

The background features a collage of various items related to finance and technology. At the top, several compact discs (CDs) are scattered, showing their characteristic iridescent colors. Below them, several credit cards are visible, including a Visa card with the number 4101 0782 and a MasterCard with the number 3505. A yellow credit card with the number 7627 2078 is also present. In the bottom left corner, a portion of a pink calculator is visible. The overall color palette is warm, dominated by yellows and oranges.

IV. ANNEX

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1. Introduction

The internet has become an increasingly popular worldwide communication channel in recent years. With the help of the internet, global electronic commerce has expanded at a rapid pace. If Taiwan's banks are not able to adjust to changes regarding the rapid evolution of information technology and develop appropriate strategies for future development, it is very likely that they will fall far behind their foreign competitors. Due to these advances, the supervisory authorities face mounting difficulties relating to the promotion of financial stability and integrity as the increased use of the internet and information technology in banking is likely to raise transaction security and consumer protection issues. This annex will provide a brief review of the recent developments in Taiwan's electronic banking services, challenges to domestic banks, as well as relevant issues relating to the financial supervisory and regulatory aspects.

2. Recent Developments in Electronic Banking Services

Electronic banking (cyber banking, or internet banking) services are internet-based services provided by financial institutions, allowing their customers to access bank accounts or other financial services from anywhere that internet-connected devices are available. Electronic banking services can be provided by special units or subsidiaries of traditional brick-and-mortar banks, or by completely virtual entities operating only on the internet, which are termed internet-only banks.

At the end of 2000, 25 of the 48 domestic banks in Taiwan had been approved to operate electronic banking services. However, there haven't been any internet-only banks yet. Taiwan's electronic banking services are still at the fledging stage so the contents of the services are largely limited to basic functions such as providing personal account information, simple transactions, and paying public utilities bills. A few banks have provided their customers with diverse financial consulting and transaction services, such as mutual fund subscription and online

stock trading via the electronic banking channel. If the services provided by electronic banking operators involve foreign exchange transfers, approvals from the Central Bank of China (CBC) must be obtained. Considering banks' development status thus far, newly-established banks are better prepared to catch up with international trends and develop innovative strategies, when compared with their older counterparts.

3. The Internet Strategy for Traditional Banks

The popularization of the internet has blurred the border between financial services and other industries. Many non-financial players, such as the telecommunications and information-technology industries, have exhibited a desire to seize the expanded business opportunities brought by the internet. As a result, traditional brick-and-mortar banks are expected to experience much keener competition. Facing these challenges, domestic traditional banks should focus their strategies on the following aspects:

Personalized Products

In a highly competitive environment, the standardization of financial products will inevitably squeeze the margin of revenues for banks. Therefore, it is important for banks to develop tailor-made marketing strategies which target each customer's preferences and behavioral patterns.

Multiple Services Delivery Channel

The emergence of the internet will break the limits of space and time faced by traditional brick-and-mortar banks, and innovations in information technology will change the way customers receive information. As a result, banks should develop systems that can serve multiple front-end information receiving equipment so that their customers can be offered more choices regarding access to, and convenience of, the internet services they provide.

Developing the Information Infrastructure for Financial Services Electronification

Due to the small-sized nature of Taiwan's banking industry, its ability to bear the costs of developing information technology systems is much lower than that of their foreign counterparts. In order to cut the huge costs of establishing information infrastructure and enhance their competitiveness, Taiwan's banking industry should develop a common operating platform, which can help to integrate resources and provide mutual benefits.

Organization Restructuring and Human Resources Training

As a result of the rapidly growing electronic banking business, traditional services delivery channels, such as counters and telephone centers, have shrunk significantly, and the problems of personnel relocation and organization restructuring have arisen. Instead of massive lay-offs, banks should provide their staff with more training and hence boost the productivity of their human resources while reducing operating costs.

4. Regulations for Electronic Banking Services

Bank supervisory authorities in Taiwan have recognized the important challenges posed by the rapid advance of technology and have devoted increasing attention to related issues. In this regard, the CBC has published several guidelines and reports that help local banks identify and prioritize inherent risks. In addition, the CBC has published the "Reference of Electronic Banking Examination", which was designed as a reference manual for bank examination specialists to oversee the electronic banking business.

The Ministry of Finance has also gradually lifted restrictions on the electronic banking business and made public the standard contract between banks and customers, establishing a basic criteria governing the rights and obligations between the two sides. However, it is worth noting that the authorities in Taiwan currently prohibit overseas internet-only banks from taking deposits in the local market, and local banks are banned from helping customers transfer funds to accounts in offshore internet-only banks. However, a number of local citizens have already conducted their financial transactions with foreign electronic banking sites via the internet, which makes it difficult for the supervisory authorities to monitor the direction and volume of fund flows. It is therefore important for the supervisory authorities to deliberate on relevant issues given that conducting cross-border financial transactions on the internet will be an inevitable trend.

Another milestone legislation for the development of electronic commerce in Taiwan is the legislation of the Digital Signature Act, which has been sent to the Legislative Yuan, the lawmaking body, and is scheduled to be passed in 2001. Because digital signatures could provide the two parties with the ability to ensure the authenticity of the identities involved in transactions, the passage of this Act will help to enhance the security level of conducting financial transactions on the internet.

5. The Changing Landscape of the Financial Market and Its Implications for the Central Bank

Given the market's potential scope for expansion, we expect to see robust growth in electronic banking services in Taiwan. Furthermore, with Taiwan's possible accession to the WTO, domestic banks will face keen competition from their foreign counterparts and developing the electronic banking strategy is key for domestic banks if they want to stand out from the traditional loan and deposit business. In the meantime, the CBC is paying significant attention to appropriate risk management concerning new technology. According to a report on risk management for electronic banking recently published by the Basle Committee on Banking Supervision of the Bank for International Settlements, electronic banking activities will give rise to a wide array of risk management concerns. Among them, central bankers are particularly concerned with operation and transaction risks, which may generate sources of instability in the financial system. In addition, funds transfers conducted via the electronic banking channel will make it more difficult for central banks to monitor the direction and volume of fund flows, which may impact interest rate and exchange rate movements.

As a result, the CBC will continue to take measures to monitor and limit risk exposures. Should any unexpected incident occur in the domestic financial market, the CBC, as the lender of last resort, will protect the market from systematic risks by providing it with sufficient liquidity, and act in a cautious and efficient manner to avoid the associated potential moral hazard problem. While the CBC strives to ensure that local banks are capable of handling their operation risks in association with electronic banking, attention should also be paid to enhancing the healthy development and overall competitiveness of the banking industry as well as the efficiency and cost-effectiveness of the financial system.