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UK-TURKEY FINTECH WORKING GROUP

Case studies and insights

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TheCityUK

TheCityUK is the industry-led body representing UK-based financial and related professional services. In the UK, across Europe and globally, we promote policies that drive competitiveness, support job creation and ensure long-term economic growth. The industry contributes nearly 11% of the UK's total economic output and employs over 2.2 million people, with two-thirds of these jobs outside London. It is the largest tax payer, the biggest exporting industry and generates a trade surplus greater than all other net exporting industries combined.

London Stock Exchange Group

London Stock Exchange Group (LSEG) is an international markets infrastructure business. The Group provides valuable services for a wide range of customers focussing on capital formation, intellectual property and risk and balance sheet management. LSEG operates an open access model, offering choice and partnership to customers across all of its businesses. These include: London Stock Exchange; Borsa Italiana; MTS (a European fixed income market); Turquoise (a pan-European equities MTF); FTSE Russell, the global index provider with approximately $15 trillion benchmarked to its indexes; global clearing house LCH and technology specialist MillenniumIT. Headquartered in the United Kingdom with significant operations in North America, Italy, France and Sri Lanka, the Group employs around 4,500 people.

Borsa Istanbul

Established on the basis of Capital Markets Law no. 6362, Borsa Istanbul is a self-regulatory entity, bringing together all the exchanges operating in the Turkish capital markets under a single roof. Borsa Istanbul Exchange Group offers a fully integrated business model ranging from trading, settlement, custody and registry services for equities, derivatives, fixed income & repo, precious metals and Islamic finance products which are subject to free trade conditions. The main objective of Borsa Istanbul is to create, establish and develop markets, sub-markets, platforms, systems and other organized market places for the purpose of matching or facilitating the matching of the buy and sell orders for the above mentioned assets and to determine and announce the discovered prices.

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MESSAGES

Message from Prime Minister's Trade Envoy to Turkey and HM Consul-General Istanbul

As the UK Prime Minister's Trade Envoy to Turkey, my role is to emphasise the importance the British government attaches to close trade relations with Turkey. The innovative financial services and FinTech sectors are integral parts of that relationship.

An effective financial services industry provides the capital and expertise to support entrepreneurs, industrialists, and through them, whole economies. When the sector works well, it enables real and sustainable growth, and adds to the prosperity of everyone. When it doesn't work well it can be a source of instability in individual countries and across the world.

With the support of the British government, this welcome report provides a roadmap for closer collaboration between the UK and Turkey across the financial services industry, bolstering trade and investment opportunities for both countries.

Lord Janvrin
Prime Minister's Trade Envoy to Turkey

The British government through Prosperity programming are proud to be supporting this UK-Turkey FinTech Working Group initiative in collaboration with TheCityUK, the London Stock Exchange Group and Borsa Istanbul.

The UK Financial Services sector is already well represented in Turkey and we have strong representation from Turkish companies in the UK. With a solid platform to build upon I hope that through this report we will discover more ways the UK and Turkey can work together.

Judith Slater
HM Consul-General Istanbul

Message from the Ambassador, Turkish Embassy in London

Turkey with its fast-growing economy, unique geographical location, young and dynamic human capital and investor friendly environment continues to be one of the key emerging markets in the world. We are pleased to see more than 3,000 British companies operating in Turkey. In fact, the UK ranks fourth in terms of foreign direct investment (FDI) stock in Turkey and this demonstrates trust in the Turkish economy.

London is the world's top financial centre and Istanbul is emerging as another one. There is growing cooperation between Borsa Istanbul, London Stock Exchange Group and TheCityUK for transforming Istanbul into an international financial centre. It is great to see that our cooperation is now extending to the area of FinTech, which has witnessed rapid technological developments, innovation and entrepreneurship at the heart of Turkey's strong financial services sector.

I believe that this report would further enhance the collaboration between Turkey and the UK, as two great economic partners, in this relatively new and exciting field.

Abdurrahman Bilgiç
Ambassador, Turkish Embassy in London

FOREWORD

Across the world, FinTech is transforming financial services. It is revolutionising the way products and services are delivered, opening up access to competition from new entrants, and allowing customers greater and more flexible access to their financial services providers.

The UK has positioned itself at the forefront of the FinTech revolution, outpacing the global market in terms of FinTech investment growth. As a leading global FinTech hub, the UK-based sector employs over 60,000 people across the country and in 2015 was valued at around £6.6bn. Its success is underpinned by the heritage of the UK's world-leading financial services ecosystem, helping to make Britain one of the best places in the world to start, grow and scale a FinTech company. Turkey, on the other hand, has a relatively young but rapidly growing FinTech ecosystem. According to recent data, the FinTech market in Turkey, with more than 200 companies, is growing at an annual average of 14%.[1]

FinTech offers significant scale efficiencies in financial services, but it does need to also comply with a robust regulatory framework that preserves resilience, safety, and transparency. In that regard, Turkey faces similar challenges to the UK, particularly against the backdrop of its aim to make Istanbul an international financial centre. However, while it has a highly-skilled FinTech sector, it is currently under-developed and not fully diversified. We believe that by operating at government to government and also sector to sector level, with strong engagement between the two, the UK and Turkey may understand the fast evolving market landscape, and through shared insight, promote and support growth of new business – domestic and international.

This is why, as part of our UK-Turkey FinTech Working Group initiative, TheCityUK, London Stock Exchange Group, and Borsa Istanbul have compiled this paper to consider key aspects and opportunities for the sector and serve as a guide to helping develop mutually beneficial areas of knowledge and interest.

We hope this paper will help to deepen areas of cooperation between Turkey and the UK. It is composed of case studies and insights into FinTech, each written by a member of TheCityUK's UK-Turkey FinTech Working Group. We encourage readers to treat the paper as a starting point for further engagement, rather than an exhaustive guide for future collaboration. We are confident that the range of issues discussed throughout the paper will generate strategic and commercial outcomes for both countries.

This paper has been made possible by the financial support of the British Consulate in Istanbul and with input from UK-based and Turkish FinTech organisational and commercial stakeholders participating in the UK-Turkey FinTech Working Group. We would like to thank everyone who has contributed.

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[1] Deloitte, 'Türkiye FinTech Ekosistemi',(April 2017), available at: https://www2.deloitte.com/tr/en/pages/finance/articles/fintech-ecosystem-in-turkey.html

CASE STUDIES AND INSIGHTS

ROLE OF EXCHANGES

London Stock Exchange Group

London
Stock Exchange Group

Stock Exchanges sit at the heart of financial centres, catalysing innovation, entrepreneurship and economic growth. They enable growth through capital raising, convening the community to share research and insights, and offering execution channels for investors seeking and providing liquidity through secondary trading.

London Stock Exchange Group enables the global community to convene for the issuance and provision of capital for deployment world-wide. Buyers and sellers transact with confidence. Where companies or sovereigns originate from countries other than the UK, their capital raisings on London Stock Exchange Group via international investors effectively serve as FDI to these countries, supporting local jobs and enterprise.

It is the privilege of London Stock Exchange Group to have raised capital for companies and sovereigns that operate in more than 100 countries. Last year was remarkable: 107 initial public offerings (IPOs) raised $19.5bn, ranking London Stock Exchange first in Europe. Furthermore, nine out of 10 of these largest IPOs were international.

London is fast establishing itself as the home for technology companies and the global hub for FinTech. Listed in London are around 160 technology companies with a total market value of more than $231bn. Venture capital investment in UK FinTech companies in 2017 increased 37% to $600m – one of the world's highest levels of investment alongside the US and China. 2018 will be the third year London Stock Exchange Group convenes its FinTech Investor Forum, showcasing the most exciting and ambitious global FinTech companies. It is an opportunity for firms to connect with the investors and advisors who want to help them achieve their enormous growth potential and forms part of the UK's wider FinTech Investor week. This reflects the dynamic relationship among private equity, venture capital and institutional investors that participate in publicly listed companies. Capital providers increasingly are supporting each other across the equity funding ladder.

London's largest tech IPO in 2017, Alfa Financial Software, raised $360m, one of the largest UK tech listings since 2015. And currently, the UK is the home to four FinTech 'unicorns' – companies valued at $1bn or more – with a combined valuation of $18.5bn. However, FinTech opportunities for entrepreneurs and investors span much further than 'unicorns'. London serves large and small companies, giving them access to a unique deep liquid pool of investor capital.

Consider the case study of Boku, a FinTech company founded in San Francisco in 2008 that chose to list in London in 2017. The Delaware incorporated company received around $87m of funding from venture capital names, including Andreesen Horowitz, Benchmark Capital, Index Ventures, Khosla Ventures and NEA. But for its next stage of expansion, Boku chose to list in London. It successfully raised $59m on London Stock Exchange Group's global growth market, AIM, with a market capitalisation at IPO of $165m. Of the $59m capital raised, around $40m of the IPO proceeds represented a partial sell down by the existing venture capital shareholders. Providing capital for this IPO in London were a number of long term institutional investors, including: River & Mercantile; Schroders Investment Management and Legal & General Investment Management.

Today Boku has grown to become a leading provider of carrier billing services connecting merchants with mobile network operators in more than 50 countries, with annual revenues in excess of $20m. From this case study there are a number of key insights. In contrast to the US, London offers a viable IPO venue for growth businesses, including those from America, with sub $500m valuations targeting IPO deal sizes of $10m to $100m. This presents listing opportunities for technology companies with annual revenues of $5m to $100m, in particular pre-revenue mid-late stage BioTech and commercial stage MedTech businesses. More or less unique to London, compared with other listing venues, are high quality long term institutional investors on the buy side with small and

micro cap expertise and a strong appetite for international growth companies. This characteristic is a highlight of London's capital markets and highly relevant to today's FinTech businesses. And the myth around US valuations also no longer stands true. Overall, there is no persistent evidence that listing in the US delivers higher valuations at IPO or thereafter, in fact there are many examples of the very opposite being true. In technology verticals as diverse as online marketplaces, semiconductors, payments and cybersecurity, UK listed companies achieve and maintain superior valuations. Lastly, the London ecosystem provides potential for venture capital and private equity shareholders to sell down at IPO and achieve partial exit while continuing to participate in the growth of the enterprise. In contrast, sell downs by existing shareholders at IPO is very unusual in US growth IPOs.

FinTech is set to feature ever more widely with the attention and ambitions for smart cities, internet of things, artificial intelligence, machine learning, distributed ledgers including blockchain. Similarly, financial centres thrive on interconnectivity, and technology catalyses access. To this end, London Stock Exchange Group's business support and capital raising programme, ELITE, has evolved to become the training ecosystem of choice for high growth private small medium enterprises (SMEs).

Launched in 2012 by our sister exchange, Borsa Italiana in Italy, ELITE has grown to serve over 700 companies from across more than 28 countries representing:

- €57bn aggregate revenues
- 260,000 employees
- 10 industries
- 34 sectors.

View from Turkey

One of the main priorities for FinTech start-ups is to be able to reach sufficient funding. Borsa Istanbul via its Private Market Platform brings companies and investors together to buy and sell shares without going to public. Entrepreneurs seeking funding for start-ups, joint stock companies in need of finance, shareholders looking for liquidity, and other qualified investors can apply for membership. Services include buying and selling shares, professional brokerage, independent audit, legal and financial consultancy offered by the Private Market Platform's member intermediaries and service providers. Members also benefit from low-cost services offered by solution partner service providers.

