FinTech – transforming finance
The report explores the transformation underway as a result of the continued expansion of FinTech and its ongoing impact across the financial services landscape.
Technology has become the driving force behind many changes to society and the global economy. That technology has caused the rapid and continuous disruption of a succession of industries is a given. In the financial services industry, with the growth of financial technology (FinTech), we are witnessing significant transformations to systems and processes that had stood the test of time. What makes FinTech so potentially transformative is the scope for materially altering the fundamentals underpinning the applications that make up the backbone of our commercial lives.

A range of systems and processes in areas including payment, lending, retail banking, asset management, fraud protection and regulatory compliance are now populated not just by well-known and established institutions but also by challenger start-ups vying for a say in the future. These new entrants, alongside reconfiguring incumbents, are reformulating service design and delivery through technological developments and advancements in software, user experience and data mining.

At the same time, regulators around the world, operating in countries whose financial services sector is in varying stages of development, must find the right balance between harnessing the possibilities offered by FinTech and the right level of forward looking legislation to give it the best chance of flourishing.

Fintech – transforming finance – explores the features of this new landscape, highlighting the many ways in which this revolution is taking place. For professional accountants, this new terrain will provide many opportunities as it permeates deeper and deeper into the fabric of society. From the promise of blockchain, to the demands of valuation in a digital era, finance more than ever needs an experienced, knowledgeable guide to make the most of the opportunities ahead.

Ng Boon Yew
Executive Chairman,
Raffles Campus Pte Ltd
and Chairman, ACCA
Accountancy Futures Academy
Financial Technology (FinTech) is here – sweeping through finance and, if some proponents are to be believed, threatening traditional edifices that have stood for centuries. This great surge is being fronted by a host of new start-ups taking their lead from the big tech innovators. Their maverick approach is helping to push the FinTech industry into new territory across the financial services landscape, raising billions of dollars and worrying the incumbents. So what are the main trends and driving forces shaping FinTech today?

FinTech start-ups span the spectrum of financial services, from lending and advice to foreign exchange and payments. One aspect that many of them share is strong growth: thousands of per cent in some cases. Not surprisingly, this has been attracting attention from investors. And as technologies evolve at pace (did someone say blockchain?), the potential for further disruption is ever present.

New technology means new banks. Without the need for bricks, mortar or even physical money, many start-ups are changing perceptions of what a bank can, and should, be. Many of these new banks have appeared in the UK, owing to the country’s FinTech pull. FinTech is changing not only how banks operate, but also the way people invest. By sidelining financial advisers, FinTech firms reduce the cost of investing and make it simpler.

Cryptocurrencies such as bitcoin are presaging deeper disruption. The technology that underpins bitcoin – blockchain – could transform the way in which many financial transactions are conducted. From trading shares to wiring remittances, intermediaries, upon whose security and technology everyone once relied, are becoming redundant.

Some commentators believe the banks are finished, while others see this as their chance to fight back. Most big banks lack the agility of smaller rivals and still rely on legacy IT systems that are outmoded and unwieldy. Nevertheless, they are also trying to adjust to the potential of FinTech by acquiring challengers, or, increasingly, finding ways to collaborate with nimbler new entrants.

Regulation could turn out to work in the banks’ favour. The FinTech upstarts face a raft of legislation that, depending on jurisdiction, limits what they can do. Nonetheless, regulation itself is under constant review and some countries, including the UK, are supporting innovators and entrepreneurs – and the banks – as they navigate the rules. The Regulation Technology (RegTech) sector, made up of firms that provide technology solutions to enable better compliance with regulatory requirements, is also set to play a significant role in redefining the landscape.

