The Case for a China Mortgage Corporation

By Andrew Sheng, Tan Wai Kuen and Chung Chee Leong

Prior to the economic reforms in China that began in 1978, all land was publicly owned and the legal status on private ownership was unclear, but there were usage rights. All residential properties were state-owned and allocated to occupants by the government at low rent. From 1988, an amendment to the Constitution allowed for land transactions and the leasing of housing for 50 to 70 years, thus enabling home ownership that saw rapid growth in the demand and supply of housing over the next 2½ decades.

In the late 1990s, the sale of residential units to civil servants and state owned enterprise employees at below market prices was a huge wealth transfer that created middle-class home ownership. By 2013, urbanization had reached 50 percent of the population and in urban areas, the official statistics suggest that the home ownership rate has already reached 80 percent, higher than the rate of many developed economies like the United States, which averaged around 70 percent.

The reason why residential property is so popular is that as an investment, it provided the best return on capital, with the residential property price rising from RMB 1,807 per sq. m. in 1998 to 5,430 per sq. m. in 2012. Over the same period, the accumulated built up area of residential property from 2008 to 2012 was 10.4 billion sq.m., and the total value rose to RMB 127 trillion or 245 percent of GDP at the end of 2012. The total amount of mortgage lending by banks was RMB 8.2 trillion at the end of 2012, and compared with underlying value of RMB 127 trillion of property as collateral, the credit quality of residential mortgages is likely to be good, although there may be individual cases of default.

The problem is more one of housing affordability for the younger population that are entering the urban job market. Hence, mortgage securitization is one way of addressing the liquidity mismatch in the banking system and also helping to reduce the monthly repayments through extending the maturity and/or providing new instruments, such as fixed rate mortgages.

Residential property purchases in China are currently funded by two main sources: the bulk comes from bank lending and a second source is Housing Provident Funds.

1 The authors are respectively President of the Fung Global Institute and a founding member of the Malaysian Mortgage Corporation (Cagamas) and Hong Kong Mortgage Corporation, former CEO of Cagamas and current CEO of Cagamas. The authors are grateful to Ms Jodie Hu and Mr. Ng Chow Soon for research assistance and comments. All errors and omission are personal to the authors.

2 The homeownership rate published by the Ministry of Construction and the Chinese National Bureau of Statistics refers to the percentage of residential properties that are privately owned.
Residential mortgages have grown steadily since the late 1990s to around RMB8.3 trillion in 2012 or 13 percent of total bank loans and 16 percent of GDP. As the secondary mortgage market in China has not been developed, the banks have not been able to securitize these mortgages, which remain in their bank books. As a result, the Chinese banking system is faced with a growing maturity mismatch in its balance sheets. The bulk of the deposits of the banking system is less than one year, whereas the maturity of the mortgage loans today has risen to as long as 30 years.

Furthermore, there is growing pressure for local governments to invest in long-term infrastructure and therefore the maturity structure of the asset side of the balance sheet of the banking system is lengthening. Furthermore, Basel III rules have added risk-weights to assets for long-term maturity, so that there is need to address the liquidity and maturity structure of bank assets urgently.

This paper examines the need for a secondary mortgage market in China to address the growing maturity mismatch in the banking system. All banks suffer from a structural maturity mismatch due to their reliance on short-term deposits (mostly under one year) or wholesale inter-bank funds to finance long-term projects, bonds and mortgages. This maturity mismatch problem is exacerbated in most emerging markets, where the demographic dividend from a young population and greater urbanization has made mortgage lending a profitable business for banks and carried relatively low risks.

As the population ages and real estate prices increase, the credit risk, liquidity risk and maturity mismatch borne by banks also increase. Hence, in many advanced and some emerging markets, the authorities have actively developed the secondary mortgage market to securitize mortgages as a way to develop robust housing finance systems. By packaging mortgages into various types of mortgage-related securities, these are sold to long-term funds and asset managers, so that the maturity mismatch is reduced and the portfolio diversified.

The secondary mortgage market has three functions. The first is to reduce the maturity mismatch in the banking system. The second is to assist asset securitization and deepen the capital market. The third is to help extend the mortgage maturity and introduce new mortgage innovations so that house-buyers can afford to buy with longer maturity (higher affordability) and also introduce new products, such as fixed rate mortgages.

