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FUTURE OF FINTECH

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COLLABORATION

Working with the fintech 'genie'

Faced with technological disruption, banks are learning to collaborate with financial technology startups, known as fintechs, but the collaboration is not always plain sailing

IAN FRASER

Collaborations between banks and fintech startups are on the rise as the two groups of companies overcome the mutual suspicion that characterised their early dealings and recognise the mutual benefit of symbiosis. However, partly due to different histories, cultures, priorities and expectations, collaboration is not straightforward.

A survey by accountancy giant PwC found 82 per cent of banks, insurers and asset managers intend to increase the number of partnerships they have with fintech firms over the next three to five years. PwC partner and fintech head Steve Davies says: "The banks are looking at fintech as a different way to drive change."

According to Mr Davies, "every bank in Europe" is now running its own incubator or accelerator for fintechs whose technology it hopes to benefit from, or else forging partnerships with entities such as Innovate Finance to identify fintechs that might help them address specific business challenges.

Digital banking commentator Chris Skinner says most current fintech-bank collaborations are relatively unambitious, focused on incremental change such as helping customers with their budgeting and auto-switching to cheaper energy suppliers, rather than changing the financial system from the bottom up.

"They're mainly focused around fixing the inefficiencies of the current financial system – things like customer on-boarding with 'know your customer' – with a focus on improving processes, reducing costs and enabling better customer experiences," he says.

"But there is another sphere outside this which isn't about collaborating with banks, but actually trying to reinvent the banking system. The banks are trying to retrofit new technologies of distributed ledger and blockchain into their existing structures, but the genie is out of the bottle and there are a lot of other companies saying they can reinvent financial services using technology."

It seems, however, that many people in the fintech sector, who may originally have set their sights on disrupting, are happy to refocus on incremental development. Professor Markos Zachariadis at Warwick Business School says: "A lot of the people in fintechs are virtually kids. They thought they were going to take over the world until they were hit by the reality that banking is very heavily regulated and a slow-to-change sector."


Richard Baker/In Pictures via Getty Images

Lloyds is a front runner in fintech adoption

For banks, working alongside "young Turks" in the fintech sector does not always come naturally. PwC's Mr Davies says most banks in the UK are very risk averse. "The view of fintechs is 'I'll build it and then I'll see what the regulations say'," he says. "But for the bank it is 'we're not going to do anything unless we can do it within the regulatory envelope'. People in banks often have a jaded view of technology. Whereas, if you're in a startup, it is 'if we're not coding within three days there is a problem'."

The banks' outmoded IT, with core systems dating back to the 1970s, can be a problem. Ewen Fleming, partner and financial services leader at Grant Thornton, says: "Most UK banks systems are so old-fashioned they're only able to relaunch their digital apps once every quarter. If they're serious about emulating the tech firms, they need to be able to do that every day."

The presence of silo structures and feuding factions inside banks, and a lack of tech-savvy directors on their boards, does not help either, says Mr Skinner. There are also issues around power. Bankers who fear fintech guys are out to steal their jobs are generally reluctant to enter truly equal partnerships with fintech players.

Lukas Zoerner, founder of London-based fintech startup Mespo, says the banks' procurement departments can be a barrier. "The on-boarding process isn't adapted to younger companies," he says. "For example, some banks have a procurement requirement that you must show three years of accounts. That's clearly impossible when your company has been around for one and half years."

In a Warwick Business School academic paper published in June, fintechs interviewed by Professor Zachariadis and his colleague Pinar Ozcan voiced concerns about the pace at which banks were working with them. In particular, there was concern about their slowness in approving products and bringing them to market.

Among the leading UK banks, Lloyds Banking Group is currently ahead of the pack in terms of its early-adoption of fintech and "open banking", and the new ways of working this requires. The next best is Barclays, with HSBC and RBS seemingly the stragglers.

However, one bank that is taking partnerships with fintechs to the next level is the digital-only startup Monzo, which received its banking licence in April. Monzo has the advantage of being unburdened with outdated legacy systems and procedures. It runs its systems in the cloud on Amazon Web Services.

Phil Hewinson, an ex-Google and Facebook staffer who joined Monzo as head of partnerships in May, says the bank takes two approaches to partnerships with fintechs. "One is developing deep partnerships with specific companies. The other involves building an API [application programming interface] to open Monzo up to developers, who could then start to build experiences themselves," he says. Essentially this means giving them a playground where they can develop new products and services in a relatively unsupervised way.

When assessing prospective partners, Mr Hewinson says he focuses on how many engineers they have in their company: "If it's more than 50 per cent [of their staff] that sends a powerful signal that they're a tech-first company."

Professor Zachariadis says collaborations between fintechs and financial institutions have turned out to be more complicated, culturally and technically, than people originally thought. "Banks need to get better at on-boarding fintechs and the fintechs need to get better at working with banks – improvements are needed on all sides."

He suggests banks must learn to collaborate better, become more willing to share data with platform partners, restructure internally, and become more agile.

82%
of banks, insurers and asset managers plan to increase fintech partnerships over the next three to five years

88%
believe the risk of lost revenue to standalone fintechs is a real threat

80%
said the epicentre of disruption over the next five years will be consumer banking

PwC 2017

COMMERCIAL FEATURE

High street banks must grasp open banking opportunity

The words "innovation" and "banking" are not often seen in the same sentence, but a new programme of change is reinvigorating the industry

sopra banking SOFTWARE

Open banking, as it's called, is designed to give consumers more control over their money – where they put it, how they track it and even what they spend it on.

The new initiative means improving customer service by opening up banks' APIs (application programming interfaces) to third parties in the financial technology (fintech) space. By putting their information to work, customers can do anything from seeking independent financial advice to paying bills and arranging overdrafts through user-friendly apps.

These third parties are often platform businesses, which provide better interfaces and improved user-experience without direct access to private data. They can offer complementary non-banking services to help people organise what they do and get more out of their everyday lives, by syncing financial and non-financial activities effortlessly.

The measures are enshrined in the Revised Payment Services Directive (PSD2), approved by the European Parliament in 2015. The rules apply to the UK before it formally leaves the European Union and, due to the global nature of banking, they will almost certainly apply afterwards as well.

It's a brave new era for the industry. A fresh banking environment is about to take shape and financial institutions across Europe are working to comply with the EU standards. But according to Stéphane Berger, head of innovation and digital at Sopra Banking Software, not enough of these institutions have grasped the full opportunity.

"In recent years, we have seen a huge amount of innovation in fintech companies," he says. "They have the potential to revolutionise personal finance and we have partnered with them to offer services to high street banks.

"But the response in the banking sector is mixed. Some institutions understand that this is a chance to improve customer relationships and drive revenue, whereas others see it as red tape; something they must comply with, but not necessarily take advantage of."

Institutions that hesitate could be in for a shock. According to Mr Berger, the industry has entered a period of flux in which there is more choice and customers are gaining new controls.

Historically speaking, banking has been a slow-moving sector. For years, young people would sign up for a standard current account, perhaps a savings product too, and then stick with the same provider their whole lives.

Switching banks was time consuming and people worried about taking what they perceived as a bold step. The risk seemed to outweigh the reward, but things have changed. Competition in the marketplace is hotting up with challenger banks and fintech companies grabbing market share.

> Fintech is the future and, by creating partnerships, banks can ensure they stay relevant and useful

In the UK, millions of customers have changed banks in the four years since new rules made the process easier. With more competition and new entrants, this trend is likely to increase in the short-term future.

"Some banks underestimate how quickly industries can change," explains Mr Berger. "They think 'I'm OK today' and fail to grasp the speed at which innovation is happening. Customers are asking for new services; the banks can help, or someone else will.

"There are many precedents across industry sectors in retail with Amazon, hospitality with Airbnb, transport with Uber and television with Netflix. Banking is the new focus and big technology brands like Google or Amazon could disrupt the market quickly because of their sheer scale and customer base."

Mr Berger cites the example of National Australian Bank – a customer – which was losing market share and saw the opportunity to grow by partnering with fintech companies.

In a matter of months, he says, the bank revolutionised its customer journey with a range of new services, both financial and non-financial, that provided added value to its existing line of products.