For professional accountants, helping companies manage the regulatory, tax and financial implications of the FinTech surge offers considerable opportunity. The banks and many professional accountancy firms are starting to adapt. Like the rest of the financial services sector, all professional accountants and other finance professionals will need to engage with the wider opportunities presented by the digitisation shift and continue to provide analysis that helps companies understand the value they are creating.
1. **This is an evolution**

FinTech is already big business. According to Accenture, investment in global FinTech grew by 75% in 2015 to $22.3bn (Accenture 2016). Around the world, FinTech companies exist across the entire spectrum of finance. These services include:

- **borrowing** money – peer-to-peer lenders such as Lendico, Zopa, Prosper and OnDeck connect savers with borrowers to cut out banks
- **foreign currency** – peer-to-peer money transfer service TransferWise is the market leader in the foreign currency exchange sector
- **international money transfer** – innovators here include Xoom, Azimo, and CurrencyFair
- **credit reports** – Credit Karma is challenging Experian in the market for personal credit information
- **fraud protection** – V-key provides multi-factor authentication and payment security solutions for mobile applications
- **payments/e-commerce** – Klarna is changing internet retail with a unique payment proposition that lets consumers receive goods before they pay
- **financial advice** – Scalable Capital reduces the costs of expensive face-to-face advice by using algorithms to make decisions about when and in what to invest
- **insurance** – Trov is an on-demand, app-based insurance provider for personal belongings; it forms part of a growing Insurance Technology (InsurTech) sector.

All this action is worrying incumbents whose long unchallenged run has weakened their ability to adapt and evolve effectively, as emerging technologies do to finance what they have already done to a range of other industries. As with other sectors, this fertile period of tech-enabled disintermediation of finance is responding to pent-up demand for change in a part of the economy that has been resistant to altering the status quo.

**GEOMETRIC, NOT ARITHMETIC, GROWTH**

The term ‘exponential growth’ is often used to characterise the FinTech landscape’s extremely rapid success stories – and rising valuations. For example, Lufax is a Chinese peer-to-peer lender founded in 2012. It made loans of $24m in year one, $538m in year two, and $2.3bn in year three (Jones 2014). At its peak, that represents 2100% growth. In 2015, Lufax surpassed 10m registered users and in January 2016, after its most recent funding round, was valued at $18.5bn.

Exponential growth is a profound concept. Intel founder Gordon Moore forecast in the 1960s that computer chips would double in transistor density every two years. For 50 years, ‘Moore’s Law’ has held true. The principle is visible in many science and tech fields. The cost of computer storage, the cost of sequencing a base pair of DNA molecules, the price of bandwidth – these and other metrics are examples of how exponential growth in processing power has cut costs.

---

‘Look at Netflix. Blockbuster [a video hiring chain] was huge! And now? Gone. Spotify is doing the same in the music industry. The established players always say, “We are safe, nothing can touch us”’.

Dr Dominik Steinkuehler, Co-founder and Managing Director, Lendico

‘People are used to dealing with linear growth. When a company like TransferWise has 1% of FX transactions in Europe, people say ‘that’s nothing’. But it, like Receipt Bank, is growing exponentially. That 1% becomes a huge number in a short space of time. The compound interest fools people’.

Michael Wood, Co-founder, Receipt Bank
2. New banks are launching

A sign of the growing maturity of FinTech is the emergence of new banks. The logic is attractive: a bank that starts from ground zero can use the latest technology and business models. By contrast, high street banks are encumbered by a branch network, legacy software and systems. In practice, launching a bank is hard and does not rely on new technology alone: there are also regulatory hurdles to overcome. It had been 100 years since the UK had last issued a new banking licence when newcomer Metro Bank began trading in 2010.

Today, banking provision has moved beyond physical branches. Open-access platforms allow software developers to create their own apps and straight-through processing for a highly automated loan process. An example is Fidor Bank, a digital bank founded in Germany, which operates ‘online-only’. Fidor has a set of Application Protocol Interfaces (APIs) that allow software developers to become partners and build services and tools that link into Fidor’s platform. This enhances Fidor’s offer by, for example, providing crowdfunding, peer-to-peer (P2P) lending and cryptocurrency services on top of a bank account. This approach seems to be working, given that by the time it launched in the UK in 2016 Fidor had already amassed 100,000 customers since its 2009 debut. Fidor recently announced that it had been acquired by France’s second largest bank, Groupe BPCE, a move that will to support its international expansion plans.

