Landscaping UK Fintech

Commissioned by
UK Trade & Investment

EY
Building a better
working world

UK Trade
& Investment

Foreword

Sue Langley
Chief Executive Officer

UKTI Financial Services Organisation

Technology applied to financial services (Fintech) has a significant impact on our daily lives, from facilitating payments for goods and services to providing the infrastructure essential to the operation of the world's financial institutions.

As the world's leading financial centre, the UK is fast becoming a destination of choice for companies wanting to establish a global presence in the Fintech sector, with leading international companies in Fintech choosing to have a base in the UK whilst at the same time providing a fertile environment for start-ups and entrepreneurs.

The UK Government is committed to supporting Fintech companies; creating jobs and growth as well as further strengthening our position as the world's pre-eminent financial services destination. Working with colleagues across government, UK Trade & Investment (UKTI) are leading efforts to attract more inward investment to the UK's Fintech sector and support UK-based Fintech companies seeking to internationalise their business and services.

In order to better inform our strategy to meet these objectives, UKTI commissioned EY to produce a report on the UK Fintech sector. It is intended to help us map out the Fintech landscape; to create a recognised taxonomy; and highlight important growth trends, drivers and barriers.

We have taken the step of publishing excerpts of this report for the wider Fintech community as we believe financial technology businesses, investors and regulators will all benefit from increased research and transparency on this increasingly important, innovative and fast growing sector.

This report has provided valuable insight and helped shape our strategy for developing and promoting this sector in our bid to assist more companies looking to establish a presence in the UK; and help both indigenous and foreign owned UK companies leverage opportunities internationally.

Executive summary

- UK Fintech is currently energised by the cumulative effect of digital connectivity, customer dissatisfaction with banks, and a lack of innovation and investment by incumbent providers.
- We estimate the Fintech market (as defined in the scope agreed with UKTI) to be worth c. £20bn in annual revenue and growing, the majority of which is generated by what we term Traditional Fintech and in the order of 18% is generated by Emergent Fintech.
- We describe Traditional Fintech as 'facilitators' (larger incumbent technology firms supporting the financial services sector) and Emergent Fintech as 'disruptors' (small, innovative firms disintermediating incumbent financial services firms with new technology). The UK is poorly represented in Traditional Fintech (four out of the top 100 globally), but is strong in Emergent Fintech (one half of all promising start-ups in Europe).
- The key themes affecting the sector are the disintermediation of incumbent models, the disintermediation of incumbent infrastructure, the monetisation of data, and the requirement for fraud and identity protection.
- We have categorised the Fintech space into Payments (c. £10bn), Software (c. £4.2bn), Data and Analytics (c. £3.8bn) and Platforms (c. £2.0bn).
- The highest growth areas are peer-to-peer platforms, online payments and the data and analytics products (credit reference, capital markets and insurance) which together represent c. 60% of the sector.
- We believe the UK has an international market leadership position in peer-to-peer platforms, aggregator platforms, and the data and analytics products. Two potentially attractive areas where the UK could build an international market leadership position are risk management/compliance/fraud software and online payments.
- Much of Emergent Fintech is focused on a small number of sectors (for example peer-to-peer platforms, payments, capital markets), however we believe there is a huge amount of white space open to disruptive and innovative models, particularly in the middle and back office of insurers and banks.
- We believe the UK scores highly as an attractive location for global Fintech. The size of the market opportunity in the UK is significant due to a large indigenous and technologically sophisticated customer base, and in London's position as a world leading centre for institutional financial services. The UK also scores highly due to the availability of capital which is sufficient for the sector although there are gaps at the development capital and at the IPO stage. Interviewees commented favourably on supporting factors including the UK's regulatory approach, financial services infrastructure and London's position as a global trading hub. Three of our interviewees had relocated their businesses to London due to the attractiveness of the market.
- Our interviews suggested the UK government should consider additional actions to support the Fintech community particularly in the areas of improving access to talent; encouraging closer collaboration and information sharing between established financial services businesses and Emergent Fintech; and actively championing the sector. We believe the government should also take a leadership role in setting the agenda on data/privacy protection as this will increasingly become a central pillar of the financial services marketplace and critical in enabling the Fintech sector to operate and prosper.

Unique factors are driving the financial technology sector

Recent changes in UK market dynamics

Digital connectivity

Smartphone and internet penetration have revolutionised consumer connectivity allowing consumers and businesses to connect in ways previously unimagined. Many of these connections have financial components. The UK has one of the highest levels of internet and mobile phone penetration globally, highest e-commerce spend in Europe and is a leader in online access to financial services.

