Data and the Bank:
Financial Resilience in a Digital Age

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Key Points

- Congress and financial regulators should not wait to see if a fast-changing financial market is resilient under stress. Policy "forbearance" based on indecision or political influence is at least as systemically risky as all the forbearance on subprime mortgages as they went from bad to worse.
- Asymmetric regulation in which the same activity is under very different safety-and-soundness rules realigns financial markets because companies gain competitive advantage based on government policy – or the lack thereof – not product quality or price.
- Giant platform companies could form natural monopolies and even now pose risks akin to those that bring giant U.S. banks under tough safety-and-soundness rules.
- Waiting to see what happens is especially dangerous because the lesson all too many have learned from the 2008 crisis is that the government will step in and bail them out.

We meet this morning to discuss how the changing nature of financial data and who owns or holds it is restructuring resilience to financial-market shocks ranging from the embarrassing, to the inconvenient, to the costly, to those that could again prove to be grievously systemic. We also meet today a week or so after yet another revelation about a platform company's seeming insouciance to how personally-identifiable data is used and shortly after another tech behemoth thought that the best way to resolve what in finance we call system-integrity issues was to ask a non-profit to do the very much for-profit company's dirty work. Clearly, there is a disconnect between what giant tech companies do and how this comports with what we perhaps quaintly still call social-welfare considerations. What happens when these giants come full-bore into finance? What rules apply and, in their absence, could corporate cultures ensure that tasks far more important than playing a song or making a call are handled with security, integrity, and stability?

Time doesn't permit a full exploration of these risks and there is as yet scant data on which to posit refined answers. However, there is a good deal to learn from recent history of at least some major tech companies combined with their initial ventures into an array of financial services. We need carefully to review these transactions and others to come to be sure that a fast-changing financial system is heading in the right direction. By the time we fully study all these questions, innovative companies with awesome data powerhouses may well have answered them for us, and not necessarily in the best interests of financial stability and economic equality.

All of you here today have important responsibility to frame U.S. fintech policy before it is defined by default in the marketplace. Not to be alarming, but we've been there, done that before. In about 2002, academics and a few astute analysts at one of the bank regulatory agencies spotted a worrisome trend: subprime mortgages. By about 2005, the banking agencies as a group decided maybe something should be done, but couldn't agree on much of anything, coming up only with non-binding guidance on the worst of the worst mortgages that then went wholly ignored. By 2006, Congress was worried and the federal agencies told the Senate Banking Committee that they sure would do something as soon as they decided what it might be. By 2007, things weren't going so well and you all know the rest of this story all too well.

This morning, I'll ask a few of the questions raised by the collision of financial technology and ever-fragile financial systems. I'll also give you a few of the answers I'm beginning to discern from hard experience with past crises and our work now with some very interesting innovations. I'll look forward to discussing these questions further with you – you're the ones whose answers count the most.

Who Owns Consumer Financial Data?

In my opinion, consumer-data ownership is the core question sure to redefine the evolution of retail financial services. It is usually posed as one governing how "data-aggregation" companies can scrape screens or otherwise acquire Personally Identifiable Information, but it should go farther also to encompass data obtained by others (e.g., credit bureaus, debt collectors), data directly pertinent to financial transactions, and data incidental to finance or gathered for totally different purposes (e.g., online purchases). It is critical to know who owned or, regardless of ownership, used these data for accountability, system-integrity, fraud-prevention, privacy, national-security and financial-stability purposes. It's past time to stop focusing on what caused the last crisis – credit and liquidity risk – to

understand how operational risk within and beyond the banking sector could spark another market melt-down.

What Corporate Incentives Drive Decisions?

When the subprime-mortgage crisis was metastasizing, every company – bank or non-bank – vying to come up with the next, still more "innovative" product claimed to be doing so in the name of "democratizing" U.S. housing finance. For good measure, Fannie Mae and Freddie Mac got regulatory brownie points for swallowing up all this muck.

Now, every platform company wrestling with trolls, Russian incursions, and evil-doers of all sorts clings to the notion of an "open" internet that advances democracy, builds cross-border harmony, and projects a vision akin to Valentine's Day every day everywhere. It reminds me a lot of the initial discussions about the internet in which I was a part in Berkeley years before the internet was known by this name. We all then saw DARPANET as a tool to achieve all of these lofty goals. But then no private, for-profit enterprise had any role in the technology. It was just a lot of us munching granola before anyone over thirty had actually heard of it.

You can probably tell that I'm not buying the hyperbole about exalted goals from for-profit fintech and platform firms. The huge fortunes earned in the tech arena, fintech included, are not usually virtue's pure reward. Indeed, I think the very success of these companies, their obtuse investor-rights structures, captive boards, and general immunity to anything that passes for prudential or governance regulation has a lot to do with it.

