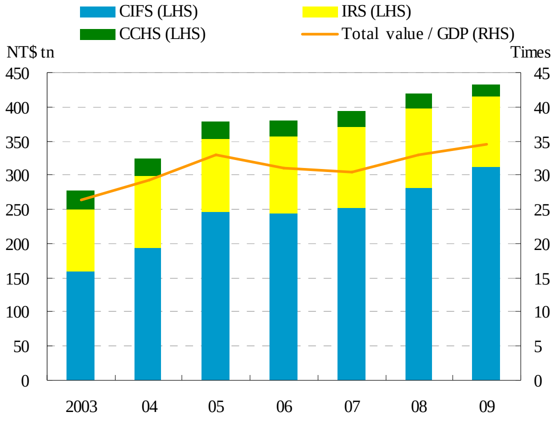
4.3 Financial infrastructure

4.3.1 Payment and settlement systems

Overview of major payment and settlement systems

Chart 4.49 Transaction value of the three major payment systems



Source: CBC.

The three major payment systems processing domestic interbank payments are the CBC Interbank Funds-Transfer System (CIFS), the Interbank Remittance System (IRS) and the Check Clearing House System (CCHS), with the CBC, the Financial Information Service Co., Ltd. (FISC) and the Check Clearing House as operators, respectively. In 2009, the total transaction value of the three major systems increased by NT$15 trillion from the previous year to NT$433 trillion, which was equivalent to 34.6 times annual GDP (Chart 4.49).

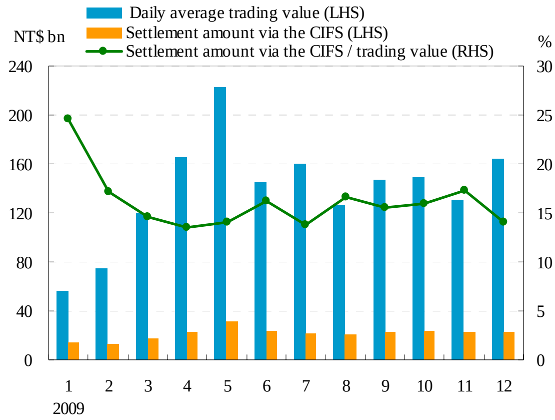
Of the three major payment systems, the CIFS was the most important one and accounted for 72% of the total transaction value. The CIFS also handled the final settlement of interbank funds transfers relating to the settlement of bonds, bills and stocks transactions. In 2009, the transaction value of the CIFS reached NT$312 trillion, an increase of NT$31 trillion from a year earlier (Chart 4.49).

Three major payment systems accomplished self-assessment

To ensure the soundness and efficiency of the CIFS, which played a pivotal role in domestic interbank payment systems, the CBC completed its self-assessment in 2007 based on the *Core Principles for Systemically Important Payment Systems* issued by the Bank for International Settlements (BIS). The assessment results showed that most requirements were satisfied. Moreover, the CBC encouraged the other two major payment system operators, the FISC and the Check Clearing House, to conduct self-assessment so as to ensure the compliance of their operations with the core principles. In 2009, the CBC finished the review of their self-assessment reports and required them to take corrective actions to address the deficiencies not conforming to the core principles.

The securities market launched a new clearing and settlement mechanism

Chart 4.50 The clearing amount of stock market transactions via CIFS



Sources: TWSE and GTSM.

In order to strengthen their competitiveness, many capital markets around the world have attempted to enhance financial innovation as well as undertake clearing and settlement system reforms. To cope with the trend, the TWSE and the GreTai Securities Market (GTSM) jointly appointed the Taiwan Depository & Clearing Corporation to provide consolidated securities depository services for securities transactions in 1995. At that time, however, each market had its own funds clearing agreement and thus market participants had to deal with different funds clearing institutions. In order to streamline the operations, the TWSE and the GTSM consolidated their funds clearing operations for stock transactions in 2003 and assigned them to the TWSE as the single central operator for the clearing of funds.

