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Current state of Japan's securitization market

Nomura Research Institute, Ltd.

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Introduction

Repercussions from the subprime mortgage crisis epicentered in US continue to roil global securitization and, in turn, financial markets. Once widely hailed as a seminal financial innovation, securitization currently remains under fire from some quarters for widely dispersing risk, thereby delaying detection of subprime problems and complicating price discovery and risk management. Nonetheless, securitization remains an extremely valuable means of distributing underlying assets' risks and repackaging cash flows into products appealing to investors. Amid the ongoing adverse investment environment, we believe that surmounting the current market upheaval and restoring the securitization market to a sound development path would contribute substantially to Japanese financial markets' further growth and development.

From such a standpoint, we discuss below challenges that must be overcome for investors that have become wary of securitized products to regain the capability to invest in securitized products by upgrading their risk management practices. We begin with an overview of Japan's securitization market.

History of Japan's securitization market

Japanese financial markets have historically been dominated by indirect finance, with banks gathering deposits from the household sector to fund loans to the corporate sector. During the postwar reconstruction period, Japan adopted a policy of having banks aggregate scarce funds in the form of deposits and lend them to designated industries on a priority basis. This system of bank-intermediated finance functioned extremely effectively to meet the corporate sector's burgeoning demand for funds amid Japan's rapid economic growth from the 1960s. On the downside, this system had the drawback of concentrating risk in the banking sector, but banks avoided excessive competition with each other pursuant to MOF administrative guidance. In lieu of competing, banks banded together in a so-called convoy system to ensure their survival and profitability. As long as the convoy system existed and the assets (e.g., real estate, shareholdings) that collateralized bank loans continued to briskly appreciate in value, the risk of a banking crisis was essentially nil. Even in the unlikely event of a bank failure, the authorities stood ready to orchestrate a rescue by merger. The risk of bank failures thus posed no threat to the overall financial system. Bankers of that era consequently focused exclusively on growing their assets. The idea of balance-sheet downsizing was completely foreign to them (back then, banks' status was determined by the scale of their funding or total assets). Japanese banks consequently had no interest in embracing securitization, even as the US and European securitization markets were growing apace during the 1980s.

Subsequently, however, the situation changed dramatically. With the advent of BIS capital adequacy regulations in the 1990s, banks became subject to a regulatory capital constraint on the size of their balance sheets. Moreover, banks found themselves saddled with NPLs in the aftermath of the Japanese asset bubble's collapse. The ensuing NPL cleanup process forced banks to drastically curtail their lending capacity. In 1997–98, a full-blown financial crisis erupted as several major financial institutions failed in rapid succession. In response, financial institutions intensified their efforts to downsize their loan portfolios and rid their books of NPLs, forcing major corporate borrowers (e.g., nonbank financials) to shift from bank loans to other funding sources. One widely used alternate funding method was securitization. Japanese financial markets saw heavy issuance of ABS (asset-backed



securities) and CLOs (collateralized loan obligations) from the late 1990s.

Meanwhile, another factor that contributed greatly to the Japanese securitization market's development was certain legislation enacted in the 1990s.

The securitization process begins with an originator that owns the underlying assets to be securitized. The originator typically transfers the assets to a special-purpose vehicle (SPV) such as a trust or special-purpose corporation, which issues securities backed by cash flows generated by the underlying assets. The key to structuring a securitization deal is ensuring that these cash flows remain available to stably fund interest and principal payments on the securities as initially planned. To achieve this objective, the first priority is to transfer the underlying assets from the originator to the SPV without any legal complications (i.e., the transfer must be a "true sale"). A true sale means that if the originator or other involved party subsequently goes bankrupt, the underlying assets would be beyond the reach of creditors and bankruptcy administrators (a condition known as "bankruptcy remoteness"). Two laws¹⁾ enacted in the 1990s were instrumental in enabling such bankruptcy-remote securitization structures.

In most cases, securitized products' underlying assets are pools of financial claims owed to a specified creditor (nominative claims). To assert the validity of the assets' transfer to the SPV (i.e., to legally perfect the transfer against third parties), originators previously had to individually notify or obtain the consent of each and every debtor in accord with a provision of Japan's Civil Code. In cases with hundreds or thousands of debtors, however, this legal requirement imposed an onerous administrative burden that was a major impediment to securitization. Against such a backdrop, the aforementioned two laws were enacted. They permit originators to perfect asset transfers through mass notification (i.e., public notice or registration), provided that certain conditions are met. This legislation that enabled transfers of underlying assets in an administratively feasible manner²⁾ was a major impetus behind the securitization market's growth.