Borsa Istanbul is in discussions with FinTech start-ups to explore cooperation possibilities in capital markets. In addition, Borsa Istanbul is working on a corporate venture capital fund to invest in innovative FinTech start-ups. Takasbank, Turkey's clearing house, is also involved in a range of FinTech initiatives especially concerning blockchain, crypto/digital currencies and cyber risks areas.

Borsa Istanbul

ELITE companies cultivate relationships, become customers and counterparties. For example, 207 ELITE companies have been involved in 467 transactions worth more than $6bn across the world. 130 ELITE companies have engaged in 248 merger and acquisition (M&A) and joint venture deals. 81 ELITE companies participated in 126 private equity venture capital transactions and 36 ELITE companies have raised bonds worth more than $1bn notional. Fourteen ELITE companies have listed on a public market, raising more than €440m.

London Stock Exchange itself can cite three recent examples of ELITE companies that have set various capital raising precedents:

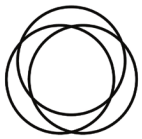
1. IntegraFin, a FinTech company that provides platform services to UK financial advisers and their clients through its award winning platform, Transact, was the first ELITE company to join the Main Market of London Stock Exchange Group. It was valued at £649m when it listed.
2. LendInvest, the UK online platform for property lending and investing, was the first ELITE company to list a retail bond on London Stock Exchange Group's Order Book for Retail Bonds (ORB), raising £50m.
3. Van Elle, the UK's largest geotechnical engineering contractor, was the first ELITE company to float on AIM, the global growth market of London Stock Exchange Group, raising £49m.

Welcoming IntegraFin to London's markets was a cause for celebration for the company and a beacon for fast growing businesses across the UK. IntegraFin is one of three major Fintech listings on London Stock Exchange in 2018 so far, joining Vantiv/Worldpay and TruFin. It demonstrates the UK's ability to grow and support ambitious companies and London Stock Exchange Group's commitment to backing these firms not only at IPO but throughout their growth journeys.

London Stock Exchange Group plays a leading role in championing the thriving domestic and global Tech sector, supporting dynamic firms from FinTech to Biotech at IPO and throughout their development.

Dr. Robert Barnes, Chartered FCSI
Global Head of Primary Markets and CEO of Turquoise Global Holdings, London Stock Exchange Group

THE IMPORTANCE OF ECOSYSTEM ECONOMICS



Motive Partners

Innovation and collaboration have been a hot topic in today's business community in recent years, particularly within Financial Services. Technology has had a profound impact on all industries and it has enabled the rate of innovation to increase dramatically. It comes as no surprise that according to PwC's Global Top 100 Company report of 2017, 20% of the global top 100 companies by market capitalisation are pure technology providers, not including businesses such Amazon and Alibaba that provide their services solely through technology. By nature, innovators are pathfinders and pioneers, but more than ever they require commitment and support from the industries they serve and an environment that enables partnership and competition. Ecosystem economics has never been so important

Why does successful innovation today require partnerships?

If we benchmark innovation as deploying new market leading technologies to make consumers' lives and businesses' operations more efficient, cost effective and secure, then it is our firm belief that the best way to do this is via partnership models.

By nature, partnerships can and should help create economies of scale, which many smaller firms are unable to create effectively alone but can contribute to plentifully alongside other businesses. In Research and Design (R&D), ensuring the economic benefits of multiple parties inputting their own expertise can lower the cost, add to the outcome and critically reduce duplication of R&D time and cost.

From a global perspective, international partnerships and communication can help businesses reduce R&D duplication. While some inefficiencies are acceptable, as technology breaks down international logistics and communication barriers, these will become less acceptable. Cost and time efficient R&D is a crucial part of innovation and improving equity value, therefore by improving knowledge transfer, ensuring wide spread best practice and increasing the size of the network across the globe through partnerships, we improve the overall outputs – distribution is the new capital, in more ways than one.

What are the right ingredients for global innovation hubs?

The Z/Yen Group's Global Financial Centres Index (GFCI) defines a financial centre as: 'Financial centres funnel investment toward innovation and growth. Vibrant, competitive financial centres give cities economic advantages in information, knowledge and access to capital.'

The key ingredient for the nuanced Innovation Hubs, building on the definition above, is collaboration and international partnerships. Geographic location is often perceived as major barrier to international partnership success, particularly when growing a business into new markets. Creating bridges between countries is a simple solution for this as it breaks down barriers into new markets and improves the likelihood of cross-border relationships. Look no further than the UK, creating FinTech bridges and providing access East and West, or Turkey as the gateway to Asia and the UAE for access into the Middle East and North Africa. However, it is important to remember that GDP is driven by businesses rather than governments, and that the responsibility should be on businesses to form business-to-business partnerships.

For innovation hubs to exist, right touch regulation is key. In today's financial services sector, there is arguably nothing more important than pro-competition regulation with directives like the Second Payment Services Directive (PSD2); the Markets in Financial Instruments Directive II (MiFIDII); the General Data Protection Regulation (GDPR); and regulations alike outside of Europe instructing the industry towards more fairness and transparency for the benefit of the consumer and businesses alike. For these regulations to work effectively the industry must work together to create and adhere to the new benchmarks and standards. Regulators must also be open and ready to work with businesses to create this environment and create more of a win-win ethos in an industry that has been traditionally plagued by greed. The UK's Financial Conduct Authority (FCA) has been a leader in setting these standards for the financial services sector. The FCA's regulatory sandbox is a prime example and has been replicated across the globe. The sandbox allows businesses of all sizes to test their operations and compliance in a safe environment, and gives regulators a chance to learn and improve regulation based on real-time data.

What are the biggest opportunities in financial services innovation via collaboration?

The creation of collaborative industry utilities in non-competing areas of financial services is the logical next step for the industry. Due to stakeholder, regulatory and consumer pressures financial institution boards are under pressure to improve efficiencies by investing in innovation, reducing overheads and then also increasing top-line growth and capital risk ratios. Building utilities solves both these issues and create upside for those that buy-in via equity value creation, but most importantly increase in effectiveness as more partners are added to the utility, driving down the servicing costs. Obvious areas to create utilities in financial services include: trade surveillance, post-trade settlements, creating data and artificial intelligence (AI) focused utilities.

Similarly, having international partnerships on issues such as cyber-security, data and compliance is essential, particularly as technology embeds itself further into society. For this to happen cross border partnerships between regulators and businesses are critical.

By collaborating more globally we will also improve systemic risk and risk management as many of the businesses that solve issues around risk are based on network effects. A company such as LMRKTS, which reduces risk by providing multi-lateral and dimensional portfolio compression in a way that drives down exposures and reduces costs for every participant, has the potential to create benefit across the global economy – the company has reduced over $4trn of counterparty risk in the past 18 months alone. As a network model, the more partners LMRKTS has the more effective it is – the embodiment of Ecosystem Economics.

Alastair Lukies CBE
Founding Partner, Motive Partners
UK Prime Minister's Business Ambassador

Sam Tidswell-Norrish
Principal, Motive Partners

REGULATORY AND LEGAL ASPECTS OF FINTECH

Michelmores LLP and Freshfields Bruckhaus Deringer LLP

The term FinTech is used to describe the application of technology to financial services. Technological change in financial services is nothing new, but what is new is the pace of change coupled with a significant amount of investment. FinTech is affecting all aspects of financial services, from disruptors to collaborators, retail services to investment banking, front office to back office. FinTech has also brought to light entirely new services and products that didn't exist five years ago – for example, virtual currencies, distributed ledger technology, crowdfunding, robo-advice.

In relation to these new products and services, the applicable regulatory position is not always clear. Taking virtual currencies (also known as cryptocurrencies) as an example, a key problem for regulators is the definition of cryptocurrencies and tokens – a clear definition is an essential pre-requisite to 'good' regulation. It seems that the prevailing view among regulators is that cryptocurrencies are more akin to an asset class than a currency.

At present, the three key areas of concern shared by regulators worldwide relating to cryptocurrencies are:

- consumer protection (including the protection of personal data)
- the prevention of financial crime, in particular money laundering
- the integrity of the markets.

Currently, we find ourselves in a somewhat counter-intuitive position. National regulators are reluctant to regulate, or indeed, may not be sure how to regulate, whereas many participants want to be regulated so as to have the badge of credibility that goes with authorisation.

Regulatory enforcement in this area can be sporadic and primarily focused on money laundering, (see the US authorities acting against the Silk Road). In Turkey, an example was given of drugs money being laundered through Bitcoin.

Initial Coin Offerings (ICOs) have also received a lot of attention recently, being ways of raising funds from the public, effectively by way of a coin or token sale – usually in exchange for cryptocurrency. The regulatory position in relation to ICOs is similarly not always clear (and where it is, it is often because ICOs are banned). The confusion is compounded by the fact that the broking of ICOs may well fall within regulation. A number of regulators have caveated their position by stating that the characteristics of the token issued will determine whether the token is considered to be a security, a form of payment or a representation of some sort of service or utility. The current position of many regulators, which appears to be one of 'wait and see', is unlikely to be sustainable in the longer term. Indeed, we are beginning to see guidance emerging (e.g. in Switzerland).

As to consumer protection, in the UK for example, ICOs are generally unregulated (although again, this depends on the characteristics of the coin being offered) but the FCA has issued stark warnings to consumers about the risks.

At the other end of the FinTech spectrum are financial services or products which, although enabled by cutting edge technology, clearly fall within regulation. Regulators are also starting to be much more encouraging of start-ups and new services. In order to encourage competition through advances in technology, in many countries, national regulators now have the powers to relax their requirements or provide guidance through so called 'sandboxes'. Sandbox participants may benefit from lighter-touch regulation, but are required to provide often detailed information to the regulator which will help better inform regulation going forward. Here regulation appears to be working well.

Predominantly, regulators are tending to follow 'neutral' regimes (or relying on their existing frameworks) rather than producing detailed rules and regulations specifically on FinTech. This is often through 'principles based' regimes where regulators have greater discretion and flexibility.

Two further important issues relate to the protection of personal data and intellectual property (IP). The introduction in the EU of the GDPR, with its enhanced requirements, will have a significant impact on many FinTech companies. Improved methods of IP protection are also likely to be required to enable FinTech companies to flourish.

In the UK, the FCA has four objectives. Its strategic objective is to ensure that the relevant markets function well.

The FCA's operational objectives are to:

- protect consumers – the FCA aims to secure an appropriate degree of protection for consumers
- protect financial markets – with the aim to protect and enhance the integrity of the UK financial system

View from Turkey

Cost efficiency, financial inclusion, establishment of an eco-system, intellectual property rights and cyber security are the most important considerations for the regulators. There are a number of ongoing regulatory initiatives concerning FinTech in Turkey. A working group composed of the Central Bank of Turkey, the Capital Markets Board and the Banking Regulation and Supervision Agency has been studying cryptocurrencies. In addition, the Banking Regulation and Supervision Agency has been collaborating with payment services firms to ensure growth and to contain cyber risks. Last but not least, Turkey's Ministry of Development is expected to cover FinTech in the 11th National Development plan to be published in June 2018.

Borsa Istanbul

- promote competition – the FCA aims to promote effective competition in the interests of consumers.

It is worth noting the FCA's focus on financial inclusion and the ability of FinTech to provide services to vulnerable consumers. In 2016, the FCA hosted a TechSprint event focussing on this and the only mention of FinTech in the FCA's 2017 mission related to financial inclusion:

"We can use our convening powers to bring participants together and explore innovative ways of improving market effectiveness, such as developing FinTech to reduce the cost of financial services or to extend access to vulnerable consumers."

