbewerb

Dieser Kanon erinnert stark an das Shareholder-Value-Mantra. Was in den achtziger und neunziger Jahren noch den Zeitgeist bestimmte, sehen heute viele kritisch. Das Einfordern hoher Dividenden gehe zu Lasten langfristig notwendiger Forschungsausgaben. Die Überbetonung von Gehältern als Motivationsfaktor für Unternehmensspitzen habe eine Entkoppelung von Unternehmenserfolg und Vergütung bewirkt, lauten Kritiken.

Derlei Bedenken über ihren Einfluss auf Unternehmen weisen Vermögensverwalter von sich. Erst im Sommer dieses Jahres hatten sich die Chefs von Blackrock und Vanguard gemeinsam mit Warren Buffet und anderen Finanzgrößen in einem offenen Brief für marktorientierte und betont nachhaltige "Corporate Governance Prinzipien" starkgemacht. "Öffentlich sprechen sich die großen drei passiven Vermögensverwalter zwar für langfristige Unternehmensstrategien aus. Schaut man sich jedoch ihr Abstimmungsverhalten bei Aktionärsversammlungen an, verfolgen sie eher einen klassischen Shareholder Value Ansatz", sagt der Politikwissenschaftler Jan Fichtner, der an der Universität Amsterdam zu dem Thema forscht.

Die Debatte darüber, wie nachhaltig der Ansatz von Aktionärs-Aktivisten und nun Vermögensverwaltern ist, wird schnell vor allem politisch. Dass Vermögensverwalter überbordende Gehälter befördern, ist dagegen eindeutig belegt - paradoxerweise liegt dies an ihrer markthemmenden Dominanz. Die "großen Drei" sind häufig gleich in mehreren Unternehmen aus derselben Branche in großem Stile beteiligt.

Blackrock ist beispielsweise der größte Anteilseigner von vier der fünf größten amerikanischen Banken. Laut den Ökonomen Axel Ockenfels und Martin Schmalz liegt Konkurrenz in einer Branche daher nicht in ihrem Interesse: "Der Gewinn einer ganzen Branche ist dann am größten, wenn der Drang jedes einzelnen Unternehmens, den anderen Unternehmen in derselben Branche Konkurrenz zu machen, wirksam ausgeschaltet wird. Dies untergräbt den Wettbewerb und hemmt den Wohlstand der Nationen".

Wächter des Finanzkapitalismus' aufgepasst

Dass dieses Wettbewerbshemmnis in der Konsequenz zu höherer Bezahlung von Spitzenmanagern führe, legte Schmalz gemiensam mit anderen Forschern in einem kürzlich erschienenen Aufsatz dar. Wo Vermögensverwalter eine dominante Rolle spielen, werden Manager vor allem für die Entwicklung ihrer Branche belohnt, nicht so sehr für die des eigenen Unternehmens.

Geht es beispielsweise für die Automobilindustrie insgesamt nach oben, verdienen die Spitzen von BMW selbst dann mehr, wenn ihr Unternehmen mit schlechten Ergebnissen heraussticht. Die brisante Schlussfolgerung der Ökonomen: "Große Vermögensverwalter unterstützen hohe und leistungsunabhängige Vergütung".

Zusammen ergeben die neuen Befunde ein kurioses Bild: Einerseits fordern die vermeintlich passiven Vermögensverwalter marktgerechte Unternehmenspraktiken aktiv ein; andererseits hemmen sie den Wettbewerb und bewirken damit hohe, beinahe leistungsunabhängige Gehälter. Was die Wettbewerbspolitik vermag, bleibt vorerst abzuwarten. An politischem Gewicht dürfte es den großen Vermögensverwaltern kaum mangeln: Larry Fink, der Vorstandsvorsitzende von Blackrock, wurde als Schatten-Finanzminister von Hillary Clinton gehandelt und Donald Trump hat groß in Indexfonds des Unternehmens investiert.

Title: This Budding Movement Wants to Smash Monopolies Author: David Dayen From: The Nation Date: April 4, 2017

In a conference room overlooking the Chicago River last week, 35 years of thinking about the economy came under direct challenge. It won't get as much attention as a Sean Spicer press conference or a Bernie Sanders town hall, but decades from now it may prove much more important to how our economy is organized.

The University of Chicago Stigler Center's three-day conference asked: "Does America Have a Concentration Problem?" A sufficient response to this could be "go outside." Virtually every major sector in our economy has been whittled down to a few major players. Two companies produce nearly all of America's toothpaste. One, Luxottica, produces nearly all the sunglasses. There are four cable and Internet providers, who have divvied up the country and rarely compete. There are four major airlines. There are four major commercial banks. There are four major Internet platforms—Amazon, Facebook, Apple, and Google—controlling your information flow, your data, and your virtual life.

These markets are shrinking further, thanks to a continuing wave of mergers. Bayer is buying Monsanto to control a significant section of the agricultural seed market. AT&T and Time Warner's combination would tie a content distributor to a content provider. The Walgreens–Rite Aid deal would narrow major chain pharmacies down to two (three if you're generous and include Walmart). Platform monopolies like Google are buying a firm a week; it's become a large part of their research-and-development strategy to acquire ideas and market share simultaneously.

This market consolidation has wide-reaching effects beyond the higher prices monopolies can charge due to lack of competition. Quality suffers when consumers have nowhere else to turn. Supply chains become fragile—an outage from Amazon Web Services, the leader in cloud computing, took out half the Internet in February. Economic power begets political power, and democratic institutions suffer. Personal liberty to use talents and skills gets stymied when there's only one game in town. Barriers to entry have led to a decline in business start-ups and a retrenching of economic dynamism. Inequality grows when a few at the top gather all the rewards in a market.

Our growing monopolization didn't happen by accident. Starting in the 1970s, a group of academics led by failed Supreme Court nominee Robert Bork changed the view of antitrust law, which was originally intended to break up concentrated power. Without altering a word in the Sherman Antitrust Act, Bork and his colleagues—known as the "Chicago school" because of their devotion to University of Chicago neoclassical economic theories—rewrote history, determining that antitrust merely concerned "consumer welfare," an economic study of prices, rather than effects on competition. Starting in the Reagan administration, the Chicago

school's capture of antitrust theory has brought us to a period of market concentration unrivaled since the Gilded Age.

A new group of scholars and activists has rebelled against Chicago-school dictates. You can call them the "New Brandeis movement." Louis Brandeis, before reaching the Supreme Court, advised President Woodrow Wilson in the election of 1912, condemning "the curse of bigness" and favoring breakups of those trusts that the Sherman Act had yet to dismantle. Under Wilson, Congress closed Sherman Act loopholes with the Clayton Antitrust Act and created the Federal Trade Commission to combat monopoly power. As Brandeis wrote, "We can have democracy in this country, or we can have great wealth concentrated in the hands of a few, but we can't have both."

"America was founded to provide people the wherewithal to protect ourselves from enslavement," said Barry Lynn of the open-markets program at the New America Foundation. Perhaps nobody in the New Brandeis movement has done more than Lynn to revive the Progressive-era conception of monopoly as a danger to American liberty. "Anti-monopoly, from the Boston Tea Party onward, was one of the key tools that we the people used to keep ourselves free," he said.

The conference was a battle between those who look at monopoly's effects on society and those who want to just focus on numbers. "I am in the soft middle," said Carl Shapiro, an economist at UC Berkeley who served in the Antitrust Division at the Justice Department under two Democratic presidents (Clinton and Obama). He saw the decline in business start-ups as merely a reduction in restaurants and dry cleaners, not an economy-wide competition problem. But this is precisely the point—fewer Main Street small businesses, and more national chains, leads to a flow of local wealth out to large corporations, creating the regional inequality that depresses communities.

The New Brandeisians took a broad look at how the failure to stop monopolization has harmed America. John Kwoka of Northeastern University crunched the data to find that current enforcement techniques aren't even working to protect people from price increases, let alone monopoly's other effects. Lina Khan, a Yale Law student and the author of "Amazon's Antitrust Paradox," which described how Amazon uses its wealth of customer data collected from companies operating on its platform to compete against them, counseled against the learned helplessness that current laws cannot be fashioned to deal with modern tech firms. Sabeel Rahman of Brooklyn Law School explained how monopoly "warps the structure of opportunity of our economy." Jonathan Kanter, formerly of the FTC's Bureau of Competition, warned that the fear in the antitrust agencies of overreaching has become a paralysis that fails to serve the public. Zephyr Teachout of Fordham Law (and a former congressional candidate) made the case for political antitrust, that big companies undermine democracy through their collected influence.

Chicago-school proponents pushed back, often by asserting that the problem simply shouldn't be addressed. "We have to be humble doing anything," said Kevin Murphy, a University of

Chicago economist and MacArthur fellow. Richard Posner, the Appeals Court judge and scholar, was more blunt: "Antitrust is dead, isn't it?"

The objections from Chicago schoolers had more than a tinge of credentialism. Their ideas have gone unchallenged for so many years that they couldn't conceive of negative consequences from them, especially from people who haven't reached their exalted status. The New Brandeisians wouldn't let them off the hook. "I'd describe it as a two-step approach," said Frank Pasquale, law professor at the University of Maryland. "First they say, 'You're not talking about antitrust; you want regulation.' And then they say, 'Regulation doesn't work. Don't you know history?"

The Chicago school, perhaps through its rigidity, has begun to lose its grip on antitrust theory. The Obama Council of Economic Advisers started taking antitrust seriously last year in a series of reports. Justin Pierce, a Federal Reserve economist, presented his research at the conference that manufacturing mergers are associated with price markups of between 15 and 50 percent without any statistically significant effect on productivity, undermining even the base Chicago-school case. Senator Elizabeth Warren gave remarks on concentration in July: "Today, in America, competition is dying." Senators of both parties are pushing for more aggressive antitrust enforcement. Renata Hesse, briefly the acting head of antitrust at the Justice Department, gave a powerful speech last September dismantling Chicago-school interpretations.

But few of these battles played out face-to-face. And the New Brandeis movement's challenge left the Chicago school with few friends. Richard John, a history professor at Columbia University, derided the subverting of Sherman's vision for ideological interests, arguing that the Chicago school "remains intent on reclaiming the past to invent the future." Former Obama officials like Peter Orszag and Austan Goolsbee were unwilling to line up with the "nothing to see here" crowd. "There are cracks in the aqueduct and it will split soon," said Barry Lynn.

You might consider this an abstraction in an age when Trump has no regard for the boundaries between corporations and the agencies intended to regulate them. But ideas can live on beyond any one president. For 35 years, the Chicago school has dominated political, economic, and legal discourse about how our society operates. Changing that bias really will change the mindset of those in the judiciary, the executive branch, and Congress who wrestle with these issues. Just the existence of a new school of thought forces a reset from those in power, maybe not today, but certainly in the future.

Just the location of this conference, at the University of Chicago, speaks volumes. Luigi Zingales and Guy Rolnik, the university professors who organized the conference, are much more sympathetic to the question of a concentration problem in America. Rolnik, a former journalist, founded a media organization in Israel to attack excessive market concentration, getting even the right-wing government there to pass an anti-monopoly law that helped bring wireless rates down by 90 percent. Rolnik and Zingales, who challenged Richard Posner in

their one-on-one conversation at the conference, represent an openness to debate even within the school that brought us neutered antitrust enforcement.

In other words, the New Brandeis school's forward assault can do more than change politics. It can change minds.

Title: The Hamburg G-20 Summit: Reshaping the Economy to Serve People and Society (sel.) Author: Colin I. Bradford From: Brookings Date: July 5, 2017

Good Governance and Economic Performance

These machinations will serve as a theatrical backdrop, overshadowing substantive deliberations and debates on issues like climate change and trade, where deep differences exist. Earlier G-20 themes of inclusive growth, sustainable development, trade expansion, and financial stability have been transformed since the United Kingdom Brexit vote a year ago June, which solidified a growing sentiment in the U.S. and other countries that the global economy serves the few rather than the many.

This preoccupation is shifting the G-20's focus, and a new narrative on sustainable globalization is being reimagined in the following ways:

- Inclusive growth is not just about how to adjust macroeconomic policies to generate more jobs, but how to achieve structural changes that produce more economic security, greater equality, and social inclusion.
- Sustainability is not just about how to manage environmental challenges, but is increasingly seen as requiring holistic, integrated approaches to many sectors of the economy, segments of society, and diverse dimensions of environmental imbalances.
- Making the global economy, trade, and financial systems serve people and society rather than only grow the economy may become the new mantra for managing the global economy.

In other words, we are witnessing a pivot from maximizing economic growth to reshaping the patterns of growth to achieve better social and environmental outcomes.

How much time G-20 leaders will have in Hamburg to explore these new dimensions and dynamics remains to be seen. But it is already clear within the G-20 preparatory processes among leading think tanks, business, labor, and civil society groups that the challenges now facing the global community are more interrelated, more synergistic, and more sweeping in terms of their social effects than previously realized. The rise of populist authoritarianism in response to them creates a new moment in global governance.

The central challenge now is the fact that the market economy has not produced social outcomes that are politically sustainable. Tackling this won't be easy. Governments alone can't do it; constrained fiscal room and policy space limited by deficits and debt mean that most governments are unable to directly stimulate the transformation of economies to generate better social outcomes through public policy instruments. But G-20 leaders and governments can lead a transformation process.

Business and the private sector have the greatest stake in maintaining public confidence in the market economy. In more than half of the G-20 countries, centrist leaders, many with business experience themselves, are in power.

This political moment opens the potential for engaging national leaders of governments, business, labor, and society in a transformative effort to make the economy serve society.

Effective transformation requires businesses with long-term strategic plans that reach forward to the future, horizontally out into their communities and outward to the world. "Sustainability is good business" is a principle that succinctly links private sector firms to the universally endorsed United Nations Sustainable Development Goals (SDGs) for 2030. The fact that the SDGs exist at this moment provides a framework that can be used to mobilize society, business, labor, and government toward common goals for the common good.

Initiating structural transformation of the economy to serve people, reshaping governmentbusiness-labor-society relations to generate sustainable pathways for the future, and meeting the urgent and emergent needs of people and society for economic security, opportunity, and empowerment are fundamentally political responsibilities for national leadership. Indeed, these new thrusts reflect the German G-20 presidency's priorities on resilience, sustainability, and responsibility. G-20 summits are appropriate forums for demonstrating global and national political leadership for responding to the new political context in which people want to regain control of their destinies.

The urgent need to respond to public anger and disappointment puts pressure on G-20 leaders to reframe globalization and G-20 efforts to manage the global economy. The traditional focus on the international coordination of macroeconomic policies needs to be tempered by the emerging need to focus on the how to overhaul domestic policies to improve their social impact. Foreign policy, international coordination, and external relations are yielding to the primacy of generating better domestic social outcomes that are politically sustainable.

For the people of the world, let alone the people of G-20 countries, a concerted long term effort to transform the economy to serve people and society would be a welcome new focus for this and future G-20 summits.

Title: Democratizing the Money Market (Summary of Patrick Murck Podcast) Author: IMF Editors From: IMF Blog Date: May 26, 2017

Just as technology is changing the way we live and work, it also affects the way we use and move our money. In this podcast, lawyer and bitcoin expert Patrick Murck of Harvard University tells us that financial technology, or fintech, is poised to revolutionize the way the world does business.

"The real story of fintech is that we are democratizing the creation and the administration of markets," he said. "We see it in lending marketplaces and with 'robo advisors' who are allowing people to participate in markets in ways they could not before."

While this financial freedom has its benefits, it also presents risks, says Murck. It might be less expensive to set up a money market, but transactions are "permission-less."

"If money moves around the world the way email moves around the world, that would be a huge disruptive force throughout the financial sector," he says. "There is no gatekeeper, nobody saying you can't do this."

Regulation remains a sticking point, since it has the potential to stifle technological innovation. Murck says so far there's no clear road map for policymakers to manage this digital transition. "From a regulatory perspective, if you can clearly articulate the principles that you are trying to achieve, maybe you can give some of the innovators a chance to meet your policy goals, without your having to go and write very technology-specific rules around them," he said.

The other important issue, he said, is proportionality. If someone starts a financial business—takes deposits, lends money, and performs the core functions of a bank but with a customer base of only 10,000 people and assets of roughly \$10 million, then it doesn't make sense to regulate this startup in the same way as a large financial corporation.

"No one will ever have a fintech startup if regulatory requirements demand an asset management base of trillions of dollars," Murck said. "If regulators are not willing to take a patient, technology-neutral approach, it will keep people from creating new companies—and that's a shame."

Murck acknowledges the risks to personal privacy associated with having transparent, accessible financial databases, but believes the need for caution and regulations should be weighed against the need for broader access and innovation within the financial sector.

"There's certainly risks involved in trying to contain innovation—history has been unkind to those who have supported restraining innovation rather than harnessing it, he said. "But these transformations tend to be democratizing and wealth-building for societies over time."

Title: Bedrijfsovernames? Laten we het eens over de toekomst van onze economie hebben. Author: Hella Hueck and Robert Went From: FTM Date: July 8, 2017

Tot voor kort waren de meeste ceo's fel gekant tegen bescherming van Nederlandse bedrijven tegen buitenlandse overnames. Nu zijn ze compleet omgeslagen. Wat is hier aan de hand? En hoe moeten we verder? Journalist Hella Hueck en WRR-econoom Robert Went zetten de zaak op een rijtje.

Waarom hebben we het hier nú ineens over met z'n allen?

Het lijkt wel Groundhog Day. Om de zoveel tijd borrelt de 'uitverkoop-van-Nederland'discussie weer eens op, over buitenlandse investeerders die Nederlandse bedrijven willen overnemen of opsplitsen. In 2006 was de wereld te klein toen activistische aandeelhouders wilden dat industrieel conglomeraat Stork werd opgesplitst. In 2007 werd de Hema-rookworst plotseling Brits. Zo'n tien jaar later zijn het 'onze kroonjuwelen' Unilever en AkzoNobel die door buitenlandse bedrijven en investeerders worden belaagd. En nu gaan er geruchten dat ook Philips binnenkort aan de beurt is.

Volgens hoogleraar economie Hans Schenk, die zich al zo'n dertig jaar met dit onderwerp bezighoudt, staan we aan het begin van een nieuwe fusie- en overnamegolf: 'De eerste die we hebben kunnen meten was aan het einde van de negentiende eeuw. Eind jaren 1990 begon de zesde, die eindigde in de dotcom-crash. En nu zitten we in de zevende.' In zo'n fusiegolf worden volgens Schenk tien keer zoveel overnames gedaan als in de periode daarvoor.

