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HEARING ON DISRUPTIVE INNOVATION IN THE FINANCIAL SECTOR

-- Note by the Secretariat --

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More documents related to this discussion can be found at www.oecd.org/daf/competition/competition-and-disruptive-innovation-financial-markets.htm

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REFINING REGULATION TO ENABLE MAJOR INNOVATIONS IN FINANCIAL MARKETS

Issues Paper

By the Secretariat[*]

TABLE OF CONTENTS

Figures

[*] This issues note was written by Sean Ennis of the OECD Competition Division.

1. Introduction

1. The financial sector is at the heart of the economy, taking in idle capital and lending it to those who put it to use, processing payments, and engaging in a number of tasks required for the various sectors of the economy to function smoothly. While the finance sector's importance is undeniable, it is also clear that what may at first appear to be purely financial and monetary issues can quickly impact the whole economy. As such, it is unsurprising that financial markets are highly regulated, not only to prevent systemic shocks, but also to ensure consumer protection and prevent abuses of market power.

2. While there is consensus on the need for regulation of the financial sector, there remain active discussions about what regulations are necessary, particularly in light of their impacts, whether intended or unintended. Policymakers face a delicate balancing act between constraining potentially beneficial activity and preventing clearly problematic activity. While regulations may act to maintain stability and protect consumers, at other times, they may either prevent new companies with desirable products from coming to market or impose costs that lead existing competitors to leave markets. Compliance with financial regulations imposes costs – Federal Financial Analytics (2014) estimates the costs of new regulation to banks since 2007 as USD 35.5 b, focusing solely on 6 large global systemically important banks. While potentially high, such costs can oddly enough act in favour of established firms, by making small scale activity uneconomic. The costs of regulation to financial actors, like banks, have become so high that a senior executive of one successful and large bank has stated that, in the long run, the regulations will benefit the large banks by driving out smaller competitors.

3. Nonetheless, in part because of new technological possibilities, many new businesses have recently attempted to benefit from market inefficiencies that established banks have been unwilling or unable to explore. Some, if not most of these new entrants are part of the wave of disruptive innovation that has been affecting other sectors of the economy. Disruptive innovation, as discussed in OECD (2015), consists of product or business model breakthroughs that bring radical changes in the market, especially by reducing costs of service delivery; such innovations have the potential to take substantial market activities from pre-existing products and firms, providing that regulation permits and enables such activity.

4. Disruptive innovation in financial markets has a long history, largely based on introducing new product innovations or eliminating high returns from serving as an intermediary for relatively standard transaction types. Recent years have witnessed the introduction of new business models and innovative products that result in lowered costs of transacting for clients. These business models provide competition to the historic products and business models, and have the potential to increase consumer welfare and the growth of the economy.

5. Regulation can facilitate disruptive innovation, but it can also pose obstacles to it. Particularly because of widespread regulation of financial markets, much of which exists to safeguard financial stability and protect consumers, regulations may at times enable transitions to new business models, but often can slow down or prevent such transitions. Competition authorities can play an important role alongside other relevant regulators in advocating regulation that allows beneficial new competition to emerge, while taking due account of key rationales for financial market regulation, such as prudential concerns and the need for consumer protection.

6. This note will examine selected innovations, with a particular view to enhancing competition authority and policymaker awareness of new and developing competitive alternatives and making available information that may be of use in advocacy efforts. Competition authority involvement in these areas is highlighted when known, but it appears that the opportunities for and benefits from pro-competitive advocacy in these areas may be substantial in the future. These innovations are still evolving and rapidly

growing. As a result, the products described in this note should be viewed as a snapshot that may change significantly in the future.

7. The note examines developments in the following primary areas:

- Peer-to-peer lending;
- Crowdfunding of equity;
- Virtual currencies; and
- Innovative payment / currency exchange solutions.

8. Perhaps the most significant overall development in financial market innovation between 2002 and 2013 is, and will continue to be, the expansion of market-based finance, sometimes referred to as "shadow banking"[1], which has increased in value of assets from about USD 25 trillion to more than USD 75 trillion over this period. The increasing presence of non-banks in financial market activities previously handled largely by banks is a natural result of risk-based standards for financial reserves, and other legislation encouraging separation of core retail banking from other financial activities. The growth of the main activities of market-based finance merit a full treatment of their own, but will not feature heavily in this note, whose ultimate focus is to point out areas where regulation restricts development of innovation. In the case of market-based finance, however, regulation has not restricted the development but rather expanded it (by having higher regulation of banking and certain other regulated activities, while leaving the shadow banking system largely unregulated).

2. Characteristics of Financial Markets Experiencing Disruption

9. Several characteristics may be individually or jointly present in financial markets that are potentially subject to disruptive innovation. These are:

- Unduly high costs of intermediation;
- New technology;
- Solutions to develop trust; and
- Network effects.

2.1 Margins of intermediation

10. One of the primary characteristics of financial markets experiencing disruption is that margins of intermediation through existing techniques are substantially in excess of those available through the disruptive product or business model. This creates an opportunity for customers, particularly those with a

[1] According to the FSB Global Shadow Banking Monitoring Report 2014, "The shadow banking system can broadly be described as credit intermediation involving entities and activities outside of the regular banking system. Intermediating credit through non-bank channels can have important advantages and contributes to the financing of the real economy; but such channels can also become a source of systemic risk, especially when they are structured to perform bank-like functions (e.g. maturity and liquidity transformation, and leverage) and when their interconnectedness with the regular banking system is strong."

standard transaction type, to migrate to the new technology.[2] While peer-to-peer lending – analysed in more detail below – falls within this category, a more dramatic example is provided by the exchange of foreign currencies Foreign exchange transactions often have high margins for retail transactions under USD 100k, for example, which seems to present an opportunity for new business models. According to the Financial Times, while banks "typically charge a margin of 1-5 per cent of mid-market rates, plus a transaction fee", disruptive companies may have a transaction fee of 0.09% to 0.5% of a transaction. Estimates of growth rates for volume of peer-to-peer currency exchange reach 500% annually.[3] The investigations of agreements to manipulate foreign exchange benchmarks could make customers of exchange more interested in seeking alternatives to standard mechanisms and could further increase demand for such peer-to-peer currency exchange.[4]

2.2 Technically feasible possibilities expand

11. Another characteristic of financial markets experiencing disruption is technological change. Technological changes can occur in a variety of ways. One fundamental change is in communications costs (such as phone usage costs) which have fallen dramatically in the last two decades, thanks in part to publicly accessible technologies for automatically matching clients (such as over the internet). The development of public block chain methods for performing transactions immediately, which is most notably used by Bitcoin, is another technological change that may allow for broad impact in the future, as the settlement processes for many financial products have a potential to be improved through appropriate use of the technologies popularised by Bitcoin. The increasingly widespread availability of mobile phones in markets without widespread internet availability (such as many developing countries) has created an opportunity to form alternative networks for financial transactions that are based on mobile telecommunications. The increasing use of smart phones, with their built-in computer technology, has created an opportunity for highly portable payments, linking phones to reading payment cards' devices for use by small business people, such as plumbers, consultants or others who do not operate out of a fixed office with a fixed telephone connection.

