

**Shadow Financial Regulatory Committees of Asia,
Australia-New Zealand, Europe, Japan, Latin America,
and the United States**

**Statement N° 20
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**Making Securitization Work
for Financial Stability and Economic Growth**

The current world economic recession and widespread financial crisis are widely thought to be connected with the collapse of securitization markets in the United States. However, prior to this crisis, fully functioning securitization markets have contributed to economic growth in the US and several other industrial countries, and have worked very well for over 30 years. Indeed they have begun to take root in several emerging markets. In this statement, we explore the causes of the securitization crisis in the US, and suggest how securitization could be revived and made less crisis prone. In addition, we suggest other approaches that fit the special constraints facing emerging countries.

I. What went wrong?

In many ways, the current crisis in the US has followed a pattern that has played out over decades in scores of countries. The crisis was preceded by excessive credit boom, increasing leverage of financial institutions, excessive risk taking, and the formation of a speculative bubble. The fact that the bubble was in housing, made sub-prime related debt the proximate cause of the financial crisis. The size, global integration, and the complexity of the US financial markets made it inevitable the crisis would become global.

Securitization is a financial innovation that came from the government sector. It was devised to increase the flow of finance to the housing sector. The fundamental idea is very simple. The securitizer buys a pool of mortgages from a variety of lenders (who then have the capacity to make additional mortgage loans) and then sells securities that are claims against the cash flows from this pool of loans. The securities are often designed to appeal to particular kinds of institutional investors. In the early days the securitization structures were very simple and amounted to little more than pass-through securities in which each investor got a pro-rata share of the cash flows generated. Because these securities came with a

government guarantee against credit risk, they were an attractive investment to a number of different institutional investors that were required to hold high-quality assets.

When the private sector adopted the model, it faced the challenge of how to replace the government guarantee against credit risk. Privately-sponsored securitization relied on three approaches. First, sponsors of private securitizations developed sophisticated statistical models to estimate how much excess servicing, over-collateralization, subordination or residual tranching they would need in order to make the majority of the securities at least investment grade. Second, a sponsor could arrange for a monoline insurer to guarantee against credit risk. Finally, and most importantly, sponsors depended on the ratings agencies to certify the adequacy of these precautions taken to enable most of the securities to be rated investment grade or higher.

Securitization offers benefits to lenders, borrowers, and investors. The access to the broad capital market potentially reduces borrowers' funding costs relative to those of constrained local markets. Not only does securitization allow lenders to sell their localized risks, securitization can diversify their risk by buying securities originated by lenders facing different types of borrowers. This helps smooth the risk exposures retained by financial institutions. It also provides diversification opportunities to other kinds of institutional investors. Securitization offers a way to obtain the advantages of specialized skills and comparative advantages. For example, loan origination, servicing and funding can be separated to allow greater specialization in lending. Initially securitization focused upon mortgage loans, but this spread over time to motor vehicle loans, credit card loans and even exotic items such as the rights to the future cash flows from David Bowie's songs.

Investors were so confident in the securitization process that they were even willing to buy securitizations based on subprime mortgages. They became part of a virtual alphabet soup of more complex securitizations, which became increasingly opaque, even to the sponsors themselves. Figure 1 displays one fairly elaborate securitization technique which divides the initial pool of subprime securities into tranches that are subordinated in priority of repayment to ensure that the most of the securities would receive an investment grade rating or better. For example, if a CDO² holds 100 CDOs each holding 100 MBS comprising a mere 2,000 mortgages – the number of underlying securities is 20 million.¹

Once the delinquency rate of sub-prime mortgages rose well above the worst rate anticipated, the market collapsed. This revealed a number of flaws in the structure of the sub-prime securitization.

- Normal standards of due diligence broke down almost completely at every stage of the securitization process including: the behaviors of borrowers, mortgagors, originators, sponsors, credit rating agencies, servicers, asset managers, insurers, and investors.
- Compensation in the entire chain involved in the process of securitization was based on short term outcomes, rather than aligned with the interest of investors.
- Inadequate regulation and supervision of credit rating agencies, banks, investment banks, insurance companies, and pension funds.

¹ Kenneth Scott and John B. Taylor, "Why Haven't we cleaned up Toxic Assets?"

