

The Role of Financial Guarantees in Securitization

by Mahesh Kotecha

Transactions involving securitization and credit enhancement techniques have taken on an increasingly significant role in United States capital markets in recent years. The use of financial guarantees, a form of third-party credit enhancement, in the mortgage-backed and non-mortgage asset-backed securities markets has proven a cost-effective way for borrowers to tap domestic and international debt capital markets to satisfy their funding needs. The use of this valuable financial tool is set to expand rapidly to other parts of the world, especially Asia where rapid infrastructure growth and business expansion create the need for enormous sums of capital.

Generally, securitization is the method by which loans, mortgages and other receivables are pooled and enhanced in order to be converted into investment-grade securities. The process makes it possible for firms to separate otherwise

non-marketable assets from their balance sheet and, often with the help of credit enhancement, turn them into negotiable instruments. The use of a financial guarantee to enhance the rating of a securitized transaction can lower the cost of funding for the issuer and provide other advantages, including diversification, off-balance sheet treatment, effective asset utilization, ease of documentation and stable funding, all while limiting risks and offering an attractive yield for the investor.

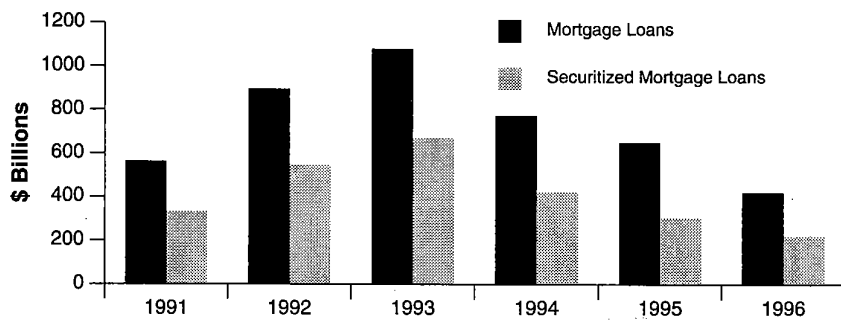
This article will outline the history of securitization in U.S., European and other developed capital markets; explain the basics of securitization and financial guarantees; and, finally, discuss the potential for their use in the developing mortgage- and asset-backed markets of Asia.

A BRIEF HISTORY OF SECURITIZATION AND FINANCIAL GUARANTEES Securitization

The origins of securitization date back to the founding in 1938 of the Federal National Mortgage Association (FNMA), popularly known as Fannie Mae, which was established by the U.S. government following the Great Depression to buy and sell federally insured residential mortgage loans made to lower income individuals. In the late 1960s, due to the federal government's increasing concern for the availability of housing and mortgage credit, the mortgage-backed securities (MBS) market was greatly expanded. In 1968, the Government National Mortgage Association (GNMA or Ginnie Mae) was created as part

Mahesh Kotecha is a Managing Director of CapMAC and CapMAC Asia, and an Alternate Director of ASIA Ltd. Currently, he is responsible for strategic market and business development in Asia. His former responsibilities at CapMAC included marketing and deal origination. Previously, Mr. Kotecha was a Senior Vice President and Director in the Asset Finance Group at Kidder, Peabody, and was responsible for all ratings based on non-U.S. collateral (mortgage and non-mortgage) at Standard & Poor's. Research assistance for this article was provided by Eileen Fargis, an Associate at CapMAC.

Figure 1. Securitized Segment of US Residential First Mortgage Market



Source: Inside Mortgage Securities

of the U.S. Department of Housing and Urban Development. Its guarantee represents the further obligation of the U.S. government on pools of loans guaranteed by two government agencies, the Federal Housing Administration and the Veterans Administration. In 1970, the Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac) was established to insure securities backed by pools of non-government (conventional) mortgages. Both FHLMC and FNMA now have this mandate. Their mission is to provide stability in the secondary market for residential mortgages and to promote access to mortgage credit throughout the U.S. by increasing the credit quality and liquidity of mortgage investments.

Both FNMA and FHLMC are viewed by the market as equivalent to triple-A credits based on the implicit support of the U.S. government, although there is no record of the need for actual government financial support in recent history. These two agencies purchase and securitize conventional mortgages. Unlike Ginnie Mae, which is a government owned and operated entity, Fannie Mae and Freddie Mac are publicly owned, traded on the NYSE and privately managed. FNMA is one of the largest issuers of U.S. dollar denominated debt after the Department of the Treasury, with \$606 billion outstanding in MBS at mid-year 1996, representing roughly a 25% share of the U.S. residential mortgage market. It enjoys an excellent credit performance with a delinquency rate at half of the industry average and loan losses at about 0.06% of its total mortgage loans.

The establishment of these federally sponsored agencies has led to the development of securitization and the growth of an active secondary mortgage market for U.S. government guaranteed mortgage securities. Nearly 50% of the over \$3.6 trillion of the total mortgage debt outstanding by year-end 1995 had been securitized. In addition, over \$70 billion of the outstanding home equity loan (HEL) market (which is dominated by private