2.3 Trust

12. A particular challenge faced by innovative products and business models is how to obtain the trust of the parties to transactions. The demand for new products depends on trust in them by investors, illustrating the generally important role played by the demand side. Investor financial and digital literacy are critical to the uptake of certain financial instruments. The need to establish trust, particularly for depositors, has historically been a challenge for obtaining clients at Internet-only banks, even while brick-and-mortar banks handle increasingly large quantities of their retail client activity via the internet and without face-to-face interaction. Regulation can establish the trust necessary for new products to develop.

13. While trust can build from sustained performance over the long-term, peer-to-peer lenders have addressed this issue mainly through the provision of a number of services – including, but not limited to, developing credit models for loan approvals and pricing[5], performing borrower risk analysis[6], processing

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2 Standardised derivatives have moved increasingly to transparent market pricing while customised derivatives necessarily retain customised pricing that, as it happens, have generally higher built-in expected margins than for standardised products.

3 See FT (2015) Peer-to-peer forex platforms come of age, April 1, 2015.

4 See Euromoney, August 2014 "Peer-to-peer FX catches on".

5 For example, Upstart uses an income prediction model based on academic and work history in addition to traditional underwriting criteria – see http://www.betaboston.com/news/2014/04/29/upstart-keeps-innovating-lending-models-to-finance-the-young-and-ambitious/.

payments from borrowers and forwarding those payments to the lenders who invested in the loan, creating a provision fund to safeguard lenders against borrower defaults[7], providing insurance against default[8], and attempting to collect payments from borrowers who are delinquent or in default[9] – with a view to increase confidence by the participants in transactions. Additionally, companies have started to self-regulate and adopt standards that promote customer trust, and to create industry-bodies such as the Peer2Peer Finance Association for this purpose.

2.4 Network effects

14. Another characteristic of financial markets experiencing disruption is often the existence of network effects. These exist when the addition of another user/product or service provides additional benefits to existing users/products or services. For example, one new payment network makes payments directly from user bank accounts, without transiting via a payment card interchange network. This network requires that both the payer and receiver of funds are subscribed to the network. Each new receiver provides a positive externality to existing payers. Such a network can grow very attractive to clients (and difficult to duplicate) if it substantially increases the number of its receiving and paying subscribers. The possibility of the development of market power in such cases is a risk. Smart phones are increasingly having payment systems built into them by their operating system or manufacturer, with at least two large operating systems having introduced payment wallets recently.[10]

2.5 Risks

15. Disruptive technologies, products or methods may in some respects damage intermediary profits, consumers or financial stability in some ways, while helping consumers in others. For example, a 1997 SEC order altered handling rules for stock trading, moving to more transparent prices, including allowing the public to submit binding limit orders. On the one hand, there was a benefit, as bid and ask prices of securities appears to have reduced substantially (e.g., for NASDAQ, by about 30%, reducing dealer profits). On the other hand, there may have been a cost, as some observers argued this reduction in spreads would be combined with less liquidity.[11]

16. Emphasising the importance and risks of reduction in liquidity, changes in technology for trading U.S. Treasury bills, in which an increasing percentage of trades are carried out by high-speed electronic trading, and a co-incident reduction in trading by bank dealers, coincided with an anomalous trading event, the 15 October 2014 flash crash. Over about 12 minutes, a remarkably large price increase and decrease occurred (in particular, a 37-basis point increase and decrease) in the value of a fundamental issue, 10-year Treasuries, seemingly without news that would justify such a change.[12]

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6 This analysis can also be used as a filter to determine who can participate in the platform in the first place, as is the case with Funding Circle.

7 RateSetter was the first company to provide this service, which other peer-to-peer platforms such as Zopa now also provide.

8 This was first introduced by Lending Works.

9 Or trying to ensure that debt which has been defaulted on is sold to a debt collection agency, as Zopa does.

10 See http://www.forbes.com/sites/greatspeculations/2015/03/13/will-credit-card-companies-reap-the-benefits-of-growing-mobile-payment-market/print/.

11 Barclay et al. (1999) found that depth of bids in close proximity to the trading price increased after introduction of 1997 SEC.

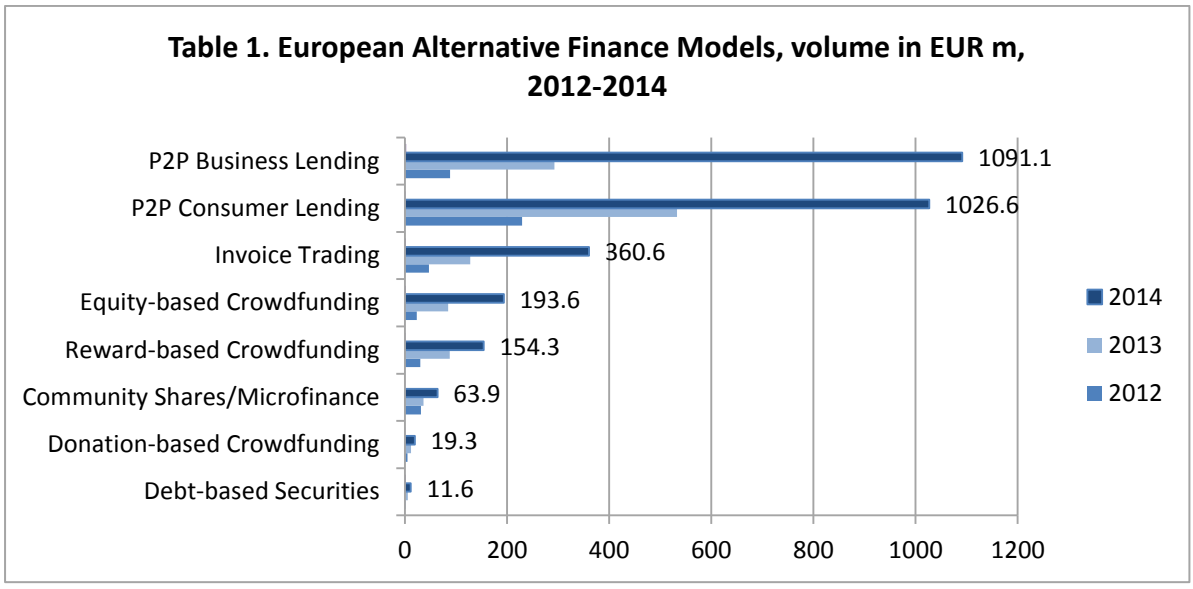
12 See Joint Staff Report (2015) "The U.S. Treasury Market on October 15, 2014" by staff of U.S. Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Reserve Bank of

17. Thus benefits of disruptive products may need to be weighed against their costs to determine whether public policy should favour the new products and models. Such a weighing can be inherently difficult, particularly when conflicting and influential interests are opposed to the new developments and provide biased information to policy makers. Seeking information from a wide variety of actors and a wide variety of interests, and being impartial in their assessment, may be the only way to ensure a balanced approach.

