FT SPECIAL REPORT

The Future of Banking

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Slick start-ups aim to erode traditional market areas

Industry faces big challenges to keep pace with fresh competition, says *Laura Noonan*

S ignificant change is sweeping through the banking industry as new technologies, competitors, leadership, regulations and an urgency to boost profits spur bosses into action.

"We are on the brink of brutal disruption," says Francisco González, who has spent almost 15 years at the helm of Spanish bank BBVA, Europe's sixth largest bank by market value.

Banks are racing to master technologies that could revolutionise their efficiency if they get them right, or cost them substantial amounts of business if they are beaten to it by technologysavvy newcomers such as payments innovator Alibaba and Apple Pay.

In Europe, four of the biggest banks are under new leadership, while lenders across the eurozone are taking their cues from a new regulator. In the US, banks are dealing with the practical implications of rules drawn up in the aftermath of the financial crisis that are only now fully coming into force.

In spite of ever-increasing capital demands, banks on both sides of the Atlantic must make higher profits to keep their investors happy, even though they are blocked from pursuing some of their old activities. This is prompting them to consider further cost-cutting measures, such as merging more of their back office functions.

"Change is accelerating," says Federico Ghizzoni, chief executive of Italian bank UniCredit. He believes the next five years will bring changes even bigger than the past five, when EU banks cut more than 225,000 staff and radically downsized to deal with the aftermath of the 2008 financial crisis.

Both Mr González and Mr Ghizzoni



see technology and the advent of new competitors as the biggest development in this era of banking. Mr González says banks must "undergo massive transformations" to compete with digital startups that do not have the legacy costs of the industry's incumbents.

IT platforms are the "most critical" thing to overhaul, he believes. But the changes do not stop there.

"Once the foundations are in place, everything else needs also to change," he adds. "Processes, digital skills, distribution model, product offering through all channels, culture, mindset, structure, and more. There is no end to change." BBVA is well into its journey. Eight years ago, the Spanish bank began an IT overhaul that enabled its systems to

Banks are racing to master new technologies that could revolutionise their efficiency

tolerate the fivefold increase in daily transactions since 2006.

Last month, it announced it was taking a 30 per cent stake in UK online-only bank Atom, which Mr González says understands "better than most" the challenge of delivering "ultra convenient solutions" to customers 24/7.

Huw van Steenis, banks analyst at Morgan Stanley, says there has been a "sea change" in the way bosses think about the threat of new competitors.

"Last year, most chief executives thought that regulation would deter new entrants as core banking and other regulated parts of financial services had become less appealing," says Mr van Steenis. "Now there's a growing sense that new entrants can skim the cream and expose the banks' high legacy cost bases. Banks are much more *Continued on page 2*

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The Future of Banking

Regulation pushes investment banks away from roots

Competition

2

Focus on 'capital-light' activities signals less lending and trading and more advisory, says Laura Noonan

The wave of regulation that sprung from the financial crisis has pushed investment banks further and further away from their roots. Instead they are going deeper into the "capital light" activities (which require less regulatory capital) that are being carried out with equal vigour by non-banks.

The recently unveiled strategic plans of Deutsche Bank, Credit Suisse and Barclays are a case in point - all are repositioning towards activities such as advising on mergers and acquisitions and helping clients raise finance, while turning away from more traditional activities such as lending and trading.

In a few years, the central activities of these European investment banks could be indistinguishable from those of their non-banking rivals, such as the advisory boutiques that help with deals and fundraising, some of the large asset managers, or the big four accounting firms which now boast corporate finance divisions

Figures from consultancy Tricumen show three of the biggest advisory boutiques - Greenhill, Evercore and Lazard have increased their M&A/advisory fees by 13 per cent since 2007, a period when the revenues of broader investment banks collapsed.

So is the future of investment banking one where the banking part is optional? Not if you believe Manolo Falco, head of Citi's Emea corporate and investment bank. "It's unclear if banks with that [capital light] model will make a good return," he says. "I do think it's a highly competitive terrain."

He believes you have to have a sizeable market share to make the advisory business work and says that might not be achievable for all banks.

Citi is sticking with its original bet -afull service global bank spanning over 160 countries, albeit considerably shrunken from its pre-crisis tally. Regulations which have made some

areas of investment banking more expensive are a factor in deciding where to allocate resources, but it is not a simple "capital heavy, bad; capital light, good" process.