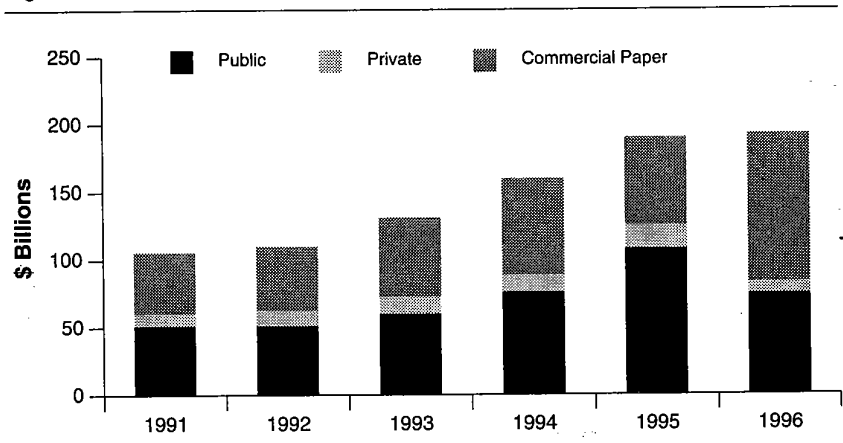
lenders with virtually no role for the secondary mortgage agencies) has been securitized since 1990, representing between 2% - 4% annually of outstanding HELs during that period. In the first half of 1996 alone, private label MBS issuance totaled over \$21 billion. Pricing of MBS is much more efficient owing to the implied government support in addition to the underlying collateral cash flows. Standardization of mortgage types and documentation, and homogenization of underwriting to conservative standards have been additional benefits. Some market participants have estimated that the mortgage rates for consumers might have been 25 to 50 basis points higher in the U.S. without development of the MBS market.

In 1985, the first non-mortgage asset-backed security (ABS), a securitization of computer leases for the Sperry Corporation, was sold. Since then, there has been a proliferation of new asset classes that have been securitized (and, to varying degrees, credit enhanced by financial guarantee companies). Examples of consumer assets that are often securitized include, in addition to real estate mortgages,

auto loans, home equity loans, and credit cards issued both by banks and retailers. Corporate assets that are commonly securitized include trade, lease or loan receivables. In project finance transactions (an area of great interest for emerging market countries), cash flow streams for toll roads and bridges, power plants, airports, telecommunications projects, water supply and waste water treatment systems, to cite a few examples, have all been securitized.

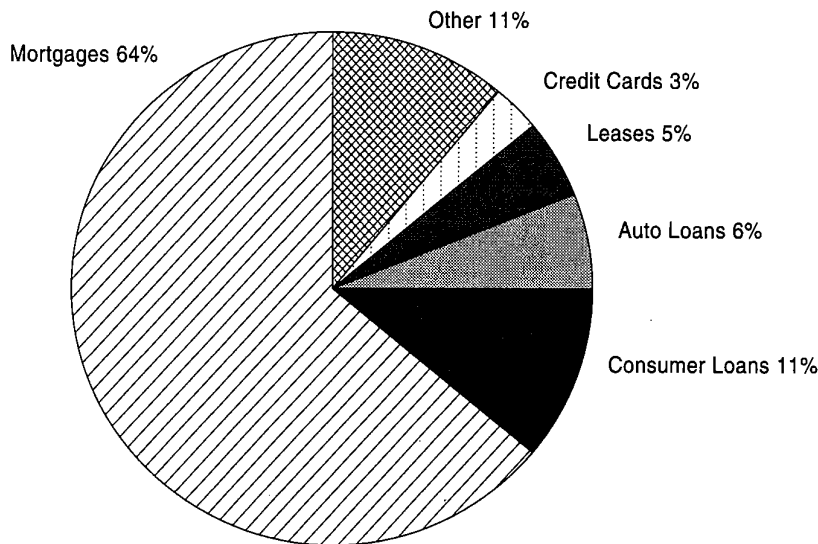
United States. The ABS market in the U.S. is made up of public, private and commercial paper segments, all of which have experienced considerable growth in the last 10 years. Issuance of asset-backed securities in the U.S. public market alone has grown from US\$1.2 billion in 1985 to over US\$107 billion in 1995. The market in publicly issued credit card-backed securities in the first half of 1996 alone was \$27.5 billion or 18% of outstanding credit card debt. The commercial paper segment of the ABS market was pioneered in the 1970s by Citibank, and asset-backed commercial paper vehicles have flourished since that time. By second quarter 1996, outstanding issuance of asset-backed commercial paper in the U.S.

Figure 2. Traditional ABS Market in the U.S.



Sources: Dean Witter; Goldman Sachs Money Markets, LP; MCM Corporate Watch; Securities Data Co.; CapMAC estimates

Figure 3. International ABS Issuance by Asset Type, January 1987 to March 1996



totaled over \$120 billion, according to Goldman Sachs. Outstanding asset-backed commercial paper is dominated by trade and term receivables (59%) with credit card receivables the next largest segment (12%). Like other ABS, receivables-backed commercial paper typically is issued through a special purpose vehicle whose sole function is to finance the receivables and support repayment on the commercial paper through payments on the receivables.

Europe. In Europe, the market for securitized issuances has developed more slowly than in the U.S. but shows similarities. Factors affecting slow growth in Europe include the lower stage of development of capital markets as compared to the U.S., regulatory and legal impediments, conservatism in adopting new financial tools and the slow growth rates of securitizable assets. Nevertheless, European issuance rose from \$1.7 billion in 1987 to nearly \$12 billion in 1994, only to decline to

\$8.4 billion in 1995. The majority of issuance, roughly 68% between 1985 and 1996, has been MBS. Other assets that have been securitized in Europe include pools of consumer loans, auto loans, credit card balances and leases. Securitizations in the UK market alone accounted for nearly seven-tenths of all European issuance during the last decade, with France accounting for roughly one-sixth.

Australia. The Australian MBS market opened in 1985 with state governments seeking alternatives to direct funding of public housing. There have also been a limited number of non-mortgage ABS transactions completed in Australia. With an aggregate volume of over A\$10 billion, the Australian ABS/MBS market is comparable in size to that of France, the second largest in Europe. Public structured financings—those backed by mortgages, commercial property leases to government agencies, financial securities and commercial receivables—dominate the market. Govern-

ment-sponsored residential mortgage-backed programs were 30% of the market. FANMAC Trusts, Victorian Housing Bonds and Keystart Bonds Limited are among the major players. Consumer receivables—credit card receivables, motor vehicle loan receivables and lease receivables—have not emerged as an important part of the Australian securitizable market as they have in the U.S. and U.K., although two major credit card-backed transactions, by David Jones and Diner's Club, have been completed.

