The Future of the Financial Intermediary System in the Bank 4.0 World*

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Brett King:
Bank 4.0 – Banking Everywhere, Never at a Bank
Marshall Cavendish International, Singapore, 2018, p. 384
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Brett King is a renowned futurist and highly reputed author of numerous publications that have attracted a high level of response from the professional field. In this work, he explores the future of banking in the context of a new paradigm shift in the financial intermediary system, in a world developing at an unprecedented speed. In this ground-breaking book, he reconsiders the future business model of banks and provides guidance on how to imagine and realise the vision and strategy that could ensure the future survival of banks in the face of the challenges posed by FinTech companies in a radically changing technological environment. To justify the predictions, the publication presents a wide range of case studies and analogies from which it turns out that the banking system is no exception from development trends in other sectors. The main finding of the publication is that – without a major strategic change – traditional financial institutions will not be able to survive in the future even if they are shielded under a protectionist umbrella, in a world where 200,000 smartphones are sold every hour, because they are simply not quick, flexible and agile enough to keep pace with FinTech firms.

The evolution of banking

According to *King*, the era of Bank 1.0 started with the activities of the Medici family and lasted until the 1980s. This period was characterised by branch-centred, physical contact and high level of friction and by having no or a low level of digitalisation. In the period of Bank 2.0 from 1980 to 2007, self-service banking arrived, which made it possible to access services outside opening hours, first through ATMs and then through the Internet. The era of Bank 3.0 started with the appearance of smartphones in 2007 and accelerated with the spread of mobile

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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payments and challenger banks which specialised in P2P and mobile payments through increasingly aggressive sales channels.

Bank 4.0 started in 2017. Bank 4.0 means ubiquitous real-time service which is embedded in the technology layer and eliminates physical contact with the bank. This digital, smart, multi-channel, compelling service anticipates consumer needs using artificial intelligence. Bank 4.0 is especially apparent through the drastic changes in customer behaviour and through the emergence of FinTech firms that provide financial services all over the world. In the Bank 4.0 world, a pioneering role in technologies is a crucial condition. Being good at banking alone is not enough: actually it is almost more of a disadvantage, because according to *King* the false sense of satisfaction is a barrier to quick adaptability. Banks will have to become invisible to their customers, while the services embedded in the technology layer will have to be continuously available.

It can be argued that the majority of banks are currently at the development level of Bank 1.0, 2.0 or 3.0. A Bank 4.0 institution is very rare, even at the global level, and for several banks there is no hope that they will ever reach such a development level. In the Bank 4.0 world, if a bank is not embedded into the technology layer around customers, it will fall victim to the changes. The bankers of the future will no longer be bankers but technocrats. Traditional banking products will disappear from the market, and their digitalisation will not be enough to ensure their survival.

The time will soon come when cameras in restaurants, places of entertainment, subways and airports can automatically assess customers' solvency and credit status. Customer identification will take place through facial recognition, and therefore we will not have to carry our mobile phones, cash, plastic cards and identity cards when we go out. Using face ID, our passports will be in the cloud linked to big data verifying creditworthiness. Correctness read from these data will be welcome everywhere, while unreliability will be refused.

King's predictions for the next ten years

After a thorough exploration of the development trends, challenges and alternatives for the future, the author outlines the following hard-to-dispute forecasts for the period 2025–2030:

- As early as 2025, leading technology companies (Alibaba, Amazon, Google, Tencent, Apple) and FinTech firms will be the biggest deposit collectors.
- By 2025, roughly 3 billion customers who have never set foot in a bank will enter the financial intermediary system.
- In 2025, more people will conduct transactions through a computer, smartphone, voice or augmented reality *daily* than they visit a bank branch at least annually.

- In 2025, more financial advice will be provided by AI-based algorithms and software solutions than are currently provided by advisors working in financial institutions worldwide.
- By 2025, one-fourth of day-to-day e-commerce and mobile commerce will be triggered by voice or a software agent, and voice-based smart assistants may expect 25–30 per cent higher income than competitors without voice recognition services.
- By 2025, the world's largest retail banks will generate the majority of their revenues through digital channels.
- By 2030, at least a dozen countries will go mostly cashless, including China's urban population, the Scandinavian countries, Singapore and Australia.
- By 2030, more than 30 per cent of current bank employees will lose their jobs as a result of artificial intelligence, although a small part of them will be replaced by data technicians, behavioural psychologists and technocrat gurus.

