

Capital Markets Union and the Fintech Opportunity

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ABSTRACT

Complementing Europe's bank-based system with deeper capital markets and more cross-border financial integration promises benefits, but despite long-running debate and policy action, financial system change remains slow. Fintech has the potential to change financial intermediation structures substantially. It could disrupt existing intermediation with new business models empowered by intelligent algorithms, big data, cloud computing, and artificial intelligence. Lower costs and potentially better consumer experiences could be the driving forces. Yet, empirically, fintech remains very small, especially in the European Union (EU). Even the largest fintech market, in China, is of marginal size compared to overall financial intermediation. In the EU, much of fintech is concentrated in the UK. We argue that policymakers need to consider four questions urgently. (i) Develop a European or national fintech market? (ii) What regulatory framework to pursue? (iii) Should supervision of fintech be exercised at the European level? (iv) What is the overall vision for the EU's financial system? Getting the answers to these questions right at an early stage of market development constitutes an opportunity to shape a stable and cost-efficient financial system. In contrast, late action could mean that Europe loses out to foreign competitors and misses an opportunity to improve financial intermediation in Europe.

I. INTRODUCTION

Capital markets union (CMU) is a flagship European Union (EU) initiative to strengthen capital markets in the EU. The expression was first used by European Commission president-elect Jean-Claude Juncker when outlining his policy agenda in mid-2014. A recent midterm review of the CMU project calls for reinforced action, including accelerated action by EU Member States.¹ Complementing Europe's bank-based system with both deeper capital markets and more cross-border financial integration promises benefits. Deeper capital markets that diversify the financial system and reduce its reliance on banks are empirically less prone to financial crises,

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1 European Commission, Communication from the commission to the European Parliament, the Council and the European Economic and Social Committee and the Committee of Regions on the Mid-Term Review of the Capital Markets Union Action Plan, COM (2017) 292 final <https://ec.europa.eu/info/sites/info/files/communication-cmu-mid-term-review-june2017_en.pdf> accessed 12 January 2017.

and can also be associated with higher growth.² Greater cross-border integration has the benefit of increasing the size of markets, enabling more liquidity and efficiency. Integration can also increase cross-border risk sharing, in particular if cross-border equity ownership increases. Empirical studies show that deep and integrated capital markets can play a significant role in absorbing country/state-specific shocks.³ Despite long-standing debate, the financial intermediation landscape in Europe is changing slowly and remains dominated by traditional banking. The Lamfalussy process has been successful in delivering a certain degree of harmonization of European capital markets, but the EU's financial landscape (excluding the UK) appears to have changed very little since 2014. Making changes to financial system structures is a long-term policy challenge. Their shape is influenced by the regulatory and supervisory landscape. Often, the regulatory and supervisory system is suited particularly to the incumbents, and there can be deep connections between key financial system players and the political system.⁴ Similarly, household financial decisions are persistent and reflect attitudes that are deeply ingrained.

The ongoing fintech development has the potential to significantly alter Europe's financial system. In the broadest sense, fintech is the use of innovative information technology in financial services. The main segments of the fintech universe are: (i) alternative financial intermediation including peer-to-peer (P2P) and alternative lending and crowd-funding; (ii) payment systems and transfers; (iii) personal finance such as robo-advising; and (iv) insurance. Statistics on fintech are still not as comprehensive and homogeneous as those on the traditional banking sector, complicating comparisons.

Fintech promises to reduce the cost of financial intermediation by screening clients and better assessing creditworthiness, improving access to finance, and thereby ultimately benefiting productivity. The enablement of fintech is to a great extent down to the availability of computer power, intelligent algorithms, availability of massive amounts of data and mobile storage through the cloud, and mobile hardware that provides constant accessibility. Whether fintech will harness that potential depends on numerous factors, including consumer preferences and adaptability, the regulatory framework, the reactions and attitudes of incumbents, and political choices. In broad terms, we can classify financial intermediation as consisting of banks and capital markets. The core business of the former is maturity transformation by collecting short-term deposits and lending long term. Capital markets, in turn, consist of stocks and bond markets, derivatives and, more broadly, clearing, settlement, and payment systems.