"We definitely try to focus on the most attractive areas but at the end of the day, when you're in 55 countries in this [the Emea] region . . . you have a big business that is also focused on the capheavy areas," says Mr Falco.

You have to have a sizeable market share to make the advisory business work

Other investment bankers in large US groups make the same case. While advisory is often the best business on a return-on-equity basis within investment banks, they say the capacity to earn advisory revenue often hinges on the other services a bank provides, such as lending and trading.

"Clients still need a firm that can do a global transaction, not just offer advice," says Daniel Pinto, head of JPMorgan's corporate and investment bank. "The need for capital is not going away."

He adds that JPMorgan is constantly "fine tuning" its offering so it can seize "the efficiencies that come with that scale, so we can continue to offer the full product suite" to clients.

Swiss bank UBS is the "capital light" poster child held up by many investors. UBS has more than halved its balance sheet since the financial crisis and its investment bank often boasts a quarterly return on equity well above 20 per cent.

The Swiss bank does retain some traditional banking activities, it just does a lot less of it than it used to.

UBS's investment banking chief, Andrea Orcel, says he has scope to expand the business without more financial resources, by improving the productivity of both individuals and technology.

He believes limiting the investment bank's capital imposes discipline and keeps it focused on the most profitable areas. "We are smaller but we are better," Mr Orcel says, pointing to prime brokerage as a case where UBS has pared back its resources and makes a return on assets twice as high as some competitors. The quest for improvement continues.

"The environment around us is constantly changing," says Mr Orcel, "so we need to adapt and find better and more

effective ways to execute and deliver." Barclays, Deutsche Bank and Credit Suisse are all paring back capital-intensive activities though, bankers agree, none is "doing a UBS".

Michael Reuther, who is in charge of Commerzbank's investment bank, says the changes taking place in the investment banking world demand a more nuanced response.

"Within the new regulatory environment, investment banking is not a matter of net operating profit or market share, but a business of striking the balance between efficient resource management and continuing to provide the services and products your client franchise requires," he says.

"It is no longer a one-size-fits-all industry."

Slick start-ups aim to erode traditional market areas

Continued from page 1

nervous about being left with high costs, highly-commoditised processes and not much growth."

UniCredit's Mr Ghizzoni says banks see unique advantages in their ability to meet the "complex needs" of corporate clients, who seek out banks' large balance sheets and expertise in areas such as trade finance, supply chain finance and cross-border transactions. To that end, UniCredit is focused on becoming a "digital partner" of corporate customers, firstly 600 global corporate and investment banking customers, and then 6,000 Italian corporate clients.

In other areas, the bank will have to become more nimble. "We will be particularly focused on instant lending," says Mr Ghizzoni. UniCredit will soon be able to hand over money within minutes of a loan application being approved - a big improvement on the 48 hours it takes now.

Savings are another battleground. Ronit Ghose, banks analyst at Citi, describes the "fragmented" savings market in the US, where mutual and money market funds hoover up funds that would once have found their way into the banking system. So far, Europe has avoided that, but Mr Ghose says if interest rates remain low, savings could ultimately find new, non-bank, homes. Investment banks will see their share of big changes as well. The new leaders at Deutsche Bank, Credit Suisse and Barclays have all signalled strategic shifts that will transform their investment banks into smaller, more focused players. The European Central Bank, regulator of banks across the eurozone, is also taking a keen interest in how investment banks are capitalised. "The big impact of regulation is that the amount of capital you have to hold, par-

4 5x Number of large The increase in European banks daily transactions at BBVA since under new leadership 2006

ticularly for fixed-income activity in corporate and investment banking, is huge," says Mr Ghose. Particularly contentious are rules on how much capital

Integration in Europe still lags behind the pre-crisis era

Single market EU policy and cross-border mergers could help redress balance, writes *Jim Brunsden*

long sought a seamless,

he European Union has area, where regulators see an integrated banking market as a crucial step to integrated, EU banking underpin the euro. If credit markets are market. It even has a mis- fragmented it weakens the intended



time to bear fruit. "The only way to get the sort of risk sharing that the eurozone needs in a realistic timeframe is to have cross-border integration of the

sion statement of what one would look like.

"Under full financial integration, banking markets would efficiently allocate resources to the most productive investment opportunities across the euro area, without frictions in the flow of funds across borders," says a report published by the European Central Bank in April.

