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The role of government-supported housing finance agencies in Asia[1]

In Asia, government-supported housing agencies have played a constructive role in the development of domestic residential mortgage and bond markets. Several agencies have increased their overall market presence in recent years by expanding their activities and have accepted a larger share of the associated credit risks.

JEL classification: G150, G180, G210, G280, H810, O160.

Several countries in Asia have established government housing finance agencies, in part to help develop their domestic housing finance markets and associated bond markets. And other countries in the region are currently considering setting up their own housing agencies. Meanwhile, Japan – which established its housing agency several decades before the other Asian countries – has decided to refocus and scale down its operations. Starting next year, the agency will mainly be responsible for issuance of mortgage-backed securities (MBSs) (Fuchita (2006)).

In this paper, we examine the roles of government-supported housing finance agencies in Asia. We consider five Asian economies: Hong Kong SAR, India, Japan, Korea and Malaysia.[2] We find that, in many of the cases considered, housing agencies appear to have played a constructive role in the development of residential mortgage bond markets. They have helped eliminate barriers to securitisation, initiated more systematic issuance of MBSs, improved access to housing finance for households and provided liquidity to banks.

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[2] Singapore and Thailand also have government housing agencies, but these countries were not included in our sample because the housing agencies do not issue MBSs.

More recently, several of the housing agencies have broadened the scope of their involvement in mortgage and bond markets by providing mortgage insurance on loans and credit enhancements on domestically issued MBSs. This broadening of housing agencies' activities has seen them accept a larger share of the gross financial risks associated with residential mortgages. However, at present, the overall risks assumed still appear small relative to the economy as a whole.

In the next section, we describe the role and mandates of the housing agencies in the five selected economies. In the third section, we discuss housing agencies' risk management. The fourth section discusses the nature and perception of government support, as a prelude to a quantification of the value of these annualised government subsidies in the following section. The final section provides concluding thoughts.

The role and mandates of Asian housing agencies

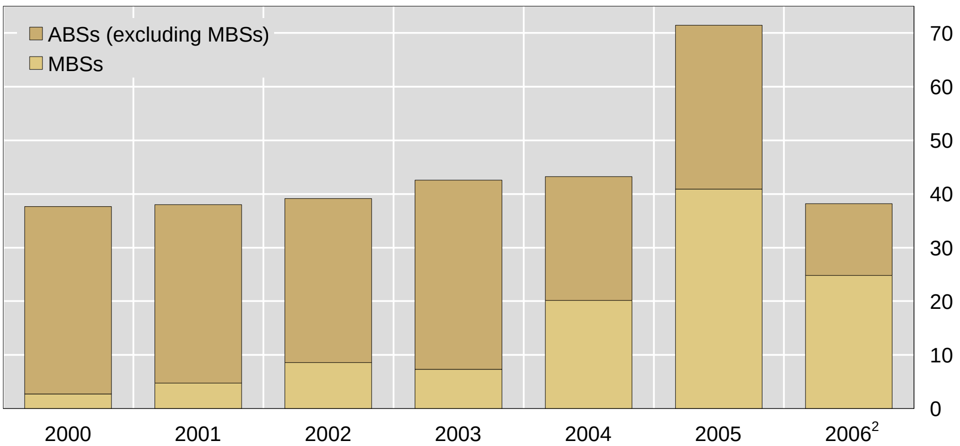
Housing agencies created to prevent shortages of housing finance

The housing agencies in the sample were initially established in response to concerns that there was a shortage of housing finance in the economy, or that there would be a shortage in the near future.

In Japan, the Government Housing Loan Corporation (GHLC) was established in 1950 to provide a stable supply of housing finance and improve the quality of the nation's housing stock (Konishi (2002)). In Malaysia, Cagamas Berhad was established in the mid-1980s to help rectify a shortage of housing finance (Kokularupan (2005)). The Hong Kong Mortgage Corporation (HKMC) was established in 1997 because of concerns in the mid-1990s that local banks would be unable to satisfy anticipated strong demand for housing credit (Yam (1996)). The Indian National Housing Bank (NHB) was established in 1988 to promote a sound and cost-effective housing finance system and to help alleviate housing shortages, particularly in rural areas (Reside et al (1999)). The Korea Housing Finance Corporation (KHFC) was set

Domestic issuance of ABSs in five Asian economies[1]

In billions of US dollars



[1] Hong Kong SAR, India, Japan, Korea and Malaysia. [2] Data up to the end of September.