New fintech business models combined with new technologies have the potential to disrupt the banks offering the service, the transaction service provider and the marketplace organizer. Each of these players will respond to the new players by

2 S Langfield and M Pagano, 'Bank Bias in Europe: Effects on Systemic Risk and Growth' (2016) 31(52) *Economic Policy* 51–106.

3 See, C Allard and others, 'Toward a Fiscal Union for the Euro Area' (2013) IMF Staff Discussion Note 13/9 <<https://www.imf.org/external/pubs/ft/sdn/2013/sdn1309.pdf>>.

4 N Véron, 'The Governance and Ownership of Significant Euro-area Banks' (2017) 15 *Bruegel Policy Contribution* <<http://bruegel.org/2017/05/the-governance-and-ownership-of-significant-euro-area-banks/>> accessed 16 December 2017.

adapting, competing and taking them over. This could change the shape of financial intermediation. The fintech challenge is to foster ‘good’ disruption while preventing ‘bad’ disruption. Any major technological innovation combined with a viable business model has the potential to disrupt established companies by providing better services. On the other hand, it can bypass regulation that is primarily intended to protect the incumbents but it can also bypass useful regulation. In the EU context, one additional question is whether fintech can disrupt Europe’s financial system in a way that promotes CMU, helps integrate the financial system across borders and increases its stability and efficiency. European financial ecosystems have grown over centuries within national and even regional borders. As the fintech sector disrupts this system, the question will be whether it does so at the EU level or whether the disruption will again follow national patterns.

II. THE ECONOMIC SIGNIFICANCE OF FINTECH

In all major jurisdictions, the volume of alternative finance is very small compared to the size of capital markets (Figure 1).⁵ Even in China, a fintech leader despite not having mature capital markets, the volume of alternative finance amounts to only 0.2 per cent of the size of the capital markets. In all jurisdictions, the growth rate of fintech has exceeded that of capital markets (Figure 2). In the UK and more so in the rest of the EU, capital markets actually shrank in 2015, which is not good news in the context of the CMU objective. Fintech expanded in the same period, but at much slower rate than in the US or China. Excluding the UK, the total volume of alternative finance in the EU was US\$1 billion in 2015, and compared to 2014 the growth rate was less than 100 per cent.⁶ Within Europe, France, and Germany are leading (Figure 3). Volumes are very low in central and eastern European countries, although growing fast.

Large digital companies (techfin) such as Amazon, Apple or Google are already active in fintech. The number of users of alternative payment systems such as Apple Pay, Samsung or Android Pay has increased from 18 million in 2015 to 144 million in the first half of 2017. But the big Internet players are not only active in payment systems. In June 2017, Amazon announced that Amazon Lending had surpassed US\$3 billion in loans to small businesses since the service launched in 2011, reaching more than 20,000 small businesses.⁷ A more decisive entry into the fintech market

- 5 Comparable and comprehensive data on fintech is not readily available from the traditional sources of financial statistics. Mapping the current landscape requires merging information from different sources, being aware that different statistical definitions might be being used. Our main source for this article is the Cambridge Centre for Alternative Finance for the lending and crowdfunding activities, but we also rely on individual country sources, when needed. For instance, a good overview for the German fintech market is provided in M Schmitt and M Weber, *The Fintech Market in Germany* (Study for the Bundesfinanzministerium 2016) <http://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/International_affairs/Articles/2016-12-13-study-fintech-market-in-germany.pdf?__blob=publicationFile&v=2> accessed 16 December 2017.
- 6 Cambridge Centre for Alternative Finance ‘Sustaining Momentum – the 2nd European Alternative Finance Industry Report’ (2016) <https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2016-european-alternative-finance-report-sustaining-momentum.pdf> accessed 16 December 2017.
- 7 See Amazon’s Press Release <<http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=2279738>> accessed 16 December 2017.

