**NewStatesman** 



### **FINTECH: THE DISRUPTION OF MONEY**

Stephen Barclay MP / Gerard Grech / Barry Sheerman MP



















### **NewStatesman**

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# Banking on innovation

ome industries are more obviously ripe for disruption than others. From the moment computers became smaller than newspapers, it was obvious that the centuries-old technology of news delivered on a printed sheet would be dramatically changed. More recently, the vast investments that have been made in Uber and Tesla show how easy it is for people – and particularly investors – to imagine alternatives to driving themselves everywhere, in vehicles that are still powered by fire.

The banking and financial services industries have been more resistant to disruption. One explanation for this is that the incumbent banks are so huge that they do not need to change much, but it is also true that financial institutions have invested heavily in technology for a very long time. Thomas Edison invented not only the telephone but the stock ticker; banks introduced remote services in the early 1980s, more than a decade before widespread adoption of the internet. Automated trading arrived a few years later, and algorithmic trading has been around for more than a decade. In 2012, a secretive group of investors was found to have spent hundreds of millions of dollars on a system that sent trading information between the financial markets of New York and Chicago a few thousandths of a second more quickly than previously. The systems in place were already very, very fast – trading data made the more than 800-mile trip in 7 milliseconds – but the new system covered the distance at approaching the speed of light. For an industry that is already pushing up against the laws of physics, new innovations are far from obvious.

That dramatic, technologically driven change will occur is inevitable, however, and for the same reason that finance has sought new technologies in the past – for those first to them, the rewards are spectacular.

NewStatesman 71-73 Carter Lane London EC4V 5EQ Subscription inquiries: sbrasher@ newstatesman.co.uk 0800 731 8496 Account Director Justin Payne +44 (0)20 3406 6530 Commercial Director Peter Coombs +44 (0)20 3096 2268	Special Projects Editor Will Dunn Special Projects Writers Rohan Banerjee Augusta Riddy Design and Production Erol Suleyman Cover illustration Sam Falconer	The paper in this magazine originates from timber that is sourced from sustainable forests, responsibly managed to strict environmental, social and economic standards. The manufacturing mills have both FSC and PEFC certification and also ISO9001 and ISO14001 accreditation. First published as a supplement to the <i>New Statesman</i> of 08 September 2017. © New Statesman Ltd. All rights reserved. Registered as a newspaper in the UK and US. This supplement and other policy reports can be downloaded from the NS website at: newstatesman.com/page/supplements
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# Ensuring finance keeps pace with innovation





oes the term "fintech" mean anything to you? Chances are in the last month you have bought something using contactless payment or checked your balance on your phone. That's all fintech, and it is already saving millions of people time and money.

We're also pretty good at it. UK consumers use fintech services more than any other developed country. Fintech adds £7bn to the UK economy every year and employs over 60,000 people. Durham-based Atom Bank and Edinburgh's the ID Company are proof that Fintech is thriving outside the M25.

But this is just the tip of the iceberg, which is why we are supporting UK fintech to grow and help make financial services faster, fairer and more competitive for consumers.

While the term "fintech" might be relatively new, financial services have

long been at the forefront of innovation, from the ATM, which had its 50th anniversary in June, through to the digital-only banks that are currently emerging.

New technology can help make costs more transparent and make managing your money so much easier. And it's no secret that financial services providers that embrace these new technologies can use it to improve customer experience.

Some of the fintech companies leading the charge on innovation are well known, such as Nutmeg or Monzo, but many more exist behind the scenes, powering our world-leading financial services sector.

The government wants to see fintech grow further and has made a significant investment in the success of the fintech sector over the last five years. The UK is now recognised as the best place in the



world to start and grow a fintech business. This is backed up by new statistics from the first ever UK fintech Census by EY, showing that between 2014 and 2016 revenues were up by over a fifth among fintech firms.

But this success does not mean that we are resting on our laurels. In April, the government held the first ever International Fintech Conference bringing together investors and 101 UK firms. We want to build on that success

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by hosting another conference next year.

More than that, we will use the findings from the census to ensure we take the right strategic decisions to secure the long-term health of the fintech sector. One of these is around access to capital at different stages of growth, which I know is a concern for some firms. That is why we are currently consulting on a brand new National Investment Fund, specifically designed to help promising innovative firms of all stripes scale-up and take on global opportunities.

The UK is a global leader in fintech and we are paving the way for increased international growth. We are doing this with "fintech bridges", which deliver the support needed by firms when they expand into a new market or want to set up in the UK with its capital and talent opportunities. This includes obtaining regulatory authorisation, support in setting up a new office and making relevant contacts. We will look to build on the bridges we already have with China, South Korea and Singapore.

I am also delighted that Eileen Burbidge has agreed to recommit to championing UK fintech overseas, as our special envoy for fintech, for a further two years.

Encouragingly, a third of UK fintech firms expect their business to list on the stock exchange in the next five years, showing the ambition of the sector and the confidence in Britain's ecosystem to support their growth.

What is really exciting is the potential for fintech to help improve financial inclusion and provide useful and affordable products. Many people are already benefitting from better and more personalised insurance products, cheaper currency exchange and improved lending to small and mediumsized businesses, but there is scope for many more people to do so.

Just look at how fintech is helping financial inclusion in the developing world. M-Pesa is a mobile-only money transfer, financing and microfinancing service that has revolutionised personal finance in East Africa where few people have a landline or a bank account but where mobile-phones are common.

There are further developments closer to home. From January, "open banking" will mean you will be able to pay in new ways and easily access the best deals for you by sharing some of your account information with third-party providers. The UK is leading the world in its willingness to open up such access.

British excellence in fintech means that we have an enviable comparative advantage and there is real excitement in new business models built around revolutionary technologies, such as artificial intelligence, quantum computing and blockchain.

It is clear that government and industry need to continue to work together to sustain our world-leading position. I want the UK to continue to lead the way in using technology to create better financial services for all.

#### GERARD GRECH INVESTING IN FINTECH

# Investing in fintech and shaping Britain's financial future

Gerard Grech, CEO of TechCity UK, explains why we must not lose focus on fintech if Britain is to continue to lead the world

frenzy of recent deals in the global payments industry have crystallised the value of some of the UK's biggest fintech companies.

Worldpay agreed a £7.4bn sale to US credit card processor Vantiv, while Paysafe, another London-listed company, looks likely to be bought by private equity firms Blackstone and CVC Capital Partners for almost £3bn.

Fintech is broad. It ranges from mobile payment apps to cryptocurrencies such as Bitcoin. The sector contributes billions to the UK economy, provides 60,000 jobs, and is a policy priority. Indeed, it is crucial to the future of financial services.

Changing consumer habits and the fast adoption of simplified digital services are driving fintech innovation. Smartphones are increasingly our remote controls for life, managing how we budget, save, pay bills, and shop. How we secure a mortgage and invest has changed with companies such as Trussle or Nutmeg.

Similarly, financial products for businesses are changing fast. Apple Pay, unheard of five years ago, is now commonplace in shops and restaurants. Companies like DueCourse, a Manchester-based fintech business which arranges invoice financing online, Onfido, an identity verification startup, Tide, a banking service for startups and Clearscore, a credit checking company are all growing rapidly, providing new options for SMEs who were previously dependent on their local bank manager.

Fintech, then, has the power to be transformative not only because it is creating new jobs and companies, but because it gives consumers and businesses far more choice in how they interact with financial services.

Brexit is both a challenge and an opportunity for British fintech businesses. Though it's not yet clear how regulatory passporting rights or immigration policies will work in future, I'm confident in how fintech founders will adapt and thrive in the new world.

A well-managed Brexit could sweep away the old way of doing things and strengthen the hand of tech businesses, which usually begin with a mission to fix or improve the old way of working.

For the fintech sector to continue thriving, government and regulators must continue to create a world-leading





### Brexit is a challenge and an opportunity for fintech

regulatory environment. We are lucky that our financial sector's two main regulators, the Bank of England and the Financial Conduct Authority (FCA), are engaging proactively.

The Bank of England's approach is pragmatic and encouraging. It understands the benefits of partnering with startups to drive innovation, having launched its own accelerator centered on central bank technology.

Consumer protection will evolve as fintech pushes further into banking and the businesses that underpin our financial system, such as insurance and credit checking.