This changed the bank's image, bringing it into the 21st century, and provided new revenue streams as the bank monetised its API. Turnover increased as a result and the bank has successfully managed its reputation as a traditional yet forward-thinking outfit.

This was a coup for the bank and good news for customers too. According to Mr Berger, it is this kind of innovation that can set businesses apart from each other.

Banks are putting a new focus on customer service to encourage loyalty, while giving fresh incentives for new accounts. But an increasingly competitive market means customers are demanding even more from their providers.

He says: "We have seen a gradual change in advertising campaigns, from ads looking to attract new customers at the beginning of their careers to a focus on loyalty among existing account holders. Traditional banks are not digital natives, so they have to work harder in the face of competition from newer players."

Banks have taken note of the threat from startups in the fintech space and, for some, the response has been to acquire these fast-growing firms or acquire large stakes in them to mitigate a perceived risk. But Mr Berger sees this as a short-sighted approach because in some cases the deals are struck to remove a threat, rather than grab an opportunity.

"There are a few examples of banks buying fintech startups to remove them from the competitive landscape," he explains. "The smaller business gets absorbed into the larger business's infrastructure, but it doesn't affect change. Innovation slows down, the strategy stays the same and the start-up is swallowed up."

This, clearly, is not a sustainable approach to maintaining market position. But it also misses the point of the fintech revolution. Banks must grasp the opportunity of partnering with fintech in a mutually beneficial way. Banks that ignore it risk being surpassed by rivals and Sopra Banking Software helps them avoid being bypassed.

"Banks need to move quickly," says Mr Berger. "Fintech is the future and, by creating partnerships, banks can ensure they stay relevant and useful. It's a huge opportunity for the market.

"Open banking may be a tough transition, but the rewards will be significant. Innovation is happening right now, so it's vital that banks get on board."

For more information please visit www.soprabanking.com/

REGULATION

Scott Olson/Getty Images

01

Should tech companies enforce law?

Whether fintech companies should take the law into their own hands and police cyberspace raises important issues of safeguarding free speech

MATTHEW CHAPMAN

Fintech companies withdrawing services in the wake of the violence in Charlottesville has reinvigorated the debate about the power technology companies have over the public.

PayPal dropped its services from a number of white nationalist sites after coming under media scrutiny when its technology was accused of being used by the organisers of the far-right Unite the Right rally in the US city.

Apple Pay and Stripe also disabled their payment technology on a number of white nationalist websites in response to the violence.

On the face of it this was an easy judgment call for the tech firms. They were able to close down their services by referencing clauses in their acceptable user policies that prohibit the promotion of hate or violence.

PayPal senior vice president of corporate affairs and communications Franz Paasche said in a blog post that maintaining the balance between protecting principles of tolerance and diversity and upholding legitimate free expression "can be difficult" and the company does its "best to achieve it".

But should tech providers be the arbitrators of freedom of expression online?

Sacha Wilson, a senior associate at law firm Bristows who advises fintech clients, says the relationship between fintech providers and publishers of content is currently a "grey area" in the UK.

The provision of financial services is highly regulated and there is a growing amount of regulation governing hate speech.

However, it is unclear what liability, if any, a fintech provider would be subject to in the event of a contracting party being accused of breaking the law for inciting hate.

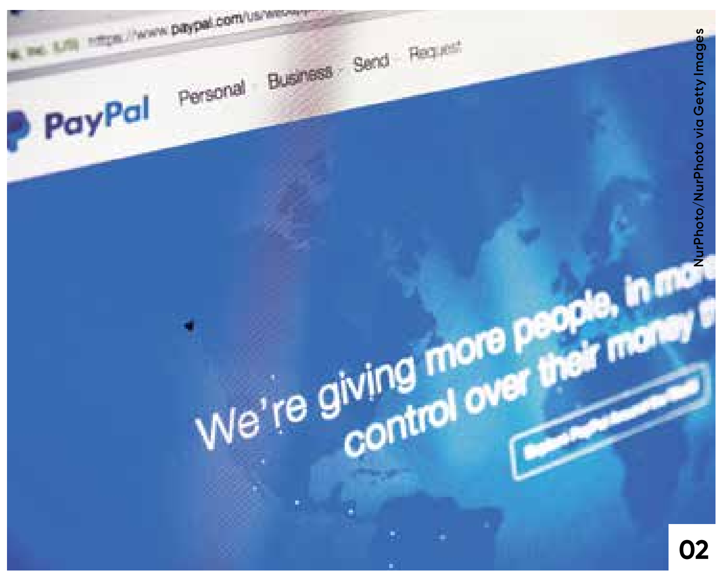
Fintech firms have created their own terms of service to protect themselves from such grey areas.

"The big US vendors have acceptable use policies mainly for reputational issues and to a certain extent liability," says Mr Wilson. "An organisation can have their own internal code of ethics, or just the way they like to conduct business, that might go a step further than things that are strictly unlawful or illegal."

Pam Cowburn, communications director at the Open Rights Group digital rights organisation, says companies have a "right to use their discretion to refuse to provide a service", but warns the global reach of tech companies means this can have consequences on free speech.

The extent to which tech companies' services are interwoven into our daily lives and society is one of the major concerns of Dr Mark Coeckelbergh, a professor of technology and social responsibility at the University of Vienna and De Montfort University.

"There is a justification for society to say we respect you are privately owned, but we will still give you a framework in which you can work because you have become too big and too important for us to be laissez faire," says Professor Coeckelbergh.



NurPhoto/NurPhoto via Getty Images

02

> The last thing we want to find ourselves in is this dystopian future where the Silicon Valley companies are controlling information

He believes fintech companies are currently being forced to make political decisions on issues of freedom of expression and this is problematic because there is no democratic oversight of this decision-making.

Luciano Floridi, professor of philosophy and ethics of information at the Oxford Internet Institute, says we are now stuck on a "merry-go-round" with no means of getting off.

Tech firms are being pulled in two opposing directions, according to Professor Floridi. On the one hand they are being asked to "take a stance and be a good citizen" and at the same time they are being told not to do so because "they are too big".

"The nature of the problem is quite clear," he says. "The real test is understanding how do we get out of this problem?"

Professor Floridi believes the typical solutions to the problem – competition and state intervention – are closed off.

"We don't have competition, we have de facto monopolies," says Professor Floridi. "State involvement does not work because the companies are the only true multinational forces we have today. Not even the UN has the reach of these companies."

As a consequence, Professor Floridi believes that in the current landscape the "only hope" is self-regulation because "in the long-run it is good for business to have a more decent world".

01
Many fintech companies withdrew services from white supremacist websites in the wake of August's violence in Charlottesville

02
PayPal, Apple and other payment providers disabled their services to a number of white supremacist websites

Ms Cowburn is concerned governments are at risk of placing free speech in the hands of technology companies. She believes the preferable solution is that incitement to violence is "dealt with by law enforcement agencies using a proper judicial process".

"In that sense actual action could be taken against people committing crimes rather than expecting tech companies to police the internet," says Ms Cowburn.

However, Mr Wilson argues that too much regulation can prove problematic because "it is very challenging to balance free speech with other considerations".

With a light-touch approach to regulation, the onus would be on the tech firms to act ethically.

"In my personal view it has been overstated the way these US online companies want to or have a vested interest in manipulating the actual content or information made available by their services," says Mr Wilson.

More collaboration during the development of technology could also help ward off the need for regulation.

"It would be better to be proactive in the design and development, and have a discussion with experts in academia and elsewhere about what could be the political and societal consequences of these technologies at the R&D stage," says Dr Coeckelbergh.

The role fintech companies have over the flow of information is a thorny one and there are no easy answers.

However, the stakes are high and it is vital the technology sector, society, legislature and government work together to crack it.

Mr Wilson concludes: "The democratic process itself relies on the free flow of information, so the last thing we want to find ourselves in is this dystopian future where the Silicon Valley companies are controlling information."

OPEN BANKING

Brexit will not stop new EU regulations

The European Union's Revised Payment Services Directive or PSD2, due to be implemented in 2018, is touted as the answer to all our banking ills, shifting power into the hands of consumers. Here are five ways it will affect our lives

CLARE GASCOIGNE

AGGREGATED SERVICES

1

The ability to see all our financial life in one place is one of the top five most valued fintech concepts, according to a survey last year from CGI, the IT and business process services company, which found that 61 per cent of global consumers identified personal financial management as a highly valued service.