The reality in Europe today is a long way from that pure vision. Banks often still have a strong bias towards investing in their home markets, and face political pressure to do so.

The financial crisis has also taken its toll. According to the ECB, the level of integration in euro area banking markets still lags behind that of the pre-crisis era.

At the consumer level, as anyone who has tried to move to another European country without setting up a local bank account can attest, the complications of cross-border retail banking can still be considerable.

This matters because the economic stakes are high, especially in the euro impact of monetary policy decisions taken by the ECB.

The breakdown of cross-border investment in the wake of the 2008 financial crisis was cited by the ECB as a key justification for extraordinary measures such as its targeted long-term refinancing operations and asset purchase programmes.

For Nicolas Véron, a senior fellow at think-tank Bruegel, a wave of cross-border mergers of European banks could provide the most realistic short-term route to a more integrated banking market. "There is a desperate need in the euro area for risk sharing, so that it is better able to absorb shocks," he says. Other than cross-border M&A, he says, the main ways to achieve this would be either to have fiscal transfers from richer to poorer EU nations, an idea rigorously opposed by Germany and others, or a push to eliminate regulatory barriers to cross-border investment.

While the EU is seeking to tackle these barriers through a policy programme known as the Capital Markets Union, Mr Véron says that it is likely to take a long banking system," he says.

An extreme example of the cracks in Europe's banking market emerged in 2012 when Germany and Italy clashed over demands from German banking supervisors that Italian lender UniCredit not transfer funds away from its German unit.

Michel Barnier, the then EU commissioner in charge of financial regulation, said at the time that his officials were monitoring the situation, but did not outright challenge the practices, which ran counter to EU rules on free movement of capital.

Officials say such problems should progressively become a thing of the past, at least within the euro area, because of the EU's decision in 2013 to turn the ECB into the currency bloc's top banking supervisor, so taking key decisions out of national hands. The ECB took on the role in November 2014.

better able According to Mr Véron, an ECB-led push for a better functioning single market also would have financial stability benefits.

"At this point we have national

problem becomes much less acute.'

banking markers with massive too-big-

to-fail issues," he said. "If the ECB man-

ages to make the eurozone a single

banking market then the too-big-to-fail

At the same time, at street level, the lack of a well functioning single market for banking is all too apparent. Particular bugbears include the reluctance of banks to grant mortgages for houses based in another country, or to people whose main residence or source of income is abroad.

The Commission has pledged to embark on further measures to remedy what is says is a "fragmented" financial services market – a problem that goes beyond banking. It has pledged new measures to address this including by exploring how to unleash the potential offered by new digital technologies.

According to a Commission policy document, the average consumer in Europe faces "a lack of transparency and comparability of financial services, biased financial advice, excessively complex financial products, unfair contract terms, and misleading or aggressive selling practices". These problems "can be compounded when consumers attempt to purchase products across borders".

banks must hold for their trading books.

By one official reckoning this could force one unidentified bank to increase its trading book capital by 800 per cent, though the sector-wide impact is less dramatic.

"Regulation means banks need to comply with more stringent rules and must redefine more precisely their business mission – they cannot do everything like they did in the past," says Mr Ghizzoni.

Every dollar needed in extra capital increases the pressure on banks to increase profits, because investors are fixated on return on equity (ROE). If equity increases and profits do not, then ROE goes down, and investors protest.

Morgan Stanley says the 38 European banks it follows are on track to make a return on tangible equity of just 10.1 per cent this year - way off the "mid-teens" that investors demand. Slow economic growth in most of the developed world, coupled with increasing competition, means banks have struggled to increase revenue, leaving cost-cutting as the only option for boosting profits.

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Q&A: the 'absolutely essential' role of technology

Interview Don Duet

Goldman Sachs' co-head of technology, talks to Ben McLannahan about the crucial role of his unit

The day before Don Duet talked to the FT, Goldman Sachs had promoted 38 managing directors to its technology division. The slew of promotions were, says Mr Duet, a reflection of the "absolutely essential" role his unit plays as the firm grapples with myriad new regulations and looks to push in new business directions.

Goldman's tech division has grown to 9,000 people, plus another 3,000 or so strategists, which is about the same as the entire staff of Facebook. How do you see your mission?

It's about risk management, it's about electronic trading and it's become more and more about algorithmic solutions. All of those are underpinned by deep investments in technological capability.