The FCA is tasked with making sure that new systems and innovations develop sustainably. One way it is doing this is through the "regulatory sandbox"; this "safe space" allows fintech firms to test, customise and develop products with real-world customers.

Last year, Microsoft singled out the FCA as one of the world's finest regulators and urged the American Treasury to follow its lead. Meanwhile, a global survey of fintech sectors by EY attributed the UK's edge to its proactive regulatory system.

Regulators in other sectors, such as energy and health, should take note. World-leading regulators working with companies that are innovating is one of the smartest ways for the UK to show it remains open for business and understanding of emerging technologies' impact on business models.

It's crucial that banks, regulators and other institutions respond openly to emerging trends and new sources of competition. TechCity UK's Upscale programme recently mentored challenger banks such as Monzo and Pockit, and fresh ideas in fintech are constantly emerging. Indeed, the management of regulation itself is even opening up a new subsector, "regtech". This includes areas scuh as reporting and compliance solutions, risk and identity management and control. Another company recently mentored through our programmes is Sybenetix, a provider of market surveillance and compliance monitoring. It was recently acquired by Nasdaq.

At Tech City UK we have formed, at the request of the Treasury, a Fintech Delivery Panel. This brings together leading fintech founders and experts, alongside global banks and insurers, to drive high impact industry initiatives to encourage competition and innovation.

This month the Fintech Delivery Panel will launch Fintech for All, a nationwide competition that showcases how fintech innovation can change the world for the better through promoting financial inclusion and capability. This was set out in the government's digital strategy and is an exciting contribution to the policy challenge of financial exclusion.

We must ensure that Britain's fintech sector retains its number one position in the world – creating jobs and prosperity and delivering the best financial services to a global consumer base.

The UK's long-standing combination of business openness, smart regulation and forward thinking has already attracted thousands of fintech investors and entrepreneurs. We must ensure our conditions become ever more attractive.

# A new kind of lending for new businesses

Technology can help the UK economy to remove the barriers to entrepreneurship, according to Keith Morgan, CEO of the British Business Bank mall and medium-sized businesses (SMEs) are a fundamental part of the UK economy. They employ two-thirds of the private sector workforce and generate turnover almost equal to that generated by the country's largest businesses. A vibrant, growthorientated small business landscape requires choice and competition. Unfortunately, these are things not always reflected in the finance options taken up by smaller businesses. For a long time, the scale and diversity of our SME community has not been matched by the finance options used by them.

The British Business Bank was established in 2014 to address this concern and make sure that smaller businesses have access to the finance that they need to invest, to grow and to achieve their ambitions. Fortunately, the market is evolving and there is an increasing range and awareness of alternative forms of funding. Alternatives like peer-to-peer (P2P) business lending.

Historically, and often still the case today, small businesses looking for finance would approach their high street bank. If their application for funding was rejected this could, for many, have seemed like the end of the process. This has, no doubt, stymied many businesses from reaching their full potential.

The Bank and I are committed to ensuring a greater range of options for SMEs to enable them to find the right finance for them. P2P has been of interest to us as an innovative financing solution for smaller businesses looking to grow. When we support a small business finance product, or help an alternative provider, smaller businesses benefit from better choices and the greater value that increased competition brings. This is why a stated aim of the Bank is that more than 75 per cent of our finance is delivered through providers outside the "Big Four". In 2016/17 we reached 94 per cent, up from 90 per cent in 2015/16.

We recognised the potential of P2P and in 2013 the Bank took early steps to help stimulate the sector through committing funds to new platforms. Those interventions have yielded real benefits. British Business Bank Investments Ltd, our commercial arm, has partnered with platforms including RateSetter,





MarketInvoice and Funding Circle. More than 14,500 businesses have already benefitted from the lending we channelled through Funding Circle alone, supporting around 40,000 new jobs.

The arrival of P2P companies in the UK over a decade ago was proclaimed by some as the start of a lending revolution. One Bank of England policymaker even suggested that the nascent industry might one day even replace traditional lending. This has, of course, not yet transpired. Although P2P business lending to smaller businesses grew to £1.31bn in 2016 (£3bn cumulatively) a growth of 34 per cent from 2015, it

### Creative tensions can work both ways

remains a relatively small part of the market compared to gross bank lending which reached £59.2bn in 2016.

While traditional lending does not look like it is going anywhere anytime soon, P2P offers so much potential because it is built upon technological change and innovation. Although clearly price is important, our research suggests this is just one of many factors smaller businesses consider. P2P does not always compete on price alone, and offers SMEs these core customer service attributes: speed of access, simplicity of use and flexibility in choosing a financing product that best meets their funding needs. The speed of the approval process is a huge advantage to businesses who do not have the time to wait for lengthy financing and want to focus on the job of running and building their business.

New entrants, like the growing P2P providers, have injected valuable choice and competition into the market. What is more, they are also helping to encourage innovation amongst the traditional incumbents along the way. The advent of P2P platforms has prompted the banks to reconsider their online offering. For example, Royal Bank of Scotland unveiled plans earlier this year to launch a new digital platform -Esme - which will allow SMEs to quickly obtain unsecured loans of up to £150,000 under its NatWest brand, featuring a panel of five P2P and alternative lenders.

The creative tension between new entrants and incumbents works both ways. P2P platforms, recognising the market share enjoyed by traditional lenders, have also adopted and incorporated some of the characteristics of established financial service providers. For instance, they have diversified their product offering - such as Innovative Finance ISAs - brokered new partnerships and some have even opened local branches. This type of healthy competition has helped to drive improvements across the lending market with small businesses and start-ups the prime beneficiaries.

The UK occupies a strong position at

the vanguard of Fintech. London, which has such a prominent financial services sector as well as a vibrant technology hub, is proving itself to be a significant driving force for a sector going from strength to strength. Fintech is an important focus for the Bank as we move to support a more diverse financial market. It is a jewel in the crown and is helping the UK to enhance competition across sectors, fostering innovation that benefits businesses and consumers. This is why we support such a strategically vital sector via our funding to smaller businesses through P2P platforms and other Fintech investments such as Ebury through the Angel Co Fund.

Investment in P2P platforms not only creates choices and helps unlock important finance for smaller but has also earned attractive returns. Over the last three years, Funding Circle figures show that British Business Bank Investments Ltd earned a 6.2 per cent annual net return by lending to small businesses through the platform, totalling  $\pounds$ 5m in cumulative net interest on behalf of the taxpayer.

But while we are convinced of P2P's merits, there is still work to be done on getting that message out even further. P2P still suffers from a low profile relative to other forms of lending. This is even more pronounced at a regional level where our research shows fewer than 40 per cent of firms in the Midlands or the North are aware of P2P, compared with almost 60 per cent in London. This is why we work with the industry to provide clear information of the finance options available to smaller businesses through initiatives such as our Business Finance Guide.

We need to ensure that we continue to raise awareness of P2P lending amongst smaller businesses – together with all forms of alternative finance – as more choice leads to better outcomes for them and the UK economy. If the P2P industry continues to focus on the needs of its customers and uses technology to effectively deliver what they value the most (speed and simplicity), it will remain relevant for years to come.

# Generation Y is right to ask questions

The mass adoption of fintech can only be achieved through more effective, timely marketing, argues James Day, CEO of Maitland-Smith Technologies



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ow that fintech is on the cusp of mass adoption, we ought to ask ourselves: "What factors will be crucial in tipping fintech over the edge?" I want to suggest that an undervalued perspective on this question is that of the marketer. Often when fintech marketing is discussed, those involved in the industry will complain that it's simply very difficult to make banking sound sexy. I disagree. If we consider the seismic changes that marketing methods are undergoing alongside the characteristics of the generation who will drive the widespread adoption of fintech, we get a very different picture.

Research suggests that one demographic will have the most to contribute to bringing fintech into the "early majority" phase of adoption. Millennials – born between 1982 and 2004 – will continue to come to financial maturity over the next 10 years or so. Millennials have very different expectations about when, where and how they ought to be

"It *is* possible to make banking sound sexy"



marketed to, as well as about the types of products and services they want marketed to them. I will herein argue that for fintech to go mainstream sooner rather than later, fintech companies must strive to understand the quirks, characteristics and habits of this peculiar generation.