It also features as one of the eligibility criteria of the robo-advice unit (potential to deliver lower cost advice or lower cost guidance to unserved or underserved consumers).

Noting in particular that innovative tech can create better competition, the FCA is seeking to promote innovation as part of the 'virtuous circle' of competition, where competition is a very powerful driver of innovation and vice versa. With that in mind, the FCA set up Project Innovate,[2] which aims to tackle regulatory barriers to allow firms to innovate in the interest of consumers. Project Innovate consists of:

- direct support and guidance
- an advice unit – a dedicated team providing feedback to firms developing automated advice and guidance models
- the sandbox – ultimately to facilitate testing
- engagement with others, covering industry (such as the FCA's 'themed weeks'), regional engagement (i.e. outside of London) and international engagement with other regulators.

In respect of the FCA innovation agenda and the sandbox, it has available, where permitted, certain tools, such as restricted authorisation, individual guidance, waivers of rules and no-enforcement action letters.

Looking to crowdfunding as a practical example of legislating a new area, the FCA reviewed the peer-to-peer lending sector and noted that while equity-based crowdfunding platforms were already likely to be included in the regulatory perimeter, loan-based platforms (also known as peer-to-peer lenders) were not. When it took on competence for consumer credit activities in April 2014, the FCA brought in a bespoke, lighter-touch regulatory regime which applied to the operators of loan-based peer-to-peer platforms. The FCA has been keeping developments in the peer-to-peer lending sector (both equity-based and loan-based) under review. We expect to see revisions to the regulatory regime in the future, including a consultation paper with proposals for rule changes, addressing the concerns raised by the FCA in its interim review paper. While this might be somewhat difficult for the affected providers, who will need to keep updating their policies and procedures, as well as keeping up to date with the regulatory requirements that apply to them, the intention of the review is a proportionate and appropriate regulatory regime.

The European Commission is also considering legislation on crowdfunding and has very recently published a proposal whereby operators of platforms can 'opt in' to an EU framework. This includes an EU regime that platforms wishing to conduct cross-border activity could opt into, while leaving the rules for platforms conducting only national business unchanged. Whether this will be the ultimate outcome for this proposal remains to be seen.

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[2] FCA Innovate, (March 2018) available at: https://www.fca.org.uk/firms/fca-innovate

DEVELOPMENTS IN ISLAMIC FINTECH

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Islamic finance offers some of the greatest opportunities for the future of the financial and related professional services ecosystem. Across the world, the majority of Muslims cannot bank or use financial products in accordance with their faith, which has a negative impact on financial inclusion rates, especially in developing countries. FinTech presents opportunities to address this, enable greater reach and generate positive disruption for the sector. It is already a fast growing area within Islamic finance and developments in Islamic FinTech will improve access to Sharia compliant financial products. Estimates suggest that globally Islamic banks are dedicating between $15m and $50m to technological advancement over the next three years, suggesting the necessity of investing in FinTech for proficiency and growth within the Islamic banking sector has clearly been taken on board.

Islamic FinTech in the UK

Despite being the western hub for Islamic finance, growth in Islamic retail banking in the UK has been relatively slow. As referenced above, this impacts on financial inclusion for many UK Muslims and FinTech development will improve this. 'The Islamic FinTech Landscape', published in December 2017 by the Red Money Group, found that of the 116 Islamic FinTech firms globally, 18 were founded in the UK, making it the second largest hub for Islamic FinTech after Malaysia. Increased understanding, regulatory acceptance and growth in supply and demand are driving Islamic FinTech in the UK.

In 2014 a report produced by EY for the UK government categorised the conventional FinTech space into – payments, software, data and analytics, and platforms. The highest growth areas are peer-to-peer platforms, online payments and the data and analytics products. This is the same for conventional and Islamic FinTech products.

UK Islamic Finance FinTech Panel

In January 2018, TheCityUK hosted the first meeting of the UK Islamic Finance FinTech Panel. The aims of the panel are to:

- identify the challenges in the sector
- explore the avenues to overcome these
- build cohesion in the community
- promote the Islamic FinTech sector
- drive the policy agenda.

This self-formed and funded group has over 20 practitioner members whose products include:

- financial intermediaries offering Sharia compliant trading platforms operating 24/7
- the first UK Regulator approved, Sharia compliant, crowdfunding, property purchase scheme
- a platform which will, by gathering data, offer a more accurate assessment of trends in the property market and could challenge existing Sharia home funding
- a tool that monitors and scores the 7000 leading global companies for ESG and if required faith compliance
- crowd funded education support for students.

View from Turkey

Islamic finance today functions within the conventional finance sphere, which is dominated by fractional reserve banking principle. However, FinTech will enable the development of products and structures specific to Islamic finance, allowing Islamic finance to break through from the conventional finance products.

Centre for Islamic Economics and Finance, Istanbul University

Three main themes emerged from the panel's initial meeting. Firstly, despite the global figures above, Islamic FinTech in the UK is not receiving as much investment as the conventional FinTech sector. The investor community needs convincing that this is a viable segment with broader mass market appeal. One of the problems that has been facing UK Islamic FinTech firms has been the lack of scale and related to this higher research and development costs. As the model is unproven, UK FinTech start-ups have had to bootstrap for an extended period.

Secondly, there is a fear that conventional FinTech products will be adapted to meet Sharia requirements, or they are simply non-compliant. Instead of building parallel solutions to the conventional FinTech sector, the focus should be on developing new products.

Islamic finance customers need further information and education, especially those who question the Sharia compliance of Islamic finance products. There is also a need to educate Islamic scholars with training in basic technological and financial concepts. For example, some scholars have expressed concerns that self-executing smart contracts might not be acceptable for some murabaha transactions.

Thirdly, the need for innovation. A model that has evolved for conventional FinTech is the industry sandbox – a mechanism to accelerate regulatory authorisation and a safe space for experimentation developed by the UK regulator. For Islamic FinTechs, the concept of a benevolent funder, such as an Islamic bank, might be considered. The commercial incentive would be to partner with start-ups to enhance their own business which is at risk of disruption. Key to addressing the challenges and establishing successful Islamic FinTechs in the UK will be securing the participation of banks inside and outside of the UK.

View from Turkey

Participation banks in Turkey consider financial technology as an opportunity rather than a threat. By their unique nature, participation banks have a responsibility towards society and they see FinTech as a tool to contribute to financial inclusion and provide improved services at lower costs to consumers. For example, Kuveyt Turk Participation Bank launched 'Senin Bankan (Your Bank)', which is the world's first interest-free digital branchless banking platform. The platform provides banking services to customers without the need to go to a branch and offers a wide range of services from applying for a credit card to financing or life insurance. In addition, Albaraka Turk Participation Bank set up 'Albaraka Garaj', which is a Start-up Acceleration Centre, where financial technology based business ideas/projects are supported by incubation and acceleration facilities. Albaraka Garaj focuses mainly on projects in the fields of financial technologies, Islamic finance initiatives, payment systems, crowdfunding, internet of things, big data, blockchain, artificial intelligence, chatbot and insurance technologies. As new business models evolve and competition among banks increases, it is expected that other participation banks in Turkey will take a more active role in adoption of FinTech solutions.

Global Islamic Finance Development Center, World Bank

Next steps and possible cooperation

Recent UK-Turkey FinTech Working Group meetings have confirmed that Turkey and the UK face similar issues. A report by TheCityUK, Santander and Shearman & Sterling, 'Transformation and Innovation: A guide to partnerships between financial institutions and FinTechs', suggests that further work will be required with partners and funding would need to be identified. However, the key findings of that report and the models of collaboration listed could be adapted for bilateral or regional cooperation in Islamic finance. A summary of this report is included in the final section of this paper and the full version can be found at www.thecityuk.com.

PRINCIPLES AND DEVELOPMENTS OF ISLAMIC FINANCE

Principles

The underlying financial principles in Islamic finance have remained unchanged historically since their development over 1,400 years ago. Financial products must be certified as Sharia compliant by an expert in Islamic law. Certification requires that the transaction adheres to a number of key principles that include:

- Backing by a tangible asset, usufruct or services, so as to avoid 'speculation' (gharar). Prohibition of interest payments (riba).
- Risk and return to be shared among participants.
- Limitations on sale of financial assets and their use as collateral.
- Prohibition of finance for activities deemed incompatible with Sharia law (haram), such as alcohol, conventional financial services, gambling and tobacco.

Modern development

Modern Islamic finance emerged in the mid-1970s with the founding of the first large Islamic banks. Development initially occurred through the marketing of a steadily expanding supply of Sharia compliant financial instruments. This supply-driven model contributed to relatively slow growth until the mid-1990s. Since then, demand has increasingly driven the development of Islamic finance instruments.

In 1990, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) was created to establish industry accounting and auditing standards. The 1990s saw a diversification of potential avenues for Islamic banking. Rising awareness and demand for Islamic products, along with supportive government policies and growing sophistication of financial institutions, have together raised the rate of growth.

The 2000s were the most important decade in global Islamic banking. This is due to the emergence of sukuk and other structured Islamic finance assets along with the proliferation of developing capital markets. Islamic banking has innovated increasingly more sophisticated Islamic finance instruments in recent years capable of greater flexibility and agility in liquidity management.[3]

[3] Global trends in Islamic finance and the UK market, TheCityUK, (September 2017) available at: https://www.thecityuk.com/assets/2017/Reports-PDF/Global-trends-in-Islamic-Finance-and-the-UK-Market-FINAL.pdf

FOSTERING BEST PRACTICE IN ISLAMIC FINANCE

Chartered Institute for Securities & Investment (CISI)

In the world of Islamic finance, knowledge is in strong supply; the development of the right skills to deploy that knowledge for the benefit of clients, institutions, and the wider community follows close behind. Nyra Mahmood, Managing Director of Simply Sharia Human Capital, a global platform cultivating talent, knowledge and innovation across Islamic economic sectors, said at a recent Chartered Institute for Securities and Investment (CISI) conference on this theme in London: "Human capital development best practice begins with education. Despite there being nearly 400 institutions providing Islamic finance education globally,[4] there is a lack of consistency in delivery of courses; in academic information and definitions; in assessments, curricula and even the competencies candidates acquire. Many courses from reputable universities are heavy on Islamic finance knowledge, but lack the practical knowledge needed to work in the industry and innovate through technology. It is essential for industry to address this mismatch between education and skills, and work with educators to formulate, develop and agree on professional standards, use of Fintech and digital expertise to raise competences."

Ms Mahmood holds the CISI's Islamic Financial Qualification (IFQ), which delivers these skills. CISI was formerly part of London Stock Exchange, and now has more than 45,000 members in some 120 countries worldwide. Islamic finance professional qualifications have been specifically developed to provide financial services professionals with specialist knowledge and expertise to foster strong careers in all areas of Islamic finance, including Islamic economics and business ethics, Sharia and Islamic commercial jurisprudence, sukuk, takaful, and Islamic corporate governance.

Ms Mahmood adds: "Industry must also make a concerted effort to create pathways for graduates, including graduate schemes, internships, and placements. Graduates must become a part of the recruitment armoury of Islamic finance and as an industry; we cannot exclusively rely on conventional financial services for talent, at the expense of non-investment in young graduates, who are agile, digitised, and connected. One way to tackle this is through talent development programmes, which foster knowledge, mentorship, support, employee engagement, and a mindset that is flexible towards change. Human relations departments in Islamic finance institutions have to take the long view and invest time and resource to create such programmes, and continuously review, assess, and evaluate them, so employees get the most out of them."

