

THE BATTLE FOR RELEVANCE*

Assalam-o-Alaikum and a very good morning to you all.

It gives me great pleasure to welcome you today to this international banking conference. I would like to start by expressing my deepest gratitude to His Highness the Amir Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah for his patronage of this conference. It is the guidance and wise leadership of His Highness that has enabled us to build one of the region's safest and most robust financial systems, which has played a vital role in the development of our economy.

I would like to thank all the honorable governors of central banks, heads of regulatory authorities, heads of financial institutions and other distinguished guests for joining us today. And I am grateful to all the distinguished speakers who are participating in this event, our local banks who have partnered with us to support this conference and my dedicated colleagues at the Central Bank of Kuwait (CBK) for their efforts in organizing this conference.

The banking industry has enjoyed exceptional growth over the past half century, and despite some shortcomings, it has played a critical role in supporting economic growth around the world. During normal times, one would expect banks to continue operating as they have in the past, with perhaps a greater focus on product innovation or operational efficiency.

But we are not living in normal times. Today, the global banking industry is at a major inflection point, facing several internal and external challenges that are coming

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together to create a perfect storm. Certainly, the industry will not be able to weather this storm by holding on to the same course it has pursued for decades.

Rather it must reinvent itself for the future. That is why CBK is organizing this event under the theme of 'Shaping the Future'. We believe that all stakeholders in the banking industry need to take a proactive role in shaping the way banks operate in the future, rather than continuing along the well-trodden path, no matter how well that path had previously served them.

Taking this opportunity, I would like to share a few thoughts on our vision for the evolution of the banking industry. I will begin with a brief overview of the major challenges that the industry faces today. Second, I will reflect on the key areas that banks will need to focus on in order to stay relevant. Finally, I will touch upon the role that enabling stakeholders need to play to support the banking industry through its transformative journey.

1-Challenging Operating Environment

So, let me start with a brief discussion on the key challenges that the banking industry faces today. Three challenges are particularly worth highlighting: the state of the global economy; the revolution in financial technology; and the rapidly evolving needs and expectations of customers.

i. Global Economy

First, let us look at the global economy where headwinds are intensifying. The IMF has twice lowered its global growth projections for 2019 to 3.2%, with developed economies expected to grow at a much slower rate of 1.9%¹.

A key driver of this slowdown is the economic uncertainty brought about by rising trade tensions and protectionist policies. If trade tensions continue, the IMF may

further revise down its economic growth projections. The Bank of England estimates that a 10% increase in tariffs between the US and its trading partners could lead to a reduction of 2.5% in US GDP, and 1% in global GDP excluding the US.²

In its recent publication, the Institute of International Finance (IIF) also highlighted economic policy uncertainty as a key risk to business sentiment. The IIF estimates that economic policy uncertainty in both the US and China is at a record high, and its impact is being felt in terms of reduced investments and lower consumption.³

We have already seen the impact of trade disputes and attendant economic uncertainty on markets across the globe. Prominent indices such as the Dow Jones Industrial Average, S&P 500, Nasdaq Composite, FTSE 100 and the Nikkei 225 have declined by an average of around 7% in mid-August, from highs in July.

Another factor linked to the economic outlook is the role of monetary policy. Economic growth in the last decade has mainly been driven by the use of unconventional monetary policies. While these policies have supported economic recovery following the global financial crisis, by ensuring a low interest rate environment, they have led to other unintended consequences like fueling debt levels across the globe. Thanks to low interest rates, global debt has ballooned to over \$246 trillion, nearly 320% of global GDP.⁴

While household debt has seen a gradual increase (3% growth per annum), the real growth in debt lies with governments, financial institutions and corporates. In particular, government debt has doubled since 2008, from \$32 trillion to \$67 trillion, especially with governments in developed economies having borrowed heavily over the past few years. Among OECD countries, Japan, Greece, Italy, Portugal, Belgium, France, Spain and the UK now all have government debt that exceeds their GDPs.⁵

This extended period of historically low interest rates has also enabled corporates from around the world to take advantage of cheap debt. Global corporate debt has also nearly doubled over the past decade, from \$37 trillion to \$73 trillion, even

surpassing the increase in government debt. But contrary to government debt, two-thirds of the growth in corporate debt has come from developing countries. This poses a serious risk to these economies, especially where the debt is in foreign currencies.