That will be music to the ears of some already providing these services, such as Moneyhub, which brings current accounts, investments, assets and borrowings altogether into one place. But the concept will grow with the arrival of PSD2 and open banking. Apps that can show your net position at a glance – the digital equivalent of a spreadsheet, but without the need for you to update it – will be supplemented by apps offering digital comparison tools. No more laboriously entering your age, gender and speeding fines several times over to compare car insurance, for instance.

Couple that with algorithmic artificial intelligence and it won't be long before there'll be an app constantly looking for products right for you, such as a cheaper credit card or a better energy deal. Add in a few parameters of your choice and you'll soon be getting a notification that your shares have reached the right price for a sale. Such services are already available, but not all in one place.

BANKS AS RETAILERS

"Banking," said Bill Gates way back in 1994, "is necessary. Banks are not." His words are about to come true. Whatever goes on behind the screens in terms of the regulation, consumers will no longer separate their financial services from the rest of their life.

Facebook, which launched Facebook Payments a couple of years ago, is not the only disruptor that knows which way the wind is blowing. Research from MuleSoft, an application network company, found that nearly a third of UK consumers would consider using Amazon, Google or Apple as well as Facebook for banking services.

"There are a lot of consumers out there who aren't happy with their experience of banking, especially on the digital side," says Danny Healy, MuleSoft's fintech expert. "They are changing the way they think about their finances and don't think a bank has to be in the middle of a transaction."

Instead, consumers will access financial services from whoever and wherever is most convenient, blurring the lines between different industries. This could prove a goldmine for retail, which could end up with unprecedented access to the financial details of its customers, making it easier to create appealing products and services.

2

PERSONALISED SELLING

3

Open banking works both ways and a company that can see everything you do can design highly personalised offerings. For some people, this might provide wider access to financial products. Credit scoring, for example, can currently be a very blunt tool, but the better the intelligence, the more refined the service and the more options a bank can offer.

According to Neil Tomlinson, head of UK banking at Deloitte: "Banks have the potential to create new sources of revenue and new, highly tailored products, services and solutions. It is this personalisation that will create a deeper and more engaged customer relationship that banks hold the key to. Incumbents are starting from a position of strength with their established household brands, existing access to current customers and expertise."

A more personalised experience was cited by 47 per cent of respondents in a CGI survey as a valued concept. No one bats an eyelid when Amazon uses our buying history to suggest a book we might like and why should financial services be any different?

But it could be a double-edged sword. Let's face it, companies have to turn a profit and cross-selling more products to consumers has long been an easy way to do that. Open banking could make it a whole lot more effective.

DIFFICULTY OF REDRESS

4

Open banking adds a new layer of complexity to services that are already buckling under the weight of legacy systems and creaking infrastructure. Most banks will be looking to form partnerships with sassy young fintech companies or experienced retailers, but the regulation around financial services is failing to keep pace with the blurring of boundaries between industries.

What consumer protection is in place to cover an aggregator who misrepresents an individual's financial position and so limits that person's financial options? Whose responsibility is it if your financial data is exposed? What happens if there is a conflict of interest? How about IT glitches or indeed system crashes?

"I would question whether the banks are ready for that," says Pieter van Heck, solutions director for Europe, the Middle East and Africa at IT company Dynatrace. "This could be a lot of extra investment for banks and they will need to find a way to get that investment back."

With a plethora of different regulators covering different aspects of the financial services industry, it can already be difficult for consumers to find redress. Partners that are not subject to any kind of regulation will only muddy the waters further.

INNOVATION

5

Finally, there are the unknown unknowns – the changes that we can't even see yet. Open banking will bring about an unprecedented level of competition in the financial world and banks are going to have to fight hard to keep their customers loyal. That means new products, new ways of managing money and new tie-ups with unlikely bedfellows.

According to Perry Krug, principal architect, strategic accounts, at database company Couchbase: "Banks will be forced to put customers first; customers can easily take their business elsewhere. To avoid having a sizeable proportion of their customer base lured away with a better offer from elsewhere, banks need to provide the sort of digital experiences customers now expect as standard, from access to all their accounts in a single app, to the information and alerts they need, when they need them, to giving a service that can't be found anywhere else."

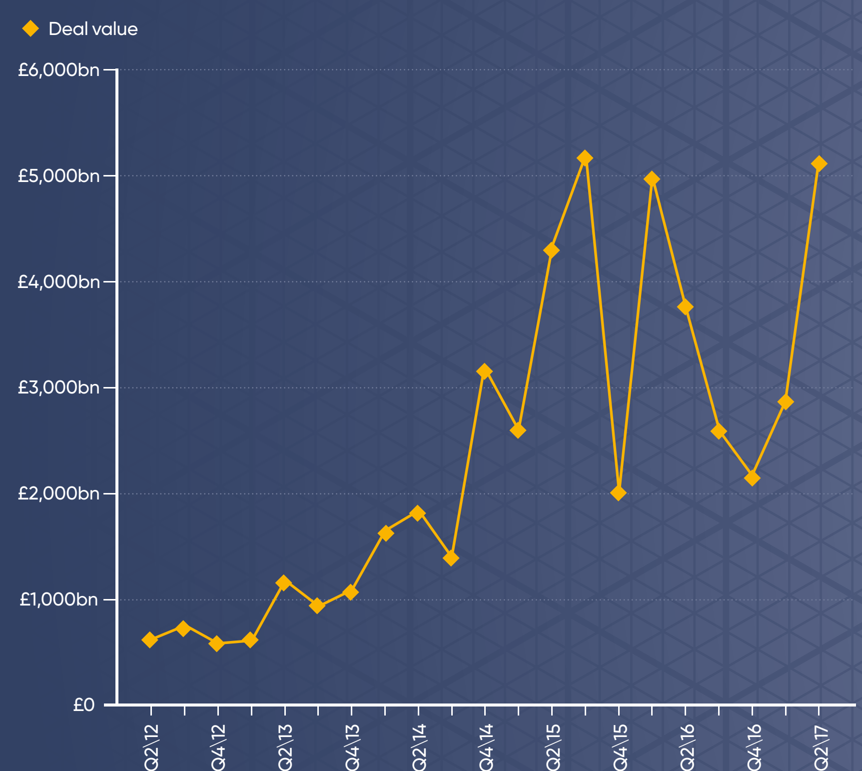
The battleground is likely to be the mobile phone, but it is worth remembering that up to a quarter of us don't have smartphones and mobile reception can be patchy in many places. Perhaps the most innovative of financial services providers will be those that find a way to address that.

FINANCING FINTECH

Venture capital investment into the fintech sector is on track to reach new heights in 2017 after a record quarter of deals in April, May and June. Five new unicorns – valued at more than $1 billion – have emerged in the second quarter alone, as investor appetite for financing fintechs recovers following a slight decline last year

QUARTERLY GLOBAL VENTURE CAPITAL INVESTMENT IN FINTECH ($BN)