Japan. Not all developed markets have embraced securitization to the same extent. Unlike the U.S., U.K. and Australia, Japan has a very limited ABS/MBS market. The amount of outstanding asset-backed issuance by mid-year 1995 was only US\$4.8 billion, none of which has been credit enhanced by financial guarantees. Ministry of Finance and MITI regulations discourage the use of securitization, as does the lack of an incentive for off-balance sheet financing under the Japanese tax and accounting systems.

MECHANICS OF SECURITIZATION AND THE ROLE OF FINANCIAL GUARANTEES

As mentioned above, many types of assets have been securitized in the U.S., Europe and Australia. Any known and predictable payment stream has the potential to be securitized. This section describes how a typical asset- or mortgage-backed transaction would be structured and rated; gives, as an example, an explanation of the use of MBS and financial guarantees; and illustrates how all parties in an ABS or MBS transaction can benefit from the use of financial guarantees.

Most commonly in a securitization, the "originator" of the assets, such as a mortgage lender with a pool of mortgage loans (see Table 1) or a growing company with a pool of trade receivables, sells these assets to a Special Purpose Vehicle (SPV). The SPV is a

Table 1. Securitization of Mortgage Loans

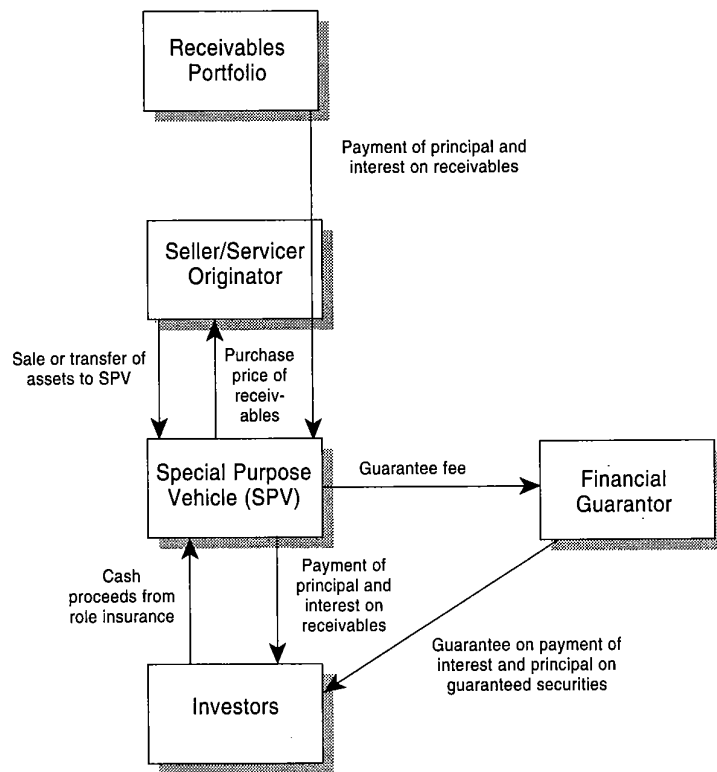
- Originator sells a pool of mortgages to a mortgage agency or SPV.
- SPV then securitizes the pool of mortgage loans.
- Credit enhancer and rating agency check that the loans meet credit quality guidelines.
- SPV issues debt securities backed by the cash flow from the pool.
- Cash collections are used to pay interest and principal on debt.
- Guarantor issues 100% guarantee on payment of principal and interest.

legal entity that is designed to segregate the ownership of the asset pool and associated cash flow in case of the originator's bankruptcy. Working with a financial guarantee company, the SPV purchases the assets from the originator and structures the pool to a level acceptable to the international rating agencies, investors and the financial guarantor. The SPV then issues securities that are bought by investors, with the pool of assets becoming the collateral that supports principal and interest payments on the securities. These payments of principal and interest to investors (or the payments on the underlying assets) are guaranteed by the financial guarantor, and carry its high investment grade rating (see Figure 4).

Role of Rating Agencies

The role of ratings has expanded rapidly in the international and domestic Asian capital markets over the last decade. Ratings aim to provide an objective and independent credit evaluation and they assess the probability of timely payment of principal and interest according to the terms of the issue. The benefits of ratings are that: (1) highly rated

Figure 4. Standard Mortgage-Back Security Transaction



issuers can save money on financings and widen their investor base both domestically and internationally; (2) investors can compare alternatives across given ratings categories; (3) they provide a relative and absolute measure of credit risk. Costs, such as ratings fees and a time consuming ratings process, are also involved.

The process of establishing a rating on an MBS is roughly as follows: (1) The agency develops a "prime" mortgage pool for a specific market to serve as a benchmark portfolio in that market. (2) The agency then develops a