Goed, fusiegolven hebben we dus vaker gehad. Maar de spelregels zijn dit keer anders, zeggen werkgeversorganisatie VNO-NCW en verschillende CEO's van grote bedrijven. Zij zijn omgeslagen als een blad aan een boom, en pleiten voor meer bescherming tegen overnames. Daar geven ze twee redenen voor.

Ten eerste wordt door het beleid van de Europese Centrale Bank de rente kunstmatig laag gehouden, waardoor geld lenen spotgoedkoop is geworden. En ten tweede: het bedrijfsleven maakt zich grote zorgen over de Amerikaanse president Trump, die een protectionistisch America First-beleid voert. Door deze ontwikkelingen is van een gelijk speelveld geen sprake meer, betogen zij. Oud-topmannen als Jan Hommen (Philips, ING) en Sjoerd Vollebregt (voormalig CEO Stork) pleiten voor een bedenktijd van een jaar als beursgenoteerde bedrijven een (vijandig) overnamebod krijgen. Zelfs minister Kamp (VVD) heeft wel oren naar zo'n extra beschermingsmaatregel - volledig tegen zijn eigen partijlijn in. We kunnen dus wel stellen dat het bijzondere tijden zijn.

Leuk hoor, die ruzies tussen aandeelhouders en CEO's. Maar dit raakt mij verder toch niet?

Het gaat in deze discussie inderdaad vooral over aandeelhouders en aandeelhouderswaarde. Maar wie een pensioen opbouwt, heeft eigenlijk ook aandelen, want daar beleggen de pensioenfondsen deels in. En niet alleen de bedrijven die fuseren of overnemen dragen de risico's; er zijn veel meer 'stakeholders' met belangen die op het spel staan. Wat gebeurt er met de werkgelegenheid bij de bedrijven en hun toeleveranciers? Wat zijn de gevolgen voor innovatie, onderzoek en ontwikkeling van nieuwe producten? Wat gebeurt er met beleid om duurzaam te produceren — bij Unilever bijvoorbeeld? En wat zijn de gevolgen voor consumenten, en voor de regio's waarin de bedrijven actief zijn? Voor zulke maatschappelijke effecten is meer aandacht gekomen sinds de financiële crisis in 2008 de wereld hardhandig op de beperkingen van 'de vrije markt' wees. Belastingbetalers draaiden op voor het redden van 'hun banken' en werden geconfronteerd met jaren van bezuinigingen.

Bij veel burgers, beleidsmakers en ook steeds meer politici speelt bovendien al veel langer een sluimerend ongemak; het gevoel dat we door globalisering en Europeanisering te veel de controle en zeggenschap over onze eigen economie zijn kwijtgeraakt. Er is veel onvrede over de rol van multinationals: ze geven slechts om winst op korte termijn, lijken zich niet bezig te houden met langetermijnkosten en gedragen zich als een soort hotelbewoners in de landen waar ze zich vestigen. Hoogleraar Arnoud Boot (tevens lid van de Wetenschappelijke Raad voor het Regeringsbeleid) vroeg zich acht jaar geleden al af: 'Is de onderneming een instrument van de financiële markt aan het worden, met een soort "kwartetten in bedrijfsonderdelen" als meest extreme manifestatie hiervan?' Dat schreef hij in zijn boek over 'De ontwortelde onderneming' (2009). In datzelfde jaar constateerde Menno Tamminga in zijn boek 'De uitverkoop van Nederland' dat Nederland de grootst mogelijke moeite heeft 'om zijn belangen te determineren en behartigen'. Zoals gezegd: Groundhog Day.

Bovendien zijn we in de laatste decennia veel meer te weten gekomen over de nadelige effecten van fusies en overnames. Deze zorgen spelen allemaal mee, en wij vinden dat ze serieus genomen moeten worden, en dat we ze niet moeten verwarren met — of weg laten zetten als — een plat, nationalistisch 'Oranjegevoel'.

Welke kans is groter: dat je huwelijk strandt of dat een fusie mislukt?

Bezint eer je begint: van alle huwelijken loopt zo'n 40 procent op de klippen. Maar de kans dat een fusie van bedrijven mislukt, is nog veel groter. Uit meer dan honderd economische onderzoeken die zijn gedaan in Europa, de Verenigde Staten en Japan blijkt dat van alle overnames tussen de 65 procent en 85 procent mislukt, en dat aandeelhouderswaarde daarbij veelal wordt vernietigd. Hoogleraar Schenk: 'Deze conclusies zijn vaak gewoon ontkend. Dan hoor je: ach, die economen in hun ivoren toren, wat weten die er nou van met hun modellen? Maar als je steeds dezelfde uitkomsten krijgt, ga je wel een beetje geloven in je model. En na dertig jaar onderzoek dringt die kennis nu ook eindelijk door tot minister Kamp.'

Er zijn maar een paar CEO's in de wereld die dat ook zo zien. Zij zijn zeer terughoudend met de overname-ratrace. Jonas Prising van Manpower is zo'n topman die zich niet gek laat maken: 'Ik loop bijna twintig jaar rond in de uitzendwereld en heb verschillende consolidatiegolven meegemaakt. Ik blijf me verbazen over hoeveel kapitaal bedrijven in deze branche vernietigen met ondoordachte overnames.'

Is de angst niet overdreven? AkzoNobel is al nauwelijks meer Nederlands...

Klopt, AkzoNobel is een multinational die zaken doet over de hele wereld. Als je kijkt naar de omzet of het aantal werknemers is het Nederlandse aandeel maar zo'n 10 procent van het grote geheel. Maar het hoofdkantoor van AkzoNobel staat in Amsterdam, en we weten uit cijfers van het CBS dat bedrijven met een buitenlandse moeder sneller activiteiten naar het buitenland verplaatsen dan bedrijven die Nederlands zijn. Van de grote bedrijven met een moeder binnen de Europese Unie heeft 25 procent in de periode 2009-2011 activiteiten naar het buitenland

verplaatst. Bij bedrijven buiten de Europese Unie is dat 26 procent. Voor Nederlandse bedrijven? Slechts 8 procent. Met andere woorden: voor de werkgelegenheid in eigen land is het beter als 'onze' grote bedrijven in Nederlandse handen blijven. Hoewel het CBS eind dit jaar pas met resultaten over de afgelopen jaren komt, is dit volgens de onderzoekers structureel. Zij verwachten niet dat nieuwe cijfers een heel andere trend zullen laten zien.

Ten tweede: wanneer een bedrijf als Akzo overgenomen wordt en activiteiten verplaatst of gereorganiseerd worden, dan zullen ook alle toeleveranciers dat merken. Tegenwoordig zijn veel diensten, die vroeger onderdeel waren van het bedrijf zelf, uitbesteed. Denk aan de catering, beveiliging, schoonmakers. En grote bedrijven hebben ook advocaten, accountants en IT-ers nodig die worden ingehuurd. Een kleine 13 procent van de totale toegevoegde waarde van bedrijfstakken komt voor rekening van de industrie zelf, maar als je ook de toeleveranciers meetelt is dat 20 procent. Het belang voor Nederland van bedrijven als AkzoNobel en Unilever is dus veel groter dan alleen het bedrijf zelf.

Ten derde is het zeer twijfelachtig of die fusies en overnames überhaupt wel groei opleveren voor de Nederlandse samenleving. Expert Hans Schenk zei in een eerder interview met ons dat gemiddeld 75 procent van de fusies niets toevoegt. Sterker nog: er wordt waarde vernietigd. Vooral grote, beursgenoteerde bedrijven kunnen een hevige impact hebben op de economie. Schenk rekent het even voor: 'In de laatste fusiegolf hebben de VS en Europa samen 12.000 miljard dollar besteed aan overnames. Laten we zeggen dat de helft niet goed besteed is, dan ben ik aan de milde kant. Dan praten we over een verlies van 6.000 miljard dollar. Dat is zo'n groot bedrag dat het 1 procent verlies van je BBP zou kunnen zijn. Dat kan net genoeg zijn om een economie in een recessie te brengen.'

Als een verlies afgeboekt moet worden, moet iemand dat verlies nemen in de reële economie, zegt Schenk: 'De bank bijvoorbeeld. Dat kan dan effect hebben op het verstrekken van hypotheken. Of het bedrijf dat de veel te dure overname heeft gedaan moet reorganiseren en mensen ontslaan.'

Maar wij nemen toch zelf ook heel veel bedrijven in het buitenland over?

Dat klopt, en dat argument wordt dan ook vaak aangehaald. Wij doen precies hetzelfde! Hoe dacht je anders dat Akzo zo groot is geworden? Maar de vraag moet zijn: welke waarde – of het nou een Nederlands bedrijf is dat overneemt of een Nederlands bedrijf dat overgenomen wordt – wordt daarmee uiteindelijk toegevoegd? Bar weinig, vaak. Een paar voorbeelden:

1999 - KPN koopt voor (omgerekend) 20 miljard euro het Duitse E-Plus. In 2002 schrijft KPN 13,7 miljard af omdat het bedrijf veel minder waard blijkt te zijn. In 2013 wordt E-Plus aan Telefonica verkocht. KPN boekt nog eens 3,7 miljard af. In totaal heeft KPN dus 17,4 miljard te veel betaald.

2000-2003 - Numico wil behalve in babyvoeding ook in de vitaminepreparaten en koopt drie Amerikaanse bedrijven voor 4,5 miljard. Daar is een paar jaar later alweer 1,6 miljard van afgeschreven.

2007 - AkzoNobel koopt voor 11,8 miljard het Britse ICI. Na twee jaar wordt 3,7 miljard afgeboekt.

Dus we gaan helemaal geen fusies of overnames meer doen? Get real!

We zien in deze discussie dat aan de ene kant volop wordt gepleit voor meer bescherming, terwijl anderen stellen dat het beschermen van beursgenoteerde bedrijven onnodig is, of zelfs contraproductief, en dat het onze economie schade zal toebrengen. Kortom: veel stevige meningen. Maar zoals Arnoud Boot in het FD al schreef: 'Wie investeerders louter als aasgieren ziet, is verkeerd bezig. En wie het bestuur ziet als moeder Theresa is ook niet van deze planeet. Maar het ontkennen van het bestaan van een wereld van flitskapitaal is evenzeer onzinnig.' Dus, wat te doen?

Een panklaar antwoord hebben we niet, helaas. Er is geen algemeen aanvaarde theorie of praktijk die een adequate bescherming van een onderneming voorschrijft. Het wordt een zoektocht. Een zoektocht naar de bescherming die het best bij Nederland past, en daarom is het goed dat we deze discussie voeren. Minister Kamp heeft een voorstel gedaan waar de politiek zich momenteel over buigt. Door de botsing van verschillende visies op de toekomst van onze economie, komen daar verschillende ideeën uit voort, zoals het geven van meer invloed aan werknemers op besluiten over overnames.

Ook Hans Schenk trekt de discussie breder: 'Als je weet dat de kans heel groot is dat een overname sowieso mislukt, maakt het niet zoveel uit of het bod vijandig is of niet. Ik heb het niet over al die kleine bedrijven. Die hebben niet zo'n impact op de economie als het fout gaat. Maar die grote wel. Ik leg de grens bij overnames vanaf pakweg 500 miljoen euro.' Volgens Schenk zou je die moeten voorleggen aan een toetsingscommissie die kijkt naar het breder maatschappelijk belang: 'De directie moet aan de toetsingscommissie uitleggen hoe al die mooie schaalvoordelen bereikt worden. En of dat écht plausibel is. Als je al die mooie beloftes binnen vijf jaar niet gerealiseerd hebt, moet de fusie ongedaan gemaakt worden. Ik denk dat een maatschappelijke toets samen met een jaar bedenktijd een grote vooruitgang is. Je haalt dan alle speculatie uit de markt.' Wat Schenk voorstelt is in Duitsland al doorgevoerd: daar worden overnames van 400 miljoen euro of meer onder de loep genomen. Daarnaast willen Italië, Frankrijk en Duitsland graag dat de Europese Commissie bedenkt hoe strategische, technologische bedrijven beter beschermd kunnen worden.

Dus we moeten het over de toekomst van onze economie hebben?

Ja! Exact. De zoektocht naar de bescherming die Nederland nodig heeft, raakt een veel groter en belangrijker onderwerp: wat voor economie willen we in de toekomst hebben? Zulke vragen worden nog maar weinig gesteld. Het is tijd dat ze weer op de agenda komen. Het regent artikelen en analyses over de onvrede en onrust over hoe het economisch en sociaal met ons gaat – denk ook even aan Brexit en de verkiezing van Trump – en het neoliberalisme wordt wekelijks doodverklaard.

Andere landen vragen zich wél af hoe het verder moet met hun economie, of kennen al langer een actievere rol voor de overheid. Grote landen als Frankrijk en Duitsland hebben een industriepolitiek, schreven verschillende kranten de afgelopen tijd. Er lijkt nu 'een einde te komen aan Nederland als "braafste jongetje van de klas" als het om het eigen bedrijfsleven gaat,' schreef NRC. 'Jarenlang was de opstelling van de politiek: wij gaan er niet over, laat de vrije markt z'n werk doen. Inmiddels beweegt Nederland in de richting van EU-lidstaten als Frankrijk en Italië, die een stuk minder gêne kennen bij de bescherming van eigen economische belangen.' Maar die landen zijn heel protectionistisch en groeien zelf niet zo hard. Zo'n overheid die zich overal mee bemoeit, moet je toch niet willen?

Het is veel breder dan dat. Trump, wat je ook van de man en zijn voorstellen vindt, wil ook een actievere overheid. En zelfs in het land van Margaret Thatcher wil de conservatieve premier Theresa May nu voor Engeland een nieuwe industriepolitiek. De regering publiceerde een dik green paper met een voorwoord van de premier, waarin zij schrijft dat 'een moderne industriële strategie' nodig is. May wil 'een nieuwe benadering voor de regering, die niet afzijdig moet blijven om de bedrijven hun gang te laten gaan maar die een nieuwe actieve rol moet spelen.' Over de precieze betekenis van dit doel is door de regering een publieke consultatie gestart. In dat kader is onder andere een onafhankelijke Industrial Strategy Commission opgericht. Die commissie komt binnenkort met een eerste advies.

OMG: terug in de tijd! Van industriepolitiek kan toch niks goeds komen?

De term 'industriepolitiek' moeten we misschien maar niet te veel gebruiken. Bereid je voor op misprijzende blikken en afkeurend gemompel als je dat woord in een gesprek met economen laat vallen. Overheden zijn niet beter dan marktpartijen in het kiezen van successen, zul je te horen krijgen, dus je loopt het risico dat belastinggeld gaat naar losers in plaats van naar winners. Er werden in het verleden inderdaad honderden miljoenen verloren aan ten dode opgeschreven bedrijven en sectoren – aan scheepsbouwbedrijf Rijn-Schelde-Verolme bijvoorbeeld. Daaruit hebben velen de conclusie getrokken dat de overheid zich verre moet houden van actieve bemoeienis met de structuur van de economie. Ten onrechte.

Want je kunt ook doorslaan en te naïef zijn over hoe de markt alles goed voor ons zal organiseren en oplossen. De bekende Italiaanse econoom Mariana Mazzucato, die ook al eens bij minister Kamp op de koffie is uitgenodigd, timmert aan de weg met onderzoek dat laat zien dat zo ongeveer de hele iPhone tot stand is gekomen dankzij overheidssubsidies en -onderzoek. Econoom Ha-Joon Chang wijst op andere voorbeelden: 'Another example of supporting world class companies was the Korean government's early support of Samsung electronics. Why do the Japanese excel at manufacturing cars? Why does Latin America excel at coffee?' Mazzucato is een van de velen die pleiten voor een actieve rol van de overheid bij het aanpakken van grote maatschappelijke uitdagingen, zoals de vergroening van de economie en de aanpassingen die de 'verzilvering' van de bevolking vragen.

EU-commissaris Carlos Moedas, die binnen Europa over onderzoek, wetenschap en innovatie gaat, haalt haar tegenwoordig regelmatig instemmend aan: 'As Mariana Mazzucato says: Innovation-led growth is not just about fixing a market failure but also about setting direction and creating new markets. If you just tackle the market failure you can head into the wrong direction.'

Dus we hebben een visie nodig? Daar zal premier Rutte blij van worden...

Het is niet anders. De overheid moet een visie ontwikkelen op de toekomst van het land en de economie. Daarover spraken we in Londen met Diane Coyle, een sympathieke Britse topeconoom die lid is van de eerder genoemde Britse Industrial Strategy Commission. Industriepolitiek is eigenlijk een verkeerd woord, zegt zij. Want we moeten het dus niet alleen over de toekomst van de industrie hebben, maar over die van de hele economie.

En misschien wel haar belangrijkste punt: het gaat dan niet om een lijst maatregelen waarmee je bepaalde sectoren of bedrijven gaat steunen met mooie subsidies. Er is zeker geld nodig, maar de overheid kan vaak ook al een rol spelen door partijen bij elkaar te brengen. Dus wederom: een visie heb je nodig. En dan moet je het over economisch structuurbeleid hebben. En over een agenda om de kwakkelende productiviteitsgroei te vergroten. Want helaas: innovaties zoals de iPhone hebben niet tot een explosie van productiviteit geleid. De productiviteit verhogen is niet makkelijk - alle rijke landen worstelen ermee.

Wat ons ook erg aansprak is Coyle's argument dat er eigenlijk geen keus is. Ook als je denkt of claimt dat je land niet aan industriepolitiek doet, dan doe je dat de facto wel. Je maakt namelijk altijd keuzes, doet sommige dingen wel en andere dingen niet. Zo zijn we bijvoorbeeld aan de veel te grote financiële sector gekomen die ons in 2008 en de jaren daarna de das om heeft gedaan. Geen expliciete visie leidt ook tot keuzes, maar dan ad hoc, en je bent gevoeliger voor lobby's. Dan kun je maar beter expliciet keuzes maken, die zijn te controleren. Het VNO-NCW is altijd goed in het maken van grote plannen, zoals NL Next Level. Die rapporten worden met flair en optimisme in de pers gepresenteerd en trekken veel aandacht. Zulke inspanningen verdienen een goed debat en serieuze concurrentie van plannen en voorstellen van andere stakeholders en betrokkenen. Dan kunnen de politiek, en wij allemaal, beter onderbouwd afwegen en bepalen welke kant we op willen gaan.

Ook bij moderne industriepolitiek zal wel eens wat misgaan, dat gebeurt in bedrijven dagelijks. Daar moet je niet van schrikken, of meteen Kamervragen over stellen; dat moet je goed evalueren. Om dat te kunnen doen moet je wel doelen formuleren en instrumenten inzetten die evalueerbaar zijn. Dan kun je pas leren van fouten en broeden op successen voor de toekomst.