The UK is home to a number of online-only bank start-ups. Atom Bank, led by the former chief executive of First Direct Bank and the co-founder of Metro Bank, is a mobile-app-based bank: it has no call centre, no branches. It also boasts a recent £45m investment from Spanish bank BBVA. Atom is by no means alone and is launching in the UK against at least four rivals: Mondo, Starling, Tandem and Secco, each of which offers a unique take on banking.

Tandem Bank, which secured Financial Conduct Authority (FCA) and Prudential Regulation Authority (PRA) accreditation in November 2015, provides a good example of how the new breed of banks are setting themselves apart. Created by a co-founder of FinTech remittance service provider Azimo and a former Capital One Bank director, Tandem is committed to creating an app-based retail banking service proposition that is personalised to help its users identify money-saving opportunities. This is in marked contrast to the traditional UK retail banking sector that it is challenging, which is more commonly associated with vigorous sales tactics and suboptimal customer experiences. Tandem hosts regular events, such as ‘build it break it breakfasts’, and has a community of over 5,000 ‘co-founders’ who have signed up to contribute to the co-design of the ideal banking experience. Demonstrating its popularity, it also raised £2.3 million through a crowdfunding campaign that reached £850,000 within 10 seconds of its launch.
3. London is a key player, but keep an eye on Asia

There are many FinTech centres around the world but global progress is disjointed – some jurisdictions are powering ahead, while others are emerging and gathering pace. According to accountancy firm EY, the four core attributes required for a FinTech ecosystem to thrive are: pools of high-quality talent; availability of a mix of financial resources; the right type of policy support; and enough end user demand (EY 2016).

Currently, the US dominates the landscape, thanks to California – the home of the global technology sector – and New York. China and India have begun to draw in more investment, $4.2bn in 2015, to challenge North America’s dominance. Singapore has also become a major FinTech hub in Asia-Pacific as both a regional base for global FinTech firms and for national start-ups. In May 2016, the Monetary Authority of Singapore (MAS) and the FCA signed a cooperation agreement, referred to as a ‘FinTech bridge’. This agreement sets out how the two authorities can share knowledge about engagement with certain types of company and co-design innovative approaches that help nurture, develop and internationalise FinTech businesses.

Yet despite the near-term uncertainty cast over the city by the UK’s recent referendum on EU membership, it is London’s continued status as a global financial centre and growing relevance as a tech entrepreneurship hub, combined with the country’s disposition towards adopting new technology, that has seen London cement its position as a leading centre for FinTech.

In 2015, UK-based companies raised $962m (KPMG 2016). Eileen Burbidge, partner at Passion Capital, a VC firm and HM Treasury’s special envoy for FinTech, noted of London: ‘The city has become such a tech powerhouse because it excels over other tech hubs around the world. London combines the technology and digital innovation of Silicon Valley with the Wall Street financing heritage of New York and the policymaking of Washington DC – all in one phenomenal city’.

Elsewhere, countries such as the Netherlands, Sweden, Germany and Israel have become highly developed FinTech hubs. eToro, for example, a global ‘social trading’ network, has established divisions in multiple territories, including Russia and China.

Figure 3.1: FinTech VC investment 2015 (US$)
BREXIT: THE IMPACT ON FINTECH IN THE UK

Britain’s referendum decision to leave the EU has sparked many forecasts about the impact on FinTech. Will Berlin or Amsterdam become a more attractive home for European FinTech start-ups thanks to their single market access, which a post-leave UK may end up renouncing? Or, will the UK and London keep powering on, unperturbed by the uncertainty and maybe even buoyed by a newfound internationalism?

The truth is likely to sit somewhere between the two extremes of doom and bloom. What is currently certain is that it is too early to tell. As the final outcome of the UK’s split from Europe is as yet unknown, and unlikely to become definitive for at least 24 months after formal separation proceedings have begun, so too are possible consequences.

