

5. Payment and Settlement Systems

Taiwan's payment systems mainly include the Check Clearing House System, the Interbank Remittance System (IRS), the CBC Interbank Fund-transfers Settlement System (CIFS) and the Central Government Securities Settlement System (CGSS). Among them, the Check Clearing House System and the IRS are retail payment systems, while the CIFS and the CGSS are the two main subsystems under the CBC wire. All these payment systems make use of banks' reserve accounts A held with the Bank for final settlement.

Decreasing Funds Transfers by the CIFS

The CIFS launched in May 1995 is an on-line, large-value funds transfer system. Since September 2002, the system has been operated in a real-time gross settlement (RTGS) basis. For those who maintain transaction accounts with the Bank, they may directly use the CIFS to transfer funds. Payment instructions are also sent over the CIFS for settling obligations on check clearing, adjusting reserve account balances, or making payments associated with interbank loans, bill transactions, and bond transactions. At the end of 2006, participants of the CIFS included 79 banks, 3 investment and trust companies, 14 bills finance companies and Taiwan Post Co.

For the year of 2006, the total value of funds transferred by the CIFS fell to NT\$244,683 billion from NT\$246,279 billion in 2005 due to the declining turnover of bonds and the Bank's CDs. In contrast, its annual trading volume increased from 794 thousand to 817 thousand.

In Taiwan, the infrastructure for securities trading has been fairly segmented. The Taiwan Securities Central Depository Co., Ltd. (TSCD) engaged itself in providing central custody, book entry as well as clearing and settlement services for equity and fixed income securities traded on the Taiwan Stock Exchange (TSE) and the GreTai Securities Market (GTSM), while the Debt Instruments Depository and Clearing Co., Ltd. Taiwan (DIDC) undertook the same business functions for short-term bills exchange in money market. The Bank conducted book-entry operation for central government bond issuances and transactions.

In order to promote greater efficiency in securities clearing and settlement system and to facilitate funds arrangement, the Bank has planned to use central bank money in the clearing and settlement of stocks and debt securities in recent years. With the help of the Bank, the

Bills Depository and Clearing System run by DIDC was set up in April 2004. The system has been linked with the Bank's CIFS at its inception. Transactions of bills in a book-entry form have also been processed on a delivery-versus-payment (DVP) basis.

Effective on March 27, 2006, directed by the Bank and the Financial Supervisory Commission, DIDC merged into TSCD to form the Taiwan Depository & Clearing Corporation (TDCC). To enhance the settlement efficiency in capital markets, the Bank thus planned on incorporating funds settlement systems for shares and debt securities engaged by former TSCD into the CIFS. By the end of the year, information infrastructure for such operations has been set up. Together with the Bills Depository and Clearing System as well as the CGSS, these three central depository and clearing systems will contribute to the smooth operation of the financial system in Taiwan.

Shrinking Transactions by the CGSS

Established in September 1997, the CGSS is a real-time gross settlement system for the issuance, transfer, redemption, and interest payment of book-entry central government securities. Since its inception, central government bonds have been issued in the book-entry form. In October 2001, Treasury bills were added to the system and have been issued in the book-entry form since then.

Due to the sharp fall in turnover of bonds, transactions through the System decreased in 2006. A total of 1,173 thousand transfers with a value NT\$80,076 billion were processed by the system, compared to 1,202 thousand transfers with a total value of NT\$85,278 billion recorded in 2005.

Currently, the book-entry transactions of central government securities within a clearing bank can be made on a DVP basis while those between clearing banks cannot. To reduce the settlement risk in interbank transactions, the Bank plans to link the CGSS with the CIFS to allow clearing banks to handle these settlements on a DVP basis as well. The project is currently under development and is expected to be completed in 2007.

Declining Check Clearing by the Clearing House System

The Taiwan Clearing House (TCH) is responsible for the operation of the Check Clearing House System. The system handles the clearing and settlement of checks, promissory notes, and drafts among banks. Participants of the system include banks, credit co-operative associations, as well as credit departments of farmers' and fishermen's associations. All financial institutions in Taiwan using these facilities should hold reserve accounts at the Bank. The Bank

also participates in this System.

Both the volume and value processed by this System have been decreasing over the past few years mainly due to the growth of interbank remittance transactions. In 2006, checks and bills settled by the system amounted to NT\$23,879 billion, slightly lower than 2005. The annual clearing volume also decreased from 154,538 thousand to 149,200 thousand.

Increasing Transactions through the Interbank Remittance System

The Interbank Remittance System, launched in August 1987 and operated by the Financial Information Service Co., Ltd (FISC), is the largest retail electronic payment system in the country. This system provides remittance services to the general public, government agencies, and banks.

Credit cards and ATM (automatic teller machine) cards are the most popular payment cards in the country. The interbank settlements of credit card transactions between card-issuing banks and retail merchant's banks are mostly made by the FISC. The CD/ATM (cash dispenser/ automatic teller machine) System, which provides 24-hour cross-bank withdrawal, balance inquiry, funds transfer, credit card cash advance, and IC card loading services, is also operated by the FISC. All the participants in the IRS can join the system. In addition, the FISC handles funds transfers for on-batch payments, debit cards, electronic and mobile banking, etc.

In 2006, the FISC handled a total value of NT\$111,853 billion in funds transactions, a moderate increase of 4.4 percent from the previous year. However, the number of transactions fell from 409,193 thousand to 395,863 thousand.

Transactions of Payment Systems

Year	CBC Interbank Funds Transfer System		Central Government Securities Settlement System		TCH Check Clearing System		FISC Interbank Remittance System	
	Volume (thousand)	Value (NT\$ billion)	Volume (thousand)	Value (NT\$ billion)	Volume (thousand)	Value (NT\$ billion)	Volume (thousand)	Value (NT\$ billion)
1997	310	112,022	20	1,055	170,950	54,957	185,770	58,232
1998	379	129,513	510	17,048	171,959	53,492	215,660	63,097
1999	389	118,166	765	24,342	170,228	41,489	249,160	65,361
2000	435	134,376	1,340	46,858	175,019	40,835	292,370	79,698
2001	466	141,078	1,814	79,669	171,509	37,975	313,370	76,545
2002	443	153,467	1,446	76,368	162,791	31,985	342,230	85,245
2003	447	160,729	1,345	81,464	158,345	28,228	371,114	89,777
2004	630	193,662	1,186	75,822	159,635	26,597	396,169	104,566
2005	794	246,279	1,202	85,278	154,538	23,961	409,193	107,166
2006	817	244,683	1,173	80,076	149,200	23,879	395,863	111,853

Source: Financial Statistics Monthly, CBC.