Some readers may perhaps have balked at the assertion that fintech is still in the early adoption phase. Let me clarify. *The EY Fintech Adoption Index* (2017) states that between 2015 and 2017, fintech moved into the early majority phase as one third of the surveyed population indicated that they regularly used a fintech service. The issue is that taking this statistic at face value overlooks the fact that the word fintech refers to a group of

technologies with related functions, not to a single technology. A closer look at the data shows that although 50 per cent of the population have used transfer and payments services, only 10 per cent have used borrowing services and financial planning services, 20 per cent have used savings and investment services and 24 per cent have used insurance services. In addition, the percentage of people who regularly use fintech companies as their primary service provider is much lower. There is then the issue of just how "fintechy" the products and services people are using are. Few are "fintech all the way down", while most place a digital veneer over pre-existing financial architecture.

According to Geoffrey Moore,

technological adoption and diffusion is not a linear phenomenon. Moore argues that the depth and extent of the adoption of any given technology is largely determined by psychographic differences between social groups. This places ruptures, or in Moore's terminology, chasms along the smooth cloche of the technological adoption bell curve. A technology, or a set of technologies, will often experience high adoption rates before sales suddenly hit a ceiling. Moore explains that, at this point, the technology has saturated the early adopters group. Early adopters tend to be independent thinkers who are keen on technological disruption for its own sake and who are drawn to technology in and of itself, irrespective of any pre-existing technological infrastructure. These are the people who bought the Listen Up MP3 player before a sophisticated music library software existed, or who signed up to dodgeball.com before Facebook and the iPhone. For a technology to become truly successful, the early majority must be safe in the knowledge that the surrounding architecture exists and works. The early majority are a more pragmatic group who seek out market leaders that provide quality products that fit effortlessly into a pre-existing infrastructure.

I depart from Moore in that the most effective tack for fintech companies now is not to hone in on market niches, solidify their place, then expand. The key is rather to market differently. There are two reasons for this. Firstly, millennials bear unique characteristics compared to past generations. Secondly, the prevailing technological infrastructure has altered the nature of marketing dramatically. Effective targeting of millennials will push fintech sectors across Moore's chasm and into the virtuous cycle of widespread adoption.

Much has been written about my generation – much of it negative, much of it true. Although no group is perfectly homogeneous, there are four important characteristics of millennials that fintech companies ought to bear in mind as they move forwards. Firstly, +-

+ millennials value experiences. They are spending less of their money on commodities and more on traveling and going out. Secondly, they are distrusting of traditions and incumbent institutions. This is hardly surprising given that so many millennials were told by their Baby Boomer parents that they could achieve anything if they worked for it, before a financial crash (owing much to the culturally ingrained selfishness and greed of incumbent institutions from which their parents benefited) dramatically undermined those expectations. Thirdly, millennials value authenticity. The word has been in danger of becoming hackneyed jargon recently, but it does point to an undeniable fact – namely, that young people have become highly accustomed to the manipulative tactics of traditional marketing. Millennials are probably wiser than they are given credit for, so marketing to us in a clumsy and transparent manner can prove to be counterproductive.

Finally, millennials are deeply networked, spending more time on social media than any other generation and identifying more with the social networks in which they reside. At the same time, all of us – and millennials in particular – are living our lives in an ever-expanding milieu of media and content types. In one day, we might interact with a smartphone, a desktop computer, a tablet, print, out of home advertising, TV and even smart watches. Soon these will be joined by virtual, augmented and mixed reality

### "Millennials are distrusting of traditional institutions"

technologies. Within many of these medias are multiple communication channels: social media, ads, direct messaging, articles, blogs and so on. As a result, the information ecosystem we inhabit is becoming increasingly rich and we are moving across multiple channels in an increasingly frictionless manner.

These four characteristics necessitate forms of marketing that enhance user experience, foster trust through authenticity and work on a crosschannel basis. One thing that flows from this picture is the importance of choice in today's approaches to marketing. Millennials expect freedom of movement through the digital world and control over the content they consume. They don't want to be pestered by ads, urging them to make a purchase, reducing the quality of their online experiences and fostering irritation and distrust. This has led to the rise of content marketing, where marketing materials begin to look more like pieces of education or entertainment, offering value to consumers in and of themselves. Content marketing can include instructive articles, entertaining videos or user-generated content campaigns, all of which are designed to tell a brand's story, communicate its values and build relationships with customers.

Does this mean the death of the traditional ad then? The short answer is no. As Mark Adams, senior vicepresident and head of innovation at Vice Media notes, traditional adverts still have an important explanatory role to play. Adams envisions a world where people are drawn towards a brand through engaging content that reflects their values, before autonomously seeking out an explanation of the product or service that that brand provides. Social media guru Gary Vaynerchuck elaborates on this in his bestselling book Jab, Jab, Right Hook. Vaynerchuck maintains that marketers should only be asking customers to spend money (right hook) once they have offered customers value, free of

charge, numerous times (jab, jab). Here, traditional ads have the function of an enquiry. What unites the ad as explanation and as enquiry is – that word again – authenticity. According to this line of thought, an ad should be purely descriptive or should be very open about its intentions.

Back when there were fewer communications media, brands would lump explanation and storytelling into the same piece of content. Often this would involve preying on the insecurities of the customer and then explaining a product and positioning it as the solution to those insecurities. A result of our mixed media world is that providing valuable brand experiences and explaining a product or service no longer needs to take place through the same channels, as they did in the age of television and print advertising. Consumers now know that the explanatory information is there if they want it. The role of content marketing and of ads that enquire is to generate that want, at which point consumers can put the value and use propositions together in their heads.

It is at this point that the "finmark" opportunity arises. Explaining a fintech product or service might not be sexy, but it doesn't necessarily need to be. There is enormous enthusiasm in the fintech community for the future that fintech promises: tailored user experiences, honest rates, transparency and democratisation across a number of verticals. The state of one's finances significantly determines one's ability to share one's values, to experience new things and to achieve one's goals. Banking is sexy. The challenge for fintech is to find ways of telling these stories and communicating the values behind their products with engaging content and an authentic voice. Fintech must get millenials excited about the opportunities it offers them and society as a whole. Rise to this challenge and fintech will cross the chasm, make no mistake.

For more information, contact: james@maitland-smith.co.uk

### Why cyber security is a boardroom issue

The full benefits of fintech can't be felt without smart regulation and better training for firms' staff, according to Andrew Taylor, CEO of BeCyberSure

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Fintech brings with it the promise of "better, faster, cheaper", but this is only true if we can nail down the cultural issues which underpin how we use it. We must protect the data that it crunches.

The imperative to drive down costs in pursuit of better margins consumes hours of executive time. Consequently, fintech is probably always a "top five" item at virtually every board meeting. A fintech arms race has evolved. At the other end of the spectrum, increased regulation conspires to cancel out the savings such technology brings. Compliance, we all know, is expensive. Gaining an edge within ever tighter regulatory boundaries is hard and these pressures are only going to increase.

The global regulatory environment is experiencing a tsunami of change. Discretion is, seemingly, being outlawed. In its place, are far-reaching compliance regimes which stick their fingers into anything and everything we do. Often these laws are cross-border affairs – and regulators are keen to make their mark. You name it and a regulator is looking at it: data protection, cyber security, trade and transaction reporting, post-trade obligations, record keeping, training, staff awareness and more are being drawn into sharp focus.

Punishment for transgressors of compliance regimes range from eye-watering fines to criminal sanctions and even incarceration for some offences. More importantly, when it comes to "fault", regulators are making clear that boards and "C-Suites" are in their sights. Regulators will assume that problems within will have their genesis in the board room. It doesn't matter what variety of compliance we are talking about, in this regard there is plenty of empirical evidence that they are absolutely right – because the great majority of compliance failures are the result of failures of governance, not technology. Regulators will merely keep asking who made that decision and why?

In this environment, fintech can be both a problem and a solution. Along with the potential to scale up and deliver better, faster and cheaper services, it also introduces risks. Vendors will continue to make grand promises but hidden somewhere in their terms and conditions will be that line that says that it's all your fault. Between the vendor and whatever funky software or hardware you have, there are always people. People have an amazing propensity to do the unexpected. Without good governance, that propensity could present itself at the worst possible time.

So here we all are. Loading up with ever more tech but, too frequently, failing to ensure that the culture which supports it all – our policies, procedure and governance – is fit for purpose. Too many decision-makers fail to acknowledge that without good management, people will undermine technical defences in a heartbeat, often through non-technical means. I have lost count of the times that an executive has told me that their company had compliance nailed down. "The IT department is on top of things," they will say. Yet much of our operational risk emanates from organisational vulnerabilities: budgets, policy, training, physical documentation and so on.