Economic downturn

Consumer sentiment plummeted post-crisis globally and has continued to remain low in the UK, while recovering in other European countries. This has created an environment whereby the UK consumer is open to adopting new business models and products from new providers. At the same time, the crisis has meant incumbent institutions have failed to invest in technology and innovation.

Regulatory changes

A range of new regulation introduced in recent years has prompted financial services industry players to monitor their activities more stringently. This, in turn, has created demand for a range of new and innovative solutions. The UK regulator has also been dynamic in their approach by keeping an open mind and engaging closely with innovators.

Changes in market dynamics have led to the UK becoming a leader in the financial technology industry, with London being the ultimate capital.

Traditional vs. Emergent Fintech

We observe both Traditional and Emergent models in the UK Fintech sector, with the key aspects of both summarise below.

	Traditional	Emergent
Positioning	► Market players are generally perceived as facilitators which are typically large, incumbent technology vendors supporting the financial services sector. ► For example: Fiserv, SunGard, Infosys, FirstData.	► Market players are disruptors and innovators by nature. They are disintermediating incumbent financial services firms or provide new technology solutions to service existing needs. ► For example: Zopa, Fidor Bank, Transferwise.
Infrastructure	► Companies focus on the support, maintenance and provision of the existing infrastructure.	► Two operating models have emerged of either utilising existing infrastructure which tends to be controlled by established players or by replacing them completely. ► The replacement of infrastructure is a high risk strategy, however, produces high returns if successful.
Revenue model	► Operate under established revenue models that tend to use cost per transaction, percentage of assets or license fees.	► Emerging revenue models are broad and tend to function using multiple different types of revenue stream including advertisement and the monetisation of data.

Emergent themes in the Fintech sector

A number of common themes are evident across the sector.

Monetisation of data

Fintech is fundamentally changing the way consumers pay for financial services. There is a shift away from paid subscriptions or free float revenue models to alternative models based on advertising and monitoring or reselling of data to third-party companies. This is due to the richness of data in financial services and the emergence of a sophisticated and liquid market for digital leads. This is an important area for the government to focus on and help to steer debates around consumer protection and privacy.

Fraud and identity protection

The connected world is very complicated making protection of personal financial details more challenging. As emergent Fintech and incumbent providers rush into the space with new and untested models security is often a secondary focus. We expect a significant amount of activity in this sector from new providers.

Infrastructure replacement

The most radical Emergent Fintech players are frustrated with existing infrastructures and are completely circumventing it. This includes the peer-to-peer networks as well as cryptographic currencies such as Bitcoin. Historically this strategy has produced multinational winners in Fintech including Visa, Mastercard and Square, and is the backdrop to the phenomenal success of M-Pesa in Kenya. At the margin some established Fintech are seeking to deliver a step change in legacy infrastructure through the development or acquisition of infrastructure accelerators.

Disintermediation

Emergent Fintech is disrupting business models and working around incumbent financial service providers, most visibly in peer-to-peer lending. We see mainstream consumers willing to use the players without the traditional barriers of trust, credibility, familiarity and scale impeding uptake.

Sizing the UK Fintech market

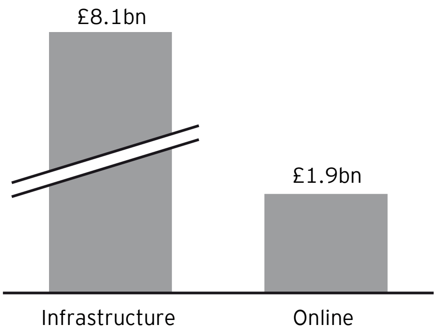
Based on an approximate and top down view of the UK Fintech sector we believe the industry currently generates c. £20bn in revenue annually.

Payments

Payments is the largest microsector and based on the level of innovation and scale could be broadly spilt into infrastructure and online segments.

The former is dominated by well established and large players with business models based on economies of scale. The latter has seen the largest number of new entrants and remains fragmented. Most successful players are those that have been able to grow adoption internationally.

Payments, £10bn

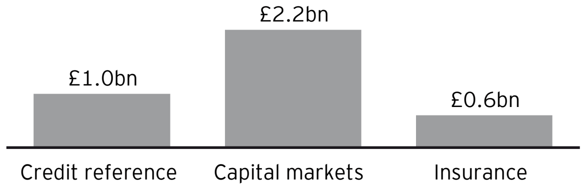


Financial data and analytics

Successful business models in this microsector rely on economies of scale and ability to collect a diverse range of financial data on individuals, corporates and particular market activities (e.g., trading). We grouped market players based on the type of data into:

- Credit reference
- Capital markets
- Insurance data analytics

Financial data and analytics, £3.8bn

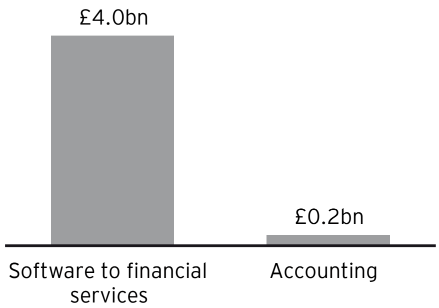


Financial software

The microsector is dominated by large international technology companies who are mostly headquartered outside of the UK and offer a range of solutions to financial institutions that include:

- Risk management
- Payments software
- Core banking, insurance, asset management and capital market software
- Accounting software

Financial software, £4.2bn

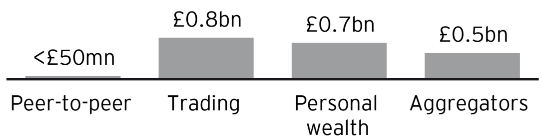


Platforms

The platforms microsector dynamic varies significantly depending on the market segment and include:

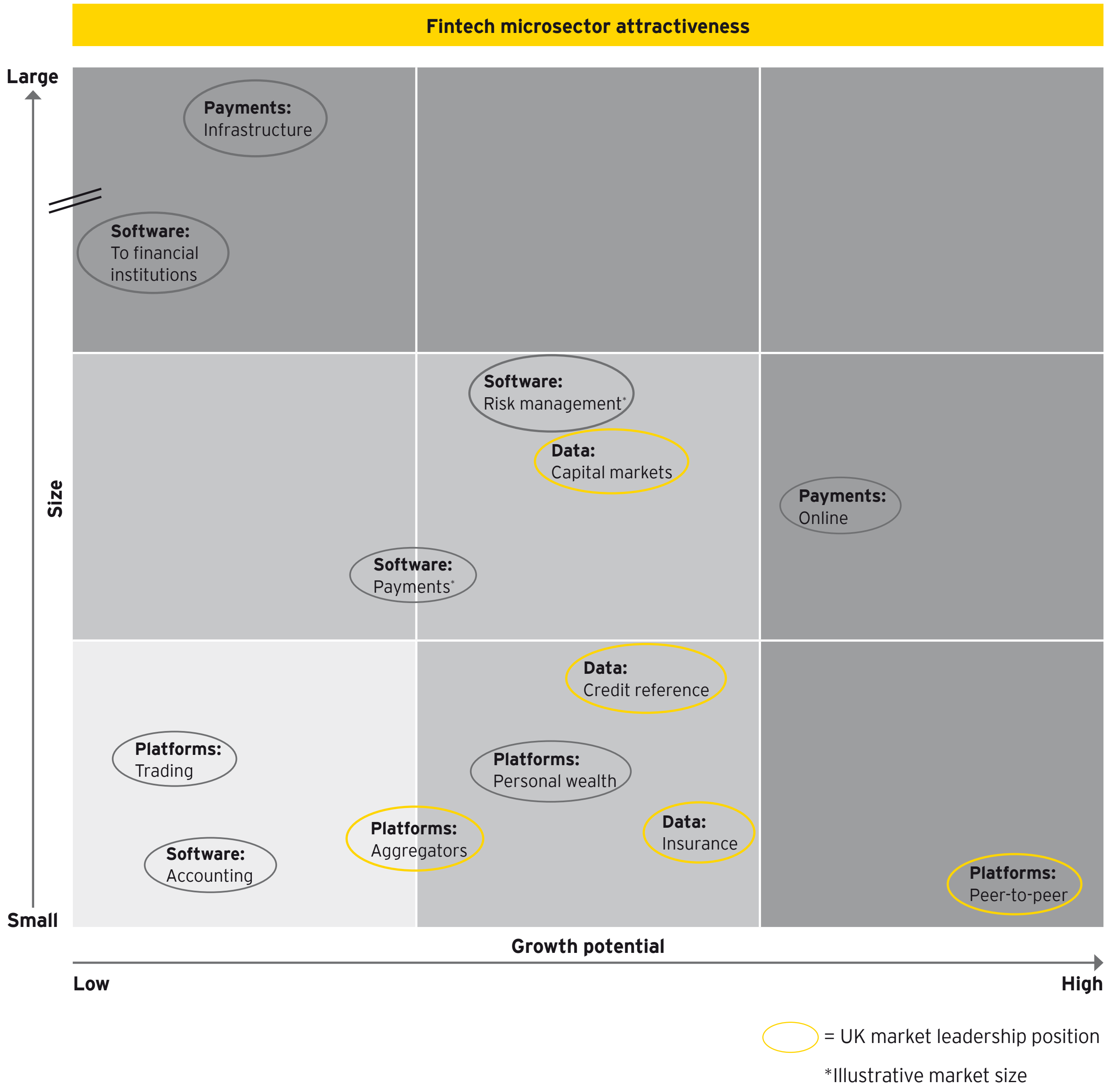
- Peer-to-peer platforms
- Trading platforms
- Personal wealth platforms
- Aggregators