Fintech deals and funding are on track to reach records highs in 2017



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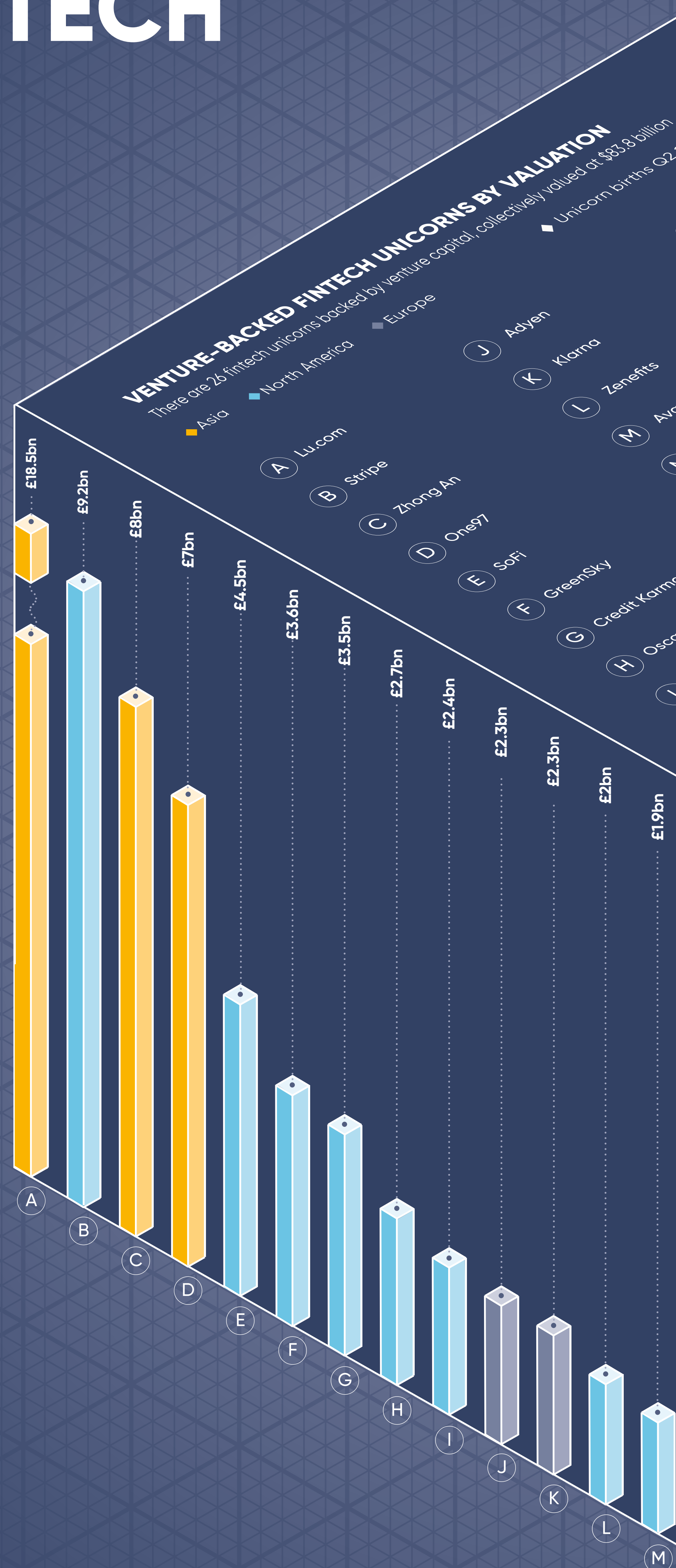

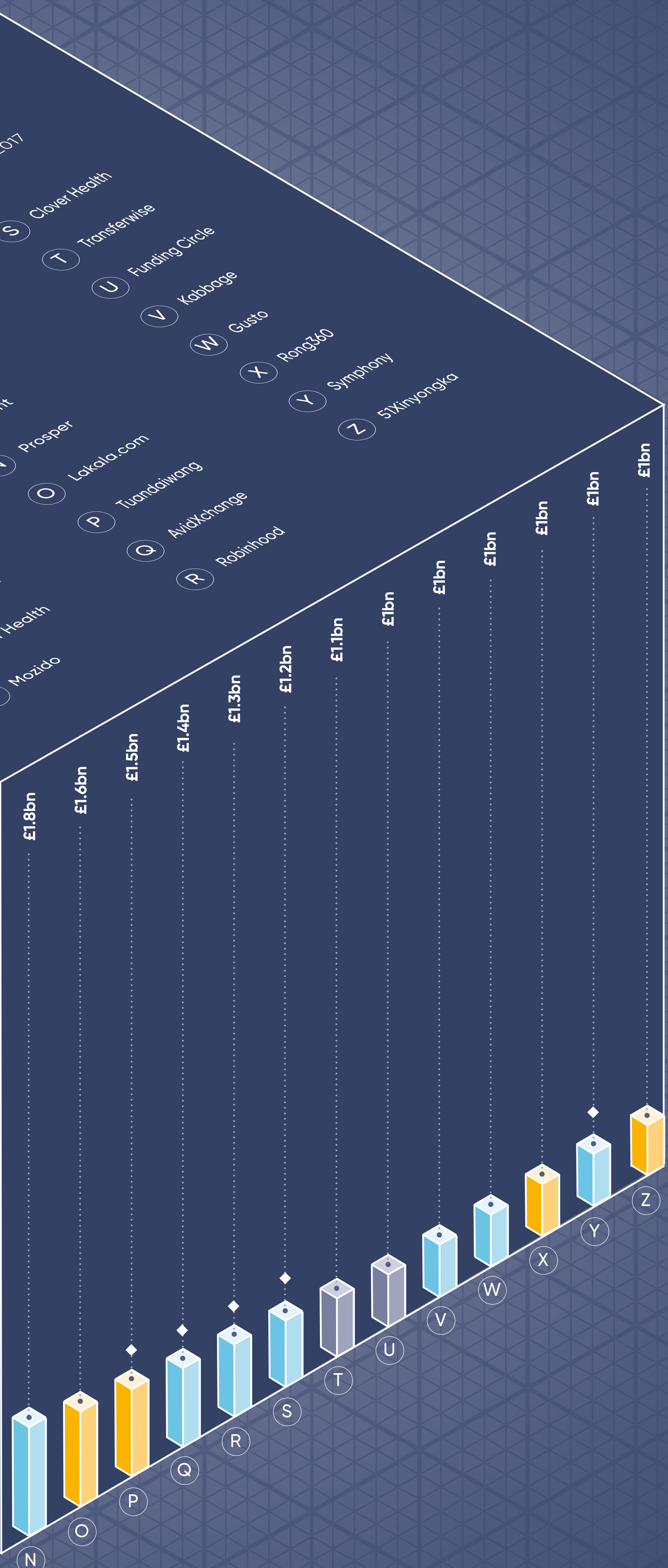

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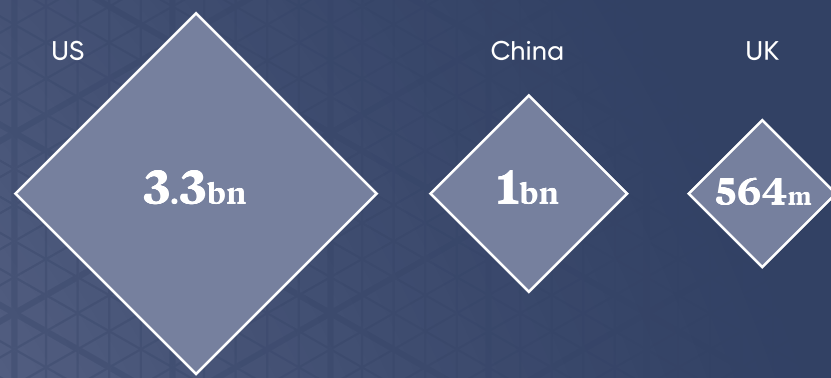
GLOBAL FINTECH VENTURE CAPITAL INVESTMENT IN 2017

By deal value ($)



H1 2017 VC FinTech Investment Landscape, Innovate Finance

WHERE THE BIG MONEY IS GOING

Financing of more than $50 million between the second quarters of 2016 and 2017

CBInsights 2017

FINANCIAL INCLUSION

Empowering people with mobile money

Financial technology startups armed with apps are aiming to increase global access to finance for poorer communities in even the remotest locations

Trevor Snapp/Bloomberg via Getty Images

M-Pesa, Vodafone's mobile money service, has been hugely popular in countries such as Kenya, but hasn't taken off in South Africa where there is a much deeper banking infrastructure

OLIVER GRIFFIN

Fintech, the global phenomenon of finance melded with technology to make banking less like banking and finance services more accessible, seems to have an endless capacity for traction the whole world over. Agile startups and incumbent businesses work together or lock horns in a battle for dominance over one of the most lucrative markets.

But although fintech markets continue to pump out riches for those who can appeal to a broad customer base – big four accountancy firm KPMG says fintech deals in the first quarter of 2017 alone hit $3.2 billion – the bigger challenge is turning fintech into a tool that can help bring access to finance to the world's two billion people who don't have a bank account.

