Financial technology and regulation

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Recent years have seen a reduced supply of capital to domestic businesses by banks due to increased capital requirements and compliance costs.

Market finance has not acted as a perfect substitute for bank finance due to SMEs being unlikely to have the requisite information and expected returns. Technology may greatly reduce the costs for both service providers and recipients and is likely to replace traditional practices where processes are most standardised and tasks are repetitive.

Fintech is expected to affect nearly 25% of financial services activity by 2020. It may act as both complement & substitute.

The role of regulation is double. It has created a space for disruption to traditional lenders, yet has also acted as a barrier to growth by making entry uneconomical for firms with a small starting customer base.

Extending the British Financial Conduct Authority's 'sandbox' to other European markets would reduce regulatory barriers to innovation whilst preserving consumer protection and financial stability. It is the first step towards an open environment for the application of technology to financial services.

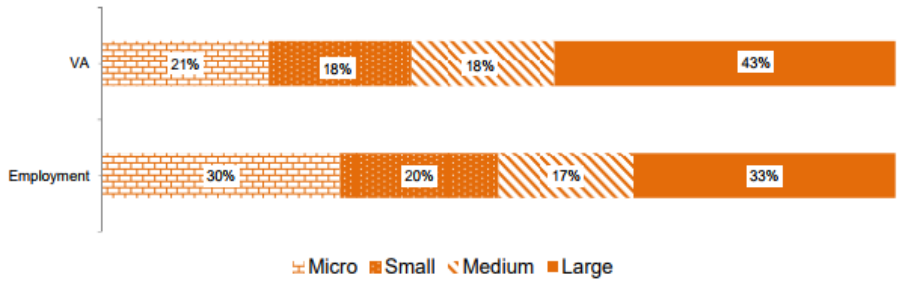
The landscape of finance after the crisis

There is a need for alternative finance. Since the financial crisis, increased capital requirements and greater compliance costs have led banks to reduce their supply of capital to domestic business (Hoffman and Sørensen 2015). Some might have expected capital markets to plug the funding gap, but market finance is not a perfect substitute for bank finance, for a number of reasons.

Firstly, capital markets have themselves been the subject of greater regulatory intervention since 2008: CRD IV, Solvency II, EMIR and, most recently, MiFID II. The connection between over-the-counter derivatives and less complex corporate debt issues may seem tenuous, but making transactions and securitisations more expensive will raise firms' cost of capital (Deloitte 2014).1 Secondly, much of EU business is made up of SMEs, with many of them too small to borrow on the open market (Fig. 1).

As part of its Capital Markets Union programme, the European Commission is attempting to lower firms' cost of borrowing on the market by easing prospectus requirements and reducing the regulatory burden on certain long-term debt instruments.[1] But some of the barriers to entry into market finance are not policy-driven but scale-driven. Most SMEs under 10 or even 50 staff – which account for 96% of EU SMEs, 50% of employment and 40% of value added (EC 2016) – are unlikely to have the requisite information and expected returns to be able to obtain capital market finance in the near future.

Figure 1: Value added and employment in the non-financial business sector in the EU28 by enterprise size, 2015



Source: Eurostat, National Statistical Offices and DIW Econ

Source: European Commission, 2016. N.B. Micro enterprises have fewer than 10 employees; small enterprises have fewer than 50; medium-sized firms have fewer than 250 employees.

The role of technology in supplementing traditional financial institutions

That is why the application of technology to financial markets is so important. The use of platforms to reduce transaction costs (the costs of search, bargaining and enforcement) has been widespread across many industries, notably retail, transport and short-term lodging. A recent study put the welfare gains to users of Uber in the United States alone at $6.8bn per year – more than 13% of the firm's present market capitalisation (Cohen et al. 2016). Welfare gains of similar magnitude can be expected from the application of technology to financial services (Summers 2017).

The scope for internet-enabled innovation in finance is as wide as the industry itself. It includes payments, business and consumer finance – whether intermediated or peer-to-peer – the provision of current and savings accounts, investment products and insurance (EBA 2017). There is, in addition, a burgeoning subsector dedicated to reducing the costs of regulatory compliance for financial institutions ('regtech'), as well as many applications of decentralised ledger technology (DLT) such as blockchain to contracts and financial transactions.

[1] https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union_en

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How much of financial services will be disrupted?