Kunnen jullie het nog wat concreter voor me maken: waar zou die moderne industriepolitiek zoal uit moeten bestaan?

We kunnen er binnenkort meer over lezen in het rapport van de Britse commissie, maar Diane Coyle schetst vast een paar hoofdlijnen. Om te beginnen: het idee dat 'de overheid' en 'de markt' twee heel verschillende domeinen zijn, is allang achterhaald. De overheid kan en moet verantwoordelijkheden op zich nemen die voor het bedrijfsleven te risicovol zijn. Zo zal een bedrijf minder snel investeren in fundamentele wetenschap omdat het lastig in te schatten is of die investeringen zich snel uitbetalen. Ook kan de overheid een rol spelen in het beheersen van risico's, want zij kan op de kapitaalmarkt geld aantrekken voor een lager rentepercentage dan bedrijven.

Wat je in elk geval niet moet doen, zegt Coyle, is 'de gevestigde orde op je thuismarkt beschermen. Overheden hebben vaak de neiging dat te doen, en dat zijn ook de bedrijven die een sterke lobby hebben bij de regering. Maar innovatie komt vaak niet bij die gevestigde orde vandaan.' Coyle geeft als voorbeeld de auto-industrie. 'Dat is een belangrijke sector met veel banen, die zorgt voor veel export en een hoge productiviteit. In de hele waardeketen komen nieuwe bedrijven op die bezig zijn met het ontwikkelen van elektrische auto's en batterijen. Je moet daarom ook een open economie hebben, zodat buitenlandse bedrijven zich makkelijk kunnen vestigen.'

'Multinationals zijn veel productiever. Nissan en Toyota hebben ons land veel gebracht. De auto-industrie in het Verenigd Koninkrijk bestaat vooral uit buitenlandse bedrijven, maar het is een van onze meest productieve sectoren.'

Je moet ook bedenken wat voor buitenlandse investeringen je wil aantrekken. Daarbij zou het niet alleen om de werkgelegenheid moeten gaan, zegt Coyle. Je moet kijken of ze goed zijn voor de ontwikkeling van je productiviteit.

En hoe beoordeel je dan wat je wel en niet moet doen?

Dat is niet altijd makkelijk. Kosten-batenanalyses zijn vaak ongeschikt om daar een beslissing over te nemen, zegt Coyle. Zo'n analyse kijkt namelijk naar kleine, zich opstapelende veranderingen, en niet naar de grote. Terwijl je juist met een groot project het gedrag van mensen wil veranderen.

Stel dat je een hogesnelheidstrein wilt aanleggen van Groningen naar de Randstad. Hoe bereken je de baten daarvan? Als het werkt, is de verandering heel groot. Je krijgt misschien een achtergestelde regio met een nieuwe weg of spoorverbinding, omdat daardoor meer mensen daarnaartoe gaan, en er nieuwe economische activiteiten ontstaan. Hoe neem je dat – een onzeker effect – mee in zo'n berekening?

In de manier waarop we nu naar beslissingen kijken, zit bovendien een 'winner takes all'dynamiek. Je hebt geen onbeperkte middelen, dus wat ga je doen: een nieuw spoor in Londen aanleggen of doe je dat in een regio die achterblijft? Een nieuw treinspoor levert altijd meer op in Londen. Daar verdienen de mensen meer, kunnen de kaartjes duurder zijn, en heb je de investering sneller terugverdiend dan wanneer je een spoor in het Noorden van Engeland aanlegt. Als je niet uitkijkt, gebeurt er in de regio helemaal niks meer.

Daarmee komen we als vanzelf bij de verschillen binnen een land, en regionale ontwikkeling. 'In de jaren 80 raakten veel mensen die vaste banen en fatsoenlijke lonen hadden ineens hun werk kwijt door de de-industrialisatie,' zegt Coyle. 'Er was geen enkel beleid om die mensen weer naar nieuw werk te begeleiden. Het sluiten van de fabrieken en de mijnen was geconcentreerd in bepaalde gebieden in Engeland. Hun kinderen kregen ook geen werk, de huizen en gemeenschappen gingen achteruit, en daar kwamen ze niet meer uit. Dat kwam door globalisering en automatisering, maar we hadden veel meer op kunnen vangen als we daar beleid voor hadden gehad.'

'Je hebt een kritische massa met een bepaald voorzieningenniveau nodig voor een stad in een regio, zodat getalenteerde jongeren daar willen blijven wonen en bedrijven zich er willen vestigen. Je hebt in ieder geval goede infrastructuur nodig, mensen met de juiste opleiding – dat is niet per se een hoge opleiding trouwens – en ook goede voorzieningen, zoals een ziekenhuis en een theater. En misschien ook wel een vliegveld waarmee je direct naar China kunt vliegen.'

'Wat je moet doen verschilt per geval, en we zijn nog zoekende naar de juiste weg. Maar het korte antwoord is dat de overheid in elk geval geld moet uitgeven.'

Het zijn prikkelende ideeën en gedachten, we kijken uit naar het rapport van de commissie en de verdere discussie in de het VK. Ben je positief over de toekomst van je land, vragen we tot slot aan Diane Coyle? 'Nee, het wordt afgrijselijk met de Brexit, maar juist daarom moeten we hier des te harder aan werken.'

Title: Is It Time to Break Up Google? Author: Jonathan Taplin From: New York Times Date: April 22, 2017

In just 10 years, the world's five largest companies by market capitalization have all changed, save for one: Microsoft. Exxon Mobil, General Electric, Citigroup and Shell Oil are out and Apple, Alphabet (the parent company of Google), Amazon and Facebook have taken their place. They're all tech companies, and each dominates its corner of the industry: Google has an 88 percent market share in search advertising, Facebook (and its subsidiaries Instagram, WhatsApp and Messenger) owns 77 percent of mobile social traffic and Amazon has a 74 percent share in the e-book market. In classic economic terms, all three are monopolies.

We have been transported back to the early 20th century, when arguments about "the curse of bigness" were advanced by President Woodrow Wilson's counselor, Louis Brandeis, before Wilson appointed him to the Supreme Court. Brandeis wanted to eliminate monopolies, because (in the words of his biographer Melvin Urofsky) "in a democratic society the existence of large centers of private power is dangerous to the continuing vitality of a free people." We need look no further than the conduct of the largest banks in the 2008 financial crisis or the role that Facebook and Google play in the "fake news" business to know that Brandeis was right.

While Brandeis generally opposed regulation — which, he worried, inevitably led to the corruption of the regulator — and instead advocated breaking up "bigness," he made an exception for "natural" monopolies, like telephone, water and power companies and railroads, where it made sense to have one or a few companies in control of an industry.

Could it be that these companies — and Google in particular — have become natural monopolies by supplying an entire market's demand for a service, at a price lower than what would be offered by two competing firms? And if so, is it time to regulate them like public utilities?

Consider a historical analogy: the early days of telecommunications. In 1895 a photograph of the business district of a large city might have shown 20 phone wires attached to most buildings. Each wire was owned by a different phone company, and none of them worked with the others. Without network effects, the networks themselves were almost useless.

The solution was for a single company, American Telephone and Telegraph, to consolidate the industry by buying up all the small operators and creating a single network — a natural monopoly. The government permitted it, but then regulated this monopoly through the Federal Communications Commission. AT&T (also known as the Bell System) had its rates regulated, and was required to spend a fixed percentage of its profits on research and development. In 1925 AT&T set up Bell Labs as a separate subsidiary with the mandate to develop the next generation of communications technology, but also to do basic research in physics and other

sciences. Over the next 50 years, the basics of the digital age — the transistor, the microchip, the solar cell, the microwave, the laser, cellular telephony — all came out of Bell Labs, along with eight Nobel Prizes. In a 1956 consent decree in which the Justice Department allowed AT&T to maintain its phone monopoly, the government extracted a huge concession: All past patents were licensed (to any American company) royalty-free, and all future patents were to be licensed for a small fee. These licenses led to the creation of Texas Instruments, Motorola, Fairchild Semiconductor and many other start-ups.

True, the internet never had the same problems of interoperability. And Google's route to dominance is different from the Bell System's. Nevertheless it still has all of the characteristics of a public utility. We are going to have to decide fairly soon whether Google, Facebook and Amazon are the kinds of natural monopolies that need to be regulated, or whether we allow the status quo to continue, pretending that unfettered monoliths don't inflict damage on our privacy and democracy.

It is impossible to deny that Facebook, Google and Amazon have stymied innovation on a broad scale. To begin with, the platforms of Google and Facebook are the point of access to all media for the majority of Americans. While profits at Google, Facebook and Amazon have soared, revenues in media businesses like newspaper publishing or the music business have, since 2001, fallen by 70 percent.

According to the Bureau of Labor Statistics, newspaper publishers lost over half their employees between 2001 and 2016. Billions of dollars have been reallocated from creators of content to owners of monopoly platforms. All content creators dependent on advertising must negotiate with Google or Facebook as aggregator, the sole lifeline between themselves and the vast internet cloud.

It's not just newspapers that are hurting. In 2015 two Obama economic advisers, Peter Orszag and Jason Furman, published a paper arguing that the rise in "supernormal returns on capital" at firms with limited competition is leading to a rise in economic inequality. The M.I.T. economists Scott Stern and Jorge Guzman explained that in the presence of these giant firms, "it has become increasingly advantageous to be an incumbent, and less advantageous to be a new entrant."

There are a few obvious regulations to start with. Monopoly is made by acquisition — Google buying AdMob and DoubleClick, Facebook buying Instagram and WhatsApp, Amazon buying, to name just a few, Audible, Twitch, Zappos and Alexa. At a minimum, these companies should not be allowed to acquire other major firms, like Spotify or Snapchat.

The second alternative is to regulate a company like Google as a public utility, requiring it to license out patents, for a nominal fee, for its search algorithms, advertising exchanges and other key innovations.

The third alternative is to remove the "safe harbor" clause in the 1998 Digital Millennium Copyright Act, which allows companies like Facebook and Google's YouTube to free ride on the content produced by others. The reason there are 40,000 Islamic State videos on YouTube, many with ads that yield revenue for those who posted them, is that YouTube does not have to take responsibility for the content on its network. Facebook, Google and Twitter claim that policing their networks would be too onerous. But that's preposterous: They already police their networks for pornography, and quite well.

Removing the safe harbor provision would also force social networks to pay for the content posted on their sites. A simple example: One million downloads of a song on iTunes would yield the performer and his record label about \$900,000. One million streams of that same song on YouTube would earn them about \$900.

I'm under no delusion that, with libertarian tech moguls like Peter Thiel in President Trump's inner circle, antitrust regulation of the internet monopolies will be a priority. Ultimately we may have to wait four years, at which time the monopolies will be so dominant that the only remedy will be to break them up. Force Google to sell DoubleClick. Force Facebook to sell WhatsApp and Instagram.

Woodrow Wilson was right when he said in 1913, "If monopoly persists, monopoly will always sit at the helm of the government." We ignore his words at our peril.

Title: Is the Public Corporation Obsolete in the U.S.? Author: Gerald Davis From: Global Focus Magazine Date: n.d.

Suppose you wanted to start an enterprise right now without leaving your couch. Is that possible? If you have internet access and a credit card, it is. Imagine a hypothetical product: the iPhone Remote Drone Assassin App. The app would allow users to control weaponized drones for classified operations. The market for the product would include government contractors of various types, as well as freelance operators. The first step is to rent a virtual space at a legitimate-sounding address, preferably in Silicon Valley (to convey high-tech street cred). Next, incorporate online in Liberia, the legal home to many legitimate companies like Miami-based Royal Caribbean Cruise Lines. It's easy and guick, and may have certain unspecified advantages when tax time comes. What about funding? Thanks to the "JOBS Act" of 2012, finding investors online is easy, through various crowdfunding sites. Contract programmers to write the app can be hired via Upwork. A manufacturer for the drone itself can almost certainly be secured at Alibaba.com, which includes a vast selection of remote control aircraft vendors in China. Square is a user-friendly payments company that allows anyone with a smartphone or tablet computer to accept credit card payments. Finally, Shipwire will pick up the products from the dock in California, warehouse them, and distribute them to users. With a few clicks, you can be an entrepreneur.

This scenario is not entirely fanciful. Michael Dell famously started a computer company in his Texas dorm room, and ultimately grew it to be the best-selling brand in the US, using off-theshelf parts. Today, almost anyone can create an enterprise without leaving their dorm room, as the barriers to entry have collapsed in industry after industry. The economies of scale that gave birth to the modern corporation have disappeared in many sectors; in others, large-scale generic producers are happy to serve anyone, whether their product is tomato sauce, pharmaceuticals, or flat screen televisions. Lightweight entrants can scale up or down rapidly by renting rather than buying capacity, and their low cost means that in many domains they are a superior choice.

Easy entry is great news for entrepreneurs, but creates an existential threat to traditional corporations and their employees. The cost of being a pop-up business keeps going down, while the cost of being a public corporation, with all its obligations and liabilities, keeps going up. This is a big part of the reason that public corporations are vanishing in the US. The pop-up company Vizio grew to be the best-selling brand of LCD televisions in the US by 2007, beating Samsung and far outpacing Sony, by offering low-cost TVs assembled by a Taiwanese partner and sold through big-box retailers like Costco. Just as Michael Dell realized that PCs were composed of off-the-shelf components with a superfluous brand name, Vizio's founder recognized that anybody could make a flat-screen TV, and the lowest-cost producer with the best distribution would win. Unlike Dell, however, Vizio chose not to invest in assets or employees: it had fewer than 200 workers when it surpassed Sony, and even today, as it has expanded into sound equipment and laptop computers, it has only 400 employees – about as many as a typical Walmart superstore.

The Flip video camera also grew rapidly from its invention in 2007 to 2009, when it had become a must-have accessory for millennials. With just 100 employees, it had the largest market share in its industry segment thanks to its clever design and marketing. Cisco bought the company in 2009; two years later, it was closed because Flip was obsolete: many people who would buy a Flip already had a smartphone that could do much the same thing. Flip was the corporate equivalent of a pop-up restaurant. At four years from birth to market dominance to obsolescence, Flip was much more efficient than Eastman Kodak, which took well over a century and tens of thousands of career employees to follow this same trajectory.

Compare Vizio and Flip with their betterknown competitor, Sony. Sony is one of the most storied brand names in history, known around the globe for products like the Walkman and the Trinitron television. But with 150,000 employees, billions in assets, and expensive real estate in Tokyo, Sony is costly to maintain, and has lost many billions in its electronic business. (It fares much better in life insurance, movies, and music.) A chorus of financial analysts has urged the company to quit the electronics industry entirely. As one analyst put it in 2013, "Electronics is its Achilles' heel, and in our view, it is worth zero...In our view, it needs to exit most electronics markets." Shortly after this report, Sony sold its personal computer business and exiled its television business to a subsidiary. Sony was fitfully exiting the electronics business, just as its analysts asked. But the music business faces the same form of lightweight competition. Stockholm's X5 Music Group, with just 43 employees, produced 13 of the top 50 selling classical albums in 2010 - about the same as Universal, the industry's heavyweight. The company licenses the rights to performances owned by smaller classical music labels and virtually "packages" them into compilations for sale online via iTunes and Amazon. With no need for physical product, the company can be radically tiny yet large in its impact. And unlike Sony and Universal, it does not require corporate jets or skyscrapers or costly employee benefits.

Similarly, whereas Blockbuster had 83,000 employees and 9,000 physical stores at its height, Netflix today has only 4,700 employees (of which 1,300 are temps) and rents server capacity from Amazon. The ability to rent assets and use contract employees allows firms to be tiny and nimble, yet large in impact.

A corporation was once a social institution, with a mission and members and boundaries that separated the inside from the outside. Today it is more like a web page. What do I mean by this? Right-click on a web page and choose "View page source." The pleasing coherence of the visual design you saw is replaced by pages of unreadable code. Much of the code is essentially instructions that say "Go to the database located at the following address and pull an image from here to place in the following location; go to this other database and pull some text from there." It is a series of calls on outside resources that are brought together just in time to convey the image that you see. Vizio, Flip, and scores of other contemporary enterprises are a lot like this: not an enduring social institution with members and obligations, but a webpage.

The high cost of being a corporation

It is useful to recall why we had corporations in the first place. Corporations were created to pursue ventures that required investments that would be too big or too risky to be financed by individuals and families on their own. In the US, the prototypical corporation in the 19th century was the railroad, and later the large manufacturer. These enterprises required funds for tangible long-lived assets like land, plant, and equipment. The corporation was a good way to

finance enterprises characterized by economies of scale. If the cheapest way to make cars is on a giant assembly line in Detroit employing thousands of people, and to ship them from there to the rest of the country, then it makes sense to form a corporation and issue shares to the public. Raising capital on public markets imposes a set of requirements for accountability and transparency. Investors need some assurance that they will get their money back. Public companies need to issue quarterly and annual reports explaining what the company does, who is running it, and how it is doing, all vetted by outside accountants. Public corporations are also required to disclose things like who is on the board and their qualifications and other commitments; how much executives are paid; what risks the company faces; how its labor relations fare; and more. These disclosures are intended to make it easier for investors to assess whether it is sensible to invest in a company, and what it might be worth.

Corporations also face regulations that other forms of business do not. In the US, corporations are chartered by the states, not the federal government. As a result, when Congress wants to shape business behavior, it often does so through securities regulations. When Congress wanted companies to stop paying bribes in other countries, it passed the Foreign Corrupt Practices Act of 1977, which made it "unlawful for an issuer of securities...to make certain payments to foreign officials and other foreign persons..." Similarly, the Dodd-Frank Act required US-listed companies to disclose if they are using conflict minerals from Congo in their products – which applied to Hewlett-Packard (a public company) but not Dell (which had gone private). Other costs of being a public corporation are implicit. The public expects things of corporations: safe products, fair wages, decent employee benefits, ethical supply chains, social responsibility. When corporations fail to live up to these expectations, their required disclosures are a gold mine of information for journalists and activists who want to hold them to account. Anyone can look up the compensation packages of the top five corporate executives of any listed company, which provides fodder for endless articles about overpaid CEOs.

Now try to find the same information about Koch Industries, which is privately owned. Social activists also find it much easier to target listed corporations than other kinds of businesses. In 2015, ExxonMobil faced a raft of climate-related shareholder proposals: to adopt greenhouse gas reduction targets; to distribute capital to shareholders rather than spend it on capital investments in carbon-intensive projects; to appoint a director with expertise in climate change and renewable energy; to link executive compensation to sustainability performance; and to report on efforts to reduce the adverse effects of fracking. On the other hand, private companies in the oil business, such as Koch Industries, have no worries about divestment or activist investors.

