

Pilot Platform for Cross-border Investment and Settlement of Debt Securities

by the Financial Infrastructure Department

In recent years, the Hong Kong Monetary Authority has been focusing on the development of the Asian bond market, including the development of cross-border infrastructure to improve the settlement efficiency of debt securities and to strengthen the capacity for debt issuance activities in the region. As a result, the HKMA, Bank Negara Malaysia (BNM) and Euroclear Bank (Euroclear) have recently launched a pilot platform for cross-border investment and settlement of debt securities (Pilot Platform). The platform advances the important policy objectives of fostering the bond market and promoting financial stability both at the regional and global levels. This article explains the background, services offered and possible business opportunities encouraged by the Pilot Platform.

Background

In 2008, a task force of the Pan Asian Central Securities Depositories Alliance was formed to enhance the development of Asian bond markets. The task force comprised representatives of the HKMA, the BNM and Euroclear, as early movers, and Bank Indonesia and Bank of Thailand as observers. Following a series of meetings, the task force issued in 2010 a White Paper entitled *Common Platform Model for Asian Post-trade Processing Infrastructure*. The paper laid out a blueprint for the long-term development of a post-trade cross-border clearing and settlement infrastructure for debt securities in Asia. As the introduction of harmonised processes and common systems in Asia required considerable time and effort, it was decided to launch the Pilot Platform on 30 March 2012 to realise some early benefits and to facilitate the long-term gradual migration to a common post-trade infrastructure in Asia.

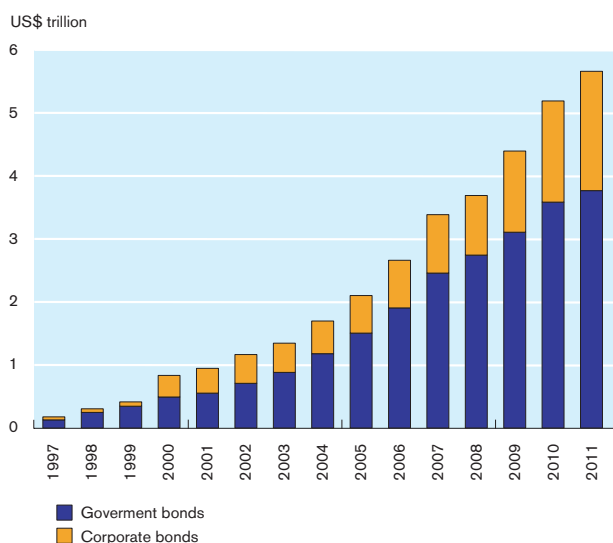
The changing landscape of Asian bond markets

Since the Asian Financial Crisis in 1997/1998, policymakers in the region have recognised the need for advancing and deepening Asian bond markets, which were generally underdeveloped and unattractive to foreign investors. With significant efforts by governments in the region, Asian bond markets have been growing considerably since the late 1990s. According to AsianBondsOnline¹ statistics, the outstanding amount of local currency bonds (excluding Japan) has now exceeded US\$5.6 trillion, compared with less than US\$0.2 trillion at the end of 1997 (Chart 1). While the local currency bonds to GDP ratios in Asian bond markets (excluding Japan) are still diverse and far lower than those in advanced economies, the ratios have generally increased by 20 percentage points during the past decade to over 50%.

¹ AsianBondsOnline (<http://asianbondsonline.adb.org>) is part of the Asia Bond Market Initiative (ABMI). It is a one-stop clearinghouse of information on sovereign and corporate bonds.

CHART 1

Total outstanding amount of local currency Asian bond markets (excluding Japan)



Source: AsianBondsOnline.

As Asian bond markets continue to grow, there are still a number of supply and demand limitations that have hindered their development. These include the infrequent and small issue-size of government bonds due to the healthy fiscal positions of the public sector, corporations' reliance on bank loans and equity markets for financing, regulatory restrictions on foreign investments, a lack of recognised methods for rating Asian bonds, inadequate benchmark yield curves, and an inefficient post-trade infrastructure, such as market fragmentation as well as insufficient automation and harmonisation of post-trade processes.