The key to survival in the Bank 4.0 world

King thinks that if a bank is steeped in tradition, has lots of bankers, an old core, a raft of regulations, and is reliant on branch traffic for revenue, it is likely too late to survive, because it will not be able to make the necessary transformation in time to become a bank embedded in the technology layer. Capital market analysts will soon simply question the sustainability of banking through a branch network, and the devaluation of traditional bank shares will commence shortly, as a visible sign of a slow decline.

King's conclusion may seem strange but true: FinTech firms alone will be unable to suppress banks, since the real winners of the fight for bank accounts will be voice, augmented reality and AI agents dominating the technology layer, platforms managing day-to-day commerce and instant messaging, and smart assistants. The bank account of the future will be an activated cloud-based repository which will respond through the technology layer anywhere where the customer wants to transact. This is not an application or a website, not even a bank branch. The ubiquitous "artificial intelligence-banker" will intermediate between the customer and the financial world. Advertisements will target the artificial intelligence-banker, not the customer. Financial intermediates will develop the technology through which they forward their services to the artificial intelligence-banker which will select the most suitable one.

Many traditional banks believe that regulators will not allow this to happen, but it is ridiculous. The regulators that are the first to awake (e.g. in Shanghai, Hong Kong, Singapore, and London, and the MNB as well) are already launching a regulatory sandbox, implementing open banking, cooperating with FinTech firms and regulating crypto currencies, because they are aware that the financial services of the future are being created today, and they do not stand in the way of transformation. Regulators can improve the survival rates of today's banks by easing the regulations on personal customer identification and cloud platforms.

King summarises the key elements for survival in the Bank 4.0 world as follows:

- *Experiences, not products* – a complete reconsideration of the product paradigm is required to ensure the maximum usefulness of services for the customers through the technology layer, while having no physical contact with customers.

- *No more bankers* – instead of bankers, innovative talents must be employed who deeply understand technologies such as voice recognition, machine learning, blockchain, cloud integration, biometrics and customer experience design.

- *Data is the new driving force* – banking in the future will not be based on today's transactional or credit reference data, but on data that provides context for delivery of real-time banking services, since these data are the fuel for artificial intelligence.

- *Existing system is no excuse* – the existing system architecture should not be an excuse for not creating a unique experience for customers. This is when a new team is urgently needed to force the pace in creating the necessary middleware, cloud and FinTech solutions, and thus fill in the gaps. Agility paves the way towards Bank 4.0.

- *Artificial intelligence* – this is the key to a paradigm shift in real-time financial advice delivered through the technology layer.

- *Don't try this at home* – the key to agility is recognising that if banks replicate the solutions of FinTech firms, it adds a delay of several years and is far more expensive compared to if they license the appropriate technology from a professional external service provider. It is essential for banks to collaborate with FinTech firms through common cloud platforms and the application programming interface.

- *Open the kimono, don't block the blockchain* – by sharing data more effectively and securely, a model of auditable and permitted open banking can be set up, which is critical in a world where 80 per cent of customer relationships are dependent on the correct interpretation of data.

Finally, the author expresses his hope that everybody is ready for the coming era of Bank 4.0, because it will surely come, whether we are prepared for it or not.

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In Good Times Prepare for Crisis*

Alexandra Pavelka

Ira W. Lieberman:
In Good Times Prepare for Crisis – From the Great Depression to Great Recession: Sovereign Debt Crises and Their Resolution
The Brookings Institution, 2018, p. 480
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As an expert of the World Bank, Ira Lieberman has had ample experience with financial crises and their resolution. His knowledge of crisis management theory and the practical skills makes the book an interesting one, which not only shows the historical description of the facts, but presents the whole picture of the debtor-creditor relationship between countries. The author seeks to answer questions such as the following: What are the best techniques for sovereign debt crisis management? Why do debtor countries not pay debt servicing? How do creditors react? How effective is debt restructuring and are there general practices for it? One strength of the book is that the international relations of certain periods are highlighted and attention is drawn to the aspects of political economy.

The interwar period and the Great Depression

In the interwar period, lending increased in spite of the fact that the creditors accounted for huge losses due to the inflation and devaluation caused by the war. International lending increased on the heels of growth, faith in international trade, increasing influence in strategically important areas (e.g. England - India) and the creation of economic and political stability. However, the huge financial resources provided caused economic structural reforms to be postponed. A large part of the credits was spent on social benefits, reorganising the economy and restructuring existing loans, not on increasing future government revenues. Moreover, borrower countries did not introduce fiscal reforms, and so most of the credits were not sustainable.

At the time of the Great Depression, international lending decreased again. Since capital markets were not available for the countries, debt servicing decreased, stopped or was terminated (e.g. Russia). Banks faced a liquidity crisis, and there was

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