Platforms, £2.0bn



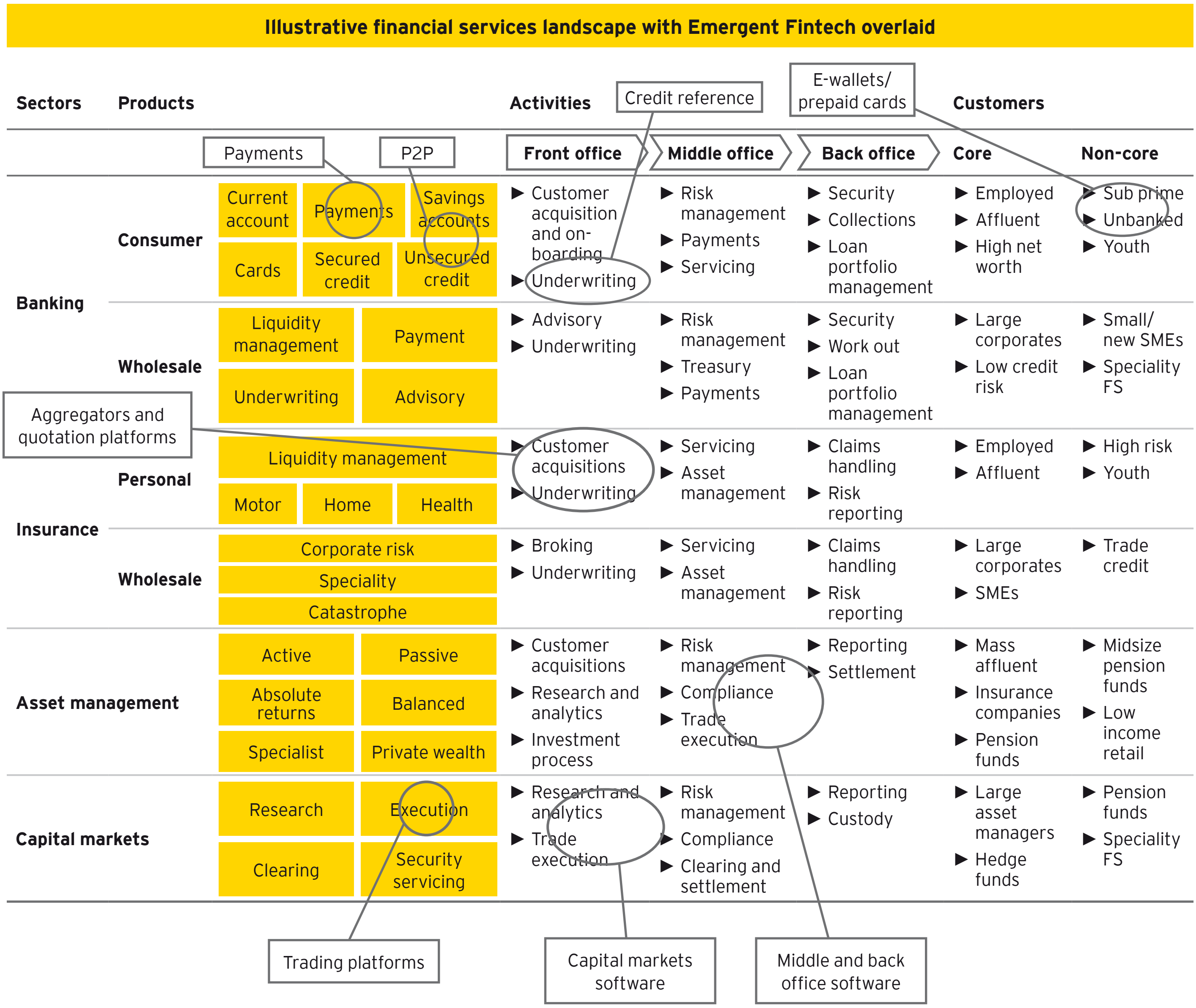
Fintech micro sector attractiveness

We set out below our Fintech microsector attractiveness matrix highlighting current size and future growth potential.



White space opportunities for disruptive Emergent Fintech businesses

The schematic below highlights areas where existing disruptive Fintech is focussed and also hightlights the white space for further innovation.



Attractiveness of the UK market

The UK market is one of the most attractive markets in Europe based on our analysis of market opportunity, availability of capital and regulatory environment.