Our focus is not just on the front side - dealing with clients and markets but also on how we process those

transactions, how we get them through to clearance and settlement and how we meet the absolute requirements of trust that are necessary for moving large sums of money.

What about the new regulations? The regulatory change that has come since the crisis, with respect to capital,

has been a great opportunity for us to really invest deeply in shifting from what was more of an intuitive culture focused on return on equity, to a much more precise culture. Now we're asking exactly how much this trade will cost, and working out exactly how much funding is required for this transaction, and exactly how much capital it will consume on the balance sheet.

Through a data-driven methodology we're trying to bring all those concepts directly up to the point of sale or the transaction. We're moving to a fact-based, data-driven organisation.

Describe Symphony, the new messaging and workflow management tool backed by a

> Don Duet: pushing into new business areas

host of banks and led by Goldman. Why did you get into it — how big can it get? It was an opportunity for us to do what we would think of as market structure change within our own industry.

If you think about the world of finance, it is a very community-driven business model. Most people don't think that - they think it is JPMorgan fighting Goldman Sachs. But the fact is, almost nothing



happens in our industry that doesn't involve multiple counterparts, working across many different parts of the ecosystem – exchanges, clearing houses, regulators and so on.

architecture for our own purposes, and as we continued to evolve our thinking we felt that there was an opportunity to take that source code, open source it, then create an entity that could actually provide that service for the industry. That led to the purchase of Perzo (an

online chat service start-up) and the formation of an investor community that is now Symphony. We have about 19,000 users internally. What we'd love to see occur over time is for this to be a way to really open the whole picture for innovation in our industry.

If I have an open solution that someone else can use as a basis for their own ideas, then maybe people from outside the financial industry will invest in building solutions that we can all benefit from.

> You're also pushing into new areas, with plans to develop an online lending business targeting consumers. Why? Whether it's demographics

driven or otherwise, you see the world is moving much more into a digital paradigm in many elements of consumer finance.

JPMorgan Chase was recently embarrassed by a big data leak. How are you guarding against hackers? Cyber security is a huge part of our

agenda. In the past, you'd say the biggest threat to a company like Goldman Sachs was a large financial risk management problem, and that probably still is true. But increasingly, as we are operating in a digital world, it's also about cyber attack, loss of data and so on.

We also believe that security is everybody's job. You can't look at it and say "well, that's the team that makes us safe". Every person we have, every engineer in our division is participating in how they think and design solutions and services to ensure that they're fundamentally secure.

Does that explain all these new MDs in technology?

It's recognised here that the value of a senior person sitting in technology - to really help us drive our business forward - is certainly as valuable as someone in an income-producing seat.

We'd built this Google hang-outs-type

'There is a

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The Future of Banking

New crop of leaders shows desire for change

Leadership Some of Europe's biggest banks have recruited chief executives externally, says Martin Arnold

he recent history of banking is usually measured in relation to the financial crisis of 2008. But for headhunters in Europe, 2015 looks like becoming a new reference point with

the replacement of bosses at four of Europe's biggest banks.

The departure of chief executives at Deutsche Bank, Credit Suisse, Barclays and Standard Chartered has created the highest rate of turnover at the top since the 2008 crisis.

This flurry of changes in Europe contrasts with the relatively stable leadership at big US lenders. The bosses of Citigroup, Bank of America, Morgan Stanley, Wells Fargo, Goldman Sachs and JPMorgan have been in place for three to 10 years.

So why have some of Europe's largest banking empires been gripped by regicide? And what does the new crop of bank chiefs say both about the skills needed to do the top job at these institutions and the relative appeal of the role?

Dee Symons, a headhunter specialising in financial services at Russell Revnolds, says the fact that many new bank chief executives have been recruited externally indicates a wish to break with the past in an industry beset with problems.

Many banks in Europe are facing sluggish economic growth, low interest rates, rising pressure from regulators and fast-moving competition from technology-savvy digital challengers. "You have got a perfect storm that they are facing," says Ms Symons. The hiring of external chief executives signals "a desire for change", she adds, and an acceptance of the view that "many internal people are part of the problem".

Barclays and Standard Chartered turned to former JPMorgan Chase executives to fill their chief executive vacancies in the form of Jes Staley and Bill Winters respectively. The two men, who



succeeded each other as heads of JPMorgan's investment bank, have both taken a few years out of banking to work in hedge funds.