The CISI Islamic finance study pathway has been developed in conjunction with the Bahrain Institute on Banking and Finance and l'Ecole Supérieure des Affaires in Beirut, and is supported by the Central Bank of Lebanon. It is backed by many of the world's leading practitioners in this field, many of whom have been involved in the qualification since its infancy, and contribute to its development and ongoing practical relevance.

Amongst these is Stella Cox CBE, Managing Director, DDCAP group and Chair of TheCityUK Islamic Finance Advisory Group. She says:
"From its launch over a decade ago, the IFQ has become established as a leading qualification for Islamic financial services professionals."

George Littlejohn
Senior Adviser, Chartered Institute for Securities & Investment

[4] Islamic Finance Development Indicator (IFDI) Report 2015

ATTRACTING AND TRAINING THE STUDENTS OF TODAY FOR THE JOBS OF TOMORROW

The Association of Chartered Certified Accountants (ACCA)

Organisations cannot attract, nurture or retain the finance leaders of tomorrow in the same way as the leaders of today. With innovation and the pace of change at an all-time high creating a 'new normal', and drivers such as globalisation and digitisation influencing the future, the opportunities for the finance profession have never been greater in helping promote growth and prosperity in the global economy. Yet adding to the equation the ambitions of today's young workforce, the stakes for the attraction, engagement, development, and retention of the youngest generation in the profession today are high. It is therefore important that governments, central banks, ministries of finance and education understand how to develop a pipeline of talent, with the right behaviours necessary for a sustainable financial services sector.

School students

Though many students will not formally choose their careers until the age of 16 upwards, it is absolutely necessary that younger students are included as part of any policy development. This is for a number of reasons: the first is to ensure greater understanding and inclusivity of young girls in science, technology, engineering, and maths (STEM) subjects. The second is that as financial services become more accessible through companies, such as, goHenry,[5] a pre-paid pocket money card and App ensuring that young children understand the fundamentals of money and technology, learning how they interact, what the true purpose is and how to remain responsible. The last point is to ensure that children understand how to stay safe when using technology, whether it is using social media, shopping online or understanding cyber security (for example, Barclays LifeSkills).[6] Leading financial companies through corporate social responsibility programmes may wish to work with local communities and schools to support coding clubs and work experience, especially for low income families.[7]

Universities

There are a number of challenges which governments will have to address when considering both international growth and digitisation of economies. Firstly, when looking at core business and finance qualifications, it is important to have industry participation in setting the curriculum to help prevent graduates qualifying with outdated knowledge. The closer these can be aligned with international standards, the greater support they will provide to those working with foreign investors into the Turkish market. The ACCA, a global professional accounting body, works with a number of universities in Turkey to shape the curriculum of their courses to match what employers are looking for. Professionalism and strategic thinking are also incredibly important, to ensure graduates are able to cope in real life workplaces.

Aside from specific financial qualifications, it is important to ensure there is high-level participation in STEM subjects at university level, including from underrepresented groups of society (women, ethnic minorities, lower income backgrounds). Computer sciences and financial mathematics are traditionally focussed on, but subjects like quantum computing, data analytics, and AI are rapidly growing in importance. The government and universities need to be constantly communicating with the financial services sector to understand what challenges lie ahead.

Professionals

In traditional financial professions, such as accountancy, continuing professional development is highly important in staying relevant. As technology develops and industries inevitably become more automated, professionals need to upskill, either in specific technical areas, or in complementary areas to ensure they are able to work with and understand new technologies, as well as understand the regulations surrounding them. The ACCA's Professional Insights team produces a number of reports to support governments, regulators, and members in remaining aware of developments in technologies, such as FinTech, blockchain, AI, and cyber security.[8]

[5] GoHenry, (March 2018) available at: https://www.gohenry.co.uk/
[6] Barclays LifeSkills, (March 2018) available at: https://www.barclays.co.uk/digital-confidence/lifeskills/
[7] Digital Horizons, (March 2018) available at: https://digitalhorizons.org.uk/about/
[8] ACCA, Technology research from professional insights, (March 2018) available at: http://www.accaglobal.com/uk/en/professional-insights/technology.html

It is also important to recognise the requirements of those outside of the workplace, to ensure they are able to utilise the technological developments coming from the financial services sector. The traditionally un-banked, elder generations, community organisations and others are all participants in the ecosystem, and so it is vital to ensure they are able to understand and access exactly the same services as others.

Drivers of change

Beyond technology, there are a number of drivers of change that must be considered when planning for the future. Today's workforce has ever increasing expectations for global mobility; for creating social and public value; and for opportunities to innovate. Skills aside, performance is becoming increasingly dependent on key behaviours beyond technical expertise.

The ACCA's 'Drivers of Change and Future Skills' report describes the seven quotients needed for success:

- **Technical and ethical competencies:** The skills and abilities to perform activities consistently to a defined standard while maintaining the highest standards of integrity, independence and scepticism.
- **Intelligence:** The ability to acquire and use knowledge: thinking, reasoning and solving problems.
- **Creativity:** The ability to use existing knowledge in a new situation, to make connections, explore potential outcomes, and generate new ideas.
- **Digital quotient:** The awareness and application of existing and emerging digital technologies, capabilities, practices, strategies and culture.
- **Emotional intelligence:** The ability to identify your own emotions and those of others, harness and apply them to tasks, and regulate and manage them.
- **Vision:** The ability to anticipate future trends accurately by extrapolating existing trends and facts, and filling the gaps by thinking innovatively.
- **Experience:** The ability and skills to understand customer expectations, meet desired outcomes and create value.

Furthermore, investors are demanding greater transparency and ethical standards applied to their companies. And in a world where business models are transforming towards lighter, more digital structures, it is important that ethical principles are embedded to ensure a system which is both safe and sustainable. The ACCA's report, 'Ethics and Trust in a Digital Age',[9] reinforces the importance of strengthening ethical behaviours and standards in the financial services sector, especially as the risk of cybercrime increases.

Vikas Aggarwal
Head of Policy – Emerging Markets, ACCA

View from Turkey

It is not easy for university students to reach FinTech related contents, especially in their own language. Stakeholders in the FinTech ecosystem should play a critical role for delivering educational services by organising events at universities.

FinTech Istanbul

[9] ACCA, 'Ethics and trust in a digital age', (September 2017), available at: http://www.accaglobal.com/content/dam/ACCA_Global/Technical/Future/pi-highlights-ethics-trust-digital-age.pdf

REACHING THE POOR:
IS FINTECH A FIX FOR FINANCIAL EXCLUSION?

Chartered Institute for Securities & Investment (CISI)

'Reaching the poor: The intractable nature of financial exclusion in the UK', a recent report by think tank the Centre for the Study of Financial Innovation (CSFI), asked whether FinTech can provide a helping hand to the poor. It found that it almost certainly can.

This is a broad-brush review of recent progress in financial inclusion, and of the problems that remain. Dr Andrew Hilton, the Centre's Director (and a former World Bank economist), says:

"My own take-away is that, for all the genuine progress that has been made (and it should not be minimised), there remains an intractable problem of how to deal with the least advantaged, most excluded people in society – those who are not just unbanked, but perhaps unbankable. In that sense, the (very) poor will be 'always with us' – but we can at least chip away at the edges of the problem, and improve conditions and prospects for those who are one or two steps up the ladder of financial inclusion."

Much of the groundwork was laid by England's Christian leader, the Archbishop of Canterbury who, when he was Bishop of Durham, personally funded a preliminary study into how the country's network of churches could be used to build a new form of credit union infrastructure. Regarding Britain's work in this area Sir Hector Sants, former head of the Archbishop's task group on responsible credit and savings, and also a distinguished investment banker who was formerly head of Britain's investment regulator, says:

"The importance of maintaining momentum in addressing the challenges posed by financial exclusion has never been greater… However, although the importance of having an inclusive finance sector is widely recognised, there remain some critical areas of debate where a consensus has yet to be formed."

Harry Atkinson, who runs a major open banking programme at Nesta – a think tank chaired by Sir John Gieve, former deputy governor of the Bank of England – asks the question, can FinTech offer a solution?

The term FinTech does not just mean financial technology, he reminds us:
"After all, financial technology has been around since the days of barter. What the current buzzword tries to describe is the many new initiatives in the delivery of banking, investment and payments through an evolving mix of software, the internet, Big Data, machine learning, etc, through personal devices and other innovative channels. So, what can FinTech (as defined above) do for the financially excluded?

That question, when directed towards consumers in emerging economies, has attracted substantial interest from social entrepreneurs, international development agencies, financial institutions and telecoms companies. However, the issue has so far attracted less attention here in the UK – few FinTech entrepreneurs are developing products aimed primarily at the financially excluded."

That said, he believes there is considerable potential in both the short and long term, and that comes in two forms. He identifies possible 'moonshots', such as open banking and platform banking. Then, 'back to earth' he sees great short-term potential in easier fixes in areas such as credit scoring, particularly for those relatively unknown to the financial sector, with 'thin files' in savings and insurance.

"It is far too early to draw any firm conclusions about the implications of FinTech for financial exclusion," says Mr Atkinson. "But the potential is clear. A financial exclusion strategy that does not factor in emerging financial technologies is at risk of becoming quickly outdated."

George Littlejohn
Senior Adviser, Chartered Institute for Securities & Investment

View from Turkey

FinTech developments within Islamic finance will facilitate for the participation banks to reach the underbanked population and increases financial inclusion.

KT Portföy

UNLOCKING THE POTENTIAL OF FINTECH

The Institute of Chartered Accountants in England and Wales (ICAEW)

The potential of FinTech is much discussed, and much hyped. Technology has a key role to play in transforming financial services, from regulatory reporting, to encouraging saving and easier and faster payments. Often overlooked amidst the hype is the role technology can play in improving financial inclusion. The four elements of inclusion – access to payments, credit, insurance and investment – are all being disrupted, and while innovation presents us with new platforms and services (often manifest as better functionality at a lower price) there is space to target overlooked segments of the market, such as the two billion people worldwide who do not have access to a bank account. It is here that technology will make the greatest difference.

A further example is the potential of the financial technology of blockchain, which will bring a foundational change in how financial records are created, kept and updated. Rather than having one single owner, blockchain records are distributed among all their users. The genius of the blockchain approach is in using a complex system of consensus and verification to ensure that nevertheless (even with no central owner and with time lags between all the users) a single, agreed-upon version of the truth propagates to all users as part of a permanent record. This creates a kind of 'universal entry bookkeeping', where a single entry is shared identically and permanently with every participant. This concept has the potential to further financial inclusion globally.

Working in partnership

Financial regulatory expertise and experience differs between any two countries. By working together, governments and regulators can share expertise, experience and innovations so that both countries benefit and the potential of FinTech can be unlocked and realised. A range of aspects for such cooperation were discussed in UK-Turkey FinTech Working Group meetings. One key challenge highlighted is finding the right level and form of regulation to nurture FinTech while managing risks and protecting investors and the public. Another challenge is identifying and delivering the right education for all ages to foster financial inclusion, and at the same time equipping current and future FinTech innovators with cross-discipline skills and education.