We have separated our analysis of the attractiveness of the UK market into:

- Fundamental drivers which reflect the market opportunity in the UK and the availability of capital; and
- Supporting factors which include a wide range of factors that encourage firms to adopt the UK as a centre of business.
- We found that the UK, and London in particular, performs well across a number of aspects due in part the absolute size of the market opportunity for financial services in the UK, the quality of infrastructure and the regulatory context.
- We believe the UK scores less well in terms of availability of capital (good versus Europe but poor versus the US) and also on tax and grants, not because the UK is not generous, but rather foreign competitors are more generous (e.g., Singapore).

Fundamental drivers

Market opportunity

- Large and sophisticated consumer market open to innovation.
- London has the highest concentration of global financial institutions across banking, capital markets, insurance and asset management in the world.

Availability of capital

- Significantly ahead of the rest of Europe but there is a fundamental gap in comparison with the US.
- Nonetheless good businesses and ideas are funded by international capital.
- The gaps are in development and IPO capital.
- Good support for angel investment offset by a risk-averse investment culture.

Supporting factors

Regulatory approach

- Regulator well regarded relative to international peers and open minded to innovation.
- Could be more approachable.

Talent

- Access to high quality financial services talent.
- Dependant on importing technical talent.

Tax and grants

- Good angel investor support but no company help.
- Foreign grants can be very generous.

Infrastructure

- World class financial services infrastructure.
- Banks often restrict access.

Culture and position

- London is open, welcoming and has a mercantile culture.
- London is perceived as a hub for launching into EMEIA.

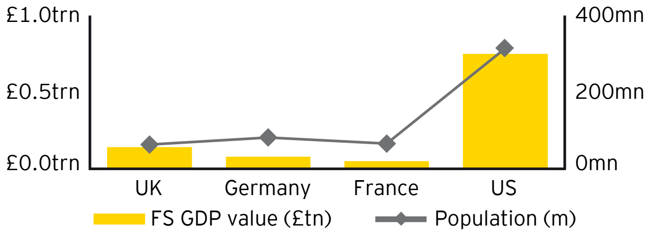
Fundamental drivers: attractive consumer market

The UK market has a large and sophisticated consumer base with world leading mobile and internet penetration and is open minded to innovative products from new providers.

High level of aggregate financial services activity

The UK financial services sector is one of the largest globally, representing approximately 9.4% of GDP.

Population by country and value of financial services



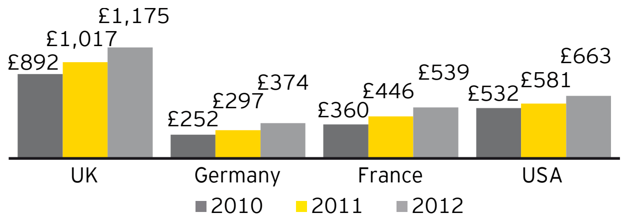
Source: World Bank, United States Census Bureau

Openness to adopting new models

The UK has been an early adopter of a large number of innovative business models (for example, aggregators and DIY investing), particularly those offering:

- Lowest upfront cost
- Internet delivery
- Greater convenience

Consumer e-commerce spend per capita



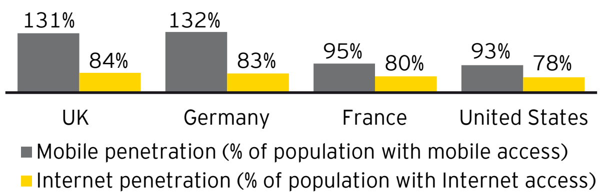
Source: IMRG X-border Training Guide 2013m Population figure obtained from IDATE/Industry data and Ofcom

World leading level of mobile and internet penetration

The ability to access online services and an active online economy is key to Fintech adoption.

The UK has one of the highest levels of mobile and internet penetration globally.

Mobile and internet penetration, % of population



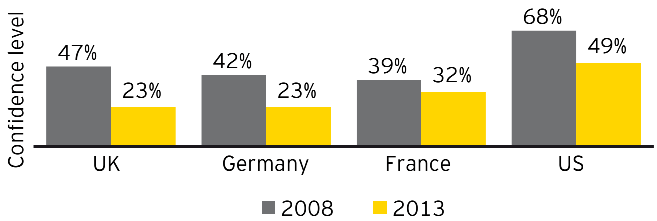
Source: Mobile penetration ITU International, internet penetration World Stats

Increasing propensity to switch providers

Historically, the primary brake on innovation in financial services has been inertia around switching providers.

There was a significant drop in confidence in the banks following the financial crisis which, to date, has still not returned, leading to consumer willingness to try alternative providers.