3. New products and models

18. Some of the most exciting innovations in financial markets are coming from new products related to internet sourced debt and equity financing. Some of these products are growing at rates that exceed 100% per year. Table 1 shows volumes of funding for large European countries between 2012 and 2014. By 2014, the largest four activities were peer-to-peer debt funding for business (growing at 255%), peer-to-peer debt for consumers (growing at 111%), invoice trading (growing at 177%) and equity crowdfunding (growing at 188%). In particular, peer-to-peer debt financing has reached a figure of EUR 2.1 b across Europe in 2014. Penetration of alternative financing mechanisms across countries is highly asymmetric, with the UK accounting for 74.3% of alternative funding in Europe and even a higher percentage for some products, notably invoice trading, for which the UK accounts for 98% of the European activity.[13] Differences in take-up likely vary substantially outside Europe, just as within, but systematic international data was not available to the author at the time of writing.

Table 1. European Alternative Finance Models, volume in EUR m, 2012-2014



Source: OECD calculations based on Wardrop et al (2015) for the reported subset of 16 European countries.

New York, U.S. Securities and Exchange Commission, U.S. Commodity Futures Trading Commission, 13 July 2015. http://www.treasury.gov/press-center/press releases/Documents/Joint_Staff_Report_Treasury_10-15-2015.pdf

13 While alternative funding is rapidly increasing, it is still at levels that are a small fraction of total traditional lending, with traditional business lending in 2014 amounting to GBP 189 b and traditional non-mortgage consumer outstanding loans amounting to GBP 169 b. (See Bank of England tables A5.2 and A8.1.)

19. This note examines:

- Peer-to-peer lending;
- Crowdfunding equity;
- Virtual currencies;
- Innovative payment / currency exchange solutions.

20. The regulatory approaches to these products differ across countries and appear to be associated with both the existence and penetration rates of new products and models. In particular, more restrictive regulatory models appear to suppress the development of new innovative products and business models. Some countries have not adapted their regulatory models to customise them for the risks and needs of new products, which create regulatory uncertainty for innovators. Others are establishing new regulatory structures, but have allowed products to develop in the meantime. For example, by a decision communicated over the weekend of 18-19 July, 2015 the Chinese government determined that the banking regulator will oversee online peer-to-peer lending while the securities regulator will oversee crowdfunding equity.

21. This note does not claim to examine all the subjects that merit examination. Robo-financial advice, for example, is a new activity that is garnering interest from regulators.[14]

3.1 Peer-to-peer lending

22. Peer-to-peer lending occurs when a borrower receives a loan directly from multiple individual lenders brought together by a common platform that facilitates lending, evaluation and selection of borrowers, distribution of payments and seeking payments from borrowers who do fall behind in their payments. The bank's typical role as a lender is thus substituted by a direct relationship between a non-bank provider of funds and a borrower. The intermediate platform can still serve to process payments. But the capital is provided directly by individuals.[15] Providers of funds can be individuals, businesses or institutions. Borrowers can be individuals or businesses. Peer-to-peer platforms may specialise to some extent, so that not all peer-to-peer platforms will serve all types of funders or borrowers. The nature, role and market penetration of peer-to-peer finance is rapidly evolving.

23. In several countries, peer-to-peer lending has grown at an extraordinary rate in recent years, notably China, the UK and the US. Peer-to-peer lending occurs both for consumer borrowers and business borrowers. The average UK consumer borrower borrows GBP 5,471 from 201 lenders and the average business borrower borrows GBP 73,222 from 796 lenders.[16] Consumer and business borrowers may have

14 See, for example, Medcraft, Greg (2015) "The future of capital markets in a digital age," 15 September 2015.

15 One substantial difference between peer-to-peer debt finance and bank lending is that the peer-to-peer lenders do not generally create money as they lend sums that investors have committed to the platform, and cannot lend in excess of these commitments. Perhaps oddly, despite the roughly 1:1 ratio of lending to deposits, they may be required or encouraged to set aside capital in some countries. More reasonably, they may be required to ensure that in case of cessation of activities by the intermediary, there would be a reasonable backup option to guarantee ongoing collection of payments for debts and distribution to lenders. One key for this resolution is to have direct contractual commitments between lenders and borrowers, even if the lenders and borrowers are not individually identified to each other. If alternative finance grows to constitute a significant level of total lending, this may reduce lending-based creation of money, and hence play some role in reducing excess liquidity in financial markets.

16 See Baeck et al. (2014).

very different profiles and interests. For example, consumer borrowers may be interested primarily in low interest rates and attracted to peer-to-peer platforms particularly for this reason. In contrast, businesses may seek fast decisions when banks may take comparatively longer times to respond. For example, some companies have taken advantage of the effects of the Great Recession – where large corporates started delaying payments to small companies as a way to preserve cash, and banks' tightened their lending requirements – by allowing companies to selectively and confidentially sell outstanding invoices to raise working capital. Peer-to-peer lending, while experiencing exponential growth, still constitutes a small percentage of total lending activity. In the UK, Nesta forecast that at the end of 2014, alternative finance would represent 2.4% of cross-national bank lending to SMEs.[17] Peer-to-peer lending is an alternative to more traditional forms of lending activity, notably bank-originated lending. SMEs applying for loans through non-traditional channels such as peer- to-peer lending have often been refused loans through traditional channels. Survey results of UK SMEs suggest that the inability to obtain traditional finance was important for 65% of SMEs applying for online loans.[18] There are substantial differences in the volume of alternative lending by country. Baeck et al. (2015) suggest that alternative finance transactions in the UK in 2014 amounted to EUR 2.3 b, in Germany about EUR 140 m, and in Italy about EUR 8.2 m.[19]

24. The UK's CMA is considering or has recently considered how competition might be restricted for peer-to-peer lending.[20] Much more broadly, the Financial Conduct Authority (FCA) of the UK is particularly active in ensuring that regulations for alternative finance are fit to purpose, with a customised regulatory regime that includes regular reviews to ensure that the applicable regulations are appropriate for public policy needs. If comparative data is anything to go by, at this point, the greatest regulatory challenges for permitting introduction and expansion of alternative finance lies outside of the UK, in countries where "conventional and rules-based approaches"[21] are more likely to be in place.

3.1.1 Regulatory challenges ahead

25. Regulatory requirements to success for peer-to-peer finance include, but are not limited to the following:

- Ensure peer-to-peer lending platforms have the ability to market to all consumers[22];
- Ensure funds are well secured and consumers protected, without invasive oversight;
- Ensure credit scoring information is broadly available.

26. These are discussed in turn below. Determining the appropriate form and regulation for peer-to-peer finance is a challenge, and as with all lending, collecting on bad debts raises particular challenges, as may incentives of firms to make loans without duly considering risks.[23]

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17 See Nesta (2014), *Understanding Alternative Finance*.

18 See Baeck, Collins and Zhang (2014).

19 Note that there may be differences in data methods used by different authors calculating levels of alternative finance in an economy.

20 See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/428973/Updated_Issues_Statement_2015.pdf, accessed 5 August 2015.

21 See Bruce Davis in Wardrop et al. (2015), p.38.

22 Requiring consumers to fill out long forms prior to receiving information about the lending product will dampen consumer interest.

3.1.1.1 Ability to market

27. Peer-to-peer finance companies may face limits in some countries over the extent to which they can advertise their products to investors or directly approach investors or borrowers. Recent market developments reviewed above regarding consumer protection already deal with some of the concerns traditionally addressed by regulation. Information disclosure requirements may further reduce some of the risks of such approaches; but if investors and borrowers are able to achieve a mutually satisfactory and better deal through a peer-to-peer finance arrangement than from other more traditional sources, the question must be asked of what level of limitations is appropriate.