Historically, there are two types of mortgage securitization models in the advanced markets.

- The first is the Fannie Mae and Freddie Mac model in the United States, where the two are government sponsored enterprises (GSEs) that provided the bulk of housing finance in the country by packaging long-term mortgages into collateralized debt obligations for resale into the market without recourse to the initial borrower or the origination bank. Their dominant role in the mortgage market, supported to an extent by an implicit government guarantee on their operations, was further reinforced by an amendment to their charter in 1992 that encouraged them to facilitate the
financing of housing for low and moderate income borrowers. Under pressure to retain market share in the face of growing competition from competing mortgage lenders, there was a decline in lending standards and both Fannie Mae and Freddie Mac collapsed in the face of the subprime mortgage crisis in the United States in 2008. Both institutions required government guarantee and rescue in order to keep the mortgage market going.

- The second type of asset securitization is the Pfandbrief or “covered bond model” that is widely adopted in Europe. From its early beginnings, the Pfandbrief in Germany has evolved into a triple-A rated bond system that collateralizes long term assets such as property mortgages or public sector loans. Essentially, Pfandbrief are covered bonds that are backed by cash flows from mortgages or public sector loans with one important enhancement, namely, the bondholders have recourse to a pool of assets that “covers” the bond if the originator (usually a financial institution) becomes insolvent. Unlike asset-backed securities created by securitization (which moves the ownership of the mortgage to the buyer and are therefore taken off the balance sheet of the selling bank), covered bonds keep the underlying assets on the issuer’s balance sheet. While not treated as true securitization, covered bonds have become the largest source of housing finance throughout most of Europe. As at the end of 2011, total outstanding mortgage-backed covered bonds issued in 19 EU countries amounted to €1,822 billion, more than fourfold larger than the level of €410 billion at the end of 2000. The soundness of covered bonds and its lower cost features have led to global interest in this as a model of mortgage finance.

In Asia, where banks are traditionally the dominant provider of housing finance, Malaysia and Hong Kong were the first to strengthen the housing market. Cagamas Berhad and the Hong Kong Mortgage Corporation (HKMC) were established in 1986 and 1997, respectively to reduce the maturity mismatch problem inherent in banks and to provide banks with liquidity. Both Cagamas and HKMC operate in slightly different ways, but fundamentally their schemes are to purchase pools of eligible housing loans from banks and other originators with full recourse. Essentially, both institutions operate a covered bond model. These do not suffer from the defect of the US model, which had “no recourse” and the quality of assets were not properly examined due to lack of due diligence.

The mortgage backed securities issued by Cagamas and HKMC have successfully promoted the development of their domestic private debt securities markets. Both institutions have higher underwriting standards, and because there is full recourse, the “selling” banks also have commitment to ensure that the quality of mortgages are high.

Besides promoting homeownership, both Cagamas and the HKMC have introduced mortgage guarantee programmes and this feature has provided the foundations for the development of innovative schemes to securitize the loans of small and medium enterprises (SMEs).

An important, but understated, function is the role of secondary mortgage corporations as lender-of-second resort during a financial crisis. Given the high transparency of markets,
when banks start borrowing from a central bank during a liquidity crisis, there is risk that this could be interpreted as a sign of trouble. Because mortgage re-financing is normal course of business, a bank in need of liquidity can raise cash quickly and discreetly by selling mortgages to the secondary mortgage corporation. This proved very useful during the Asian financial crisis in the case of Hong Kong.

Since its establishment 25 years ago, Cagamas has cumulatively purchased housing loans and Islamic house financing in the secondary market equivalent to RM104 billion (US$32 billion) for the financing of 1.7 million houses. As at the end of 2012, Cagamas remains as the largest and leading issuer of private debt securities (PDS) in Malaysia, making up 9 percent of Malaysia’s current outstanding PDS and an even higher 22 percent of the country’s outstanding AAA-rated corporate debt securities. Cagamas is also the leading issuer of Islamic bonds in Malaysia’s Islamic capital market.