While the number of unbanked people has fallen in recent years, those without access to banking services overwhelmingly come from poorer countries. In fact, 73 per cent of the world's unbanked citizens come from just 25 countries, including India, Brazil and China.

"There are a number of fintech initiatives [for developing countries] and some are longer lived than others," explains Bernardo Batiz-Lazo, professor of business history and bank management at Bangor University in Wales. "Some of them are private companies and some are government supported, which illustrates how big and broad the term fintech is."

For Professor Batiz-Lazo, one of fintech's biggest draws in poorer countries is the ability to make the transfer of money safer and reliable. For workers living outside the banking system, who are accustomed to getting paid in cash, the journey home through cities with high crime levels can be dangerous, and electronic transfers and payments minimise the risk of cash being lost or stolen.

Some of the biggest successes for fintech in developing countries have been in African countries, including Kenya, Zimbabwe and Botswana, where services such as M-Pesa – a decade-old money mobile service produced by Vodafone – have been hugely popular. Now going into its second decade, M-Pesa boasts more than 30 million users across the continent and, last year, processed some six billion transactions. It is particularly popular in Kenya, where it is used by 17 million people, and estimates suggest that 25 per cent of Kenya's GDP flows through the app.

But for Professor Batiz-Lazo, M-Pesa can only be successful where banks are less so, limiting its scope to empower unbanked peoples in other countries. "M-Pesa is just monetising air time," he explains. "You top up your mobile phone, or you do it the over way around, and the balance that you have in your mobile phone account has the advantage of being shareable.

> The bigger challenge is turning fintech into a tool that can help bring access to finance to the world's two billion people who don't have a bank account

"M-Pesa hasn't worked in South Africa because, as a country, South Africa has a much bigger and deeper banking infrastructure. When they tried to use the system there, it didn't pick up. In places like Botswana, or Kenya, you are still seeing a process of migration from rural areas to cities. People used to send cash by hiring taxis to send their money, but often not all of it arrived."

New apps, however, are being delivered all the time. In developing-world fintech, September was a big month as Indian finance minister Arun Jaitley declared that Tez by Google, a new fintech app that transfers money using sound, would make "a major change in the digital payments landscape across India".

Unlike other apps, Tez – taken from the Hindi word for fast – isn't exclusive to more-expensive smartphone models with near-field communication chips. This means Tez, coupled with its ability to process payments between banks, will bring more of India's 300 million smartphone owners into the finance system.

Yet despite projects such as Tez, and there are many others of varying sophistication in Asian countries including Pakistan and Bangladesh, Professor Batiz-Lazo is sceptical about fintech companies' capabilities when it comes to being world-changing forces of financial empowerment. One of the reasons for this, he says, is consumer choice not to adopt fintech, with people in developing countries preferring to stick to cash payments.

"The question is why aren't people using it?" he asks. "It's not an issue of technology, there is a lot of very good technology out there – people are just not adopting it.

"Sure, Alipay and WeChat from China have outstanding numbers of users," he says, "but what nobody has shown is how many of those users are in coastal areas and how many are in rural areas. Here we are talking about two very different economies in China and also two very different attitudes to payment."

Other organisations are more enthused about achievements of fintech projects in the developing world. The World Bank's International Finance Corporation (IFC) finds that fintech companies in Asia, such as bKash in Bangladesh and now Tez in India, have had positive impacts on local banking sectors. In particular, bKash which has been adopted by 17 million Bangladeshis, in a country where 70 per cent of adults are unbanked, has made tremendous progress. Still, the IFC concedes that globally there remains room for more progress.

WHERE THE WORLD'S UNBANKED LIVE

Percentage of population with no access to banking services

32%	SOUTH ASIA
25%	EAST ASIA AND PACIFIC
17%	SUB-SAHARAN AFRICA
10%	LATIN AMERICA AND CARIBBEAN
5%	EUROPE AND CENTRAL ASIA
4%	MIDDLE EAST

CASHLESS SOCIETY

JONATHAN NACKSTRAND/AFP/Getty Images

Running from the cash machine

In a world where cash may become superfluous, Sweden is closest to a cashless future

OLIVER GRIFFIN

For a minimalist society like Sweden, cash has long been an unwanted appendage.

"We haven't accepted cash for maybe a year and a half," says Märta Skilimark, manager at Swedish coffee and tea store Johan & Nyström. "Our Swedish customers are very used to it. It's basically tourists who are surprised we don't take cash."

According to the Riksbank, Sweden's central bank, more than 80 per cent of store transactions are cashless. Similarly, from 2013 to 2014, Sweden's cash-to-GDP ratio shrank 5.8 per cent as increasing quantities of physical money fell out of circulation. With digital payment systems such as Swish and iZettle having taken the country by storm, cash is falling by the wayside.

For Henrik Crone, a Swede and head of fintech in Europe for global information technology services company Virtusa, a cashless Sweden cannot come soon enough. In fact, it might as well be here already.

"If I'm in Sweden, I don't pay in cash," Mr Crone says. "I don't have wallet space for coins at all, I don't carry them. I have my cell phone and I have my credit card, that's all I need."

For Mr Crone, Sweden being the standard bearer for a cashless world comes down to the history of its existence. The combination of a small population and a vast country has rendered excellent communication a basic necessity and, with Sweden's quick embrace of broadband technology, sending money by digital means was just the next logical step. What's more, government encouragement is absolutely key.

"If you're going to have a cashless society, it has to come from the government down to the customer; it will have to have the legal framework in place," he says.

Sweden's Riksbank is examining whether or not it would be possible to introduce e-krona as a digital currency. Like bitcoin, it would be a wholly digital currency. Unlike bitcoin, it would have the weight and security of a central bank behind it. But Sweden isn't alone in this endeavour. Denmark, among other countries, is also looking into an electronic currency.

Mr Crone, a huge fan of mobile fintech and paying apps, adds that ever-improving technology will eventually render cash obsolete in Sweden and beyond, even without digital currencies.

> I have my cell phone and I have my credit card, that's all I need

"Slowly everything will be handled through your phone, then your gadgets, even your fridge, and anybody will be able to reach your account in a controlled manner," he says. "There will be no point to bills or cash – you won't need it."

While Mr Crone is convinced that a cashless Sweden, perhaps a cashless world, will be established in our lifetime, living without cash is already a reality for Ms Skilimark.

"I barely use cash these days," she says. "Basically every store in Sweden takes cards. Maybe there aren't many places that only take cards, but you can always pay with card."

And does Ms Skilimark think that life without cash makes for an easier existence? "Yeah, I do," she says.

Telematics transforming the future of auto insurance

Rapid development of telematics within the automotive industry is paving the way for new customers and new revenue, says telematics innovator **The Floow**

THE FLOOW

Telematics-based insurance policies are on course to hit 100 million worldwide in the next three years, fast transforming the way auto insurers conduct their business.

Aldo Monteforte, founder and chief executive of telematics provider The Floow, says the growth in telematics is testament to the rising demand among drivers for a fairer, bespoke premium and it is a trend that shows no signs of slowing. In an age where the customer is king and taking business elsewhere has never been easier, insurers need to place onus on maximising customer experience and forging long-term, meaningful relationships.

He explains: "Insurers have made a commitment to their clients to follow through on a promise in the face of a negative event, but the challenge they face is getting the price right; it must reflect the risk they take, while ensuring customers feel satisfied with the cost."

According to Mr Monteforte, insurance based on traditional methods of age or postcode fail to represent truly someone's driving ability, with behaviour the cornerstone of risk.

"Behaviour remains the single biggest indicator of someone's propensity to claim, and telematics provides an accurate way of capturing a driver's ability and nuances, such as time of day or mobile phone usage," he says.

Since its inception in 2012, The Floow has worked tirelessly to create an innovative proposition, based on science. Its unique technology has sought to tackle the obstacles of rising costs of premiums for the customer, and interpreting the vast array of data, from traditional and new data pools for insurers, cementing its position as UK leader in the telematics space.

Working with insurers on a global basis, The Floow's magnum opus is that it's a device-neutral approach, which allows it to collect data from a number of sources, including black boxes, wireless tags, onboard sensors and, arguably its biggest coup, the smartphone.