28. In this regard, the U.S. example is helpful. In 2008, the Securities and Exchange Commission (SEC) required that peer-to-peer lending companies register their offerings as securities, pursuant to the Securities Act of 1933. This led to the two main players, Prosper and Lending Club, temporarily suspending offering new loans. Once approval from the SEC to offer investors notes backed by payments received on the loans was obtained, Prosper and Lending Club were then able to return to the market subject to SEC supervision.[24]

3.1.1.2 Consumer protection

29. Ensuring consumer protection with these new models is very much in the interests of the industry as a whole[25], but need not be in the interest of each operator. For example, a strategy of lending to low income, high-risk consumers may yield profits initially, but create a base of risky loans for the future. Regulations to ensure that consumers understand the risks of loans that they receive may be necessary to prevent excessive borrowing by consumers unable to pay loans. On the other hand, account should also be taken of the particularities of the industry in specific jurisdictions – as regards, for example, self-regulation, consumer attitudes towards peer-to-peer lending, and concomitant protection mechanisms set up by the platforms themselves.

3.1.1.3 Credit scoring

30. Credit scoring of individuals and enterprises plays a critical role in permitting borrowers to establish their legitimacy and seek competing offers for a loan. The existence of credible, detailed and effective credit scoring regimes is important for ensuring customers can seek the best competing offers for credit, but is also a necessary condition for the growth of peer-to-peer lending. Countries with regulation that does not create a credible, detailed, effective and accessible regime of credit scoring will not be able to benefit easily from the innovation embodied in peer-to-peer lending. Gathering information for scoring requires careful balancing of consumer privacy against benefits (that ultimately accrue to consumers) of having detailed credit scores available. Particularly when lenders do not have substantial personal knowledge of a borrower, credit scores based on extensive information are a good substitute. Some countries, such as the United States, have put in place a regulatory structure and business practices that involve the availability of highly detailed information for "positive" credit scoring. For example, in the United States, where at least three major companies provide credit scoring information, consumers seeking a loan or credit card can receive fast offers and almost instantaneous responses on requests for credit. In

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[23] For an illustration of complexities in collecting on bad debts, see http://www.nytimes.com/2015/09/14/business/dealbook/pitfalls-for-the-unwary-borrower-out-on-the-frontiers-of-banking.html?_r=0.

[24] See http://techcrunch.com/2012/05/29/peer-to-peer-lending-crosses-1-billion-in-loans-issued/

[25] As is made apparent from the creation by a number of major players in the UK of a standard-setting industry body, the Peer2Peer Finance Association.

contrast, in many other countries, much less information may be available (e.g., the aggregate outstanding debt of each individual may be kept by a central bank) but detailed information on payment (and non-payment) habits is not available. As a result, consumer loans may require substantially more paper documentation in such countries; the time required to obtain loans can be longer and loans may simply not be available from competitors apart from an individual's bank, due to insufficient information availability.

31. A new European privacy regulation may have the unfortunate consequence of crippling detailed credit scoring for European borrowers and thus make it more difficult for lenders to distinguish low-risk from high-risk borrowers. In particular, the European Commission's General Data Protection Regulation poses substantial risks to competition for lending. "… [T]he proposed regulation will require that banks do not use the data they collected on customers for any purpose other than those for which they were initially collected, without the explicit consent of the customer." (Deloitte, 2015) While low-risk customers may have incentives to allow such data to be collected, Deloitte primary research in France, Germany and the UK suggests that the vast number of customers would refuse consent. (Deloitte, 2015, p. 52)

32. Ensuring that credit scoring is effective and widely available is a challenge common to many countries. For example, in one country, a recent competition authority study notes the limits on the two so-called credit reporting agencies, suggesting that access to and transfer of information is crucial.

33. At the same time, new and original forms of credit scoring are developing, such as Alibaba's scoring system in China. As a major transactor for internet purchases, Alibaba handles many purchase transactions for clients, and produces credit scores for their clients that can be released at the request of the client. Similarly, the most innovative players in the peer-to-peer lending industry are developing improved credit scoring mechanisms, and using it as a comparative advantage for their business model. For example, Upstart uses an income prediction model based on individuals' academic and work history, in addition to traditional underwriting criteria, to develop a statistical model of borrower financial capacity and personal propensity to repay that may be arguably superior to traditional credit scoring mechanisms. Banks are increasingly also adopting such mechanisms.

3.2 Crowdfunding of equity

34. Crowdfunding is an appeal to the general public to raise funds for a specific objective. As used here, the term refers specifically to crowdfunding performed over crowdfunding platforms and often builds on social networks to attract investors or donors. Crowdfunding is particularly noteworthy for providing capital to SMEs (including start-ups). Crowdfunding can also provide revenue for start-up companies via rewards, such as pre-selling of products that will be produced. This section focuses on crowdfunding of equity, so excludes the rewards option. The nature, role and market penetration of crowdfunding is rapidly evolving.

35. Crowdfunding for equity may, in some cases, be similar to venture capital on a small scale. Venture capital has a low success rate counterbalanced by average returns that are attractive as a result of a portfolio of investments with occasional successes that have a much higher-than-market return on investment. At other times, though, crowdfunding may be much more like providing equity to mid-sized or small companies with a high chance of success (e.g., funding for an expansion of a proven business). The volume of crowdfunding of equity appears to be growing more slowly than peer-to-peer finance for debt. Business angels are increasingly using crowdfunding as a form of investment, potentially blurring distinctions between different forms of finance for enterprises.

36. Crowdfunding platforms are (currently) Internet-based websites that serve as a sort of intermediary, allowing the seeker of finance to explain their project or product to investors. Often, campaigns need to reach or exceed a minimum level of funding commitments prior to those who have committed to provide funding actually providing finance. If a campaign does not reach the minimum level, then it is simply not funded at all.

3.2.1 Regulatory challenges ahead

37. Regulation of crowdfunding (and peer-to-peer finance) may be justified by a variety of risks. These include risks of[26]:

- project failure;
- platform failure;
- fraud;
- lack of an exit option; and
- setting inappropriate valuation for the new business.

38. Weighing these risks against potential benefits of crowdfunding, there are at least three particular regulatory challenges related to growth of equity crowdfunding. These are:

- rules restricting public offerings (and notably their advertising);
- rules requiring that investors have, in some well-defined sense, high net worth and investing sophistication; and
- due diligence on the offering.

39. OECD countries have pre-existing rules on public offerings of securities. These rules have been typically been adapted primarily around large-scale offerings and impose many restrictions on the sale of shares to investors. There is a high fixed cost, for example, to issuing stock in a way that has been approved by securities regulators. This fixed cost has effectively limited public offerings to large scale efforts and excluded many SMEs from participation in widespread public offerings. On the grounds that large investors are more likely to appropriately judge and diversify their investments, rules may permit marketing of new issues only to large and sophisticated investors, often without regard to the aggregate size of the offering or the amount being collected from individual investors. Most small investors would not qualify under the criteria for large and sophisticated investors, so many investors have been excluded from participation by the standard models of equity regulation. While such models may be appropriate for large scale financial offerings, and provide substantial protection against fraud and misleading offerings, policymakers are increasingly recognising the limitations imposed by such models. In particular, not only are some investors excluded from a product category, but the high costs of registration effectively exclude many firms that would wish to make a small equity offering from marketing the offering to the public as well. The consequence of this is that while a number of crowdfunding companies have been operating in a variety of markets, they mainly operate a compensation system based on rewards instead of equity.[27]

[26] See OECD (2014), pp 10-11.