Likewise, the HKMC is also the most active corporate debt issuer in the Hong Kong dollar debt market and has consistently maintained its credit ratings of AAA from Standard and Poor’s and Aa1 from Moody’s. The total amount of debt securities (notes and bonds under various institutional and retail investor programmes) outstanding as at 31 December 2012 was HK$36.6 billion. HKMC’s Mortgage Insurance Programme (MIP) has helped more than 103,000 families to buy their own homes since 1999. More details of the Cagamas and HKMC models and their achievements are provided in Appendices 1 and 2.

Secondary mortgage markets have been successfully established in different countries, taking various forms to suit indigenous needs. Interest in secondary mortgage mechanisms is continuing to grow as governments in emerging economies are beginning to recognize the potential of getting private investors to fund the primary mortgage market through the securitization of mortgage assets.

China’s efforts to rebalance its economy through financial reform will have to contend with the dominance of bank lending. Currently, banks account for 255 percent of GDP, whereas the long-term pension and insurance funds account for less than 20 percent of GDP. There should be a priority to develop long-term institutional funds in China, so that these long-term funds would be able to hold long-term assets, such as long-term mortgages, without maturity mismatch risks. In other words, the system becomes more balanced through asset securitization, by moving long-term assets to long-term fund managers.

With indications of the Chinese economy moving towards a more sustainable growth path, the future robustness of the property sector rests not on administrative measures alone to control housing prices but also requires a reform of the credit infrastructure to develop the capability to strike a balance between credit growth and quality of lending for housing.

Systemic stability of the financial system is necessary when the government is committed to market-based reforms with gradual interest rate liberalization and opening up of the
capital account. Banks need to manage their assets and liabilities better and there are already significant pilot studies on asset securitization. It is, therefore timely for China to establish a secondary mortgage market through the establishment of a China Mortgage Corporation, or given the size of the economy, there can be more than one.

As in all developed and developing countries, housing investment is a major driver of economic growth that comes along with strong multiplier effects. Currently, China’s mortgage market is small, with home mortgage loans accounting for only 16 percent of GDP in 2012. Some of the factors hindering growth of the mortgage market are:

- Mortgage lending is dominated by state-owned commercial banks that tend to favour large state-owned enterprises in their operations.
- Banks prefer to offer loans for new housing, leaving the market for old housing with limited recourse to finance for restoration and upgrades.
- A mismatch exists between property registration and mortgage policies.
- Banks place a lien on real estate developers when buyers default on loans.

A relevant question is whether the creation of mortgage securitization would repeat the problems of Fannie Mae and Freddie Mac in China. The answer is that if China adopts the covered bond model, this is unlikely to happen. There are three conditions for the success of a secondary mortgage market in China:

1. The process of securitization should be highly transparent, with details of each mortgage security fully disclosed and registered, with the mortgage corporation doing due diligence on the quality of mortgages purchased.
2. The banks or originators that sell these mortgages retain “skin in the game”, with a commitment to replace non-performing mortgages up a certain value.
3. The rules and regulations on asset securitization and trading of such assets are drafted to international standards, including accounting standards. This should be done at the outset, as mortgage securities, like the US mortgage market and the Pfandbrief market eventually became global markets.

To conclude, introduction of a secondary mortgage market in China at this juncture will be timely to help manage the maturity mismatch in the banking system, improve institutionalization and deepening of the capital market, and help to inject discipline into the property market.

Delays in introduction of the secondary mortgage market would make monetary policy and financial oversight more complex, as it is vital that these are institutional mechanisms to help the capital market achieve systemic stability.

However, certain fundamentals must be in place for mortgage securitization to be efficient, the foremost amongst others being:

- A stable macroeconomic environment to foster quality mortgage assets in the primary market and robust growth in demand for housing;
• A legal framework which allows transfers or assignments of receivables without cumbersome procedures concerning prior consent of the borrower. Equally important are bankruptcy laws which safeguard investors holding mortgage-backed securities;
• A regulatory regime which builds liquidity in the primary and secondary markets and serves to minimize transaction costs and taxes in the bond market through standards in documentation, information dissemination and clearing/settlement.
Appendix 1

The Cagamas Model

Cagamas (Malaysia’ National Mortgage Corporation) was established by Bank Negara Malaysia in 1986 as part of a national plan to promote homeownership through a liquid funding system that will help financial institutions to overcome the maturity mismatch in their financial position when they use short term deposits to finance long term housing loans. In 1986, the Malaysian economy was just beginning to emerge from a recession and incentives were accorded to the construction sector, including housing, to stimulate economic growth. Given the legal constraints in effecting a true transfer of property rights in Malaysia’s real estate laws, Cagamas adopted the simpler form of purchasing housing loans from their originators with full recourse and to issue unsecured bearer bonds backed by pools of housing loans.