As for the funds settlement of stock transactions, the TWSE originally assigned it to one domestic commercial bank. Nevertheless, in view of the benefits of being safe, efficient and competitively neutral, funds settlement was made through the CIFS from 2007 and adopted the T+2 DVP (delivery-versus-payment) settlement mechanism in 2009 to meet the requirements of international recommendations (Box 4).

The total daily average trading value of securities listed on the TWSE and the GTSM was NT$164.7 billion in December 2009, including NT$130.6 billion from the TWSE and NT$34.1 billion from the GTSM. The daily average settlement amount of security transactions via CIFS was NT$23.1 billion, accounting for 14% of the total trading value (Chart 4.50), significantly reducing the amount of funds needed for settlement.

4.3.2 Extension of the interim blanket guarantee for deposits to the end of 2010

The financial system in Taiwan was temporarily in turmoil in 2008 Q4 in the wake of the deepening international financial crisis. To enhance depositors' confidence and stabilize the financial system, the government announced the measure of a blanket guarantee for deposits in October 2008, accompanied by a package of relevant measures aiming to strengthen financial supervision and regulation. These measures effectively stabilized the market and diminished banks' liquidity risks.

This measure of a blanket guarantee for deposits was initially put into effect until the end of 2009. However, the government announced its extension to the end of 2010 on 8 October 2009, considering the persistence of global economic and financial instability and extensions of the blanket deposit guarantee schemes adopted by neighboring countries, such as Singapore and Hong Kong. The scope of the coverage and special premium surcharges imposed on interbank call loans remains the same. The FSC also takes necessary actions to enhance financial supervision and requires financial institutions to strengthen their liability management, as well as implements Prompt Corrective Actions to impaired banks.

4.3.3 Establishing cross-strait financial supervisory cooperation mechanism and opening cross-strait financial interactions

In line with the government's policy of opening-up cross-strait interactions, the FSC and the relevant Chinese supervisory and regulatory agencies jointly signed three Cross-strait Financial Supervisory Cooperation Memorandums of Understanding (MOUs) in November 2009. Moreover, there were three revised regulations governing the permission of cross-strait financial activities in banking, insurance, and securities and futures which were subsequently promulgated by the FSC in March 2010. It was a response to manage deeper financial interactions between the financial markets on the two sides of the Taiwan Strait and, at the same time, to maintain Taiwan's economic soundness and financial stability.

As Taiwan's financial institutions apply sound risk management and possess a leading edge in the fields of financial innovation, coupled with the advantage of sharing the same language and culture with China, they could find niches for expanding business and creating revenues in the China market after the opening of cross-strait financial activities and investments. Nevertheless, those institutions should be vigilant regarding the potential risks that might emerge from accessing China's market and adopt appropriate business and risk management strategies to prevent the potentially unsafe and unsound operations that may exist in China from compromising the soundness of Taiwan's financial system.

Signing MOU with China

According to Principle 25 of the *Core Principles for Effective Banking Supervision* published by the Basel Committee on Banking Supervision (BCBS), cross-border consolidated supervision requires the cooperation and information exchange between home supervisors and other supervisors involved, primarily host banking supervisors. To help cross-strait cooperation, the FSC signed three MOUs, involving banking, insurance, and securities and futures services, with the China Banking Regulatory Commission, the China Insurance Regulatory Commission and the China Securities Regulatory Commission, respectively, on 16 November 2009. The content of these MOUs covered supervisory cooperation including information exchanges, confidentiality, financial examinations, and cross-strait contacts. The terms were effective as of 16 January 2010. The signing of these MOUs not only improves the cooperation of cross-strait supervision and bolsters the pursuit of international supervision standards, but also helps Taiwan's supervisory authorities to get the full picture of the operations of Taiwan's financial institutions in China in order to maintain financial stability.