[27] These include IndieGoGo (founded in 2008), Kickstarter (founded in 2009), and others.

Nonetheless, equity crowdfunding has been growing recently in Europe: it has been estimated, for example, that EUR 82.6 million were provided by equity-based crowdfunding platforms in Europe in 2014, excluding the UK– of which EUR 29.8 m in Germany, EUR 18.9 m in France, EUR 11.1 m in the Netherlands and EUR 10.5 in Spain –, up from EUR 18.4 m in 2012. The UK, on its own, dwarfs the rest of the continent, with EUR 111 m of equity crowdfunding in 2014. (Waldorf, 2015)

40. Recognising the potential value of crowdfunding, while weighing this against the substantial risks that investors may over-invest in one issue without diversification, governments are increasingly moving to introduce tailored rules that enable crowdfunding equity to work without undue restrictions. For example, in the U.S., the JOBS Act was passed in 2012. This legislation reduced rules on advertising of equity issues, with Title II (implemented in September 2013) allowing public advertising of fundraising. However, it continued to restrict the right to invest to Accredited Investors, defined as those who earned more than USD 200k per year, had a net worth of over USD 1 m or had more than USD 5 m in assets. Title IV/Regulation A+ which came into force in June 2015, resolves this dilemma, by opening the door to non-Accredited Investors, in addition to allowing fundraisers to test the water on interest prior to finalising the offer (with appropriate qualifications). However, a number of challenges are likely to remain to using this procedure, including the still-high cost of preparing the submission, estimated around USD 100k, the requirement for SEC approval remains which allegedly took on average 300 days between 2012 and 2014. This means that for a company raising funds, it is still cheaper and faster to raise funds via the pre-existing Regulation D for Accredited Investors (thus excluding the general public) which in 2014 alone raised more than USD 1 trillion.[28] It does appear that there has been a gap, in the US, in the ability to raise finance by issuing equity for small companies that cannot afford the expense of an SEC filing and appropriate state filings. New more customised rules for small issues could alter this in the future.

41. Internationally, a number of different approaches have been adopted as regards equity crowdfunding, including the following[29]:

- **Australia** – In May 2014, the Corporations and Market Advisory Committee (CAMAC) adopted regulation focused solely on equity crowdfunding. The main restrictions were: issuers face a fundraising limit of AUD 5 million per 12-month period; and investors are limited to AUD 2.5 K per issuer, and AUD 10 K in total per 12-month period.

- **Austria –** Austria has just introduced regulation on equity crowdfunding.

- **Belgium** – Belgium has adopted specific legislation which has broadened the prospectus exemption for public crowdfunding offers. Furthermore, some intermediaries operating under a "crowdfunding" exception will not require prior licensing as investment firms.

- **Canada** – Crowdfunding in Canada was legal under two existing prospectus exemptions, one that allows targeting wealthy individuals and the other related to selling securities on the internet. On May 2015, six provincial securities regulators (British Columbia, Saskatchewan, Manitoba, Quebec, New Brunswick and Nova Scotia) announced the implementation of two additional substantially harmonized equity crowdfunding exemptions which permit start-up and early stage companies to raise capital without having to comply with the prospectus requirement and the dealer registration requirement. These new exemptions are available only to early-stage

28 See Basenese, Louis (2015) "SEC finally okayed crowdfunding for masses?" Wall Street Daily, 8 April. http://www.wallstreetdaily.com/2015/04/08/crowdfunding-regulation-a-plus/

29 See Waldorf (2015); European Crowdfunding Network (2014); European Commission (2014).

businesses and not to larger companies that currently distribute securities as reporting issuers. Ontario is expected to follow with its own regulations on the fall of 2015.

- **EU-wide rules -** Publicly soliciting investments or the act of public offering is regulated by the Prospectus Directive[30]. The Directive harmonises the drawing up, approval and distribution of the prospectus when securities are being offered to the public in the EU. The Prospectus Directive contains a harmonised exemption for offerings that do not exceed EUR 100 K, and allows individual Member States to implement a country-specific regime for offerings that are above EUR 100 K up to EUR 5 million. As such, different national regimes between the EU-wide exempted threshold of EUR 100 K and the EU-wide harmonised full prospectus regime above EUR 5 million have developed.

- **France** – The French regulators, the AMF and the ACPR, issued rules and regulations for equity crowdfunding and peer-to-peer lending in France in October 2014. Cooperating with a partner who holds a suitable license from the national authorities usually exempts the crowdfunding platform itself from obtaining a license. Besides that compliance strategy, France has also introduced a light license to e-commerce operators that accept reclaimable funds or any funds that can otherwise be interpreted to fall under those regulations. Equity-based crowdfunding platforms can further benefit from a specific license that also includes limited permission to process payments. France recently also introduced a limited license for those that provide advice in the context of crowdfunding (thus, for those that operate a platform). The recent crowdfunding-specific regulation also introduced a light prospectus regime for public solicitations of up to EUR 1 million that take place via regulated crowdfunding platforms

- **Germany** – Equity-based crowdfunding has been legal in Germany for some time. The large platforms have used a type of mezzanine instrument known as Partiarisches Nachrangdarlehen – or Subordinated Profit Participating Debt. This instrument allows investors to participate in the profits of the borrower. This form of subordinated debt instrument has thus far been exempt from having to publish a prospectus, and incurring the substantial costs of doing so, because interest is only paid if there are profits.

  The recently adopted Government regulations – which entered into force on 1 July 2015 – closed this loophole while creating an exemption for online crowdfunding platforms. The proposed exemption allows crowdfunding projects up to EUR 1m to be published without an investor prospectus, as long as each investor is limited to a maximum investment of EUR 1,000. This exemption is restricted to subordinated debt instruments. The regulations also include a requirement for an Investment Products Information Leaflet (Vermögensanlagen-Informationsblatt), which is proposed to be manually signed and mailed by the investor, as well as rules on the advertising of crowdfunding projects online.

- **Italy** – Recently Italy implemented a specific "crowdfunding law" applicable to crowdfunding equity platforms, which are required to be compliant with a number of criteria not dissimilar to those that are normally required for intermediaries operating in the financial markets in order to be included in a dedicated register. A very specific stipulation is that only innovative start-ups can use equity-based crowdfunding portals and start-ups may not have been active for a period longer than 48 months before starting the campaign. In addition, the start-ups' turnover cannot exceed EUR 5 million p.a., and the company cannot have distributed dividends in the past. Before the equity offer can be promoted through an equity crowdfunding platform, 5 % of the equity offer is

[30] Directive 2003/71/EC.

required to be taken up by either professional investors (for instance a venture capital fund), a credit institution, a financial institution for innovation and development, or by an incubator.