Despite this, the Asian financial markets landscape continues to change with strong demand- and supply-side factors emerging to present tremendous opportunities for further advancement of Asian bond markets. On the international front, investors are increasingly focusing their attention on bond markets in Asia for a more diversified allocation of financial resources across borders in view of Asia's favourable economic prospects, as opposed to the volatility, sovereign debt issues and on-going fiscal and economic challenges in Western economies. Indeed, Asia has become an engine for global growth, supplemented with increasing sophistication of its

financial markets. In tandem with the heightened interest from global investors, there are strong demand-side factors from within the region. With the size of savings in Asia easily totalling up to 35% of GDP, coupled with huge foreign reserves, there is increasing intra-regional demand to channel these savings into long term investments. As such, the volume of intra-regional trade will intensify and accelerate financial flows within Asia.

Supply-side factors are also highly favourable, leading to a robust increase in debt issuance activities in Asia with the emergence of new and attractive bond asset classes, including renminbi dim sum bonds in Hong Kong and sukuk in Malaysia. Both of these products have seen remarkable growth over the past few years. Within the Hong Kong bond market, the renminbi portfolio has expanded greatly, including renminbi bonds issued by the PRC's Ministry of Finance and multinational organisations, as well as Mainland and local companies. The annual issuance of renminbi debt securities lodged with the Central Moneymarkets Unit (CMU) in Hong Kong increased 16-fold in four years to RMB172 billion in 2011; while the annual turnover of renminbi bonds expanded over the same period to RMB483 billion, a 36-fold increase. The primary market for renminbi bonds continues to grow with the issuance of renminbi debt securities lodged with the CMU reaching RMB66 billion in the first three months of 2012. There has also been encouraging developments in Malaysia's sukuk market, the symbol of Islamic financing. The amount of outstanding sukuk in Malaysia increased substantially from MYR146 billion (US\$41.3 billion equivalent) at the end of 2006 to MYR361 billion (US\$113.9 billion equivalent) at the end of 2011.

Favourable developments in Asian financial markets present excellent opportunities for the continuing expansion and deepening of Asian bond markets. The launch of the Pilot Platform and the implementation of the add-on services will further accelerate the development and growth of bond markets.

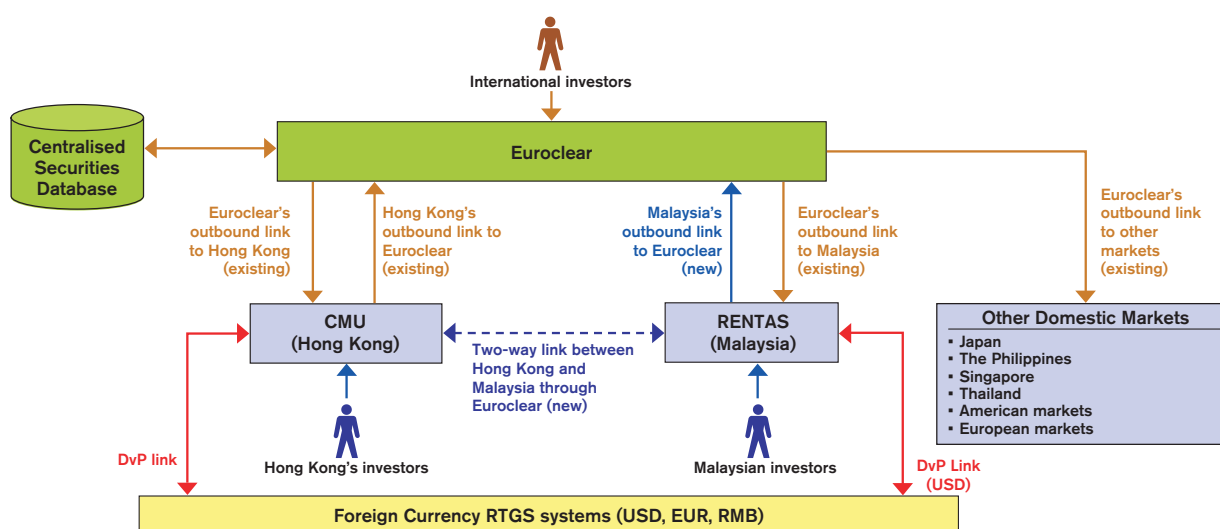
The Pilot Platform

In ensuring time-to-market and maximising the benefits of the present infrastructure, the design of the Pilot Platform aims to optimise existing linkages between the HKMA's CMU², BNM's RENTAS³ and Euroclear, and the connections between local central securities depositories (CSDs) and foreign currency Real Time Gross Settlement (RTGS) systems in Hong Kong. Chart 2 illustrates an overview of the Pilot Platform. Apart from using the existing infrastructure, the Pilot Platform also includes new developments, such as the outbound link from RENTAS to Euroclear and the two-way link between the CMU and RENTAS through Euroclear, as well as two add-on services which will be implemented gradually in a phased approach (the details of these are set out in subsequent sections).