This mechanism was not considered true securitization but in the Malaysian context, it was a feasible interim step towards the development of a secondary mortgage market for the following reasons:

- There was then a lack of statistics and a track record of loans performance to fulfill rating agency requirements in assessing the credit risks inherent in “pass through” securitization.
- For the primary lenders, which were commercial banks, finance companies and the Government Housing Loan Division, liquidity was an issue, not capital adequacy.
- For the loan originators, selling their housing loans to Cagamas at fixed rate or floating rate with options for periodic review, enabled them to eliminate both their liquidity and interest risks.
- For a start, the longer term Cagamas bonds (mainly of three and five-year maturities) as well as the shorter term Cagamas notes (of less than one-year) helped to fill a void in the market for institutional investors (which included financial institutions, insurance companies and pension funds).

Due to the good track record and high credit standing of Cagamas, all long and short-term debt securities issued by the company have consistently been rated AAA by two Malaysian rating agencies (RAM and MARC). This has enabled Cagamas to raise funds at low cost for on-lending to house buyers.

Over the last 25 years, Cagamas has contributed to the building of a sustainable housing finance system in Malaysia by continuously innovating its business model to meet the liquidity and capital needs of financial institutions. It now has a wide product base that offers Purchase with Recourse (PWR) as a liquidity model and Purchase without Recourse (PWOR) as a securitization model for both conventional housing loans and Islamic housing finance. In addition, it has introduced a mortgage guarantee program as a risk management tool for financial institutions (see Figure 1).
The World Bank has acknowledged the success of Cagamas in providing liquidity to financial institutions to fund home ownership at reasonable cost. From an initial purchase of conventional mortgages of RM110 million (US$30.8 million) in 1987, Cagamas had, by end 2012, cumulatively refinanced mortgages in the secondary market equivalent to RM104 billion (US$32 billion) or 1.7 million homes. The size of the Malaysian mortgage market has grown exponentially from RM22 billion (US$6.8 billion, then constituting a small proportion of banking system loans) in 1989 to RM334 billion (US$102.8 billion or 27 percent of banking system loans) as at the end of 2012 (see Figure 2). In relation to the economy, the ratio of outstanding mortgages to GDP as at end-2012 was 31 percent, among the highest in East Asia (Singapore 44 percent, China 20 percent, Thailand 17 percent).

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3 Ringgit Malaysia (RM) translated at RM3.14/USD as at 5 August 2013.
Figure 2. Malaysia: Supply of Housing Loans

Cagamas has also been an active and regular issuer of private debt securities (PDS), contributing to the rapid development of the corporate bond market in Malaysia. Today, Cagamas has established itself as the largest and leading issuer of PDS in Malaysia. Since inception, Cagamas has introduced a wide range of new and award winning capital market instruments. As at the end of May 2013, the Cagamas Group has issued a cumulative total of RM266.8 billion (USD82.1 billion) of PDS (including the issuances of RM10.2 billion (USD3.1 billion) in Residential Mortgage Backed Securities (RMBS) by Cagamas MBS Berhad, a sister company of Cagamas). Cagamas’ current outstanding issuances of RM26.7 billion (USD8.2 billion) make up 9 percent of Malaysia’s current outstanding PDS, which amounts to RM284.5 billion (USD87.5 billion); and in which Malaysia is already among the top 5 issuers of corporate bonds in the Asia-ex Japan region (see Figure 3). Cagamas is accorded the top domestic credit rating of AAA and P1 by Malaysia’s RAM Rating Services Berhad. Similarly, it is also rated AAA/AAAID and MARC-1/MARC-1ID by Malaysian Rating Corporation Berhad, denoting its strong credit quality.
Since 2004/2005, Cagamas has evolved into a major issuer of Islamic bonds (sukuk). It began by securitizing a significant portion of the Government’s staff Islamic home financing. The issuance of RM2.05 billion (USD 0.6 billion) nominal value Islamic Residential Mortgage-backed Sukuk Musyarakah (IRMBS) in 2005 was the first of its kind in the world and attracted RM13.5 billion in book size, primarily from domestic institutions and some foreign investors from Hong Kong and Singapore. Cagamas’ sukuk currently make up 16% of domestic AAA-rated Sukuk of a fast growing segment of the PDS market and dominate 84 per cent of the domestic AAA-rated Islamic ABS market. The promotion of the issuance of sukuk is also in tandem with Malaysia’s aspirations to be a leading International Islamic Financial Centre.
Cagamas’ role as a liquidity provider took on significance in times of financial crisis and tight liquidity (see Figure 5) and by standing ready to purchase mortgages from financial institutions that are seeking alternative sources of funding, short of turning to the central bank as a lender of last resort, Cagamas has injected stability into the financial system.