As a leading educator of finance professionals in the UK and globally, ICAEW has worked in close partnership with counterparts in many countries to jointly build capacity and to deliver tailored training and qualifications. ICAEW emphasises that local institutions' knowledge and expertise must be the starting point of any successful partnership. ICAEW has worked with and alongside Turkish institutions for a number of years. ICAEW has worked with the Capital Markets Board of Turkey on developing Quality Assurance. TURMOB, the professional organisations for finance professionals, accountants and auditors in Turkey, is a founder member of the ICAEW Accountancy Profession Strategic Forum, which brings together professional organisations from across Europe. TURMOB is also a member of the ICAEW Quality Assurance Network for Audit. Finally, ICAEW has worked with Turkish counterparts on joint qualifications for IFRS and on promoting high quality corporate governance.

These joint activities have allowed lessons to be learned relevant to both Turkey and UK, improving knowledge, skills and capacity in both markets. ICAEW look forward to forging and deepening such long-term partnerships with counterparts in Turkey, to benefit both partners.

Jon Hooper
Senior ICB Manager, ICAEW

THE JOURNEY TO UK OPEN BANKING:

AN EY PERSPECTIVE FOR THE UK-TURKEY FINTECH WORKING GROUP

EY

EY has been involved in the UK open banking initiative since its origins in the HM Treasury open-data initiatives, competition enquiry and the creation of the 'Open Banking Working Group'. EY-Partner, Imran Gulamhuseinwala was appointed the 'Open Banking Implementation Trustee' with oversight of the Open Banking Implementation Entity (OBIE) and application programming interface (API) standards. EY has supported various aspects of the OBIE process.

The UK-Turkey FinTech Working Group may wish to discuss the origins of UK open banking through to the most recent launch. The key elements to be addressed would be developing an overall market framework across the legal, operational design and implementation process; executing a multi-stakeholder detailed design process and managing the sequential releases of open-APIs; post-launch monitoring and improvement. The UK's journey timeline is set out below.

Once enabling legislation was in place in 2016 a major programme proceeded that developed standard processes and defined APIs, built the limited central infrastructure and put in place processes for regulatory authorisation, dispute resolution and communications. At the heart of this process it is important to highlight the extensive consultation process, intense focus on achieving the desired consumer benefits and experience with an extensive customer research programme and particular focus on key issues of security, liability and other risks.

In the UK it was determined a very light central utility technology infrastructure will be required going forward.

Timeline: four year journey to UK Open Banking

	2015	2016	2017	2018
Key policy-related actions	• HM Treasury launched Call for Evidence. • Requested insights & perspectives on how an Open API Standard in UK Banking could be delivered. • Responses from consumer groups, banks, payment institutions, FinTechs and wider technology players. • BBA, Payments UK, EY and Innovate Finance assist HM Treasury in establishing the Open Banking Working Group.	• OBWG published Open Banking Standard Framework. • Received public endorsement from HM Treasury. • CMA adopted recommendations from the OBWG, aligning to their Competition Inquiry. • CMA announced intention to legislate and engages in industry consultation. • CMA drafts an Order mandating Open Banking.	• CMA requests 'CMA-9' (i.e. the 9 largest banks compelled to comply with the Open Banking Order) stand up and fund an Implementation Entity, tasked with developing Open Banking API specifications. • Implementation Entity is established with an Implementation Trustee (i.e. exec chair) appointed to deliver Open Banking by 2018.	• In January 2018 all regulated companies started integrating with Open Banking and could test. • In February the UK launched Open Banking operationally. • From March 2018, consumers and small businesses across the UK can start to make the most of a dynamic new range of financial services.
Milestones	• HM Treasury closes an industry-wide consultation. • HM Treasury establishes the Open Banking Working Group. • Open Banking Working Group (OBWG) finalises the 'Open Banking Standard Framework'.	• OBWG publishes the 'Open Banking Standard Framework'. • CMA legislates Open Banking transposing OBWG recommendations into a legal order.	• CMA establishes the Implementation Entity (with bank funding). • Implementation Entity publishes specifications for Open Data and Read/ Write APIs.	• The UK is the first nation in the world to launch Open Banking.

Customer research underpinned design and providing non-statutory guidance to enable industry wide strong starting standards

- **Beyond specifications OBIE has commissioned research with customers (personal and small business).**
- **Provides basic level evidence based guidance on design of interfaces and customer journeys.**
- **Aims to establish baseline 'best practice' and good conduct to maximise consumer uptake.**
- **Also ensures alignment of standards and technical flows with requirements of high quality customer experience.**
- **In addition FCA has invested in OB Sandbox competition to stimulate early innovation on new platform.**

Initially provisioned by the OBIE, this is likely to transition to other entities for long term operation. This infrastructure (set out below) enables an ecosystem only accessible by players authorised by UK and EU-27 regulators.

Overall the UK-Turkey FinTech Working Group has indicated features of the UK process and design that can be applied or adapted within the Turkish market. Below are several key learnings:

- A clear market wide rationale – a so called 'burning platform' – is needed, combining growth, competition and regulatory drivers. We anticipate that an extensive scope of APIs beyond basic services is critical to enable sufficient adoption and innovation.
- Customers, security and risk need to be at the heart of the process to ensure adoption, consent from critical stakeholders and the integrity of the final design.
- Extensive granular expert consultation was essential to bring forward many small but critical issues and resolve rapidly – with a clear ultimate unambiguous design authority.
- Critically players need to understand the strategic, regulatory and technology implications from the board down to ensure adequate execution and investment in innovation.

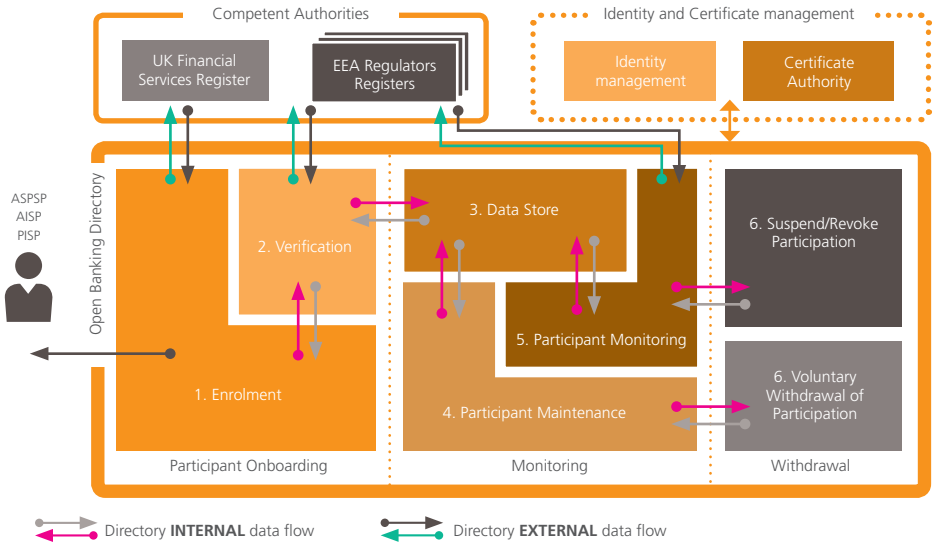
Hugh Harper

Partner, EMEIA Advisory Leader, Alternative Business Models & Digital Strategy, EY

Implementation through standards, light central infrastructure and most development to provide open APIs within players IT domains

Key:

- Account Servicing Payment Service Provider (ASPSP) – referencing custodians of consumer data – e.g. Banks.
- Account Information Service Provider (AISP) – referencing 3rd parties accessing Open Banking APIs for data access.
- Payment Initiating Service Provider (PISP) – 3rd parties accessing Open Banking APIs for payment initiation access.



THE NEW PAYMENTS LANDSCAPE

SWIFT

The payments industry faces immense pressure on multiple fronts. Waves of technological advances, regulatory scrutiny, and changes in consumer and client behaviours and expectations, are all breaking on the shores of a once staid and relatively unchanging business. While the challenges are many, there are signs that the industry is facing them head-on, developing a new, more innovative and dynamic payments landscape.

The disruptive forces the industry faces are coming together in a short timeframe and within a cost-contained environment.

Consumers want their retail experience to be replicated in the banking world; this means instant, frictionless services. At the same time, corporate clients want to reduce payment costs and are entering new trade corridors; they also want transparency, predictability and timeliness of payments.

Regulators have weighed in on consumers' behalf, promoting new products and services through open banking regulations that pave the way for new, non-bank institutions, along with financial technology companies to enter the payments market. The wider post-crisis regulatory push means compliance is taking up more of payments professionals' time. Data privacy (via GDPR), security and resiliency are key concerns.

In particular, managing financial crime compliance requirements and addressing the cyber threat in the high speed world of real time payments is becoming ever more challenging. Dealing with these threats at a community level is the only way to protect the financial ecosystem.

Finally, technological advances are bringing into play powerful and flexible new capabilities such as AI and distributed ledger technology. In many cases, the new entrants have been more adept at harnessing such technologies – in proof of concept, at least – than the payments market incumbents.

Payments actors must keep up with the pace of change and prepare for the future to remain competitive in such a rapidly evolving landscape.

The industry response: correspondent banking is being revolutionised

Historically, cross-border payments have been relatively slow, lacking in transparency and suffered unpredictable fees. The imperative to improve customer service in the cross-border space brought leading banks together with SWIFT to create the global payments innovation (gpi) initiative. Objectives from the outset have been to deliver same day use of funds, transparency of fees, end-to-end payments tracking and the unaltered transfer of remittance information.

Live since January 2017, more than 145 transaction banks have signed up to the service, with more than 40 using SWIFT gpi to exchange hundreds of thousands of payments a day, in over 200 country corridors. SWIFT gpi

Challenges for the Payments Industry

Many disruptions coming together in a short timeframe and cost-pressured environment

NEW CONSUMER BEHAVIOURS & NEEDS

- Y, X generation (NOW!)
- reduction of cash usage
- more payments
- cross channel view
- payments methods re-definition (API, internet based, contactless…)
- expectation for 'frictionless'
- demand for more security.

TECHNOLOGY CHANGES

- mobile, wallets, cryptocurrencies
- DLT & AI
- platform/Architecture renewal
- biometrics (e.g. facial recognition)
- cybersecurity.

REGULATORY PRESSURE

- compliance
- data privacy (e.g. GDPR)
- open Banking (e.g. PSD2)
- resiliency.

INDUSTRY TRENDS

- cost reduction pressure
- new trade corridors
- ISO 20022 adoption
- instant Payments
- GTB business evolution: transparency, predictability and timeliness
- competition from non-FIs & Fin/Reg Tech
- faster pace of change
- addressing fragmentation and interoperability issues.

is revolutionising cross-border payments by increasing their speed from days to minutes and even seconds. Nearly 50% of gpi payments reach the beneficiary in less than 30 minutes. As a result, bank clients benefit from shorter supply cycles, goods are shipped faster, less liquidity is used, and there are far fewer enquiries and resulting costs.

Gpi also addresses key corporate treasury concerns, including lack of transparency. The gpi Tracker gives the status of cross-border payments in real time and enables banks to review information about each bank in its path and any fees that have been deducted. This information is then passed on to corporate clients, offering a data-rich experience with greater levels of visibility into each payment and their overall liquidity. The Tracker is accessible via APIs, which enable banks to embed the Tracker information into their payment flow applications and front-end platforms. As a result, corporate treasurers can track gpi payments in real time.

