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Bank of Japan

Opportunities and Challenges for Financial Intermediation Functions Brought about by Technological Advancements

Remarks at the Paris Europlace Financial Forum 2024 in Tokyo

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Introduction

It is a great pleasure and an honor to be invited to the Paris Europlace Financial Forum in Tokyo.

Paris Europlace brings together a diverse group of participants from the French financial sector, and has contributed greatly to the advancement of financial services and financial markets. It is my privilege to have the opportunity to speak to you today.

This summer Paris hosted the Olympic and Paralympic Games, following the Tokyo Games in 2021. Athletes delivered thrilling performances, supported by cutting-edge technologies that played a pivotal role in the seamless operation of the games and creating an engaging experience for viewers worldwide. These technologies contributed to the safety of the athletes and spectators, and helped referees make accurate decisions through high-tech cameras and artificial intelligence (AI). Viewers around the globe were able to enjoy the competition highlights, edited by AI in multiple languages, with immersive video and commentary that made them feel as if they were right there in the venues. Such advanced technologies are now an essential part of the sports industry.

Similarly, technological advancements have driven substantial progress in the financial sector. Recent acceleration in digitalization, coupled with societal transformations due to the pandemic, has had a profound impact on financial businesses. Conversely, financial institutions have played a vital role in promoting technological developments.

Today, I will address both the opportunities and challenges for financial intermediation functions brought about by these evolving technologies.

I. Opportunities for Financial Intermediation Functions

The financial sector has continuously transformed and developed, greatly influenced by technological advancements. These innovations have not only increased operational efficiency and reduced costs for financial institutions, but have also elevated and diversified financial intermediation functions. As technology evolves, funds with various preferences and risk tolerance are distributed more efficiently across the economy.

Technological advances have redefined financial services that once depended on physical infrastructure, such as branches and ATMs, allowing them to be delivered online through tools like the internet and smartphones. This shift has enhanced customer experience and the operational efficiency of financial institutions, and has expanded the customer base. In capital markets, where financial dealers and brokers facilitate transactions, increased processing capabilities have given rise to sophisticated trading methods, including derivatives and algorithmic trading, further diversifying financial intermediation.

In the field of FinTech, the role of IT firms and startups has grown, as they harness new information technologies for financial innovation. A notable example is decentralized finance (DeFi), where automated systems provide efficient financial services without the need for a central administrator.

The financial industry is set to undergo even more transformation with the recent rise of generative AI. While still in its early stages, institutions in Japan and Europe are making strides in leveraging this technology. For example, generative AI has been used to improve internal processes, such as minute-taking, document summarization, translations, and compliance checks. In Japan, it is also seen as a valuable tool to mitigate labor shortages. Additionally, generative AI is beginning to support customer data analysis, transaction monitoring for fraud detection, and other critical operations, all contributing to enhanced profitability and productivity within the financial sector.

So far, we have seen how technology has diversified financial intermediation. The reverse is also true: financial intermediation supports technology by providing essential investment for R&D and commercialization. Financial entities, not just banks, but also venture capital and private equity and debt funds now play a significant role in fostering innovation. They provide funding across a wide spectrum of industries and risk profiles, creating a positive feedback loop between financial intermediation and technological advancement, essential for economic growth and productivity enhancement, in both Japan and Europe.

II. Challenges for Financial Intermediation Functions

It is necessary to keep in mind, however, that technological advancements bring new risks to financial stability. For example, during the banking turmoil of March 2023, we saw how

concerns over a bank's credit status could spread rapidly, leading to accelerated deposit withdrawals due to online banking and social media. As financial services grow more diverse and complex, the channels of risk transmission have become less transparent, and current financial regulations may not be fully equipped to manage new types of financial services.

This environment underscores the need for operational resilience, including robust management of cybersecurity and third-party risks. With the rise of generative AI, there are also specific challenges, including the risk of "hallucinations" (that is, non-factual responses), black box issues, and data protection concerns. It is crucial that central banks and other authorities monitor these evolving financial intermediation functions, encourage relevant entities to establish sound governance, and build management frameworks to address the new risks.

A regulatory and supervisory framework that adapts to technological advancements is also essential. In Japan, for example, crypto-asset regulations and stablecoin legislation were introduced ahead of other jurisdictions, with cybersecurity guidelines established in 2024. Meanwhile, the European Union enacted the Artificial Intelligence Act, the world's first regulation for trustworthy AI. As AI continues to spread globally, the Bank of Japan closely follows regulatory responses across jurisdictions.

Concluding Remarks

Let me conclude by adding that central banks are also embracing technology to enhance risk management and analytical capabilities. To ensure a future that reaps the full benefits of technology, it is essential to build on the insights gained from the expertise and trial-and-error of financial professionals.

This forum is a unique opportunity for financial professionals from Japan and France to exchange knowledge. In the spirit of the Paris 2024 Olympic and Paralympic Games' slogan, "Games Wide Open (*Ouvrons Grand Les Jeux*)," I hope that this gathering becomes a vibrant platform for sharing ideas and fostering fruitful discussions.

Thank you for your attention.