Q1 2016

DIGITAL BANKING AND PAYMENTS
EVOLUTION OR RE-INVENTION
Developments in technology, telecommunications and in the new media are reshaping the market in which financial services companies operate and ultimately how they compete. This is an irreversible and ongoing process of change and industry convergence that started in the nineties during the “dot-com” boom and whose outcome is yet to be defined.

INNOVALUE Management Advisors and Locke Lord have joined forces to combine top tier strategic thinking with legal and regulatory expertise for the development of three digital banking thought leadership reports. This is the third of the series and looks at how the digital enabled financial services landscape has evolved and continues to change, presenting potential threats and new opportunities to incumbents and new-entrants alike.

Enjoy the study and may it increase the wisdom of your decisions.
The digital banking journey started over thirty years ago when “tele-banking” services allowed customers to interact with their bank using their phone without needing to travel to the branch during its opening hours. It progressed with the widespread adoption of the internet by households and banks offering websites to advertise their products and enable customers to perform simple transactions online. The launch of the iPhone advanced the concept of digital banking to one whereby customers could interact with their bank anytime and anywhere – no longer reliant on the traditional physical banking channels. Digital survived the dotcom crash and financial crisis and its adoption in banking has been driven by both the technical developments as well as the digitisation of commerce.

Despite digital’s age, many “incumbent” banks have struggled to fully leverage end-to-end digital capabilities and continue to rely on physical support to serve customers. They have CRM systems that are not integrated across all product types and channels and therefore do not enable a holistic, single view of the customer. Or they offer online application forms that must be printed and posted to the bank to be accepted. Opening a mortgage in the UK takes between five and forty days yet a fully digital process has allowed the process to be completed in as little as 24 minutes. Today’s digital offering from the banks is often insufficient to meet the needs of customers who expect to use multiple channels seamlessly to complete transactions despite the millions or billions of pounds that the banks are investing in digital transformation programmes.

While the incumbent banks focus on how to transform their legacy systems, developed in the pre-digital era, a plethora of fintech start-ups have emerged. These typically focus on a single product offering and have a digital enabled architecture at their core. They have created a new financial services marketplace, often leveraging a peer-to-peer approach – allowing savers and borrowers to transact through an app or website and without the traditional banking infrastructure. These start-ups are focusing on areas with less regulation (e.g. lending and payments) and are likely to stay as niche providers given the expense (~£10m) and time (4-40 months) to obtain a banking license.

The new players will gain market share from the existing providers - in three years, potentially 20% of US lending will be through alternative providers. However, they will not replace them – the incumbents have legacy customers and the ability to invest in new customer acquisition. They are also investing in innovation and they are partnering with the new providers (for example BBVA’s investment in Atom bank). The digital banking landscape of the future will include both incumbents and new players, all serving the customer anywhere, anytime.

This paper provides an overview of digital banking, its development, recent trends and the potential future landscape – focusing on the UK market, nevertheless all assumptions being of international significance.

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1 Source: The Telegraph.
2 Source: HSBC.
3 Source: thefinanser.com.
4 Source: Goldman Sachs.
1 THE DIGITAL JOURNEY SO FAR

1.1. THE DRIVERS FOR DIGITAL ADOPTION

“My view on what constitutes a digital bank: a bank built with a vision to reach out to customers through digital augmentation. It is built specifically to offer the customer the service of their choice through the access of their choice.” — Chris Skinner, thefinanser.com, December 2014

Digital is positioned as a recent initiative to serve the needs of “millennials”; but it is over 30 years old, with internet and remote banking emerging in the 1980s long before the dotcom crash in 2000. The UK’s first remote transaction was completed in the 1980s using a system based on a television screen and a phone connection developed by Michael Aldrich in 1979 (called “videotex”). In 1984 this was used for the UK’s first B2C tele-commerce transaction for Tesco. In 1980, National Giro developed the technology for telephone banking and, in 1989, First Direct was launched as a telephone only bank. E-commerce as we consider it today developed in the 1990s with the first eCommerce transaction on the internet (a Sting CD sold through NetMarket in 1994) and the launch of Amazon, eBay and PayPal. Banking quickly followed the move onto the internet with First Direct and Nationwide developing internet banking capabilities in 1997, quickly followed by the launch of Egg and Smile (internet only banks).