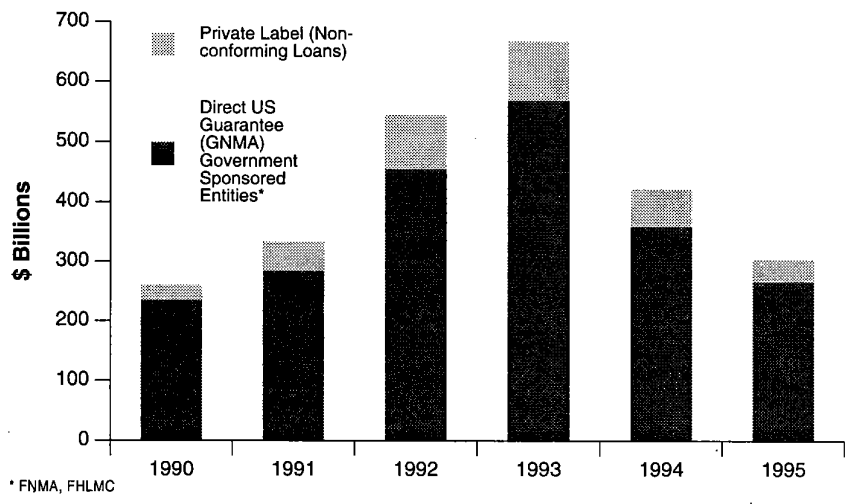
benchmark level of credit loss protection required to cover expected losses in a worst case economic scenario, based on a simple analytical framework. The benchmark level is established on the "prime pool" and then adjusted for actual pools based on inevitable deviations from the "prime pool." (3) The product of frequency of foreclosure and severity of loss serves as the expected level of loss under worst case economic stress. (4) If the deal structure provides an acceptable form of credit enhancement to cover such a worst case loss potential, it receives the appropriate rating.

Investor appetite for all types of MBS and ABS in developed markets are influenced by their credit ratings, and this influence will be especially significant in the emerging ABS and MBS markets of Asia. Formal ratings can open up a much wider investor base, as many international investors either will not or may not buy unrated securities. International rating agencies are interested in rating Asian MBS, but an international rating would be constrained by the sovereign rating of the country in question, unless a means is used to overcome it such as a financial guarantee. For example, a guarantee of ASIA Ltd, a financial guarantor rated AA by Duff & Phelps and A by Standard and Poor's, would elevate the rating of an Indonesian MBS to its ratings, which are above the Indonesian foreign currency sovereign ceiling. [For information on ASIA Ltd, the first financial guarantee company to be domiciled outside the U.S., see page 41.] In such a transaction, the guarantor would request, for due diligence purposes only and not for use by the public market, a "deemed" rating on the underlying securities from a rating agency. With assistance from the financial guarantee company, international rating agencies make a credit assessment of the transaction based on the structure of the transaction, the quality and performance of the asset pool under stress test assumptions, and on the condition of the issuer itself. Most commonly, a securitized transaction is "deemed" to be rated investment grade prior to the guarantee. In the case of ASIA Ltd, however, some transactions may actually be "deemed" to be sub-investment grade prior to the guarantee. The rating agency will issue its public rating, taking into account the financial guarantee once it is given and, therefore, the final rating on the transaction will be equivalent to the rating of the guarantor itself.

Financial Guarantees

The growth of securitization of both mortgages and non-mortgage assets since the 1980s, first in the U.S. but soon elsewhere, has led to a

Figure 5. Credit Enhancement of Securitized Mortgages



Source: Inside Mortgage Securities

surge in the use of credit enhancement techniques. As a means of credit enhancement, financial guarantees have been applied to transactions involving such collateral assets as first mortgages, home equity loans or second mortgages, major bank and private label credit card balances, auto loans, bank loans, recreational vehicle loans, manufactured housing loans, timeshare vacation apartment loans, perpetual floating rate notes, high yield bonds, senior loans to highly leveraged companies, commercial real estate leases and municipal leases. While securitization allows companies access to capital markets, credit enhancement facilitates this process by raising the rating and safety of a particular debt issue. Credit enhancement gives investors additional comfort that interest and principal payments will be made on a timely basis. Moreover, the high investment grade rating made possible by credit enhancement increases the demand for the issue by widening the pool of eligible and interested investors.

Credit enhancement techniques have taken various forms, including structures such as senior/subordination and cash collateral accounts, or third-party credit support from financial guarantee companies or banks providing standby letters of credit. While rating downgrades of banks have led the market to abandon letters of credit as a mode of credit enhancement, no financial guarantee company has ever been downgraded, nor has any security with a financial guarantee ever defaulted. Moreover, financial guarantees have increasingly been relied upon as the preferred mode of credit enhancement for newer collateral types and structures as well as longer dated or more complex transactions.

A financial guarantee issued by a financial guarantee company (sometimes also referred to as "bond insurance" or a "surety bond") is used in MBS and ABS to enhance the credit rating of a security to the triple-A level, based on the financial guarantee company's triple-A rating. Essentially, financial guarantee com-

panies "rent" their high, investment-grade credit ratings, thereby enhancing the creditworthiness of the guaranteed debt instrument. The guarantee is designed to ensure that investors will receive timely payments of principal and interest, regardless of whether the underlying collateral assets, or other sources aside from the guarantor, are able to support such payments. Financial guarantors not only impose stringent conditions at the outset, but also continue to monitor the credit of the transaction and quality of the asset pools. Investors also benefit from the oversight of the rating agencies on both the transaction and the financial guarantee company. Therefore, investors can be confident that the transaction structure is inherently safe and will remain so.

The financial guarantee industry has its roots in the U.S. tax exempt municipal bond market. The first such guarantee is believed to have been issued in 1971 for the city of Juneau, Alaska. Events such as New York City's financial crisis in the 1970s and the default by the Washington Public Power System on \$2.5 billion in debt in 1982 caused investors to

realize the value of financial guarantees. The importance of financial guarantees in the municipals market was highlighted during the recent default in Orange County, California, where investors holding guaranteed Orange County bonds continued to receive timely payments of principal and interest. Today, financial guarantee companies credit enhance approximately 44% of all new municipal issues and over 15% of all new ABS issues. CapMAC is a market leader in credit enhancement of ABS generally and asset-backed commercial paper specifically—no other financial guarantor or letter-of-credit bank has nearly the same market share—with \$15 billion (or 12.5% of total) commercial paper enhanced.