Two areas for concern are recruitment and regulatory integration. While recruitment may become an issue, with FinTech facing similar issues to other sectors accustomed to hiring from the EU, the actual final detail of working arrangements are not yet known. At present, FinTech is estimated to employ 66,000 people in the UK with approximately one-third coming from Europe. London benefits from the UK’s flexible employment arrangements and its position as an unrivalled global destination in which to work and play, but it is also afflicted by exorbitant living costs. Although the final Brexit outcome is some way off, it would be remiss of companies to fail to plan for the future. Among its members surveyed by UK FinTech trade body, Innovate Finance, 47% strongly agreed or agreed that in light of the referendum result they were considering relocating jobs and expanding their teams primarily outside the UK (Innovate Finance 2016).

Secondly, there is the regulatory angle. The possible loss of passporting rights for UK FinTech firms – permission for those with banking licences to operate across EU borders – is a concern for those operating in multiple European territories. Furthermore, increased regulatory burden from a lack of harmonisation in certain areas, including data legislation and payment services, could dampen growth prospects, add costs and lessen investor appetite.

These potential downsides should be tempered by positive factors unlikely to disappear overnight that have established the UK as a world-leading FinTech centre. For example, the UK’s regulatory environment, under the auspices of the FCA, is conducive to finding innovative and proactive ways of nurturing the sector. On balance, FinTech companies with global ambitions already established in London will probably be undeterred, maintaining London’s attractiveness for the industry long into the future.
In the pre-FinTech era, only a dedicated minority of consumers had the tools at their disposal to understand where their money was invested. This has now changed. Availability of financial information, access via digital platforms to tech-enabled investment approaches and deep reductions in the fee structures traditionally found in the industry are transforming the sector. A number of FinTech companies, including well-known names such as Wealthfront and Betterment, which each hold billions of dollars of assets under management, have emerged, offering low-cost advice for retail investors. These companies use algorithms to create diversified portfolios for investors that take into consideration their degree of risk appetite and automatically rebalance portfolios to maintain the level of risk within defined parameters.

Cost is a major selling point as the services dramatically undercut human financial advisers. For example, at British investment platform Nutmeg, fees are below 1%, investments can be withdrawn at any time without incurring large charges and all information about performance and fees is easily accessible.

FinTech is also shifting bargaining power towards consumers, who now have reduced reliance on intermediaries for information. Alongside a lower cost, direct access to information allows customers to get what they need, when they need it – changing behaviours and opening up new business models. For example, eToro, all trades and portfolios are open and visible, allowing traders to mimic the top performers.

"Traditionally, you would change your fund manager once every two or three years. With eToro, people change who they copy maybe two or three times a month. When you copy an investor with a great record there are zero fees. No “2 and 20” brokerage."

Yoni Assia, Founder, eToro
Blockchain is the underlying distributed ledger technology that underpins Bitcoin – a peer-to-peer currency generated, or ‘mined’, by computers solving mathematical puzzles. It is the distributed ledger of blockchain that, according to some, has the potential to alter the world of finance radically.

‘A CHAIN OF BLOCKS’

The distributed ledger is a database of assets or transactions that is shared with a network so that all parties have their own identical copy of the ledger. When a change is made to the ledger, every copy of the ledger across the network is updated almost simultaneously.

In the case of blockchain, each transaction, or database entry, is recorded as a ‘block’ of data, and each new block has an encrypted copy of the previous block within it, so connecting the two together. Blocks are then linked together using cryptographic signatures, creating a ‘chain’ of activity or transactions that are time-stamped, distributed according to their nature and tamper-proof.

In short, blockchain creates an incorruptible ledger of blocks of information, and the information it stores can be potentially anything, from the ownership of works of art, to copyright information and financial transactions. Distributed ledgers can be public or private. Bitcoin was based on a public model, so anyone could own a copy of the ledger and update it (Rae 2016).

Blockchain could become the digital infrastructure for everything from processing payments and trading shares to verification and even land title registration. Some areas of finance appear ripe for blockchain disruption, such as back-office processes. A recent study by Autonomous Research estimates that within five years blockchain could allow for $16bn of cost savings by simplifying back-office and settlement processes (Autonomous Research LLP 2016).