Through the Pilot Platform, investors will be able to obtain international and domestic securities information from a centralised database managed by Euroclear and invest in more than 300,000 issues of bonds through their existing accounts with the CMU, RENTAS and Euroclear. Local investors can hold and settle foreign debt securities and settle cross-border transactions denominated in both local and major foreign currencies (US dollar, renminbi and euro) on a delivery-versus-payment (DvP) basis within the Asian time zone; and vice versa for foreign investors. Leveraging on the linkages, for instance, the CMU and RENTAS will provide convenient access to renminbi dim sum bonds and Malaysian sukuku respectively for global investors through their accounts with Euroclear. Euroclear investors will also benefit from the platform's connection to the fast expanding and wealthy investor base in greater China, Southeast Asia and the Islamic world.

CHART 2

Overview of the Pilot Platform



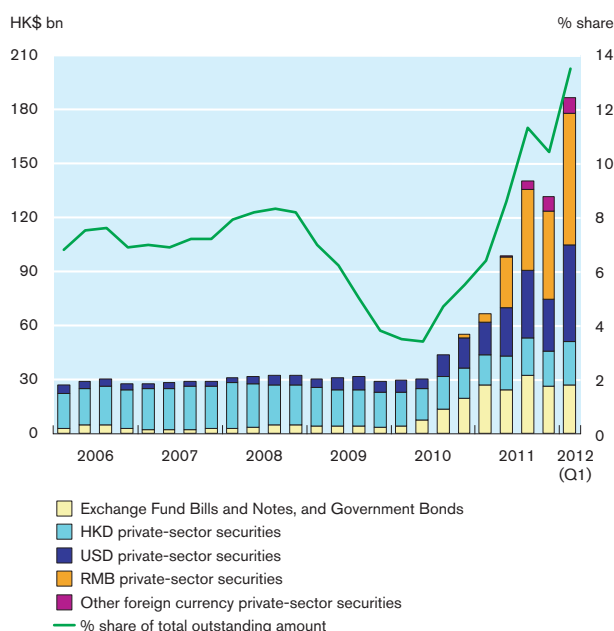
² CMU is the debt securities clearing, settlement and custodian system in Hong Kong operated by the HKMA.

³ RENTAS comprises a Real Time Gross Settlement system used primarily for high-value interbank payments and a debt securities settlement and depository system in Malaysia. It is owned by BNM and operated by BNM's wholly-owned subsidiary, Malaysian Electronic Clearing Corporation Sdn Bhd (MyClear).

While some time may be needed to prove the acceptance of the Pilot Platform, the increasing traffic of the existing CSD/International CSD (ICSD) linkages, which form part of the platform's infrastructure, may provide some insight. The links from the two ICSDs to the CMU, which enable international investors to hold and settle debt securities lodged with the CMU, were established in 1994. The amount of CMU debt securities held by international investors through these ICSD links was relatively steady at around HK\$30 billion until the second quarter of 2010 (Chart 3). However, there has been significant change since then. The holding amount surged from HK\$30.3 billion at the end of the second quarter of 2010 to HK\$186.6 billion at the end of the first quarter of 2012, representing a six-fold increase in seven quarters. During the same period, the percentage share of international investors in holding CMU debt securities through the ICSD links increased from 3.4% to 13.5%.

CHART 3

CMU debt securities held by international investors through ICSDs' outbound links to CMU



A number of developments contributed to this sudden growth. First, following the onset of the European sovereign debt crisis in the second quarter of 2010, which triggered a new wave of de-risking activities, the amount of Exchange Fund paper held by foreign investors through the ICSD links increased by 280%, from HK\$7.1 billion to HK\$27.0 billion, between the third quarter of 2010 and the first quarter of 2012, as Exchange Fund paper is generally regarded as flight-to-quality government securities.

Secondly, following the further liberation of the offshore renminbi market in July 2010, renminbi funds are allowed to be freely converted and transferred within the offshore renminbi market. Both local and foreign issuers are also allowed to raise renminbi funding through the issuance of renminbi bonds in the offshore market. As a result, the amount of renminbi bonds held by international investors through the ICSD links increased rapidly from zero to HK\$73.0 billion during the same period.