> The benefits have made usage-based insurance one of the fastest-growing segments of the auto insurance industry

The data is interpreted so that it delivers scores with demonstrably superior predictive power to insurers, far surpassing proxy-based models, enabling them to create new and engaging experiences with their customers.

In addition to being able to more accurately predict claims, thus creating fairer premiums, The Floow's industry-leading approach helps educate drivers, leading to smarter and safer driving.

"Data science has a huge role to play in what we do," says Mr Monteforte'. "Our multi-disciplinary team of data scientists extract all the relevant data so that we can provide insurance firms with insights into driving behaviour, while providing a driver score. It is the granularity of our data which our clients really value.

"Data can provide positive interventions to create improved driving behaviours; it can notify the driver not only of their performance, but also of events such as speed, braking, mobile usage, erratic movements and crash detection."

It comes as little surprise then that The Floow has harnessed its wealth of data to develop end-user applications, which can prove useful for insurers looking to enhance their customer offering.

Apps such as Shotgun, aimed at the 18 to 25-year-old market, which allows users to unlock instant rewards in accordance with good driving, have proved particularly popular. In turn, it has helped make the young-driver market more accessible and less risky.

ALDO MONTEFORTE
FOUNDER AND CHIEF EXECUTIVE
THE FLOOW

Unsurprisingly, the benefits have made usage-based insurance one of the fastest-growing segments of the auto insurance industry. IHS estimates that the number of consumers using such technology will reach 142 million globally by 2023.

"We are at a point where it is beyond any doubt that telematics is part and parcel of the operational infrastructure of insurers. An insurer can't run a modern insurance operation without this type of technology," says Mr Monteforte.

"New possibilities are emerging every day, with the application of our data insights lending themselves to informing the 'smart cities' agenda. We are only at the beginning of what promises to be a huge turning point for the insurance industry and beyond."

For more information please visit www.thefloow.com

EDUCATION

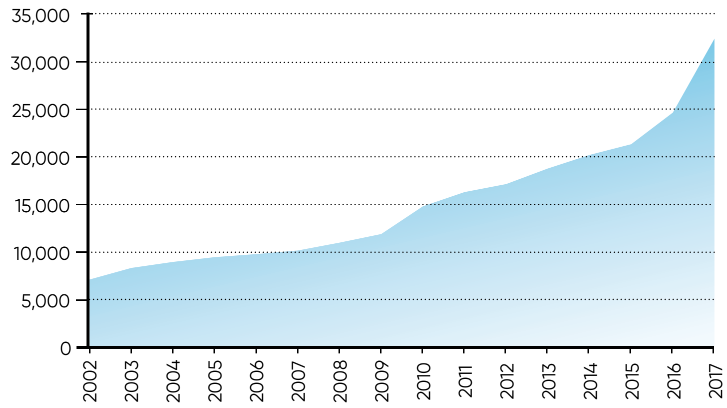
Tolga Akmen/Anadolu Agency/Getty Images

The rising costs of university and interest rates on loans are driving students to look for alternatives

AVERAGE STUDENT LOAN DEBT IN ENGLAND (£)

DEBT ON ENTRY TO REPAYMENT

- Tuition fees increased to £3,000 in 2005
- Tuition fees increased to £9,000 in 2012



Student Loans Company 2017

Fintech loans could help uni students

With student loans proving a problem for many, financial technology companies are moving in to offer an alternative funding route

SABUHI GARD

Students currently pay £9,000 a year to go to university in the UK. With this figure set to rise, if the government's plan to raise annual tuition fees by £250, what financing options are available to students wishing to fund their higher education?

Traditionally, students take out a loan for the duration of their three-year or four-year university course, but this can be desperately expensive.

Students are often obliged to take out these loans from the government-owned Student Loans Company, as the traditional banks will not advance the cash due to little or no credit history or family financial support.

According to the latest data from financial services company Fidelity Investments, students face an eye-watering interest rate of 6.1 per cent, a 33 per cent hike from the previous year, with the retail price index (RPI) hitting 3.1 per cent in March 2017.

The level of interest charged on student loans is linked to the RPI measure of inflation and begins accruing the moment the loan is taken out. The interest rate is updated once a year in September, using the RPI measure of inflation from March plus a maximum of 3 per cent depending on earnings.

That is just the beginning for students. Maike Currie, investment director for personal investing at Fidelity International, says: "Graduates only begin paying their loan off when they start earning £21,000 per annum or more, at which point they pay interest and/or repay capital at 9 per cent of their income above this threshold."

It's not surprising that a number of financial technology (fintech) companies have identified a gap in the market to provide students with low-cost loans to help fund them through university.

One such London-based fintech startup is Prodigy Finance. This platform specialises in providing loans to international post-graduate students, in particular, who have secured places on select Masters courses at top-100 globally ranked universities.

6.1%

interest rate on student loans as of March 2017, a 33 per cent hike from the previous year

Fidelity Investments

Prodigy Finance assesses students through a predictive scorecard which uses data about their academic background to estimate what their future salaries will be.

There is also Dublin-based fintech company Future Finance, which lends to students in higher education, primarily in the UK. Its first loan in May 2014 was for £2,500 to a trainee nurse at the University of Surrey. However, a significant slice – 10 per cent of the total loan book – is for post-graduate students returning to full-time study for business and finance qualifications.

Future Finance tailors its debt to such borrowers, allowing them to make lower monthly payments while studying, often at lower rates than are available on the high street.

In addition, there are a number of US-based fintech companies offering a range of financial products, including personal loans, such as Social Finance and Credible.com, but users have to be a US citizen or a permanent resident.

Professor Markos Zachariadis at Warwick Business School says: "There are a number of startups that help you save while at college and redirect the savings to repay the student loan faster, for example ChangEd.

"Perhaps the most directly helpful fintech popular student lender is CommonBond in the US, which has raised more than $30 million and given out more than $500 million in student loans."

CommonBond uses proprietary algorithms that look at traditional and non-traditional data points, and thus are able to provide lower fees and interest rates than banks for their student loan and refinancing products.

"All the above services are helpful for students and will certainly encourage young people to borrow and invest in their education," Professor Zachariadis says.

Dr Andrei Kirilenko, director of the Centre for Global Finance and Technology at Imperial College Business School, says: "Platforms can play a role in helping students fund their higher education and perhaps give access to those who couldn't access higher education due to their financial situation. However, they cannot eradicate an individual student's personal debt."

> It's not surprising that a number of fintech companies have identified a gap in the market to provide students with low-cost loans

Jake Butler at student money website Save the Student says: "Fintech is currently best for budgeting on the go, travelling students, and those who want to save easily. We agree that fintech has a great potential for teaching students about money management and engaging them in the process.

"There are apps now that make saving easy and almost effort free, others use chatbots and gamification to make money transfers and cross-currency payments actually fun, and several are cross-platform across multiple accounts, giving a far greater insight into how their money is doing."

OPINION COLUMN

'While Brexit negotiations continue, the fintech sector will thrive... but we can't rest on our laurels'

ABDUL BASIT
Chief financial officer
Innovate Finance

This time last year the fintech sector was worried. The referendum did not yield the result that the sector wanted with 80 per cent of our members in favour of remaining in the European Union. Post-referendum, the pound crashed, there was talk of job relocations and the potential loss of talent played on the minds of many fintech firms. So was the question of money. How were investors going to react to the growing uncertainty of Brexit?

Not well. During times of uncertainty, capital takes flight and our round up of fintech venture capital funding in the third quarter of 2016 showed a sharp drop in the level of investment in the second and third quarters in the run up to and after the referendum result, leading us to speculate that the imminent separation from Europe had given those with the purse strings a case of the jitters.

Some venture capitalists had even drafted Brexit clauses in their term sheets, whereby investment would only come through if the UK stayed part of the EU. After the referendum, a number of our startup members reported having their term sheets pulled.

However, by the end of 2016, funding began to recover, albeit modestly, with $242 million investment in the fourth quarter of 2016 investment, 67 per cent better than the previous quarter. Eight of the top 20 UK deals in 2016 closed post-referendum, totalling $105 million.

In 2017, the recovery continues. The period from January through June saw a 37 per cent increase in UK investment from the same period last year, however still not reaching the heights achieved in 2015.

