



***Remarks to the Virtual Training Program on Building the Foundations of Modern Financial Regulation in Indonesia (Program for International Financial Systems and the Harvard Law School) (Mar. 3, 2021) (K. Noreika)***

Good morning from Washington.

I want to thank you for inviting me to speak to you today at the *Virtual Training Program on Building the Foundations of Modern Financial Regulation in Indonesia*. I especially want to thank Professor Hal Scott who was my professor at Harvard Law School. If there is anything I get wrong today, please feel free to blame it on Hal!

In all seriousness, Professor Scott's class at Harvard, as well as my undergraduate training at the Wharton School at the University of Pennsylvania, set me on a life path specializing in the study and regulation of the banking industry. I started on this path over 30 years ago, and since then, I have had the opportunity to see the industry from the banks' perspective, the regulator's perspective, and also from the banks' competitors' and partners' perspectives.

So with that, let's talk today about the influence of technology and the shifting away from a bank-dominated financial sector.

First, let's think about what a "bank" is. Generally, I would say that a bank is an institution that accepts demand deposits, makes loans and transmits payments on behalf of its customers. Historically, it has been most efficient to combine these services and provide them together in the same institution.

Moreover, legal systems have encouraged the bundling of these financial services within banks. For instance, in the U.S., only traditional banks are granted access to a Federal Reserve master account and the Fed payments system. Because the vast majority of U.S. payments infrastructure is built, directly or indirectly, on the Federal Reserve payments system, the current state of the law provides traditional banks a near monopoly on the clearing of payments.<sup>1</sup>

So what has technology changed? Quite simply, it has lowered the costs of providing the individual components of the business of banking which has allowed these services to be provided separately and oftentimes outside the structure of traditional banking institutions.

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<sup>1</sup> Whether it is Fedwire, CHIPS, the automated clearing house, or real-time payments, access to these payment systems require that an entity is a traditional bank with access to a Federal Reserve account, or that a nonbank entity seeking access must contract with a traditional bank. Even payments companies like Paypal and Venmo, which are challengers to the banking sector, are generally forced to partner with banks to obtain access to the U.S. payment rails.

This trend reflects the evolution of disintermediation. What is disintermediation? It is the realization that the separate services that banks provide can often be provided more efficiently separately from each other. The phenomenon of disintermediation is not new. Forty years ago, when inflation was high and banks were constrained in the United States on how much interest they could pay on deposits, money market mutual funds took off as bank depositors looked for other bank-like vehicles to store and save their money where they could get a rate of return to offset the costs of inflation. Although money market funds, with their dismal performance during the Financial Crisis and the COVID pandemic, may not be the modern-day exemplars of the disintermediation of deposits, there are a plethora of other examples in the marketplace, such as private equity, mutual funds and the like to take their place.

Today, the phenomenon of disintermediation has also spread to the other two core components of the business of banking – lending and the clearing of payments. On the lending side, we have seen the growth of non-bank lending companies and other lending platforms that will crowd-source the funding of loans, or originate and securitize loans. In addition, private equity credit funds now compete against banks for larger commercial loans. Both substitute other sources of funding for bank deposits. Historically, bank deposits, which are often government-insured and necessary for payments activities, are a cheap source of

funding for banks to make loans. But their placement inside a bank for asset generation raises their costs through capital, liquidity and other prudential requirements necessary to mitigate against the systemic risk that a bank's balance sheet poses to the larger financial system. Now, the funding markets and technology have lowered the costs to asset generation through the finding of customers for the lending and funding sides of making a loan so that oftentimes such assets can be more efficiently generated outside the regular, regulated banking system. In short, technological and marketplace developments are overcoming, to some degree, the comparative advantage provided to bank lending through the form of cheap, insured deposits.

On the payments side, we have also seen a revolution in technological payments devices that in some cases – such as crypto-currency – have the potential entirely to take banks out of the picture. Even a few years ago this would have been unimaginable. But the technology is real now to transfer value to all parts of the world instantaneously without going through a bank. Simply put, it is no longer a clear proposition that banks, which at their heart are engines for measuring credit and other forms of risk, have a competitive advantage in the transmission of value between parties. It is no longer the case that intermediaries are a necessary or essential part of payments or the transmission of value.

Turning to crypto-currencies, or digital assets, there have been a lot of news stories over the past few weeks -- in fact over the past few years -- about the rising and falling price of Bitcoin and other crypto-currencies. However, in my view, considering Bitcoin as “digital gold” -- primarily as a speculative asset -- misses the point. Instead, crypto-currencies allow holders to transfer value instantaneously, at very low costs, via block-chain technology without going through a bank or other financial intermediary. This technological innovation has the potential to revolutionize finance, as users have a set of payment rails that are independent from the existing payments system, which is largely based on 1970’s technology and is largely monopolized by regulated depository institutions.