The first mortgage market is dominated by the federally sponsored secondary market agencies who securitize the mortgages and issue securities. Therefore, as most MBS have the implied or explicit support of the U.S. government, private market sources of credit enhancement do not factor as largely into the mortgage market. However, private sources of credit enhancement do play a role in the

securitization of non-conforming and jumbo mortgages, and of HEL. To illustrate, the securitized portion of the outstanding first mortgage market has now reached \$1.8 trillion, of which less than 15% has been credit enhanced by private market sources, whereas, the securitized portion of the outstanding HEL market has totaled over \$70 billion since 1990, of which roughly 75% has been credit enhanced in the private market.

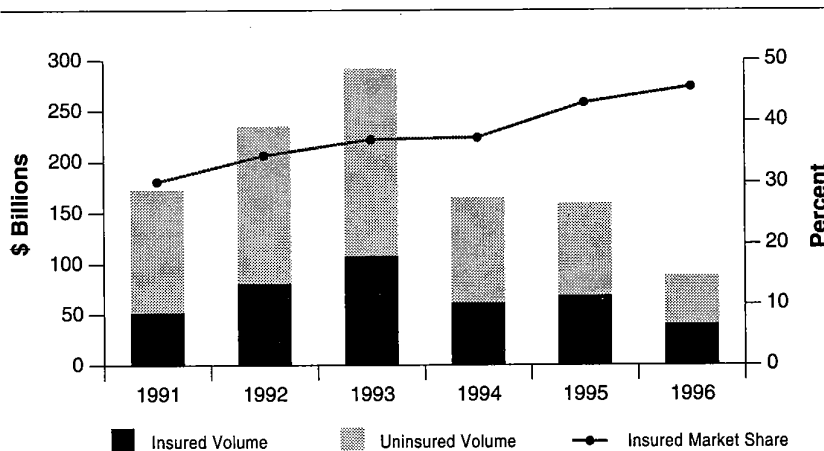
The process of obtaining a financial guarantee usually requires the following steps: inquiry by the client to the financial guarantor, screening of the client and the proposed transaction, specification of premiums and structural requirements by the financial guarantor, due diligence, underwriting commitment, detailed negotiations, pricing and sale of the securities, closing, additional and ongoing research, and monitoring by the financial guarantor. A financial guarantor credit enhances the pool of assets and the security receives a higher rating.

PARTICIPANTS IN THE FINANCIAL GUARANTEE INDUSTRY

A financial guarantee company is generally a monoline, that is, it has one line of business: it guarantees financial obligations (typically debt securities). Financial guarantors' activities are governed in the U.S. mainly by state insurance regulations (in the case of ASIA Ltd by the Monetary Authority of Singapore) and by the need to satisfy the rating agencies' strict rating criteria. Factors important to regulators, rating agencies and investors include single risk limits, aggregate risk limits, contingency reserve requirements, loss reserve requirements, the maintenance of a large capital base and a high quality investment portfolio, and annual reviews of the company's business plan and performance.

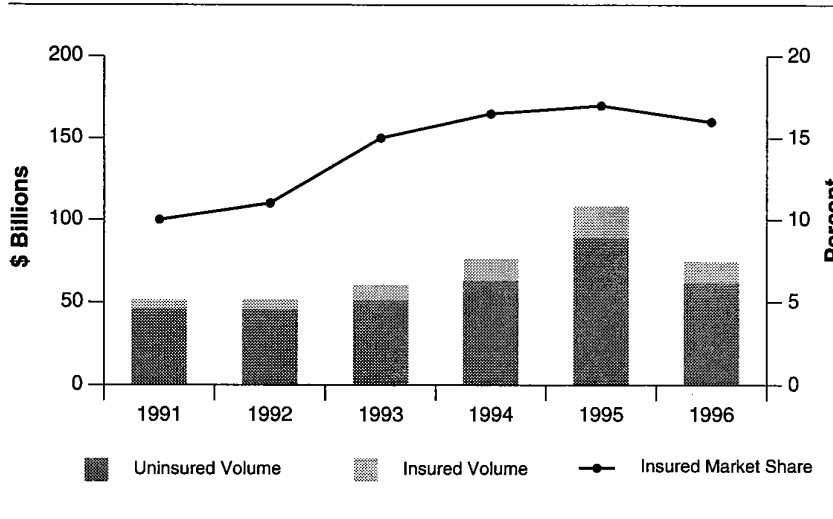
Currently, there are 11 providers of financial guarantee insurance or reinsurance specializing in this form of coverage throughout the

Figure 6. Market Share of Insured Municipal Financings



Source: Bond Buyer

Figure 7. Market Share of Insured Public Traditional ABS



world. Three of these, AMBAC, MBIA and FGIC guarantee primarily the borrowings of U.S. municipalities, states and other non-federal government entities. In 1991, MBIA Assurance SA was founded as the first international subsidiary of a financial guarantor and in 1995, the AMBAC Indemnity Corp/MBIA Assurance Corp European joint venture brought together two competing U.S. firms to combine their skills and resources to better master the European markets. Two financial guarantors, Capital Markets Assurance Corporation (CapMAC) and Financial Security Assurance Inc. (FSA), began with an exclusive focus on guaranteeing ABS. FSA now maintains virtually equal guaranteed portfolios of insured municipal and asset-backed issuances, leaving CapMAC as the only financial guarantor with a dedicated concentration on ABS. Connie Lee Insurance Company is a quasi-governmental reinsurer focusing on college and teaching hospital debt. There are also three major reinsurers, Capital Reinsurance Company, Enhance Reinsurance Company and Asset Guarantee Insurance Company.

The two most recently established financial guarantors, AXA Re Finance and Asian Securitization and Infrastructure Assurance (Pte) Ltd (ASIA Ltd), are the first independent financial guarantee companies to be domiciled outside of the United States. AXA Re Finance focuses on European credit and U.S. bond reinsurance. Asia's first financial guarantee company, ASIA Ltd's focus is on infrastructure revenue bonds, ABS/MBS and general obligations of issuers in the major Asian economies.