The dotcom bubble grew during the 1990s and burst on March 10th 2000, leading to the failure of many “e”-businesses. However, many companies remained and withstood the drop in their share price and the mid 2000s saw the launch of web 2.0 – a more interactive phase of the internet characterised by user generated content and social media. Facebook launched in 2004 and Twitter two years later in 2006. Commerce websites were no longer advertising products, they were hosting user reviews and feedback that influenced sales (arguably more so than the initial product descriptions).

One of the major constraints for internet adoption was access – although many banks offered internet banking in the late 1990s (primarily as a way to serve customers in a cost effective way) less than 15% of households in the UK had internet access (see Figure 1). The rise in digital banking is closely linked to the developments in technology and commerce which have driven changes in consumer preferences. In terms of adoption, internet banking still lags behind that of internet purchasing with 76% of UK adults making purchases over the internet in 2015 compared to 56% using internet banking. However, the gap is closing as in 2008 only 35% of UK adults had used internet banking compared to 53% making purchases online (see Figure 2).

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1 Millennials are typically defined as those who reached young adulthood around the year 2000 and therefore born in the 1980s.
2 Source: ONS.
3 Source: ONS.
The next wave of development in banking was driven by advances in technology and commerce. The launch of the iPhone in 2007 and the app store in 2008 provided a new channel for organisations to interact with customers. Early versions of m-commerce and mobile banking were reduced versions of internet websites, however, the iPhone initiated an expectation that services could be available anywhere – no longer tied to physical stores or branches or even the location of the desktop with a Wi-Fi connection.

Indeed, internet access via mobile phones experienced the same rapid growth from 2010 as household internet access a decade before and it has nearly reached the same penetration level as households with internet access (see Figure 3).

The app store also enabled new business models and the emergence of the “sharing economy” with new companies emerging (for example Uber). The primary theme for these new businesses has been disintermediation: no longer is it necessary to use an established platform (e.g. a taxi company) to interact with service providers, instead, consumers can connect directly to the providers (e.g. the taxi driver).

The financial services industry was also subject to innovation targeting intermediaries. Zopa launched in 2004, providing peer to peer lending, Wonga in 2008 with online loans and the UK’s first digital bank Atom gaining regulatory approval in 2015.

Figure 4 provides an overview of the company launches in the technology, commerce and banking space. It illustrates the linkages between the new technology (hardware and software) and the subsequent changes in commerce and finally in banking.
### Figure 5: Digital innovations by established players

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>REGION</th>
<th>FINANCIAL INSTITUTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKETING</td>
<td></td>
<td>HDFC BANK</td>
<td>Implemented a single platform for marketing and customer services, enabling a single view of the customer and increases of 370% in lead generation, 208% in lead conversion and 40% in cross-selling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scotiabank</td>
<td>Cross-channel integration informs advisors of customer’s recent online activity to enable targeted discussions leading to an increase in cross-selling rates of 165% in 2 years</td>
</tr>
<tr>
<td>SALES AND ON-BOARDING</td>
<td></td>
<td>LLOYDS BANK</td>
<td>Customers can upload photos of identification documents as part of the verification process for online account applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>global payments</td>
<td>End-to-end digitalisation of the application process with documents scanned and submitted online (no postage required), reducing completion time from 21 days to 3 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BARCLAYS</td>
<td>Unsecured loan applications through mobile application (pre-approved credit line) Branch lending is now 50% of the total with 50% online / through the app</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ING DiBa</td>
<td>End to end online on-boarding in 6-8 minutes using video chat to complete identification and verification</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Citi</td>
<td>End to end online on-boarding using document scanning and secure email</td>
</tr>
<tr>
<td>TRANSACTING</td>
<td></td>
<td>us bancorp</td>
<td>Online bill payment using photos of invoices uploaded to the mobile app</td>
</tr>
<tr>
<td>ACCOUNT MGMT.</td>
<td></td>
<td>BBVA</td>
<td>Web-based, human-like virtual personal assistant (Lola) that uses voice recognition as well as type-in-responses and can perform simple banking tasks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BARCLAYS</td>
<td>Digitalised customer service through face-to-face video banking via either the customer’s phone, tablet or online</td>
</tr>
</tbody>
</table>

Source: INNOVALUE research.
1.2 DIGITAL AS AN ENABLER TO EFFICIENT PROCESSES

Digital has driven changes within existing financial services organisations and their business models. Organisations have looked at how digital can be applied within their existing physical processes to drive efficiency. Client relationship management (CRM) is one area where technology has been reviewed extensively.