- **Japan** - Japan adopted regulations on crowdfunding in May 2015. The maximum amount of capital that can be raised is expected to be JPY 100 million per campaign, and a limit of JPY 500 K per individual investor has been set. An essential part of the regulation is that all data must be transparent and that investors should be educated about the risks involved.

- **Netherlands** – While there is no specific crowdfunding regulation in the Netherlands, at the moment 30 companies have a licence or exemption to offer financial products through online platforms based on existing financial regulations. Investors are not permitted to invest in more than 100 projects, invest more than EUR 20,000 in equity through an online platform, or invest more than EUR 40,000 in debt. For projects raising in excess of EUR 2.5 m, a prospectus is required.

- **Portugal** – In July 2015, the Portuguese Parliament approved a legal framework for online investing under which crowdfunding platforms will have to register with the financial regulator. At the moment no specific limitation for investors exist, but the legal framework leaves to the financial regulator the task of deciding upon the cap on investment (per single offering and total annual investment), with the possibility of differentiating between retail investors and professional ones.

- **Spain** – Spain did generally not interpret equity-based crowdfunding platforms as activities that require a license. However, specific legislation has been introduced in relation to crowdfunding, limiting the use of equity and debt crowdfunding to a maximum EUR 2 m per project where non-accredited investors are involved, and EUR 5 m where only accredited investors are included. It also places limits on the amount that each non-accredited investor can contribute.

- **UK** – The United Kingdom lacks specific regulation for equity-based crowdfunding. The British regulator has nonetheless extensively communicated their views on crowdfunding. Equity-based platforms are generally considered to operate within the requirements for regulated activities. Even if some platforms have claimed that they operate an exempted activity, the regulator's policy is to place most equity platforms under a regulated regime.

42. According to IOSCO, as of 2014, a number of government entities had begun or completed consultations on policy toward crowdfunding and many of these served as the basis for the rules mentioned above. These include[31]:

- Australia: Corporation and Markets Advisory Committee: Crowd-Sourced Equity Funding;

- Banque de France: Un Nouveau Cadre Pour Faciliter le Développement du Financement Participatif;

- European Commission: Crowdfunding in the EU – Exploring the added value of potential EU action;

- Financial Conduct Authority (UK): Consultation document : The FCA's regulatory approach to crowdfunding (and similar activities);

[31] See Kirby and Worner (2014).

- Ontario Securities Commission: Exempt market review, staff consultation paper, considerations of new capital raising prospectus exemptions;

- Securities and Exchange Commission (U.S.): proposed rules on crowdfunding.

43. The approach of governments to crowdfunding equity can differ substantially across countries. Increasingly, though, there may be room to allow small investments by small investors, provided the investors are aware of the risks they run and that they do not invest a high percentage of their assets in such uncertain products.[32]

3.3 Virtual currencies

44. Virtual currencies, sometimes called cryptocurrencies, are stores of value that can be traded between users.[33] While the best known such currency is Bitcoin, there are more than a hundred others.[34] The ECB has estimated the combined value of virtual currencies around the world as about EUR 3.3 b, as of February 2015 while Bohme et al (2015) estimate USD 3.5 b.

45. Trades of currency occur over currency "exchanges" on the internet, often with the exchange of virtual currency used as a payment for real world goods. The distinguishing features of virtual currencies are that:

- they have limited issuance (and often specific means of extending the amount of currency available);

- they use digital techniques for securing the transactions that,

  - on the one hand, provide public confirmation of the ownership of each coin keeping track of the entire history of ownership (in a "block chain"), to ensure that one unit of virtual currency cannot be sold multiple times by one owner, and

  - on the other do not necessarily identify the trader's full identity publicly.

46. Unlike nationally issued currencies, virtual currencies are not backed by the full faith and credit of a national government, nor are they governed by a regulation that restricts activities (e.g., legally preventing the sudden introduction of more currency). However, as long as the expectation of a purchaser is that others will accept the virtual currency as a store of value, they may be willing to purchase it.

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32 Observers may note that the level of restrictions for equity investments by small investors may be inconsistent with government permission for commercial gambling, which has a negative expected returns and can be equally destructive of people's financial well-being.

33 ECB (2015) defines a virtual currency as "a digital representation of value, not used by a central bank, credit institution or e-money institution, which is some circumstances, can be used as an alternative to money."

34 Gandal and Halaburda (2014) suggest that competition in the digital currency market will not result in a winner-take-all phenomenon (with one digital currency crowding out all others), despite the existence of strong network effects for an initially successful digital currency. While there may initially be strong network effects favouring one currency, these effects ultimately weaken as the currency's role as a financial asset (vs. means of exchange) becomes more important.

47. The existence of non-governmental stores of value is not new. One of the most cited in recent times is frequent flyer miles. One major difference between these and virtual currencies is the ease with which the virtual currencies can be transformed back into legal tender currency, mainly, but not exclusively, through a number of exchanges and trading platforms that perform this conversion.

48. Virtual currencies provide an alternative to cash and other nationally issued currencies. They are smaller and more secure than paper currency. Virtual currency owners can make money both from the float and from issuing initial currency to themselves.

49. As a result of the apparent anonymity of transactions, some users of virtual currencies were involved in improper and illegal activities, including money laundering and transfer of value for illegal goods. As a result, certain governments have sought to take measures that effectively rule out its use as a currency. These create a clear and implied possibility of government's declaring the virtual currencies illegal[35].

50. The focus on virtual currencies as a means of fraudulent transactions is perhaps due to a perceived high frequency of improper motives behind use of virtual currencies, which in turn is a result of the apparent anonymity built into the system. But in fact, cash is likely a much more anonymous means of transferring value than virtual currencies. The ownership string for virtual currency is public, though not the actual owner name and address. If that name and address are at one point identified by law enforcers, law enforcers have a powerful mechanism to track entire chains of transfer of value, in a way that cash would never allow. The arguments used against virtual currency anonymity may thus be much weaker than comparable arguments against cash.

51. Governments may be particularly anxious to ensure that virtual currencies do not supplant the currencies they issue, as the worry has been expressed that if virtual currencies substantially supplanted cash, central bank ability to conduct monetary policy might be placed at risk and the seigniorage[36] from issuing currency could be reduced. However, Blundell-Wignall (2014) argues that virtual currencies cannot undermine the ability of central banks to conduct monetary policy, as long as taxes are paid in legal tender which, in turn, requires that banks "be able to clear with the government's bank, most the central bank." Moreover, supplanting does not currently appear to be a real risk, as the level of public trust in virtual currencies is limited. Nonetheless, to the extent a regulator is selected for virtual currencies in the future, there is an open question as to whether central banks should be given the role to regulate virtual currency, or whether other bodies with a less direct financial interest in the regulatory outcome may be more appropriate.[37] While central banks and finance ministries may have an interest to maintain seigniorage, they also may have a counterbalancing strong experience with oversight of currency.

35 Even if a virtual currency is not declared illegal, discussing the possibility that a currency could be made illegal damages the mutual confidence in the future value of the virtual currency that is necessary for both parties to a transaction to regard it as serving as a store of value.