In sum, Japan's securitization market developed in response to such enabling legislation and the imperatives of the financial environment of the 1990s. As this process unfolded, securitization techniques gradually gained prevalence and expanded in scope to eventually encompass other assets, including residential mortgages. Exhibit 1 plots the trend in securitized issuance since FY97. Annual issuance first surpassed ¥1trn in FY98 and has since grown substantially.



Exhibit 1. Securitized issuance by fiscal year

Source: NRI, based on Japan Securities Dealers Association and UBS Securities data



Subprime crisis's impact on Japan's securitization market

How have subprime mortgage woes, which first attracted scrutiny in Japan in the first half of FY07³, impacted issuance of securitized products in Japan?

FY05-06, the years immediately preceding the subprime crisis's eruption, were marked by an upsurge in securitized issuance to a level surpassing public issuance of straight corporate bonds, albeit largely by virtue of special factors such as Softbank Mobile's whole business securitization valued at over ¥1 trillion and a rush to securitize residential mortgages (RMBS) before the new BIS risk-adjusted capital adequacy regulations took effect (Exhibit 1). In FY07, securitized issuance fell 24% from FY06, reflecting the impact of the subprime crisis and cessation of said special factors. From the standpoint of securitized issuance's long-term trend, however, FY07 issuance can still be characterized as robust⁴. In FY08, investment banks were initially projecting securitized issuance of roughly ¥6-8trn, modestly above its FY04 level and a respectable volume in light of the adverse market environment. As of September 2008, however, securitized issuance was tracking well below its projected level amid a steep falloff in securitization of commercial mortgages (CMBS) in particular (Exhibit 2). This downshift in securitized issuance partly reflects investor wariness towards securitized products in addition to a slump in underlying asset markets. Securitized issuance is likely to remain depressed for a while.

Publicly available information about issuance terms is limited, but CDS spreads, a key determinant of synthetic CDO yields, decoupled from regular corporate bond spreads in August 2007 and widened further in March 2008 (Exhibit 3). After subsequently tightening for a while, CDS spreads resumed widening sharply from May. This widening trend indicates that CDS returns have been rising per unit of credit risk. According to securities firms' research reports and contacts with market participants, synthetic CDO spreads also have been widening in sympathy with CDS spreads. Other securitized products have apparently also been exhibiting similar behavior. This widening of spreads, likewise largely attributable to investor caution toward securitized products, has created advantageous buying opportunities for the few investors capable of investing in securitized products.



Exhibit 2. Recent securitized issuance



Source:NRI, based on Mizuho Securities' Structured Finance Monthly May-September 2007 and May-September 2008



Exhibit 3. CDS spread and (A-rated) corporate bond spread (in basis points)

Source: NRI, based on Bloomberg data



Distinguishing characteristics of securitized products in Japan

One major distinguishing characteristic of the Japanese securitization market is that most deals are relatively simple, single-layer structures. Multilayer structures of the types blamed for complicating the subprime crisis (e.g., ABSCDOs, CDOs-squared), where securitized paper is resecuritized once or even twice, are relatively rare in Japan. Of the two-layer structures that do exist in Japan, most differ from the types that created additional arbitrage opportunities and induced investors to pursue arbitrage profits in the US. When two-layer structures have been utilized in Japan, the objective is typically to make RMBS more marketable to investors by time-tranching issues into medium- and long-term maturities. In contrast to the US, where credit enhancements by monoline insurers enabled complex, multilayer securitization structures, external credit enhancements are seldom used in Japan.

Securitization deals are not as standardized in Japan as in the US. Structures, covenants, and contractual terms often differ from deal to deal even among securitized products of the same underlying asset class. Additionally, public offerings account for a small share of securitized issuance and information disclosure tends to be limited by nondisclosure agreements imposed by originators.

On the demand side, the types of investors that invest in securitized products also differ between Japan and the US. In the US, a diverse range of domestic and foreign investors participate in securitized product markets in pursuit of a wide variety of objectives. In Japan, by contrast, market participants are predominantly institutional investors such as banks and insurers. With the exception of arrangers, most market participants invest in securitized products with the intention of holding to maturity. The flipside of this buy-and-hold mentality is that Japan consequently lacks a well-developed secondary market.

In light of such characteristics, Japan's securitization market has historically been perceived as offering moderate-risk/ moderate-return products (or even low-risk/moderate-return, given that securitized products offered wider spreads than other equivalently rated products), not the highly leveraged speculative products that wreaked havoc in the US.

The above market characteristics suggest that Japan's securitization market is in a transitional phase of development in comparison to its counterparts in the US and other countries, but the market has also been shaped by the low-interest-rate environment in which it has developed. Such an environment prompted some yield-starved investors to overlook product details or tolerate limited information disclosure if the product carried a high rating in their pursuit of returns even slightly better than the prevailing low interest rates.