Some of the risk that exponential growth and hyper-profitability create are endemic in the corporate culture that characterizes all too many of these firms. However, others are the result of the nature of new data-capture,-management,-modeling, and -deployment regardless of the rules under which a company operates. A recent article by researchers at Federal Reserve Banks rightly observes that AI and machine learning (ML) rely on programming and big data that are inherently opaque. As a result, even if big-data firms were subject to supervision under prudential and consumer-protection regulation, it's not at all clear if anyone could tell the extent to which the fintechs actually were in compliance or operating in a safe-and-sound fashion.

With big data and ML already in wide use for online-marketplace lending, an array of potential credit-discrimination, privacy, conflict-of-interest, and credit-risk challenges may already lurk below the data. Companies using AI and ML in this limited way so far are generally small and the risks aren't systemic, but they could matter a whole lot to the customers involved.

Of course, banks aren't by nature all that virtuous either. But at least regulators get to try to make them behave. I venture to say that Wells Fargo's cross-selling scandals, which were allowed to go on far too long first by management and then by regulators, would carry none of the regulatory penalties at a fintech company absent express agreements with consumers and maybe, as Facebook just showed, not even then.

How Much Market Power Results?

This is perhaps the trickiest question of all. In an important [recent assessment of platform-company potential in the finance arena], the Financial Stability Board noted the benefits of innovation but also fears about resulting "natural monopolies" in which a very few companies own so much of the financial infrastructure that risks become highly correlated, subject to severe incentive-alignment distortions, or – fintech prowess notwithstanding – crowd out other competitors with better ideas. Natural monopolies may seem more – I don't know – organic – than unnatural ones created by huge conglomerate mergers. Nonetheless, they're no nicer to efficient, prudent market structure. As the FSB also says in the paper, AI and ML have formidable potential but also significant risks borne of design flaws, imperfect execution, or even vulnerability to attack or destruction at points of particular importance to financial-system stability.

In fact, looked at as if they were big banks, platform companies are systemically-important by the criteria now used to designate global systemically-important banks (GSIBs). GSIBs are deemed so risky by global and U.S. regulators that they come under stiff supervisory and capital standards. Think about what I'll call a global systemically-important platform (GSIP) and assess it by the GSIB criteria:

- Size: For GSIBs this is measured generally by assets. For GSIPs, size thresholds could be the number of users. A billion or so seems a reasonable threshold, but research should consider this.
- Inter-Connectedness: Well, yes.
- "Substitutability:" In bank-speak, this means the ability quickly to replace one company with another if a core service fails or the bank-provider falters. GSIPs have become so embedded in everyday life as access points to communications, commerce, and transportation that I think they also flunk the substitutability test.
- Complexity: Again, for sure.
- Cross-Jurisdictional Activity: You bet.

What Do Post-Crisis Rules Do?

Not much, sad to say. If rules matter for market stability – and if they don't, then what's the point? – we can't just bless innovation without taking heed of the extent to which companies that are very, very good at innovating then gain this edge not just because they're smart – which most are and then some – but also because they are exempt from the speed-bumps set up to prevent private profit from turning into public calamity. Some of these speed-bumps may well be too high, but why do they apply only to one type of company offering a service and not to another doing exactly the same thing?

The usual rationale for asymmetric regulation is that banks need regulation because they offer deposits backed by the FDIC and have unique access to the Federal Reserve's discount window and emergency-liquidity facilities. This might have been true once, but the crisis put paid to this rationale. Companies offering financial services regardless of whether or not they were banks got bailed out, received access to trillions in Fed liquidity facilities, enjoyed an FDIC full-faith-and-credit guarantee for debt obligations, and otherwise scurried under the too-big-to-fail umbrella when the 2008 crisis rained fire on the financial system.

Dodd-Frank is supposed to end this and largely does for the biggest banks, at least in theory and often in actual practice. Non-banks are still wholly outside of this framework but are nonetheless expanding into financial products across the spectrum of deposit-like, lending, transaction and infrastructure products. Customers ranging from individual consumers to large counterparties can be forgiven for expecting to be bailed out in another financial crisis. Once not bitten, not now shy.

This regulatory asymmetry makes innovation far riskier than warranted by all its real benefits to convenience, cost, and efficiency. Over time, we may well have critical services, large volumes of financial transactions, and huge stores of valuable personal data in a few hands under even fewer rules in a financial system in which customers, counterparties, and investors act regardless of risk because they don't think there is any. After all, won't the government ride to the rescue? Absent meaningful policy now, the taxpayer could well be forced to do so all over again. What a shame to have learned so little about financial crises after how much the last one cost all of us.