Source: Cagamas.
Beyond the provision of liquidity, Cagamas has also evolved to become a provider of risk, capital and management solutions to other asset classes as well. This includes Cagamas’ promotion of products such as mortgage guarantee programme and its involvement in the synthetic securitisation in the Small and Medium Enterprise (SME) sector. Cagamas has also become a credible partner of the Government in a home ownership initiative to address the issue of affordability among young adults to own their first home (My First Home scheme).

In financial year ended 31 December 2012, Cagamas recorded a profit after tax of RM219.0 million (US$67.4 million). Its shareholders’ funds amounted to RM2.2 billion (US$0.7 billion) and its Risk Weighted Capital Ratio (RWCR) stood at a healthy 24.4 percent. In comparison, the average RWCR of the banking sector in the corresponding period stood at approximately 15 percent.

Lessons Learnt from Cagamas

The Cagamas model offers important lessons for other developing countries that are considering the establishment of a secondary mortgage market. These include the following:

- Ownership of Cagamas was split 50:50 between the central bank and the banking system. The central bank nominates the chairman of the board of directors, but the rest of the board are representatives of the banks.
From the beginning, Cagamas was supported by a well-developed system for land purchases and regulation, clear rights of property ownership and transferability, well-developed financial infrastructure and liberalized financial system, and a proactive urban and housing policy.

In the early stages, government support and involvement in the secondary mortgage corporation, including share ownership was necessary to alleviate the initial default risk concerns of investors. Government and central bank privileges helped to reduce the cost of funds for Cagamas, such as:

- Exemption of the company from stamp duties for its housing loan transactions.
- Exemption from the requirement to issue any prospectus in respect of its issuance of debt securities.
- Exemption from having to obtain the prior approval of the Securities Commission to issue bonds.
- Exemption of the proceeds of sales of housing loans obtained by financial institutions from statutory reserve and liquidity requirements.
- Classification of Cagamas bonds as Tier 1 liquid assets for purpose of compliance with statutory liquidity requirements.

Adoption of the purchase with recourse (PWR) scheme helped to overcome moral hazard in the early stage of development of a secondary mortgage market. It gave Cagamas time to build its credibility as a safe and regular issuer of debt securities before it introduced the purchase without recourse (PWOR) product.

Within the secondary mortgage framework, Cagamas has had the flexibility and innovativeness to develop new asset classes in sukuk and SMES for institutional investors such as insurance companies and pension funds, while not losing sight of its social role in promoting home ownership in the country.
Appendix 2

The Hong Kong Mortgage Corporation Model

Since its establishment in 1997, the Hong Kong Mortgage Corporation (HKMC) has been committed to its three core missions, namely:

1. To enhance the stability of the banking sector through the offering of a reliable source of liquidity, thereby reducing the concentration and liquidity risks of mortgage lending of the banks.\footnote{In the currency board environment of Hong Kong, any currency speculation would require the HKMA to raise interest rates to defend the Hong Kong dollar. However, a sharp rise in interest rates would cause the banks to have tight liquidity and in the event of sharp deposit withdrawals, there could be simultaneous bank runs on top of a currency attack. It was therefore imperative that the maturity mismatch in the banking system be reduced, so as to cushion the banking system from interest-rate shocks.}
2. To promote wider home ownership in Hong Kong, a market where housing demand outpaces supply and property prices are persistently on the uptrend.
3. To facilitate the growth and development of the debt securities and mortgage-backed securities markets in Hong Kong.