Credit Suisse chose even more of an outsider in Tidjane Thiam to be its chief executive. By appointing the boss of UK insurer Prudential, who has no experience of banking, the Swiss lender has signalled it is heading for a serious strategic shift – bulking up in wealth management and Asia – both areas where Mr Thiam has a proven record.

John Cryan's appointment at Deutsche Bank is not entirely an external one as the former UBS and Temasek executive had sat on the German bank's supervisory board for two years. But his arrival is a break with the bank's tradition of appointing bosses from within its executive ranks.

One feature that these banks have in common is that they are all undergoing restructuring that involves laying off thousands of staff, shedding billions of dollars worth of assets and repositioning



'These banks

are going

through a

painful

process'

Jordi Canals

Demanding roles: (from left to right) Barclays' Jes Staley, Standard **Chartered's Bill Winters, Credit** Suisse's Tidjane Thiam and Deutsche's John Cryan - Bloomberg

to each other," says Mr Canals. "These banks need to focus much more on their value proposition and explain it clearly to investors and staff."

To achieve this, Ms Symons says banks are looking for bosses with experience of "large scale, transformational leadership". She adds: "You have got to have the ability to take people with you in a relentlessly negative environment - you need pretty thick skin."

In this respect, having some experience of running a financial institution, like Mr Thiam has, or running a large subsidiary of one, like Mr Winters and Mr Staley have, can be a big plus.

"Having been a chief executive is important because it is a lonely place," says Ms Symons. "Experience of dealing with a board is vital. These jobs are a complex multi-stakeholder management exercise – dealing with the board, the regulator, the shareholders, the media and staff." Add to the mix the fact that pay packages are coming under pressure from both regulators and shareholders and it is easy to understand why headhunters are finding it harder to fill these roles.

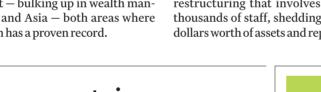
Ms Symons says it is even tougher to fill banks' non-executive positions, which bring many of the same problems and risks with fewer rewards.

"For every person you ask, you will have more people who will say they wouldn't do it than those who say they would," she says. "These jobs are no longer the pinnacle of someone's career."

This was underlined by Sir Philip Hampton, the former Royal Bank of Scotland chairman, who recently told a headhunter that he would rather be tortured than take another job at a bank. He went on to join the drugmaker GlaxoSmithKline as its chairman.

Ms Symons says there is likely to be more change at the top of European banks soon. "These jobs are beyond brutal – you are going to burn out even faster than before. I suspect you are going to see even higher turnover in banks' management."

their environment. "We have seen changes in management at these banks that are going through a painful process of restructuring and it is going to be difficult," says Jordi Canals, dean of Iese Business School in Barcelona. "But it is much eas-



see a collection of businesses that do not necessarily make sense and do not talk

ier if you know where you want to be

"When you see a universal bank, you

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Rising costs fuel interest in

'You have

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Dee Symons

developing shared resources

Utilities

The days of easy profits have gone and inefficiencies in the industry are becoming increasingly apparent, writes Philip Stafford

Banks can sometimes be remarkably inefficient. Few of them have traditionally been as adept at sharing resources, developing common standards and outsourcing their business as other industries, such as retail.

Some industry utilities have developed in the last 20 years. These include SwapClear, the London clearing house now controlled by the London Stock Exchange Group, CLS, the foreign exchange settlement service, and the Fix software protocol for trading. Large amounts of deal and loan processing are completed in-house, however, in spite of the fact that the processes used are similar to those of rivals.

As the Basel prudential capital rules take effect and banks face restrictions on using their own funds for trading, the easy profits have gone and inefficiencies in the industry are becoming more apparent.

Many accept the need to change. "Despite significant cost cutting and restructuring post-crisis, most banks still struggle to post returns that exceed their cost of capital," says Tim Gokey, chief operating officer at Broadridge, the financial consultancy, in a September report.

"Over the next five years, regulatory pressures are set to grow, so banks are increasingly looking to new and unconventional ways to regain efficiencies, particularly within the trade life cycle."

Broadridge estimates the industry could save \$4bn by switching to a utility model.

Consequently, there have been a number of ventures in which banks are outsourcing what were once considered critical banking activities.

TriOptima, an ICAP-owned utility which compresses and neutralises risk in banks' over-the-counter derivatives portfolios, reported a 21 per cent increase in revenues to £35m in the six months to September 30.