We have also seen the quality of borrowers deteriorate. Bonds rated BBB- and below now account for half of global corporate bonds, compared to just a quarter in 2007, before the financial crisis.

Global debt over the past 20 years has grown on average by 6% annually. If these rates continue, and global GDP grows by 3.5% per annum as projected, we could see global debt over the next 20 years reaching \$780 trillion, or 500% of GDP. This is clearly unsustainable, and requires urgent action by both governments and financial institutions.

More critically, the low interest rate environment has curtailed banks' profits in some of the advanced markets, jeopardizing their longer-term viability. And record high debt levels are likely to pose increasing risk of defaults once monetary policy tightening takes course, potentially hurting the quality of banking assets. Collectively, these trends have serious implications for financial stability in general.

Beyond banking, there is increasing risk of policy inaction amid weakening global governance, as evident from trade disputes. During the global financial crisis of 2008, advanced countries joined hands to fend off depression through a well-coordinated and robust policy response. In the face of a similar threat to global economy today, as highlighted by the increasing risk of a looming US recession in the next 12 months, expectations of a unified and powerful international policy response remain low, amid all the bickering over trade issues and growing nationalism. Such developments have further elevated the risks to global economy, particularly in the backdrop of rising geo-political tensions.

ii. Technology

The second challenge we need to consider is the impact of technology on the banking industry. The latest digital technologies are transforming the economic landscape and are disrupting many traditional industries along the way. Banking is no exception, where financial technology is fast-evolving and being adopted at a breathtaking pace.

Cutting edge technologies such as digital payments, mobile banking, data analytics, artificial intelligence, and blockchain are changing the way banks operate and interact with customers.

FinTech firms are beginning to eliminate the role of many traditional intermediaries in the financial services industry. According to McKinsey, five major banking business segments are particularly at risk: consumer finance; mortgages; SMEs; payments; and wealth management. McKinsey estimates that this could put up to 40% of bank revenues at risk by 2025.⁶

Part of the reason is that FinTech firms can provide access to financial services in a more efficient and cost-effective manner. For example, some FinTech lenders have up to a 400-basis-point cost advantage over banks because they have no physical distribution costs. Another example is the execution of payments; transactions that used to take 3 to 5 days to process can now be completed in 3 to 5 seconds, and for less than one-tenth of the original cost.

Although banks have generally been slow to innovate, they have sought to stay ahead of the game by partnering with or acquiring FinTech firms. According to a recent PwC report, over 54% of banks surveyed have already established partnerships with FinTech firms, and 82% expect to increase such partnerships in the next 3 to 5 years.⁷

While banks can potentially manage the onslaught by the FinTech firms, the real challenge will be posed by the Big Techs. What would happen when the likes of Facebook, Amazon, Whatsapp, and Alibaba start competing with banks to provide financial services? These technology giants come with large and captive user bases, low online acquisition costs, and a better understanding of their customers through their utilization of big data. Moreover, they don't face the same regulations and associated costs that banks do.

Tech firms have had their eyes on the banking industry for quite some time. Over 20 years ago, Bill Gates compared banks to dinosaurs that could be bypassed and argued that "we need banking, but we don't need banks anymore." That was an early warning for the industry. Today, we see technology firms actively entering the banking space, most recently with the introduction of the Apple Card from Apple or the planned launch of Libra, a crypto-currency from Facebook.

Banks could find themselves sidelined by the Big Techs if they fail to actively adopt and fully utilize the available technologies. To prevent this from happening, banks will need to go back to basics and revisit the core utility of their institutions rather than becoming constrained by existing processes and legacy systems.

iii. Consumer Expectations

Thirdly, the industry needs to meet the challenge of rapidly shifting customer needs and expectations. Today, we live in a world where digitally empowered consumers expect 'on-demand services' that allow them to access products and services wherever and whenever they desire.

This is particularly true of the growing number of millennials who will soon become the largest customer segment for the banking industry. Even in Kuwait, approximately 58% of the population consists of millennials and younger. Their behavior and characteristics can be very different to those of previous generations.⁸

^{9 10 11}. Around 57% of millennials say they would change their banks for a better digital platform.

But it is not just millennials who are using digital platforms to access banking services. In 2018, 72% of all bank contacts from customers were digital, and 82% of consumers first go online if they are looking to buy a new product or service. In short, banks will need to either go digital or risk being sidelined.

Failure to meet changing consumer expectations can have serious implications for banks. The recent history of the mobile phone industry is a case in point.