The reason for this is that the fundamentals of UK fintech are still strong.

For a start, the UK has the world's largest financial services sector, a thriving technology ecosystem and is perfectly positioned as a centre of international trade, bridging the time zones of North America and Asia. We have a favourable regulatory and policy environment that actively supports financial innovation. This includes the Financial Conduct Authority's Project Innovate and Regulatory Sandbox initiatives, which help startups navigate the regulatory landscape and go to market faster.

Furthermore, the UK is home to a well-educated, diverse pool of talent. We have world-leading universities, a technologically advanced customer base, and a dynamic and engaged investment community.

These can't be replicated by others vying for the UK's lead position in fintech overnight.

However, there are still concerns about the future. As the representative membership association for fintech, Innovate Finance regularly polls its 285 members to find out what concerns the sector the most. The biggest concern raised by our membership is access to talent. Some 30 per cent of our members are founded and run by non-UK national chief executives and 40 per cent of the employees working in the sector are also non-UK nationals.

Following the referendum, obtaining certainty around the status of the non-UK nationals in the sector, especially from the EU, and how access to new overseas talent can be obtained in future to allow companies to scale is paramount. Access to funding is also a big concern.

We're therefore encouraged by the positive announcements by the UK government regarding a review by the Migration Advisory Committee, which will seek to understand how the UK's immigration system should be aligned with a modern industrial strategy, and the Patient Capital Review that will seek to identify barriers in accessing long-term finance for growing firms.

While Brexit negotiations continue, the fintech sector will thrive. Fintech already provides 60,000 jobs and generates £6.6 billion for the UK economy annually. But we can't rest on our laurels. Any startup will tell you that raising capital is a challenge at the best of times, especially when it comes to seed and early-stage funding. We also need to make sure that we can continue to access the local and international workforce who can provide the oxygen for our sector to grow and thrive. Talent is everywhere – opportunity isn't.

COMMERCIAL FEATURE

Is it time to include peer-to-peer lending in your portfolio?

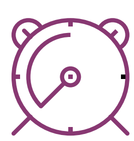
Peer-to-peer (P2P) lending, the technology which allows investors to lend directly to borrowers in the hope of attractive returns, is starting to stake its place in the mainstream

While it's fair to say the sector still represents a drop in the ocean of the broader UK investment landscape, the amount lent through P2P platforms has grown dramatically since the turn of the decade, with Brits investing £3 billion in 2016 alone, according to Moneywise.

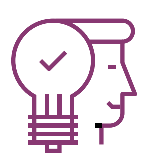
This new generation of investment products pride themselves on simplicity, speed and ease of use. But tempting though it is to assume that P2P is a craze for tech-savvy millennials, it seems the opposite is true. Research conducted by Nesta in their 2014 *Understanding Alternative Finance* report revealed that more than 55 per cent of individual investors in P2P are aged 55 or over, with only 12 per cent under 35.

And now that investors can include eligible P2P investments within their ISA, the sector's mainstream popularity might well grow still further. P2P looks to be growing up.

Even financial advisers, a justifiably cautious audience, seem to be coming around to the idea of P2P as a useful diversifier away from the volatile stock market, perhaps buoyed by the entrance of more established players into the sector.

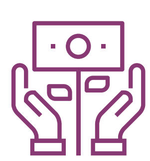


55% of individual investors in P2P are aged 55 or over



12% are under the age of 35

Understanding Alternative Finance, Nesta 2014



£3bn invested by Brits in P2P in 2016 alone

Moneywise, 2017

Take Octopus Investments. A 17-year-old investment company, last year it began distributing a P2P product, Octopus Choice, designed for both retail investors and financial advisers. It has already seen more than £75 million invested on behalf of over 4,000 investors, among them 500 financial advisers and their clients.

Of course, it's important investors and advisers research the options before deciding if P2P is right for them. P2P lending is clearly not for everyone. Investing in loans places your capital at risk, investments aren't protected by the Financial Services Compensation Scheme and instant access to your money can't be guaranteed.

What's more, the sector is as diverse as it is fast growing and each product will carry a different level of risk.

Take property lending, for example. Though there's still a risk you could get back less than you put in, investing in loans that are backed up by a security like property arguably carries less risk than lending to individuals on an unsecured basis.

That's because, if the borrower fails to repay, the property can be sold and used to fund some or all of the debt, though this could mean it takes some time to get your money back.

This sort of property-backed lending constitutes one of the oldest asset classes around. And for those investors looking to avoid the ups and downs of the stock market, it could provide an answer.

> "In today's environment of low interest rates, rising inflation and ever-present stock market volatility, property-backed P2P could play a useful role in the investor's portfolio

In the case of Octopus Choice, all loans are secured against property at conservative loan-to-value ratios of at most, 76 per cent, so the value of the asset would have to fall significantly before an investor would lose any of their capital. What's more, Octopus even invests 5 per cent of its own money in every loan, which is at risk ahead of investors'.

P2P is not without its unique risks. But in today's environment of low interest rates, rising inflation and ever-present stock market volatility, property-backed P2P in particular could play a useful role in the investor's portfolio.

To see if you could benefit from property-backed P2P lending please visit www.octopuschoice.com

BLOCKCHAIN

The Bank of England recently announced the successful test of an interledger programme to synchronise a payment between two central banks' systems

Governments in race for blockchain

A distributed ledger, which promises global transparency in financial and other dealings, could become a tool of government in a new age of finance

SHARON THIRUCHELVAM

Ten years after the global banking crisis and alternatives to the systems that caused it are still sought. For techno-libertarians and anarcho-capitalists, who would gladly see feckless banks and inefficient governments done away with entirely, one fintech solution is posed by the digital cryptocurrency bitcoin. Underpinned by a distributed ledger known as blockchain, bitcoin would allow finance to flow freely without third-party governance or oversight simply by following the laws of code.

It is an ironic twist of fate, then, that far from seeing central authorities toppled by blockchain, governments are expected to be the main drivers of its adoption. By 2018, nine out of ten government organisations plan to invest in blockchain technologies to help manage financial transactions, assets, contracts and regulatory compliance, according to a recent IBM survey.

Which begs the question, what is blockchain and why do governments consider it important? As a type of distributed ledger, a blockchain is a database that is maintained by a number of its users collectively rather than by a single entity centrally. Changes made to the ledger are encrypted so they cannot be changed or erased without leaving a record at every stage. In theory, any kind of data, from health records to business transactions, can be added to a blockchain, creating permanent and secure records. For that reason, it is considered a powerful potential tool for improving transparency, efficiency and trust.

Proponents believe blockchain has potential in almost any context where information needs to be agreed and shared, for instance insurance, trade deals, public health systems, foreign policy, international aid, taxation, loans – the list is seemingly endless. It follows as little surprise that governments are exploring the area as part of their wider digitisation efforts for fear of losing a competitive and strategic edge.

"There are going to be clear winners and losers," says Dr Catherine Mulligan, research fellow at the Centre for Cryptocurrency Research and Engineering at Imperial College London. "It is not necessarily about which governments are investing, but those that are enabling support for these kinds of technologies will see a significant advantage."

A fundamental difference between private and public blockchains should be made clear. Public blockchains follow the original anarcho-capitalists' ideal which requires no oversight and allows anyone to join the network and to contribute to it, and for anyone in the world to see its records. Private systems, by contrast, which are the kind sold as blockchain-as-a-service (BaaS) products by companies such as IBM and Microsoft, are closed and include an administrative structure.

"The technology is political and can serve both philosophies very well," says Tomaso Aste, professor of complexity science and head of the financial computing and analytics group at UCL.

Blockchain has the potential to be many things to many people, and how it is fostered by different governments will largely depend on their political bent and organisational needs. Are they a progressive liberal democracy or a one-party state? Do they suffer from high levels of corruption? Are their bureaucracies co-operative or divided?

UK government departments, for example, are beleaguered by data-sharing problems and silos caused by departmental differences in organisational culture and the demands of their respective data sets. IT procurement in UK government departments is wrought with difficulty, pegging the country far behind front runners like the leading e-nation Estonia, where almost all government services are accessible digitally.