Amendments of the regulations governing cross-strait financial activities

To respond to the need for managing financial activities between the cross-strait financial markets, the FSC amended three regulations governing approvals of banking institutions, insurance companies, and securities and futures firms to engage in business and investment activities between Taiwan and China on 16 March 2010. Under the principle of consolidated supervision and effective management, these regulations will guide an orderly entrance of Taiwan's financial institutions into China's market and gradually allow China's financial institutions to access Taiwan's market.

The key amendments to the regulations governing banking services primarily include augmenting regulations governing the establishment of offices, branches or subsidiaries and equity investments by Taiwan's financial institutions, easing restrictions on offshore banking units of Taiwan's financial institutions extending credit to Taiwanese enterprises in China, and expanding the scope of cross-strait credit card and debit card business transactions processed by domestic financial institutions in Taiwan. In the case of the regulations governing insurance companies, the most notable revisions are allowing Taiwan's insurance auxiliary companies[70] to establish branches or subsidiaries in China and to have equity investments in China's insurance auxiliary companies, and allowing China's insurance companies to establish offices in Taiwan and have equity investments in Taiwan's insurance companies. The major changes to the regulations governing securities and futures firms involve allowing securities and futures firms from China to establish offices and to have equities investments in Taiwan.

[70] The insurance auxiliary industry includes insurance agents, insurance brokers and insurance surveyors.

The three amended regulations were made effective on 16 March 2010. However, the relevant regulations relating to equities investments by China's banks in Taiwan's banks and financial holding companies will not enter into force until a later date to be determined on the basis of the development of the Economic Cooperation Framework Agreement.

4.3.4 The gradual conformability of Taiwan's SFAS to IFRS

The convergence[71] of Taiwan's Statement of the Financial Accounting Standards (SFAS) toward International Financial Reporting Standards (IFRS) started from 1999. It aimed not only to enhance the comparativeness of the financial reports of international corporations, but also to help Taiwan's corporations to raise funds at lower costs from international capital markets. Accordingly, the Accounting Research and Development Foundation in Taiwan, with reference to the IFRS, made numerous amendments to Taiwan's SFAS. Among those amended SFAS, the third amendment to Taiwan's SFAS 34 (*Financial Instruments: Recognition and Measurement*) and SFAS 40 *(Insurance Contracts*), having close ties with the financial sector, will be adopted from 1 January 2011. Their impact on the domestic financial industry is worth drawing attention to.

Furthermore, given the global trend towards full adoption of the IFRS, the FSC announced in May 2009 its plan for the full adoption of the IFRS in Taiwan, starting from 2013. The plan was to adopt the IFRS in two phases.[72.] As the implementation of the IFRS will affect financial institutions and other enterprises, both of them need to engage in early preparation, evaluate the potential impacts and plan for appropriate responses.

The third amendment to Taiwan's SFAS 34

Taiwan's SFAS 34 mainly refers to International Accounting Standards No.39 (IAS 39), namely *Financial Instruments: Recognition and Measurement*. According to IAS 39, financial assets including loans and receivables are subject to impairment assessment. However, in order to alleviate the impacts on enterprises, especially banks, originated loans and receivables were temporarily excluded from the scope of Taiwan's SFAS 34 when it was issued in 2003. Nevertheless, the third amendment to Taiwan's SFAS 34 will be effective from January 2011 and require enterprises, including banks, to assess originated loans and

[71] To realize the goal of developing a single set of accounting standards, the International Financial Reporting Standards (IFRS), countries can either "converge" with or "adopt" the IFRS. Countries deciding to converge with the IFRS will publish local statements of financial accounting standards referring to the IFRS. Others, which adopt the IFRS, will be required to translate and adopt the IFRS.

[72] In phase I, listed companies and financial institutions supervised by the FSC, except for credit cooperatives, credit card companies, and insurance intermediaries, will be required to adopt the IFRS starting from 2013. Early adoption starting from 2012 is optional. In phase II, unlisted public companies, credit cooperatives, and credit card companies will be required to adopt the IFRS starting from 2015, with optional early adoption starting from 2013.

receivables if there is any objective evidence of impairment and determine whether any impairment losses should be recognized. If their present value of estimated cash flows discounted at the original effective interest rate is lower than their carrying amount, banks are required to recognize the impairment losses. The current regulation of loan loss provisions in Taiwan requires banks to break down credit assets into five categories and set aside different percentages of provisions,[73] which is quite different from the accounting treatment in Taiwan's SFAS 34. Therefore, it is expected to have significant impacts on the banking sector. A prompt response by individual banks to this matter is warranted.