In 1997, 60% of the mobile phone market belonged to the specialist mobile phone producers like Nokia, Motorola and Sony Ericsson. Today, that same market share has been captured by Samsung, Apple and Huawei. Not only are the current market leaders three entirely different firms but they are essentially electronics and computer companies, unlike the past firms that specialized in manufacturing mobile phones.¹²

The incumbent mobile phone companies of the 90s failed to recognize the evolving needs of their customers. Ultimately, their complacency saw them being pushed to the fringes of a market they once dominated.

Something similar could happen to the banking industry. Unless it pays attention to and serves the changing needs of its customers, it might be sidelined by telecom companies or technology firms as primary providers of financial services.

Take the example of Ant Financial, WeChat Pay and M-pesa, which are firms that were launched by technology and telecom companies. All three have enjoyed tremendous growth to become the largest providers of financial services in their respective markets. By leveraging technology and adopting a customer-centric approach, they have surpassed the largest banks in their markets.

In the process, they have not only attracted existing customers but also promoted financial inclusion by serving millions of otherwise unbanked customers. In the last seven years, financial inclusion in China has increased from 64% to 80%, and from 42% to 82% in Kenya, in large part due to the emergence of these now FinTech providers.¹³

Any of the three major challenges described – the difficult economic environment, growing role of technology or the changing customer expectations – would by itself have been a lot for the industry to address. But taken together they are leading to a perfect storm that the industry can no longer afford to ignore.

2- Shaping the Future

For the banking industry to continue growing and serving its core utility, it must transform itself. But for a well-established industry that has served us for centuries, where should this journey of transformation begin?

To me, it seems that banks must conquer a number of battles if they are to survive. The most crucial of these battles are:

- i. the battle for customer loyalty,
- ii. the battle for value,
- iii. the battle for efficiency,
- iv. the battle for resilience, and
- v. the battle for talent.

Let me discuss each of these in turn.

i. Battle for Customer Loyalty

The first of these battles is for customer loyalty. Banks must decide whether they aim to be central to their customers' needs or they are content to be merely balance sheet providers, where someone else owns the relationship with the customer. In the second scenario, banks would have no brand affinity or loyalty from their customers and would be easily replaceable.

As things stand, the banking industry is surely struggling on this front. Today, no bank is placed among the top twenty global brands in terms of value. Even banks which were there a decade ago have since slipped off the list.

Banks must work hard to ensure that they remain the first choice for their customers, and that means taking a much broader view of their relationship with customers. Banks need to consider how they can help solve their customers' problems and improve their lives, while being cognizant of their broader social purpose to promote inclusive, sustainable prosperity.

After all, banks can no longer take customer loyalty as a given. A recent banking consumer study conducted by Accenture found that 40% of customers expressed decreased dependence on their bank as their primary financial services provider and 42% said they had used non-bank providers for financial services in the past year.

A good example of non-banking providers displacing traditional banks is Kakao Bank in South Korea. Kakao Bank was launched in 2017 as a digital bank by Korean Internet company Kakao, which also owns the popular free mobile messaging service KakaoTalk. The bank proved incredibly successful, leveraging its brand affinity and customer loyalty to acquire over 300,000 customers within their first 24 hours, one million within five days, and reaching six million customers within a year.¹⁴

Thus, within a year of opening, Kakao Bank had a third of the number of customers of Shinhan Bank, the largest bank in South Korea. This was despite the fact that

financial inclusion in South Korea was already at 95% at the time. You can imagine how long will it take for Kakao Bank to become the largest bank in the country.

This example demonstrates that banks cannot take customer loyalty for granted. They need to ensure that customers engage with them not because they have to, but because they want to. And the only way to ensure that is by not only understanding customers, but also becoming central to their evolving needs.

ii. Battle for Value

To win the battle for customer loyalty, banks must provide value, which is the second battle. Winning this battle requires banks to adopt a more proactive approach when positioning themselves with respects to their customers. It is not enough to be on the sidelines as, say, a purely auto financing or mortgage provider. Banks need to position themselves at the center of the ecosystem, providing their customers with the best products, services and advice as and when customers require.

According to the Accenture study, 48% of customers said they wanted relevant advice and product information from their banks as they go about their daily lives. They also want banks to play a supporting role in the purchasing process for products such as a house or new car, and even related services such as insurance.

