Box 2
The Influence of BigTechs on the payment market and financial stability

In recent years, some large technology companies (BigTechs) that did not primarily provide financial services have started from payment services to provide innovative financial services such as lending, insurance, savings, and investment products. Their business scale and competitiveness have posed challenges for conventional banks, while potentially affecting financial stability in the future. The novel trend has drawn attention from international financial regulators.

1. *What drives BigTechs to provide financial services*

According to BIS research,[1] BigTechs have intrinsic elements such as data analytics, network externalities[2] and interwoven activities (collectively referred to as "DNA") that mutually reinforce their benefits. Such elements, combined with the provision of non-financial businesses and financial services, allow BigTechs to expand their market share in financial markets. Furthermore, BigTechs collect customer data from different sources through their original non-financial activities, and those data can be used to support the development of new businesses, generate economies of scale and scope, and reduce the cost of new business development.

2. *Operating characteristics of BigTechs and conventional banks as well as the competitive-cooperative relationship between them*

Conventional banks typically provide wide-ranging financial services and diversified service channels, and tend to have stable and long-term customer relationships. In comparison, BigTechs' operating characteristics include using multiple complementary business activities to quickly enhance customer engagement and having a good command of customer information, logistics, and cash flow at the same time. They can understand customer behavior and preferences from multiple aspects and have relatively flexible use of data.

The global competitive-cooperative relationship between BigTechs and conventional banks can mainly be divided into complementary cooperation or direct competition (Table B2.1), based on factors such as the penetration rates of financial services and of mobile devices, and the rigidity of financial supervision. For instance, in developed countries, where the penetration rates of financial services are high and financial supervision is stricter, BigTechs often strategically cooperate with conventional banks. On the other hand, in many emerging markets and developing countries, BigTechs tend to adopt direct competition strategies because of lower penetration rates of financial services and relatively loose financial supervision.

Table B2.1 BigTechs and conventional banks' operating characteristics, competitive-cooperative relationship and degree of financial regulations

Items		Conventional Banks	BigTechs
Management	Financial services	Comprehensive	Increasingly diversified
	Channels	Branches; internet	Internet
	Financial technology (FinTech) capabilities	Improving gradually	Strong
Customer relationship	Sources	Via promotion or walk-in customers	Extending from non-financial activities
	Relationship building	Based on long-term relations	Using multiple complementary activities to quickly improve customer engagement
	Data source	Focused on financial side (e.g., cash flow)	Multi-faceted, including customer information, logistics, and cash flow
	Use of data	Strict regulatory limits (e.g., *Personal Data Protection Act*)	More flexible
Relationship with conventional banks		—	Cooperation or direct competition
Degree of financial regulation		Highly regulated	Increasing regulated (e.g., on market entry for banking business)

Source: CBC.

3. Major changes that BigTechs may cause are in the payment market

In terms of market capitalization, BigTechs is far superior to FinTech companies (e.g., PayPal) with the latter being smaller in scale and usually focusing on one specific field (e.g., payment, lending, etc.), and even large international financial institutions may find it difficult to compete with BigTechs. If BigTechs successfully apply their "DNA" competitiveness to the payment market and get hold of privacy-related cash flow data, they will be able to comprehensively analyze individual consumer habits to enhance their competitive advantages. Therefore, BigTechs may bring about structural changes in the payment market and even monopolize the market.

4. Risks and impacts arising from BigTechs regarding financial stability

With BigTechs entering the field of financial services, they could improve the efficiency of financial services, enhance the competitiveness and fairness of financial products pricing, prompt conventional banks to strengthen their financial innovation capabilities, and promote financial inclusion. However, if BigTechs continue to expand their financial services footprint, they may bring about the following impacts on financial stability:

4.1 Conventional banks with weakening profitability may be forced to conduct risky activities

The increasing competition between BigTechs and conventional banks could jeopardize the profitability of conventional banks. In order to maintain profit levels, banks might engage in more risky activities and take excessive risks.

4.2 High connectedness between conventional banks and BigTechs could increase the instability of the financial system

Some banks are becoming gradually more reliant on BigTechs to offer third-party services, which will increase operational and information security risks, the complexity of the financial system, and the possibility of risk contagion, and in turn compromise stability of the financial system as a whole.

4.3 The expansion of BigTechs could bring about too-big-to-fail risks

When the scale of BigTechs directly providing financial services develops to a certain extent, their operational or financial failure may have a wide-ranging impact on the overall financial system, even jeopardizing the economy, and pose too-big-to-fail risks.

4.4 A dramatic expansion in payment services by BigTechs could weaken the soundness of conventional banks' balance sheets

Once BigTechs successfully extend the payment services to their existing user bases, the deposits of commercial banks held by those users may be converted into electronic money or other forms of instruments on a large scale. As a result, it could weaken the soundness of banks' balance sheets and undermine the liquidity and financial stability of the banking system.

4.5 BigTechs may bring about risks such as data privacy and fair competition concerns

It is not unusual for BigTechs to violate the privacy of users in data storage and usage. If they further capture the key cash flow information, it could pose major risks to personal privacy. In addition, BigTechs may use their competitive advantages such as business scales and technologies to engage in unfair competition or adopt pricing models that are unfavorable to consumers.

5. Currently, the development of BigTechs has not caused significant impacts on financial stability in Taiwan

While BigTechs have entered the domestic financial services sector, mainly in providing mobile payment services, they have not yet caused any major threat to the banking industry or undermined financial stability in Taiwan. Nevertheless, relevant competent authorities should pay attention to their future development and propose appropriate supervision policies in a timely manner in line with the principle of "same business, same risks, same rules," and should strengthen the communication and cooperation with foreign supervisors, so as to reduce possible adverse effects.

Notes: 1. BIS (2019), "*Big tech in finance: opportunities and risks," BIS Annual Economic Report 2019*, June.

2. "Network externality," also known as network effects, refers to the phenomenon when the value of a product depends on the overall number of users in the market. The more users a product has, the higher the value or benefit for new users, and thus the more attractive it becomes.