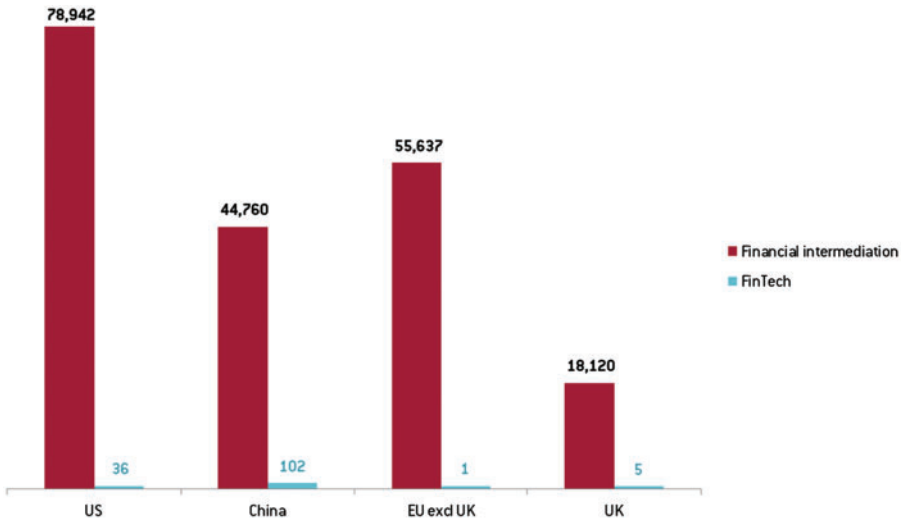


Figure 1. Size of fintech and financial intermediation (including banking, stocks and bonds) in US, China, EU excl. UK and UK, 2015 (USD bln).
 Source: Cambridge Centre for Alternative Finance (2016).

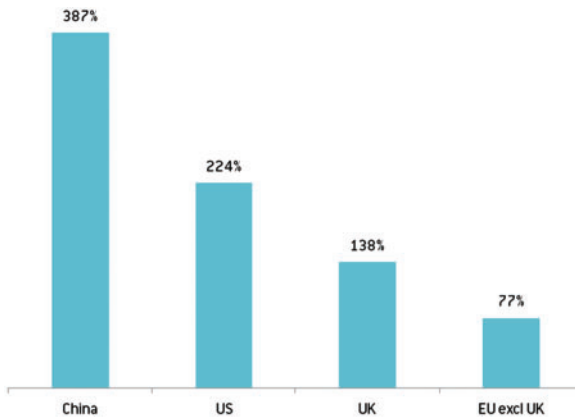


Figure 2. Average growth rates of fintech in the US, China, EU excl. UK, UK (%) in 2014–15.
 Source: Bruegel based on Cambridge Centre for Alternative Finance. Note: Fintech as expressed here encompasses all lending and crowdfunding activities reported by the Cambridge Centre for Alternative Finance. For a taxonomy of included categories, see Cambridge Centre for Alternative Finance (2016). Average growth rates have been computed over the last two years of available data, 2015 and 2014.

by the big Internet companies could change fintech and financial intermediation globally, in particular because of the access that these companies have to data. Financial intermediation is, to a significant extent, about overcoming information asymmetries. Large Internet firms have databases and intelligent algorithms which in principle give them significant information on both potential borrowers and lenders.

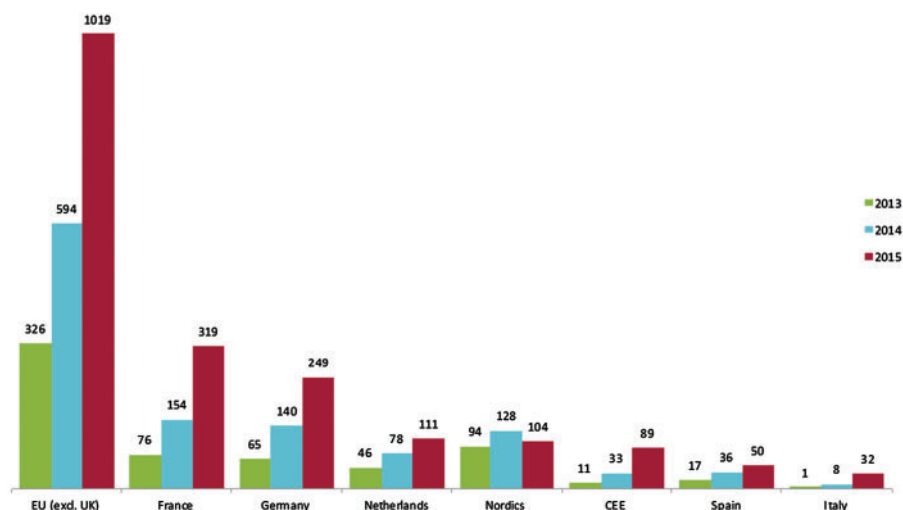


Figure 3. Fintech market volumes in Europe 2013–15 mln (EUR).