ASIA Ltd

The significance of ASIA Ltd, located in Singapore and regulated by the Monetary Authority of Singapore, is its ability to write business in non-OECD currencies, which U.S. insurers are prohibited by regulation from doing. ASIA Ltd's ability to guarantee financial obligations in multi-currency domestic and cross-border transactions for Asian borrowers makes its services unique and valuable. Backed by the experience and expertise of its Technical Advisor, CapMAC Financial

Services Inc. in the ABS and MBS markets of the United States and Europe, ASIA Ltd is positioned to play a key role in the development of Asian capital markets. It will seek to promote the use of securitization and financial guarantees as cost-efficient methods for attracting regional and international capital to the mortgage- and asset-backed markets of China, Hong Kong, India, Indonesia, Malaysia, the Philippines, Taiwan, Thailand, Singapore and South Korea.

ASIA Ltd is owned by a powerful group of Asian and international investors with strategic interests in the development of the Asian capital markets, including CapMAC Asia, Government of Singapore Investment Corporation, Asian Development Bank, Employees Provident Fund of Malaysia, American International Assurance Co. Ltd. (an affiliate of AIG), Korea Long Term Credit Bank, DEG - Deutsche Investition- und Entwicklungsgesellschaft mbH, and Netherlands Development Finance Company (FMO). It has total subscribed capital of US\$150 million. Its Technical Advisor CapMAC Financial Services, Inc., is an affiliate of Capital Markets Assurance Corporation (CapMAC), a AAA-rated financial guarantee company located in New York that has credit enhanced nearly US\$60 billion in securities since its inception in 1987. As the Technical Advisor to ASIA Ltd, CapMAC provides to ASIA Ltd the personnel, systems and expertise that have made it a leading provider of credit enhancement worldwide.

When ASIA Ltd guarantees an asset-backed security or infrastructure revenue bond, that security automatically carries the high international credit ratings of ASIA Ltd: "AA" from Duff & Phelps Credit Rating Co. and "A" from Standard & Poor's. These ratings allow non-rated or low-rated, but otherwise creditworthy companies, to raise the credit rating of the bonds they issue, lower their borrowing costs and tap a bigger pool of investors.

Benefits of Financial Guarantees to Issuers

The opportunity for companies to grow is partly based upon their ability to raise inexpensive funding to finance growth. If a company has an identifiable, predictable and diversified revenue stream, most commonly receivables for the sale of goods and services, it may be able to use those receivables to fund business growth through securitization. Additionally, by using off-balance sheet financing, the issuer can improve capital adequacy, boost its return on equity and better manage its customer portfolio. The issuer can increase investor confidence and awareness of its firm, better match assets and liabilities and better manage interest rate risk. By tapping into the regional and international capital markets, companies access alternative sources of funding at a significantly lower cost through the use of financial guarantees. Guaranteed securities are issued at lower interest rates on the strength of the guarantor's investment grade ratings and of having passed the guarantor's tests of economic attractiveness. Most of these savings are passed along to the issuer.

Benefits of Financial Guarantees to Investors

Through the use of financial guarantees, investors can capture a superior yield while limiting their credit risk. A financial guarantor has the experience and expertise to assess the risks involved in the transaction and structure the deal appropriately. Investors receive a guarantee of timely payment of principal and interest, as well as the increased liquidity that can come with guaranteed securities. Additionally, investors can better manage their portfolio by matching assets with liabilities, and better control interest rate and maturity risk. Perhaps most importantly, a financial guarantor like CapMAC or ASIA Ltd constantly monitors all of the transactions it guarantees to assure that the underlying assets perform as expected. A financial

guarantee company has the resources and expertise to provide proper surveillance on guaranteed transactions, as its capital is at risk. Investors, therefore, can benefit from the specialized expertise of financial guarantors in the assessment and monitoring of credit risks of securitized transactions. As a result, no financial guarantee company has ever been downgraded and no securities with a financial guarantee have ever failed to pay the investor the principal and interest due.

By tapping into the international pool of investors, emerging markets issuers will enjoy increased access to funds which are needed to finance future growth. Conversely, through securitization and credit enhancement, regional and international investors have a wider pool of investments from which to choose. In this manner, the needs of both sides of the financing equation are met to finance the continued growth of emerging economies.

Benefits of Financial Guarantees to Sovereign Governments

Asian governments have a long history of timely repayment of their debt, and this is reflected in the relatively high credit ratings of countries across the region. Many developing countries outside of Asia are also working to build attractive credit profiles. However, if these countries hope to continue their phenomenal economic growth rates of the past 10-15 years, there must undoubtedly be an increased amount of private sector financing. Multilateral lending institutions such as the Asian Development Bank and the World Bank are encouraging countries to seek additional credit sources to leverage their limited funds (particularly for the longer maturities). Securitization is one method that can be used, and financial guarantees are a way of increasing the safety of this financing and enlarging the pool of investors willing to participate.

To facilitate the desired increase in private sector financing, there exists a strong incentive

to develop capital markets in these emerging economies. A good starting point in this development process is the creation of an MBS market which can then serve as a yield curve benchmark for other markets. The efficient pricing of mortgage-backed securities owing to government support and underlying cash flows translates into more affordable mortgage rates for home buyers. In addition, the proceeds of the housing loans, with the use of securitization, can be used to grant new housing loans or loans for other growth activities. The result, in emerging markets as elsewhere, is that investors are attracted early, which is an important factor in the development of a secondary market and for attracting cash flows. Thus, as in the U.S., the promotion of housing finance can be a crucial aspect in the development of capital markets which can benefit the rest of the economy.