Faster payments coming faster than expected

Australia is the latest market to go live with real time. The recently launched New Payments Platform (NPP) has been designed to remove inefficiencies and improve how consumers, businesses and government departments transact with one another. Key features of the NPP include 24/7 real-time, line by line settlement via the Reserve Bank of Australia's Fast Settlement Service; PayID, a way to link a financial account with an easy to remember identifier, such as a mobile phone number or email address; an open access platform to encourage innovation through competition; and overlay services that will provide new value services to Australian consumers, businesses and government.

NPP was developed collaboratively by 13 Australian banks or authorised deposit-taking institutions, and will provide the basic infrastructure to connect these financial institutions, and through them businesses and consumers. SWIFT helped to design, build, test and deliver the NPP and will play a key role in operating the infrastructure for the NPP.

Many of the components from NPP will be part of SWIFT's ongoing instant payments strategy to ensure 24/7, instant, high-volume, low latency services. For example, SWIFT is developing an instant messaging solution that will provide connectivity to EBA Clearing's RT1 instant payments system and the Eurosystem's TARGET Instant Payments Settlement (TIPS) service. In addition, SWIFT is working with other clearing and settlement mechanisms to ensure participants are given the choice of a SWIFT channel on the largest number of markets. SWIFT's offerings in Europe will go live in November 2018. SWIFT's evolving portfolio already allows users to connect to other instant payments systems such as TCH's in the US and the Faster Payment System's in Hong Kong.

The future: cross currency, instant payments?

Moving on from cross-border but single currency instant payments in the euro area, cross-currency instant payments will not happen on day one of any new instant payments system. In addition to the challenges on the technical and operational levels, there are also business challenges and foreign exchange (FX) requirements. Banks and central banks will have to agree how cross-currency instant payments can be exchanged, processed, guaranteed and settled.

Putting aside the FX element, there are interoperability challenges that are related to market practice and preferences. Once systems are linked, those differences will have to be considered. For example, there is no standard definition of how instant an instant payments system will be; it ranges from five to 20 seconds. If you hook up a five-second system to one that clears in 20 seconds, there will be payment fails.

There are some tough decisions ahead for different payments communities, and collaboration and harmonization will be crucial. Part of SWIFT's core mission is to help communities come together to define these standards and market practices. SWIFT gpi is an example of how existing networks can be revolutionised to deliver this high speed future.

As a result of all the changes that are underway, industry players are faced with a myriad challenges. Not only do they need to find solutions – they must also create opportunities. In the new payment landscape, a delicate balance of harmonisation, innovation and collaboration will be key.

Harry Newman
Head of Banking, SWIFT

DIGITAL CASH: THE MISSING 'BIG BEAST' OF DIGITAL PAYMENTS?

Tibado

Physical cash – the notes and coins we carry around in our purses, pockets and wallets – is a familiar part of the fabric of everyday life. If we look back to the middle of the twentieth century, physical cash was the dominant means of payment when things were bought in shops – so-called 'spontaneous payments'. Cheques also existed but cash was the king of the point of sale.

Since then, the advent of a range of innovative payment services has seen the introduction first of payment cards and latterly of an array of online payment methods. Cash continues to play a central spontaneous payments role in some countries, e.g. Germany, whereas in Sweden, the use of cash has fallen to such low levels that many Swedish shops only accept non-cash means of payment.

It is tempting to conclude from the evidence that it is just a matter of time before cash dies away completely. There is, however, the possibility that another chapter is about to be written in the story of cash – digital coins.

Introducing digital cash

It is important to distinguish between cryptocurrencies on the one hand and fiat digital cash on the other. Cryptocurrencies, including Bitcoin, Ripple, Ether, etc. are uncollateralised instruments and are not linked or tied to any nation state currencies. Fiat digital cash, on the other hand, is the representation of fiat, or nation state cash, in digital form.

This article is only about fiat digital cash – in other words, digital dollars, pounds, euros, etc. The idea behind fiat digital cash is that it would be issued and managed by fully authorised institutions and collateralised so that the digital coins in circulation are backed up by bank account sight deposits, or whatever other collateral strategy the digital coin issuer is allowed to pursue.

The only fundamental difference between physical cash and digital cash is the technology or 'form factor' from which the cash is created. Physical cash is notes or metal coins, a digital coin is a small digital data file.

DEFINING FEATURES OF CASH

Cash stands apart
Unlike money in a bank account, on PayPal, or on your Oyster card, cash exists on its own, unconnected to any accounting engine.

It's a bearer instrument
When you hold cash, you are deemed to be the rightful owner of that cash, with the power to spend it without recourse to any third party.

It delivers instant finality
If you hand someone some cash, you have just done all the authentication, authorisation, clearing and settlement that's required. The new holder can immediately use the cash received in a wholly unrelated transaction. There's no impediment to it being able to be further transferred.

You're in control!
When you have cash, you're in charge of that value. You don't have to tell anyone you're spending it, you're in complete control.

It's private – no one else needs to know about your transactions
Cash stands apart, because the holder is in sole control of it, there's no need for any other person or entity to know anything about the use to which it is being put.

It is typically transferred free of any transaction fees
When you give someone a note or some coins, they get every penny, cent or rupee.

There have been several designs for fiat digital cash since David Chaum's first design (i.e. Digicash) in the 1980s, with each design having its own unique features. The following section focuses on Tibado design to discuss key features of a digital currency.

Key features of a digital cash approach

The Tibado design is based on the creation, in a secure computing environment, of digital coins. These coins are issued to purchasers and a partial copy is held on a central 'Live Coin Database' within a system called the 'Cash Box'. To spend some digital cash, the coin holder instructs the Cash Box to split their coin into two new coins:

- one for the amount required for the purchase
- one for the remainder.

The sender then remits the coin for the purchase to the receiver.

The receiver takes the coin sent by the payer and instructs the Cash Box to merge the received coin with their existing coin, if they have one. Both these coins are checked and then discarded by the Cash Box, which then creates a new coin for the combined amount.

A piece of software called a 'pocket' is used to provide users with:

- An easy way to send these split and merge instructions, along with their related coins, to the Cash Box.
- A way to achieve instant finality, through the creation of brand new coins that involved checking that their coins were indeed unspent.

The Cash Box works on the basis that the first message presenting one or more coin(s) back to it is assumed to be from the rightful owner of those coin(s).

What problems does fiat digital cash solve?

It will only make sense to recreate cash in digital form if the product solves real problems for society. It is almost a truism that any new product is a solution looking for a problem but it's equally true that new products fail when they don't find problems to solve. Fiat digital cash solves a number of substantial, real problems and a selection of these are set out below.

Transforming the distribution of physical cash
Physical cash is expensive both to manufacture and to distribute. Banks are often put under pressure to retain costly branch and cash dispenser networks, so that all in society can enjoy convenient access to cash. At the same time, consumers are increasingly moving to 'e' and 'm' commerce, using those branches and cash machines – and even cash itself – less and less. Imagine a cash dispenser app on your phone. It would enable you to take money out of your bank account in the form of digital coins. These coins could be swapped out for physical cash at any outlet that was willing to do the swap. The outlet would be generating footfall and getting rid of physical cash which they often find to be expensive to protect and handle. The customer would be accessing physical cash when and where they wished. Unlike with retailer cashback today, there would be no fees for the retailer to pay to the bank because there's no bank involved in the transaction.

Transforming financial inclusion in a digital economy
With digital cash, all you need is a mobile or a laptop and you're included. You can be sent a digital coin by anyone and you can hold it in your 'pocket' app. At online stores accepting digital cash, you can pay immediately, with the store benefitting from instant finality.

Giving consumers new financial management choices
Before retail banking became a mass market product, many people used physical cash to manage their lives, sometimes using jampots on mantelpieces to separate their cash wages into money for the rent, for coal, for food and for 'everything else'. It would be very straightforward

to adapt payroll software to pay staff directly in digital cash. Your pocket app could then automatically send out the rent and utilities money you owe and give you sophisticated money management tools with which to look after 'everything else', all without any bank involvement. Retail banking would still remain a huge industry, just not quite so big or so invasive in people's lives. Market economies thrive through consumers having and exercising choice – digital cash would give consumers back the choice of whether or not to have a bank account.

Reducing frictional costs in retail payments
With digital cash retailers would receive every cent or penny with no fees. They wouldn't even need to deposit their digital cash into the bank – they could instead pay it away down their supply chain, just as they used to in the days of physical cash.

Transforming the remittances and travel money markets
Digital cash is just cash in digital form. Imagine an online Bureau de Change. You send it a digital coin in one currency and it sends you back a coin in another. It's exactly the same transaction you would do in an airport booth, except there's no booth or teller, just an app on a website. The fees and spreads should be very low and the service should operate 24x7, globally. That should do away with high transaction charges for sending money home, as well as cash dispenser fees for taking out money abroad.

Oiling the wheels of global commerce, the internet of things and smart contracts
It's not easy to decide when to extend credit to a customer in a B2B context, especially when you're running a global online business. The instant finality available from digital cash will give businesses the ability to trade, risk free, with any counterparty. If you get paid in digital cash and 'pocket' the coins you receive, you have achieved finality and can then release your goods – or provide your services – immediately.

Bringing digital cash to market

The natural institutions to bring fiat digital cash to market are those institutions that today issue physical notes and coin. These are typically central banks or mints, normally operating as monopoly providers from within the public sector of the economy. There is a set of risks and issues to be managed in any new product development and a digital cash launch would be no different. Small scale experimentation is likely to be an important risk mitigator in any launch programme, so that these institutions can see what works and what doesn't before scaling up to a full implementation.

New product developers often talk about learning to crawl, then walk, then run. Crawling in this space might involve single industry B2B trials, or local implementations of swapping digital cash for physical. Walking might be financial inclusion programmes linked to a small number of major retailers accepting payment in digital cash. Running might be remittance and travel money solutions, as these will often require a digital cash service to be in existence in both the sending and receiving country.

Conclusions and next steps

Fiat digital cash is ready for deployment now and has the potential to address a series of substantial problems that exist in today's payment markets. Many central banks have central bank digital cash (CBDC) programmes in place and, whether it is through the Tibado design or some other approach, it will soon be time for these programmes to move to the next step of trial and experimentation. Only then will society be able to begin to realise the benefits set out in this article. One day, we might well look back and say: 'The digital economy only matured and became real when it embedded digital cash'.

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INITIAL COIN OFFERINGS: A REGULATORY OVERVIEW

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During 2017, ICOs emerged as alternative means of raising capital, raising nearly $4bn during the year. They offer the potential to raise significant capital with less complexity and fewer administrative burdens than the traditional venture capital or IPO process. This article considers what ICOs amount to in legal terms and how they are being treated by regulators.

What is an ICO?

An ICO is a digital means of raising funds from the public within a limited period of time by issuing a coin or token that is related to a specific project, business model or business idea. The tokens are typically created and disseminated using distributed ledger or blockchain technology and may be tradeable on specific platforms.

In legal terms, tokens are generally contracts granting certain rights to investors. The nature of those rights varies across ICOs. Depending on their design, tokens may represent a voucher for a one-time or recurring service provided by the issuing enterprise or a right to participate in a share of the returns generated by the enterprise. However, some tokens may have no discernible intrinsic value or grant no rights at all.

Under an ICO, the issuer or offeror offers tokens for sale in exchange for fiat currency such as dollars or euros, or more often, for a virtual currency (e.g. Bitcon or Ether). Typically, tokens are bilateral arrangements which are not issued in the form of a security, certificate or similar type of transferable security, although some tokens, depending on their structure, can be traded on exchanges specialising in such transactions.