Moreover, with the rise of smart contracts, decentralized applications (“dapps”) and the so-called DeFi movement more broadly, we are seeing more projects develop that are allowing parties to borrow, lend, repo and engage in financial transactions traditionally facilitated through banks and broker dealers. Although adoption and innovation of crypto may have been slower than some had hoped during the first 10 years following Satoshi Nakamoto’s white paper, the broader market adoption of crypto-currencies over the past year, spurred in part by the COVID pandemic, may foreshadow a continued growth in the space.

The ramifications of this for the banking sector and the regulation of the banking sector are immense. Not only are banks left with the high costs of intrusive prudential regulation and capital requirements, they must also then often compete with more lightly regulated competitors which can do some of the business of banking less expensively than they can. Together, with the high costs of marketing and technology, this makes the business of banking more challenged than it has been in the past. To state the case more strongly, if financial disintermediation continues to develop at its current rate, this trend could pose an existential threat to the current financial system incumbents, unless the incumbents are ready, willing and able to develop along with, and in some cases partner with, the technologists leading the way in the “DeFi” and broader disintermediation movement.

This is not to say that the disintermediated markets will remain unregulated. Some thoughtful and creative regulators have already begun to think about how such activities should be regulated. And legislatures and financial regulators will undoubtedly move towards pulling these activities under the regulatory tent.

So what are, and what should, the banking industry and regulators be doing about technology-induced disintermediated banking activities? It seems there are

two possible paths – the prohibitory and the incentives-based approaches toward getting these new activities into the mainstream, and regulated, banking sphere:

The first path is reflexive – to be prohibitory. Ban the activities at issue. Or, more likely, insist that they be only undertaken through regulated, traditional banks – so that all market participants are on an equal playing field.

In the U.S., this likely would require affirmative legislation – which is never easy to enact – plus the pace of change is so rapid that it might be impossible for rules and legislation to keep up. Any action by legislatures and regulators will occasion a reaction that may result in the providing of the services at issue in a way that skirts the new regulatory requirements. Moreover, the costs of prohibition are incalculable. Economic growth results from a system of laws that fosters innovation.

The second reaction has been to provide incentives for these new entities that offer some, but not all, of the core banking products and services to come into the regulated banking system. This is the approach undertaken by the bank regulatory agency that I used to run in the United States, the Office of the Comptroller of the Currency, or the OCC. The OCC has developed an initiative for a so-called “fintech charter” that allows entities that provide at least one of the three core banking services – providing payments, lending money, or accepting

deposits – to apply for a national bank charter. If the activities do not include taking deposits, the newly chartered entity would have lesser regulation than a full service bank. It, for instance, would not be subject to the full capital and liquidity rules, it would not be regulated at the parent company level by the Federal Reserve, and it would not need FDIC insurance for deposits. But the new entity would be subject to full prudential regulation by the OCC, including bespoke capital and liquidity requirements, compliance with anti-money laundering and consumer protection rules, and requirements to serve the community through an individualized financial inclusion program.

The benefits to the chartered entity would be a federal charter that would not be subject to state licensing requirements – so the entity could operate and standardize its products on a 50-state basis.<sup>2</sup> In addition, the entity would get the imprimatur of being regulated by the U.S. Treasury and part of the national bank system where prudential standards should lessen the risk of failure of the enterprise.

So in exchange for agreeing to be regulated – albeit in some instances more lightly than a full-service bank – the fintech entity would enter the banking system

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<sup>2</sup> A national bank license also allows a non-bank entity to charge a consistent rate of interest on lending products nationwide not subject to different state usury laws.

and voluntarily “get on the grid”, so to speak. Now that was the thought at least. So far, the entrance of non-bank entities into the national bank system has been subject to a lot of fighting between the OCC and the states.<sup>3</sup>

But there has been some uptake. Recently, the OCC chartered two entities that will provide fiduciary custodial services to crypto-currency exchanges. And the OCC has recently provided that such activities are acceptable for national banks to undertake as part of their trust powers. So we are starting to see a convergence between the traditional banking sector and the new payments sector in the U.S.

To view it another way, this convergence between the technologically disintermediated payments system and the regulated banking system may signal a “new” role for traditional banks by doing something very “old”. That is, banks are utilizing their capacity of trust – the modern basis for their wealth and asset management businesses – to support a new, decentralized financial system built on

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<sup>3</sup> The states usually regulate non-bank lenders and payment processors and they do not like to compete with the OCC for licensees. Accordingly, the states -- through multiple lawsuits in Federal court -- have delayed the entrance into the traditional banking system of disintermediated bank activity providers.

open ledgers – an internet for money – where the banks are entrusted with the “keys” to keep those ledgers honest and safe.<sup>4</sup>

Another way that the unregulated fintech industry has become “mainstreamed” into the regulated bank sector is through the use of bank “partnerships.” The disintermediated banking services that we have been discussing have forced banks to speed up the rate of their own innovation. Every aspect of the delivery of banking products and services will be influenced by the application of new technology. But often, it is too expensive for banks to generate their own technology needed to track analytics, generate assets, find funding, and run the plumbing of the bank. There may be a more commonly available technology provider that can spread the costs of the technology over multiple institutions. So the bank and the fintech company enter into a contract for the bank to use the services and technology of the fintech company.