EXPANDING USE OF SECURITIZATION AND FINANCIAL GUARANTEES IN ASIA

There is strong investor and issuer interest in the development of MBS and ABS markets in Asian countries such as Malaysia, Indonesia, Hong Kong and Thailand. Emerging Asia's financing needs are well known: U.S.\$1-2 trillion or more will be needed to build infrastructure and to finance business expansion in line with continued strong economic growth. While Asia's savings rates will remain high, traditional methods of financing (equity, bank financing and loans from official sources, banks and credit agencies) will likely be insufficient. New methods of financing are needed to attract savings from regional and international investors otherwise averse to the risks involved in Asian securities and to satisfy long-term capital requirements. In emerging markets, such as those in Asia, financial guarantees can help attract investors early and serve as the foundation for the issuance and purchase of securities backed by mortgage loans and other assets.

In these countries, there has been a rapid growth in the number of securitizable assets, including residential mortgages, other consumer loans, trade receivables and lease receivables. Local financial institutions must meet newly imposed BIS-style capital ratios and reduce single-risk or market-segment exposures. Foreign financial institutions operating in Asia are increasingly looking to ABS and MBS markets to provide local currency funding. There has been a rise in the number of non-bank finance companies which lack a deposit base. At the same time, large domestic and regional pools of funds, such as employee-provident and pension funds, which have resulted from the high sustained growth rates of Asian economies, are searching for attractive investments.

The total volume of Asian structured finance is currently estimated to be in excess of US\$2 billion. These issuances include US\$1 billion of MBS in Hong Kong, over US\$120 million of consumer and corporate asset-backed deals in India and credit card receivables-backed private placement issues by CMCI, an affiliate of CapMAC in Indonesia, totaling over US\$100 million. The growth of these markets is poised to accelerate over the next several years.

Hong Kong started securitizing mortgages in 1994, thereby developing Asia's first private mortgage market. Asia's first cross-border credit card-backed securities transaction followed in October 1994 and auto loans were first securitized in April 1995. By mid-year 1995, there were HK\$4 billion of ABS and MBS outstanding (of which HK\$3.5 billion were MBS). In recent years there has been a strong appreciation of Hong Kong property values, contributing to the growth of this market. Hong Kong's residential mortgage market is estimated at over US\$30 billion and offers ample opportunities for securitization with supportive legal and regulatory regimes. Banks and property developers will need to sell mortgage assets because of balance sheet constraints and already see securiti-

zation as an attractive alternate funding source. Consequently, the government is spearheading the establishment of a Fannie Mae-type institution in Hong Kong.

In India, a decline in the domestic equity market has increased borrowers' incentives to raise debt capital. More than a dozen ABS issuances, involving Citibank, ICICI and SBI have been transacted. Mortgages, credit cards and auto loans are some of the areas most likely to experience a growth in the use of securitization. Likewise in Indonesia, consumer assets provide the most immediate opportunities for securitization, especially in the area of bank credit cards. The first auto-backed deal from Indonesia, PT Astra, was completed recently. The Indonesian bond and commercial paper markets are evolving rapidly, and each totals about US\$3 billion equivalent. Securitization potential also exists in the area of Indonesian mortgage loans. A popular mortgage product features a 15-year term with fixed rates for three- to five-year periods. There has been some interest to invest in these mortgages by insurance companies seeking to match asset and liability tenors. In Thailand, the number of companies with underwriting licenses is expanding, and financial institutions, such as leasing companies, are looking at ABS. The Thai government is also formulating securitization law to facilitate securitization of mortgage and other assets. The first public securitization out of Thailand, a US\$250 million transaction backed by auto loans, issued via a special purpose vehicle, Thai Cars Ltd., was also transacted recently.

Cagamas, the National Mortgage Corporation of Malaysia was established in 1986 to issue secondary mortgage securities and is now the largest issuer of private debt securities in Malaysia. Though not MBS, strictly speaking, Cagamas issues "quasi-securitized" fixed-rate bonds with three-, five-, and seven-year maturities and floating rate notes which have coupons pegged to the six-month KLIBOR.

Secondary trading of Cagamas-issued triple-A RAM-rated securities rose sharply to RM16.1 billion in 1995 from RM8.6 billion in 1994. By December 1995, Cagamas' housing loans portfolio had expanded by almost 20% to reach a total of RM11,882 million, compared with RM9,944 at the end of the previous year.

The outlook for Asian ABS/MBS is good for several reasons. All over Asia, governmental authorities and multilateral financial institutions such as the World Bank and the Asian Development Bank support the growth of private debt markets. Investors view Asia as having a strong investment potential—eight countries in the region are already rated investment grade or better by Standard & Poor's and nine by Moody's. In other parts of the world, investment grade emerging markets include Chile, Colombia (where securitization of first mortgages has already begun), Oman, Qatar, Slovenia, Poland, and the Czech and Slovak Republics.¹ U.S. and other Western investors have committed significant funds for international diversification in fixed-income securities and the demand for emerging market fixed-income securities, especially those with maturities less than five years, exceeds supply.

ARE THE EMERGING MARKETS READY FOR SECURITIZATION?

Securitization is a complex financial tool that requires certain legal concepts to be recognized by the relevant authorities to function smoothly. For example, in some countries securitization involving the sale of receivables is not recognized under local law. In other instances, the sale of assets is permissible, but is taxed so heavily that the resulting transaction becomes economically unfeasible. In some jurisdictions, the issue of bankruptcy is a sensitive one: Are companies allowed to go bankrupt, and if so, what happens to claims on the assets previously sold by the bankrupt entity?

The legal, regulatory and accounting issues affecting the feasibility of securitization can be roughly grouped into the following areas:

- *Legal issues*

The possibility of a "true" sale and perfection of a security interest.

The feasibility of establishing a Special Purpose Vehicle that is bankruptcy remote.

The legal right to transferred assets upheld even in the event of bankruptcies.