Source: Cambridge Centre for Alternative Finance. *Notes:* (i) Fintech as expressed here encompasses all lending and crowdfunding activities reported by the Cambridge Centre for Alternative Finance. For a taxonomy of included categories, see Cambridge Centre for Alternative Finance (2016). (ii) EU excluding the UK includes the following non-EU countries—Albania, Armenia, Belarus, Bosnia and Herzegovina, Georgia, Kosovo, Macedonia, Moldova, Montenegro, Serbia, Ukraine, Iceland, Russia, Norway, and Turkey. Distinguishing EU from non-EU countries is not possible given data availability restrictions. However, the size of the fintech industry outside of the EU is deemed to be low given the small number of surveyed platforms in these countries.

Fintech activities in Europe are still largely domestic. A key measure of whether fintech can be instrumental in constructing CMU and an integrated banking market is the degree of internationalization of these activities, ie whether they are mostly national or have a relevant EU cross-border dimension. Measuring cross-border transactions is challenging, so we can only offer preliminary evidence based on a survey conducted by the Cambridge Centre for Alternative Finance. Cross-border activity can be measured in terms of inflow funds (investor funding coming from outside a platform's home country) or outflow funds (investor funding leaving the platform's home country). In terms of inflows, nearly 50 per cent of surveyed platforms had no funding from other countries; in terms of outflows, 76 per cent of fintech reported no cross-border activities in 2015.⁸ Overall, this data suggests that fintech activities in Europe are still largely domestic.

As far as the different segments of fintech activities are concerned, alternative lending in the EU is dominated by P2P consumer lending and crowdfunding. P2P business lending, which is prominent in China, plays a more limited role in the EU. France was the largest market for crowdfunding in the EU in 2016, followed by the Netherlands, Italy, and Germany. Most of the EU crowdfunding was in the form of

debt crowdfunding and the actual number of crowdfunding platforms in EU countries increased very significantly from 2014 to 2016.⁹

Payment systems and digital currencies are other important areas of fintech development that have experienced rapid increases in market capitalization. The combined market capitalization of all cryptocurrencies has increased steadily since 2014, reaching US\$112 billion in August 2017. A recent survey shows that in Europe, users seem to be mostly interested in the two kinds of payment services: merchant services, which process payments for merchants that accept cryptocurrency, and general-purpose cryptocurrency platforms, which perform a variety of cryptocurrency transfers.¹⁰

Robo-advising, while promising, is still at a development stage, particularly in Europe. Assets under management (AuM) in Europe amount to only 5–6 per cent of those in the US.¹¹ In Europe, there is evidence of very high-growth rates but of a small magnitude relative to traditional players.¹² Moreover, the scope for growth might be limited given consumer preferences: approximately two in five of European respondents to an ING Groep International Survey on Mobile Banking rejected outright the possible use of automated financial activities and 26 per cent were willing to use this type of platform to make decisions as long as decisions are subject to final approval by the customer.¹³

The insurance sector is subject to similar pressures from technology. The use of new technologies might pressure traditional incumbents to change their business models and/or seek collaboration¹⁴ but the sub-sector InsurTech has still to mature and faces similar regulatory and safety challenges to the others. Data on InsurTech activity in the EU is particularly scarce but there is some evidence of recent growth in activity.¹⁵

III. FOUR ISSUES FOR POLICYMAKERS

Fintech can profoundly change financial intermediation in its current form, by lowering the cost of financial intermediation and by providing different products and offering different consumer experiences. The question is whether fintech will disrupt the financial system in a way that will decrease or increase undesirable properties. Some

9 European Securities and Markets Authority (ESMA) (2017), Chart 1, 'ESMA response to the Commission Consultation Paper on Fintech: A more competitive and innovative financial sector', (ESMA50–158–457, 2017a) <<https://www.esma.europa.eu/press-news/esma-news/esma-responds-com-mission-consultation-Fintech>> accessed 16 December 2017.