Level of confidence in banks



Source: Edelman Trust Barometer

Fundamental drivers: leading international financial services centre

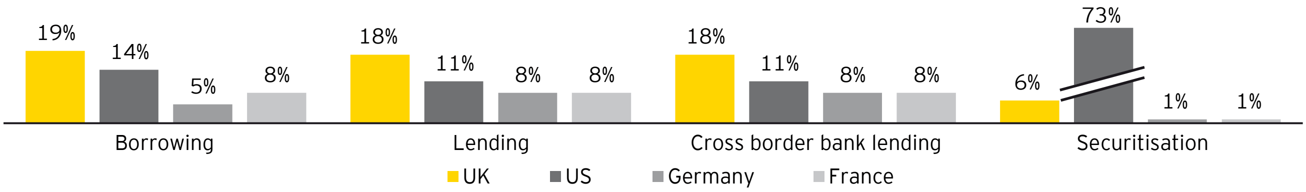
London is one of the world's largest financial institutions centres and unlike some peers serves a truly international client base:

- **251 foreign banks**
- **588 foreign quoted companies**

Global rank =

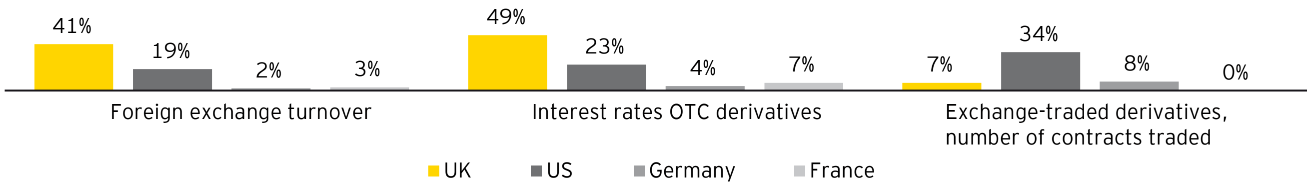
- UK is a global leader in banking and cross border lending

#1



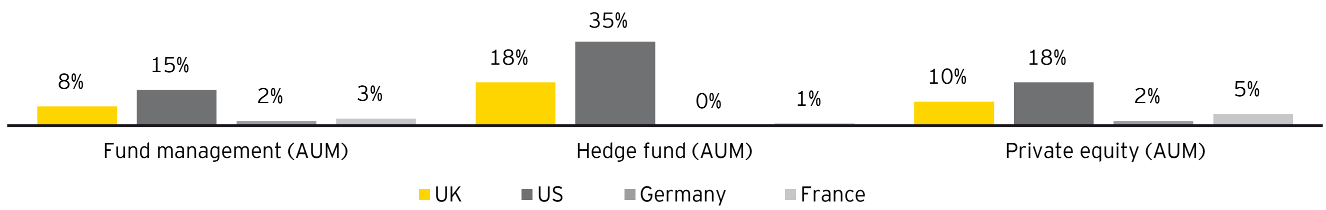
- The UK is a global leader in trading related activity, and in particular foreign exchange and over the counter derivatives

#1



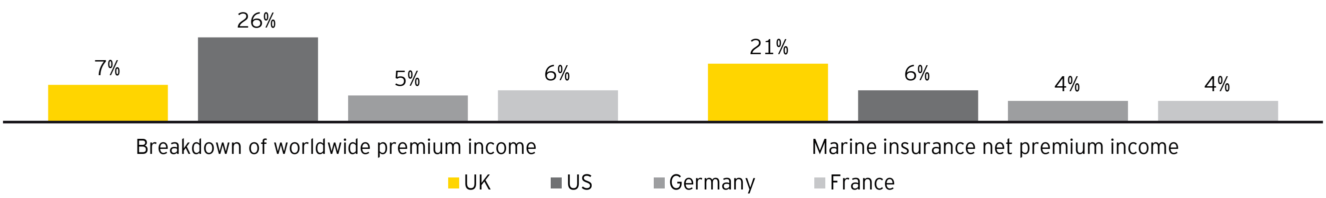
- The UK is the second largest asset management centre in the world after the US.
- Reflecting London's status as an international hub, overseas clients account for 40% of total assets under management (aum) in the UK.

#2



- The UK is a leading provider of insurance services that account for 7% of worldwide premium income; with specific strengths in specialty insurance.