A modification of the original blockchain technology – private, or permissioned, distributed ledgers – goes some way to explaining the flurry of recent innovation activity in FinTech. Whereas a public distributed ledger, as developed for bitcoin, is visible to everyone and does not have barriers to participation, private ledgers can be used by a closed group of participants to monitor and record transactions among themselves.
6. ‘Old’ banks are striking back

Do FinTech challengers pose a threat to the high street banks? Their backers clearly believe a niche exists. For some commentators, the reliability of the incumbent banks is underrated. The banks themselves recognise the challenge and believe they can face it, with a mix of adaptation, acquisition and, increasingly, collaboration.

Bank-supported corporate venture capital (CVC) has become one of the tools used to support this type of innovation and collaboration. CVC is direct investment in start-ups that provides sponsor institutions with a stake in innovative ideas that could, if successful, produce products and services back to parts of their businesses.

A host of institutions, including Citibank, UBS, Barclays and DBS Bank, are using a range of different techniques to engage with FinTech start-ups. Innovation labs, challenge prizes, venture funds, accelerators and workspace hubs have been launched around the world in an attempt to attract and nurture future talent and tap into potential ‘big ideas’. Whatever the reaction, among all market participants there is growing acceptance of the need for partnership, connecting the disruptive innovation of FinTech with the benefits that come from incumbents’ scale and reach.

Can banks adapt fast enough? Opinions vary along a spectrum, from the more conservative – who believe banks will remain central – to the doom-mongers who believe the end is nigh. Some are confident that banks will be able to evolve and have the incentives and resources to do so.

The process of change will be expensive. It has been estimated that IT spending by financial services companies will reach £480bn globally in 2016, with more than half of the total spending coming from the banking sector (IDC 2016). One would be hard pressed to find a large financial institution that does not have a billion-dollar tech infrastructure investment plan in place. Deutsche Bank, for example, has committed to a 10-year, multi-billion-dollar IT programme with Hewlett Packard to re-engineer its wholesale banking arm. Arguably, all this spending is not necessarily well directed and the sceptics are not impressed.

‘It’s about collaboration, learning, and spreading an entrepreneurial culture in the bank as well as making a financial return. Banks can benefit through collaboration. We can bring our huge scale to start-ups. Winning user adoption is a huge challenge for start-ups’.
Richard Brown, Partner, Santander InnoVentures

‘We’re in the cycle where the Empire Strikes Back, where the Goliaths embrace the Davids’.
Julie Meyer, Chief Executive, Ariadne Capital

‘I recently saw a job advertisement for a Swiss bank looking for a Fortran programmer. It’s [a programming language] that’s not even taught at universities anymore’.
Dr Dominik Steinkuehler, Co-founder and Managing Director, Lendico
Some FinTech companies are finding themselves caught up in legal wrangles. New banks are facing delays in obtaining licences. Prohibitive peer-to-peer lending rules in certain countries have dampened the sector’s prospects. For example, in the US, the 2012 Jumpstart Our Business Startup (JOBS) Act, set out to modify securities legislation and in so doing allow for equity-based crowdfunding to begin to achieve its potential. The long-awaited Title III of the Act, passed in 2016, which aims to open up equity crowdfunding more broadly to retail investors, has been deemed by some to fall far short of expectations (Barnett 2016).

Since October 2014, the UK’s FCA has been running its own innovation hub, Project Innovate, to help entrepreneurs navigate these rules. In May 2016, the FCA began operation of its regulatory ‘sandbox’, which is referred to as ‘a limited safe space’ where firms can experiment with new products and services without the fear of losses attached to an untested commercial launch that could end in failure. This is an approach that is also being applied by MAS in Singapore.