Banks need to focus on providing long-term value for customers, rather than viewing them as a short-term opportunity for sales. We have already seen the harmful impact of this 'short-term' outlook that led to the subprime-mortgage crisis, as banks sold mortgages to customers who couldn't afford them. Banks' profits surged in the short term, but everyone suffered in the end; not only customers and the broader economy but also the banks.

Banks therefore need to revisit their value propositions towards their customers in order to ensure that they are truly providing the products and services their customers need while keeping the interest of their customers and the society in

mind. It will be helpful for the industry to reflect upon its ultimate objectives – to ensure inclusive prosperity and put the welfare of society on a sustainable footing.

iii. Battle for Efficiency

To win over customers and provide value, banks must operate in an efficient and intelligent manner, with their limited resources optimally deployed.

The battle for efficiency is the third of the battles that banks need to win. A critical front in this battle is the leveraging of technology and data. Banks need to use available data to improve their predictive analysis, not just for operational efficiency and planning, but also for insights into customer behavior and preferences.

What is particularly surprising to me is that banks, though custodians of vast quantities of customer and transactions data, are not utilizing it effectively. Banks will need to change the way they segment customers, not by their income levels or types of accounts, but potentially by their life cycle, growth potential, and behavior patterns. Data analysis can provide a bank with actionable insights into multiple factors that impact its business, allowing it to improve its strategic and operational decision-making.

Moreover, banks will need to overhaul their operations, accelerate end-to-end digitization, modernize their technology infrastructure, and transition towards digital channels. McKinsey estimates that banks worldwide could save more than \$400 billion a year in direct costs by shifting traditional customers to digital platforms, reducing the service cost by 80 to 90%.

By winning the battle for efficiency, banks will not only be able to better engage with customers and achieve higher satisfaction rates, but also curtail operational cost.

iv. Battle for Resilience

Winning the battles for customer loyalty, value and efficiency will help banks to grow and remain relevant. But that growth should not compromise banks' soundness or sustainability.

This brings us to the fourth battle: the battle for resilience. Once again, this is an area where technology, data management and analytics can help banks enhance their risk management functions and strengthen their resilience.

Banks need to ensure that they have robust capital and liquidity levels, as reflected in a traditional stability matrix, to absorb shocks and effectively manage their risks. But they can further enhance their risk identification and management by analyzing economic, market and customer data in real time. Institutions will no longer have to wait for analysts to review the market at monthly or quarterly intervals and then map this back to the customers, assets or the bank's off-balance sheet exposure.

Through artificial intelligence, machine learning and predictive analysis, banks can remain up-to-date on risks and exposures in real time, from detecting individual cases of fraud to overall balance sheet exposure across products and business functions. As the market moves and news breaks, tools based on data analytics can immediately update executives on the potential impact of these events on their business.

v. Battle for Talent

None of the battles can be won without the right people. People are at the core of everything we do, and they are the ones who will bring everything together.

This brings us to the fifth battle: the battle for talent. As the banking industry goes through a radical transition, banks will need to widen their talent pools and attract

a broader range of skills, in line with their shifting business models and changing customers' preferences.

Staff at banks of the future will no longer be limited to mostly finance professionals. Instead, the role of data scientists, visual designers, digital marketing and media experts, software developers and customer experience professionals will become more significant. Banks might even need to recruit psychologists, philosophy majors and other professionals with diversified skills that can bring in new perspectives.

These people will be very different from traditional bank recruits, with different expectations for their roles, work environments and contributions. And banks will be in direct competition with technology firms, leading corporates and start-ups to hire them.

Banks will need to overhaul their entire process around acquiring, managing, deploying and retaining talent. Like technology companies, they will need to invest in their talent pools to leverage their expertise and creativity. They will also need to transform their corporate culture into one which promotes agility, collaboration and responsible risk-taking when it comes to delivery of solutions.

The banking industry needs to succeed on all of these battle fronts: customer loyalty, value, efficiency, resilience and talent. Failure to win on any front could have dire consequences, regardless of a bank's size or market share.

We can take lessons from companies in other industries that have ignored these lessons and suffered as a result. A prime example is Kodak, which was the dominant name in the photography market for over a century. At its peak, Kodak's share of the photographic film market was over 80% in the U.S. and around 50% globally.

Kodak was making significant profits from the sale and development of camera films and expected this trend to continue. While the arrival of digital cameras was changing industry dynamics, Kodak didn't want to risk cannibalizing their own

camera film business and failed to see the potential of new technology and the risk from new competitors. Instead, it chose to stay in its comfort zone, conducting business as usual, failing to understand the evolving needs of their customers. That led to its ultimate demise, as Kodak filed for bankruptcy protection in 2012.