Finally, beyond the demands of regulators and the scrutiny of media and social movements, public corporations today face unprecedented levels of activism by hedge funds demanding changes in personnel, finances, and strategy. The Economist reported in 2015 that 15% of the S&P500 had been targeted by activist campaigns since 2009. "Since 2011 activists have helped depose the CEOs of Procter & Gamble and Microsoft, and fought for the break up of Motorola, eBay and Yahoo... They have won board seats at PepsiCo, orchestrated a huge round of consolidation across the pharmaceutical industry, and taken on Dow Chemicals and DuPont." Their demands typically include some combination of a board seat, a new CEO, a bustup, and/or a share buyback. Share price performance is no longer enough to fend off activists: even

Apple, the world's most valuable corporation, was targeted due to its oversize cash hoard. If Apple can't keep its shareholders happy, then no one is immune to shareholder activism.

What is a "large" corporation?

One of the most visible consequences in the shift from corporation to popup is in the employment practices of the newest companies. For most of the post-war era, the biggest corporations tended to be large in revenues, employment, assets, and market capitalization. Today, these different aspects of "size" are no longer necessarily linked. Walmart is huge in revenues, employment, and market capitalization. General Motors and Kroger are large in revenues and employment but modest in market cap. Facebook is large in market cap, small in revenues, and tiny in employment. Table 1 shows the five corporations with the largest stock market values and the size of their workforce from 1962 to 2012.

Table 1: Five US corporations with the largest market capitalization and the size of their workforces (in thousands), 1962-2012

1962 - AT&T 564 GM 605 Exxon 150 DuPont 101 IBM 81

1972 - IBM 262 AT&T 778 Eastman Kodak 115 GM 760 Exxon 141

1982 - IBM 365 AT&T 822 Exxon 173 GE 67 GM 657

1992 - Exxon 95 Walmart 434 GE 231 Philip Morris 161 AT&T 313

- 2002 Microsoft 51 GE 315 Exxon 93 Walmart 1400 Pfizer 98
- 2012 Apple 76 Exxon 77 Microsoft 94 Google 54 Walmart 2200

Observe that for most of this period, the most valuable corporations were also very large-scale employers, offering relatively secure employment and opportunities to climb a career ladder. By 2012, however, only Walmart had more than 100,000 employees among the top five in market value, and the career ladder it offers to most employees is more of a step-stool. Walmart is the largest private employer in the US, Canada, and Mexico. In the US, Walmart has more workers than the dozen largest manufacturers combined. It also has very high turnover, and a large proportion of its workforce is part-time, in sharp contrast to the large-scale employers of the past.

Now consider the best-known companies in the high tech economy since 2000. How many people do you know that actually work for any of these companies? Unless you live in Palo Alto, the answer is likely to be "None." (If you know someone who claims to work for these companies, odds are good that they are a contractor, not an employee.) In 2015, Facebook had 1.35 billion users, but only 9,199 employees. Twitter had 288 million monthly users, and 3,638 employees. Dropbox had over 300 million users, and 971 employees. Zynga, 1,974 employees. Zillow, 1,215. LinkedIn, 6,897. Uber, perhaps 2,000. Square, 1,000. Of course, Google – the paradigmatic corporation of the 21st century – was a bit bigger, with 53,600 employees around the world. But the combined global workforces of all of these companies put together was still just 80,000 – less than Blockbuster had in 2005, or the number of new employees GM hired in 1942 alone. We might reasonably ask: Is Facebook a "large corporation, and its name is familiar to everyone. Yet hardly anyone actually works there, and in spite of the mythology of the "app economy," hardly anybody makes a living writing apps either. And with only \$12.5 billion in revenues in 2014, Facebook was only at about the middle of the Fortune 500.

Technological changes and the rise of generic service providers make it easier than ever to snap together an enterprise today. But for traditional corporations, with careers and benefits, the result is an existential threat that is re-shaping the corporate landscape in the US.

Title: The Industrial Strategy Commission – Laying the Foundations Author: -From: Industrial Strategy Commission Date: July 2017

Foreword

We hope that the emerging findings set out in this report are a valuable independent contribution to the debate about the long-term future of the UK economy. It is a welcome backdrop to this debate to find political consensus exists now for a new and broadly-based industrial strategy, but it is also clear that such consensus may prove fragile over coming years. For this reason, our first and most important conclusion is that the UK needs a set of institutions which will ensure public and private sector bodies can plan on the basis of confidence in a shared long-term vision.

The business sector is also supportive of a long-term, clear and ambitious industrial strategy. This view is shared by firms of all sizes, and by new innovative entrepreneurs as well as established firms. There is a big shift in thinking about the weaknesses of the UK economy, the challenges now facing us, and how the role of the state should develop to tackle these issues; triggering welcome recognition of the need for fresh ideas.

After a decade when growth has generally disappointed, and facing the uncertainty following the EU referendum, policymakers should grasp the opportunity this consensus provides. The Government must quickly set out a clear timetable for the development and implementation of the new industrial strategy.

To be effective, the strategy must not be the property of a single government department; its goals must be shared across Whitehall departments, the devolved administrations, mayors and local authorities and the emerging regional tiers of government. This will help to stimulate the necessary partnerships with the private sector, and encourage vital new thinking about how to ensure that more places contribute to growth and share in its fruits.

Our report outlines what we believe are the key foundations of industrial strategy - and introduces fresh thinking in particular around new institutional structures and the importance of place, how public interventions should be assessed, the funding of research and development and the role of the government in procurement.

We hope politicians of all parties will engage with these emerging findings. Our work is ongoing; while we are not renewing a call for evidence, views and comments on these findings would be very welcome. Our final report will include more detail and specific recommendations - including suggestions about the metrics by which the UK's industrial strategy should be

assessed.

Industrial strategy is a big topic and it is vital the UK is able to set a steady course towards the long-term objectives set out in this report, enabling the achievement of the present strategic goals which include decarbonisation and a sustainable health and social care system. I am very grateful to all those who have submitted evidence to help the Commission to reach this stage and very impressed by the joint working of the Commission team.

Dame Kate Barker

Chair of the Industrial Strategy Commission

Executive Summary

• In the context of significant and growing economic uncertainty the UK has a compelling and overwhelming need for strategic economic management.

• This is a critical moment for the development of a new industrial strategy. As the government prepares its new strategy and a new White Paper we urge ministers, members of the Opposition and officials across Whitehall, to engage with our findings, along with the devolved administrations, regional and local authorities. Before specific policies are developed it is essential that the correct foundations for the new industrial strategy are laid. This report set out what those foundations are.

• Industrial strategy refers to the strategic, long-term co-ordination of all interactions between the state and the economy. It should become the organising principle for UK supply-side economic policy across all government departments.

• Industrial strategy is not about the government handing out money to chosen businesses or sectors. The state's role is to create the conditions for long-term investments in productive and innovative business activity, ensuring that the economy is geared towards meeting key national challenges.

• A new strategy must be shaped by analysis of current economic weaknesses and challenges and how to address them, an assessment of past and present policy shortcomings, and an understanding of future anticipated change.

• The weaknesses and challenges affecting the UK economy are significant: poor productivity performance; pronounced regional differences in economic performance; a high degree of centralisation; a low rate of investment; uneven skills distribution; a weak trading performance and a weakening diffusion of innovation.

• The UK's current and past industrial policies and practices have significant shortcomings and are not sufficient to address the challenges facing the UK nor capitalise on future opportunities. Lessons must be learnt from them and the decision-making processes and understanding that underpins them altered.

• Understanding the rapid pace of technological change and its potential to reshape the economy must be integral to a new strategy. It should seek to capitalise on the opportunities technological change provides to meet societal goals and create prosperity.

• Industrial strategy requires long-term objectives. It should seek to achieve sustainable economic development and enable the economy to deliver prosperity that is widely shared; address persistent weaknesses in the UK economy; mobilise the private sector to drive innovation and productivity growth; establish a clear rationale for public investment to support industrial development and provide a framework for science and innovation investment.

• It should also achieve and maintain consensus and buy-in from policymakers, business and the public about its objectives, and engage all as long-term partners in meeting and shaping them.

• An industrial strategy must be informed by a positive vision of a future destination for our country and motivated by an urgent sense of national purpose. This can be achieved by reframing the challenges the country faces as strategic goals to be met. • Our assessment is that the strategic goals of the state are: decarbonisation of the energy economy; ensuring adequate investment in infrastructure; developing a sustainable health and social care system; unlocking long-term investment; supporting high-value industries in building export capacity, and enabling growth in all parts of the UK.

• The Commission has identified seven themes that must be considered foundational. The new strategy must be built upon them:

• Institutional framework: The UK lacks a robust institutional framework through which industrial strategy can be determined, implemented and monitored. A new institutional framework is needed to place industrial strategy at the heart of government, and embed it throughout the state. Strong industrial strategy institutions at the local and regional level and in the devolved administrations, and co-operation with other public and private sector institutions, will be required. An independent monitoring body is needed to hold policymakers accountable for the success of the strategy.

• Place: A new strategy must build on the existing strengths of the UK's local economies and seek to improve productivity everywhere. The new strategy must provide adequate investment for weaker parts of the economy. It should recognise the powerful force of agglomeration and focus on creating high productivity clusters. Current methods of appraising public investments need to be changed: existing methodologies disproportionately benefit the parts of the UK where the economy is already strong, and do not properly account for the productivity gains that systemic intervention in regions with weaker economies should aim for.

• Science, research and innovation: A new industrial strategy must take a holistic view of the UK's science, research and innovation landscape. It must seek to correct the UK's low research and development (R&D) intensity and address the large regional disparities in public and private R&D intensity. Increasing business R&D and translational R&D is likely to involve new institutions and new partnerships between public and private sector. A new strategy must balance support for high quality discovery research, research to support government priorities, and the development and commercialisation of research.

• Competition policy: A strong competition and state aid regime is an essential component of industrial strategy, to enable innovation, new entry and structural change. Competition policy, regulatory functions and consumer policy need to be joined up to bring a strategic perspective to making sure markets function well.

• Investment: A new strategy should seek to increase the UK's investment rate and achieve a more diverse financial ecosystem. The government should increase and co-ordinate public investment and ensure financial regulation is consistent with industrial strategy objectives. It should encourage industry, institutional investors and venture capital to increase and unlock long-term investment.

• Skills: Skills policy must focus on addressing the UK's historic deficit in skills and on better utilising skills to drive higher growth and productivity. Skills policy must be more stable and holistic in its approach and better connected to other areas of policy. Policies are needed to both increase the overall supply of general technical

skills and to develop the specific skills needed for particular sectors and places.
The state's purchasing and regulating power: The state's purchasing and regulating power should be used to drive innovation and long-term growth.
This will require the focus of procurement policy to shift from solely achieving short-term cost savings and will require higher institutional tolerance of risk.
A new strategy should also exploit the state's role as a lead customer for new technologies.

Title: The Concept of the Corporation Author: John Kay From: Author's personal website Date: March 16, 2017

In 1943, Alfred Sloan and Peter Drucker met for the first time. The two men both possessed exceptional intelligence and deep interest in business. They had little else in common.

Sloan was born in 1875 and raised in Brooklyn. With money borrowed from his family, Sloan took control of a small bearings company which benefitted from the growth of the automobile industry in the early years of the twentieth century.

Sloan's company was acquired by the nascent General Motors. Billy Durant, founder of GM, was a brilliant salesman and buyer of businesses, a less talented manager. GM was close to collapse in the turbulent years that followed the First World War, and Pierre du Pont, of the du Pont chemical family and the company's largest shareholder, forced Durant out of the corporation.

That was Sloan's moment: he was ready with a plan to manage Durant's unwieldy empire. He gained du Pont's support and in 1923 became President of the company. Under Sloan's leadership, GM overtook Ford to become not only America's leading automobile company, but the largest manufacturing corporation in the world.

At that meeting in 1943, Sloan had been in charge of General Motors for twenty years, having postponed his retirement to help the company make the most effective contribution to the war effort. He was 68 years old, a personally unprepossessing figure in thrall to a large hearing aid.

Drucker was more than thirty years younger and his background was very different. The son of Adolph Drucker, a senior civil servant in the Austrian Empire, he had grown up in early twentieth-century Vienna, the home of Sigmund Freud, Gustav Mahler, and Gustav Klimt, and one of the most vibrant intellectual communities which ever existed. But by the time Nazi storm troopers were cheered as Austria was absorbed into thousand year Reich most of Austria's leading thinkers had fled – Ludwig Wittgenstein to Cambridge, Friedrich von Hayek to London. And Peter Drucker had emigrated to the United States. He found employment as a journalist for Fortune and Businessweek, and was teaching at Bennington College, a small women's liberal arts college in Vermont.

The meeting between Drucker and Sloan was the inspiration of GM's Chief Financial Officer Donaldson Brown. Brown was concerned that the senior management team who had created General Motors were reaching retirement. He believed that their legacy would be better sustained if an outsider analysed and documented what they had created.

Sloan granted Drucker what business school professors today call "access", on a scale that these modern professors can only dream of. For two years, GM paid Drucker's salary, and

allowed him to shadow Sloan. After meetings, the President of General Motors would retire with Drucker to discuss how well the day had gone.

But life with Sloan offered few of the comforts that ease the way of the modern chief executive. Sloan was personally extremely wealthy, by virtue of the stockholding in GM he had received when his company was acquired, and the successive multiplications of the value of that stock under his leadership. He would endow the Sloan-Kettering hospital, and the School of Management at MIT. The Sloan Foundation is today an innovative supporter of social science research.

But his salary was, by modern standards, modest and his conduct of corporate affairs was austere. He lived outside New York, where GM corporate headquarters were based, and was a regular commuter in the sleeping-car to Detroit, where he would spend nights in a Spartan cubicle. It was a far cry from 2009, when, with General Motors teetering on the edge of bankruptcy, its well remunerated executives incurred the wrath of a congressional committee for travelling to the hearing in a corporate jet.

The product of Drucker's observation was a book- The Concept of the Corporation. A book was not what Donaldson Brown had in mind: Drucker had suggested such a volume as a means of giving focus to the project.

But Sloan and his colleagues did not like the result. They did not respond to the book: they simply ignored it. In retirement – Sloan stepped down from his executive role in 1946 but continued as chairman of the GM board for another decade – Sloan wrote his own account, My Years at General Motors, published in 1963, when Sloan was 87, and only two years before his death. Although Drucker claims that Sloan described this work as a response to Drucker, there is no reference whatever to The Concept of the Corporation in it.

Why did Sloan dislike Drucker's book so much? Not because it is hostile to GM. While there are criticisms, no reader would doubt that the overall tone is one of admiration for the company and respect for the men who had built it. Still, as anyone who has written about modern business will know, praise is rarely sufficiently high.

But the restrained tone was not the principal problem. Sloan was not a modest man, but, like his colleagues, he was a highly intelligent and perceptive man. (The executives of Sloan's day feigned anti-intellectualism – Drucker describes how they attempted to conceal from him the information that one had a PhD in economics – but it was only later in the corporation's life that anti-intellectualism in GM was a reality rather than a pretence). The locus of disagreement was more subtle.

Both Drucker and Sloan understood that GM's great achievement had been the establishment of a system of professional management. Drucker described GM's management systems in depth, but he was more interested in a broader issue. The development of corporations like GM as the dominant forces in a modern economy changed fundamentally the nature of power in society. The first industrialists had derived their authority from their ownership of the means of production – the class relationships that Marx had analysed.

But the professional managers that Sloan and Drucker described did not derive their power from the ownership of the means of production. What gave legitimacy to the power that Sloan and his colleagues exercised? What was the proper scope, and necessary limits, of that authority? What defined the social role of the modern, professionally managed corporation? These were not questions that Sloan and his colleagues wished to discuss. So when Drucker sought to raise them in The Concept of the Corporation, they closed his book.

The Corporate Economy

Today we pass airport bookstalls groaning with piles of vacuous management books: it is hard to believe that in 1945 neither Drucker nor GM executives nor publishers imagined that there was any significant market for an account of the inside workings of a business. The Concept of the Corporation was published by a small firm, Transaction Publishers.

But The Concept of the Corporation was widely read. Seventy years later, Drucker's book is still in print, and it established him as the first, and perhaps still the most insightful, of business gurus. And the book was studied closely by the person at whom Brown's project was most of all directed – Sloan's successor, Charlie Wilson. And at GM's principal rival. When the eponymous founder died in 1946, Henry Ford II was quick to install professional management. Ford's 'whizz kids' borrowed extensively from GM's techniques and systems and enabled a revitalised Ford to contest market leadership once again. The most famous of the 'whizz kids', Robert McNamara, was to become Kennedy's Secretary of Defense and to lose his reputation demonstrating that the systems of control and analysis which had proved so effective in Detroit failed six thousand miles away in the Mekong Delta and along the Ho Chi Minh trail.

But McNamara was not the first automobile company chief executive to be summoned to manage the US government's largest business. When Eisenhower became President, with the Korean War in the balance as Chinese troops raced across the Yellow River, Eisenhower appointed Charlie Wilson as Defense Secretary.

In confirmation hearings, Wilson reportedly said 'what's good for General Motors is good for America'. What he actually said was 'I thought that what was good for America was good for General Motors, and vice versa'. But no matter: the exchange exemplified the central role which the large diversified corporation played in modern economic life.

In the two decades, the importance of this institution would be recognised in many different ways. Igor Ansoff and Kenneth Andrews developed the subject of corporate strategy, which was a key element in the MBA programmes of the rapidly expanding business schools. Economists were slow to come to terms with the corporation – Ansoff would justify his approach to corporate strategy by observing that microeconomics had contributed little to the subject he tried to elucidate, but Edith Penrose's work on the growth of the firm would in due

course be seen as the founding text of the currently dominant paradigm of the resource-based theory of strategy. And management consultants, once represented only by men with stopwatches, would offer their services.

The corporation was by now sufficiently part of society to be the butt of humour, as in W H Whyte's The Organisation Man or Sloan Wilson's fictional account in The Man in the Grey Flannel Suit. And the rise of the corporate economy was documented for the US by Chandler's Strategy and Structure and for the UK in Hannah's Rise of the Corporate Economy. The belief that the modern professional executive had development management skills and expertise that were of general application, and not necessarily rooted in the specifics of particular industries, provided the rationale for conglomerates such as Ling-Temco-Vought and ITT.

There were critics of the growing social, political and economic power of the corporation. Eisenhower's valedictory address on relinquishing the presidency in 1961 warned of the dangers of what he christened 'the military-industrial complex'. JK Galbraith's The New Industrial State in 1967 claimed that the corporation controlled its environment to such an extent that it transcended the traditional sources of 'countervailing power'.