Thirdly, as the hedging costs for swapping Hong Kong dollars to US dollars have remained at a high level since 2008⁴, many issuers changed their funding strategy by issuing US dollar debt and other foreign currency debts directly in Hong Kong, instead of using Hong Kong dollars as a funding currency. This in turn attracted more foreign investors buying foreign currency debt issued in Hong Kong. The outstanding amount of non-renminbi foreign currency debt securities lodged with the CMU increased from HK\$15.4 billion at the end of the second quarter of 2010 to HK\$84.6 billion at the end of the first quarter of 2012, of which 74%, or HK\$62.4 billion, was held by international investors through the ICSD links.

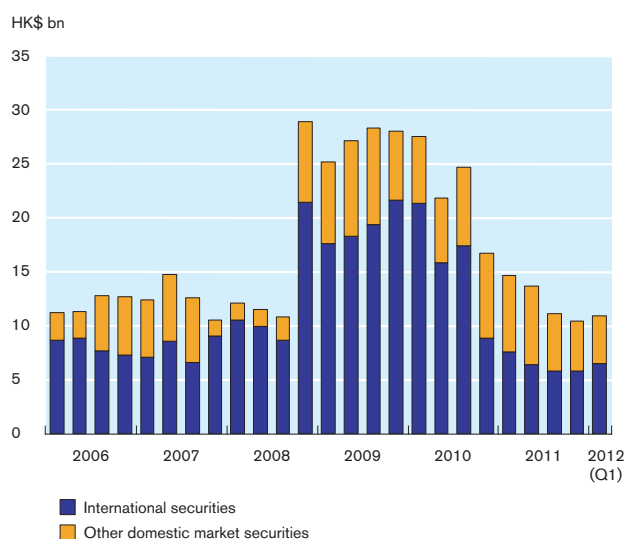
To supplement the inbound links from ICSDs, the HKMA launched in 2002 the automated outbound links to the two ICSDs, which facilitate Hong Kong

⁴ See "The Hong Kong debt market in 2010", *HKMA Quarterly Bulletin*, March 2011.

investors to hold and settle international and other domestic market debt securities. The outbound links to ICSDs have been very effective in maintaining financial stability in Hong Kong. In particular, during the global financial crisis in 2008, the HKMA implemented five temporary measures to provide liquidity assistance to licensed banks in Hong Kong to ensure adequate liquidity within the banking system and to ease pressure in Hong Kong's interbank market. Among the temporary measures, the HKMA accepted good quality US dollar securities as eligible collateral for providing real-time liquidity to licensed banks through the discount window. This enabled licensed banks, through the outbound links to ICSDs, to hold US dollar securities such as US Treasuries in their accounts with the CMU and obtain real-time funding, if necessary, by entering into repo transactions with the HKMA through the CMU system. This arrangement was well received by the licensed banks. The amount of foreign securities held through the outbound links to ICSDs surged from around HK\$10 billion to HK\$30 billion during the fourth quarter of 2008, and returned to the pre-crisis level in subsequent months (Chart 4). This is just one example of how an efficient and robust cross-border financial infrastructure is a powerful tool to enhance financial stability, particularly in times of stress.

CHART 4

Holding of foreign securities by Hong Kong investors through CMU's outbound links to ICSDs



The Pilot Platform signifies an important step for Asian bond markets as it facilitates cross-border investment activities in Asia, attracts more international investments into Asian markets and deepens the liquidity of the Asian bond market. In the context of Hong Kong, the Pilot Platform addresses the needs of the financial market for a more efficient cross-border trading and settlement of renminbi bonds issued in Hong Kong and reinforces the city's role as the premier offshore renminbi centre. To date, the Pilot Platform has recorded some significant cross-border transactions in relation to renminbi dim sum bonds conducted between international investors and local players. The Malaysian Electronic Clearing Corporation Sdn Bhd (MyClear), the clearing house of Malaysia, is also actively engaging prospective participants of the Pilot Platform. The task force anticipates more of these investment flows to be generated and channelled into Asian bond markets through the Platform.