Contrast this with Apple's launch of the iPad. Despite the iPad's potential to cannibalize its own computer business, Apple went ahead in order to serve the needs of its customers. It was not afraid to embrace change, even at the cost of its traditional business and products, and the iPad proved to be one of Apple's most successful products.

Equally critical is to timely identify and act upon valuable opportunities amid shifting market preferences. Microsoft missed such an opportunity to dominate the mobile operating system. The void that Microsoft could have filled was soon captured by the Android operating system. Bill Gates termed it as his "greatest mistake ever" which cost Microsoft \$400 billion.

So, by focusing on the five key battles – customer loyalty, value, efficiency, resilience and talent – the banking industry can transform itself for the future and avoid the fate of Kodak.

3-The Role of Enabling Stakeholders

We have seen the importance of customers, technology and data for the future of banking. But it is important to recognize that this is not a journey that banks can take alone. Rather, they need the support of key stakeholders; otherwise they will only succeed in making minor, superficial changes rather than achieving a genuine transformation. The role of two key stakeholders is worth highlighting; educational institutions and regulators.

i. Educational Institutions

Let us consider first the critical role of educational institutions. They need to ensure that they are preparing graduates for future jobs in the banking industry, jobs that not only require traditional studies of finance, economics and business, but also encompass new skills around financial and technological innovation.

It is increasingly evident that jobs in the future will be fundamentally different from jobs today. According to a recent report by the World Economic Forum (WEF) on the future of jobs, 75 million jobs may be displaced by 2022, while 133 million new roles may emerge.¹⁵

Are we preparing our graduates for such a shift in the labor market? This is an equally pertinent question for the banking industry. According to the WEF study, 56% of bank employees will need to be re-skilled. Talent and resources in a number of functions will need to shift towards analytics, with fewer resources likely to be involved in manual work. New staff will need to be data scientists with expertise in AI, machine learning, etc. And business staff will be required to have the ability to translate such data insights into business actions.

The WEF has reported that the largest barrier to embracing technology in banks, identified by 74% of financial institutions surveyed, was a lack of skill sets in the local labor market. If this is the case today, what will happen in the future? This is why the banking industry needs to build strong partnerships with educational institutions, to ensure that they are preparing the graduates the industry will require for its transformation.

ii. Regulators

The other key stakeholder in the banking industry's transformative journey is the regulator. Regulatory authorities need to strike a balance between protecting consumers, establishing standards for sound regulatory and supervisory practices, safeguarding financial and monetary stability, and at the same time facilitating growth and innovation in the industry.

But as the industry goes through its transformation, we the regulators must also consider how we should operate in the future. We need to take a proactive and dynamic approach to promote innovation, and act as a catalyst for the industry. We need to promote collaboration and share our experiences with each other to develop frameworks that will fit the needs of our societies. And we need to focus on capacity building to ensure that our staff can meet the future challenges of the industry.

We at the CBK firmly believe in innovation, collaboration and capacity building; principles that are the driving force behind many of our recent initiatives to fulfil our role as an enabler and catalyst for the industry.

In terms of *innovation*, the CBK is playing its part to support the banking industry. Last year, we launched our FinTech Regulatory Sandbox. Globally, 36 innovation labs and 48 regulatory sandboxes have already been introduced by different regulators. Regulators are using these tools to create a safe space for experimentation in innovative products and services, thus ensuring the safety and soundness of the financial system but without stifling innovation.¹⁶

We at the CBK are also preparing the infrastructure for future aspirations that would enable a truly digital economy. We are developing a state-of-the-art infrastructure project, the Kuwait National Payment System. This will be made up of eight systems that enable real time payments in a safe, secure, reliable and efficient manner and are ready for FinTech deployment.

Internally, we are re-engineering all processes in regulations to enhance data gathering and analysis, and fully digitizing processes in all supervisory functions. This will be a pre-requisite for our future implementation of artificial intelligence and SupTech.

In addition, we are working on other initiatives such as the Open Banking Framework, which will provide clients with comprehensive information on their financial standing across multiple banks. We are also in the process of rolling out our E-KYC framework, which will allow anyone to open an account electronically, easily and efficiently. In 2014, Kuwait issued the Electronic Transaction Law, which provides the legal foundation for electronic payments and made digital signatures legally binding.