Unlike Cagamas, the Hong Kong Mortgage Corporation is wholly owned by the HKSAR Government, through the Exchange Fund. The Board of Directors is chaired by the Financial Secretary, with the chief executive being a secondee from the Hong Kong Monetary Authority. The Board comprises ex-officio the Chief Executive of the Hong Kong Monetary Authority and lawyers, accountants and representatives of banks and capital market professionals.

Principal Activities

The HKMC model comprises four core areas of activity:

- To purchase portfolios of mortgage loans, secured by residential properties in Hong Kong, from approved sellers which includes banks, government bodies and their agencies, public bodies, property developers.
- To raise financing for its purchases of mortgage loans through the issuance of debt securities to banks, institutional and retail investors.
- To securitize mortgage portfolios through special purpose entities by way of issuing mortgage-backed securities to investors.
- To provide mortgage insurance cover to originators of mortgage loans.

HKMC’s Achievements

Within its first full year of operations in 1998, HKMC was successful in:

- Establishing an extensive network of 31 Approved Sellers/Servicers, whose combined mortgage portfolios account for more than 80% of the mortgage market.
• Acquiring a growing portfolio of good quality mortgages (HK$11.4 billion in 1998) by adhering to prudent purchasing criteria and effective due diligence process.
• Setting up a HK$20 billion Debt Issuance Programme (DIP) as a platform for issuing plain vanilla bonds and structured debts to fund HKMC’s purchases of mortgages. The DIP serves as the issuing platform for about 80 percent of HKMC’s issuances of debt and transferable loan certificates with a tenor of up to 15 years. In 1998, HK$5.2 billion of debt securities were issued to institutional investors. In response to rapid growth in funding needs, the fund size of DIP has been raised to HK$40 billion in January 2003 and remains at that size until today. As at the end of 2012, a total of six Primary Dealers and 16 Selling Group Members have been appointed under the DIP to provide wide distribution channels for both public and private debt issues.

Between 1999 and 2012, another eight programmes were introduced into HKMC’s portfolio:

1. The Mortgage Insurance Programme (MIP) was launched in 1999 to enable homebuyers to reduce the down payment for the purchase of their homes and to encourage banks to be more willing to allow higher loan to value (LTV) lending without incurring additional credit risk. The MIP has gained increasing acceptance by homebuyers and has become an integral part of mortgage financing in Hong Kong. HKMC operates its mortgage insurance business on a risk-sharing basis. It retains up to 50% of the risk exposure under its mortgage insurance cover with the remaining risk exposure being ceded to approved re-insurers. Recently, there have been revisions to the MIP in support of a series of macro-prudential measures announced by the HKMA in September 2012 and February 2013 to strengthen the risk management of financial institutions in their mortgage lending business to ensure the capacity of mortgage borrowers to cope with the potential impact of rising interest rates in the future. Modifications to the MIP in 2012 involved lowering the debt-to-income ratio for certain categories of applicants and shortening the maximum loan tenor for all applicants. As a result of these tightening measures, the total amount of loans drawn down under the MIP declined to around HK$22 billion in 2012 from HK$26.3 billion in 2011.

2. The Guaranteed Mortgage-Backed Pass-Through Securitization Programme, established in 1999, targeted at banks which did not want to off-load mortgage loans, but wished to enjoy the benefits of holding MBS which are guaranteed by the HKMC. Under this programme, a back-to-back structure allows HKMC to acquire mortgage loans from a bank and then sell them directly to a bankruptcy remote special purpose vehicle (SPV). The SPV in turn issues the MBS to the bank. Through this securitization process, banks enjoy the following benefits:

• Conversion of illiquid mortgage loans into liquid MBS;
• For capital adequacy requirements, those MBS guaranteed by HKMC are assigned a 20 percent risk weight as opposed to 50 percent for mortgage loans, thereby allowing banks to utilize their capital more efficiently.
3. **The Bauhinia Mortgage-Backed Securitization Programme**, established in December 2001 with a fund size of US$3 billion to originate MBS of various product structures, credit enhancements and distribution methods.

4. **The Retail Bond Issuance Programme** was launched in 2004 to enable retail investors to subscribe to HKMC securities. The HK$20 billion Retail Bond Issuance Programme was marked by a debut issue, which was extensively subscribed by retail investors through a network of 860 bank branches of selected Placing Banks.