Sources: Dealogic; HSBC; Moody's Investors Service; Standard & Poor's; Thomson Financial Securities Data; national rating agencies. Graph 1 up in 2004 to ensure that households had access to long-term housing finance (KHFC (2005)). Over time, all of the agencies have been given the additional task of promoting the development of domestic mortgage bond markets. The underlying notion was that bond markets would provide loan originators with a source of funding more stable than deposits.

MBS market role came later

Agencies have helped develop MBS markets …

Housing agencies have made visible contributions to the development and growth of the respective domestic bond and MBS markets. This has primarily been via increased MBS and bond issuance. The economies in the sample have had remarkable growth in the securitisation of mortgages over the past few years (Graph 1). Between 2000 and 2005, annual MBS issuance increased from $3 billion to $40 billion. This growth has been significantly faster than the growth in issuance of other asset-backed securities (ABSs) (Gyntelberg and Remolona (2006), Dalla (2006)). The housing agencies have led this growth; in all five cases, the outstandings of housing agency MBSs have risen more quickly than those of privately issued MBSs. Except in Japan, housing agency MBSs account for the bulk of outstanding MBSs. The housing agencies' issuance of MBSs has served to increase investor familiarity with the product. The longer-term objective is to gradually create a benchmark yield curve for the pricing of private MBSs. In several cases, housing agencies have also been among the largest non-government bond issuers, and their bond issuance has generally grown faster than the bond market as a whole (Table 1).

… by issuing MBSs and helping to remove legal and regulatory impediments

Many of these housing agencies have also contributed to the development of their domestic MBS markets by working with governments to develop legislation which has removed legal, tax and regulatory impediments to securitisation. They have also improved the availability of good historical data on rates of non-payment and prepayment on housing loans, and have encouraged financial institutions to standardise their loan documentation.

Size of bond and MBS markets[1]

Amounts outstanding, in billions of US dollars

	Date	MBSs		Bonds				MBSs + bonds
		Housing agency	Private	Housing agency	Financial and corporate[2]	Government	Non-resident	Share of housing agency debt securities[3]
Hong Kong SAR	Dec 01	0.0	0.1	2.6	8.2	6.8	3.6	14.7
	Mar 06	0.6	0.0	4.0	10.8	8.8	4.0	19.0
India	Jun 02	0.1	…	5.3	0.0	134.8	0.0	3.9
	Jun 05	0.2	…	28.4	15.8	243.8	0.1	9.9
Japan	Mar 02	1.5	6.1	16.6	1,314.1	3,166.3	57.0	0.4
	Mar 06	27.2	60.4	33.1	1,211.9	5,501.8	57.1	0.9
Korea	Dec 01	1.5	…	0.0	213.2	65.8	0.2	0.5
	Dec 05	8.3	…	1.5	356.7	226.0	0.0	1.7
Malaysia	Dec 01	0.0	0.0	5.6	36.0	30.9	0.0	7.7
	Dec 05	1.5	0.0	6.4	47.4	50.4	0.2	7.5

[1] Excluding money market instruments. [2] Excluding housing agency bonds and MBSs as well as private MBSs. [3] As a percentage of total bonds and MBSs.

Sources: Citigroup; government housing agencies; BIS. Table 1

Despite the housing agencies' efforts, domestic MBS markets are still not fully developed in any of the economies we consider. In Hong Kong, India and Korea only 1% of housing loans are securitised, while in Japan and Malaysia this proportion is 5–6%. As a result, in all cases there is limited liquidity in secondary MBS markets.

But MBS markets are still not fully developed

Housing finance markets

In their respective housing finance markets, the agencies have broadened the range of loan types that are available to borrowers of all income levels. Most agencies have focused on introducing longer-term fixed rate loans.[3] In several cases, this has stimulated private lenders to lengthen the maturity of their loan contracts and to introduce more sophisticated products that combine features from fixed and floating rate loans. In Korea, the KHFC's provision of 30-year fixed rate mortgages probably induced banks and other financial institutions to lengthen the maturity of their housing loans from three years to 20–30 years.[4] In Japan, the GHLC is the main provider of long-term fixed rate mortgages. Interestingly, the HKMC offered long-term fixed rate mortgages in 2001, but there was only limited demand for them as Hong Kong households have a preference for floating rate loans and the local banks did not market them aggressively.

