Muhammad bin Ibrahim: The future of finance

Speech by Mr Muhammad bin Ibrahim, Governor of the Central Bank of Malaysia (Bank Negara Malaysia), at a "Teh Tarik Session", at the Harvard PETRONAS Alumni event "The future of finance", Kuala Lumpur, 8 September 2017.

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Thank you for inviting me here today to share my thoughts on the future of finance. The future is always a topic weighing heavily on the psyche of our nation, as we reflect on our transformation over the last 60 years, and what the future will be 50 years from now.

I would like to share my thoughts today in three parts:

a. A brief reflection on finance and five themes that may affect its future;
b. A look at four possible future scenarios that may develop based on these themes; and
c. Finally, implications of these future scenarios on the Bank and policy development.

Let me place a qualifier here, it is not an exhaustive survey of the future landscape. My remarks today are meant to stimulate our thinking and discussion. These are my personal reflections and insights.

Finance across the years and five themes for the future

At its most basic level, finance is an intermediary service that matches the funding, saving and investing needs of agents in an economy. It lubricates the economy to function smoothly and allocate scarce resources efficiently. But over the years finance has evolved. It is useful to understand the ideas behind why and how finance has changed in the past.

First, developments in finance have primarily been driven by the needs of society and the economy. The creation of banks, the stock market and finance as we know it today, reflect this.

Secondly, as with other sectors of the economy, finance has synthesised considerably during periods of significant technological innovation. For instance, the pervasive use of smartphones in societal mainstream has enabled finance to reach a wider segment of society today than was ever conceivable in the past, making it possible for previously underserved segments of society to gain access to finance.

As we ponder on the future of finance, and to start off the conversation, I would like to share five observations or themes that might possibly shape the development of finance in the future. Indeed, some are already beginning to take form in our market today.

The first, finance will be democratised as we move forward. Technology is the catalyst. The great equaliser. This will open up a vast spectrum of possibilities for new entrants. Conventional wisdom holds that banking business is intricately tied to economies of scale. Size, scale and barriers to entry are thus traditional key determinants of competitiveness. This conventional wisdom or axiom is very much dated. In the future, competitive advantage will come from those who are able to harness the power of technology and be bold enough to venture into uncharted territories. The rules of the game have been reset, and more players are getting into the game. Regulators around the globe are very mindful of this trend and are willing to take calculated risks on innovative ventures, going beyond the banking system for solutions. There is thus, a more level-playing field and more business opportunities for non- traditional companies that are responsive and effective in meeting the financial services needs of consumers.

For example, new robo-advisory businesses are now providing high quality investment advice at low cost, while payment technology companies are making cross-border payments cheaper, quicker and more efficient. TransferWise, a cross-border payment company is now moving to offer ‘borderless’ bank accounts for businesses that operate across border. This is a challenge for many incumbents.

The second observation is that data could be the ‘king-maker’ of finance. Companies that are able to control and leverage on data to deliver superior customer experience will possess the greatest advantage. Successful startups over the past decade such as AirBnb, Grab, Snapchat and Uber have all utilised technology and data to improve business models and customer interactions. For the financial sector, this could potentially mark a highly interesting shift of mantra in the future from “cash is king” to “data is king”. The arms race of the 21st century is really big data. Firms on Wall Street and the City of London are now employing data scientists en masse. They are the new breed of ‘bankers’. The bankers of the future.

The use of data with superior software will enable financial services to be unbundled and increasingly custom-made for individual consumers. Data will enable increased transparency and better assessment of credit worthiness as well as reduction of risks, thus extending financing to previously underserved segments of society.

The third observation is that finance may display ‘winner takes all’ characteristics over the long term. This characteristic is apparent in Silicon Valley and the digital economy in general. Market leaders such as Google and Facebook control over two-thirds of the market. This is due to ‘network effects’, where a service becomes more valuable when it has more users.

What is also worrying is the value that the market attach to these network effects. We have seen staggering valuations of tech-startups, the so called “unicorn companies”, that sometimes have not even realised any meaningful profits. However, their large user base and ability to scale up quickly have resulted in frenzied valuations. It is as if the world has forgotten the dot-com bubble crash of the early 2000s.

