

Philippon also remarked that there are some productivity gains in finance thanks to FinTech. We have to have a long-term perspective. We want to build a sustainable system for the long term. In this case, making sure new entrants are competitive and not too big is the most important thing we can do for the future.

Afternoon session: Policies

Huw Pill, *Goldman Sachs*

The report is an impressive contribution to the analysis of developments and trends in the financial services industry, focusing on how the technological shock associated with digitalisation and the rise of 'big data' is influencing the banking sector. When drawing policy implications from the analysis, considerations revolve around three issues: (i) understanding trade-offs across the various dimensions of the banking sector that are affected; (ii) assessing whether the impact of technological change on banks might be different this time; and (iii) anticipating the dynamics of the transition to a new banking system following from the shock.

Tradeoffs

From a public policy perspective, it is natural to take a welfare view. A technological shock to the financial sector creates opportunities for a more accessible and resilient banking and payments system. But it also creates risks on various dimensions. The interesting question is how to quantify and manage the trade-offs that arise.

In his opening remarks, SNB President Thomas Jordan described his mandate in this context as managing the trade-off between innovation, on the one hand, and stability, on the other. This is perhaps an appropriate perspective for a central banker I agree with, but if we take a broader public policy perspective beyond the remit of the central bank, it goes beyond the mandate of central banks more complex, multi-dimensional analysis has to be made.

Beyond implications for financial stability and opportunities to promote efficiency in the financial sector, important issues in assessing the banking system's response to technological change include the potential for network effects to create monopoly rents (with implications for competition and anti-trust policy) and the privacy and data issues that arise in a big data context. For this reader, the paper has the most interesting and new things to say on the lattermost issue. But to make these novel insights operational, we need to understand the character of interactions with other policy concerns and, crucially, quantify those interactions.

Why is this time different?

As Thomas Philippon remarked in presenting the report, there is nothing really novel in any of these issues. Technological change and financial innovation are not new. Previous financial innovations have raised similar questions. But ultimately their impact on the financial sector has proved manageable.

The report suggests ongoing technological change has the potential to have a different and more profound impact. It is therefore important to establish why. Only this motivates a need for significant reform to the existing regulatory framework, which has successfully managed such issues in the past (to a greater or lesser extent). Why do new developments and trends prompt policy concerns? And are these qualitatively or quantitatively different from past experience?

To understand why this time may be different, it is helpful to distinguish more carefully between financial functions and the form of the firms that provide them. What is new is that FinTech firms and Big Tech firms have emerged alongside banks (and other traditional financial firms) within the financial sector.

As Gaston Gelos described this morning, financial intermediation encompasses a number of sub-activities. Traditional banking business has bundled a set of these activities together in a certain way. Thus far, a specific set of activities has been jointly produced within a single banking firm because of synergies among those activities. At the heart of this has been what the macro-finance literature has labelled the “special nature” of banks. Because of their closeness to borrowers and knowledge of payment patterns stemming from their deposit business, banks enjoy informational advantages in managing credit risk.

The fundamental premise of the report is that technological innovation is allowing unbundling of traditional banking business. The big data revolution has created other repositories of information which are located outside of the banking sector. These may even be better sources of information: for example, internet retailers may have a more comprehensive view of spending patterns than banks.

Viewed in this light, the specialness of banks may have diminished to be replaced by a specialness of BigTech. As a result, the possibility to unbundle and then re-bundle banking and payment services in a different way has emerged. FinTech firms are facilitators of this process: they incubate the technical innovation that harvests the informational advantage of BigTech at the expense of traditional banks.

Against this background, the policy question posed by the report can be made sharper. Given the network effects embodied within BigTech, should we allow them to supersede banks in the payments system? Are the problems that may create in terms of monopolisation and competition policy sufficient to outweigh the more efficient management of information and credit risk that may result? More fundamentally, if banking services can be unbundled, the potential emerges for a separation of activities and institutions. This leads to very basic ambiguity about the character of the report: are we talking about the future of *banks* or the future of *banking activities*?

Dynamics of the transition

Much of the discussion in the report focuses on the possible emergence of a new BigTech-based system of payments and financial intermediation. Less emphasis is placed on the dynamics of transition from the current bank-based system to such a new environment. But it is during this transition that many of the trade-offs discussed above would likely be most sharp.

Moreover, one of the potential novelties of this wave of financial innovation that distinguishes it from technological shocks in the past is the speed at which its impact is felt and propagated. This makes transition issues more acute. In contrast to new innovative firms that are unburdened by outmoded computers,

inflexible operations systems, expensive branch networks and other stranded assets, legacy players in the banking sector may be distressed during a rapid transition, with adverse impact on systemic financial stability. When the speed of change possible in the digital era interacts with the pressure to innovate and perform that is strongly embedded in the incentives facing employees in the financial sector (e.g. to push to the boundaries set by legal rules to gain an edge over competitors), the potential for unintended and (potentially) unpleasant systemic consequences is large.

This leads to the question of how much we should rely on regulation to contain behaviour. Is it easier to contain the behaviour of people or machines? How do you combine the soft information of people and the hard information of machines?

Further thoughts

Finally, in assessing the future of banking, some general equilibrium considerations apply. The report understandably focuses on one issue: how a technological shock propagates to the financial sector. However, there are other shocks driving developments in the financial system.

Notably the financial crisis of 2007–8, its macroeconomic aftermath, and the monetary policy response to it, all weigh heavily on bank profitability and behaviour. Moreover, there are other players in the financial sector beyond the commercial banks, FinTech and BigTech that will stake a claim to unbundled activities. For example, traditional investment banks are entering the deposit and payments business in response to regulatory pressures on their funding.

If the correct policy conclusions are to be drawn, the impact of technology on banks and banking activities ultimately needs to be placed in this broader context.

Charles Goodhart, *London School of Economics*

Hyun Shin has already raised a number of the policy issues that I might have covered. So, I am only going to raise two critical comments. Despite these being criticisms, I do concur with others that the bulk of the report, especially the earlier chapters, is excellent.

First, I would not agree with the largely unqualified support that the paper appears to give to an ‘open banking regime’ in Box F.⁵⁸ Whatever other misdemeanours banks and bankers have been accused of over recent years, the protection of client confidentiality is not one of them. Indeed, here in Switzerland the accusation has been the opposite, i.e. that banks have not been willing to make the data available that would enable the authorities to track down tax evaders and other miscreants. The problem that I see with open banking is that it could be an ‘open sesame’ for abuse. By being offering slightly higher interest rates, the credulous and myopic could easily be persuaded to switch their accounts to intermediaries whose primary purpose would be to exploit financial data for their own profits, as Big Tech companies already do. The concept that financial data might be merged with other sources of data to enable companies to exploit confidential information on an enormously wide range of activities and transactions makes my blood run cold. One of the concern of libertarians has always been to limit the access of government to private data; while many doubt the good intentions of government, and rightly so in many instances,

58 A revised version of Box F appears as Box 7 in the final version of the report.