In terms of *collaboration*, the CBK has undertaken a number of initiatives to increase cross-border cooperation with other regulators in the region. For example, we are working with more than 20 countries on developing the Arab Payment System, in addition to the GCC Real Time Gross Settlement System.

In addition, the CBK is spearheading a GCC-wide cybersecurity framework to allow for seamless security information-sharing across the region, in order to safeguard GCC banking institutions and mitigate cyber threats.

Within Kuwait, we also engage closely with different government institutions such as the Capital Markets Authority, the Ministry of Commerce and Industry and the Communication and Information Technology Regulatory Authority.

And finally, the CBK is focused on continuous capacity building to ensure the development and sustainability of our team and to provide technical support to the industry. Through the Kuwait Institute of Banking Studies (KIBS), we are supporting sophisticated programs tailored for specific areas of focus to equip our teams as well as the banking industry with the latest tools and know-how. KIBS is playing a critical role in promoting capacity building in Kuwait, having provided training to over 4,700 banking staff in the last year alone.

I am delighted to announce the launch of the “Kafaa” initiative, in collaboration with the Kuwait Institute of Banking Studies and Kuwaiti banks. Kafaa provides advanced

programs to financial sector employees including post graduate studies, cyber-security, risk management, Shariah audit, etc.

In addition, we are proud that Kuwait hosts and sponsors the IMF's Middle East Centre for Economic and Finance (CEF), that provides training for candidates from across the Arab world. Last year, 1,477 candidates benefited from programs run by the Centre, at a total cost of \$9.1 million.

With the support of enabling institutions such as educators and regulators, the banking industry can transform itself for the future and play its rightful role in supporting inclusive, sustainable prosperity.

Conclusion

I think it is quite clear that the banking industry can no longer afford to continue conducting business as usual and ignore the issues that I have highlighted.

The banking industry must take stock of the external challenges it faces today, including a very difficult economic environment, the impact of evolving technologies and the shift in customer expectations. It must focus on winning customer loyalty, providing value, operating efficiently and resiliently, and attracting the right talent. In addition, the enabling institutions such as educators and regulators need to provide the necessary support if the industry is to succeed in this transformative journey.

The industry is clearly at a crossroads and needs to make proactive decisions now to remain relevant in the future. There are two paths that the industry can take.

If the banking industry continues to operate the way it has in the past, ignoring the many challenges that it faces today, it would lose its dominant position. Competition

will increase from different institutions such as telecom operators, technology companies and FinTech firms, and customers will flock to these solutions, as we have already seen in some markets. Banks, as a result, will be pushed to the fringes of the industry, if not removed altogether.

But if the industry manages to evolve, then the picture could be different. By winning the battles for customer loyalty, value, efficiency, resilience and talent, banks can remain the dominant players in this space. The bank of the future will be completely unrecognizable from that of today. It will be closer to its customers, digitally enabled, and ahead of the curve when it comes to anticipating customer needs. It will be more efficient, more resilient and better able to address the economic and social challenges of the future.

In the end, only collectively, we as the key stakeholders in this industry can take the difficult yet necessary steps required to shape the future of the banking industry.

As Einstein said: “A new type of thinking is essential if mankind is to survive and move toward greater levels.”

Thank you.

² Mark Carney, Governor of the Bank of England - Speech: The Global Outlook – February 2019

³ Institute of International Finance – Weekly Insight – August 2019

⁴ Institute of International Finance – Global Debt Monitor – July 2019

⁵ McKinsey Global Institute – Briefing Note – September 2018

⁶ McKinsey & Company –FinTechnicolour - 2016

⁷ Price Waterhouse Coopers – Global FinTech Reports - 2017

⁸ Accenture - Global Distribution & Marketing Consumer Study: Banking Report -2017

⁹ Deloitte – Millennials and Wealth Management - 2018

¹⁰ Ernst & Young - Global Consumer Banking Survey - 2017

¹¹ Fidelity Information Services – Performance Against Customer Expectations (PACE) - 2018

¹² Statista – Mobile Phone Market Share data

¹³ World Bank – Databank

¹⁴ Kakao Bank – Company Website

¹⁵ World Economic Forum – Future of Jobs Report - 2018

¹⁶ United Nations Secretary-General’s Special Advocate for Inclusive Finance for Development - Early Lessons on Regulatory Innovations to Enable Inclusive FinTech - 2019