For financial regulators, a winner takes all outcome is not ideal. It is associated with concentration risks and “too-big-to-fail” issues. Concentration of risks and dependence on too few service providers never ends well. The only consolation I can think of is that “network effects” in the digital economy are not as durable as those found in traditional sectors such as railway networks and power grids. Google and Facebook may be at the top of their industry now, but remember there were Yahoo, MySpace and Friendster. I am very sure somewhere in some garage, killer apps are being developed to rival current industry leaders.

The fourth observation is that shifts in consumer needs and expectations will play a key part in the finance revolution. 91% of Malaysians today have a smartphone and 83% will look on the internet to research new products and services. Finance and business models will need to be redeveloped around changes in consumers’ lifestyles and expectations. For example mobile banking in its traditional sense does not work anymore in this country as smartphone penetration is quite high and the public is generally receptive to new ideas and innovations.

The transformation of finance and technology will also usher in an era of increasingly educated, empowered and activist consumers, who will scout for the best prices and services. Globally, around a third of consumers would consider banking with a technology giant (e.g. Google, Amazon or Facebook), potentially due to perceived personalisation and better customer experience.

The fifth observation is that technology could be the catalyst to propel finance as a great social equaliser of the future. Advancement in technology will enhance financial inclusion by addressing information asymmetry and reducing the cost of extending finance to previously underserved groups. This could grant access to around 2 billion people globally who remain unbanked today, enabling them to save, invest and uplift their livelihood.

However, the evolution of finance must also be managed appropriately to avoid displacement and exclusion. This would include underserved groups and segments that are currently deemed too 'risky' by traditional risk metrics.

Advancements of any sort always come with trade-offs. For one, with the rapid progress of genetic sciences, it is only a matter of time before chronic diseases such as cancer and diabetes can be predicted even before birth, thereby potentially denying affected individuals of insurance coverage. Automation and artificial intelligence may also result in the displacement of certain segments of the workforce or some segments of society being denied medical protection.

Finance, when used properly is an enabling tool. But if abused, it can be a destructive tool with devastating consequences. Finance without ethical considerations will magnify the negative aspects and lead to lasting consequences as the global financial crisis demonstrated. Technological progress would mean excesses can be magnified even further, spreading the risks to a wider segment of the society. Regulators, therefore, stand at the nexus between magnifying the benefits of access to finance and managing the excesses of finance. There are moral and ethical considerations that regulators and policymakers will have to confront as we go forward.

Four possible future scenarios

Let us conceptualise these themes into four scenarios, an approach that could provide a peek into what is in store, as we visualise the future.

The first scenario is "Tech-Savvy Incumbents"

a. The pace of technology adoption by incumbent banks is high, while level of fragmentation among finance providers is low. This is a more ambitious, albeit possible, scenario where banks successfully adopt the best strategies and emerge as the dominant winner in all finance segments;
b. Here we see banks as incumbent institutions responding quickly to technology shifts, realigning their business processes and delivery channels to meet customer expectations. They succeed in nurturing both tech-literate management personnel and digitally-savvy talent;
c. Emerging tech firms remain important sources of innovation but are acquired by the incumbents. As a result, these institutions can successfully retain and expand their customer base; and
d. In this scenario, although we will not see a dramatic change in terms of players in our financial system, the functions and ways in which they conduct businesses will be dramatically different.

The second scenario is "Plugged-in Finance"

a. Both technology adoption by incumbent banks and fragmentation among finance providers are high. Finance is marked by an ecosystem of "co-dependence" between banks and tech start-ups that target specific, profitable segments of the market rather than the whole suite of financial services;
b. The resulting partnership is one that is both rich and dynamic. Fintech startups leverage on banks for regulatory compliance and access to customer base, while banks allow them to 'plug-into' their business as a swift means of acquiring technology;
c. This collaborative model is made possible by the application of new technologies such as distributed ledger and open API across a wide range of financial services;
d. Consumers and businesses will have access to highly competitive and efficient financial

services, driven by both scale and adoption of technological innovations; and

e. In this scenario, greater financial education and literacy is important to ensure that the benefits of technology and innovation in the financial sector are fully realised.