Taiwan's SFAS 40 - Insurance Contracts

Taiwan's SFAS 40, referring to phase I of the IFRS 4,[74] requires insurance companies to implement liabilities adequacy tests by assessing whether their insurance liabilities are adequate to cover their estimated future cash flows arising from insurance contracts. If it is inadequate, the entire deficiency should be recognized in profit or loss. However, Taiwan's SFAS 40 does not specify the discount rate for the test. That is, currently, the best estimated discount rate can still be used. In addition, Taiwan's SFAS 40 requires insurance companies to assess the impairment of reinsurance assets and to disclose the information that helps users understand the amount of insurers' financial statements that arise from insurance contracts. Insurance companies should adjust their policies and information systems as soon as possible to cope with the adoption of SFAS 40.

[73] See Note 49 and 50.

[74] IFRS 4 was adopted in two phases. In phase I, the standard required insurance companies to classify insurance contracts and implement liability adequacy tests. In phase II, insurance contracts should be tested based on their fair value. The European Union started to implement IFRS phase I in January 2005. Standards of phrase II are still being set out.

Box 4
Taiwan Stock Exchange introduced T+2 DVP Settlement System

With the aim of coming further into line with international standards and enhancing the efficiency of Taiwan's securities market, the Taiwan Stock Exchange (TWSE) launched a series of reforms in the securities market. Among the reforms, the TWSE implemented a new settlement system called "T+2 DVP (Delivery-Versus-Payment, DVP)," which became effective from 2 February 2009. The implementation of the T+2 DVP Settlement System can shorten the settlement time gap between securities and funds and, in turn, reduce settlement risk.

1. Deficiencies in the original settlement system

The fund/securities settlement operation of the Taiwan Stock Exchange is divided into two tiers: (1) settlements between investors and securities companies, and (2) settlements between securities companies and the TWSE. Under the original settlement system, there was a one-day gap for investors between the delivery of securities/funds and the receipt of funds/securities. This time gap between delivery and receipt was not only unfair to investors, but also could become a source of settlement risk.

2. Comparisons of the original system and the new system

Item	Original System	New System
Tier I : Investors and securities companies	Investors should deliver securities or funds to securities companies before 12 p.m. of <u>T+1</u>. Securities companies should deliver securities or funds to investors after 10 a.m. of <u>T+2</u>.	Investors should deliver securities or funds to securities companies before 10 a.m. of <u>T+2</u>. Securities companies should deliver securities or funds to investors after 11 a.m. of <u>T+2</u>.
Tier II : Securities companies and the TWSE	Sell-side securities companies should deliver securities to TWSE before 6 p.m. of <u>T+1</u>. Buy-side securities companies should deliver funds to TWSE before 10 a.m. of <u>T+2</u>. TWSE should deliver securities to buy-side securities companies and deliver funds to sell-side securities companies after 10 a.m. of <u>T+2</u>.	Sell-side securities companies should deliver securities to TWSE before 10 a.m. of <u>T+2</u>. Buy-side securities companies should deliver funds to TWSE before 11 a.m. of <u>T+2</u>. TWSE should deliver securities to buy-side securities companies and deliver funds to sell-side securities companies after 11 a.m. of <u>T+2</u>.

Note: "T" represents the day on which investors buy/sell securities from/to securities companies.

3. Benefits of the new system

The new T+2 DVP system requires the delivery and receipt of either securities or funds to occur on the same day (i.e. day T+2). It not only enhances the usability of securities and funds, but also brings the TWSE's settlement system further into line with international standards and expedites the internationalization of Taiwan's securities market.