- The regulatory emphasis on holding highly-rated assets boosted incentives for production of highly-rated securitized assets including highly-rated tranches of sub-prime securitizations.
- The Basel Accord on Capital Adequacy set minimum standards for capital adequacy for internationally active banks. It inadvertently created strong incentives for banks to securitize assets.
- The Government Sponsored Enterprises (Fannie Mae and Freddie Mac) added to the demand for subprime securitizations due to Congressional mandates. They ended up holding more than half of the AAA-rated subprime securitizations.
- The unintended consequence of the European Union's attempt to force Basel II-like regulation on the five largest investment banks, who were among the largest sponsors of sub-prime securitizations, was the substantial increase in their leverage.

Contagion was rapid and global, spreading quickly from subprime-related securitizations to other securities, markets, and institutions.

- Monoline insurers also insured municipalities, who consequently lost access to the market.
- Securities depending on credit ratings became non-tradable.
- The complexity of sub-prime related securitizations led to doubts about the solvency of many of the largest institutions of the world, which caused a breakdown in many inter-institutional markets, such as the interbank market, OTC derivative trading, and ultimately in repo markets.
- The collapse of Lehman Brothers led to a run on Money Market Mutual Funds and, consequently, the collapse of the Commercial Paper market.

These potential sources of contagion enhanced the propensity of governments to bailout financial institutions.

II. Proposals / Solutions

For the securitization system to work well again, it is essential that investors are confident that the system is being regulated and supervised effectively. It is crucial that the incentives of various intermediaries and agents be aligned with the objectives of the ultimate investors. Analogously, the incentives of regulators themselves also need to be aligned with those of taxpayers—so that downside risks are not borne by taxpayers.

- Transparency
 - Dissemination of and free access to all information given by issuers to credit rating agencies to enable competitors to form independent judgments of the value of the securitizations.

- Disclosure of rating outcomes for all issues so that investors can better evaluate the track record of alternative suppliers of credit ratings.
- To discourage shopping for higher ratings, require that all issuers of securitizations reveal all preliminary ratings they have received before the rating (or ratings) they chose to purchase.
- One way to align compensation with the long-term interests of investors is to pay fees proportional to the gradual return of principal to investors. In practice this makes all of the agents in the securitization chain behave as equity holders.
- Regulation:
 - A complete revision of Basel II's approach to correct flaws revealed by the crisis and to assure reasonable leverage ratios.
 - Increase the equity to asset ratio.
 - Eliminate the dependency of regulation on credit rating agencies.
 - Discourage OTC derivatives when possible, and when not possible, enhance disclosure of OTC positions.
 - Improve regulation and supervision of monoline insurers for adequacy of reserves.
- Standardization and simplicity of the structure of securitized products to enhance the liquidity of secondary markets, and to improve the monitoring of the quality of the underlying assets.

Emerging markets

The development of securitization in emerging markets has not flourished at the same speed as it has in developed markets. Nevertheless, the benefits of securitization may be even greater for emerging markets, than for developed nations which already have sophisticated capital markets.

Capital markets remain shallow in developing and emerging market economies for several reasons. Among the most important ones are: (1) recurrent crises in the banking systems are a constraint to the continuous supply of liquidity essential for the working of capital markets; (2) feeble institutions have not allowed markets to fully develop, for example, inadequate bankruptcy law does not support well functioning bond markets; (3) weak contract enforcement increases counterparty risk of default limiting market participation; (4) entry and portfolio restrictions to institutional investors have inhibited the supply of instruments available to capital markets; (5) the presence of currency convertibility risk places a severe constraint on investors' willingness to hold emerging markets securities.

Therefore, the lack of "implicit enhancement" to securities provided by sound institutions and a convertible currency constrain the development of capital markets and increase their vulnerability.

In this context, further simplicity and caution are required. To reap the benefits of securitization while minimizing the risks, the framework of securitization needs to be prudent. In this sense, the Committee recommends consideration of the system implemented in Denmark, as a potential model for the regulatory design of the securitization of mortgages in emerging markets. It has two key features. First, leverage is effectively limited by capital requirements since loans must remain on the banks' balance sheet. Second, loan origination is straightforward and fully transparent.

In addition, to ensure the credible and sustainable provision of "hard liquidity", emerging markets need to develop self-insurance mechanisms and access to external lines of credit. Accumulation of reserves has proven to be an effective, although costly mechanism of self-insurance.² The particular features of emerging markets with respect to the provision of external liquidity imply that private capital flows are highly volatile. Thus, reliance on liquidity facilities provided by multilateral institutions is essential. The newly created FCL (Flexible Credit Line) is a step in the right direction.