Housing agencies introduced fixed rate loans

Similar objectives but different approaches

Despite their common objectives, the approaches used by the housing agencies to achieve these objectives have differed considerably (Table 2). Two of the agencies – the GHLC and the KHFC – distribute their own loans to households via banks and other loan originators. They thus compete fully with banks in the housing finance market by offering loans to any household that satisfies their lending criteria. In addition to direct lending, the GHLC offers mortgage insurance and purchases mortgages from other lenders for its MBS programme, while the KHFC provides guarantees on loans that are used to fund deposits for chonsei leases.[5] The remaining agencies – the HKMC, Cagamas and the NHB – do not lend directly to households. The HKMC and Cagamas purchase already originated mortgages from banks and other lenders. The NHB lends directly to banks and finance companies, with the loans secured against specific pools of mortgages. The HKMC also has a large mortgage insurance division, and the NHB is in the process of establishing the Mortgage Credit Guarantee Company, a joint venture between the NHB and

Considerable variation in approaches and in MBS market involvement

[3] This is similar to the United States, where the Construction Finance Corporation pioneered the 30-year fixed rate mortgage in the 1930s (Jones (1951)).

[4] When the KHFC was founded in March 2004, only 25% of housing loans had maturities of greater than 10 years. By December 2005, the proportion of loans with maturities of over 10 years had doubled to 50%. See KHFC (2006).

[5] Chonsei is a lease contract where, rather than paying a periodic rent for the right to use real property as in most western lease contracts, the tenant pays an up-front deposit for the use of the property with no requirement for periodic rent payments. Thus, the "rent" received by the landlord is the investment return on the chonsei deposit. At the end of the contract, the landlord returns the tenant's chonsei deposit (Zhu (2006)).

Housing agencies' business lines						
	Agency	Issues MBSs	Private MBS enhancement	Own loan products	Purchases mortgages from banks	Mortgage insurance
Hong Kong SAR	HKMC	Yes	No	No	Yes	Yes
India	NHB	No[1]	Yes[2]	No	No[3]	No
Japan	GHLC	Yes	Yes[2]	Yes	Yes	Yes
Korea	KHFC	Yes	No	Yes	Yes[4]	No[5]
Malaysia	Cagamas	Yes	No	No	Yes	No

[1] Only issues MBSs on behalf of private financial institutions. [2] The GHLC provides credit wraps for private MBSs; the NHB provides credit wraps and purchases part of the subordinated tranche. [3] The NHB lends directly to banks, with the loans secured against specific pools of mortgages. [4] As of September 2006, the KHFC had not purchased loans from banks. [5] The KHFC provides a guarantee on deposits for chonsei leases.

Sources: National central banks; government housing agencies; BIS. Table 2

several private and supranational entities, to provide mortgage insurance services.

Housing agencies' involvement in MBS markets also differs. Cagamas, the HKMC and the KHFC issue their own MBSs, for which they guarantee interest and principal payments. Cagamas and the KHFC also hold the first-loss tranche of their own MBSs. These three agencies do not provide credit enhancements for privately issued MBSs. The GHLC also issues its own MBSs, for which it guarantees interest and principal payments, and in addition provides credit enhancements for MBSs issued by others. Finally, the NHB provides credit enhancements and trustee services for privately issued MBSs, but does not issue its own MBSs.

Increased supply of housing finance from banks with several agencies broadening their activities

In recent years, the supply of housing finance provided by banks has increased in most cases. Over the same period, several of the agencies have broadened their activities. The HKMC has broadened its loan purchases to include other household debt and some commercial loans. It has also expanded its mortgage insurance programme and increased the maximum loan-to-value ratio on insured loans to 95%. Cagamas has also broadened its loan purchases. The NHB has started providing credit guarantees on private MBSs, and is establishing a mortgage insurance company. In contrast, the GHLC has reduced its direct lending and has focused on buying mortgages from banks and issuing MBSs. In 2007, the GHLC will be replaced by the new Japan Housing Finance Agency (JHF), which will mainly guarantee MBS issues and purchase loans from private financial institutions.[6] This change partly reflects the government's desire to reduce its role in the Japanese economy.