The empty corporation

But the debate on the social role of the corporation would develop in a different direction. Milton Friedman's article in the New York Times magazine in 1970 under the title 'The Social Responsibility of Business is to Increase its Profits' may be the most cited piece ever to appear in that newspaper. Friedman asserted, bizarrely, that business could not have responsibilities: only people could have responsibilities. The legitimacy of corporate activity needed no justification beyond a general assertion of the legitimacy of private property: the shareholders 'owned' the corporate vehicle and its executives were simply the agents of the owners.

The agency perspective was developed by Jensen and Meckling (1976) which emphasised the need for executive incentives, such as stock options, which might align the interests of managers and shareholders. The notion of corporate personality was no more than a legal fiction, a device for minimising transactions costs: the firm was a 'nexus of contracts'. (Easterbrook and Fischel) The broader intellectual climate was set by concepts of 'the market for corporate control' (Manne) – management teams competed through the mechanism of mergers and acquisitions for the right to deploy corporate assets, and the efficient market hypothesis (Fama). The boundaries of the firm were themselves dictated by transactions costs: where idiosyncratic investment was required , the hierarchical structures of the market place. This 'markets and hierarchies' theory of the firm, first propounded in 1937 by Ronald Coase, became the dominant paradigm amongst economists, a development acknowledged by the award of a Nobel Prize to Coase while Edith Penrose died, largely unrecognised, in 1998.

All these economists (except Penrose) were alumni of the University of Chicago, and members of the 'law and economics' school that was initiated there: that intellectual tradition found physical embodiment at George Mason University, largely devoted to the 'law and economics'

movement. (The essential claim is that law is and should be designed and implemented to promote economic efficiency, rather than more abstract social and political goals of justice and equality).

The 'nexus of contracts' approach treats the corporation as an empty shell. The managers and employees are a group of individuals, who find it convenient to do business with each other, and with customers and suppliers. There is no collective interest (and, of course, no collective responsibility) only a coincidence of individual interests. The internal organisation of the corporation – the issue which preoccupied Sloan – is reduced to a matter of command and control, to be treated as a principal agent problem in which any information asymmetry between manager and managed (or owner and manager) is to be handled by suitable targets and incentive systems. This theme dominates Milgrom and Roberts' classic 1992 text on the economics of industrial organisation

The external relationships of the company are defined by contract, and circumscribed by corporate law. The concept of the corporation as a social organisation, operating in a wider social context, so emphasised by Drucker, has disappeared.

One might talk of the hollow corporation, had the term not been appropriated to describe the late twentieth century corporations which outsourced most of their supply chains; perhaps the empty corporation is an appropriate term These businesses abandoned (as General Motors itself would do) the extensive vertical integration which had characterised the earlier generation of corporations whose rise was chronicled by Chandler and Hannah. As I shall describe below, these developments cast doubt on the theory of the firm elaborated by Coase at precisely the time that theory commanded academic attention.

The evolution of corporations in practice

This fundamentally financially driven view of the corporation would probably have had little impact outside the academic world had its implications not been so congenial to investment bankers – and to corporate executives themselves. The representation of the corporation as a transactional rather than a social vehicle had obvious attractions for those whose livelihood was based on fees for transactions. The recharacterisation of the nature of corporate activity became a central part of the process of financialisation which took place in western economies from the 1970s.

The phrase 'shareholder value' seems to have been coined by Alfred Rappaport, whose 1986 text is still the bible of the movement. But the age of the centrality of shareholder value is widely regarded as beginning with a speech by Jack Welch, newly appointed CEO of GE, in 1981 at the Pierre Hotel in New York. Significantly, his audience was drawn from Manhattan's financial community.

Welch did not actually use the term 'shareholder value' in that speech, and it would not appear in GE's annual reports until the 1990s. But the emphasis on the stock price was clear, and a central plank of his message was that the business would be focussed on activities in which the company held, or could rapidly establish, market leadership. Welch soon acquired the nickname 'neutron Jack', after the neutron bomb, which kills people but does not damage property. It was, perhaps, an appropriate title for the master of the empty corporation.

Along with the mantra of shareholder value came the role of the corporate executive as portfolio manager, juggling a collection of businesses as a fund manager might juggle a collection of stocks. Acquisition, whether horizontal through the purchase of competitors or vertical through the purchase of suppliers or distributors – had always been part of the corporate economy, and as described above the 1960s had spanned a conglomerate movement (by the 1980s, most of these had flashed and burned), but only in the 1980s did divestments of 'non-core' business units become a routine practice large corporations. Such portfolio management, through sales and purchases of businesses, led to the eventual demise of Britain's two largest industrial companies in 1990 – ICI and GEC. Large scale financial restructuring of existing businesses became commonplace – the largest was the takeover of tobacco and food giant RJR Nabisco by the private equity house KKR, famously recounted in Barbarians at the Gate

Executives were at first slow to see the advantages to them of the reappraisal of the role of the corporation. But the principal agent model pointed to the need for incentive schemes that motivated managers to pursue the owners' objective of shareholder value, and share options were a mechanism, albeit asymmetric, for rewarding success in achieving that goal. As stock markets boomed in the last two decades of the twentieth century, options made many managers rich. Welch would not be the first chief executive of GE to be the most admired businessman in the United States, but he was certainly the wealthiest.

The growth of executive compensation coincided with the cult of the heroic CEO, of whom Welch was exemplar. Alfred Sloan, in common with most other business leaders of his generation, was barely known to a wider public. Nor did he devote much time to cultivating stockholders. The rise of business journalism led to a personalisation of the corporation – Microsoft was Bill Gates, Sandy Weill was Citigroup – and in the pages of Fortune or BusinessWeek the success or failure of these businesses was attributable to the genius, or misjudgements, of these individuals. Such an approach is another interpretation of the empty corporation – like the nexus of contracts, it denies the reality of the corporation as social unit.

More generally, the rhetoric of shareholder value exempted senior executives from fuller discussion of the legitimacy of corporate organisation and the social responsibility of the corporation. Management authority was derived by delegation from the stockholders as owners of the corporation. It seemed to matter little that the 'owners' were in reality excluded from any meaningful control: that shareholder general meetings were little more than formalities. US corporate law was developed to entrench the position of incumbent management and the battle over 'proxy access' – the ability of shareholders to present their own resolutions at meetings – continues still. Incredibly, some investment banks would charge the putative owners for 'corporate access' – the privilege of an audience with management. Analogous to the claims of Soviet leaders to represent the dictatorship of the proletariat, the

rhetoric of shareholder value served to paper over the limited degree of executive accountability to anyone at all.

And – in what would be in some respects the most telling paradox, the rise of remuneration schemes of ever increasing complexity, far from aligning the interests of managers and shareholders, proved in the twenty-first century to be the principal source of friction between them.

The global financial crisis of 2008 demonstrated the fundamental weakness of empty corporations. Most conspicuously, but perhaps not surprisingly, these weaknesses emerged in the institutions that had done most to promote them. Investment banks, traditionally partnerships but transformed into corporate entities, had in these new structures little reality as organisations: essentially, they provided a common platform in which individuals might pursue their own self-interest. Levels of trust and cooperation within these institutions were low, and such reputation as the corporation itself enjoyed was to be exploited for the personal benefit of individuals they employed. The coincidence of individual interests happened only occasionally. In the 2007-8 crisis, such businesses would be torn apart by the greed of their own employees. The business that 'made nothing but money' (Bear Stearns) proved in the end an ineffective vehicle even for that.

Alternative perspectives

The term 'stakeholder' predates the use of 'shareholder value'. The word may have been coined by Edward Freeman, who in a 1963 article defined a stakeholder as a member of 'the groups without whose support the organisation would cease to exist'. Two differences from the contractarian perspective are evident immediately. The emphasis is on the individual as member of a group, rather than as autonomous agent. And the world 'support' entails something distinct from a contractual relationship. The contract is essentially transactional: 'support' implies a social and political context and more extensive cooperation than can be written in a contract, or achieved through financial incentives.

The shareholder value approach has always been an Anglo-American phenomenon. A 1995 survey of CEO attitudes[7] produced the striking result that the large majority of US and UK executives asserted shareholder primacy an even larger majority of German and Japanese CEOs believed that their responsibility was to balance the interests of all stakeholders. This is not, or not primarily, a legal difference: the careful legal analysis of Lynn Stout finds only lukewarm support in US law for any duty to maximise shareholder value, and the 2006 UK Companies Act lays on directors the obligation 'to promote the success of the company for the benefit of the members', emphasising that benefit to the members is a consequence of the success of the company rather than a measure of that success. Further, UK law explicitly rejects the model of shareholders as owners: 'shareholders are not, in the eyes of the law, part owners of the company'. What shareholders own is not the company but only their shares, .

Thus the geographic variety of concepts of the corporation is the product of differing cultures rather than different statutory frameworks. The 2008 crisis was a challenge to the validity of

the Anglo-American model and, to some degree, to capitalist organisation taken as a whole. While the massive injections of government funds that followed the collapse of Lehman stabilised the financial system, the continuing revelation of corporate abuse, by no means confined to the financial sector, contributed to the wide dissatisfaction with economic performance which has only grown in the decade that followed the global financial crisis. In 2009 Jack Welch proclaimed shareholder value 'the dumbest idea in the world'.

Abuses in the financial system were not the result of the pursuit of shareholder value at the expense of other stakeholders. Indeed the companies concerned have paid out previously unimagined quantities of shareholder funds in compensation for individual wrongdoing. Hannah ended his extensive history of Barclays Bank in 1996, just as Bob Diamond joined the corporation and developed its investment bank, ultimately taking control of the whole institution before being removed by regulators in 2012: Barclays share price languishes today at roughly the levels achieved in 1996 but in the meantime Diamond and other senior employees of the bank have become rich. The experience of investors in other financial companies has been similarly dire, and the experience of their senior executives similarly rewarding.

Abuse was accentuated in the financial sector, but not confined to it. Revelations of aggressive tax avoidance by companies which in other respects appeared to serve their stakeholders well became widespread. In 2016 high profile scandals at two retailers, BHS and Sports Direct, led to a government consultation paper on corporate governance and a commitment to rein in excessive remuneration.

Even at the height of the shareholder value movement, there was concern for CSR, 'corporate social responsibility', now more often described as 'the ESG (environmental, social, governance) agenda'. But this approach falls far short of recognising the challenge which Drucker identified more than half a century ago – to understand the nature of the corporation as social organisation to define and legitimise its role in the communities in which it operates. Rather the CSR agenda attempts to answer the concerns of progressive individual who are not much interested in business – and certainly not interested in the mechanics of organising a large corporation and constructing productive corporate strategies. The result has been a proliferation of brochures printed on recycled paper and displaying pictures of smiling figures from ethnic minorities, accompanied by bland and substantially false clichés about making profits by doing good. This approach sidesteps the much more substantive issues of the proper role and function of the large business organisation in the global economy.

The changing concept of the corporation

GM, du Pont, Guinness and ICI were representative of the corporations whose rise Drucker, Chandler and Hannah chronicled . These large manufacturing businesses were capital intensive and their specialist plant was dedicated to its specific purpose – .automobile assembly, petrochemical refining, brewing, etc The nexus of contracts and shareholder value paradigms were , in essence, an attempt to interpret the modern phenomenon of the large

corporation in terms of the neo-Marxist dichotomy between capital and labour: the shareholders collectively occupied the role of the capitalist owner of the plant, to which the alienated employees deliver their homogenous labour services

In 1946, and perhaps still for a few more years after that, it might have been possible to imagine that the General Motors of 1946 could be managed as a hierarchical structure, or group of hierarchical structures; and that within these structures, employees could either be directed by their senior managers or incentivised by principal agent structures through provisions such as 'piece rates' which related wages to the volume of output. Both Drucker had understood, Sloan perhaps less clearly, that this account did not even begin to do justice to the reality of the twentieth-century corporation – that was the purpose of their collaboration.

And by 1980 – as the 'nexus of contracts' theory gained academic popularity and the shareholder value slogan came into use, General Motors was losing market share to Japanese competitors whose concept of the corporation was very different from that of a 'nexus of contracts'. The agreements of these corporations with employees and suppliers were implicit contracts, enforced by mutual trust and expectations of continued long term relationships. The Toyota Production System, far from insisting that the assembly line be kept running at full speed, famously gave employees access to a big red button which they could press to stop the process if they perceived defects.

General Motors, Coase had theorised, engaged in vertical integration to control idiosyncratic supplies that required dedicated investment, and bought less heterogeneous items as cheaply as possible in competitive markets. Toyota's suppliers, of both specialist and homogeneous components, formed a 'keiretsu', an organisational form which defied this dichotomy between markets and hierarchies. The keiretsu, consisting of legally independent firms, large and small, was characterised by geographical proximity and historical continuity.

Japanese manufacturers, led by Toyota, benefitted from these arrangements through greater product reliability and were able to adopt 'just-in-time' practices with minimal stock levels and to work with suppliers to shorten model cycles. Japanese practices were imitated by US corporations and in 1994 General Motors and Toyota jointly established NUMMI (New United Motor Manufacturing Inc) to implement Japanese production systems at Fremont, California. (Ironically, the NUMMI plant closed in 2010 after General Motors' bankruptcy and is now the manufacturing facility of Tesla, Silicon Valley's foray into the automobile industry).

But if the nexus of contracts model of the corporation increasingly failed to capture the historic essence, far less the evolving nature, of the twentieth century corporation, still less could it do justice to the twenty-first century corporation. The largest corporations (by market capitalisation) today are Apple and Alphabet (the parent company of Google). Operating assets account for only around 5% of the value of these corporations. These businesses are not capital intensive and most of the capital resources they do use – offices, retail premises – need not be owned by the corporation that operates from them and typically is not owned by that corporation.

When the value of the business lies almost entirely in the expectation of future profits generated by a management team, much of that prospective revenue stream derived from products and activities which have not yet been imagined, the relationship between investors, management and employees is necessarily one of partnership. The earlier observation of the divorce of ownership and control is superseded by a structure in which control is shared between these investors, management and employees and hence exercised by none of them

The stakeholding corporation

Freeman has identified three central differences between the stakeholder concept of the corporation and the shareholder value, nexus of contracts, approach. I shall follow his illuminating taxonomy.

First, the corporation is a social organisation, not an assembly of agents who find it profitable (today) to do business with each other. In the successful organisation, corporate personality is a reality, not just a legal construct, and corporate culture is central to business performance.. Because the corporation is a social organisation, and a continuing entity within a history and a future, it is able to operate largely on the basis of implicit contracts with employees, with suppliers and customers, and with the communities in which it operates. These implicit contracts, shared understandings rather than legal documents (although legal documents, irrelevant unless the relationship breaks down often exist in parallel) are enforced by their association with personal relationships and by the common intention to develop continuing economic relationships. Such agreements the capacity to secure 'consummate' rather than 'perfunctory' cooperation – adherence to the common objective rather than compliance with the rules.

An implicit contract with the community is part of this nexus of implicit contracts. This context is sometimes described as a 'licence to operate', and the term is useful, although it suggests an inappropriate formality. The licence to operate is not, as sometimes suggested, a fee for the privilege of limited liability. It arises from the knowledge that all property rights in a complex economy are social constructions, and regulation of such social construction is necessary to legitimate the private exercise of authority – as reflected in the considerable power held by executives of large corporations, It should be evident that aggressive tax avoidance is a breach of this implicit contract with society. The assertion that such actions are within the law simply misses the point.

Repeated breaches of these implicit contracts have been central to the decline in popular perception of the legitimacy of corporate activity, evident in the critique of multinationals and the associated rejection of globalisation. There have been too many instances of violation of the reasonable expectations of employees, the trust of customers, and the exploitation of vulnerable suppliers.

Second, the corporation is necessarily a cooperative venture. If our economy could really be described by production functions in which homogenous capital and labour come together to create standardised products in competitive markets under conditions of instant returns to scale, there would be no need for the corporate economy. Corporations exist because these assumptions are not fulfilled, and the successful corporation is one which creates rents through distinctive combinations of idiosyncratic factors. This is the Penrosian model which underpins the resource based theory of strategy, and it captures the reality of the modern corporate economy far better than the Coasian tradition. In that modern economy, as Amar Bhidé has noted, consumers as well as suppliers, employees, managers and investors – all stakeholders – play a role in the creation of these economic rents.

The rationale of the corporation is that the value it creates is more than the some of its parts, and a responsibility of senior executives is to determine the appropriate distribution between stakeholders of that value, bearing in mind considerations both of equity and efficiency, the contributions which different stakeholder groups have made to the creation of that value and the need to preserve that value and its sources in the future by fulfilling the expectations of different stakeholder groups.

It is hard to improve on the characterisation of this issue by Freeman, Parmar and Martin (2016). 'There is a "jointness" to stakeholder interests. Each stakeholder contributions to the value that is created for the others..... Business is fundamentally a cooperative enterprise, built to create value, trade and make ourselves, and others, better off': and contrast this, as they do, with the view that 'executives have to make tradeoffs where the value created for one shareholder reduces the value created for stakeholders'. The management responsibility for distributing the value created is necessarily a matter of fine judgement. What is certain is that the assertion that the value added created in a business is in its entirety the property of the stockholders is a position which would fundamentally undermine the factors which give rise to that value added in the first place – and in practice has.

It is not, however, possible to calculate – even if it were appropriate to do so – what distribution of economic rent would maximise the net present value of current and future returns to shareholders. There is no basis for any claim that creating value for all stakeholders necessarily maximises shareholder value. It might, or it might not, and we will never know.

And third, human motivations are complex and multifaceted. There are people for whom money is an overwhelmingly dominant motivation, and who are primarily self-interested and opportunistic, but they are defective as human beings, and generally not suitable for employment in senior positions in complex organisations. And attempts to create organisations in the financial sector designed not only to accommodate but to attract such people have been markedly unsuccessful in creating value within the organisations themselves. Most people benefit from interactions with colleagues, want to take pride in the organisation for which they work and from the jobs which they do, and there is clear evidence that job satisfaction plays a major part in what makes people happy. The economic success of the corporation is essentially bound up with its success as a social organisation.

And both Drucker and Sloan knew that, even if some of their successor commentators found it possible to overlook it.