We continue to be lulled into unsafe areas by vendor promises and a belief that we have controls in place to ensure that technology is protected by 360 degrees of security. Instead, security specialisations become silos and our management is what fails us. Criminals do not hack computers, they hack the failures of the people who use them. **For more information, please visit:** www.becybersure.com

# "Technology has taken the whip-round to a new level"



Barry Sheerman MP,

founder of the APPG for crowdfunding and non-banking finance, tells Rohan Banerjee that alternanative finance can be the catalyst for more entrepreneurship George Osborne is "not a great smiler" according to Barry Sheerman, but afforded him his best attempt across the House of Commons following the budget in March 2016. The former chancellor shot Sheerman a "strange grin" on announcing a favourable rate relief for fintech start-ups. "There's plenty we disagree on," admits Sheerman, who is the founder of the all-party parliamentary group for crowdfunding and non-banking finance, "but George has long recognised the potential of fintech and noted the step change that is happening."

Osborne's final budget raised the annual threshold for 100 per cent relief on business rates from 50 to 100 per cent, a reform which became effective in April this year. This means that around 6,000 small businesses will pay no tax and 250,000 have had their taxes cut. The Seed Enterprise Investment Scheme (SEIS), introduced by Osborne in 2011, was also increased. SEIS is designed to help early-stage companies raise equity finance by offering tax breaks to individual investors who purchase new shares in them. Sheerman claims that the decision to raise SEIS came off the back of several conversations between the ex-chancellor, himself and two fintech-related APPGs. He says: "George knew of my interests and in particular the work I'd been doing on crowdfunding. He knew I wanted the allowance doubled for social enterprise fintech start-ups, but he actually went beyond that and matched the allowance of the private sector."

Osborne's successor, Philip Hammond, has been similarly keen to safeguard the United Kingdom's booming fintech scene, particularly in light of Brexit. Sheerman is unsurprised, but insists that the fintech industry will flourish "despite Brexit, not because of it." He explains: "The fintech surge is massive and it's not surprising that government has tried to keep it going. It has given rise to a new culture of entrepreneurship and investment, but Brexit has made things complicated. A lot of the regulations surrounding fintech – GDPR or PSD2 for example - have been derived from the European Union. If our Brexit terms don't match up with those, we could be a less attractive prospect for any partners in





"Competition can only serve to benefit consumers" Europe or beyond. Ultimately, however, I'd expect the fintech demand to keep rising and that'll probably subsume it. The reality of globalisation, independent of Brexit, is that people will want borderless, boundless financial services. Fintech can help deliver that."

Sheerman, who describes himself as a "committed and passionate social entrepreneur", thinks that crowdfunding, whether to facilitate charity, ownership or starting a business, should be considered the biggest feather in fintech's cap. "The real key sell for crowdfunding projects," he says, "is in their accessibility. They can help anyone and everyone to achieve an ambition whether it is largescale or just localised. IIt could be funding a local library or repairing a church roof, or it could be laying the foundations for the next multinational company. Technology has taken the whip-round to a new level."

Sheerman suggests that the legacy of the 2008 global financial crisis is still being felt by start-ups, but feels that fintech can play a huge part in solving that issue. "Banks don't want to give out loans as readily as perhaps they once did. A lot of entrepreneurs are hampered by having to present a business plan alongside their ideas from the onset. It's hard to come up with a long-term strategy when the idea might still be in its infancy. Crowdfunding doesn't have those barriers and you can set your targets as you go along." In turn, the veteran parliamentarian suggests that fintech might actually help to upskill the SME sector. "Fintech is about empowering individuals and communities who want to do good. It's a good way to help them learn how to raise and manage money. It's social enterprising and campaigning."

In prescribing how the UK should go about nurturing its fintech scene further, Sheerman recommends "light regulation". The UK's principal financial regulator, the Financial Conduct Authority (FCA), was given a statutory objective of promoting competition in 2013, and government policy since has been themed by innovation and cutting red tape. Compared to the United States, which Sheerman says is "perhaps overregulated" thanks to its size – different laws in different states complicate matters – the UK has a much more streamlined approach. The Office of the Comptroller of the Currency (OCC), an office within the US Treasury, however, published a white paper in December calling for a special purpose national bank charter for fintech companies, which means they would be subject to federal banking rules. This is effectively a license that needs to be applied for.

While the need for responsible business practices is essential, Sheerman acknowledges, it is also important that fintech companies are not blocked from the market needlessly. "The fintech APPGs have worked closely with the FCA to help it to build into its governance, a mandate to promote innovation and more importantly, competition." Why is competition important? "Competition can only serve to benefit consumers. There has been a desire, since 2008, to break up the old monopolies and offer alternative finance. Innovation should be allowed to be disruptive and it's good to see that the UK is willing to reflect that through policy."

Fintech in the UK has been valued at around £7 billion by Deloitte, so it's no great shock to see the industry feature prominently in all major political parties' economic strategies. Is this a rare point of cross-party consensus? "I suspect the only difference in terms of an approach between a Conservative or Labour government at least, would be around protection laws. From a Labour perspective, we'd like to see people protected from even losing small amounts of money through crowdfunding or enterprising. I do think that Labour should try to embrace fintech more. As I understand it, Jeremy Corbyn is keen to get back to grassroots, and putting the power into the crowd. After all, responding to the challenges of the industrial revolution is what spawned co-operative, mutual, building societies and so much more. Crowdfunding and other forms of accessible finance give people the chance to take control."

The conservative insurance industry is set to be hit by a wave of technological disruption. Can tech restore consumer trust? Augusta Riddy finds out

# Insurtech: underwriting a revolution

anvir Saggu, CEO of Blocksure, is explaining the "four phases" of disruption. "We're in the discovery phase at the moment. People are just trying to figure out how to use this tech and what it's capable of." Blocksure is an insurance operating system using blockchain technology, and the disruption being discussed is "insurtech": the application of cuttingedge technology to the highly regulated insurance industry. The sheer size of the UK insurance industry means that disruption will have a substantial effect: it is the fourth largest in the world and contributed £35 billion to the UK economy in 2013; members of the Association of British Insurers handle £1.6 trillion of invested assets.

London has always been at the very centre of insurance. Lloyd's of London is seen as the historical home of modern insurance and dates back to 1686. Even within the industry, it is not controversial to say that insurers are resented by their customers. "The insurance industry isn't great at customer service" Saggu admits, "I've been in it for over 25 years and there have been many occasions where I have disagreed with how customers are treated." A PwC survey conducted in 2014 found that less than a third of people trust insurance providers.

Saggu and other insurtech disruptors are hopeful that technology will benefit the consumer in two key ways: value and experience. The increasing use of data allows insurers to create policies that are tailored to individuals, and should bring down the cost for most people. The growth of artificial intelligence, the internet of things, and big data analysis allows for policies to be much more specific, rather than customers being lumped into risk groups by brokers, which Saggu points out means "you're subsidising other people." It opens up huge opportunities for micro policies and short-term claims, and will allow insurance to adapt to an increasingly complex consumer environment.

Secondly, as in the emerging field of data-driven "open banking", the unlocking of digital tools to enable price comparison and centralised online consumer platforms is expected to drastically improve the customer experience.

So far, insurtech start-ups have struggled to do more than improve customer experience, due to the capital required to underwrite even the smallest claims, and the scale of regulation within the industry. Blocksure, a "full-cycle insurance sales, administration and claims platform" is "making insurance mobile-phone capable from a buying and claims perspective", Saggu explains.





### "You need £15m-plus before you can sell a policy"

"What we're doing is enabling insurance brokers to change the insurance industry from the inside" by creating "a single identity" for customers that they can share with multiple insurers, without having to re-input information. "The customer will provide a digital key to access their data. This provides permission to access their data so no data entry is required to buy insurance, and the insurer will get the data."

Rob Moffat is a partner at Balderton Capital focusing on fintech and insurance. He recognises the struggles that disruptors can face. "Going the route of being an insurer yourself is going to be hard. That is going to be £15m-plus, before you can sell one policy. Or you need to partner up with someone else to provide the capital and the insurance licence, and that can really slow you down." There is internal resistance to disruption, particularly from middle men, "a lot of the insurance tech is perceived as threatening the brokers, so that's a real challenge."