Benefits of the Pilot Platform

- Improved securities information with an enriched securities database
- Enhanced visibility of Asian domestic bonds for prospective international investors through the centralised database
- Provision of a single point of entry for financial institutions to access international and domestic securities through their local CSDs
- Improved cross-border access for global and domestic investors: local investors can buy and hold foreign securities and settle cross-border transactions on a DvP basis; foreign investors can buy, hold and settle domestic securities on a DvP basis
- Facilitating the issuance of local bonds in foreign currencies

Cross-border collateral management service

As a continued improvement process, more services will be added to the Pilot Platform to help it gradually migrate to the Common Platform.

One of the first is the cross-border collateral management service, which will be launched by the end of June 2012 to cater for the increasing need for secured lending in the current financial environment among economies in the same and different time zones. After the global financial crisis, central banks saw the growing need to develop cross-border collateral management and repo facilities to increase liquidity in financial markets and enhance financial stability through the reduction of counterparty credit risk exposure. While local banks normally have abundant domestic liquidity, the current global tripartite repo systems have not yet been fully utilised for such purposes to bring international participants (normally the collateral giver) and Asian domestic participants (normally the liquidity provider for domestic currencies) to the same platform to facilitate repo transactions. The gap is mainly due to the limited access of domestic participants to these global systems.

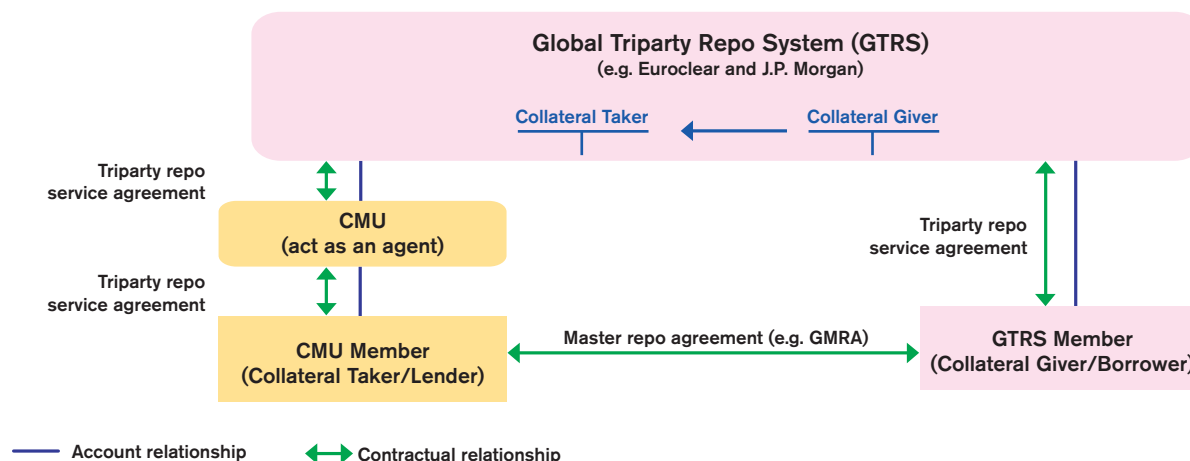
Repo markets in Asia are generally underdeveloped and less mature than repo markets in Western economies. While repo markets in the US and Europe represent between 60% and 70% of GDP,

the ratio is only 8% and 1.7% of GDP for Asia and Asia ex-Japan respectively. The growth potential of repo markets in Asia is, therefore, very significant. The HKMA has worked with two global tripartite repo system providers, Euroclear and J.P. Morgan, to introduce a cross-border collateral management service to the Pilot Platform, which can handle cross-system, cross-currency, cross-timezone repo transactions.

Chart 5 illustrates the work flow of the cross-border collateral management service. To enable domestic liquidity providers to participate in the global tripartite repo systems, the CMU, as a member of the global systems of Euroclear and J.P. Morgan, acts as an agent and extends the repo services to its members, where some of them are domestic liquidity providers. These CMU members are able to accept a broad range of international securities lodged with the global systems as collateral while international financial institutions, by entering into repo financing transactions with such CMU members, can gain access to liquidity of, say, Hong Kong dollars and renminbi in Hong Kong. To utilise this service, international and domestic participants are required to enter into master repo agreements, which form the basis of their transactions. A range of security types and eligibility criteria, such as credit rating, issuer and concentration limits, are supported by the cross-border collateral management service provided by the two global tripartite repo systems.