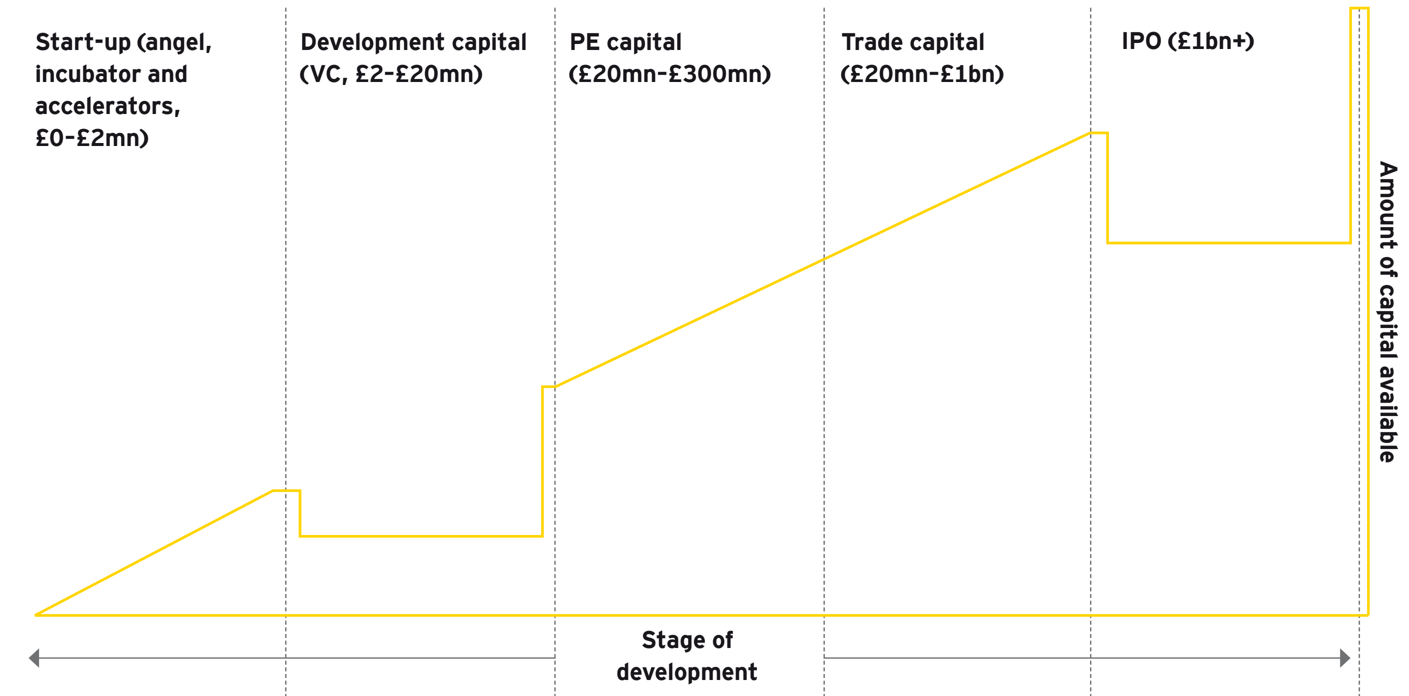
#3



Source: BIS and The City UK

Fundamental drivers: availability of capital

The schematic below maps the stages of a company's development to the availability of capital in the UK market. UK companies have good access to capital, however, there are weaknesses at the development and IPO stages relative to the US.



	Start-up (angel, incubator and accelerators, £0-£2mn)	Development capital (VC, £2-£20mn)	PE capital (£20mn-£300mn)	Trade capital (£20mn-£1bn)	IPO (£1bn+)
UK market	▶ Private investors account for £800mn to £1bn of early stage investments in the UK[1].	▶ VCs invested £300mn-£400mn[2] in to the UK in 2012. There are c. 140 active funds in the UK.	▶ 28%[4] of all European PE investment was made in UK and Ireland[3].	▶ 42%[5] of all acquisitions in Europe by the Fintech 100 in last the three years were in the UK.	▶ There have been no Fintech IPOs in the last three years.
US market	▶ Angel investors in the US provided c. £18bn of funding.	▶ VCs invested c. £5bn[1] in the US. There are c. 800 active funds in the US.	▶ A total of $426bn[3] was invested by US PE funds in 2012.	▶ Globally UK accounted for 10% of trade acquisitions while 52% were in the US, 14% in Europe and 24% RoW.	▶ The NASDAQ has had 108 IPOs in the financial and technology space in the last three years. 14 of these were Fintech companies.

Source: *EY analysis*
Source: [1]UK Business Angels Association; [2]NVCA year book 2013; [3]BVCA; [4]Private equity growth capital council; [5]European Venture Capital Association, 2012; [6]Mergermarket/Capital IQ.

Appendices

Segmentation of the UK financial technology market

Financial technology microsegments can be divided into several key market segments.