Dylan Bourguignon is the CEO of So-sure, a mobile phone insurance company that claims to be "restoring trust of consumers in insurance". His opinion of brokers, and the entire value chain structure, is not high. "You've got members making decent margins and their customers, are not getting the 'peace of mind' they purchased". The company offers "social insurance" in that its customers can invite their friends to join. "If you and your friend don't claim," explains Bourguignon, "you can get up to 80% money back, every year." It is unclear if this grouping strategy reduces the likelihood of claims, but the process is simple and efficient to attract customers. "When you buy our policy, it is a slick, painless, 21st-century digital experience and we are clear up front on what is covered or not."

Like many startups, So-sure is struggling to provide the whole insurance package. "We are an insurance company that doesn't take balancesheet risk. We're working with amazing partners who are providing us [with this] and we do everything else." Bourguignon is not fazed, however, by the regulatory aspect of the industry, and views it as necessary to protect customers, "I feel our objectives and that of the regulator are aligned." He is on a mission to correct what he perceives to be a fundamentally unfair process, "the issue we are addressing is a global problem, it's not just a UK one, and so our ambition is to solve that problem for the consumers globally."

Existing insurance giants are scrambling to react to this technological wake-up call. At the Aviva Digital Garage, an internal tech revolution is taking place. Having acquired staff from the likes of NASA, Activision and Facebook, the insurance giant is investing heavily in staying ahead. Andrew Brem, chief digital officer, sums up their mission in one word: "Engagement. Our industry suffers poor engagement with customers ... digital allows us to have a



direct relationship."

The Digital Garage certainly doesn't look like the offices of an insurance company. For a start, it's in Hackney. Coworkers packed together onto wooden islands in an open-plan office decorate the walls with their ideas, share meals in the Google-esque canteen, and attend impromptu performances and talks in 'the agora', a small theatre space within the complex. Amid rough diagrams predicting artificial intelligence trends in 15 years' time are vintage posters depicting the company's Norwich roots,

### "Our industry suffers from poor customer engagement"

found in their headquarters.

Aviva Vault is a recent example of a Digital Garage invention. "It can scan your emails to look for receipts, or you can just take a picture of something that you recently bought. It checks whether you're covered under your current policy, and if you're not, to allow you to top up or create a new micro policy for it". Aviva has the consumer base and the capital to back up its innovative ideas; can the industry truly be disrupted by start-ups? "It's not an easy industry because actually to underwrite that risk first of all, that's enormous capital. We can't wish that away. I think the winners in insurance are going to be partnerships between innovators and large companies. I do think the industry is ripe for disruption."

What does he hope insurance will look like in ten years' time? "I would expect it to be totally frictionless, so none of these absurd endless questions that we torment you with before you get a quote. We know you already from data you've agreed to share with us; we can provide something that is tailored for you. And then you just have to activate it."

Ranvir Saggu thinks that investors will be back for a second wave – the "adoption" period – which may overcome the major barrier of capital and move insurtech beyond small claims. "Businesses now have models which are rooted in the mobile, but they've really got to crack the mainstream products. The Amazons and the Googles of this world may say 'you know what, we fancy a bit of this." Then will follow the "challenging phase", "and the last one is the 'new world', where we will have an insurance industry that does not bear any resemblance to the current one."

Culturally, Andrew Brem believes that tech pressure can only be positive for the industry, and the customer. "One of the things that our industry is infamous for is to reward new customers and penalise old. The more you choose us, the longer you stay with us, the better we should be making it for you from a value point of view as well as an experience point of view."

## The evolution of artificial intelligence

To understand the potential of AI in insurance, you must first understand its past, writes Mark Broadhurst, vice president and head of insurance EMEA

at Intellect SEEC

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ost of us will not have experienced a ride in a driverless car, but few will have failed to interact with artificial intelligence (AI) on platforms such as Twitter, Google, Facebook or Netflix. In today's advanced technological world, consumers have come to rely on its benefits: customised product and service recommendations and the automation of low-value tasks, transforming the way we interact with a variety of companies.

#### The Imitation Game

Alan Turing is widely considered to be the father of AI. The British mathematician broke Germany's World War II Enigma code and created the Turing test, still used today as a measure of a machine's ability to think like a human. When computers became widely available to the academic community in the 1980s, advancements in neural networks—the series of nodes and connection points that form a machine's brain—were made. Individually each neural has limited value, yet when brought together to form a network they lay the foundations of AI.

With neural networks at its core, machine learning — the process by which a machine learns something by processing large amounts of data to arrive at a decision or specific conclusion — began to unfold. As Bernard Marr identified in *Forbes*, machine learning advanced significantly in the 1990s when scientists began to shift away from a knowledge-driven to a data-driven approach. With this new way of thinking, machines could identify when something was done correctly, or incorrectly and subsequently follow the same logic for all future interactions.

The next decade marked further advancement, culminating in the introduction of deep learning, a term first coined in 2006 by Geoffrey Hinton. Again building on neural networks, deep learning is able to crunch more data and information than possible with machine learning and has the key differentiator of being able to learn from its mistakes. As Marr further discussed, deep learning can be applied to data of any form, including machine signals, audio, video, speech and the written word, allowing the system to synthesise information and arrive at a real-time decision.

#### AI in action

AI has traversed uncharted territory since its inception and will continue to disrupt industries across the global economy, of which insurance is no exception. Underwriting is a prime place to begin, with insurers today having access to more data than ever before. With machine learning, insurers can mine data more efficiently and can identify patterns or red flags that might have gone unnoticed, resulting in more accurate and informed underwriting decisions.

Through deep learning's ability to process large data sets and identify patterns, insurers will be able to spot fraudulent activities and other red flag situations. As a result, deep learning will significantly improve claims processing times (a key customer experience metric), seamlessly identifying those of the lowest risk for straight through processing.

#### The future is unwritten

From Turing and Hinton to Amazon's Alexa, AI has evolved from spreadsheets to machines that are on the cusp of understanding human emotions, and progress shows no signs of slowing. As the industry looks ahead, those that understand the roots of the technology will be the best positioned to reap the benefits in the future.

#### GLOBALISATION INTERNATIONAL TRANSFERS

# Borderless banking: changing how we spend and spend abroad

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Devises disponibles

Ajouter un nouveau

501.14 EUR

Euro

124.02 GBP

Brittish Pounds

7.11 USD

US Dollars

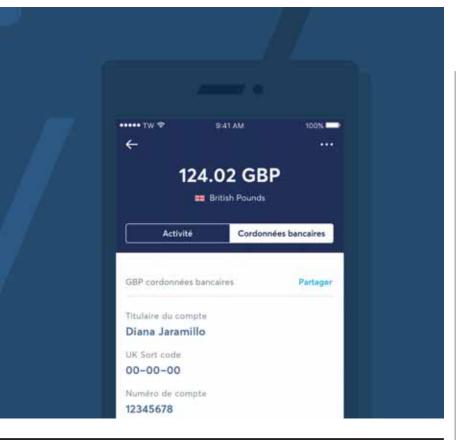
Different countries represent fresh opportunities for businesses and individuals alike. Rohan Banerjee talks to industry experts about how fintech might facilitate a more mobile society

t the Bao Forum earlier this year, the People's Bank of China governor Zhou Xiaochuan said that globalisation is a "reality for all countries and is not a matter of choice", as he urged G20 finance ministers and central bankers to ensure their policies reflected this. Pankaj Ghemawat, professor at NYU Stern and IESE business schools, is not so sure. He argues that the world is "not nearly as globalised as people think" and told the Harvard Business Review: "I've been spending a fair amount of my time compiling simple metrics of globalisation. I ask people, for instance, of all the phone calls in the world, what percentage last year were accounted for by international phone calls? Turns out, the answer is about three per cent. Or I ask people questions about foreign direct investment; what percentage of all the investment going on in the world last year was accounted for by cross-border investment? The answer is less than 10 per cent."

The challenges involved in banking and

doing business across borders, of course, are not exclusive to governments or large international firms. At the most basic consumer level, people can be put off spending or sending money abroad by unfavourable exchange rates, domestic bank mark-ups or the slow processing times caused by legacy technologies.