Historically paper based, it has evolved from the rolodexes of the 1950s through the databases of the 1980s into the cloud-based SaaS solutions available today. According to Gartner, the CRM software market was worth USD 23bn in 2014. Although many financial institutions have CRM systems, they are not fully integrated across the front and back office or across all product types – leaving them unable to achieve a true “single view of the customer” the true “holy grail” for personalised customer marketing.

Although today’s approach is more technology than paper based, few would call it a truly digital process. Organisations have also largely viewed digital as a complementary channel for consumers to access their services – seeing a digital channel as an additional option for consumers to review, buy and use their products. The vast majority of financial services organisations have adopted digital as an additional channel through an internet site that publishes information about their products. These are more and more being linked into aggregator sites that compare and contrast the products available to consumers and make the process of selecting products easier.

This provides pricing transparency and has had a marked impact on the insurance industry where aggregators have made the process of comparing different policies and their prices much easier. However, although many organisations have a digital offering, it is often a front-end that links to a more physical process. For example, many banks offer the opportunity for new customers to apply for products online and for existing customers to purchase additional products from their internet banking sign-on. Traditionally the application process would be completed in the branch, requiring an appointment and a seller to spend their time completing the required forms with the customer. However the digital process in place today is not truly end to end with many application forms allowing customers to input their initial information online but still requiring forms to be printed and posted, increasing the application time as well as the risk of customer attrition before the sale is completed.

Some “online application” forms are little more than a request for a call-back to speak to a representative and complete the process by phone. HSBC recently launched the UK’s first fully digital mortgage application with an end to end application completed in 24 minutes. However, this is exceptional and the majority of UK consumers spend between five and forty days waiting for their mortgage approval.

There are examples of innovation from the traditional banking sphere, as seen in Figure 5, but these are typically limited to one specific area of the value chain rather than a fundamental transition to a more “digital” approach. They focus primarily on the customer interface, replacing traditional channels or approaches with digital led ones.

A major challenge for incumbents is their legacy systems. Many banking systems are decades old, they were developed in the 1970s or 1980s to support a business model where a bank branch closed at 5pm each day and accounts were settled overnight. These systems were therefore built around “batch processes” that could run at specified intervals. Today’s business models are trying to provide customers with 24/7 access to up to date information and therefore need to operate as “real-time” systems. Changing the underlying infrastructure is time consuming and costly and, since the advent of the iPhone (which made real time much more of a necessity), banks have also been reacting to the financial crisis with most of their available investment costs being spent on regulatory driven changes.

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6 Source: Gartner.
7 Source: HSBC.
8 Source: The Telegraph, 2014.
A single “bricks and mortar” channel is no longer sufficient in commerce and this is true for banking as well. The customer journey is much more complex across channels and product types. Figure 6 provides an illustration of different customer approaches to purchasing a product. Although some customers will enter a branch and complete the end to end purchase there (e.g. the path followed by customer A), more and more customers will start their journey online and use the branch for additional information to complete the purchase. Some customers will in fact not enter a branch at all in order to complete their transaction.

Data from consumer surveys indicates a clear migration of preferences from physical to online channels. In 2003 in the UK, 75% of consumers used branches compared to 29% for online (with smartphone / tablets not available as an option yet). By 2013, this had reversed to 54% using branches, compared to 74% online, 14% via smartphone app and 9% via tablet. By 2018, only 35% expect to use the branch, compared to 68% using online, 19% using smartphone and 20% using tablets (see Figure 7).

The omni-shopper is channel agnostic and often uses multiple channels in order to complete a transaction. The easy availability of information online makes it the preferred option for consumers to research and compare different products. Some will then complete the transaction online, while others will prefer to switch channel and complete the sales process through a physical store or branch where they typically can receive the added benefit of specific advice from the seller. Retailers also have the very recent trend that some shoppers will complete the sale online but prefer to collect their purchases in a local store. This eases some delivery challenges and, since some stores have long opening times, meets the customer’s need to receive their goods at a specific time convenient to them.