It closed out derivatives contracts worth \$87tn of gross notional outstanding – a broad measure of all outstanding



Automation: saves banks money

derivative positions globally - compared with \$61tn in the same period a year ago. Over the summer, 13 banks revived plans to boost the effectiveness of a hub for the processing of swaps and derivatives trades. The utility aims to resolve potential disputes on margin required to back OTC derivatives trades.

"By 2020, we expect to see banks simplify their core operations . . . and adopt utility models as current operating models fundamentally change," says John Da Gama-Rose, capital markets partner at Deloitte.

He says utilities that cut across differ-

'Most banks still struggle to post returns that exceed their cost of capital'

ent trading asset classes will emerge as the norm. The savings, however, threaten to be eaten up by rising costs elsewhere.

In addition to the post-crisis rules, banks are having to meet regulations trying to combat problems emerging from a 21st century global economy, such as terrorism financing, money laundering, digital fraud and cyber security.

Other third party providers see an eager customer base as an opportunity to create new market utilities. Independent data providers such as Thomson Reuters and Markit have created "neutral" central clearing houses that verify identity documentation and carry out costly "know your customer" background checks.

Both banks and their customers have rushed to sign up.

The Markit service, in conjunction with Genpact, has more than 10 of the world's largest banks and 1,500 bank and asset managers. The Thomson Reuters KYC service has completed more than 10,000 profile reports for financial entities.

Another Markit service launched in recent weeks is called "know your third party" and is aimed at enabling banks to ensure third party suppliers meet new regulations.

As Lance Uggla, chief executive of Markit, told analysts in November, vendor compliance is a challenge for banks. "Some banks have north of 50,000 vendors that they need to do compliance on," he said.

The dizzying network effect also pushes banks towards automation. Aite Group, the capital markets consultancy, has estimated that it would cost a big global bank \$400 to sign up a customer using an automated process, going through know your customer and other regulatory checks.

The same bank using a mixture of people and computers would spend about \$6,000 per client.

The cost of breaching the rules is high - not only in monetary terms but also in terms of reputation.

BNP Paribas was fined \$8.9bn by US authorities for breaking US rules on sanctions; HSBC was fined \$1.9bn by the US for failures on sanctions on antimoney laundering rules; and Barclays was given a £72m penalty by the UK, in part because it failed to do sufficient background checks on very wealthy customers.

"It is no surprise that firms are falling foul of the regulator because there is such a high degree of operational risk in dealing with an increased volume of data that must be captured for regulatory reporting," says Virginie O'Shea, an analyst at Aite Group.

"The number of data points that firms must gather during due diligence processes has increased a significant amount post-crisis. If you look at the incoming barrage of regulation over the next three years, this is only going to get worse."



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The Future of Banking

Mobile money addresses call for wider access to services

Alternative banking Sub-Saharan Africa has seen the greatest penetration, says *Jonathan Wheatley*

or large parts of the developing world, just one issue dominates discussion of the future of banking: financial inclusion. Access to financial serv-

ices is widely perceived to be a driver of development, especially in the most low-income countries. It is also regarded as a source of potential untapped earnings for banks and other financial institutions.

But while purusing the world's "unbanked" may present opportunities, it also carries risks.

There were 2bn adults in the world without a bank account at the end of last year, or 38 per cent of all people aged over 15, according to the World Bank.

But progress is being made. The number of adults without an account had fallen from 2.5bn in 2011 while, owing to population growth, the number with a bank account had risen by 700m.

While having a bank account is almost universal in high income OECD countries, at 94 per cent of adults, only 54 per cent of adults in developing economies have one, says the World Bank.

Financial inclusion, the Bank said in a report this year, is "critical in reducing poverty and achieving inclusive economic growth", adding: "When people participate in the financial system, they are better able to start and expand businesses, invest in education, manage risk, and absorb financial shocks."

Reaching such people through traditional branch networks has been difficult. Many of the developing world's urban poor find bank branches intimidating; many of the rural poor have no access to them and building branches can be prohibitively costly.

With many developing economies facing the prospect of slowing economic growth — or even recession in, among others, Brazil — other solutions have been sought. The growth of mobile payment systems in sub-Saharan Africa is often held up as an example, especially M-pesa, operated by Safaricom, a mobile phone network operator controlled by Vodafone of the UK.

M-pesa's growth has been extraordinary. Launched in 2007, by last year it had driven the growth of mobile money in Kenya to the point where 58 per cent of adults in the country had a mobile account, according to the World Bank.