TransferWise, a fintech venture committed to globalisation, was born out of frustration with the torpor of traditional banks, and their exploitation of customers. In 2011, Taavet Hinrikus, Skype's first employee, and financial consultant Kristo Käärmann were Estonians living in London. Both found the hidden costs of transferring money between their native country and the United Kingdom punitive. Hinrikus worked for Skype in Estonia so was paid in euros; Käärmann worked in London but had a mortgage back home to pay in euros. As most UK banks charged a mark-up on the currencies' exchange rate, which was not advertised, the pair were losing significant sums in a veiled commission.



### Traditional transfers can often incur hidden costs

In 2016, HSBC, formerly advertised as "The World's Local Bank", charged its customers  $\pounds 63.70$  to change  $\pounds 1000$  from sterling into euros. Halifax wasn't much better, with a transfer cost of  $\pounds 42.50$  on the same sum. For Käärmann, this amounted to "an extra tax," on the men's monthly salaries; but out of this problem, they found a solution. He explains:

"Taavet and I came up with a simple scheme. Each month we checked that day's mid-market rate on Reuters to find a fair exchange. I put pounds into Taavet's UK bank account, and he topped up my euro account with euros." As a result, Hinrikus was having his living costs paid in London and Käärmann was having his mortgage paid at home. "We both got what we needed, and neither of us paid anything in hidden bank charges."

TransferWise now serves 61 different countries with exchanges between 41 currencies with its Borderless account, which is accessible both through an app and the company's website. Borderless does charge a "small and transparent fee" on each currency conversion, of between o.5 and 2 per cent depending on the locations involved. The "clever part", Käärmann says, is that Borderless doesn't actually need to see money leave its country of origin to be transferred. "TransferWise has accounts all over the world, linked together by our smart technology. If you want to send pounds to France, simply log on and send pounds to TransferWise's UK account. Then TransferWise's French account sends euros to the recipient. The money never actually leaves the country it started in."

When TransferWise began, Brexit would have represented little more than an elaborate typo. Six years on, the UK's decision to leave the European Union is a curveball which most businesses will have to deal with. Do fintech services such as Borderless represent an opportunity for UK-based companies to remain competitive on the continent? Käärmann says borderless accounts will "make it more convenient for people who make these transfers more often, for example a Swedish furniture maker." He continues: "What they would normally do when they sell in another country is make an invoice to a foreign warehouse or whoever sells their tables and chairs. They would put their Swedish account number on it. They would charge them in Swedish Krona. There is the supplier, or re-seller, getting the invoice with the Swedish account number and invoicing them in Krona. What they would do is go to a bank in the other country and do an international wire. What the Borderless account allows them to do, is to start invoicing in local currency instead."

Philipp Paech, assistant professor of financial law at the London School of Economics, says many attempts at borderless banking will be hampered by the regulatory environment. He explains: "In practical terms, borderless banking can happen for sure, at least when it comes to transferring money for holidays or whatever. But in legal terms, it's impossible. As long as we work on the basis of territory, then rules and regulations are going to be different in different countries."

#### GLOBALISATION INTERNATIONAL TRANSFERS

### "You don't need a physical address anymore"

There is also the question of tax. How can we be sure that UK businesses won't use fintech companies such as TransferWise to circumvent regulation by basing' themselves in countries with more favourable tax rates? Käärmann counters: "That's more of a question for the taxman himself. People are taxed where their business is based physically. As for abusing something, at TransferWise we have 100 people working on preventing tax evasion and anti-money laundering schemes."

Perhaps the most significant bulwark to borderless banking, however, remains undecided. The 'passport' rules between banks – which allow free trade between any firms in an EU or EEA state – will be revised, and most likely removed, post-Brexit. Paech says: "After Brexit, the UK won't have a European passport for financial services, which it does have now. At the moment, UK fintech companies can provide their services across Europe without any additional authorisation from other countries, or if they do need some then it isn't very



much. If a fintech company decides to stay in the UK and the Brexit terms aren't great, then they're going to need a second lot of authorisation from each EU country. That could be a lot more work."

Lucian Morris, the UK head of fintech at Deloitte, suggests that whether banking can really be borderless depends on two things: fintech's ability to actively encourage a step change in traditional bank behaviour and the eventual demise of cash. While bank-bashing might be in vogue, Morris points out that banks still signify the status quo. He remarks: "It's clear that people don't like their banking relationships, but when you look at the rate of current-account switching, it's actually quite low. Various aspects of banks' services might be under threat, but when you've already got that large-scale presence from years of being the incumbent, you've got time on your hands. Fintech still needs to work on getting better mass adoption."

Achieving that, though, Morris feels is definitely possible and he credits people craving convenience as the core reason for his optimism. "We are heading towards a cashless society," he continues, "and that's because people want to be able to pay in real time. Contactless is already a step towards that. As we go cashless, fintech companies are going to be able to offer a market rate plus a small fee. That sort of thing, I expect, is where you'll see the borderless movement of fintech really take off. What do we even mean by borderless? There are two tracts. One means sending or using money wherever you are in the world. The other means being able to have a local account in more than one place. You can create accounts remotely with fintech and you don't need a physical address anymore."

Ultimately, then, it would seem that borderless banking is possible – the technology is becoming increasingly available – but there are barriers to adoption which need to be overcome. Considering the prospect of increased protectionism post-Brexit, the business case appears clear; but it is the growing culture of convenience, as Morris notes, that may be what really turns the tide.

## Getting ready for the new money revolution

Bacs is the pulse of the UK economy and has a responsibility to share its deep knowledge of payments, according to the organisation's chief executive Michael Chambers

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hange is the watchword for 2017, and beyond. The political environment poses many questions for the future, not least as Brexit negotiations begin, and their impact on the financial sector takes shape.

But evolution doesn't stop there. The Second Payment Services Directive, or PSD2, opens up banking in a whole new way – consumers and businesses will soon be able to use third-party providers to manage their finances in a way previously limited to the traditional banking providers. The General Data Protection Regulation (GDPR), effective from May 2018, is the biggest change to data protection laws in two decades. Changes are also coming with structural reform as banks separate retail customers from their investment operations. Common to all of these is enhanced consumer control and security.

We also have increased security challenges with ever more sophisticated cyber crime, which means that keeping our payment systems safe and secure remains a key priority.

While all of these things have a much wider reach than the payments sector, another major development affects our industry specifically. Work to create a consolidated payment systems operator is gaining pace. The CMA gave approval in the summer, and a new limited company has already been created as the first step in bringing together Bacs, Faster Payments, and the new Image Clearing System. A chairman has been appointed – Melanie Johnson – with a CEO to be announced in the near future. The new company will aim to deliver an even better payment experience for all users.

We are fully engaged in this complex process, and have committed to working closely with our peers and stakeholders to ensure that end-users remain the focus of all new developments. Bacs has the ability to move over 100 million payments every day, seamlessly and efficiently. Our products clearly continue to meet need, even after almost 50 years – Direct Debit is still growing, with over four billion payments processed in 2016, more than in any other year. We also play our role as a disruptor – DVLA now offers Direct Debit as a payment option, and Direct Debit is widely used to fund PayPal accounts. We are an integral part of the "new money revolution".

Our world-class Current Account Switch Service has facilitated over four million account switches since launch, and has evolved through research-led insight; it is viewed as an example of best practice with other industries and countries looking at CASS as a model they can adopt to drive effective competition.

Bacs sits at the very heart of the UK payments system – it is the pulse of the economy. As such, it is our responsibility to share with the wider industry our deep knowledge of payments, doing so for the benefit of consumers and businesses. As we become part of a larger whole, we will bring with us our driving ambition to deliver innovation that focuses on the needs and expectations of our end-users, embracing new technologies that give consumers confidence and put them firmly in control.

Bacs Payment Schemes Limited celebrates 50 years of operation in 2018. The company, responsible for Direct Debit and Bacs Direct Credit, has processed more than 120 billion transactions since inception, reaching a new annual high of 6.22 billion payments in 2016 worth £4.8 trillion. Nine out of 10 GB adults have at least one Direct Debit and 73 per cent of household bills are settled this way, plus nearly 90 per cent of the country's workforce is paid by Bacs Direct Credit.