Payments

Market segment		Est. market size (revenue)
Infrastructure	Market players include operators of national payment infrastructures, cards schemes, issuers, processors and merchant acquirers. The segment is dominated by large established players, however, new infrastructure solutions are emerging.	**£8.1bn**
Online payments and FX	This segment is highly fragmented and diverse and includes e-wallets, B2B and P2P payment providers, payment gateways, virtual terminals and online money transfer. This segment has seen a significant amount of innovation, changing the way we make payments.	**£1.9bn**

Data and analytics

Market segment		Est. market size (revenue)
Credit reference	Credit reference and data analysis aims to measure the credit worthiness of companies and individuals. Increased automation of this segment is leading to new software solutions emerging.	**£1.0bn**
Capital markets	This market has traditionally been dominated by large capital market players. However new entrants are emerging with some reaching significant scale by utilising data analysis opportunities in previously unexplained areas of the market.	**£2.2bn**
Insurance	Insurance data analytics industry uses data to better understand risk and price it more accurately. Insurance market players are increasingly embracing new technology solutions and more innovation is anticipated.	**£0.6bn**

Segmentation of the UK financial technology market (continued)

Financial technology microsegments can be divided into several key market segments. (cont'd)

<table>
<tr><th colspan="3">Financial software market</th></tr>
<tr><th>Market segment</th><th></th><th>Est. market size (revenue)</th></tr>
<tr><td>Risk management</td><td>Financial services institutions have to manage a range of internal and external risks, with regulatory pressure on effective monitoring increasing continuously. The increase in global connectivity creates new risks leading to a wide range of new innovative solutions emerging.</td><td rowspan="5">Market size for all software excluding accounting – £4bn</td></tr>
<tr><td>Payments</td><td>Evolving needs of rapidly developing and changing payments industry (e.g., online banking, regulatory changes) has created a demand for new solutions which are being offered by new entrants and innovators.</td></tr>
<tr><td>Banking</td><td>The market is dominated by well established technology vendors. There has been a limited amount of innovation due to high costs of switching and dominance of the encumberent players.</td></tr>
<tr><td>Asset management and capital markets</td><td>The market is highly fragmented with a large number of front to back office solutions offered by international and local providers. The asset management and capital markets industry has been impacted by the financial crisis and regulatory changes, encouraging incumbent players to improve their technology, utilise data, and automate compliance monitoring, which is likely to drive further innovations.</td></tr>
<tr><td>Insurance</td><td>The market is fragmented and represented by large international software vendors. Traditionally, the insurance industry has taken a conservative approach to technology adoption creating an opportunity for potential innovators to enter the sector.</td></tr>
<tr><td>Accounting</td><td>The UK has a market leadership position in Europe in this segment with new opportunities emerging where providers starting to take advantage of new technologies and connectivity.</td><td>£0.2bn</td></tr>
</table>

Platforms		
Market segment		**Est. market size (revenue)**
Peer 2 Peer (P2P) lending	The terms 'peer to peer lending' and 'crowd funding' describe a variety of new, direct financial models that connect lenders and borrowers, investors and investee companies. The UK is a market leader in Europe. It is estimated that in 2013 c£1bn of funding was committed through P2P platforms. This sector is widely expected to grow significantly in the coming years.	**<£50mn**
Trading platforms	Trading platforms cover a broad range of unregulated trading venues including multilateral trading facilities and systematic intermediaries.	**£0.8bn**
Personal wealth	Personal wealth platforms comprise intermediary, direct to consumer and corporate platforms. Disruptive technologies are evolving fuelled by the high levels of wealth available requiring advice, offering strong growth opportunities to potential investors.	**£0.7bn**
Aggregators	Aggregators have become a major distributor for a variety of financial products. The UK has established itself as a market leader in this segment.	**£0.5bn**

Contacts

For further information, please contact:

Imran Gulamhuseinwala
Partner

EMEIA Financial Services – Transaction Advisory Services, Commercial Advisory
+ 44 20 7980 9563
igulamhuseinwala@uk.ey.com

Angelina Kouznetsova
Director

EMEIA Financial Services – Transaction Advisory Services, Mergers & Acquisitions
+ 44 20 7951 3092
akouznetsova@uk.ey.com

EY | Assurance | Tax | Transactions | Advisory

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax or other professional advice. Please refer to your advisors for specific advice.

Ernst & Young LLP

The UK firm Ernst & Young LLP is a limited liability partnership registered in England and Wales with registered number OC300001 and is a member firm of Ernst & Young Global Limited.

Ernst & Young LLP, 1 More London Place, London, SE1 2AF.

ED None

1487474.indd (UK) 08/14. Artwork by Creative Services Group Design.

In line with EY's commitment to minimise its impact on the environment, this document has been printed on paper with a high recycled content.

ey.com/uk