Title: Wie Geld Entsteht Author: Deutsche Bundesbank From: Deutsche Bundesbank Date: April 25, 2017

Seit Beginn der expansiven geldpolitischen Sondermaßnahmen des Eurosystems sind die Zentralbankguthaben der Geschäftsbanken im Euro-Währungsgebiet stark gestiegen: Innerhalb von knapp zehn Jahren haben sich diese Guthaben mehr als versiebenfacht. Zugleich wuchs die breiter gefasste Geldmenge M3 nur moderat, die Verbindlichkeiten von inländischen Banken und Zentralbanken gegenüber inländischen Nichtbanken wie den privaten Haushalten und Unternehmen umfasst. Im Monatsbericht April untersuchen Bundesbank-Ökonomen dieses Phänomen und erklären, wie Buchgeld entsteht und wie das erweiterte Ankaufprogramm für Vermögenswerte (Expanded Asset Purchase Programme, APP) des Eurosystems auf die Geldmengenentwicklung wirkt. Zudem nehmen sie Stellung zu Vorschlägen, wonach Kreditinstitute ihre Sichteinlagen zu 100 Prozent mit Zentralbankgeld abdecken sollten.

Buchgeld entsteht nur durch Transaktionen zwischen Banken und Nichtbanken

Buchgeld ist der volumenmäßig größte Teil der Geldmenge und wird durch Geschäfte zwischen Banken und Kunden aus dem Inland geschaffen. Ein Beispiel dafür sind Sichteinlagen: Sie entstehen, wenn eine Bank mit einem Kunden Geschäfte abwickelt, also zum Beispiel einen Kredit gewährt oder einen Vermögenswert ankauft, und sie ihm im Gegenzug den entsprechenden Betrag auf seinem Bankkonto gutschreibt. Banken können also allein mittels eines Buchungsvorgangs Buchgeld schaffen: "Das widerlegt einen weitverbreiteten Irrtum, wonach die Bank im Augenblick der Kreditvergabe nur als Intermediär auftritt, also Kredite lediglich mit Mitteln vergeben kann, die sie zuvor als Einlage von anderen Kunden erhalten hat", schreiben die Bundesbank-Ökonomen. Ebenso sind vorhandene überschüssige Zentralbankguthaben keine notwendige Voraussetzung für die Kreditvergabe (und die Geldschöpfung) einer Bank.

Unendlich sind die Geldschöpfungsmöglichkeiten der Geschäftsbanken allerdings nicht. Sie werden begrenzt durch das Zusammenspiel des Bankensystems mit den Nichtbanken und der Zentralbank, durch Regulierungsvorschriften und nicht zuletzt durch das Gewinnmaximierungskalkül der Banken selbst, heißt es im Monatsbericht. So muss eine Bank die geschaffenen Kredite trotz ihrer Fähigkeit zur Geldschöpfung finanzieren, da sie beim Abfluss der durch die Kreditvergabe geschaffenen Sichteinlagen an andere Banken Zentralbankguthaben für die bargeldlose Verrechnung benötigt. Dies sind Guthaben, die nur die Zentralbank schaffen kann. Über die Struktur ihrer Refinanzierung entscheidet eine Bank anhand der relativen Kosten sowie der Zinsänderungs- und Liquiditätsrisiken. Um zusätzliche Kredite zu vergeben, kann die Bank günstigere Kreditkonditionen anbieten. Bei unveränderten Refinanzierungskosten sinkt dadurch aber der Ertrag aus der Kreditvergabe und die Vergabe zusätzlicher Kredite wird, für sich genommen, weniger attraktiv.

Komplexe Interaktionen

Die Geldschöpfungsmöglichkeiten des Bankensystems werden zudem durch das Verhalten von Unternehmen und Haushalten begrenzt, insbesondere durch ihre Kreditnachfrage sowie ihre Anlageentscheidungen. Die Zentralbank wiederum beeinflusst die Geldmengen- und Kreditentwicklung indirekt über die Höhe der Leitzinsen, die über verschiedene Wege auf die Finanzierungs- und Portfolioentscheidungen der Banken und Nichtbanken wirkt. Insgesamt ist die Entwicklung der Geldmenge "das Ergebnis komplexer Interaktionen zwischen Banken, Nichtbanken und Zentralbank", heißt es im Monatsbericht. Die Entwicklung der Zentralbankguthaben folge bei einer konventionellen, durch Veränderungen der geldpolitischen Leitzinsen umgesetzten Geldpolitik der Nachfrage der Banken.

Die Bundesbank-Ökonomen beschreiben auch, wie sich geldpolitische Ankaufprogramme grundsätzlich auf die Zentralbankguthaben und die Geldmenge auswirken. Während solche Programme die Zentralbankguthaben zwangsläufig erhöhen, gilt dies nicht im gleichen Verhältnis für die breit gefasste Geldmenge. Einen direkten positiven Effekt auf die Geldmenge haben die Wertpapierkäufe nur, wenn die letztendlichen Verkäufer inländische Nichtbanken sind: "In diesem Fall führt die Transaktion zu einer Zunahme des Bestandes der von der Zentralbank gehaltenen Staatsanleihen und zu einem Anstieg der vom Verkäufer gehaltenen Sichteinlagen", heißt es im Monatsbericht. Allerdings können die letztendlichen Verkäufer der Papiere auch Geschäftsbanken sein oder aus dem Ausland kommen. Daneben gibt es auch indirekte Wirkungen auf die Geldmenge, vor allem durch die Transmission des Ankaufprogramms in Vermögenspreise und -renditen oder die Kreditvergabe. Deswegen besteht zwischen dem Anstieg der Zentralbankguthaben und der breiter gefassten Geldmenge kein mechanischer Zusammenhang.

Vorteile einer vollständigen Deckung von Einlagen durch Zentralbankgeld fragwürdig

Stellung nehmen die Autoren auch zu Vorschlägen, wonach Kreditinstitute ihre Sichteinlagen zu 100 Prozent mit Zentralbankgeld abdecken sollten. Ziel dieser Vorschläge ist es, die Geldschöpfung der Banken zu begrenzen und so die Stabilität des Bankensektors zu verbessern. Es sei jedoch nicht zwingend erkennbar, dass diese Beschränkung tatsächlich zu einem insgesamt stabileren Finanzsystem führen würde, als dies auch mit einer zielführenden Regulierung möglich wäre. Zugleich bestehe aber ein Risiko, dass ein solcher Systemübergang wichtige volkswirtschaftliche Funktionen des Bankensystems in Mitleidenschaft ziehen würde, die für eine stabile realwirtschaftliche Entwicklung notwendig seien. "Angesichts potenzieller volkswirtschaftlicher Kosten stellt sich die Frage, ob die Vorteile die Nachteile aufwiegen können", heißt es im Monatsbericht.

Title: Financiarisation et Outils de Gestion / Financialisation and Management Tools Author: Christian Walter From: Chance & Finance – Academic Blog of Christian Walter Date: March 20, 2016

Comment et par où passe la financiarisation ? De nombreux travaux ont fait apparaître le rôle déterminant des outils de gestion dans le processus de financiarisation.

Par exemple, dans la conférence finale des États généraux du management de 2010 intitulée « La place des sciences de gestion dans la culture contemporaine et dans l'après crise » publiée dans l'ouvrage collectif Management et sociétés (2012), Armand Hatchuel rappelle qu'à l'exception des comportements frauduleux comme ceux d'Enron ou de Parmalat, les crises les plus graves sont engendrées par des dispositifs collectifs de gestion dont les effets inattendus prennent totalement par surprise les professionnels mais aussi les économistes.

La récente révision du procès Kerviel dans l'affaire des pertes abyssales de la Société Générale en représente une éclatante illustration. Ainsi l'avocat général Jean-Marie d'Huy a déclaré devant la cour d'appel de Versailles (Le Monde, 17/06/2016) que la banque a :

commis des fautes civiles, distinctes et de nature différente des fautes pénales de Jérôme Kerviel, qui apparaissent suffisantes pour entraîner la perte totale de son droit à réclamer une compensation intégrale de ses pertes.

Cela ne signifie pas que, pénalement, Jérôme Kerviel soit innocent, mais que, au civil, les dispositifs collectifs de gestion ont créé les conditions potentielles d'une fraude (Le Monde, 17/06/2016) :

La Société générale a laissé, en toute connaissance des imperfections et des failles de son organisation et de son système de contrôle interne, le champ libre aux velléités délictuelles de Jérôme Kerviel. Cela ne signifie pas que la Société générale puisse être considérée comme auteur ou complice des infractions commises par Jérôme Kerviel, mais cela signifie que les fautes de la première ont rendu possibles celles du second et en ont aggravé les conséquences. Pour le dire autrement et insister : contrairement à ce que l'on croit généralement, les outils de gestion ne sont pas les serviteurs zélés des décisions humaines (politiques ou économiques). Plutôt que « bons serviteurs », les outils sont souvent des « traîtres » qui orientent les décisions humaines dans des directions non souhaités ou des « acteurs » non humains qui peuvent encourager certaines décisions au détriment d'autres, indépendamment des « valeurs » déontologiques injectées dans une entreprise. Les dispositifs collectifs de gestion sont ainsi de puissants incitateurs moraux à agir, bien ou mal. Et, en l'occurrence, mal.

Management

Même (et surtout ?) si ceux qui prennent des décisions sont animés des meilleures intentions ? Oui !

Même (et surtout ?) si les valeurs qui les habitent sont les meilleures du monde ? Oui !

Même (et surtout ?) si, du point de vue de leur comportements, ils sont « sains » (avec ou sans « t »...) ? Oui !

Même (et surtout ?) si leur déontologie est sans faille ? Oui !

Pour quelle raison ? Parce que les outils de gestion transportent des représentations scientifiques élaborées par des théories d'arrière-plan, et en particulier par la théorie financière et que cette théorie est performative. La théorie financière parle et ce qu'elle dit advient ! J'ai

donné à ce phénomène mal connu des professionnels le nom de Logos financier, un discours structurant les pratiques du management. Je dis que c'est parce que le Logos financier imprègne les dispositifs collectifs de gestion que ces dispositifs produisent des effets contraires à ce qui était attendu.

Sans que ce phénomène soit pour le moment correctement perçu et encore moins politiquement évalué, la théorie financière façonne la société à son image. L'économie réelle est ainsi « provoquée » (dans le sens de « appelée à exister ») par la théorie financière (voir le remarquable The Provoked Economy (2014) de Fabian Muniesa).

En résumé, l'action performative du Logos financier dans les outils de gestion amène à se poser de façon renouvelée la question de la gouvernance des modèles. Avec une idée simple : les outils de gestion ne sont pas éthiquement neutres.

C'est la raison pour laquelle l'avocat général a dit à la cour (Le Monde, 17/06/2016) :

Votre décision pourrait être un message fort donné aux établissements bancaires pour éviter qu'à l'avenir de tels faits puissent se reproduire.

Et, « pour éviter qu'à l'avenir de tels faits puissent se reproduire », il est nécessaire d'ajouter à l'éthique déontologique une éthique épistémique, seule à même d'analyser les dispositifs collectifs de gestion, qui résistent à l'éthique déontologique.

Title: Ethique Financière / Ethics of Finance Author: Christian Walter From: Chance & Finance – Academic Blog of Christian Walter Date: December 17, 2016

Dans un article récent publié dans le numéro 802 de la Revue Banque Ethique de la finance ou « éthiquette » financière, je reviens sur l'importance de l'éthique épistémique pour le changement du contexte actuel de la finance. Je dirais : pour ne pas tomber « dans le panneau » (!) de l'éthique...

La thèse que je soutiens est très simple et peut se résumer de la manière suivante :

L'éthique mise en œuvre par les professionnels de la finance sur les marchés est pour le moment réduite à une seule de ses dimensions, l'éthique déontologique. Il manque à l'éthique financière une seconde dimension, l'éthique épistémique. Sans l'éthique épistémique, l'éthique déontologique, non seulement n'améliore pas le fonctionnement des marchés financiers mais, bien davantage, peut contribuer à le dégrader car l'application déontologiquement rigoureuse de bonnes règles de conduite peut renforcer de mauvais savoirs collectifs.

Soyons un tout petit peu plus précis. Dans son acception courante, l'éthique revoie au devoir d'agir comme il faut et évalue le poids moral des actions. Pourtant, il est une autre forme d'éthique, appelée éthique épistémique, qui évalue le poids moral des savoirs collectifs, comme ceux embarqués dans les théories financières en vigueur et, par extension, dans les dispositifs collectifs de gestion, les outils de contrôle et les produits qui utilisent ces théories. Dans mon article, je reviens sur l'affaire Kerviel (voir aussi mon billet sur Kerviel) et sur la faillite d'AIG pour illustrer l'importance cruciale pour la société de cette forme d'éthique. M'appuyant sur de nombreux travaux (comme par exemple ceux d'Eve Chiapello et Patrick Gilbert), je dis que les dispositifs collectifs de gestion représentent une machinerie qui rend inopérantes les meilleures intentions des professionnels en termes de valeurs, car la technique fait norme.

J'ai montré comment la « techno-logie » financière (une combinaison de la technique et de la raison) est une technique qui transporte un Logos, que j'ai appelé le Logos financier. Cette technofinance façonne les structures des entreprises. L'approche éthique par les valeurs, en oubliant la réalité technologique, renforce l'emprise du Logos de la technique sur les personnes qui travaillent dans les entreprises financières.

Résumons notre propos :

Un surcroît d'éthique déontologique accompagné d'un déficit d'éthique épistémique contribue à accentuer le dysfonctionnement des marchés financiers et à produire une perte de confiance du grand public dans la finance de marché. Il vaut mieux ne pas avoir un comportement éthique au sens déontologique si on n'a pas simultanément un cadre éthique au sens épistémologique. Sans éthique épistémique, l'éthique financière est incomplète et vouée à l'échec.

Jouant avec les ressources de la langue française, je dirais que l'éthique financière, tant qu'elle reste privée de l'éthique épistémique, est réduite à une petite éthique, c'est-à-dire une « éthiquette ». Et cette « éthiquette » devient de fait une étiquette : un effet d'annonce qui reste à la surface des problèmes car il évite de se poser la question de l'éthique épistémique tout en rendant inopérante l'éthique déontologique.

Title: Enseigner l'Ethique Épistémique / Teaching Epistemic Ethics Author: Christian Walter From: Chance & Finance – Academic Blog of Christian Walter Date: March 28, 2016

Dans un article récent publié dans la revue Éthique Publique [En ligne], vol. 16, n° 2, intitulé « L'enseignement de l'éthique en finance six ans après la crise : constats et perspectives françaises » (pour accéder à l'article, cliquer sur le lien), Denis Dupré et Emmanuel Raufflet présentent l'importance de l'enseignement de l'éthique financière pour les gestionnaires à la suite de la crise de 2008.

L'un des points clés soulevés par les auteurs est la notion d' « utilisation responsable des puissants outils de la finance«. Car, disent-ils, cette utilisation s'est heurtée au « silence moral des gestionnaires et des dirigeants ». Un deuxième point clé est la constatation que « les produits, les techniques et les réglementations ont peu changé depuis la crise ». Même si l'on voit des « avancées majeures [...] en matière de lutte contre les paradis fiscaux. [Ainsi] les pratiques illégales sont aujourd'hui freinées par les procès américains, notamment contre des banques européennes et des banquiers eux-mêmes ». Mais les outils de gestion ? Mais les instruments financiers ? Mais les techniques mathématiques de la finance ? Rien n'a changé ! Ce qui est étonnant si l'on sait, comme je le rappelle dans mon précédent billet, que les crises les plus graves sont engendrées par des dispositifs collectifs de gestion dont les effets inattendus prennent totalement par surprise les professionnels mais aussi les économistes.

Il existe aujourd'hui des cours d'éthique financière dans les cursus de gestion. Mais ces cursus manquent un aspect important du problème. Lequel ? Ce point est parfaitement résumé par Dupré et Raufflet : « [m]algré les avancées dans les cours, plusieurs postulats pourtant importants de l'enseignement et de la pratique de la finance demeurent peu changés et remis en cause. Au cœur de ceux-ci se trouve la vision du monde et des comportements humains induite par la domination des seules mathématiques qui influence la représentation de la spéculation, limite le rôle du régulateur.» On est là au cœur de ce que j'ai appelé le Logos financier : une parole structurante qui façonne les les pratiques professionnelles et la réglementation financières.

Comment enseigner l'éthique financière en tenant compte du Logos financier ? Dupré et Raufflet proposent que « la promotion de l'éthique dans l'enseignement de la finance passe par la formation des étudiants à conceptualiser les rôles respectifs des acteurs et de leurs pratiques remettant en question les contributions de la finance et de l'économie au bon fonctionnement de la société. L'enseignement de la responsabilité en finance impliquerait alors une intégration de ces interdépendances de la finance et de la construction du vivre ensemble et donc une réflexion qui dépasse le cadre de la finance et qui embrassent l'ensemble de l'enseignement en gestion ou en économie. »

Triangle éthique



Pour permettre cet enseignement renouvelé de l'éthique financière, il est nécessaire d'étendre l'éthique usuelle (ou éthique « déontologique ») à l'éthique épistémique. Le triangle ci-dessus (extrait de mon article « The financial Logos: The framing of financial decision-making by mathematical modelling » qui introduit la notion de Logos financier) présente ma proposition pour l'enseignement de l'éthique financière dans le sens de Dupré et Raufflet : enseigner l'éthique épistémique.

Title: l'École Américaine de la Finance / The American School of Financial Thought Author: Christian Walter From: Chance & Finance – Academic Blog of Christian Walter Date: September 7, 2016

Le numéro 797bis de juin 2016 de la Revue Banque pose la question « La finance américaine est-elle la grande gagnante de la crise ? » et ouvre un dossier à ce sujet.

Pourquoi cette question ? Réponse dans l'introduction du dossier :

Le constat est largement partagé : les banques d'investissement américaines ont pris depuis la crise des parts de marché dans le financement de l'économie européenne ; l'inverse en revanche est loin d'être vrai.

D'où le projet du numéro de la Revue Banque :

Les différentes contributions des professionnels, économistes, universitaires ou régulateur, cherchent à identifier les facteurs conjoncturels ou structurels qui expliquent cette puissance américaine.

Un point extrêmement important quoique très peu connu est souligné par Stéphane Giordano, président de l'Association française des marchés financiers (AMAFI) :

« Au-delà des performances propres des acteurs américains, cette domination financière vient également [...] d'autres facteurs parfois moins directement identifiés et qui n'ont pas été remis en cause suite à la crise, par exemple, une conception anglo-saxonne de quantification du risque qui sous-tend aujourd'hui encore les contenus des réglementations internationales ou les modélisations utilisées dans le contrôle des risques. »

Que veut-on dire par là ? Qu'il existerait une école américaine de la finance qui se peut se caractériser (indépendamment des nombreux aspects juridiques) par une tradition de modélisation du risque financier qui est devenue une pensée dominante en modélisation financière. Dans cet article, je dis que cette tradition de modélisation est une convention de quantification.