Risk management by housing agencies

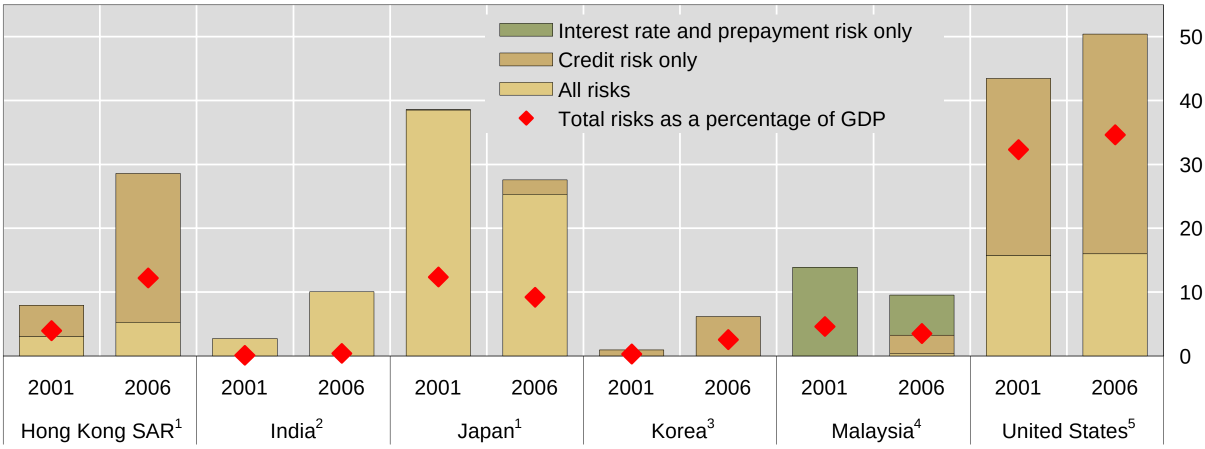
Some agencies have assumed more risks …

The broadening of mandates in Hong Kong and India, as well as the strong loan growth in Korea, have led to their housing agencies being more heavily

[6] The JHF will also provide direct loans for disaster mitigation and urban rehabilitation. See Ministry of Land, Infrastructure and Transport (2006).

Risks managed by housing agencies

Percentage of total housing loans



[1] The HKMC and the GHLC assume all risk on loans held on their balance sheets, and credit risk on their MBS issuance and mortgage insurance operations. [2] The NHB assumes all risk on its loans to banks and housing finance companies, and credit risk on the MBSs that it guarantees. [3] The KHFC assumes credit risk on its MBS issuance and mortgage insurance operations. For 2001, data are for the Korea Mortgage Corporation. [4] Cagamas assumes interest rate risk and prepayment risk on loans (with recourse to the originating bank) held on its balance sheet, and credit risk on its MBS issuance. [5] Freddie Mac and Fannie Mae assume all risks on loans and MBSs held on their balance sheets, and credit risk on their MBS issuance.

Sources: Congressional Budget Office; national central banks; government housing agencies; BIS. Graph 2

involved in the domestic housing finance markets. As a result, they face the challenge of managing a larger share of the overall financial risks associated with domestic housing loans. The housing agencies manage this financial risk by either hedging it with a third party, or transferring it to bond and MBS investors, or retaining it within their organisation.

… some others less

The proportion of total housing loans on which the agencies manage some or all of the financial risks is shown in Graph 2. Housing agencies are required to manage all risks, ie credit, interest rate and prepayment risks, on loans held on their balance sheets. Here an exception is Cagamas, which has relatively little credit risk on the majority of the loans on its balance sheet as it has recourse to the bank that sold the loan if the borrower defaults. Thus Cagamas only manages interest and prepayment risks on the loans it purchases. For securitised loans and loans for which the agency has provided mortgage insurance and credit enhancements on private MBSs, the agency is required to manage only credit risk.