The third scenario is "New Kids on the Block"

a. In this scenario, both technology adoption by incumbent banks and fragmentation among finance providers are relatively low;
b. Consumers continue to accord a premium to regulated institutions and the existing idea of financial services being offered by a bank;
c. Factors such as security, privacy and reliability remain at the forefront of the value proposition of traditional banks. However, not all incumbent banks are able to fully bridge the technology gap, particularly for newer services;
d. This results in migration towards digitally-focused challenger banks such as Atom, Fidor and Monzo that will provide similar services of traditional banks, but utilise technology to deliver faster and cheaper services that better meet the needs of customers; and
e. The implication of this is that the landscape of finance will remain largely filed by banks, but a new breed of purely digital banks will gain in significance. The names that we immediately think of for financial services will change from the current banks that we are so familiar with.

The fourth scenario is what I call 'the Tech take-over'

a. Like scenario one, this is a more extreme and less probable scenario, but still one that is worth a thought. In this scenario, technology adoption by incumbent banks is low, with a high level of fragmentation among finance providers;
b. However, in contrast to scenario three, technology firms enter as the new preferred provider, successfully capturing the loyalty of consumers due to superior ability in using data to deliver customer-centric solutions;
c. Financial services will thus be offered via a wide range of providers such as social networks (e.g. Facebook, Wechat) and e-commerce platforms (e.g. Amazon, Alibaba); and
d. Growing comfort with the ability of technology to ensure secured transactions also gives rise to the popularity of peer-to-peer financial services.

Implications to BNM as a regulator

These scenarios I have painted are drawn to show the distinct characteristics of a financial sector across four possible scenarios. It could be one of them, a combination or none of the above. Regardless of which scenario might eventually emerge, perhaps the most important realisation for stakeholders today is to be aware, ready and prepared for all the scenarios.

In reality, what is even more likely though, is that the dynamic interplay between these scenarios will end up shaping the future of finance in ways that we cannot even fathom today. Interestingly, we are already seeing some elements of all four scenarios in our financial system today. To my mind, scenarios one and four are remotely possible, while scenarios two and three are considerably probable.

For regulators, as the four scenarios highlighted, it is not beyond the realm of possibility that banks, in its current form, might no longer exist. This phenomenon not only negates the main intermediation channel of central banks' monetary policy, it will also challenge central banks in terms of rethinking the means to regulate, supervise and safeguard overall financial stability and the manner in which scarce economic resources are allocated and intermediated.

As data becomes the driving force of financial services, the central bank must keep abreast with the latest thinking to harness the power of big data. The challenge for central banks however, is to filter out noises from the mass of data and extract meaningful information that will assist in better policy-making. The Bank has embarked on a journey to adopt big data and analytics across all functions of the organisation. This includes establishing a dedicated statistics team to drive this agenda, enhancing the capabilities of staff and exploring new areas and methods of data collection.

We continuously strategise to 'future-proof' the financial system through our policies, frameworks and initiatives. Three principles are worth mentioning;

a. Firstly, we will continue to strongly advocate for the adoption of technology to enhance the efficiency, effectiveness and resiliency of the financial sector. Our FinTech sandbox and Financial Technology Enabler Group is an example of this. This also reflects our philosophy that innovations work best through collaboration between the industry and policymakers;
b. Secondly, as a regulator and trustee of the financial sector, we will remain focused on ensuring that the financial sector is inclusive for all segments of society and contributes effectively and positively to the economic growth and development of the nation; and
c. Thirdly, we will continue to ensure that financial stability and consumer trust and confidence are preserved at all times.

Conclusion

These are the cornerstones of the central bank's role and functions and the adoption of any policies, past or future, will continue to have an unbreakable link to these objectives.

Finance has come a long way- from serving the basic societal needs to save and borrow at its infancy to its role today as the backbone of the global economy. In ancient days, kings and rulers look to astronomers, magicians and soothsayers to tell them about the future. The Greeks for example, consulted the Oracle at Delphi before embarking on major decisions. The world today is much wiser I hope, and we no longer believe that the future can be predicted with absolute certainty.

What finance and technology can bring for the future of human kind is so exciting that it can go beyond containment. Yet if left on its own, the outcome can be perilous. Resisting them, however, is not an option. While we embrace them as they synthesise and evolve, we also need to shape and control them such that they would not lead us to face extreme financial market fragilities and devastation. In the words of Nassim Taleb, we need to make ourselves "anti-fragile" – not only able to withstand shocks, disruptions and volatility but able to position ourselves to take advantage of it.

But I always like the quote by Peter Drucker, "The best way to predict the future, is to create it."