La notion « convention de quantification » a été introduite dans les travaux d'Alain Desrosières. Cette notion permet ici de définir la tradition de modélisation américaine par trois caractéristiques principales qui correspondent aux trois dimensions de toute convention :

Une dimension épistémique. Sous ce terme (en grec, « épistémè » = savoir) se cachent toutes les connaissances scientifiques utilisées par les chercheurs dans la quantification des risques et tous les savoirs techniques issus de ces connaissances scientifiques, que les professionnels doivent maîtriser. Par exemple les hypothèses probabilistes présentes dans le modèle de Black et Scholes ou la copule de Li. A chaque convention sont associés des formes, des calculs et des modèles mathématiques particuliers qui en quelque sorte opérationnalisent les choix scientifiques dans une forme calculable. La tradition de modélisation américaine du risque se définit par des modèles probabilistes particuliers.

Une dimension pragmatique, qui décrit l'ensemble des actions qui sont permises par la convention et celles qui ne le sont pas. Par exemple, dans la recherche en finance des années 1970, il était permis d'améliorer le modèle de Black et Scholes par des adjonctions de sauts à l'hypothèse de continuité brownienne (comme ce qu'a fait Merton) mais pas de contester frontalement cette hypothèse (comme ce qu'a fait Mandelbrot). Chaque convention habilite des acteurs, et ceux-ci ne sont pas forcément les mêmes selon les conventions. La tradition de

modélisation américaine exclut les autres traditions de modélisation et les actions qui les accompagnent. Ce qui conduit à la dimension politique.

Une dimension politique, dont la fonction est de légitimer certains acteurs au détriment d 'autres. Par exemple, dans son ouvrage Les Fonds de pension. Entre protection sociale et spéculation financière (Odile Jacob, 2006), Sabine Montagne a montré comment la convention de gestion des portefeuilles influencée par le CAPM et la loi ERISA légitime les gérants qui utilisent des benchmarks et délégitiment les autres (un commentaire de cet ouvrage en ligne par Antoine Rébérioux dans la Revue de la régulation, ici).

En résumé, la tradition de modélisation américaine du risque financier peut définir ce que j'appelle une « école américaine de la finance ».

Title: La Fabrique de la Finance / Building Finance Author: Christian Walter From: Chance & Finance – Academic Blog of Christian Walter Date: June 4, 2016

La collection d'ouvrages « Capitalismes – éthique – institutions » dirigée par Nicolas Postel et Richard Sobel aux presses universitaires du Septentrion, a pour objet l'étude des capitalismes à partir des institutions qui assurent l'encastrement social du capitalisme. Le fil conducteur de ces ouvrages est un questionnement éthique effectué par une approche transdisciplinaire, car à l'origine des institutions du capitalisme on trouve des compromis éthico-politiques. J'ai déjà mentionné cette collection dans le carnet de recherche de la chaire Ethique et finance (à la page « Une autre finance«) à propos de l'ouvrage dirigé par Bernard Paranque et Roland Perez, La finance autrement ? – Réflexions critiques et perspectives sur la finance moderne (2015).

Pour construire une autre finance, il est capital de comprendre comment se fabrique la finance. C'est l'objet de l'ouvrage collectif La fabrique de la finance. Pour une approche interdisciplinaire (presses universitaires du Septentrion, 2016) dirigé par Isabelle Chambost, Marc Lenglet et Yamina Tadjeddine (informations sur le site de l'éditeur), qui dresse un panorama des différentes manières de rendre concrètes les théorisations du paradigme classique de la finance dominante dite « moderne ». Cet ouvrage remarquable devrait constituer la lecture de chevet de tous ceux qui, à partir d'un point de vue éthique, cherchent à construire une finance « autre » que la finance orthodoxe dominante, tant les analyses développées dans ses différents chapitres sont parfaitement documentées et riches d'enseignements.

Fabrique finance

Quatre parties composent cette synthèse :

- La remise en cause du paradigme classique dominant
- L'analyse des dispositifs bancaires et financiers
- L'analyse des modes et des pratiques de régulation
- Le processus de financiarisation

Plutôt que de paraphraser les différents auteurs des chapitres, je me propose ici de faire une lecture d'actuaire de cet ouvrage, en m'attachant à l'un des aspects qui me paraît central et que souligne d'entrée l'introduction générale : l'importance du postulat associé à la modélisation des risques dans la théorie financière orthodoxe. En tant qu'actuaire, je ne peux que valider l'importance effective de ce postulat dans la finance, point parfaitement mis en évidence par les auteurs : la rationalité attendue des agents est soutenue par des modèles de décision en univers risqué, la notion d'efficacité d'un marché dans le sens informationnel conduit à l'idée d'un équilibre unique qui optimise le couple rendement-risque, la dynamique boursière orthodoxe est celle du mouvement brownien, un processus aléatoire très particulier dans lequel le coefficient de diffusion est assimilé par les financiers au risque. Cette représentation probabiliste du risque représente un instrument symbolique majeur (Larminat, ch. 2) qui permet à l'imaginaire des pratiques financières (Hortiz, ch. 4) d'être formaté par les modèles de risque. Chosifié comme objet de transaction possible, le risque devient une marchandise comme une autre (Martin, ch. 1) qui permet à certains acteurs d'en extraire une rente (Tadjeddine, ch. 3) dans le cas de services financiers rendus sur sa gestion. D'où l'importance de sa modélisation.

On découvre alors comment des postulats contre-intuitifs (et jamais vérifiés statistiquement dans leurs mises à l'épreuve sur les marchés réels comme l'hypothèse brownienne) sont durcis par les autorités financières et bancaires, qui, par des pratiques de régulation qu'il faut interroger tant elles façonnent le système financier, installent durablement ces postulats dans l'imaginaire de la finance d'abord, puis dans la société ensuite. Le processus de financiarisation s'ensuit, analysé dans la quatrième partie. Poursuivant ma lecture d'actuaire, je ne peux que constater à quel point la finance orthodoxe a ignoré toutes les autres formes de processus aléatoires, non browniens, qui ont ensuite été développés pour proposer un autre paradigme à la modélisation orthodoxe appelée « moderne ».

Dans la postface, Michel Aglietta insiste sur la relation entre la financiarisation de l'économie et la transformation radicale du mode de régulation du capitalisme en 2004. Il mentionne l'almanach de termes étranges qui sont les images visibles de cette financiarisation (EVA, VaR, CDS, ETF, Bâle III) : tous ces objets financiers bizarres manipulent une représentation du risque aussi fausse que dangereuse, et dont les conséquences ont été visibles avec la crise des crédits hypothécaires « subprimes« , crise dont Aglietta rappelle à quel point l'un de ses effets aggravant a été l'idéologie de la dissémination des « risques ».

En écho à cette lecture d'actuaire, je voudrais ici rapprocher deux champs de recherche qui me semblent pour le moment encore séparés, celui des études sociales de la finance et celui des modélisations mathématiques du risque qui contestent le paradigme de la théorie financière orthodoxe. L'introduction de l'ouvrage rappelle que, en France, le courant de l'économie hétérodoxe a, depuis ses origines, insisté sur l'importance extrême des crises financières pour comprendre la nature de la finance. Tant l'école de la régulation (Michel Aglietta) que l'économie des conventions (André Orléan) ont cherché à sortir du cadre d'analyse imposé par le paradigme dominant en finance, celui de l'échange tout-puissant dans un monde financier sans crises.

Le rôle fondamental et récurrent des crises financières a, dans une toute autre voie, été souligné par Benoît Mandelbrot dans ses travaux sur la modélisation mathématique de la dynamique boursière à partir des fractales. Au départ, l'économie hétérodoxe et les fractales s'ignoraient, alors que l'une et l'autre voie, chacune dans sa discipline propre (l'économie et les modélisations mathématiques du risque), cherchaient à proposer un autre paradigme pour la finance. Dans les travaux que nous avons conduit avec Jean-Philippe Bouchaud (International Journal of Theoretical and Applied Finance) puis Jacques Lévy Vehel (à partir des Marchés fractals, PUF, 2002), nous avons tenté d'établir un lien entre la démarche de l'économie hétérodoxe et la démarche de Mandelbrot, en montrant comment les fractales pouvaient tout à la fois décrire de manière adéquate le phénomène des crises et permettre la recherche de la construction d'une autre finance que celle fondée sur l'économie orthodoxe sans crise.

Dans le sillage des intuitions de Mandelbrot qu'elle cherchait à déployer, cette modélisation mathématique des risques « autre » que celle du mouvement brownien de la finance dominante (approche hétérodoxe qui a ensuite irrigué des pans entiers de la recherche de la modélisation en finance, en particulier avec des processus aléatoires non browniens) attaquait de manière « internaliste » ce que les études sociales de la finance (Social Studies of Finance Association, SSFA), à peu près à partir de la même période, attaquaient de manière « externaliste ». La modélisation hétérodoxe et l'économie hétérodoxe se répondaient dans leur objectif : une posture critique de la finance dominante issue de la théorie financière orthodoxe. L'intuition

de la critique internaliste était la suivante : la financiarisation de l'économie observée venait aussi de la puissance sociale d'une représentation du risque très particulière et contre-intuitive, la continuité leibnizienne des variations boursières. Avec cette continuité dont la traduction financière est la représentation brownienne du risque, la finance s'empêchait de penser les crises. Cette finance vide de crise a produit l'illusion d'une maîtrise des risques dont on voit comment elle était associée à la continuité leibnizienne.

L'ouvrage dirigé par Isabelle Chambost, Marc Lenglet et Yamina Tadjeddine fait clairement apparaître les compromis éthico-politiques qui ont permis à la finance orthodoxe de devenir dominante. On perçoit alors, à la lumière de leurs analyses, complétées par une lecture actuarielle des enjeux liés aux choix de représentations du risque, l'importance de l'éthique épistémique (quels types de savoirs mathématiques sont mobilisés dans la fabrique de la finance) pour la refondation de la finance et sa « mise au service de l'économie », pour citer à nouveau la postface de Michel Aglietta. Un beau projet pour les années à venir. Title: Financialization: There's Something Happening Here Author: Gerald Epstein From: Political Economy Research Institute (PERI) – U. of Massachusetts, Amherst Date: August 2015

I. Introduction For anyone who didn't know already, the Great Financial Crisis of 2008 made it completely obvious that finance has become a powerful force in our economy. Unfortunately, among those largely in the dark on the eve of the crisis were most of the mainstream macroeconomics profession as well as many regulators and practitioners operating in the financial market itself. This is because, in the post-war period, the thrust of the mainstream analysis was designed to demonstrate that financial markets were either irrelevant to macroeconomic outcomes, or, by facilitating the efficient allocation of resources, a potent force for efficiency and growth (Taylor, 2010; Crotty, 2009). The idea that finance could cause the virtual meltdown of the global economy was foreign to their theories and far from their minds.

For heterodox economists, by contrast, at least since the work of the late Hyman Minsky, this fact had been well known. In the 1970's, Hyman Minsky introduced the role of financial instability in the inherent dynamics of the economy and by 1992 had introduced the term "financial instability hypothesis" to refer to the inherently contradictory role of borrowing and lending in the course of the business cycle and on economic crises.

Over the course of the next several decades, heterodox economists expanded their analyses of finance further. By the 1980's and 1990's, they were acutely aware that the size, nature and scope of finance had begun to grow enormously and that it was having much broader impacts on the economy than simply on the business cycle and economic crises: finance seemed to be changing the whole character of the economy and possibly even society itself. Minsky started writing about the rise of "money manager capitalism" suggesting a whole new phase of capitalism that was characterized, in particular, by the type of financial relationships that dominated the economy.

Others also began to identify the very nature of the current form of capitalism with the type of financial relations that were dominant in them. Some went as so far as to argue that these financial relations not only structure our economy, but our very language and culture as well. Gerald F. Davis referred to a "portfolio society", "in which the investment idiom becomes a dominant way of understanding the individual's place in society. Personality and talent become "human capital", homes, families and communities become "social capital" and the guiding principle of financial investment spread by analogy far beyond their original application." (Davis, 2009, p. 6).

"Financialization" is the latest, and probably most widely used term by analysts trying to "name" and understand this contemporary rise of finance and its powerful role. The term had been developed long before the crisis of 2008 but, understandably, since the crisis hit, it has become even more popular. This vast and rapidly expanding literature on financialization has a number of important strands. Some of the literature focuses on clarifying the definition of

financialization, and assessing whether it is a dominant cause of the ills confronting capitalism or is just a symptom of other, deeper causes; some asks whether financialization is a new "phase" of capitalist development, perhaps a new "mode of accumulation", or considers whether it is just one among a number of important developments along with "neo-liberalism", "digitization" and "globalization" that are arising in the contemporary world; other literature is focused on less theoretical and more empirical matters, trying to measure the nature and extent of financialization, however defined, and to describe its institutional and economic dimensions; and still other work is focused on attempting to analyze theoretically and empirically the impact of financialization on important phenomena such as financial crises, productive investment, productivity growth, wages and income distribution; and finally, other parts of the literature are more policy-oriented, trying to grapple with policies and structural changes than can improve the role that finance plays in the economy.

In the rest of this chapter I present the most widely used definitions of financialization and introduce the main ideas and debates associated with the concept. In section III, I discuss the dimensions of financialization with primary reference to the US but add occasional discussions of financialization in other countries. Section IV is devoted to discussing the impacts of financialization on various important aspects of the economy including investment, employment and income distribution. Section V concludes. To anticipate our main conclusion, it is this: as the famous line from Buffalo Springfield says, with financialization we know that something important is happening here. We just don't know yet exactly what it is.

II. Financialization: Definitions and Brief History of the Concept As discussed by Malcolm Sawyer (2013), the term financialization goes back at least to the 1990's and probably was originated by Republican political operative and iconoclastic writer Kevin Phillips, who first used the term in his book Boiling Point (New York: Random House, 1993) and, a year later, used the term extensively in his Arrogant Capital in a chapter entitled the "Financialization of America". Phillips defined financialization as "a prolonged split between the divergent real and financial economies (New York: Little, Brown and Co., 1994). (Sawyer, 2013, pp. 5-6).

Scholars have adopted the term, but have proposed numerous other definitions. Sociologist, Greta Krippner, for one, gives an excellent discussion of the history of the term and the pros and cons of various definitions.(Krippner, 2005, 2012) As she summarizes the discussion, some writers use the term "financialization" to mean the ascendancy of "shareholder value" as a mode of corporate governance; some use it to refer to the growing dominance of capital market financial systems over bank-based financial systems; some follow Hilferding's lead and use the term financialization to refer to the increasing political and economic power of a particular class segment, the rentier class; for some financialization represents the explosion of financial trading with myriad new financial instruments; finally, for Krippner herself, the term refers to a "pattern of accumulation in which profit making occurs increasingly through financial channels rather than through trade and commodity production". (Krippner, 2005, p. 14).4

I have defined the term quite broadly and generally as: "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic

and international economies." (Epstein, 2005, Introduction). This definition focuses on financialization as a process, and is quite agnostic on the issue of whether it constitutes a new mode of accumulation or broadly characterizes an entire new phase of capitalism. Broad definitions like mine have the advantage of incorporating many features, but have the disadvantage, perhaps, of lacking specificity.

Other analysts have used variations on the term financialization to refer to more or less the same set of phenomena. Tom Palley has used the term "neo-liberal financializaton" in his writings to emphasize the importance of neo-liberalism as part and parcel of the rise of financialization (Palley, 2013a, p. 8) Some have not referred to financialization but to "finance-dominated capitalism" (Hein, 2012; Sen, 2014; Palley, 2013a, chapter 1).

The use of the term "neo-liberalism" signals a topic of much discussion and debate in this literature: what is the relationship between financialization, globalization and neo-liberalism three forces that virtually all analysts in this area agree have had profound impacts on the evolution of our economy. (see Kotz, 2014, Dumenil and Levy, 2005, Lapavitsas, 2013)? The main issue is determining the key driving force in contemporary capitalism, and distinguishing it from the subsidiary, or less important, forces. This literature, though interesting, is ultimately unresolved: in fact, since these phenomena have all arisen more or less together since the 1980's , it might be impossible, to settle this debate.

Another important debate is on the periodization of "financialization". Is it only a recent phenomenon, say, important since the 1980's? Or does it go back at least 5000 years, as Malcolm Sawyer has suggested? (Sawyer, 2013, p. 6).5 If it goes back a long time, does it come in waves, perhaps linked with broader waves of production, commerce and technology or is it a relatively independent process driven by government policy such as the degree of financial regulation or liberalization (see Vercelli, 2013, Arrighi, 1994, Krippner, 2012, and Orhangazi, 2008a, 2008b). Arrighi famously argued that over the course of capitalist history, financialization tends to become a dominant force when the productive economy is in decline, and when the dominant global power (or "hegemon") is in retreat. Think, for example the early 20th century when Great Britain was losing power relative to Germany and the US, and the UK economy was stagnating. This was a period also of a great increase in financial speculation and instability. (See also Orhangazi, 2008a and Pollin, 1996).

This historical discussion has also melded into a more contemporary discussion of the causes of financialization. There is a big debate about whether the current wave of financialization is due to the liberalization of financial markets starting in the 1980s, or whether it reflects the reduced profitability and stagnation in the non-financial (the so-called "real") economy. In latter case, it is argued, financiers are forced to find other ways to make profits, and they turn primarily to dangerous speculation in the financial sphere. In short, the question is whether financialization is due to changes in the nature and regulation of the financial sphere or is it primarily due to profound structural problems in the non-financial economy, including foreign trade and relative global power.

A related argument is whether the current phase of financialization is due to the massive increases in income and wealth inequality which has led to the need for massive household borrowing and provided the wealth for rich people to invest.

One policy implication of this debate is that if financialization is a purely financial problem, it might be easier to "fix" "simply" through financial regulation and financial restructuring; if the problems stem from the "real" economy, wealth distribution and the global distribution of power, then "fixes" might not be so easy, and in particular, might require dramatic changes in the very structure of contemporary capitalism and global political economy.

The final set of debates mentioned here concern the impact of "financialization" on the economy and on those who inhabit it. Those heterodox economists and sociologists who have analyzed "financialization" have generally taken a quite critical view of the impact of financialization on the economy. Prior to the GFC, some suggested that financialization might provide a viable system of regulation and growth (Boyer, 2000). But most analysts identified a number of key problems associated with financialization: among these problems cited by these analysts are increases in economic instability, increased short term orientation, reduced long-term investment in equipment, innovation, infrastructure and human capital and an increase in income and wealth inequality. Still, there is no consensus on the precise dimensions of these problems and to what extent they should be attributed to financialization or other factors such as neo-liberalism, digitization or globalization.