What is the legal nature of a token?

The answer across a range of jurisdictions seems to be: 'it depends'.

As mentioned above, a token may entitle the holder to a right to participate in the returns generated by the issuing enterprise. In this case, it is likely to be regarded as a type of security or unit in a collective investment fund. In an investigation in Summer 2017, the Securities and Exchange Commission (SEC) found that tokens issued in an ICO by a virtual venture fund called the DAO were securities, applying the test in 'Howey' under which investment contracts (a type of security under the US Securities Act) are defined as an investment of money in a common enterprise with an expectation of profits derived solely from the entrepreneurial or managerial efforts of others. The Monetary Authority of Singapore and the Hong Kong Securities and Futures Commission have indicated that tokens representing shares in companies or entitlements to profits arising from a portfolio of shares are likely to be regarded as shares or units in a collective investment scheme. Within the European Union, tokens of this type could be financial instruments within the scope of the Markets in Financial Instruments Directive (and transferable securities within the scope of the Prospectus Directive) or units in an Alternative Investment Fund within the Alternative Investment Fund Managers Directive.

Where tokens fall within an existing category of regulated financial instruments, they will be subject to the regulatory framework in the same way as other instruments falling within the same category. Accordingly, a prospectus is likely to be required for an ICO of tokens that are characterised as securities, unless the offering is structured to take advantage of a relevant exemption, for example, by being offered only to qualified investors. The intermediaries providing the platform by which the offering is made and the operator of any platform on which tokens are traded are also likely to need authorisation and would be obliged to apply anti-money laundering due diligence procedures in relation to their clients.

However, where a token entitles the holder to a right to receive a service from the enterprise or to participate in it (a so-called 'utility' token), the legal characterisation of the token is less clear. In these cases, the token may simply amount to a contractual entitlement that does not fall within any category of regulated financial instrument. Many ICOs have accordingly been conducted on the basis that they are not subject to regulation, with a 'white paper' rather than an approved prospectus being prepared to describe the offering and the offering not being made through authorised or licensed intermediaries. Regulators have acknowledged that these types of ICO may not fall within the regulatory perimeter and that they may not have jurisdiction over them.[10]

How are regulators responding?

ICOs tend to be carried out by enterprises at an early stage of development whose prospects are highly uncertain. The tokens issued often experience extreme price volatility and enjoy low levels of liquidity. They may also be highly susceptible to cybercrime (for example, the DAO scheme mentioned above lost approximately $50mn of investor funds when its system was breached by a hacker) and digital currencies or tokens lost due to fraud are very difficult to recover. Offerings may be directed at retail as well as professional or experienced investors. Furthermore, the 'white papers' describing proposed schemes have not needed to comply with minimum disclosure standards. Unsurprisingly, regulators have been concerned about the potential for harm to unsophisticated investors.

Regulators have voiced their concerns in a number of statements and warnings to investors.[11] As mentioned above, many regulators have conceded that utility tokens may well fall outside the perimeter of regulation. Nevertheless, where a clear potential for consumer detriment has been identified, it seems unlikely that they will permit such a situation to continue in the medium to long term.

Two broad types of response are possible. The first is to test the boundaries of existing legislation and regulation and to treat ICOs are regulated products within the existing structure. This is the approach that is increasingly being taken in the US, where enforcement action has been brought even in relation to ICOs purporting to issue 'utility' type tokens.[12] Issuers may face difficulty convincing the SEC that their token is solely a 'utility' token where investors buy tokens not merely for their utility but in the hope that their value will appreciate and they will be able to sell the token at a profit on the secondary market. Indeed, the Chair of the SEC has indicated in a public statement that by and large the structures of ICOs he has seen directly implicate the provisions of federal securities laws.

[10] For example, the Monetary Authority of Singapore indicated in its November 2017 Guide to Digital Token Offerings that a utility-based offering will not be subject to any requirements under the Securities and Futures Act or the Financial Advisers Act. The UK FCA indicated in its consumer warning on ICOs issued in September 2017 that most ICOs are not regulated by the FCA and the European Securities and Markets Authority (ESMA) indicated in its November 2017 statement that, depending on how they are structured, ICOs may fall outside the regulated space. Most recently, the Swiss Financial Market Supervisory Authority (FINMA) indicated in its February 2016 guidelines that utility tokens would not be treated as securities provided that their sole purpose is to confer access rights to an application or service and that they can be used for this purpose at the point of issue.

[11] Examples are various investor alerts issued by the SEC and the public statement issued by the Chair of the SEC in December 2017, the FCA consumer warning in September 2017, the ESMA alert to investors in November 2017 and the Hong Kong Securities and Futures Commission warning of February 2018.

[12] On 11 December 2017, the SEC issued a cease and desist order against Munchee, an ICO sponsor planning to issue tokens to the public.

[13] "Any arrangements with respect to property of any description, including money, the purpose or effect of which is to enable persons taking part in the arrangements (whether by becoming owners of the property or any part of it or otherwise) to participate in or receive profits or income arising from the acquisition, holding, management or disposal of the property or sums paid out of such property or income" (section 235, Financial Services and Markets Act 2000).

Even if a token cannot be treated as a 'security' or 'financial instrument' within applicable legislation, it may constitute another category of regulated investment. Tokens may themselves be regarded as a digital representation of value that can be transferred, stored or traded electronically and hence as a virtual currency. Where issued in return for fiat currency, they could (depending on their structure) amount to electronic money. In the United Kingdom, the concept of a 'collective investment scheme' is notoriously broad[13] and it is conceivable that it could include certain types of utility ICO where the value of a token is liable to increase in line with the success of the enterprise.

The second type of regulatory response would be to create a new category of regulated investment in order to bring ICOs within the regulatory perimeter. Regulators have to date been reluctant to take this approach, although regulators in some jurisdictions (China and South Korea) have banned ICOs outright. However, legislating to regulate ICOs appears more likely to the extent that a consensus emerges that a significant body of existing ICOs are not within the scope of existing regulatory regimes. There have been some recent indications of a move in this direction. For example, in December 2017 the FCA announced that it was undertaking an examination of the ICO market to determine whether there is a need for further regulatory action. In February 2018 the finance ministers and central bank governors of France and Germany wrote a joint letter to their counterparts in the other G20 jurisdictions suggesting that guidelines for further action should be put in place by July of this year.

Faced with the possibility of increased regulatory intervention, the industry may itself decide to take voluntary self-regulatory measures. These could involve, for example, promulgating standards of disclosure for 'white papers' – indeed, more recent and substantial offerings have provided increased disclosure, including risk factors. Other voluntary measures could include applying anti-money laundering procedures and conforming to rigorous cyber-security standards. Trading may also gravitate to regulated trading platforms: platforms designed for trading virtual tokens have been approved as alternative trading systems by the SEC and registered as exchanges in Japan.

If the rate of growth of ICOs seen in 2017 continues in 2018, it seems inevitable that regulatory scrutiny will intensify and likely that regulators' tolerance for significant ICOs operating outside the regulated space will diminish.

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CROWDFUNDING RULES IN TURKEY

The European Bank for Reconstruction and Development (EBRD)

European Bank
for Reconstruction and Development

Turkish laws are advanced in many areas, including corporate governance, which was further strengthened when the new commercial code entered into force in July 2012. In other areas, the system would benefit from upgrading and modernising in order to fully support market activities.[14]

The Capital Markets Law regarding crowdfunding (the 'Amending Law') was amended by the Turkish government by issuing the Law No. 7061 on 5 December 2017. The amending law seeks to add clarity on the treatment of crowdfunding activities in Turkey by, inter alia, defining crowdfunding activities and platforms and by providing general procedures and principles applicable to this financing method. Besides setting the general framework for crowdfunding, the Amending Law confers to the Capital Markets Board of Turkey (CMB). The authority to introduce secondary legislation related to specific issues and procedures arising out of crowdfunding activities. This includes conditions for the establishment of crowdfunding platforms, their shareholders and employees; share transfers; and the limitations on the amount that may be invested by each investor or the maximum amount that may be collected through crowdfunding. Importantly, the secondary legislation will provide for clear rules and mechanisms for the protection of investors, who in the case of crowdfunding may well be individuals who are not experienced investors, less qualified to make informed decisions and therefore more vulnerable to abuse.

The CMB is currently working on the secondary legislation that will regulate equity-based crowdfunding activities in Turkey. They have requested the assistance of the EBRD with:

- the review of such draft secondary legislation for equity-based crowdfunding
- the drafting of the secondary legislation related to donation- and reward-based crowdfunding
- identifying best practices for the regulation of debt-based crowdfunding in Turkey.

The above will contribute to the governance and regulation of the equity-, debt-, reward- and donation-based crowdfunding platforms. This has the potential to bring significant benefits to Turkey's economy in terms of jobs and growth, especially by providing an alternative funding source for start-ups, SMEs and unlisted companies.

The EBRD in Turkey

The EBRD is a major investor in the country. Since 2009, the Bank has invested €10bn in various sectors of the Turkish economy with almost all investments in the private sector. These are combined with support for policies which help modernise the country's economy and build up its resilience.

In 2017 alone, the EBRD invested €1.6bn in 51 projects in Turkey. Almost a third of this financing was provided in Turkish lira.

In Turkey, the EBRD focuses on investment in sustainable energy; improving infrastructure; strengthening the competitiveness of the private sector, including of small firms; and deepening local capital and local currency markets, as well as promoting greater job and training opportunities for women, youth and people in remote areas.

The EBRD's support for the design of Turkish crowdfunding rules are part of the Bank's Legal Transition Programme. Under the programme, the EBRD helps create an investor-friendly, transparent and predictable legal environment in transition countries. Programme activities may include policy dialogue, legal assessment, and technical cooperation with the country's authorities.

[14] European Bank for Reconstruction and Development, 'Legal reform in Turkey' (March 2018), available at: http://www.ebrd.com/what-we-do/sectors/legal-reform/turkey

The EBRD's work on FinTech

Crowdfunding best practices

Several countries within the EBRD's region of operations have enacted crowdfunding legislation or are in the process of doing so. Most of the leading economies in the European Union have a bespoke regulatory regime in place for this form of FinTech. However, there exists no consensus as to what constitutes best practice in this area. This makes it difficult for the EBRD to advise policy-makers in the Bank's region who have asked for support with regulating crowdfunding.

Our crowdfunding regional technical cooperation project will therefore seek to offer best practice recommendations for issues including the minimum capital and liquidity requirements of investee companies; anti-money laundering and Know Your Customer (KYC) checks; maximum loan size; the disclosure requirements needed to protect investors; rules on conflicts of interest and the organisation requirements of crowdfunding platforms.

The Bank hopes that, thanks to these recommendations, regulators in the EBRD region will become more comfortable with the formulation of crowdfunding regulation, which in turn should give legitimacy to crowdfunding platforms, while ensuring the adequate protection of investors.

Case study: e-governance in Ukraine

Quite a few countries in the EBRD region have recognised the transformative potential of technology for the delivery of public services. Estonia, Georgia and Latvia have been particularly active in this area and have scored notable successes.

Ukraine introduced mandatory electronic public procurement in 2016. Now, the country is developing a law on electronic governance (e-governance). Following a request for assistance from the Ukrainian authorities, EBRD lawyers are advising policy-makers on the legislative framework for e-government services, based on the Estonian model. Another focus of this technical cooperation project will be how best to regulate blockchain-based cryptocurrencies. In that context, our lawyers are advising on international practices for the regulation of cryptocurrencies, particularly Japan's recent Cryptocurrency Law, which focuses on the regulation of cryptocurrency exchange services, with the primary aim of protecting users and preventing money laundering and terrorism financing.