5. **The Medium Term Note Programme** is a multi-currency medium term note programme (MTN) introduced in 2007 to raise funds in the international market and broaden its investor base and funding sources. In 2012, the HKMC launched 50 MTN private debt issues denominated in Hong Kong dollars, US dollars, renminbi, British pound, Japanese yen and Singapore dollars totaling an equivalent of HK$14.9 billion. It also made a debut public issue of AUD500 million of debt securities under the MTN that was well received by a diverse group of Australian and overseas institutional investors. Besides setting a benchmark for other issuers, this debut issue will spearhead more cross-border funding and investment activities and strengthen regional bond market development.

6. **The Reverse Mortgage Programme** was introduced in July 2011 to provide elderly people who already own a house to withdraw part of the equity as a loan to supplement their retirement income and to enhance their quality of life. This programme has been well received and led to three enhancements of its features in 2012 to better meet market demands, which included: (1) lowering the minimum age of borrowers from 60 to 55; (2) increasing the maximum specified property value for payout calculation from HK$8 million to HK$15 million; and (3) increasing the maximum lump-sum payout amount.

7. **The 80/20 Small and Medium-sized Enterprises Financing Guarantee Scheme (80/20 SFGS)** was among the latest programme to be launched in May 2012 as part of the support measures established by the Government for SMEs. The HKMC acts as the operator of the scheme and offers an 80 percent loan guarantee product to banks at a relatively low guarantee fee. These concessionary measures will help banks to better manage their credit risk exposures when lending to SMEs.

8. **The Microfinance Scheme (MF Scheme)** was launched in June 2012 for a trial period of three years in collaboration with six banks and five non-governmental organizations (NGOs). The scheme offers three types of loans out of a maximum loan fund of HK$100 million, namely the Micro Business Start-up Loan, Self Employment Loan and Self Enhancement Loan. By the end of 2012, the MF scheme had approved a total of 47 loans involving a total loan amount of nearly HK$13 million.

**Financial Performance in 2012**

Since its establishment in 1997, HKMC has made sound progress in achieving its objectives of enhancing banking and financial stability, promoting home ownership and deepening the private debt securities and mortgage-backed securities markets in Hong Kong. However, 2012 was a challenging year for HKMC’s mortgage business,
emanating from the sluggish growth in the world economy and the distortions monetary easing in the major economies was creating in global capital flows.

In terms of enhancing banking and financial stability, the HKMC has been responsive to the liquidity needs of the banking sector. However, in 2012, banks in Hong Kong were flush with liquidity as a result of the monetary easing policies adopted by the major economies. This was reflected in a sharp decline of nearly 9 percent in loans purchased by HKMC in 2012 (HK$0.9 billion compared with HK$9.7 billion in 2011).

Its terms of promoting home ownership, the Mortgage Insurance Programme (MIP) has helped more than 103,000 families to buy their own homes since 1999. For prudential reasons, there has been some tightening of the MIP criteria in 2012 and this has dented somewhat the total amount of loans drawn down under the MIP during the year (HK$22 billion as against HK$26.3 billion in 2011). Nonetheless, the MIP plays an important role in the property market in Hong Kong with the aggregate MIP loans drawn down accounting for 11.5 percent of the total mortgage loans drawn down in 2012.

In terms of development of the domestic debt market, the HKMC is the most active corporate debt issuer in the Hong Kong dollar debt market and has consistently maintained its credit ratings of AAA from Standard and Poor’s and Aa1 from Moody’s. The total amount of debt securities (notes and bonds under various institutional and retail investor programmes) outstanding as at 31 December 2012 was HK$36.6 billion. See Table 1 for the financial highlights of HKMC in 2012.

During the Asian crisis of 1997/98, the HKMC helped provide HK$ liquidity to banks under stress, without the need for HKMA to intervene. This mechanism demonstrated that putting an institutional arrangement in place before the crisis allowed the HKMA to manage currency shocks in an orderly manner, without disturbing banking stability.

The rapid growth of HKMC reflects its advantage of operating in a friendly environment from the legal, regulatory, tax and accounting perspectives. In Hong Kong, it is quite straightforward to structure “true sale” transactions. Combined with mortgage insurance enhancement, offered by HKMC, there is ready acceptance of the mortgage-backed securities by both institutional and retail investors.

