

Market Infrastructure

Hong Kong's robust and advanced market infrastructure is a crucial factor in its position as an international financial centre. One of the HKMA's mandates is to develop and enhance this infrastructure. To this end, the HKMA embarked on a number of initiatives in 1999, including the listing of Exchange Fund Notes, the preliminary development of a US dollar clearing system and the further expansion of bilateral linkages with other central securities depositories.

Objectives

The HKMA is committed to promoting the efficiency, integrity and development of Hong Kong's financial system for the benefit of the local economy and in order to maintain its competitive edge in the international financial market. In pursuit of this objective, the HKMA has made continuous efforts to enhance the efficiency and robustness of the payment and settlement systems and to promote the development of the debt market and the secondary mortgage market.

Achievements

Interbank payment system

Hong Kong's Real Time Gross Settlement (RTGS) system continued to provide efficient and reliable settlement for interbank payments. In 1999 the RTGS system processed an average daily throughput of 12,476 CHATS¹ transactions (value \$303 bn), 190 CMU² secondary market transactions (value

1 The Clearing House Automated Transfer Systems (CHATS) is a computer-based system designed for large-value interbank payment under the RTGS system.

2 The Central Moneymarkets Unit (CMU) is a clearing system operated by the HKMA for Exchange Fund Bills and Notes and for private sector debt papers.



\$16.4 bn) and 572 intraday repo transactions (value \$32.2 bn). The processing of the four daily bulk clearings for the net settlement for stock market transactions, low-value bulk electronic payment items, paper cheques and JETCO has also been smooth. On average the processing time is nine minutes for the clearing of cheques, four minutes for stock market transactions, four minutes for low-value bulk electronic payment items and three minutes for JETCO. The Liquidity Adjustment Window, which was designed as a fall-back intraday facility for bulk clearing, was triggered only nine times. This showed that banks were generally managing their intraday liquidity reasonably well.

US dollar clearing system

In 1999, the HKMA developed a framework for implementing a US dollar clearing system in Hong Kong. The system, expected to be operational by the end of 2000, will be one of the world's most advanced offshore US dollar clearing systems, and will provide the following settlement services :

- (a) US dollar cheque clearing;
- (b) US dollar RTGS for high value payments;
- (c) Payment versus Payment (PvP) settlement for Hong Kong dollar/US dollar foreign exchange transactions through linkage with the Hong Kong dollar clearing system; and
- (d) Delivery versus Payment (DvP) settlement for US dollar-denominated debt securities and shares through linkages with the respective clearing houses.

The establishment of the US dollar clearing system will bring significant benefits. In particular, it will

- (a) enhance Hong Kong's financial infrastructure by providing finality of US dollar settlement in the Asian time zone and DvP settlement for debt securities and shares denominated in US dollars; and
- (b) enhance settlement efficiency and reduce settlement risk. The PvP link will remove the daylight credit risk of US dollar/Hong Kong dollar foreign exchange transactions and the US dollar cheque clearing facility will substantially reduce the settlement time from over two weeks to two days.

In order to ensure system robustness and to reduce the time for system development, the system infrastructure of the proven Hong Kong dollar clearing system will be replicated to support the US dollar clearing system and the settlement institution will appoint Hong Kong Interbank Clearing Limited (HKICL) as its clearing agent. All the major components of the US dollar clearing system are expected to commence operation before the end of 2000.

Debt market development in Hong Kong

The local debt market expanded further in 1999. The outstanding amount of Hong Kong dollar debt securities (including Exchange Fund Bills and Notes) increased by 6.7% from \$390.1 billion at the end of 1998 to \$416.3 billion at the end of 1999. There was a significant pick-up in debt issues by local corporate issuers, with the outstanding amount rising by 62% to



\$36.5 bn and accounting for 8.8% of the total at the end of the year. As one of the measures to strengthen the currency board arrangements, the HKMA decided in September 1998 to increase the outstanding issuance of Exchange Fund Bills and Notes only when there is an inflow of funds to provide directly corresponding foreign currency backing. Existing issues are rolled over as they mature. Some of the Bills under previous tap issues have been replaced by long dated Notes to maintain the benchmark yield curve up to 10 years. The HKMA is committed to working closely with market practitioners to promote longer-term development through improvements to market infrastructure and through other initiatives.

Note Issuance Programme for the Kowloon-Canton Railway Corporation

Following the Note Issuance Programme arranged for the Mass Transit Railway Corporation in 1995, the Airport Authority in 1997, and the Hong Kong Mortgage Corporation Limited (HKMC) in 1998, the HKMA arranged a \$10 billion Note Issuance



Mr Joseph Yam (right) and Mr K Y Yeung, KCRC Chairman and Chief Executive, officiate at the signing ceremony of the KCRC \$10 billion Note Issuance Programme on 22 April 1999.

Programme for the Kowloon-Canton Railway Corporation (KCRC) in April 1999. Under this programme, the HKMA acts as the arranger, custodian, agent and operator for the debt issues. Notes issued under this Programme are covered by the existing market making arrangements for the Exchange Fund Bills and Notes, which should assist secondary market liquidity.

Expansion of bilateral linkages between the CMU and other central securities depositories in the region

The HKMA continued to develop the network of bilateral linkages between the CMU and other central securities depositories (CSDs) in the region to facilitate cross border trading and holding of debt securities. The DvP facility also helps to reduce the settlement risk of these transactions. Following the linkages set up with Australia and New Zealand in April 1998, the CMU established a reciprocal linkage with the Korea Securities Depository (KSD) in South Korea in September 1999. The reduction in settlement risk and the improvement in settlement efficiency should enlarge the investor base of the debt markets in the economies involved.