Figure 6: Example customer journeys to purchase a loan product

Source: INNOVALUE research.
Data from the US indicates that the elderly have the highest preference for branches (preferred by 38% of those over 67) while only 24% of Generation Y would prefer branches. The preference for online is strong across all age ranges – with more than 60% of customers preferring online for each age range (with the highest preference stated by Generation Y at 69%) and lowest by the elderly at 61% (see Figure 8).

As well as using digital as an additional channel, banks are converting their branches to “digital enabled” branches to enhance the experience of those who use branches (both existing and potential new customers). These innovations expand the role of the ATM – which already provides a method for customers to access or deposit cash and cheques, as well as providing basic balance information. Advances in hardware and software mean that ATMs today can (among other things) also use biometrics for authentication, tablet displays for easier customer use and video screens to provide a face to face interaction. UK banks are beginning this digitisation journey and making announcements to state their digital plans.11

- RBS announced a £1bn investment in June 2014 to support its “digital transformation”. As part of this, it will transform branches into an interactive and engaging environment for customers to learn about products and receive advice. This will include installing iPads in 400 branches, providing free Wi-Fi and upgrading ATMs.
- LBG plans to introduce self-service tills with video conference facilities and transform its branches in a more “collaborative and customer driven” environment.
- HSBC, as part of a restructuring plan, announced a £640m investment in “digital transformation” to address increasing digital and mobile adoption as well as increased competition from technology firms entering the financial universe.

**Figure 7**: % of consumers using method to manage personal finance in the UK

<table>
<thead>
<tr>
<th>Method</th>
<th>10 years ago</th>
<th>Now</th>
<th>In five years time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch</td>
<td>20%</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Phone</td>
<td>29%</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Internet</td>
<td>54%</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>Smartphone App</td>
<td>1%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Via tablet</td>
<td>9%</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Post</td>
<td>5%</td>
<td></td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: NS&I.

**Figure 8**: % respondents stating channel as preferred option (US)

<table>
<thead>
<tr>
<th>Generation</th>
<th>Branch</th>
<th>Online Banking</th>
<th>Mobile Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y (18-35 years)</td>
<td>24%</td>
<td>69%</td>
<td>6%</td>
</tr>
<tr>
<td>X (36-46 years)</td>
<td>25%</td>
<td>68%</td>
<td>4%</td>
</tr>
<tr>
<td>Baby boomers (47-66 years)</td>
<td>31%</td>
<td>65%</td>
<td>2%</td>
</tr>
<tr>
<td>Customers over 67</td>
<td>38%</td>
<td>65%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: MRI.

11 Source: Company press releases.
Chase redesigned its branches in order to create a more collaborative, digital and paperless environment.

In August 2015, the bank launched a new eATM with innovative features such as:

- Mobile biometric ATM authentication enabled by Apple Pay
- Cardless transactions empowered by Chase’s mobile app

In Japan, Citi Bank introduced new ‘smart banking branches’.

The branches are designed to fit customer needs and create an interactive and paperless environment.

- All devices in the branches are touch screen with a user-friendly interface
- Private consulting rooms allow customers to interact, via videoconference, with specialised advisors

In Turkey, ZiraatBank has created a tellerless branch network.

The new branches are open 24/7 and are equipped with biometric authentication systems, total cost per branch is of ~£54k (€70k)

- Customers are connected to a bank’s agent via videoconference and are able to:
  - Withdraw and transfer money
  - Pay bills
  - Buy and sell foreign exchange
  - Buy bonds
Globally, some banks have already reviewed and implemented a more digital approach to branch design (see Figure 9).