There is a tendency to speak of fintech as a comparably niche activity whose disruption of traditional financial institutions is some years ahead. In fact, fintech firms are already making themselves felt in mainstream credit markets. Buchak et al. (2017), for instance, find that the share of shadow banks in all U.S. residential mortgage lending increased from 30 to 50% between 2007 and 2015, with fintech lenders accounting for nearly half of the increase, as their share jumped from 3 to 12%.

A recent survey of financial institutions found that fintech disruption is expected to affect 23% of financial services activity by 2020 (PwC 2016). Consumer finance, payments, investment management and small business banking are the areas most susceptible to innovative disruption, according to respondents. As with other sectors of the economy, technology is likely to replace traditional practices in those areas where processes are most standardised and tasks are repetitive and thus easy to automate (Autor 2015).

Additionally, many areas of banking are highly regulated, which can raise the returns from disruption and thus accelerate competition from technology-enabled providers. This is because regulation tends to create rents for incumbents, thereby raising incentives to compete away those rents. The taxi sector's disruption by ride-sharing apps is a classic example of this process at work.

Complements or substitutes?

But not all technological innovation in finance will take away business from incumbents. Technology can, as with employment, be either a complement or a substitute to existing activity. There are, specifically, three ways in which technology will affect traditional providers of financial services:

1) by competing for existing business, thus reducing profit margins and volumes for traditional firms;
2) by acting as intermediaries for existing providers, potentially raising returns and expanding the number of customers of traditional providers;
3) by bringing into the market customers who were previously priced out, which will expand the size of the market but leave the volume of business of incumbents unchanged.

It is likely that all three effects will be experienced at the same time. TransferWise, the international payments platform, provides a useful case study. On one hand, it has considerably reduced transfer fees, reducing the volumes and commission income of traditional providers. On the other hand, by lowering the cost of international transactions, it has expanded the margin for profitable cross-border transfers to take place, increasing volumes and perhaps also indirectly growing the activity of traditional providers (e.g. by leading to an increase in the number of international bank accounts).

The role of regulation

Regulation plays a complex role in the rise of fintech. There is, on one hand, a desire to maintain symmetry of regulation between traditional and new providers. However, as discussions around online platforms and the sharing economy demonstrate, it is often unclear whether internet-based challengers fall within the same regulatory umbrella as the incumbents they disrupt (Zuluaga 2015).

Secondly, there can be no doubt that regulation has acted, and will continue to act, as a powerful spur for disruption. Indeed, Buchak et al. (2017) estimate that 70% of the growth of shadow banks, including fintech, in U.S. mortgage finance was explained by increased regulation of traditional lenders, whilst 30% was accounted for by technological innovation.

At the same time, regulation may act as a barrier to the growth of fintech, if the requirements to provide certain services make entry uneconomical for firms with a small starting customer base. Additionally, regulation may be used by incumbents as a defence against disruption. New payments providers have argued that a number of the regulations contained in PSD2, such as the ban on 'screen scraping', will pose a competitive barrier which will advantage traditional providers (Saeedy 2017). Whilst the practical issues are different, the standoff mirrors the long-standing debate over online news 'scraping' by search engines, which newspapers have denounced.

Regulation plays a double role. On the one hand, it has allowed for shadow banks to disrupt traditional lenders who experienced increased regulation. On the other hand, requirements may have hindered fintech growth.

An EU regulatory sandbox

There is merit in extending the British Financial Conduct Authority's 'sandbox' approach to other European markets. It was introduced in mid-2016 with the aim to reduce regulatory barriers to innovation, whilst preserving consumer protection and financial stability. The sandbox is beneficial not just because it shields entrants from onerous requirements whilst exposing them to real market conditions, but also because it reduces the cost of finding out about the regulations that do or will apply to them in future (FCA 2017).

90% of firms in the first cohort of sandbox participants will go on to a full market launch. This is an encouraging share, but it raises concerns about whether the barriers to entry into the sandbox might themselves be too high. The FCA (ibid.) has noted that, of the 146 applications which were received, only 50 were accepted and 41 tested, a paltry 28% of all applicants.

The 'sandbox' approach is not a complete shift away from the precautionary principle and towards permissionless innovation, where the onus to prove the need for intervention is on those who wish to stop innovation. But it is a first step towards a more open environment for the application of technology to financial services, which will in time resolve some of the market gaps which gave rise to regulation in the first place.

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