I. Appendix

The Danish system of mortgage financing can be described as "partial securitization" or "partially asset backed" in the sense that cash flows on mortgage bonds issued by specialized institutions are tied to cash flows from a pool of mortgages. The mortgage issuing institution bears the risk of default on the mortgages, however.

The Danish mortgage bond market has a very long and successful history. Denmark along with the USA is the only country where a 30-year fixed-rate mortgage that is callable by the borrower without penalty is commonly available..

While the main risk facing these one-stop mortgage institutions is default risk, the main risk facing investors is prepayment risk. Both risks are kept low by regulation and competition. The mortgages are full-recourse with the implication that a borrower is responsible for the full loan even after foreclosure and personal bankruptcy. Regulation sets limits on loan to value ratios. The prepayment risk is reduced by the pooling of mortgages backing a bond issue. Competition is an important factor as well since mortgage institutions have incentives to make a bond issues as liquid as possible. Liquidity is achieved by making bonds highly standardized in terms of prepayment risk in particular.

Liquidity in the market is enhanced by a central registry for mortgages and agreements among institutions to release specific information about the mortgage assets backing the bonds.

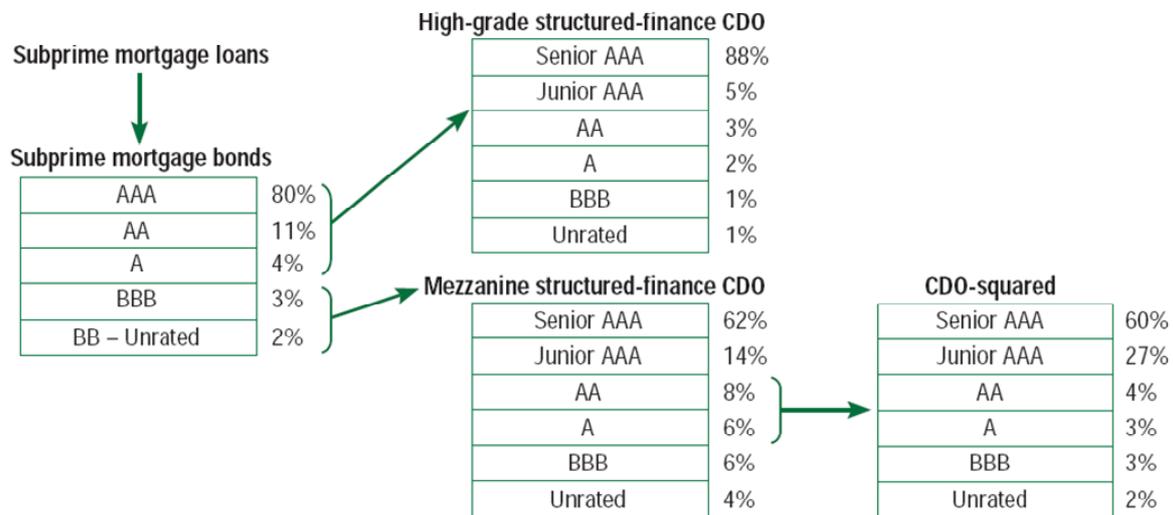
These one-stop institutions originate, issue, and service the bonds. By regulation they cannot accept deposits and they must balance cash flows from mortgages to investors on each bond issue. A particular bond can be issued over a three year period with additional bonds being issued each time a mortgage contract is entered. Innovation in the market for mortgages during the last decade has increased the variety of bond contracts. There is a conflict between offering a menu of contracts and liquidity, however.

² There are regional funds that are designed to provide this liquidity. FLAR is the regional fund for Latin America, and CMIM is the regional fund in Asia.

Although the market has provided Danes with low-cost mortgages (option-adjusted spreads have been comparable to the US) there is a degree of quantity rationing in the system since the institutions are striving to achieve standardization in terms of default and prepayment risk.

Figure 1. How CDOs Helped Transform Subprime Mortgages in an Ever Increasing Amount of AAA rated Securitized Debt

Matryoshka — Russian Doll: Multi-Layered Structured Credit Products



Source: IMF staff estimates.
 Note: CDO = collateralized debt obligation.

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