Global banks are also seeking to address the needs of those whose primary channel preference is mobile. Rather than market additional mobile capabilities as part of their core offering, they are establishing mobile banking subsidiaries with a “mobile first” proposition. (See Figure 10)

It will be interesting to see whether the new mobile banks fare better than the internet banks of the late 1990s, both of which have struggled since their launch. Egg bank was launched as a division of Prudential Banking offering savings accounts and mortgages in 1998 and credit cards from 1999. As a company, its valuation fluctuated significantly. Prudential sought to float 21% of the business and analysts valued the business as high as £4bn prior to floating in 2000 (during the dotcom bubble). Its actual flotation (after the dotcom crash) valued the company at £1.3bn. Prudential attempted to sell its remaining share in 2003 but failed to find a buyer. In 2006, Prudential bought back its 21% share with a company valuation of £973m and subsequently sold the business to Citigroup in 2007 for £575m. In 2011, Citigroup sold Egg’s credit card business to Barclaycard and its savings and mortgage business to the Yorkshire building society. Another internet bank, Smile.co.uk, was launched in 1999 by the Co-operative bank. Although it was launched after Egg, it claimed to be the UK’s first internet only bank as it offered a wider range of products (current accounts, savings, ISAs, investments and credit cards). By 2002, it had reached half a million customers. However, it has suffered from the problems of its parent company (which identified a £1.5bn black hole in its accounts in 2013) and in May 2015 the Co-operative announced that new customers would be acquired into one brand - that of the Co-operative.

The increasing leverage of technology, even in physical branches, as well as the changing consumer attitudes and behaviours means that the historical discussion about “multi” or “omni” channel approaches has moved on. The distribution approach and customer interaction will need to be integrated across both physical and digital so that it is “channel agnostic” and enables consumers to transact seamlessly anywhere, anytime.

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**Figure 10: Example mobile bank subsidiaries**

<table>
<thead>
<tr>
<th>Parent</th>
<th>Launch date</th>
<th>Target customers</th>
<th>Product offering</th>
<th>Mobile payments</th>
<th>Branch access</th>
<th>Location services</th>
<th>Social media interaction</th>
<th>Ometrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNP Paribas</td>
<td>May 2013</td>
<td>18 - 35</td>
<td>Saving account, loans, investing, insurance</td>
<td>NFC, P2P</td>
<td>Yes</td>
<td>ATM finder</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CaixaBank</td>
<td>January 2016</td>
<td>18 - 35</td>
<td>Saving account, loans</td>
<td>NFC, P2P</td>
<td>Yes</td>
<td>ATM / branch finder</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>EQ</td>
<td>January 2016</td>
<td>18 - 35</td>
<td>Saving account</td>
<td>P2P</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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12 Source: Company press releases, the Telegraph.
2 THE NEW, DIGITAL ENABLED FINANCIAL SERVICES LANDSCAPE

2.1. NEW PRODUCT PROVIDERS

Recently, the financial service sector has seen a plethora of new companies entering the market. The “fintech” start-ups are gaining momentum and, at the end of 2015, there were 18 private companies valued at over $1bn13 of which seven were in lending and seven were in payments (see Figure 11). Many of these new players have capitalised on a new financial services marketplace. The rise of companies like Uber and Airbnb has made consumers more comfortable with the idea of “peer-to-peer” and this is now being offered in financial services as a way to disintermediate the existing players.

For example, Funding Circle allows savers to lend their money directly to small-medium businesses. The users accept the risk directly but have access to potentially higher return rates than those available through the saving products offered by banks at this time.

Rather than focusing on specific channels, these companies are seeking to provide specific products, often using a digital driven approach. They have the advantage that they have been built on architectures designed in the digital world. These companies are also adopting a new business model. Previously, banks focused on customer acquisition through the current or deposit account and once a customer held this product they would try to cross-sell additional products. The new players are often focusing on a single product and targeting specific segments of society that are underserved by the traditional players (e.g. Osper for young people).

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13 Source: CB Insights.
15 Source: Metro Bank.
One reason for the single product focus is the barrier to launching as a full service bank due to the significant costs involved. It can cost ~£10m to get a banking license application from the FCA (taking between four and forty months and requiring detailed documents, often hundreds if not thousands of pages long) and a start-up would need to budget ~£10m/year for technology and operating costs. In addition to this, building up a distribution network is expensive — for example, Metro Bank claims each new branch they open costs £2m. Figure 13 provides an overview of the total funding received by digital challenger banks (those holding their own license) and neo-banks (those partnering with other banks to provide a full product offering).