HKMC also provides useful public information on the performance of the mortgage market and the debt market in Hong Kong through its website www.hkmc.com.hk.
Table 1. Hong Kong Mortgage Corporation: Financial Highlights

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<th>2012 HK$'000</th>
<th>2011 HK$'000</th>
<th>2010 HK$'000</th>
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<tr>
<td><strong>FOR THE YEAR</strong></td>
<td></td>
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<tr>
<td>Net interest income</td>
<td>812,099</td>
<td>854,813</td>
<td>970,581</td>
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<td>Profit attributable to shareholders</td>
<td>1,125,393</td>
<td>1,255,731</td>
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<td>Loan purchases</td>
<td>865,116</td>
<td>9,682,571</td>
<td>4,748,181</td>
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<td>Debt issuance</td>
<td>19,098,302</td>
<td>28,549,278</td>
<td>8,279,703</td>
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<tr>
<td>Net premiums written</td>
<td>444,538</td>
<td>529,533</td>
<td>950,458</td>
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<tr>
<td><strong>AT YEAR END</strong></td>
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<tr>
<td>Loan portfolio, net</td>
<td>25,895,399</td>
<td>33,135,818</td>
<td>35,258,937</td>
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<tr>
<td>Total assets</td>
<td>52,864,957</td>
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<td>Debt securities issued</td>
<td>36,404,627</td>
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<td>Mortgage-backed securities issued</td>
<td>214,672</td>
<td>367,137</td>
<td>1,529,749</td>
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<tr>
<td>Mortgage insurance – risk-in-force$^1$</td>
<td>13,807,812</td>
<td>14,147,266</td>
<td>15,234,179</td>
</tr>
<tr>
<td><strong>OTHER STATISTICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net interest margin</td>
<td>1.5%</td>
<td>1.7%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Capital adequacy ratio/Capital-to-assets ratio$^2$</td>
<td>20.2%</td>
<td>19.7%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Cost-to-income ratio</td>
<td>15.4%</td>
<td>11.8%</td>
<td>11.0%</td>
</tr>
<tr>
<td>Return on assets</td>
<td>1.9%</td>
<td>2.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Return on shareholders’ equity</td>
<td>12.4%</td>
<td>15.5%</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

$^1$ The risk-in-force excludes exposure that has been covered by quota-share reinsurance arrangement.

$^2$ The capital adequacy ratios as at 31 December 2012 and 2011 were compiled in accordance with the Guidelines on the Capital Adequacy Ratio stipulated by the Financial Secretary on 7 October 2011 for replacement of the previous guidelines on the capital-to-assets ratio for the prior years. As there are modifications between the two guidelines, the capital ratios are not directly comparable.

Conclusion

Both Cagamas and the HKMC have shown that a secondary mortgage corporation is central to better market securitization, risk management and stronger institutionalization of the domestic debt market. Both have led to greater professionalization of the market, and the creation of a public good since no single bank is willing to initiate the process of getting the necessary legal reforms, market expertise and cooperation of other banks and investors to develop the market.

In financial terms, both institutions are highly profitable:

Notwithstanding lower profits in 2012 because of an unfavourable external environment, the Cagamas Group earned a pre-tax profit of RM551.9 million (US$175.8 million) on assets of RM31.9 billion (US$10.1 billion) and shareholders’ funds of RM4.3 billion (US$1.3 billion) while net tangible assets per share was higher at RM28.35 (RM25.86 in 2011). The Group’s capital position remained solid and had a high risk-weighted capital ratio (RWCR) of 36.4 percent at the end of December 2012.

In the case of the HKMC, profit attributable to shareholders in 2012 was HK$1.1 billion. The return on assets was 1.9 percent and the return on shareholder’s equity was 12.4 percent. The Corporation’s capital adequacy ratio was 20.2 percent while its cost to income ratio of 15.4 percent was much lower than the banking industry average of 45.6 percent.

Both models can be adapted to promote home ownership and development of the debt market in other emerging economies. The HKMC already had the experience of sharing its expertise in mortgage insurance with Cagamas in the form of a joint venture to provide mortgage guarantee to mortgage originators in Malaysia. This joint venture, established in 2007, was terminated in December 2012 when Cagamas acquired the entire 50 percent of HKMC’s equity stake.