The burgeoning RegTech sector is radically altering the way in which regulatory requirements are fulfilled. Increasing automation alongside better interpretation of, and compliance with, a growing number of regulatory requirements will reduce costs and simplify an area of burgeoning complexity. Improved ability to interpret large amounts of data is essential for effective risk management, and RegTech providers, much like their FinTech peers, can provide lower-cost, intelligent solutions fit for a data-driven and digital operating environment.

‘Expanding has not been easy because regulations are different in each market. We had to devise a different regulatory solution in each market. In South Africa and the Netherlands we applied for credit licences. In others, like Germany, you need a full banking licence’.

Dr Dominik Steinkuehler, Founder and Managing Director, Lendico
Professional accountants are adapting to FinTech. For example, bookkeeping has been completely automated and cloud accounting platforms are now universal. New Zealand-based Xero provides a cloud-accounting and reporting platform, while Receipt Bank, from the UK, enables invoices and receipts to be processed via smartphone photos and email.

The plethora of rules facing FinTech companies also present an opportunity for finance professionals. For example, Kingston Smith, an accountancy practice, has a dedicated team of FinTech accountants to help with the specificities of compliance, audit and tax. The firm’s roster is complemented with advisers to assist companies in developing processes and structures suited to the rigours of the sector.

EMERGING RISKS AND THE STEADY HAND

A number of recent high-profile shocks have shown up the risks that exist in this space. Powa technologies, for example, an e-commerce firm once valued at $2.7bn, ended up in administration in February 2016. The resignation of the CEO of P2P lending firm Lending Club, which managed $1.15bn-worth of funds as of December 2015, over alleged internal mismanagement of loans, has further highlighted the importance of good ethical conduct and sound financial management practices.

There are also related issues that need to be understood better, such as the extent to which the technology platform plays the role of a pure intermediary, or whether the firm operating it bears any responsibility.

‘FinTech frees us to work on better things. Accountants are now in the data analytics sphere. We are in software procurement. We can help clients with cash flow, with funding. We can work with clients so they sell more, and structure their business in the best way. We are now free to become consultants and FDs [finance directors].’

Bivek Sharma, Head of Small Business Accounting, KPMG
for the quality of loans that are passing through it (or indeed has any other type of connection with these). These issues link to how the regulatory framework for some of these products will evolve and form an area where professional accountants can contribute relevant perspectives.

Equally, as FinTech firms become more mature – for example, exploring the possibility of taking steps towards a banking licence – the professional accountant can be their first port of call for explaining the relevant regulatory dimensions.

**DIGITAL CAPABILITIES ENHANCING PROFESSIONAL ACCOUNTANTS**

FinTech is one of the major drivers of a wider digitisation shift that is accelerating the rate of change within the profession. This shift is enhancing the value that the profession can create, particularly for start-ups and SMEs. For example, online, real-time trading combined with outsourcing of stock holding and logistics mean that sale, payment and provisioning can take place at the same time, greatly simplifying the administration of sales and purchase accounting processes.

Traditional valuation techniques are less applicable to the technology and FinTech sectors, where the five, largely intangible, elements of brand, intellectual property, data assets, client numbers and recurring income form the basis for valuations, particularly where initial public offerings (IPOs) and mergers and acquisitions (M&A) activity is concerned. Professional accountants can create value in this fast-moving sector, not just through supporting effective fundraising and management of capital to enable growth, but also by playing an essential role when compiling these types of valuation.

The sound analysis that professional accountants provide will prove essential to FinTech as it becomes evermore embedded in the fabric of the economy and society. This enhanced remit, accelerated by the coming together of the financial and technological worlds, must be embraced.

‘Accounting responsibilities are also growing to include new data-driven areas such as carbon accounting and cryptocurrencies and associated growing volumes of data have increased reporting and regulatory requirements’.

_Steve Bailey, Founder, Carbon Architecture_

‘The way that you get to the future is to do what every entrepreneur does. They take out a clean sheet of paper and they ask themselves some fundamental questions. How should this industry work? And what do I know for a fact to be the future of my business? Once you start trying to build the future from the future, then you start doing it differently’.

_Julie Meyer, Managing Partner, Ariadne Capital_
References