"When we started it was a real flagship, and it continues to be one for what can be achieved via the mobile channel," says Seema Desai of GSMA, a mobile operators' industry association. M-pesa was helped by Kenya's regula-

tory environment. "One of the fundamental differences is that Kenyan banks and non-banks are allowed to provide mobile financial services," says Ms Desai.

Other countries regulate things different licences, from full banking

to deposit taking and microfinance. "We are working in a complex regulatory environment with different licences in each country, but that enables us to focus on the very low cost provision of services," says Chris Low, chief executive.

IM RECISTRATION

REPLACEMENT

Mr Low says Letshego keeps costs down, at 29 per cent of income, by using low-cost branches, "low-feature" offices that do not handle cash, and electronic channels in conjunction with mobile operators.

This lets it reach customers ignored by traditional banks because they are "beyond where their appetite for risk will take them".

Many other mobile money and other low-cost accounts have sprung up in Africa over the past decade, making sub-Saharan Africa the region with the greatest penetration of such services.

But taking them further and into other parts of the world may not be easy.

As the FT has reported, M-pesa benefited greatly from its monopoly position in Kenya when building its business.

Indeed, in Latin America, several attempts by the region's biggest banks to build business from a basis of low-cost bank accounts have foundered. Recent efforts in Brazil, for example, to offer small loans to new customers with minimal documentation ran into high rates of loan default.

Mobile money and other alternative forms of banking constitute "a great opportunity" for banks in Latin America to reach new customers, says Alejandro Garcia, head of Latin American banks at Fitch Ratings. But doing so also comes with risks, especially of fraud.

Technological advances have certainly helped to lower the cost of reaching the "unbanked" in many parts of the world. Whether doing so will add significantly to banks' earnings has yet to be proved.

Technology 10 of the latest developments in digital finance

Digital technology has changed the face of banking. "But innovation for innovation's sake is a waste; it must have a genuine customer benefit," says Ashok Vaswani, chief executive of Barclays' retail bank. Useful or not, here is a round-up of the latest developments. **1. Investment in digital banks** A number of traditional high street lenders are taking stakes in more nimble digital banks. BBVA in Spain, for

example, has acquired a stake in digital-only Atom Bank in

the UK and Simple in the US.

challenger banking at KPMG,

says such investments could

Blockchain, the technology

database that underpins the

being adapted for banking. It

could speed up settlements

Banks are teaming up with

peer-to-peer platforms, with a

recent example being Metro

Bank's partnership with P2P

lender Zopa in the UK.

The launch of Apple Pay

heralds the move of digital

mainstream. A number of

signed up to Apple Pay.

Banks are increasingly

5. Video links for services

banks in the US and UK have

focused on ways to provide a

digital service, including use

of video, rather than simply

concentrating on product

Wearables are the next mobile

payment frontier. Barclays

launched a bPay product

sales, in order to retain

customers.

6. Wearables

4. Digital payments

payments into the

and bolster security.

3. Collaboration with

marketplace lenders

cryptocurrency bitcoin, is

predicated on a shared

be a solution to fixing

problems with banks'

creaking IT.

2. Blockchain

Warren Mead, head of



Apple Pay: digital money hits the mainstream

range in the UK, which consists of a digital wallet linked to one of three devices — a wristband, fob or sticker — that can be used to pay at more than 300,000 locations across the UK. **7. Social media** Banks are adopting social media, from Snapchat to Twitter and Facebook, both for internal use and to interact with customers. Royal Bank of Scotland

recently partnered with Facebook to provide employees with an internal communication site. **8. Monetising data** New banks are seeking to help customers monetise data. Mr Mead at KPMG says

Secco Bank, set to launch soon in the UK, is focused on this.

9. Biometrics

RBS in the UK recently enabled Touch ID on its banking app as a way for customers to more easily log on using their fingerprint. Barclays Wealth unveiled voice recognition to identify its customers.

10. Internal data teams

Traditional lenders are starting to create in-house specialist teams. Capital One, for example, last year hired Daniel Makoski from Google for its digital design team. **Emma Dunkley**

MNC BANKING

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Leading institutions hope labs

paying by mobile phone in Kenya Reuters/Noor Khamis Reaching

out to the

'unbanked'

is critical in

'reducing

Bypassing banks:

will give them competitive edge

Hubs

Barclays, Deutsche Bank and Citi are among those aiming to attract fintech disrupters to their innovation centres, reports *Laura Noonan*

It is mid-morning and, beyond the shadow of the City of London's financial skyline, an east London street is slowly coming to life. Market sellers hang clothes and arrange vegetables for a day's trading that will not be found on any index. But next door to the local supermarket, is Rise London where Barclays is helping to tackle some of the biggest questions facing global finance.