More risk assumed in Hong Kong, India and Korea …

The agencies in Hong Kong, India and Korea have all increased the share of credit risk they manage. In Hong Kong, the HKMC's share of the credit risk on housing loans has quadrupled over the past five years, mainly due to the growth in the provision of mortgage insurance. In Korea, the KHFC's share of credit risk on housing loans has also risen strongly, reflecting the growth in its mortgage insurance and MBS programmes. In India, an increase in the NHB's direct lending to banks and other financial institutions has seen it managing additional risks. In contrast, the GHLC has scaled back its direct lending operations ahead of its restructuring, and consequently the share of risk on Japanese housing loans it manages has fallen. The HKMC is the only agency which actively hedges credit risk. Roughly half of the credit risk from its mortgage insurance operations has been reinsured (HKMC (2006)). All the other housing agencies retain the credit risk within their organisations.

... less in Japan and Malaysia

In Hong Kong and India, the housing agencies have also increased the share of prepayment risk they manage. The available evidence suggests that these housing agencies retain this risk. The GHLC has started securitising its outstanding portfolio of housing loans, thereby reducing the share of prepayment risk it holds. The share of prepayment risk held by Cagamas has also fallen slightly, reflecting a decrease in the share of housing loans it holds. In Korea, the agency issues MBSs and thus transfers prepayment risk to bondholders.

Finally, the agencies in Hong Kong and India are the only ones which have increased the share of interest rate risk they manage. The shares of interest rate risk managed by the other housing agencies have all declined. As all of the housing agencies appear to hedge a significant share of the interest rate risk they manage, there has probably been limited change in the interest rate risk they retain.

Government support

Degree of government support varies ...

Formal government support for the housing agencies varies across our sample, from outright guarantees and full government ownership to no guarantee and limited government ownership (Table 3). In India and Korea, the housing agencies have an explicit government guarantee and are wholly owned by their governments (via the central bank). In Korea, the law requires the government to cover losses in excess of the KHFC's capital reserves (see the Korea Housing Finance Corporation Act). In India, the NHB can request the government to guarantee its bonds (National Housing Bank Act of 1987).[7]

... ranging from strong government guarantees to minority government share of equity

In Hong Kong and Japan, the housing agencies do not have a government guarantee but they are wholly owned by the government. While it is clear that the HKMC enjoys a high level of government support,[8] the extent of government support for the GHLC is less obvious. The Malaysian government

Government support for housing agencies

	Government ownership		Explicit government guarantee
	Government	Central bank	
Hong Kong SAR	100	–	No
India	–	100	Yes
Japan	100	–	No
Korea	18	82	Yes
Malaysia	–	20	No

Sources: Merrill Lynch; national housing agencies; BIS. Table 3

[7] At present, only some NHB bonds have an explicit government guarantee, but both types of bonds trade at similar prices. This suggests that market participants perceive the NHB as being backed by the Indian government.

Yield spreads on agency bonds and MBSs

Spreads over five-year sovereign bonds, in basis points[1]

	Agency bonds	Agency MBSs	Bonds issued by financials	MBSs issued by financials
Hong Kong SAR	49	50–55	55–60	…
India	50	70	100	70
Japan	8	39	25	55
Korea	15[2]	25	50	…
Malaysia	57	78	95	…

[1] Rounded average spreads for 2006 to date. [2] Spread for MBS bond with bullet maturity.

Sources: Asian Development Bank; Barclays; Bloomberg; GHLC; HSBC; KIS Pricing; Mitsubishi UFJ Securities; R&I Japan; BIS. Table 4

owns only a fifth of Cagamas – the remainder being held by Malaysian and foreign banks – and the housing agency does not have a government guarantee.

Market perception of government support

Market perception in agreement with formal support

Generally, there is a high level of agreement between the formal level of government support and market perception thereof. The market perception of government support is reflected in credit ratings and bond market prices, and these two indicators are broadly consistent for all countries.