### "Consollifying" the future of a community

By bringing together responsible borrowers and investors, Natasha Weare, senior executive at Consollify, explains how a fintech tool is pumping money and pride back into communities

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onsollify is the brain child of Frank Mukahanana, an investment banking professional-cumfinancial advisor. During his years working as a financial adviser, Mukahanana became frustrated with the limited options open to families and young professionals to achieve their financial goals. It appears people were working hard to stay on top of their finances but no matter what they did, they were left counting the pennies each month. Unsatisfied with the lack of understanding about finances, he created Consollify, a P2P platform using a cutting edge fintech solution to solve a social problem. It brings together responsible borrowers that want low interest rates to refinance their credit cards and investors who want to replace low savings rates with sustainable returns of 4-6 per cent, wrapped up in an ISA.

Recently, the FCA estimated that around 3.3 million people are in persistent debt, with over half (1.8 million) for two consecutive periods of eighteen months. In addition, they have expressed concern for persistent credit card balances, and will be expecting credit card companies to intervene. Consollify have already set up a solution that can easily be adopted to satisfy this reasonable requirement by the FCA.

Borrowers will be provided with a simple switching service that pays off and terminates the old credit cards, giving borrowers cash incentives and a financial education to help them stay the course of eliminating the cards completely. Consollify's ultimate aim is to work with every borrower until they too become a Consollify investor to finance the next generation of borrowers.

With the recent changes in ISA, investors can enjoy the Innovative Finance ISA at 4- 6 per cent return, which is notably higher than returns on a cash ISA and materially less volatile than a Stock & Shares ISA. Investors will range from charities, social investment funds, SMEs and individuals with cash already sitting in low interest accounts who are looking to get a better return on their money.

This Autumn, Consollify will partner with Savvney, a social enterprise that is launching a campaign to change the financial outlook of communities across the UK. Savvney is focused on providing financial education to communities and partnering with local councils, schools, businesses and charities. Savvney will focus on one community at a time, starting with Croydon. The campaign in Croydon has an audacious objective to reduce the total persistent credit card debt in the borough, generating awareness about personal debt and providing financial education. It believes it can change the attitude and financial outlook of a community.

This campaign is expected to involve key influencers in Croydon including the council, the mayor's office, local MPs, and local businesses, including financial service companies. Local councils will benefit from being part of a movement that creates measurable social impact, and local businesses will benefit from additional disposable income created for residents through this campaign.

The second largest London borough, Croydon citizens number over 369,000 and are estimated to have around £1 billion of unsecured personal debt. With 40 in every 10,000 having made a call to the debt charity StepChange, it is clear that for hundreds of Croydon citizens, money worries are at the forefront of their minds.

Both Consollify and their partners at Savvney believe this is bigger than just Croydon, and have set their sights on other boroughs. Next in line outside London are Milton Keynes and Surrey.

# **NTS TECH**

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### How compliance can inspire competition

Daniel Döderlein, CEO of Auka, explains why banks and financial providers can't afford to ignore the opportunities presented by PSD2

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The second Payment Services Directive (PSD2) signals a step change in the way we do finance. As any technology evolves, so too does the regulation required to go with it; but PSD2 is not designed to stifle fintech, rather it seeks to enhance it. It's aimed at improving the experience for consumers, and while that might require a bit of work on the part of providers, some of whom are still slaves to outdated legacy systems, it'll be well worth it.

As fintech propels towards becoming the world's most profitable portmanteau it is important that it does so in way that satisfies demand and values efficiency. The growing culture of quick convenience – we want things done in real-time now – means that financial providers are under pressure to not only deliver that, but to deliver it securely.

At the heart of PSD2 is the mandate for banks to grant third-party providers (TPPs) access to a customer's online account or payment services in a controlled way. PSD2 will allow "merchant" businesses such as Amazon to retrieve account information from the bank, with a user's permission. This development means that when someone buys something, the bank can make the payment directly to Amazon end-to-end, without having to redirect to PayPal for example. On the security front, PSD2 will require much more stringent identity checks when paying for high-value products online.

PSD2 is focused on increasing competition between payment providers. For consumers who hold more than one bank account, the changes brought about by PSD2 will allow new businesses to display all of their account information for them. By way of a jargon-buster, an application programming interface (API) is the thirdparty conduit through which mobile or online payments are made. Think of it as the waiter taking your order at a restaurant. As online services become more commonplace, it's crucial that APIs work across the market, with all financial providers and services.

PSD2 offers opportunities to grow new revenue streams, improve customer capture or retention – because payment providers can compare services against one another – and progress towards an extended ecosystem, one that sets up a more holistic view of finance.

Of course, it is worth addressing the elephant in the room; PSD2 is derived from the European Union. Brexit's impact on the UK's PSD2 compliance, however, is thankfully going to be minimal as the Financial Conduct Authority (FCA) has wisely decided to adhere to the directive irrespective of the UK's eventual deal with the bloc. Financial providers in the UK would do well to get themselves PSD2-ready as soon as possible for two salient reasons: non-compliance will result in hefty fines and a failure to modernise is effectively a white flag being raised to competitors.

I would urge any financial provider not to let some misguided protectionism get in the way of keeping pace with the fintech surge. The first fully licensed financial company to be completely run on the Google Cloud Platform, Auka operates a fully regulated and licensed end-to-end payments infrastructure that connects financial institutions, merchants and consumers. Auka's API hosting service features vendor approval, ensuring that only requests from approved AISP (Account Information Service Provider) and PISPS (Payment Initiation Service Provider), and similarly regulated entities are granted access.

Ultimately, as the online and cashless world develops, only the companies and financial providers equipped to deal with it will thrive.

### Disruption in payments: what's next?

#### Kamran Hedjri,

CEO of Kalixa, explores the biggest trends in payments, and what customers can expect from the next wave of innovation

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The payment space is currently undergoing a fundamental transformation. The industry is on the brink of a radical change caused by new regulation, technologies, currency systems and customer expectations, forcing its players to deliver greater value propositions. What are the key payment trends of tomorrow?

#### **PSD2** and new payment methods

The revised Payment Service Directive introduces new types of payment providers: PISPs, who can initiate a transaction and move money between accounts, for example social media payments between user accounts, and AISPs, who can retrieve information from bank accounts and deliver new customised services, such as a credit comparison service based on one's banking history. This empowers a new breed of innovative payment players and revolutionises the market.

#### Alternative payment options

Consumers increasingly turn to more convenient ways to check out, triggering a rise in alternative payment options. According to the *Global Alternative Payment Methods: Second Half* 2016 report from yStats, the globally combined share of alternative payment methods accounts for a higher share of ecommerce sales than credit cards. However, the speed of adoption depends on the market.

#### Rise of mobile payments

A digital payments report by Visa found the number of Europeans regularly using a mobile device for payments has tripled since 2015. How people buy is changing, causing an explosion of mobile payment solutions and apps.

#### Multi-channel strategies

Traditional payment solutions struggle to fulfil the needs of a rapidly changing ecommerce industry. Customers interact with a retailer, not single channels, so ensuring a consistent payment experience across multiple touch points is vital. There are numerous products supporting a seamless payment experience, including card and alternative payment options, one-click payments, customisable checkout pages and 3D Secure 2.0.

#### Frictionless security

Fraud prevention and payments security in the omni-channel world are also becoming an issue. The consequence is an increased cost of managing risk and keeping chargebacks to a minimum.

#### **Cryptocurrency and blockchain**

The new cryptocurrencies and the underlying blockchain technology have a potential to disrupt the digital landscape. Once important regulatory restrictions have been met, blockchain can remove the middleman and disrupt global money transfers, financial management, smart contracting, online identity management and much more.

#### End-to-end payment services

Harnessing the full potential of payments can help businesses reinvent their digital journey. With its global omnichannel platform Kalixa can help merchants stay ahead of the curve and keep up with the constantly changing world of digital commerce.

The recent acquisition through Senjo Group helps Kalixa strengthen their position and gives the long term commitment to further develop the platform and enter the APAC region.

For more information, please visit: www.kalixa.com

#### UNIVERSITIES A DEGREE IN FINTECH



The University of Strathclyde Business School has launched the UK's first MSc in fintech. Daniel Broby, the course's

convenor, explains its origins and aims

📲 inance has always attracted the rocket scientists, drawn by the promise of wealth and riches. The technological revolution brought with it many breakthroughs in financial theory, allowing market participants to slice and dice, as well as leverage and diversify, financial risk. Now, as the world is migrating towards a distributed internet architecture, a new revolution is upon us. Fintech has blended finance and technology together and is changing the way companies and consumers interact. Not only will the way we conduct transactions change, but so too will the way we educate finance professionals in the future.