10 G Hileman and M Rauchs, 'Global Cryptocurrency Benchmarking Study' (2017) (Cambridge Centre for Alternative Finance, 2017), <<https://ssrn.com/abstract=2965436>> accessed 16 December 2017.

11 O Kaya, 'Robo-advice – a True Innovation in Asset Management' (*Deutsche Bank*, 2017) <https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD000000000449010/Robo-advice_-_a_true_innovation_in_asset_management.pdf> accessed 16 December 2017.

12 See for instance the case of Germany, as documented by Schmitt and Weber (n 5).

13 ING 'International Survey Mobile Banking – the Next Generation' (2017) <<https://www.slideshare.net/ING/mobile-banking-the-next-generation>> accessed 16 December 2017.

14 JS Cermeño, 'Blockchain in Financial Services: Regulatory Landscape and Future Challenges for its Commercial Application' (2016) BBVA Research Working Paper 16/20 <https://www.bbvaesearch.com/wp-content/uploads/2016/12/WP_16-20.pdf> accessed 16 December 2017.

15 Schmitt and Weber (n 5).

have argued that the real opportunity of fintech might be its potential to transform the financial system towards one with lower leverage, while decreasing the cost of financial intermediation.¹⁶ But this will depend on the regulatory system, on supervision, future technological developments, business plans, and politics. In our view, European policymakers need to consider four issues.

The first issue is whether European policymakers would like to encourage the development of European versus national fintech markets. A European market would allow companies to scale, which in turn would increase their global competitive position. If the aim is an integrated European fintech capital market, fragmentation of fintech along national lines should be kept to a minimum, and a European framework should be developed. Currently, EU fintech mostly operates in a national context, and cross-border service provision is weak. ESMA notes that regulations on crowdfunding are national and implemented at the national level. The European Banking Authority (EBA) (2017) documents the breakdown of fintech firms by regulatory status.¹⁷ Accelerating the regular CMU agenda will be of great importance also to fintech. Shifting financial intermediation towards capital markets and increasing cross-border integration will require action on multiple fronts, including increasing the transparency, reliability, and comparability of information and addressing financial stability concerns.

The second issue is what regulatory approach should be taken. Early decisions could shape European fintech and financial intermediation for a long period. Experience suggests that regulatory decisions can have long-lasting impact on an industry when it is young, and are difficult to reverse.¹⁸ Much of the current regulatory discussion is on the issue of level playing field. Not all of fintech can be subsumed under existing capital markets regulation such as Markets in Financial Instruments Directive (MIFID) and new regulatory approaches will be needed in some segments of the markets. This in turn will raise demand for regulatory change among traditional financial intermediaries. The regulatory debate should focus on what kind of financial system and fintech ecosystem the European Union would like to have. The regulatory challenge is to allow and encourage disruption that is desired while preventing the build-up of undesirable features in a new financial ecosystem. Putting the consumer in the centre of the public policy approach could be particularly apposite. Much of the transformation of financial intermediation through fintech will be consumer-driven and in the European context, issues such as data privacy, cybersecurity, consumer protection, and operational risks will be of central importance for consumer acceptance. Setting high standards early to protect fintech consumers will be important for the industry, as well as encouraging and promoting financial literacy.

A third issue is what institution should oversee fintech. Currently, a multitude of organizations analyse and make recommendations and a number of institutions also regulate and supervise fintech. There are already overlaps at European level, but

16 T Philippon, 'The Fintech Opportunity' (2016) CEPR Discussion Paper DP11409 <http://cepr.org/active/publications/discussion_papers/dp.php?dpno=11409> accessed 16 December 2017.

17 EBA, 'Discussion Paper on the EBA's approach to financial technology (Fintech)', (EBA/DP/2017/02, 2017) <<https://www.eba.europa.eu/documents/10180/1919160/EBA+Discussion+Paper+on+Fintech+28EBA-DP-2017-02%29.pdf>> accessed 16 December 2017.