This perception is reflected in credit ratings and bond prices

For India and Korea, which have explicit guarantees, the market simply takes this as given. The housing agencies have the same credit ratings as their respective governments. The spreads on housing agency bonds and MBSs over government bonds are, according to market participants, a reflection of prepayment risk on MBSs and their smaller size (Table 4). Yields on housing agency debt and MBSs are well below yields on other financial institutions' bonds.[9] In the case of Malaysia, the market view is that Cagamas does not have a government guarantee. This is consistent with the formal level of government support. The domestic rating agencies state that Cagamas's AAA credit rating reflects the high quality of its loan assets and the quality of its shareholders, which include several large Malaysian and international banks as well as Bank Negara Malaysia (Kokularupan (2005)). Consistent with a lower level of government support, Cagamas bonds trade at yields that are roughly 60 basis points higher than yields on Malaysian government bonds – the largest spread differential of all the housing agencies. Reflecting their much higher liquidity, yields on Cagamas bonds are, however, lower than yields on bonds issued by other AAA-rated financial institutions.

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8 This is reflected in the HKMC having access to additional callable capital and a revolving credit facility and in the presence of various government officials and senior staff of the Hong Kong Monetary Authority on the board of the HKMC.

9 In India, yields on the senior tranches of agency MBSs and private MBSs are similar. But private MBSs have a large subordinated tranche (10–20% of the value of the loan pool), whereas agency MBSs do not have a subordinated tranche.

In Hong Kong and Japan, where the agencies are wholly owned by the government, the market view is that they have strong implicit government guarantees. Both agencies have the same credit ratings as their respective governments, and upgrades and downgrades to the sovereign credit ratings have been reflected immediately in the housing agencies' ratings.[10] In Japan, GHLC bonds trade at yields that are less than 10 basis points over Japanese government bonds. The GHLC MBS spread of around 30 basis points is attributed to their risk profile, with the most important factor being prepayment risk. HKMC bonds and MBSs trade at yields that are 50 basis points higher than Hong Kong government bonds. This probably reflects the smaller size and lower liquidity of the HKMC bonds.

The size and distribution of government support

We have attempted to estimate the economic value and identify the main recipients of the government subsidy by using a net present value of cash flow methodology similar to CBO (2001, 2004) and Passmore (2005) (see box).[11]

Estimated level of government support below 0.1% of GDP

For all of the sample, we estimate that the level of government support given to housing agencies is below 0.03% of GDP (Table 5). The variation in the size of the estimated subsidies reflects the relative importance of business lines and the nature of government support. To ensure that the estimated subsidies are comparable, we have in the case of Japan not included a direct grant from the Japanese government to the GHLC, which the latter uses to cover a negative interest rate spread of 60–80 basis points between its existing mortgage portfolio and its Fiscal Investment and Loan Program (FILP) loans from the government. This negative interest rate spread reflects realised prepayment risks and stems from the lending and funding practices of the GHLC during the 1980s and early 1990s. During this period, the GHLC on the lending side allowed households to prepay their loans with little or no financial penalty. On the funding side, the GHLC relied on fixed maturity FILP loans that

Estimated value of government support in 2005

	Estimated range for subsidy[1]	Main beneficiaries
Hong Kong SAR	0.000–0.003	Households
India	0.006–0.009	Financial institutions
Japan	0.002–0.007	Households, financial institutions
Korea	0.015–0.025	Households
Malaysia	0.0000	.
Memo: United States[2]	*0.210*	*Households, housing agencies*

[1] As a percentage of GDP. [2] Data are for 2003.

Sources: Congressional Budget Office; BIS estimates. Table 5

[10] For rating agency views on the HKMC, see Chan et al (2005) and Wa et al (2005). For rating agency views on the GHLC, see Ogawa (2006) and Sonoda et al (2006).

[11] See Davies et al (2006) for a more detailed discussion.