Not far from Barclays' earthy Whitechapel incubator another leading bank is also aiming to gain a slice of innovation action. The City's Heron Tower houses the London site of Deutsche Bank Labs. Its boutique-hotel elegance contrasts with the practicality of another leading bank's efforts: Citi's onsite innovation hub in Dublin.

While some hubs are homes to startups from a broad range of industries, their main focus is companies that are developing fintech technologies that most of us still think are in the realm of science fiction (eyeball tracking anyone?).

"Our goal . . . is to find the disrupters and the creators and new technologies that are out there that can fundamentally help us create the future of financial services," says Derek White, Barclays' chief design and digital officer. He oversees the Rise franchise which has offshoots in Manchester, New York, Tel Aviv and Cape Town.

In London, Rise encompasses a fintech "accelerator" that offers start-up support, a free-to-use auditorium, a shared work space for start-ups, innovation units and a café.

Providing the 150-seater auditorium earns Barclays a first look at the innovation that many see as a threat to traditional banks.

Last year Barclays began inviting fintech companies to "come and work with us to create the future", says Mr White. The 10 most promising of the hundreds who applied were given 110 days of intensive support in Barclays' fintech accelerator, where they refined their products. They were also introduced to



Eyeball tracking: developments are almost in the realm of science fiction

Techstars, a start-up accelerator that made equity investments in some of the businesses.

The process has yielded deals between Barclays and Market IQ, a technology that uses social media data to predict events such as ATM power cuts, and Dopay, a cloud-based payroll solution for the unbanked. Barclays has run a second round in London, and in New York, and applications are open for programmes in Cape Town and Tel Aviv.

Deutsche Bank is hoping that its fledgling innovation lab will unleash similar benefits. The bank, which is in the throes of a large restructuring, is "at an

'Our goal . . . is to find the disrupters and the creators and new technologies that are out there'

advanced stage in establishing a true and structured innovation function", according to Philip Gilligan, Deutsche's head of innovation, who is responsible for the labs in London, Silicon Valley and Berlin.

It is already working with companies such as Callsign, which has developed a technology that uses how you handle

your mobile phone to bypass onerous logon requirements. Deutsche also runs an Appathon that invites employees from across the bank to pitch their own ideas for apps.

Talented staff are vital for innovation hubs. Mr Gilligan wants a 50/50 mix of Deutsche people and newcomers with industry experience. Why would the best minds in technology want to work in a cost-cutting bank? "There are rewards beyond the monetary value," Mr Gilligan says.

Priorities are set by Deutsche Bank's new strategy, and by requests from managers across the world. Key to the labs' success is the ability of Mr Gilligan's small team to gain a foothold in the broader bank. That relationship is important — the London innovative lab's dress code remains on the smart side of smart casual to avoid alienating the wider bank.

Measuring innovation's value is notoriously difficult. In Deutsche's case, key performance indicators include examining 500 new "opportunities" this year, evaluating 50 of them and adopting about five. Ken Moore, head of Citi's Dublin lab, is one of a select few with experience of how an innovation lab can grow over time within a megabank. The Irishman set up Citi's first innovation lab – and one of the first bank innovation labs in the world – in 2009, with 10 people working part-time. Now there are 70 in Dublin full-time and 330 dotted across six other centres.

Along the way, they have learnt they "can't do 1,000 unconnected things in an innovation lab". "That's one of the mistakes we made in the past," says Mr Moore. Now Citi works on "portfolios" of projects around a central theme, such as "becoming the world's leading digital bank". Using portfolios gives the labs a simpler story to tell the rest of the bank. The initiative's first big success was an award-winning app for corporate banking customers.

The team has come a long way since. Special cameras are now used to track how a client's eyes roam a screen so that apps can be designed in the most userfriendly way possible.

Citi was not always so open about its plans. "There is some frosting on the windows of the innovation lab... because originally we were worried about people taking photos from the outside," says Mr Moore. Now? "The best protection we have from others is our ability to execute quickly."

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