In the U.S., these partnerships are regulated by something known as the Bank Service Company Act. This Act, as well as the federal bank regulators’ general authority to supervise regulated institutions’ conduct for safety and soundness concerns, makes third-party vendors of services subject the federal bank

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<sup>4</sup> So what was often a profitable “side” business for banks of holding wealth in trust for customers now has the potential to become the epicenter for banks’ involvement in a defi payments system.

regulatory regime in the U.S., albeit only with respect to the services provided to regulated banking institutions. From this vantage point, regulators can play a key role in supporting and nurturing partnerships between banks and nonbanks while monitoring and minimizing the risks to the financial system resulting from such partnerships.

A prime example of the success of partnerships between banks and fintechs is Cross River Bank. Although Cross River is a relatively small state bank in New Jersey, through its partnerships with numerous fintechs, the bank was third among all banks making government-backed loans during the pandemic, behind only Bank of America and JPMorgan Chase.<sup>5</sup> By marrying the traditional financial sector with non-traditional fintechs, Cross River was able exponentially to increase its customer reach.

Further along this path, many bank partnerships often lead to fintech entities being acquired – or even acquiring – banking institutions and thereby themselves becoming fully regulated banking entities. We have seen this recently in the U.S. for instance in Lending Club’s pending acquisition of Radius Bank, SoFi’s application to start a newly chartered bank, and Square’s approval from the FDIC to form an industrial loan company. Each of these companies started on the

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<sup>5</sup> Cross River made \$6.5 billion in loans last year to more than 198,000 borrowers during the U.S. government’s pandemic responsive Paycheck Protection Program’s initial disbursement.

outside of the banking system by offering disintermediated lending or payments products and then decided that the full-service model – once the expertise and market position had been obtained – made sense for them.

And of course, there are numerous transactions where banks are buying technology companies, such as one that I was recently involved in – Alliance Data’s acquisition of Bread, a lending technology company offering customers payment options on merchandise that they purchase online. Oftentimes, it is more efficient for the technology to sink or swim on its own and then, as its market matures, to be housed in a banking institution which can provide the asset generation with a more stable flow of funding.

One other method that regulators have undertaken to encourage technology and, at the same time, compliance with consumer protection laws is to provide advance guidance and safe harbors to technological innovations. For instance, the U.S. consumer financial protection regulator, the CFPB, recently issued guidance that a product that pays workers their wages daily in advance of their payday, is not a lending product subject to the disclosure requirements under the Truth in Lending Act. In some ways, this makes sense – the recipient is only receiving the wages already earned, so not an advance or a loan on future earnings. But absent legal clarity, it is hard to offer this service in a legally compliant way, even when it

clearly benefits the workers and the payment providers which receive a small processing fee for their services.

As shown through this example, it is, at times, not enough that regulators take a hands-off approach to innovative arrangements. In the regulated financial sector, which is full of risk-averse actors operating in one of the most highly-regulated fields in the world, it is sometimes necessary for regulators to take affirmative steps to tell the market when certain types of innovation is permissible.

So where do we go from here? What we have to remember is that innovation in the banking system and regulation of the banking system have always been inextricably intertwined.

In the United States, for instance, when the federal government in the 1800s decided to tax bank notes, which were evidence of a bank's liability to pay the holder, banks quickly changed to a book entry system that is still used today.

Other technological advances that have had to navigate regulatory hurdles have included:

- the development of clearing houses;
- branch banking;

-- the use of data processing, which in the 1970s, revolutionized the book keeping of banks' operations thereby bringing the costs of running a bank down;

-- use of the internet, which in the 1990s, changed banks' interactions with customers, allowing constant and remote communications;

-- and today, use mobile technology, which has allowed the personalization and customization of bank products to an extent one could hardly have dreamed of 20 years ago.

The forces of technology and innovation in banking are good for consumers and society as a whole. The goal of regulation has always been to prevent the externalization of risk toward the collective – such as through the introduction of systemic risk into the financial system -- and to protect those who have the inability to protect themselves. Technology and innovation force the industry and regulators “back to basics” to remember what banks are and why we regulate them. The only thing that has changed today is that the pace of technological innovation has itself become exponential. But the basics remain – to provide financial intermediation to consumers and society in a way that maximizes individual and collective value while minimizing individual and collective costs and risk. Where intermediation itself is not required based on technological advancements, market participants and regulators will still need to think about what financial guardrails

are appropriate, if any. And, it is by keeping these ideas in mind that the pace of innovation today will be successfully integrated into the banking system.

So with that, I am happy to answer your questions and join in your discussion today.