18 Philippon (n 16) (providing the example of money market fund regulation).

more importantly there is substantial regulatory and supervisory divergence between EU countries. Deciding earlier whether or not a European market would fit the sector better would be decisive in identifying what supporting institutions should be put in place.¹⁹ A single European market for fintech would benefit from a single European institution to supervise it. As consumer concerns are particularly important in the context of financial services and fintech, it might be useful to give the European institution a mandate for both prudential and conduct supervision. The institution would also be in charge of monitoring the markets, and collecting and publishing data. A natural candidate for this role would be ESMA, whose role as a conduct supervisor should be strengthened.²⁰ Direct ESMA supervision of EU-based fintech companies and third-country fintech firms with EU operations should become the default mode for all fintech segments, because such firms are expected to have cross-border business models. ESMA's conduct supervisory role would then also extend to fintech firms that are comparable to banks. This would probably require adapting ESMA's governance and funding.²¹ On the prudential side, existing institutions such as the ECB's Single Supervisory Mechanism (SSM) should continue to play their role and might also increasingly become involved in fintech supervision to the extent that the relevant fintech company becomes bank-like. In the short term, ESMA could also play some role as the prudential supervisor in certain fintech sub-sectors, but ideally a separation between the functions should be considered in the medium-term. European institutions should also usefully take care of big picture issues such as data protection, data privacy, cybersecurity and competition policy concerns. In particular, fintech companies could significantly change the competitive nature of markets with access to large amounts of data and the EU's competition authority would be best placed to assess this. Standards to limit operational risks arising from cybersecurity threats as well as ensure data privacy are best regulated and supervised at European level if one wanted to avoid a fragmentation of the market.

The last issue is more strategic. The development of European capital markets needs strategic reflection. As already mentioned, fintech and Brexit both pose significant strategic challenges to European capital markets but so far there has been an absence of overall strategic reflection and discourse on fintech. While there has been a lot of detailed work on specific aspects of fintech, the overall coherence of the policy debate is missing. The internal European Commission task force provides useful guidance but given the potential of fintech and techfin to profoundly disrupt markets (in parallel with the challenges arising from Brexit), a high-level reflection group would be beneficial. Such a high-level reflection group could guide the European strategic policy debate on the reshaping of Europe's financial system, including on issues beyond fintech, such as ESMA reform.

19 Cermeno (n 14) has a useful summary of the positions of different EU and international institutions.

20 D Schoemaker and N Véron, 'EBA Relocation Should Support a Long-term "twin-peaks" Vision', (*Bruegel Blog*, 2017) <<http://bruegel.org/2017/04/eba-relocation-should-support-a-long-term-twin-peaks-vision/>> accessed 16 December 2017.

21 See, Veron (n 4) for details of this argument.

IV. CONCLUSION

Complementing Europe's bank-based system with deeper capital markets and more cross-border financial integration promises benefits. But despite long-running debate and policy action, financial system change remains slow. Fintech has the potential to change financial intermediation structures substantially. The question is whether fintech-driven change could be instrumental to the achievement of CMU. Overall, data quality and availability on fintech is low, but several preliminary conclusions can be drawn. Fintech is still small in comparison to the size of capital markets and is also significantly smaller in Europe than in the US or China, and this is especially the case in the EU if we exclude the UK. Fintech in Europe is also growing significantly more slowly than elsewhere. Although limited, the evidence suggests that fintech is still a predominantly domestic activity, with limited cross-border flows. The fintech sector in the EU does not appear to scale at the European level, in contrast to fintech, for example, in China. Big Internet companies have not yet decisively entered the fintech market, but their arrival could quickly change the overall picture. Policymakers will have to decide what scope European fintech will have, who will supervise it, what regulatory approach is best suited to regulate it, and how fintech fits in the long-term financial market strategy. Getting the answers to these questions right at an early stage of market development constitutes an opportunity to shape a stable and cost-efficient financial system. In contrast, late action could mean that Europe loses out to foreign competitors and misses an opportunity to improve financial intermediation in Europe.