Estimating the size of housing agency government support

To estimate the size of government subsidies received by housing agencies and their distribution, we consider the net present value of cash flows, following a methodology similar to those used in CBO (2001, 2004). We take as our starting point the fact that housing agencies' subsidies are derived from two main sources: an explicit or implicit government guarantee, which allows them to issue bonds at lower yields than other financial institutions; and direct government benefits such as grants, tax exemptions and favourable regulatory treatment. Following CBO, we assign the subsidy impact on cash flows to the year in which they were earned and not the year in which the subsidy was received. Cash flows received in future years are discounted using the appropriate government bond yield. Hence, the present value of gross subsidies (S) is calculated as:

$$S = \sum_{t=1}^{n} \frac{(r^{FI} - r^{HA})D^{HA} + (m^{FI} - m^{HA})MBS^{HA}}{(1 + d_t)^t} + Ex$$

where r is the average yield on bonds and m is the average yield on MBSs, with the superscript indicating whether the yield is for financial institutions (*FI*) or housing agencies (*HA*). The yields are based on the average maturity of bonds and MBSs issued in that year. D^{HA} and MBS^{HA} represent, respectively, the amount of bonds and MBSs issued by housing agencies, and Ex is the value of direct government subsidies such as grants, tax exemptions and other benefits received by housing agencies.

The housing agency bond spreads are spreads at issuance where available. However, data limitations mean that we have had to rely on secondary market spreads in a number of cases. To account for the resulting uncertainty regarding bond spreads at issuance, we have calculated the size of the support for a range of yield spreads. We have added and subtracted 10 basis points relative to our central estimates for all cases except India, for which we have added and subtracted 20 basis points. The amount of debt issued and its maturity are based on actual issuance data. The private financial institution bond spreads are based on entities of comparable credit quality to the housing agencies on a standalone basis, ie without government support.① These bond spreads are sourced from the secondary bond market. The housing agencies' discount rate d is taken from the corresponding sovereign yield curve, as full yield curves are not available for the housing agencies.

① The rating agencies do not provide standalone ratings for the housing agencies, so we have relied on market liaison and our own judgment to identify financial institutions that are of similar credit quality to the housing agencies.

could not be prepaid without incurring substantial costs.[12] When interest rates fell sharply in the mid-1990s, households refinanced their loans at lower rates while the agency had to continue paying the higher rate of interest on its FILP loans. Thus, the Japan case illustrates the importance of actively managing prepayment risks and the potential fiscal risks faced by governments from housing finance agencies.

The size of the KHFC subsidy reflects the fact that it issues large quantities of debt and has a funding advantage of around 75 basis points. The NHB has a similar funding advantage but issues less debt, and therefore receives a smaller estimated subsidy. The HKMC only benefits from an implicit government guarantee and raises moderate amounts of debt, resulting in a

[12] The Ministry of Finance, which is in charge of the FILP, agreed with the GHLC in 2005 that the GHLC could prepay a certain portion of outstanding FILP loans without penalty provided the GHLC exited from direct lending operations and abided by a corporate restructuring plan imposed by the Ministry.

relatively small estimated subsidy as well. Consistent with the market perception, we assume that Cagamas does not have a government guarantee, and therefore does not receive any government support.

Households seem to benefit via lower interest rates in Korea and Japan …

For Korea, we find that most of the government support is being passed on to households through lower interest rates on their mortgages. In Japan, both households and financial institutions benefit from the government support.

… while it is difficult to assess who benefits in Hong Kong and India

For Hong Kong and India, the structure of the housing finance markets makes it difficult to assess who benefits from the government support. Nonetheless, discussions with market participants in each of the countries have provided some indication of the distribution of the benefits from government support. In India, it appears that the housing agency transfers most of the government support to banks and other financial institutions by providing them with lower-cost loans. In Hong Kong, it appears that the HKMC's mortgage insurance operations have lowered the cost of loans for less creditworthy borrowers.

Conclusion

MBS markets have benefited from housing agencies' efforts

In several of the economies considered, the housing agencies appear to have helped develop domestic MBS and housing finance markets. In the MBS market, they have worked with governments to eliminate structural impediments to securitisation and have initiated more systematic issuance of MBSs. In several of the primary housing finance markets, they have broadened the range of loan types available to borrowers by introducing longer-term fixed rate loans. In some markets, they have also provided liquidity to the banking system – either by purchasing housing loans from financial institutions, or by making direct loans – though their capacity to provide stable funding for loan originators over the whole economic cycle has not yet been tested. Housing agencies also appear to have helped improve household access to loans in some cases.