CHART 5

Components of the cross-border collateral management service



In order to increase settlement efficiency and ensure prompt delivery of liquidity, a DvP link will be implemented for the cross-border collateral management service in the first half of 2013 (Chart 6). This will allow the securities leg of the repo transaction to take place in the global systems where foreign securities are held, while the cash leg of the repo transaction is settled in the RTGS system of the domestic market, in a simultaneous co-ordinated manner. The DvP arrangement aims to cover Hong Kong dollars, US dollars, renminbi and euro through the link up with the four RTGS systems in Hong Kong. Participants can also settle repo transactions for other currencies by making use of correspondent banks to handle the fund transfer.

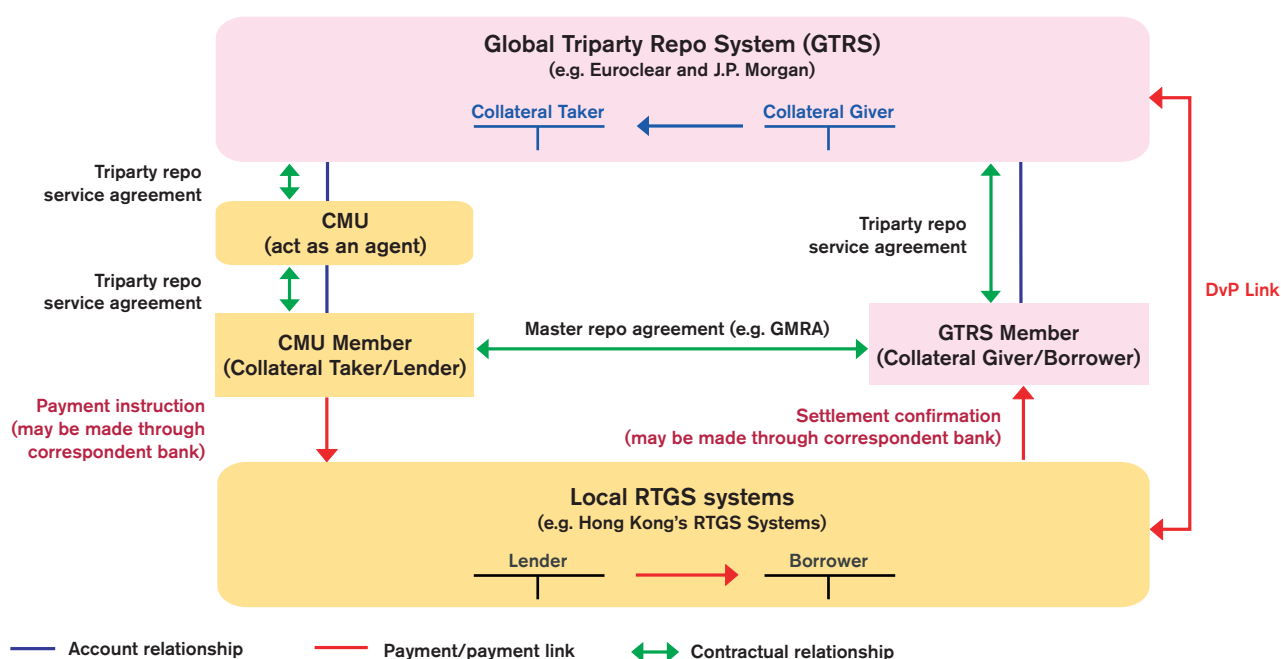
The HKMA and the two global tripartite repo systems have initiated talks with over 30 banks in Hong Kong, some of which have indicated interest in utilising the service and are in the process of finalising the terms of trade and legal agreements with their potential counterparties. In general, broker dealers and local banks in Hong Kong see the benefits of such a service and the business opportunities for repo financing.

Benefits of the cross-border collateral management service

- Provision of additional channels for collateralised lending
- Enhancing financial institutions' ability to obtain local currency liquidity, particularly in times of stress
- Improved efficiency in the operation of money markets
- Improved transparency in repo markets
- More efficient mobilisation of securities deposited in ICSDs and global custodians as collateral in domestic markets
- Facilitating optimum utilisation of local liquidity
- Improved settlement efficiency of repo transactions entered into between domestic and international financial institutions

CHART 6

Cross-border collateral management service with DvP link



Corporate Action Platform

Another add-on service being developed for the Pilot Platform is the Corporate Action Platform, which aims to enhance the efficiency of processing corporate involvement in Asian bond markets. At present, many CSDs in the region have not implemented centralised databases for securities and corporate actions. Corporate action announcements and the execution of custody instructions are normally processed by individual paying agents appointed by issuers without any central co-ordination. Corporate action processes, like payments of income and redemptions, announcements of corporate events and execution of custody instructions, are not harmonised and often involve manual-intensive processes. Such deficiencies adversely affect the efficiency of CSDs in Asia and inevitably increase their operational risks.