The agreement for establishing a bilateral linkage between the HKMA's CMU and the Korea Securities Depository (KSD) is signed by Mr Joseph Yam (right) and Mr Dong-Kwan Kim, Chairman and CEO of the KSD on 7 September 1999.



Listing of Exchange Fund Notes on the Stock Exchange of Hong Kong

In August 1999 the HKMA listed all 57 outstanding issues of the Exchange Fund Notes (EFNs), with a total outstanding amount of \$34.1 bn, on the Stock Exchange of Hong Kong (SEHK). Trading of these Notes on the SEHK began on 16 August. Over time the listing is expected to enhance the secondary market liquidity of EFNs and broaden the investor base to the retail level. The mechanism developed for the EFNs has paved the way for the listing and trading of other debt securities issued by public and private corporate issuers. The HKMC followed suit with the listing of securities issued under its Note Issuance Programme, with an aggregate issue amount of \$3.5 bn, on the SEHK in October 1999.



The launching ceremony for the listing of Exchange Fund Notes held on 16 August 1999.

Using Exchange Fund Paper as margin collateral for futures, index options and stock options

With the approval of the HKMA, in March 1999 the Stock Exchange Options Clearing House Limited and the Hong Kong Futures Exchange Clearing Corporation Limited became Recognised Dealers of Exchange Fund paper. This has enabled the two clearing houses to make use of Exchange Fund paper as common margin collateral for trading in stock options and futures.

Hong Kong Mortgage Corporation Limited

Nineteen-ninety-nine was a challenging year for the banking sector as well as for the HKMC. Slow growth in the mortgage market and an intensive price war among banks slowed down the HKMC's mortgage purchase programme. Nevertheless, the corporation made progress in diversifying its activities during the year. In particular, the HKMC

- (a) launched its mortgage insurance programme (MIP) in March;
- (b) set up a guaranteed mortgage-backed securitisation (MBS) programme and arranged an inaugural MBS issue in October; and
- (c) listed all the debt securities under the HKMC's Note Issuance Programme (NIP) on the SEHK in October and introduced a user-friendly arrangement for retail investors to bid for the NIP notes.



Under the MIP, the HKMC provides insurance cover at a fee to Approved Sellers for an amount up to 15% of the property value. This has allowed the banks to lend up to 85% loan-to-value ratio without taking on additional risks. Up to the end of December 1999, the HKMC approved 1,979 applications with a total mortgage loan amount of \$4.1 billion.

The total insured amount of these approved loans is \$729 million.

The back-to-back structure of the pilot scheme of the MBS programme provides the banks with a useful balance sheet management tool, allowing them the flexibility of liquefying their residential mortgage loan portfolio while continuing to enjoy the bulk of the interest income from the mortgage loans' cashflows if they hold the mortgages in their investment portfolio. Following the inaugural issue of \$1 billion arranged for Dao Heng Bank in October, the HKMC closed another deal, of \$630 million, with American Express Bank in December. With the experience gained from these inaugural schemes, the HKMC will explore further opportunities for issuing MBS under different structures in its efforts to foster the development of an active MBS market in Hong Kong.

The listing of securities under the NIP on the Stock Exchange will serve to broaden the Corporation's investor base by encouraging the participation of retail investors.

The HKMC's profit after tax for the year amounted to \$271 million (155% more than in 1998). This produced a return on monthly average shareholder's equity of 12.1% and a return on monthly average assets of 2.5%. The cost-to-income ratio was kept at a low level of 21.9%. The capital-to-assets ratio was 10.1%.

Challenges

Further improvements in the payment system

The HKMA is undertaking a number of initiatives to further enhance the efficiency and robustness of the payment system. It is developing a cross-currency payment matching processor, which is a software to facilitate the development of the Payment versus Payment (PvP) facility. This facility will effectively relieve settlement risk, commonly known as Herstatt risk, arising from foreign exchange transactions.

With the successful introduction of the Joint Cheque Clearing Facility with Shenzhen, the HKMA is studying the possibility of extending the Facility to other cities in Mainland China where there may be a significant need to clear Hong Kong dollar cheques.



US dollar clearing system

The US dollar clearing system will be a major focus for 2000. In line with international practice, a commercial bank will be appointed as settlement institution for the system. The system is scheduled to be launched in phases starting from the third quarter of 2000.

Development of the debt market

The Asian financial turmoil has underscored the need for a mature debt market to diversify funding sources and to reduce maturity mismatch by channelling long-term savings to long-term investments. The current interest rate environment is also conducive to an expansion of the investor base, especially among retail investors. In meeting the challenges of debt market development, the HKMA continues to pursue a number of initiatives to further improve the market infrastructure and expand the investor base.

Following the successful link-up with the CSDs in Australia, New Zealand and South Korea, the HKMA is discussing with Mainland authorities the possible establishment of a bilateral linkage with the Government Securities Book-entry System, a clearing system of debt securities operated by the China Government Securities Depository Trust & Clearing Co. Ltd.

The HKMC's Mortgage-backed Securitisation Programme

Following the successful launch of its back-to-back MBS Programme in 1999, the HKMC plans to arrange additional issues under the Programme in order to enhance the depth of the MBS market in Hong Kong. Active steps will also be taken to improve the liquidity of the MBS in the secondary market through strengthening the market making system. If market conditions permit, the HKMC will also explore the feasibility of introducing other MBS products that directly target end investors.