### Figure 13: Total disclosed funding (US $)

<table>
<thead>
<tr>
<th>BANK OVERVIEW</th>
<th>TOTAL FUNDING ($M) (AS OF JANUARY 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atom</td>
<td>167</td>
</tr>
<tr>
<td>Starling</td>
<td>70</td>
</tr>
<tr>
<td>Movenbank</td>
<td>24</td>
</tr>
<tr>
<td>Simple</td>
<td>15</td>
</tr>
<tr>
<td>Number26</td>
<td>13</td>
</tr>
<tr>
<td>Numbrs</td>
<td>12</td>
</tr>
<tr>
<td>Fidor</td>
<td>5</td>
</tr>
<tr>
<td>Mondo</td>
<td>3</td>
</tr>
<tr>
<td>Holvi</td>
<td>3</td>
</tr>
<tr>
<td>Rocketbank</td>
<td>2</td>
</tr>
<tr>
<td>Monese</td>
<td>2</td>
</tr>
<tr>
<td>Koho</td>
<td>1</td>
</tr>
</tbody>
</table>

**Note:** “Full” refers to banks which are applying for / have full banking license. “Neo” refers to banks which offer a simplified range of banking services and products.

**Source:** INNOVALUE research.
Even where companies have sufficient funding, they can still struggle in the light of changes to their external environment. Wonga provides an example: in 2012 it was considering a £1.5bn IPO yet 2014 saw its lending fall and profits turn negative following the introduction of new rules by the FCA in 2013. There can be other unforeseen changes in circumstances, for example, in December 2015 it was revealed that Prosper had lent $28,000 to a couple involved in a terrorist attack in California. It is too soon to say how much impact this will have on their business, however, it demonstrates that unforeseen events can bring unexpected negative publicity.16

As well as market driven events, fintech start-ups are vulnerable to the challenges that all companies face when starting out. They need to develop a product that is demanded by the market, acquire and retain customers, achieve sufficient scale to deliver financial results and obtain investment to fund their business. With 90% of start-ups failing it is not surprising that there are some start-ups in the fintech space who have failed in recent months (see Figure 15).

Figure 14: Wonga case study

![Wonga Case Study](chart)

Wonga launched in 2008 and grew in popularity driven by an extensive marketing campaign (£16m spend in 2012). However, in 2012 the OFT reviewed the payday lending sector in the UK and in 2013 the FCA announced tougher controls (including a restriction on the number of times a loan could be rolled over - a significant source of income for Wonga).

The future for Wonga is uncertain. However, it will still have had a lasting impact on the financial services industry through the innovation that it has driven within the existing incumbents. In 2014, Barclays included unsecured lending in its mobile banking app - providing a pre-approved credit line. Twelve months after launch, the bank now provides 50% of lending online or through its mobile app.

Figure 15: Example fintech failures

<table>
<thead>
<tr>
<th>FINTECH</th>
<th>FAILURE DATE</th>
<th>DESCRIPTION</th>
<th>FAILURE REASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>BONAFIDE</td>
<td>Q4 2015</td>
<td>Community-powered fraud prevention platform for Bitcoin and other cryptocurrencies</td>
<td>Lack of investor interest</td>
</tr>
<tr>
<td>selltag</td>
<td>Q4 2015</td>
<td>Online trading platform</td>
<td>User acquisition / engagement / retention</td>
</tr>
<tr>
<td>ZENOB</td>
<td>Q4 2015</td>
<td>Provider of free tax and insurance tools</td>
<td></td>
</tr>
<tr>
<td>Browker</td>
<td>Q3 2015</td>
<td>Bitcoin buying service enabling consumer to purchase products with bitcoin</td>
<td></td>
</tr>
<tr>
<td>BALANCED</td>
<td>Q3 2015</td>
<td>Provider of a stand-alone service for sending money to a seller’s bank account via ACH</td>
<td>Insufficient growth / scale</td>
</tr>
<tr>
<td>MELODIC</td>
<td>Q3 2015</td>
<td>Digital asset exchange to trade digital assets with Bitcoin</td>
<td></td>
</tr>
<tr>
<td>37coins</td>
<td>Q3 2015</td>
<td>Bitcoin wallet for the low-tech and underbanked</td>
<td>Product uncompetitive / lack of product-market fit</td>
</tr>
<tr>
<td>wesabe</td>
<td>Q1 2014</td>
<td>Personal finance management</td>
<td></td>
</tr>
</tbody>
</table>