- *Regulatory and accounting issues*

Authorities' willingness to consider the use of securitization.

Viability and feasibility of off-balance sheet and non-recourse financing.

- *Tax issues*

The ability to do transactions while maintaining tax-neutrality in regard to withholding taxes, stamp duties or other tax constraints.

From the standpoint of financing requirements, there is little doubt in the minds of market participants that given the right conditions, securitization could flourish in Asia and other emerging markets. Whether or not the "institutional infrastructure" necessary for securitization is in place in these developing economies is open for discussion; but in many countries, these types of transactions are achievable in one form or another. The learning curve may be steep in some countries; but the experience of the U.S. market shows that once issuers, investors, regulators and others learn of the benefits of securitization, the market will begin to realize its vast potential.

There seems to be little doubt that debt securities of good credit quality will find ready investors in Asia, where the past decade of sustained economic growth has led to the formation of large pools of capital. Public and

private pension funds, insurance companies, and high net worth individuals in the region all seek high-quality debt securities. This need will be further served by securities that are denominated in local currencies. Multinational insurance companies, for example, will be able to buy securities denominated in currencies that match the currency in which their policies are written, giving them a hedge against currency risk. Furthermore, U.S. and other Western institutional investors have committed significant funds to achieve international diversification of their portfolios.

Although the bond markets of many emerging market countries are underdeveloped in comparison to the U.S. and Europe, the World Bank expects that over the next decade bonds will be an important segment of Asia's financial markets. The disproportionate reliance on equity by Asian corporations to finance growth has already begun to diminish, as a growing amount of debt is issued in Asia every year. The development of the capital markets is a necessary condition for the widespread issuance of debt securities, as it is essential that these securities be able to trade once issued.

Securitization flourishes with bank disintermediation, and although banks in Asia are still strong especially compared to their American counterparts, they are starting to come under some of the same risk-based capital adequacy constraints that affect banks worldwide. As in more developed financial markets, corporate entities in Asia are starting to look at bonds of varying durations as a substitute for bank loans. Banks no doubt also will seek the off-balance sheet benefits of securitization as a way of better utilizing their own more restricted capital. If they are up against their internal single or aggregate concentration limits, securitization is one means by which they can reduce balance sheet assets, thereby freeing up capital to finance new business.

Securitization in many emerging markets does

face obstacles, however. In some markets there may not be a large enough volume of securitizable assets and no recorded or recordable payments track records on securitizable receivables. Legal, regulatory, accounting and tax hurdles are always larger for initial transactions than for subsequent ones. Accounting and disclosure practices are not always up to par with international standards. In many of these emerging economies, there is a lack of sufficient regulatory oversight and legal protections for investors and issuers. Currency and foreign exchange risks unknown to domestic transactions arise, as do issues concerning political and sovereign risk, economic policy and business environment stability.

SUMMARY AND CONCLUSIONS

Although securitization is still a relatively new concept in the capital markets of Asia and other emerging markets most of the necessary ingredients for its success are in place. There are large investors, both regionally and internationally, who have an appetite for Asian fixed-income securities of good credit quality. Governments' ability and willingness to be the main financier of economic growth is receding, and banks and finance companies are increasingly facing capital adequacy and other regulatory and competitive requirements that will force them to monitor loan activity more carefully. Also, the credit ratings of most Asian countries are at least investment grade, making it easier for international institutional investors to participate via the purchase of debt securities.

The establishment in Asia of a financial guarantee company with expertise in structuring and enhancing asset-backed securities is a key component of the development of the Asian securitization markets. An unrated or low-rated entity that possesses strong, predictable streams of revenues can use a financial guarantee to raise the credit rating of its debt issuance,

thereby lowering the interest rate on the securities and the cost of funds to the borrower. Many Asian banks and finance companies are experienced at lending to their countries' blue-chip companies, and securitization allows less well-known, but otherwise credit-worthy entities to access a heretofore unavailable, and less expensive, means of raising capital. Securitization also allows banks and other financial institutions to manage and mitigate exposure concentrations and free up scarce capital resources to finance growth.

Because the bonds will carry the high credit ratings of the financial guarantor, the pool of eligible investors will be widened, and many international investors hungry for Asian paper will be able to participate in the region's continued economic success. These higher ratings and larger investor market will lower interest rate costs and save sponsors money.

Securitization has little impact on the government's ability to control the monetary system but adds another layer of financing

options. Therefore, it is important that the proper legal and regulatory framework for securitization be in place so that the country may benefit from its use. There must be an articulation of the process by which assets may be removed from the originator's balance sheet. Taxes must not be burdensome on the sale of these assets. The special purpose vehicle must be recognized as the true owner of the purchased assets, and the SPV must be bankruptcy remote from the originating institution. After all, the originator must be convinced that securitization is a cost-effective and tax-neutral alternative to on-balance sheet financing.

In sum, securitization and financial guarantees are logical steps in the evolution of capital markets in Asia and other emerging markets. Securitization and the use of financial guarantees allow credit-worthy borrowers to raise funds in the international and regional capital markets in a cost effective and efficient manner, while enabling investors to invest in high quality and attractive investments in the

emerging markets. As the benefits of securitization are more widely recognized in emerging markets, issuers, investors, regulators and other market participants are likely to follow the example of the more developed capital markets in the U.S. and turn increasingly to financial guarantees as a means of providing investors with greater confidence to invest in structured financings.

NOTES

¹ Securitization of Latin American receivables has been under way for nearly five years and has been aimed primarily at raising offshore funds on the basis of future receivables from the exports of goods and services in transactions that often seek to rise above the generally non-investment grade sovereign rating "ceiling" of the originator's country of domicile. Recently, some purely domestic transactions have begun to emerge and mortgage securitization is of interest to several countries, including Argentina, Mexico and Colombia.