Broadening of housing agencies' role should be monitored closely

Going forward, however, there are aspects of some of the Asian housing agencies' operations that may require close monitoring if the trends seen in recent years continue. One aspect is the recent broadening of Asian housing agencies' mandates as they try to remain relevant in an environment where banks have increased their supply of housing finance. This has arguably resulted in housing agencies holding more risks, particularly credit risk in Hong Kong, India and Korea. An additional aspect is that, as housing agencies increase their activities, their risk management requirements will also grow and thus become more challenging. However, at this stage these agencies do not have a dominant role in their respective housing finance markets. In addition, the overall risks assumed appear small relative to the economy as a whole.

Government-supported agencies not required for MBS markets

Finally, from a broader policy perspective it is not clear that government-supported housing agencies are necessary to develop well functioning housing finance markets or liquid mortgage bond markets. This has been successfully demonstrated by several countries, including Australia, Chile, Colombia and Denmark (Bailey et al (2004), Chiquier et al (2004), Frankel et al (2004)). In addition, in many countries it has proven less easy for governments to scale back their involvement in markets than to introduce it (Higgs (1985)). None of the four government-owned Asian housing agencies have outlined exit strategies from their respective housing finance markets.

References

Bailey, K, M Davies and L Dixon Smith (2004): "Asset securitisation in Australia", *Reserve Bank of Australia Financial Stability Review*, September.

Campbell, J, A Coates, K Halkerston, R McCrossin, J Mallyon and F Argy (1981): *Australian Financial System, Final Report of the Committee of Inquiry*, Australian Government Publishing Service.

Chan, V, F Lu and P Eastham (2005): *Presale: Bauhinia MBS Ltd*, Standard & Poor's.

Chiquier, L, O Hassler and M Lea (2004): *Mortgage securities in emerging markets*, World Bank.

Congressional Budget Office (2001): *Federal housing subsidies and the housing GSEs*.

——— (2004): *Updated estimates of the subsidies to the housing GSEs*.

Dalla, I (2006): *East Asian finance: selected issues*, World Bank.

Davies, M, J Gyntelberg and E Chan (2006): *Who benefits from government guarantees in Asian MBS markets?*, unpublished working paper.

Frankel, A, J Gyntelberg, K Kjeldsen and M Persson (2004): "The Danish mortgage market", *BIS Quarterly Review*, March, pp 95–109.

Fuchita, Y (2006): *Securitization of residential mortgages – can Japan create a "good" GSE?*, Nomura Institute of Capital Markets Research.

Gyntelberg, J and E Remolona (2006): "Securitisation in Asia and the Pacific: implications for liquidity and credit risks", *BIS Quarterly Review*, June, pp 65–75.

Higgs, R (1985): *Crisis, bigger government and ideological change*, The Independent Institute.

Hong Kong Mortgage Corporation (2006): *Annual report 2005*, June.

Jones, J H (1951): *Fifty billion dollars: my thirteen years with the RFC (1932-1945)*, Macmillan.

Kokularupan, N (2005): *Mortgage-backed securities markets: experience of Malaysia*, Cagamas Berhad, presentation at Asia Pacific Finance.

Konishi, A (2002): *The GHLC reform and Japanese housing finance market*, presentation at the Third Workshop on Housing Finance in Transition Economies, OECD.

Korea Housing Finance Corporation (2005): *Annual Report 2004*, May.

——— (2006): *Annual Report 2005*, May.

Ministry of Land, Infrastructure and Transport (2006): *Addressing reform of the Government Housing Loan Corporation*.

Ogawa, T (2006): *Government Housing Loan Corp*, Standard & Poor's.

Passmore, W (2005): "The GSE implicit subsidy and the value of government ambiguity", *Real Estate Economics*, 33, pp 465–86.

Reside, R, S Ghon Rhee and Y Shimomoto (1999): *Mortgage-backed securities markets in Asia*, Asian Development Bank.

Sonoda, H, T Ogawa and H Saito (2006): *Presale: Government Housing Loan Corp*, Standard & Poor's.

Wa, L, M Yan, W Yen and A Cheuk (2005): *Hong Kong Mortgage Corporation Ltd (The)*, Moody's Investors Service.

Yam, J (1996): *Establishment of a Mortgage Corporation in Hong Kong*, Hong Kong Economic Association, 12 November.

Zhu, H (2006): "The structure of housing finance markets and house prices in Asia", *BIS Quarterly Review*, December, pp 55.