17 Source: Forbes.
2.2 REGULATORY CONSIDERATIONS

With the advent of all these new players into the banking sector there has been an interesting move by the regulator to open up parts of the core banking services to non-banks and thereby introducing competition to the banks where banks had become less efficient at servicing customers' needs. The key European Legislation in this space is the Payment Services Directive (the second version of this due for implantation in 2018) and the Electronic Money Directive. These directives have created two new forms of regulated financial entity namely the Payment Institution (PI) and the Electronic Money Institution (EMI). A PI is entitled to perform regulated financial activities as set out in Payment Services (Definition 3 in Article 4):

1. Services enabling cash to be placed on a payment account as well as all the operations required for operating a payment account.

2. Services enabling cash withdrawals from a payment account as well as all the operations required for operating a payment account.

3. Execution of payment transactions, including transfers of funds on a payment account with the user's payment service provider or with another payment service provider:
   - execution of direct debits, including one-off direct debits,
   - execution of payment transactions through a payment card or a similar device,
   - execution of credit transfers, including standing orders.

4. Execution of payment transactions where the funds are covered by a credit line for a payment service user:
   - execution of direct debits, including one-off direct debits,
   - execution of payment transactions through a payment card or a similar device,
   - execution of credit transfers, including standing orders.

5. Issuing and/or acquiring of payment instruments.

6. Money remittance.

7. Execution of payment transactions where the consent of the payer to execute a payment transaction is given by means of any telecommunications, digital or IT device and the payment is made to the telecommunication, IT system or network operator, acting only as an intermediary between the payment service user and the supplier of the goods and services.

In addition, under the new directive a new term Third Party Provider has been brought in which covers Account Information Services whereby a provider offers a customer the ability to aggregate access to all their online payment accounts through a single screen, and Payment Initiation Services who enable consumers to make direct payments from their bank account to online merchants.

An EMI is entitled to run electronic money accounts which are, in effect, deposit accounts with limited functionality that have less regulatory burden than banks and hence can provide cheaper more flexible solutions for specific market sectors that are generally underserved by banks.

Both PI’s and EMI’s have effectively brought a much needed wake up call to a banking system that in some ways had become complacent. What we have now are banks developing in competition with these new players in some sectors but in others leaving the non-banks to provide the solutions needed to drive a service with less friction. These new players, because of the lesser regulatory burden are able to offer cost effective solutions without lessening the protection of the customers. Whilst it is still not ideal, the shake-up it has provided has worked in unison with the incredibly fast pace of technology adoption and even though the regulators will always have to play catch up with the product advances in the banking arena we are finding a more inclusive and open regulator coming through.

The newest change in the UK has been the creation of the Payment Services Regulator (PSR) whose role started in April 2015. The PSR spent a whole year in workshops and meeting with the payments industry before even opening the doors! A lot is expected of this new regulator and it is too early to see any real results. However, we do know that its purpose is clearly defined as “making payment systems work well for those that use them”. So we are seeing an incredible growth in the future of banking and it seems that the regulatory landscape is trying to keep pace and that the Regulations are following suit.
3 CONCLUSIONS

Consumers’ preferences are clearly changing, adopting new technologies and correspondingly changing their attitudes and behaviours. The banking industry is also changing, however, at a significantly slower pace. For many years it was expected that Telcos would be the disruptors yet it is only in 2016 that Orange acquired a 65% stake in Groupama Banque and announced its intention to open a mobile led bank in 2017. Likewise, many consumers would like to see a technology company (like Apple or Google) enter the financial services space. These have entered at the edges with payment services (Apple Pay and Google Wallet) yet they remain far from full services banks.

Now, the topic of debate is what the digital banking landscape of the future will be – either dominated by the new start-ups or by the old incumbents. The start-ups claim to be more agile since they do not have to maintain legacy infrastructure and distribution channels. Atom bank co-founder Anthony Thomson claims that half of traditional bank costs are in legacy “everything”, the branches, legacy systems and compliance18. However, although this represents a significant cost base, it is used towards maintaining their legacy customer base.