The UK fares slightly better in central banking tech research. The Bank of England, which has been researching blockchain for several years, recently announced the successful test of an interledger programme developed by Ripple, the California-based blockchain specialist, to synchronise a payment between two central banks' systems.

However, no government is doing more research into blockchain applications at scale than China, which has developed its own cryptocurrency, trialled a blockchain taxation system, and hopes to establish itself as a global leader in the sector, according to Cai Weide at the blockchain research institute in Qingdao. China's latest move, however, has surprised many in what appears to be the shutdown of the country's cryptocurrency exchanges.

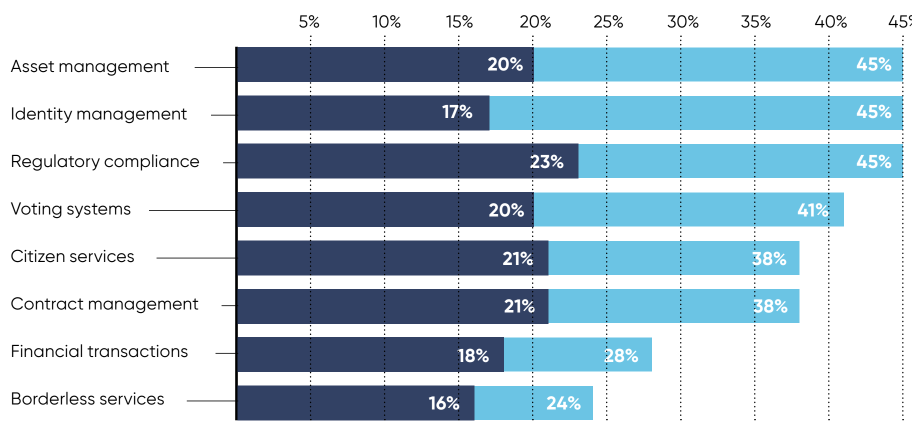
Imperial's Dr Mulligan notes that the Chinese government is very likely to be interested in the ability to track and trace every transaction made in its economy and records added to government databases. This poses the question could blockchain be used as a tool to aid surveillance of citizens and by extension as a means of suppression? China has a partly managed economy and an ambivalent attitude to human rights as a one-party authoritarian state. Just imagine pairing the power to have immutable records on your citizens with future technologies enabled by artificial intelligence, such as biometric surveillance. The vision is Orwellian.

This future may never materialise, according to Vili Lehdonvirta, economic sociologist and associate professor and senior research fellow at the Oxford Internet Institute, because most blockchain talk sets unrealistic expectations for the technology and is founded on unsubstantiated hype. "Let me put it this way, have they [BaaS providers] come up with a single client that is actually using it for something other than a prototype? Most of these problems people are seeking solutions to are organisational science problems," he says.

Technology is a tool and rarely a silver bullet, however much we may will it otherwise. Even if blockchain were to become a kind of digital philosopher's stone, at least the race it will have triggered to make government services and activities more efficient, transparent, consensus-based and trustworthy will have caused decision-makers to begin thinking imaginatively and talking seriously about pursuing these goals.

INVESTMENTS OF GOVERNMENT LEADERS IN BLOCKCHAIN

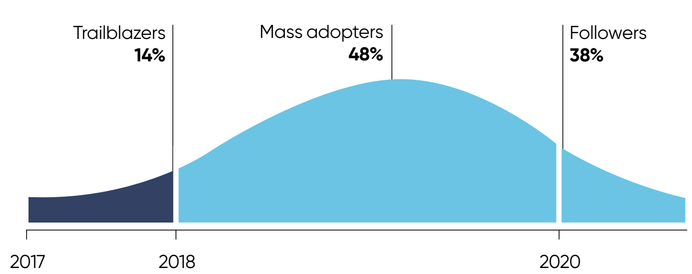
WHERE THE TRAILBLAZERS INVESTMENTS WENT IN 2016 COMPARED WITH OTHER AGENCIES



IBM 2017

GOVERNMENT STANCES ON BLOCKCHAIN WORLDWIDE

WHEN GOVERNMENT AGENCIES EXPECT TO HAVE BLOCKCHAIN IN PRODUCTION AND AT SCALE



IBM 2017

Get closer to your customers

Gain insight

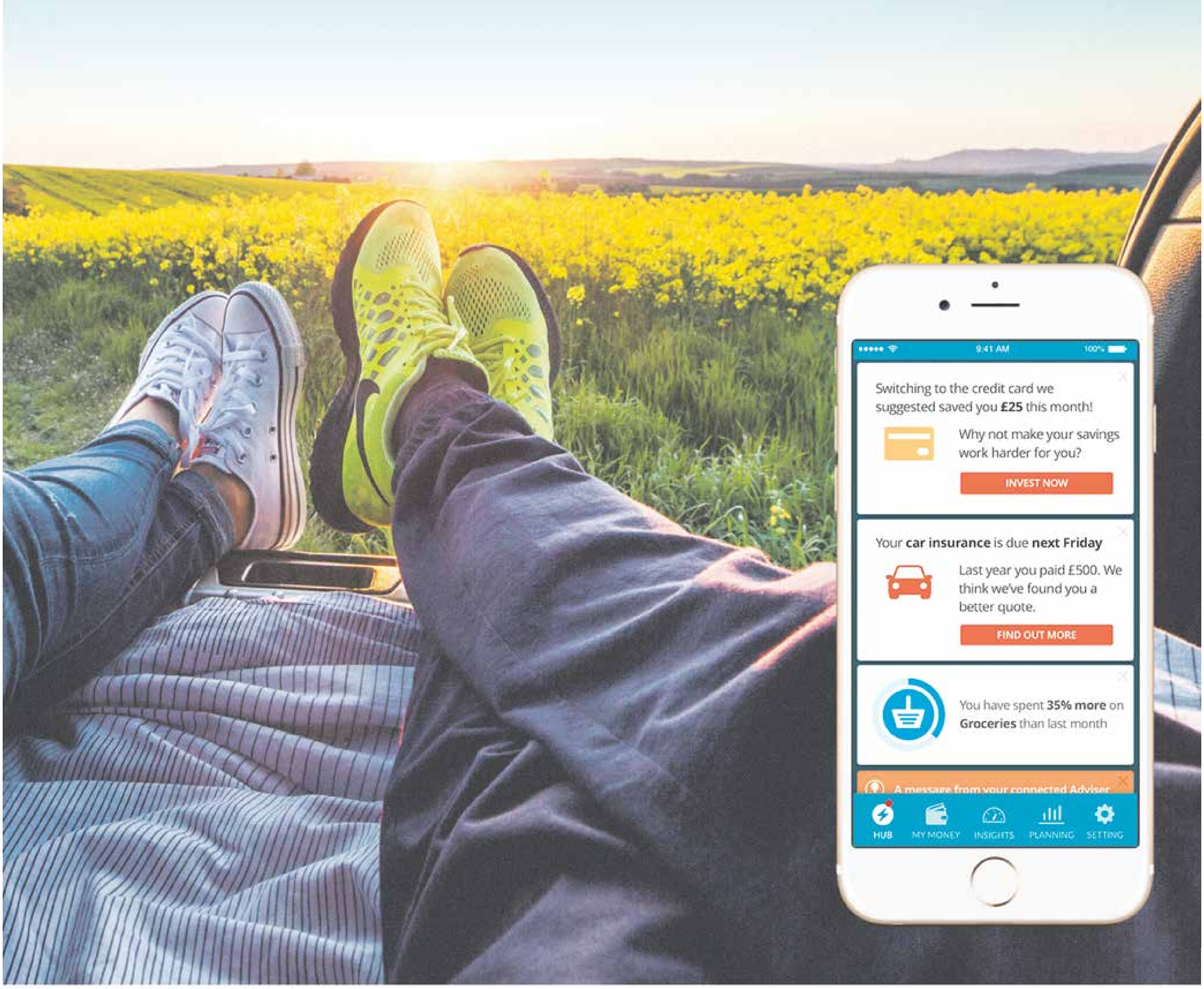
Discover your customers' spending and saving habits

Increase sales

Send timely nudges to promote relevant products and services

Build loyalty

Save customers time and money with personal financial analytics



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