Fintech is a much-used buzzword, but essentially it boils down to using programming code to effect efficient transmission of financial assets cheaply and securely over the internet. Financial transactions and history can be stored in an immutable way on distributed ledgers, moving from double-to-triple entry book-keeping. The next generation of accountants and auditors will have to embrace this added level of complexity, and the way they are trained will change.

The core technologies behind fintech include blockchain or distributed ledgers. Essentially, a blockchain is a network of blocks of programming code joined together by a secure unique key. This allows transmission of financial assets from one party to another whilst avoiding the double spending problem. The latter is best understood if you imagine being able to copy and paste financial assets into a shared document.

Essentially, your money can be duplicated by anyone with a personal computer or tablet, unless it is secured cryptographically. Blockchain is secure and as such gets over this problem, facilitating the sending and storage of financial assets all over the internet. Armed with a wallet, on either a PC or mobile device, it is possible with such technology to disintermediate the banks and other financial institutions.

The University of Strathclyde Business





"One has to be one step ahead in finance" School, recognising how the fintech revolution will change finance, launched the first Masters degree in fintech in the United Kingdom. Ranked first in the UK for accounting and finance by the Complete University Guide Subject League Table, the decision was made to future-proof its graduates. In a multidisciplinary approach, the new course combines expertise in finance, computing and management science. The resultant programme is a truly practical course encompassing, programming, big data, analytics, finance theory, distributed ledgers and regulation.

Professor David Hillier, the executive dean of Strathclyde Business School, endorses the idea that finance teaching is fundamentally changing. He observes that "the degree is not only an exciting first but we are pleased to be at the cutting edge of financial market development. It reinforces our core vision to be a place of 'useful learning' focused on innovation."

The curriculum creation was based on

fundamental pillars that combine front-office theory with middle and back-office practice in the fields of operations, clearing and settlement. It was designed to provide students with an understanding of finance and analytical methods. The aim is to integrate programming and big data techniques. In this way, it extends the students' core finance skills and enhances their understanding of rapidly evolving financial markets.

The MSc in fintech received letters of support from Scottish Investment Operations (SIO) and Skills Development Scotland (SDS), as well as a number of leading financial institutions who recognised that programming skills need to be taught to finance graduates.

Other educational institutions are also leading the educational charge into fintech. Tatja Karkkainen, for example, is the first person in the UK to undertake a PhD in Fintech. Her research is supervised by Glasgow University's Adam Smith Business School and co-mentored by Strathclyde and Stirling Universities. Most of the educational initiatives at this stage are, however, on the research front. Professor Julian Williams at Durham University Business School, a case in point, is undertaking pioneering research into financial blockchain.

Karkkainen points out: "One has to be one step ahead in finance. The amount of data that financial markets generate requires processing by computers and advanced techniques. A degree in pure finance is no longer sufficient." Karkkainen further observers that she is "thrilled to be part of an initiative that contributes to efficiency, cost-cutting and the introduction of new financial services that improve the quality of life."

Future-proofing financial education is essential in a world of big data and evolving business models. Teaching the new method of financial analysis and modus operandi are key to the career success of the next generation of graduates. The success of our banks and financial institutions depends on them.

### Staying innovative with employee ownership

#### Alexandra Rae,

chief executive of Wise Investment, explains how employee ownership has allowed her firm to stay dynamic and responsive to tech developments

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s a relatively small, founderowned business, the matter of succession planning was always going to be something we needed to consider at some point. In as fast-paced an industry as financial services, a common solution is to sell the company to a bigger competitor that can absorb a smaller business. We have seen a lot of mergers and acquisitions in this industry lately, and there seems to be a great appetite for consolidation, especially with the growth of financial technology. We considered this option, but there was no guarantee of what might happen to our clients and how our staff might be treated.

Having conducted extensive research into different options, both our founder, Tony Yarrow, and other senior members of the business felt that employee ownership would be the most suitable path for us. Employee ownership allows our whole company to maintain its independence, to act in the best interests of both our clients and our staff. This is something that we consider to be of huge importance and are very protective of. Employee ownership also ensures the longevity of the business and its principles. It allows us to stay abreast of exciting developments within the finance and tech worlds.

There are lots of different models of employee ownership. We chose the Employee Benefit Trust model, more commonly known as the "John Lewis Model". This means the business is held in trust for the benefit of all staff members. We have no external shareholders to answer to and we are able to continue advising our clients in the same way that we have always done.

For us, being employee owned has meant that we have been able to continue focusing on the things that are important to us, especially fostering innovation. Everyone that works here feels responsible and are accountable to the business as we are all co-owners. This creates a very dynamic working environment, and also means that we retain staff for longer. We value the personal relationships we have with our clients very highly, who stay with us for years and decades.

We provide financial planning advice and a discretionary investment management service in-house. Although we are based in rural Oxfordshire, our clients are based around the UK. We perform retirement planning for people that intend to continue working for years to come, for those nearing, or at, retirement age, and then assist during their retirement years. We perform investment planning, protection planning, and inheritance and general tax planning as part of our service.

All our clients have a dedicated financial planner and administrator. A personal service is at the heart of what we do.

There are not currently many financial services companies that are employee owned but we are aware of others that are considering this as an option. As we know, our industry is an ageing one, and therefore needs to remain as open as possible to management structures which enable adaptability and unlock financial innovation. We feel that employee ownership should always be one of the options considered.

We are about to celebrate our 25-year anniversary and having this ownership structure means we can look forward to many more anniversaries in the future, continuing to provide our clients with innovative insight.

For more information, please visit: www.wiseinvestment.co.uk Or call: 01608 695 100

## Why card payments need an ace up their sleeve

Merchant services must modernise to keep pace with an increasingly mobile and globalised society. Andy Rush, head of product, Europe at Elavon, discusses how they can

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erchant services are authorised financial services that allow a business to accept credit or debit card transactions, using online ordering or point of sale systems (POS). As the world moves away from cash payments, payment providers must work out how they can best satisfy new demands.

How close are we to a cashless society? We're certainly edging closer. The British Retail Consortium's Payments Survey for 2016 actually indicated that for the first time more than half of this country's transactions were carried out on card. The advent of contactless is a sign of the times. Retailers across all sectors are becoming increasingly conscious of this and they recognise that the speed at which they can deliver their services or sell their products is going to impact on their relationships with consumers. It's perhaps more seamless in an online environment, but now the challenge is to try and deliver that at shop-level too. Payment processing, ideally, should be an afterthought.

### How might fintech optimise payments made abroad?

Companies and consumers want borderless payments. They want to be able to do that quickly and securely, wherever they are. Elavon uses an international payment processing platform that simplifies operations and saves time by providing cross-border, multi-currency capabilities.

The Pan-European POS solution enables merchants to expand across borders and grow their business across the European region, whilst consolidating their payments relationships, all with one payment service provider, in more than 25 different languages.

I understand that the United Kingdom's decision to leave the European Union might conjure up some uncertainty, but the point of Pan-European POS is to provide a one-stop shop experience for our customers, regardless of where they are located or wish to trade. The terminal application can provide access to value added services such as Dynamic Currency Conversion, and tax-free shopping as well as payment schemes such as Visa, MasterCard or AMEX, meaning businesses can accept more payments in more markets thus improving their bottom line. It also streamlines processing and settlement, accelerated funding through next day settlement, makes reports and statements consistent from one country to the next.

#### How important is the ability to be mobile?

It's incredibly important and Elavon recognises that. Poynt is a simple and powerful smart terminal device. It lets businesses see transactions and settlements in real time. SMEs don't necessarily have the time or resources to manage a lot of back office activities; Poynt can help saddle that.

Poynt is accessible on the internet or in the form of a smartphone app, so customers can actually see their transactions on screen too. It's a truly mobile terminal with built in Wi-Fi, broadband and optional 3G. Businesses can accept payments at a counter, in the aisle, at a table or wherever customers want to pay. It's got its own app marketplace built in, allowing businesses the ability to use many apps to suit their business needs. That offers order ahead functionality, employee check in, and other valuable services, on the device. The apps could allow an increase in card payments, footfall, and more importantly, a greater understanding of customer buying habits and preferences. For more information, please visit: www.elavon.co.uk

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