These broad issues and debates are fascinating and provide frameworks and agendas for investigating key questions with respect to the dynamics and impacts of financialization. But, in my view, among the most important contributions made in this literature are in the empirical realm, that is, empirical and historical studies that have looked at the dimensions of financialization, its key institutional embodiments and dynamics, and at its impacts on key economic, political and social outcomes.

III. Dimensions of Financialization If one takes a broad perspective on financialization, then one can identify many dimensions of it. One is the sheer size and scale of financial markets and can be seen quite clearly in the large growth in the size of the financial sector relative to the rest of the economy over the last several decades. This growth in finance has been a quite general phenomenon in many parts of the world. For the most part, we will focus here on data from the US. The growth of finance relative to the size of the economy since 1980 or so has been nothing short of spectacular. A few pieces of data illustrate this point well. Start with profits of financial institutions. In the United States, financial profits as a share of GDP was around 10% in the 1950's. By the early 2000's, financial profits constituted about 40% of total profits in the US, a historical high. After a sharp decline during the Great Financial Crisis of 2008, financial profits have recovered to above 30% of profits, well above the average for the post-war period. Naturally, with profits having grown so significantly, the size of the financial sector is likely to have been growing as well. Financial sector assets relative to GDP was less than 200% from 1950 to 1985. By 2008, they had more than doubled to well over 4 times the

size of the economy. After a short dip following the GFC, financial sector assets had grown to be almost 500% of GDP by 2015 (Epstein and Montecino, 2015).

Trends in the UK are similar to those in the US, with both the size and the profitability of the financial sector and its profitability growing substantially in the post-war period until the great financial crisis, and resumed growth since that time. Indeed, since the crisis, growth of financial assets in the UK have outpaced those in the US, Germany and Japan, relative to GDP (Lapavitsas, 2013, pp. 205 - 2011). More generally, the size of the financial sector and financial profits relative to the size of the economy has grown substantially in most European countries over this period. (FESSUD, various).

Another dimension that characterizes financialization in many countries has been an increase in the financial activities and financial orientation of non-financial corporations. De Souza and Epstein (2014) present data on the financial activities of non-financial corporations in six financial centers, the US, UK, France, the Netherlands, Germany and Switzerland. They show that in all the six countries – with the possible exception of France – non-financial corporations significantly reduced their dependence of external borrowing for capital investment. And, indeed, in three of the countries – the UK, Germany and Switzerland – non-financial corporations became net lenders, rather than net borrowers, indicating an increasing role for financial lending as a profit center for non-financial corporations in these countries. Lapavitsas (2013) showed similar trends for the US, UK, Germany and Japan.

A key aspect of financialization that analysts agree has been particularly pernicious has been the vast increase of debt levels in many countries and many sectors (Admati and Hellwig, 2013; Taylor, 2012; Turner, 2013). Debt, or leverage, is an accelerator that enables the financial system to generate a credit bubble, that allows some actors, such as private equity and hedge funds to extract wealth from companies, and that can quicken the pace of economic activity more generally, and it is the accelerator on the way down after the bubble bursts, leading to distress, deflation and bankruptcy. (Minsky, 2008; Fisher, 1933 ; Jarsulic, 2013)

Playing a key role in the development of financialization is the role of financial innovation; in fact some authors argue that financial innovation itself is financialization (Vercelli, 2013). To be sure, financial innovation has played a key role in the development of recent financial practices that contributed significantly to the massive growth in financial activities and that ultimately contributed to the financial crisis (Vercelli, 2013; Jarsulic, 2013; Greenberger, 2013; Stout, 2011; FCIC, 2011). Among these key financial innovations have been securitization and structured financial products such as Asset Backed Securities (ABS); Collateralized Debt Obligations (CD)'s); the growth of credit derivatives, such as Credit Default Swaps (CDS) that both facilitated and then became embedded in these structured products themselves; and innovation in wholesale funding such as REPO's and REVERSE REPO's all facilitated by complex utilization of collateral that greased the wheels of the whole system. These financial innovations have implications that are global in scope. The Bank for International Settlements in Basel Switzerland reports that the global use and level of trading in these instruments has grown spectacularly over the last several decades (BIS, 2013). This process of financial

innovation has clearly helped to drive financialization, both within countries and globally as well.

Financialization and Non-Financial Corporations There are other important dimensions of the increased financial activities related to nonfinancial corporations. Among the most important are the increased role of financial activities as a determinant of the pay packages of top management of non-financial corporations, including, most importantly, the corporate CEO. Perhaps most important are stock options and other stock related pay for non-financial corporate management. In the US, where is this is especially prevelant, CEO's on average receive 72 % of their compensation in the form of stock options and other stock related pay (Galston and Kamarck, 2015; Lazonick, 2015a, 2015b).

This focus on stock price leads non-financial corporations to use their revenue to buy back stocks in order to raise the stock prices and increase their compensation (Cheng, et. al., 2015). This use of funds Lazonick refers to this pressure as leading to management policies of "downsize and distribute" a dramatic shift from an earlier strategy or retain and reinvest, by which management would retain profits and re-invest back into the human and technological capital of the firm. (see, eg., Lazonick 2012, 2015a; Almeida, et. al., 2014). The numbers in the case of the US are staggering. Using a sample of 248 companies that have been listed on the S&P 500 since 1981, Lazonick reports that: in 1981, firms use 2 percent of net income for stock buybacks. Between 1984 and 1993, such purchases averaged 25 percent of net income, from 1994-2003, 37%; from 2004 – 2013, they used a full 47% of net income for stock buybacks. (Lazonick, 2015a, 2015b). Particular large, well-known corporations used even a higher percent of their income for buybacks.

This focus on stock price is often seen as a prime example of "share-holder value" ideology, a perspective seen by some as the very essence of "financialization". (Froud, et. al., 2006; Aglietta and Bretton, 2001). Share-holder value ideology, promoted in the mainstream of the economics profession by Michael Jensen, among others, argues that since shareholders own the corporations (are the risk-bearing residual claimants"), that the goal of the corporation management should be to maximize the corporate value for shareholders. Since, they argue, shareholders bear all the risk in the corporation, then this maximization is the most efficient corporate outcome. Lazonick shows that other stakeholders, like workers and taxpayers, bear as much if not more risk than shareholders (Lazonick, 2013). And Stout shows that shareholders do not really own the corporations, nor do they all share the same values as embodied in the Jensen ideal. (Stout, 2012). Hence, "maximizing shareholder value" does not mean maximizing share price. But it does often lead to short-term, destructive orientation by management.

This is one of the most discussed examples of the role of modern financial markets in creating more "short-termism", as a major component of "financialization". By 'short-termism" is meant a short time horizon by economic leaders in making production, investment and financing decisions. This short-termism might lead to under-investment in long gestation but highly productive and profitable (in the long-run) investments, under-investment in labor

development, under-investment in research and development activities, and over-investment in activities that generate short run profits but that might generate long-run risks and/or losses. (Graham, et. al., 2005; Dallas, 2011). The same kinds of pressures face portfolio managers for pension funds and other institutional investors, leading to a similar focus on short-term returns, sometimes at the risk of longer term investments (Parenteau, 2005)

Evidence of short-termism include the reduced holding period of equities in financial markets, survey evidence that managers will cut profitable long-term investments to reach short-term profit goals, and that investors have higher rates of required returns for longer term investments than is necessary (see Haldane and Davis, 2011).

This short – term oriented behavior is alleged to affect non-financial corporation management not simply because of the direct incentives facing corporate CEO's, but also because of the pressure from outside investors and financial institutions. These include pension funds and related institutional investors (Parenteau, 2005) and also private equity firms (Appelbaum and Batt, 2014) and hedge funds (Dallas, 2012). These financial institutions use access to debt and financial engineering to extract value in the short run from non-financial corporations, possibly at the expense of investment, tax payers and labor.

In short, this strand of literature suggests that "financialization" not only affects behavior in the financial sector itself, but also has profound effects on non-financial corporations as well.

Financialization and Households As the Great Financial Crisis of 2008 clearly demonstrated, the process of financialization has not only caught financial and non-financial institutions into its orbit, but also households as well. After all, the epi-center of the financial crisis in the United Sates was in the home mortgage market and to some extent one segment of that market, the so-called "sub-prime mortgage market". Costas Lapavitsas (2013) and others have argued that the process of financial incorporation of households led to the "financial expropriation" of these households by financial businesses, and expropriation most clearly and obviously expressed by the massive loss in housing wealth experienced by poor people and minorities in the US as a result of the crisis. (See Taub, 2013 and Engel and McCoy, 2011). The incorporation of households into the "circuits" of financialization goes beyond the intensive use of mortgages to buy homes, sometimes, as we saw in 2008, with catastrophic consequences. The use of credit cards and other forms of consumer credit, and the widespread indebtedness of students through student loans, also comprise the webs of connections that households have come to have with the financial markets (Kuttner, 2013; Warren, 2014).

Conclusion As this section has shown, financialization has numerous dimensions, and has moved in some countries way beyond the "financial sector" itself. Financial returns, financial motives, widespread use of debt and short-termism, among other aspects, have become crucial, if not dominant, for financial firms, non-financial firms, and households. This growth in finance, which accelerated around 1980 in a number of countries, has taken on significant global dimensions as well.

The question naturally arises, what is the impact of financialization on the economy and on society?

IV. Impacts of Financialization Much of the macroeconomic literature on financialization concerns, of course, the impact of financialization on crucial macroeconomic outcomes such as economic growth, investment, productivity growth, employment, stability and income distribution. The massive literature on the great financial crisis has made it pretty clear, that aspects of financialization, including the huge increase in private debt, the use of securitization and complex financial products, the widespread use of complex over the counter (OTC) derivatives, and the pernicious fraud and corruption, all contributed to the financial crisis and therefore, quite obviously, undermined stability.

But the impacts of financialization on other macro-outcomes are less obvious, and less studied. Before discussing particular impacts, it will be helpful to present some broad frameworks that have been proposed to understand the impact of financialization on macroeconomics. (see Palley, 2013a, 2013b; Hein and Van Treeck 2010, Skott and Ryoo (2009)).

Macroeconomic Models and Financialization Space prevents me from giving a thorough overview of the rapidly expanding heterodox literature on models of financialization, so I will very briefly discuss one framework here, that of Eckhard Hein. Hein utilizes a Kaleckian model, in which aggregate demand plays a key role in determining investment and output and income distribution of income between profits, wages and "rentier" or "financial incomes" have a big impact on aggregate demand. Eckhard and van Treeck, for example, identify three key channels through which financialization can affect macro variables and outcomes: 1) The objectives of firms and the restrictions that finance places on firm behavior 2) New opportunities for households' wealth-based and debt-financed consumption, and 3) The distribution of income and wealth between capital and labour, on the one hand, and between management and workers on the other hand.

Hein and van Treeck show that within the Kaleckian framework, that expansive effects may arise under certain conditions, in particular when there are strong wealth effects in firms' investment decisions and in households' consumption decisions. However, they show that even an expansive finance-led economy may build up major financial imbalances, i.e. increasing debt-capital or debt-income ratios, which make such economies prone to financial instability.

Financialization and Investment Stockhammer (2004) pioneered the theoretical analysis of the impact of financialized manager motives on investment. He showed that finance oriented management might choose to undertake lower investment levels than managers with less financialized orientations. He presented macrolevel conometric investment equations that were consistent with this impact in several OECD countries.

Orhangazi (2008b) uses firm level data to study the impact of financialisation on real capital accumulation in the United States. He used data from a sample of non-financial corporations from 1973 to 2003, and finds a negative relationship between real investment and

financialisation. Orhangazi explained his results by exploring two channels of influence of financialization on real investment: first, increased financial investment and increased financial profit opportunities may have crowded out real investment by changing the incentives of firm managers and directing funds away from real investment. Second, increased payments to the financial markets may have impeded real investment by decreasing available internal funds, shortening the planning horizons of the firm management and increasing uncertainty.

Davis (2013) provided further evidence of negative impact of financialization on real investment. She also studied a sample of non-financial firms, showing a significant difference between large and smaller firms in the degree to which they receive financial income as a share of total income. Larger firms appear to be more financialized in this sense. Using a firm-level panel, she investigated econometrically the relationship between financialization and investment, exploring focusing on the implications of changes in financing behavior, increasingly entrenched shareholder value norms, and rising firm-level demand volatility for investment by NFCs in the U.S. between 1971 and 2011. Importantly, Davis found that shareholder value norms were associated with lower investment, though this relationship tended be true primarily of larger firms. This results are consistent with the concerns expressed by heterodox analysts and others that financialization will tend to reduce real investment.

Employment, human capital, R&D and Wages An increasing chorus of analysts among heterodox economists including William Lazonick (2009, 2013, 2014), Eileen Appelbaum and Rosemary Batt (2014) and iconoclast Andrew Haldane (2011), as well as more mainstream economists (eg. Galston and Kamarck, 2015) and even political figures such as Hillary Clinton have expressed concerns that "short-termism" associated with financialization may be coming at the expense of investments in human capital, research and development, employment and productivity growth. There is some empirical work that is supportive of these fears. In a set of surveys of corporate managers, Graham, et. al (2005) show that many chief financial officers are willing to sacrifice longer term investments in research and development and hold on to value employees in order to meet short-term earnings per share targets. In a panel econometric study, Almeida, et. al. (2014) similarly find using firm level data that managers are willing to trade-off investments and employment for stock repurchases that allow them to meet earnings per share forecasts. Appelbaum and Batt (2014) in a survey of econometric studies of private equity firms find that especially large firms that use financial engineering to extract value from target companies, have a negative impact on investment, employment and research and development in these companies. In short, there is significant empirical evidence that "shorttermism" and other aspects of financial orientation have negative impacts on workers wellbeing, productivity and longer-term growth. And, as many of these studies emphasize, these activities do NOT maximize share-holder value, but often increase incomes for some managers and shareholders, partly at the expense of other shareholders of the firms not to mention stakeholders, such as workers and taxpayers.

Income Distribution This raises the issue of the over-all impact of financialization on income distribution. A key issue in this area is where do financial profits come from? (Pollin, 1996). Are they the result of provision of services by finance to the rest of the economy, as is asserted

by most mainstream economic theory? Or does much of it come in this era of financialization from the extraction of income and wealth by finance from workers, tax-payers, debtors and other creditors? Iren Levina proposes that much of financial income comes from access to capital gains in financialized markets and therefore does not necessarily reflect a zero-sum game, as is implied by some who argue that financial returns are extracted rather than result from increased wealth. (Levina, 2014). This issue of the source of financial income is extremely difficult to sort out theoretically and there is no consensus on this topic (see Lapavitsas, 2013).

There has been some empirical work to look at the impact of financialization on income and wealth distribution. Descriptive analysis in the U.S. indicates that the top earners, the 1% or even .01% of the income distribution get the bulk of their incomes from CEO pay or from finance (Bakija, et. al. 2012). Econometric work looking at the relationship between financialization and inequality is also growing. Tomaskovic-Devey and Lin (2011) present an econometric model indicating that since the 1970's, between 5.8 and 6.6 trillion dollars were transferred to the finance sector from other sectors in the economy, including labor and taxpayers.

Lin and Tomaskovic-Devey (2013), using a sectoral econometric analysis for the US, find that in time-series cross-section data at the industry level, an increasing dependence on financial income, in the long run, is associated with reducing labor's share of income, increasing top executives' share of compensation, and increasing earnings dispersion among workers. They do a counterfactual analysis that suggests that financialization could account for more than half of the decline in labor's share of income, 9.6% of the growth in officers' share of compensation, and 10.2% of the growth in earnings dispersion between 1970 and 2008.

Dunhaupt (2013) finds a negative relationship between financialization and labor share in a larger set of countries. She uses a time-series cross-section data set of 13 countries over the time period from 1986 until 2007. The results suggest that there is indeed a relationship between increasing dividend and interest payments of non-financial corporations and the decline of the share of wages in national income. Other factors that can be accounted for the decline relate to globalization and a decrease in the bargaining power of labor.

Financialization and Economic Growth As the massive recession stemming from the great financial crisis makes clear, there is no linear relationship between the size and complexity of financial markets and economic growth. Several econometric studies have suggested an inverted U shaped relationship between the size of the financial sector and economic growth. A larger financial sector raises the rate of economic growth up to a point, but when the financial sector gets too large relative to the size of the economy, economic growth begins to decline (see for example, Checceti, et. al, 2012; Tomaskovic-Devey, 2015). To the extent that this relationship is true, economists are still searching for the explanation. One argument is that as the financial sector increases in size, because of its relatively high pay levels, it pulls talented and highly educated employees away from other sectors that might contribute more to economic growth and productivity. As a University Professor teaching economics since the

1980's, I can verify that many of my undergraduate students had the dream of going to work on Wall Street. Perhaps some of them could have contributed more elsewhere.

V. Conclusion There is little doubt that the size and reach of financial activities, markets, motives and institutions has grown enormously in the last thirty years, relative to other aspects of the economy. There is a great deal of historical and empirical evidence that, at least to a some extent, this growth has contributed to economic instability, an increase in inequality, and in some cases, to a decline in productive investment and employment relative to what might have occurred otherwise. There is less consensus on whether this constitutes a new epoch, phase, or mode of accumulation or what exactly is causing this shift: is it underlying problems in the "productive core" of the economy, a reaction to broader shifts in the global economy associated with globalization, technological changes associated with digitization, or primarily due to financial de-regulation as being part and parcel of neo-liberalism?

To some extent, policies or programs aimed at reducing the deleterious consequences of financialization depend, to some extent at least, on the underlying causes of the negative aspects of financialization. If the problem primarily stems from issues of financial regulation, then adopting strict financial regulations as suggested by many (see, for example, some of the chapters in Wolfson and Epstein, 2013; or Epstein and Crotty, 2009), imposing a financial transactions tax to reduce short term trading, prohibiting destructive stock buy-backs (Lazonick, 2015a), breaking up the large banks (Johnson and Kwack, 2010), change corporate governance so that corporations take into account the preferences of stake holders, and a host of other reforms could well go a long way to taming financialization.

If the problems stem largely from the vast and growing inequality of income and wealth and the political power that this inequality buys, then deeper reforms of taxation, wages, and ownership as well as money in politics must be implemented. If the problem goes deeper to the underlying capitalist dynamics that lead to financialization, then we are looking at even more fundamental reforms. The state of our knowledge does not allow us to clearly sort out these issues. But, it wouldn't hurt to start someplace, start anyplace. Because, we do know: there is something happening here.