These systems may not support the new preference for digital everything, but they support the legacy customers who still want to use cheques, speak to branch staff and have a physical interaction as part of their customer journey. Indeed, what attracted most UK consumers (around 45,000 each quarter)19 to switch in 2014 was Santander’s 123 account, which promises comparatively good interest rates and cash-back rewards.

This product is undoubtedly a loss leader for Santander (demonstrated by the increase in monthly fees in January 2016) yet it has proved very effective in terms of gaining market share. The new players may not have the legacy costs to pay, but they also do not have the legacy revenues to invest in new customer acquisition.

The new players will have an impact on financial services and will gain share in specific areas. A Goldman Sachs report estimates that 20% of US bank lending will move to alternative providers by 2019.20 This is a significant amount, however, on a profitability basis, the value lost ($11bn) represents 7% of total profits in 2014 and nearly half is from unsecured personal lending. The fact that only 20% of lending will be lost to the start-ups as well as the large back books of existing incumbents mean that the existing players won’t be eliminated in the future.

Customers are highly sticky in financial services. The UK launched the Current Account Switch Service in 2013, promising to allow consumers to completely switch their current accounts within seven days (with all direct debits etc. transferred to the new account) yet there are only around one million accounts switched per year (~2% of total).21

Ultimately, the success of the new digital banks, which are in the process of applying for their license and / or launching remains to be seen. First Direct launched in the 1980s as a telephone (and later online) bank yet today it remains a relatively small player, serving a specific customer segment in the market (tech savvy, young professionals). This is the same segment that the “mobile” banks of today are now targeting. The stickiness of UK customers means that the digital-first banks like Atom have significant work ahead of them to both launch and then gain market share.

What is most striking about the “digital” banks launched to date is that they have either launched as subsidiaries of existing banks (e.g. Hello Bank!) or have received investment from existing players (e.g. Atom). Some of the new fintechs are even partnering with existing players – although Zopa is a peer to peer lender, it has recently signed up Metro Bank as a lender on its platform. Therefore, it is far more likely that the digital banking landscape of the future will not be dominated by start-ups or incumbents but will be a combination of both with each player to maximise their own strengths and leverage the strengths of others.

There will be no classification of banks as “digital” or “non digital” – every successful bank will be on the digital journey, offering customers the service of their choice through the access of their choice.
Locke Lord is a full service, international law firm with offices in London, Hong Kong and 11 U.S. cities, and a full range of practice and industry areas that serve international and domestic clients worldwide.

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INNOVALUE is a leading strategic management advisory firm dedicated to the financial services industry. INNOVALUE’s clients are global or national market leaders, regional specialists, innovators and entrepreneurs that have trusted INNOVALUE for over a decade as their preferred advisors. In the three practices – Payments, Banking and Insurance – INNOVALUE has a distinctive industry know-how based on years of experience, deep and tested insights and established methodologies. The industry practices are complemented by two cross-functional service lines: Corporate Finance and INNOVALUE Solutions.

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  the best advice is never developed in isolation, behind closed doors, but in partnership with the client. Hence INNOVALUE’s team work as “one team” through a collaborative approach with the clients’ team. This partnership not only makes a difference in terms of quality and value of our advice, but also contributes to a positive impact at a personal level through mutual trust. These factors provide the foundation for recommendations and conclusions that are endorsed, shared and supported, and ultimately implemented, within the client’s organisation.

- **Actionable strategies:**
  the value of a good strategic analysis which does not stand a chance of being implemented for whatever reason is none. This is why INNOVALUE’s consultants take particular care that recommendations are realistic, feasible, endorsed, shared and supported, and ultimately implemented. At INNOVALUE, this is one of our core principles – as INNOVALUE delivers “high-value consulting, down to earth”.

- **Tangible results:**
  feedback that INNOVALUE receives at the completion of each project shows that INNOVALUE’s work provides genuine added value. INNOVALUE strives to create an extraordinarily high “return on consulting investment” – and practically all of INNOVALUE’s clients would unreservedly recommend us. These are values which bring back to INNOVALUE’s fourth, and perhaps most important principle: INNOVALUE always makes a tangible and relevant contribution to the competitiveness of its clients.
INNOVALUE supports its clients internationally from the offices in Hamburg, Frankfurt and London.

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