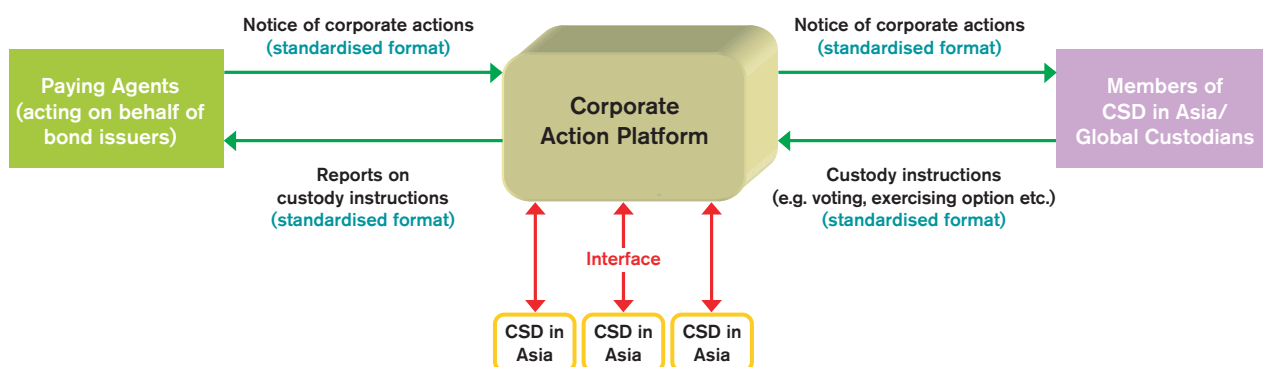
To address these concerns and increase efficiency in processing corporate actions in Asian bond markets, it is necessary to develop measures that will improve communications and linkages among paying agents, Asian CSDs and their members, thereby streamlining, standardising and automating some of the processes. The proposed Corporate Action Platform will initially be implemented by the HKMA

with technical support provided by Euroclear. The framework of the platform's interface and functions is illustrated in Chart 7. Local CSDs in Asia can connect to the platform for processing corporate actions if they consider participating in the Pilot Platform. The core function of the platform is to standardise and facilitate communications between Asian CSDs and their members through standardised message formats and distribution channels in processing corporate actions. The management of business operations and member interfaces will continue to be performed by individual Asian CSDs.

Regionally, this framework promotes standardisation across Asian markets by standardising the distribution channel for bond issuers to disseminate corporate action information to bond holders, as well as the format used for communication between Asian CSDs and their members. CSDs will be better positioned to handle complex and high volumes of corporate actions for a wider range of debt instruments. With increased automation and the enhanced function of the local CSDs, the platform will also attract a variety of debt instruments including convertible bonds and corporate bonds (for example, renminbi bonds, structured bonds, notes and other debt securities) to be lodged in the local CSDs.

CHART 7

Framework of the Corporate Action Platform



Benefits of the Corporate Action Platform

- Facilitating the handling of more complex and a higher volume of corporate actions by the CSDs
- Attracting a greater variety of debt instruments to be lodged in the local CSDs, for example, sukuks, renminbi dim sum bonds and convertible bonds
- Promoting standardisation across Asian markets
- Improved efficiency and a reduction in operational risks

Looking ahead

The Pilot Platform will enhance cross-border debt securities settlement efficiency and strengthen the capacity for debt securities issuance in Asia. It fulfils an important policy objective to foster greater monetary and financial stability and the further development of the capital market. The HKMA will continue to work closely with BNM and Euroclear to leverage on the competitive advantage of the Asian economy to facilitate further development of the Pilot Platform and the deepening of Asian bond markets. In particular, the strategic alliance will maintain promotion of the Pilot Platform to other central banks and securities settlement systems in the region. As more parties join the alliance and provide further impetus and support, the Asian region will benefit from an increasingly mature and deepening bond market and the longstanding financial stability of local and partner economies.