Ammar Al-Saleh

Senior Counsel, EBRD

TRANSFORMATION AND INNOVATION:

A GUIDE TO PARTNERSHIPS BETWEEN FINANCIAL SERVICES INSTITUTIONS AND FINTECHS

For the UK's established financial services institutions (FSIs), the importance of innovation for future success has long been recognised. This is reflected in the way in which the industry has set out in recent years to become a world leader in the adoption of FinTech. The drive to innovate will strengthen UK competitiveness and help to tailor financial services more closely to the needs of consumers in future.

Meanwhile, on the edges of the financial services sector, agile start-ups in the FinTech, InsurTech and RegTech sectors – referred to simply as FinTechs in this section – are innovating ahead of many of their FSI counterparts. The range of new ideas and pioneering technologies being explored and developed has the potential to overhaul how financial services are delivered, enhancing accessibility and consumer choice.

For both FSIs and FinTechs, collaboration will be a key component to future success. By combining their respective strengths, FSIs and FinTechs can not only secure their own future and provide superior service to their customers, but also help to secure the UK's position as a global centre of finance and financial innovation.

Many FSIs are already working with FinTechs, but there are often barriers that need to be negotiated for effective collaboration. FSIs are often tied into legacy processes and stringent regulations, and lack an established internal process for working with small, agile companies. On the other hand, FinTechs are usually working on much leaner, shorter lifecycles for decision making and product development, so they cannot afford to go through the complex processes required of established and regulated financial services' systems.

Key collaboration models and legal issues to consider

To smooth the journey to collaboration, this section outlines the common pain points for FSIs and start-ups from the point of view of choosing the right collaboration model, and highlights some key legal concerns. It outlines the first steps that FSIs and FinTechs should take when beginning discussions, and highlights ways successful partnerships can be made while avoiding these pitfalls.

By using these guidelines as a starting point, both FSIs and FinTechs can understand the issues faced by potential partners, and avoid the common setbacks that can derail otherwise promising collaborations.

For a more comprehensive version of the guide, please refer to 'Transformation and innovation: a guide to partnerships between financial services institutions and FinTechs' published by TheCityUK in collaboration with Santander and Shearman & Sterling.[15]

[15] 'Transformation and innovation: a guide to partnerships between financial services institutions and FinTechs' published by TheCityUK (20 November 2017), available at: https://www.thecityuk.com/research/transformation-and-innovation-a-guide-to-partnerships-between-financial-services-institutions-and-fintechs/

KEY CONSIDERATIONS

By working together, financial services institutions (FSIs) and FinTechs can combine their respective strengths to drive innovation and reinforce the UK's position as a global leader in the financial industry. This section outlines two key areas of consideration that FSIs and FinTechs need to agree upon: common legal concerns that have the potential to hold up projects, and the nature of the collaboration model itself. By having these discussions at the beginning of a project, both parties can ensure that their interests are protected while bringing their expertise together to innovate.

This section highlights seven possible ways in which to structure such a partnership (see box below). These permit for a varying degree of proximity between the two entities, and allow for leadership on certain aspects to be split, equally, unequally or to sit with one party altogether. It would also be possible for an FSI and FinTech to agree to a tailored partnership which amounts to a hybrid of those outlined.

On bringing these partnerships into practice, the section also identifies a number of key legal hurdles to address. These range from data protection and IP ownership, to risk allocation and costs control, and finally to exit mechanisms.

Deciding which model, or combination of models, outlined in the report to adopt, while having regard to the legal checklist flagged within, will help enable both parties to take the steps below. These should ensure that the two sides of the financial services ecosystem are getting off on the right foot and able to most effectively bring to market the many widely recognised benefits of FinTech innovations.

7 MODELS OF COLLABORATION

1. Application programming interfaces / sandbox
2. Hackathon / Entrepreneur in residence
3. Startup corporate accelerator
4. FinTech product sourcing
5. FinTech joint venture / venture builder
6. Corporate venture capital
7. Mergers and acquisitions

Recommendations for FSIs

Guidance for FinTechs

View from Turkey

Building an open application programming interface system for FinTechs to develop their products and validate their proof of concepts and developing strong collaboration models are key to promote innovation within FinTech. Relying on these two principles, TEB's FinTech Future Programme has successfully resulted in creation of two FinTech companies from scratch.[16]

TEB BNP PARIBAS JV

[16] World Business Angels Investment Forum, 'A case study: smart ways of banking through FinTech', (2017), available at: https://issuu.com/wbaforum/docs/teb_report

CHOOSING THE RIGHT COLLABORATION MODEL

Application programming interfaces/sandbox

In this model, FSIs offer FinTechs limited access to some of their infrastructure or services through public Application Programming Interfaces (APIs), sandbox development environments, or anonymised samples of customer data. For the FSI, this represents a relatively hands-off approach to innovation, with FinTechs able to build and test new products and services without impacting the FSI.

Open APIs are becoming more common in financial services, particularly as 2018 will see the introduction of the EU's Revised Payment Service Directive (PSD2), which will allow banking customers to enlist third parties to manage their finances without leaving their existing bank.

An API or sandbox model will often not include a commercial agreement about how a product will be used, or who owns it.

Hackathon/Entrepreneur in residence

Hackathons are limited-time development events, where FSIs present a business or technology challenge and invite FinTechs to come up with a solution, often through a team that has formed specifically for the project.

Popularised in recent years by several high-profile success stories, hackathons focus on rapid innovation and fast prototyping to test early-stage concepts, rather than producing a polished product.

In this model, teams participating in the project are often given access to internal expertise and resources by the FSI, which can raise questions about intellectual property rights, particularly as solutions are co-created during these events. FSIs will need to establish how their own existing intellectual property can be used during the hackathon, and who ultimately owns the rights to products or services that are developed by FinTechs or entrepreneurs in residence.

Key considerations for application programming interfaces/sandbox

FSIs and FinTechs will need to set out guidelines around:

- intellectual property rights
- exclusivity
- development costs for everything produced within the API/sandbox structure.

Key considerations for hackathon/entrepreneur in residence

FSIs and FinTechs will need to set out guidelines around:

- intellectual property
- exclusivity
- data protection
- costs and control
- regulatory compliance.

Start-up corporate accelerator

This model usually sees many FinTechs submitting applications to FSIs for support with new products or services that they are already developing. By selecting a small batch of these applicants, an FSI can identify and capitalise on the most promising innovations, while the selected FinTechs gain access to expertise, support, and a captive customer base.

Corporate Accelerator programmes may operate on equity agreements, rather than simple collaboration, with the FSI usually taking a stake in the FinTechs it selects. That means FinTechs will need to ensure they are clear and comfortable with the amount of equity they are offering and the terms it is issued on. As shareholders will expect a higher level of control, governance rights and exclusivity than commercial partners, legal agreements will need to be made early in the process to prevent the FinTechs and FSI operating under different commercial models. Each side should be aware of the rights of the other under such arrangements and ensure they are documented upfront if necessary.

Key considerations for start-up corporate accelerator

FSIs and FinTechs will need to set out guidelines around:

- intellectual property
- exclusivity
- costs and control.

FinTech product sourcing

In this model, the product or service is already complete and market ready. An FSI will select a specific product developed by a FinTech company to test with limited sections of its customer base, either as a white-label or co-branded product. If this process is successful, the FSI then scales the use of the product to its entire business. This allows the FSI to easily trial new propositions and products without putting their own capital and development time into building them.

This is a commercial model, with each party sharing risk and growth opportunities without equity changing hands. However, issues can surface around intellectual property rights and exclusivity. FinTechs will need to understand upfront if entering into an agreement for the use of their product with one FSI will prevent them from also selling the product to other companies.

This exclusivity concern can affect the FSI, too. It will need to establish whether it is tied to a single provider, and assess the operational risks associated with relying on one product. As with most of these models, there are also discussions to be had about the legal ownership and control of intellectual property.

Key considerations for Fintech product sourcing

FSIs and FinTechs will need to set out guidelines around:

- exclusivity
- regulatory compliance
- data protection

FinTech joint venture/venture builder

Rather than hiring or acquiring an existing start-up, in this model an FSI sets up its own stand alone start-up to address a specific market niche. This company sits alongside its core business channels, and can have a separate branding.

By setting up this stand alone start-up in partnership with a FinTech or Venture Builder, FSIs are able to bring in specialised skills and investment, bolstered by shared equity.

The main legal concern for a joint venture is ownership and control of the new company. Questions around who will own the rights to any new products created and whether this agreement is exclusive will need to be settled at the outset. It's also vital that the stakeholders are able to agree on the value that will be given to technical expertise against financial investment.

Key considerations for FinTech join venture/ venture builder

FSIs and FinTechs will need to set out guidelines around:

- growth and risk
- exclusivity
- costs and control
- exit mechanisms
- intellectual property
- outsourcing rules.

Corporate venture capital

This model is one of the simplest. An FSI will take a minority stake in one or more up-and-coming FinTechs, in order to secure insider access to new innovations as they come to the fore.

As a straightforward investment, much of the legal considerations here are standard for large businesses. The FSI will need to assess the risk profile of the investment and the stability of the FinTech's value. Exclusivity, in this context, means establishing whether the service being developed will be provided solely to the FSI investor.

Key considerations for corporate venture capital

FSIs and FinTechs will need to set out guidelines around:

- growth and risk
- exclusivity
- costs and control
- exit mechanisms
- intellectual property.

Mergers and acquisitions

This is one of the most complex models, both practically and legally. Through mergers and acquisitions, FSIs buy out specific FinTechs to secure access to new innovations, or speed up strategic transitions.

Commercially, the key item is usually valuation. The FSI and FinTech need to agree on a valuation. An FSI will often acquire a FinTech when it has an established product but may lack a stable or clear track record, and have uncertain growth prospects. In these circumstances, there may be a valuation gap, which can be bridged by agreeing to deferred consideration, which is paid only when certain milestones are reached (known as an 'earn out'). This can also provide a useful incentive to selling owners to ensure that the FinTech is left in good condition, or to continue to grow the business.

Key considerations for mergers and acquisitions

FSIs and FinTechs will need to set out guidelines around:

- intellectual property
- risk and revenue
- additional investment needs
- employee agreements

Hybrids

It is possible for FSIs and FinTechs to agree to a tailored partnership framework, which will likely be a hybrid of the above models. This may provide for a greater degree of flexibility and could enable the partnership to reap a wider range of benefits. Naturally, this approach may conversely result in greater complexity and in an increased number of legal issues to consider and address. Over time some hybrids may become standardised, and could be easily replicated in copycat format by other firms. In practice, an FSI and FinTech can amalgamate a number of the models laid out in this report, and this process can be integrated into the rest of the business.

As FinTech continues to evolve and progress from its initial disruptive phase into a more mature and diversified market, the creation of new models should also be expected. Ensuring that a firm's business practices and legal structures are open and flexible to future innovation may help secure a competitive advantage in this high growth area.

Key considerations for hybrids

The list of key considerations will be a variation of those listed in the previous models, depending on the nature of the hybrid.

View from Turkey

Participation Banks in Turkey have recently started to engage with FinTech start-ups by organizing hackathons and investing in partnerships. This is a very attractive area for FinTech as there are not many players.

FinTech Istanbul

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