36 Seigniorage is the value earned by institutions that issue currency. It is a powerful generator of revenue, particularly in jurisdictions in which foreign users rely on the currency for transactions without ever returning the currency to the issuer.

37 ECB (2012) states that virtual currency schemes "do indeed fall within central banks' responsibility as a result of characteristics shared with payment systems, which give rise to the need for at least an examination of development and the provision of an initial assessment." The issue of jurisdiction for de-centralised currencies operating independently of state control could require international cooperation (p.42).

3.3.1 Regulatory challenges ahead

52. Risks from using virtual currency are real. Exchanges may be breached, with resultant theft of virtual currency. If people lose their assets and become poor, the government may have to pay benefits to more people than it otherwise would. For virtual currencies to succeed and grow, rules will be needed that "provide clear guidelines on registration and know-your-customer rules."[38] Repudiation of virtual currency as a currency, as has occurred in China, Germany, France, Korea and Thailand, will clearly make growth a challenge. Even where virtual currencies are permitted, only an estimated 3 out of 10,000 merchants accept virtual currencies[39].

53. If competition from virtual currencies is encouraged, a clear identification of virtual currencies as currencies would be needed. The UK has taken a position on virtual currencies that exempts them from VAT, thus treating them, in and of themselves, as currencies and not as goods or services. At the same time, the UK is requiring that virtual currencies provide mechanisms to prevent money laundering. According to a 4 August 2015 article, the Australian Senate is expected to announce that cryptocurrencies will be treated as currencies in Australia.[40] The U.S. Internal Revenue Service, in contrast, has issued guidance that treats virtual currencies as property.[41] The challenge of determining the appropriate tax status of virtual currencies remains to be settled in the future.

3.4 Innovative payment / currency exchange solutions

54. Substantial changes in the costs of payments and exchange of currency have occurred in some jurisdictions. For the purpose of this note, payments can be payments from an individual to a merchant or to another individual (including cross-border payments that are remittances or currency exchanges). In recent years, for making payments, a variety of applications have developed that rely on telephones. M-Pesa, for example, allows payments to merchants and has grown to a significant volume in Africa, along with other payment providers. In the UK, Paym was launched in April 2014, allowing customers to switch money from accounts in participating banks via mobile phone numbers. Barclays has introduced PingIt in the UK. In France, Orange launched OrangeCash in February 2014 and Vodaphone has introduced M-Pesa in various European countries.[42] These services are notable because, currently or in the long run, they may reduce the key role of banks and payment cards for transactions that involve a payment.

55. Regulation can have a substantial impact on the success of innovative payment systems. In particular, key questions are whether the payment provider is treated as a bank and how access to bank-based funds is provided via the existing financial system. While traditional payment system access is crucial for mobile payments in certain countries, in others the system can be viewed as running a small size and self-sustaining network for depositing and withdrawing cash. Cash can be paid into M-Pesa, at a participating M-Pesa outlet (e.g., a small local grocery store), and then sent to a person who would retrieve cash at another outlet. In 2012, M-Pesa's Kenyan network linked with over 37,000 mobile money agents and 25 banks, with 15 million active customers.

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38 See Blundell-Wignall (2014), p. 11. Note that know-your-customer rules require that financial institutions are satisfied that customers transacting with them are truly the people they say they are.

39 See ECB (2015).

40 Accessed 5 August, 2015. http://www.ibtimes.co.uk/bitcoin-deemed-regular-currency-by-australian-senate-committee-1514009.

41 See http://www.irs.gov/uac/Newsroom/IRS-Virtual-Currency-Guidance.

42 Accessed 5 August, 2015. http://www.fiercewireless.com/europe/story/vodafone-brings-m-pesa-mobile-payment-service-europe/2014-03-31.

56. Payment system operators like M-Pesa could argue that they should not be treated as banks, because they are not systemically important, do not receive access to central bank financing, do not create money, process only modest sums, and transfer only amounts that have already been deposited. Despite the fact that in some countries, like Kenya, M-Pesa primarily services the non-banked community, banks, in contrast, may argue that, since M-Pesa is providing many of the same services as a bank, it should be regulated as such.

57. Recent developments for payment mechanisms include introduction of so-called digital wallets. Digital wallets are devices for a consumer to make a payment that are not traditional payment cards (such as Visa, MasterCard, JCB) but may be linked to an individual's cards. Adoption of digital wallets in the Asia/Pacific region is significantly ahead of that in other geographies, being responsible for 23% of e-payments and, in China, 44%[43]. In-store use of digital wallets is substantially lower for the moment. Examples of digital wallets are Apple Pay, Google Wallet and PayPal in the U.S. and Europe, Japan's NTT DoCoMo's Osaifu-Keitai (with its mobile wallet launched in 2004), and Alipay in China.[44] Ultimately, if the owners of such services reached a wide network of merchants, they could conceivably bypass bank-controlled payment card networks.

58. Another development in the payment sector that is growing rapidly is peer-to-peer currency exchange. This form of payment occurs, in its simplest form, when someone with a currency from country A who wants currency from country B is matched (for example over an internet platform) with someone who wants to trade currency from country B for currency from country A. Small businesses and individuals, in particular, may have a difficult time accessing exchange rates close to the actual rate. For mid-market currencies, effective commission rates of 3% (and double that when viewing both sides of a trade) are not unusual. These can be cut to as low as 0.2%-1% using peer-to-peer intermediaries for trade matching. The challenge then becomes how to determine the appropriate base price for a currency exchange. One option is to adopt the announced benchmark price from large-scale trading. Another option is for traders to be matched according to specified rates that they offer for buying or selling a currency. Whatever basis is used for determining the fair value of exchange, the existence of currency trading options that match buyers and sellers can yield substantial benefits, reducing the frictional costs that may otherwise hinder the development of cross-border trade.

3.4.1 Regulatory challenges ahead

59. Regulatory challenges for mobile wallets and peer-to-peer currency exchange include how to deal with know-your-customer regulations, how to ensure consumer funds are protected, and whether banks have a necessary role in such regimes.

60. Know-your-customer rules help to limit fraud, money laundering and financing of criminal activities. Such rules may also make non-bank payment systems more difficult to operate. An open question is whether the same know-your-customer requirements should apply to sending USD 20 as sending USD 10,000. For M-Pesa, Kenya had a national identify card regime that facilitated know-your-customer rules in Kenya, and this was recognised by authorities as sufficient. Cross-border currency exchanges may find it particularly difficult to ensure know-your-customer rules are respected. The regulatory burden these rules will create may provide greater incentives for clients who expect to be repeat customers, such as small enterprises or regular senders of remittances, to participate in the system, while creating obstacles for individuals engaged in one-time exchanges.

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43 See WorldPay, 2013 as reported in Deloitte 2015.

44 See Deloitte (2015).

61. Banks may view payment regimes that have a potential to bypass bank regimes (and reduce bank profits from payment cards) as a competitive threat. Absent regulation, banks could seek to restrict access to customer accounts that might be necessary for some non-bank payment schemes to operate or non-bank currency exchanges. In particular, it may be desirable that mobile payment systems are not required to affiliate with banks, particularly when regulators are satisfied that the relevant non-bank institutions leading the payment schemes ensure satisfactory traceability, auditability and security of client funds.[45]

4. Ensuring regulation does not unduly prevent innovation

62. The purpose of this section is to provide informal evidence of the effect of regulation on success of innovative products and to give examples of regulation that appear beneficial to such success.

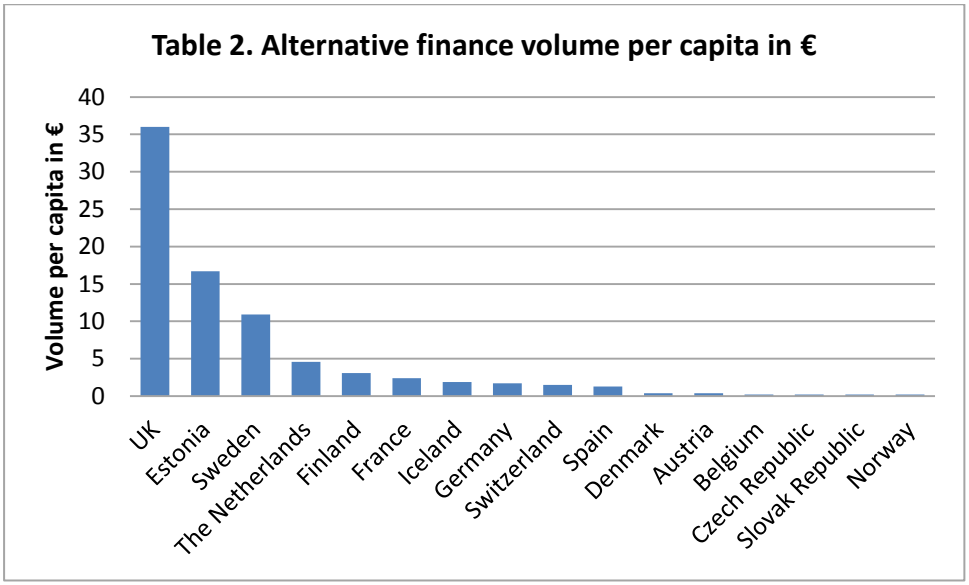
63. Consider, for example, that if a regulation exists that means only banks can access payment systems and hold customer "accounts", then mobile phone based systems of payments may be required to operate through banks and will not be able to establish genuinely independent systems of operation. For mobile payment services in East Africa, rollout of mobile payments was quite different in some countries, as were regulations. For example, in Kenya and Uganda, by 2011-12, mobile money subscriptions reached 17.8 m and 2.1 m customers respectively, with the ratio of mobile money subscriptions to mobile phone subscriptions at 71 % and 13% respectively[46]. In Uganda, a regulatory approach was adopted that focused on extending the banking regulation to mobile money, and involved initially only one [a single?] bank being permitted to partner with one [a single?] mobile phone provider. In Kenya, by contrast, the most successful company by market share (M-Pesa) grew as a company that was *not* based [reliant?] on a bank partnership, but on an independent branchless banking concept, with small retailers accepting and redeeming funds in transactions.

64. The differential penetration of alternative finance (mainly peer-to-peer lending and crowdfunding) in European countries may also be an indication of different and sometime innovation-restricting regulatory conditions – though systematic evidence on regulatory differences is currently lacking and would be a worthwhile topic for future study. This differential is dramatically illustrated by Table 2.

45 See Makin (2010).

46 See Apecu et al. (2014).

Table 2. Alternative finance volume per capita in €



Source: Wardrop et al (2015).

65. A part of the difference between the UK and other European countries may be driven by higher general acceptance of using the Internet for retail transactions in the UK. According to a recent speech by Alex Chisolm of the CMA, "[T]he UK is among the most advanced ecommerce users of the large western economies, with 13.5% of our retailing online (vs 11.5% in US and 9.7% in Germany, European average of 7.2%). The average UK household will spend over GBP 2,000 online this year..." [47] While such differences in Internet usage for purchases are large, they do not appear sufficient to explain the size of the difference in alternative financing penetration between European countries, often in the range of 10 to 1. Differences in regulatory approach by the FCA, HM Treasury and other UK institutions may have influenced the spread of alternative finance in the UK, even if regulatory differences do not explain all the variation in alternative finance penetration.

66. Active regulatory steps taken by the UK include[48]:

- requiring banks that reject an SME for finance to refer it to others and sharing of SME credit data with designated platforms, such as peer-to-peer lenders and crowdfunders, allowing "SMEs to look beyond the big banks for the lending they need to grow"[49];
- creating a customised regulatory regime for peer-to-peer and crowdfunding platforms, providing regulatory certainty to industry and customers;
- "acting to level the playing field between bank and non-bank lenders by creating a new bad-debt relief for P2P investments" (meaning that bad debt can be deducted from income before calculating income taxes);

47 See Chisolm (2015).

48 See HM Treasury (2015).

49 See HM Treasury (2015), p. 4.

- allowing investments via P2P to count for tax free retirement saving (and "committing to consult" for the same for crowdfunded debt-based securities);

- addressing "bans on assignment and deeds of priority, both of which had prevented business from seeking finance outside their established banking relationship.";

- providing GBP 85 m of British Business Bank investment via peer-to-peer and crowdfunding platforms;

- exploring improving access to credit data for trade creditors with a view to "allowing trade creditors to compete more effectively"[50];

- creating a Payment System Regulator (started up on 1 April 2015) that has powers to "promote innovation, competition and the interests of end users in the UK payment sector. The PSR will have a remit over the major inter-bank and international card schemes, and will help ensure that challenger banks and small non-bank players can access the payment systems on fair and transparent terms."[51]

67. These steps appear designed to ensure not only that, where possible, a "level playing field" exists between banks and peer-to-peer lenders, but that regulation may be, in some sense, proportionate to the perceived risks and needs. Clearly, this can create a risk that regulation would be insufficient to prevent new and developing risks. Only time can tell whether such a regulatory approach will yield clear benefits or allow pent-up risks to develop.

68. Regulation alone may not produce the desired result if not complemented by adequate information, awareness and education, for both investors and users/borrowers.

[50] See HM Treasury (2015), p. 6.

[51] See HM Treasury (2015), p. 13.

5. Conclusion

69. This note has provides a quick overview of selected products and business models that are in some sense disruptive to established ways of doing business in financial markets. The list is selective; other products and models could have been examined as well. The analysis itself is intended to illustrate challenges and not to draw strong conclusions.

70. As decisions taken on regulation can have a profound impact on the spread of innovative products, a key challenge that arises in all these areas is how to ensure consumer protection is maintained for new products and business models, particularly when new products are not adequately covered or regulated by existing rules.

71. Key factors to consider for consumer protection will include:

- What mechanisms exist for building consumer trust?
- What responsibilities are held by platforms?
- What responsibilities are held by platform users?

72. Another key challenge is how, and to what extent, should rules intended to pursue the broad public interest, such as know-your-customer rules, be interpreted for new products, especially to the extent that such rules, if interpreted at the strictest level, could potentially yield market power to established financial industry companies, excluding competitors and restricting options of consumers.

73. As governments face the challenge of producing regulations for innovative financial products, they may be called upon to determine whether to pursue a level playing field for new products or whether, even, to consider giving such products a better playing field, to the extent they may have disadvantages compared to existing products.

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