Issues to be addressed in the aim of upgrading investors' risk management practices

To mature beyond its current transitional phase of development, Japan's securitization market needs a broader range of issuers and investors. Concerned parties have long been cognizant of many issues that need to be addressed to foster the securitization market's development. Development of the market's legal infrastructure had been progressing since even before the subprime crisis arose. For example, the Financial Instruments and Exchange Act and amended Trust Act, both effective from 30 September 2007, aim to promote securitization and increase flexibility in terms of deal structures. Amid the prevailing turmoil ensuing from the subprime crisis, however, the most immediate priority is to revive interest in investing in securitized products among Japanese investors that have turned cautious. As a prerequisite for this to happen, we believe that investors must further develop their capability to invest in securitized products by upgrading their risk management practices.

Upgrading risk management practices requires (1) information, the basis for quantifying and assessing risks, (2) quantitative techniques for quantifying fair-values and risks, and (3) systems conducive to swift decision-making and execution based on risk assessments derived from incoming information and quantitative techniques. We discuss these three issues below in sequence.

Information issues

The primary informational issue is the quantitative and qualitative adequacy of information disclosure vis-à-vis both securitized products and their underlying assets. Information disclosure must be dealt with as an issue relevant to all parties involved in the securitization market. Amid global calls for adequate traceability of information on securitized products' risks and the nature of their underlying assets, Japan's Financial Services Agency (FSA) has identified improved disclosure as a priority⁵⁾. In response, the Japan Securities Dealers Association (JSDA) established a Working Group (WG) on Distributions of Securitized Products, which has been diligently at work since March. In July, the WG issued an interim report⁶⁾ that included a list of common information items presumed to constitute a uniform information disclosure format for single-layer RMBS, CMBS, CLO, and ABS products. Market participants are slated to initiate renewed discussions based on the WG's report from this autumn. By year-end, the JSDA aims to publicly issue a final report together with proposed regulations scheduled to take effect next year. Discussions to date have involved not only the banks, investment banks, and trust banks that are the main arrangers, distributors, and servicers of securitized products but also investors, rating agencies, analysts, industry associations (the Securitization Forum of Japan and Commercial Mortgage Securities Association), CPAs, information vendors, and the FSA and BOJ. These parties have been airing their concerns and exchanging views. This autumn's discussions are likely to make further progress toward consensus while seeking to ensure the practical feasibility of disclosure reform proposals.

One shortcoming of the discussions that preceded the release of the WG's interim report was a lack of input from securitized product originators, which are highly influential in terms of information disclosure, but the WG is preparing to conduct a survey of originators from this autumn and solicit comments from the public. Future discussions are therefore likely to incorporate input from originators also. In our view, originators have not always been sufficiently proactive in disclosing information. However, in light of securitization's extremely valuable role as a funding method during the financial crunch of the late 1990s and prospective changes in the financial environment, we believe that originators should be more



forthcoming with information disclosure based on a recognition that the Japanese securitization market's further growth and development is in their own self-interest.

The WG's proposed list of common information items has been criticized by some as still inadequate for investors' risk management needs. Even after a uniform disclosure format has been finalized and officially adopted, it will require ongoing revision and improvement.

On the subject of internal procedures for evaluating, calculating, and reporting securitized products' theoretical fair values, the WG has reportedly reached a consensus that such procedures should be based on JDSA guidelines issued in August 2000⁷⁾. These guidelines instruct JSDA members to provide information on marketable securities' market value in the form of mid-prices. The guidelines also permit securities dealers to refrain from providing market-value information when they deem that fair market value cannot reasonably be determined, although they must explain their rationale for doing so to investors and other counterparties. Information recipients (i.e., investors) that use dealer-provided marketvalue information for accounting or tax-accounting purposes ultimately do so at their own discretion and on their own responsibility. However, with exit prices increasingly being used for accounting purposes on a global basis, a key issue that remains to be resolved is how to determine exit prices from the mid-prices provided by securities dealers. This question requires further discussion as a procedural issue.

Issues concerning techniques for quantifying fair-values and risks

Improving quantitative techniques is an issue to be addressed mainly by investors. It will require utilization of external resources such as outside vendors and/or support from academics.

To quantify securitized products' risk, one must model the underlying assets and measure cash flows based on credit enhancements and the so-called cash flow waterfall (i.e., how the cash flows generated by the underlying assets are allocated among tranches). Most critical is modeling of underlying assets. Separate models are recommended for each underlying asset class, although certain asset classes may lack a widely recognized standard model. In constructing a model, it is important to correctly understand the model's characteristics and limitations. Additionally, users must constantly reassess models' validity through such means as back-testing. They also must be ever mindful of how and when model parameters were estimated, and of backing up the model itself.

With many securitized products backed by multiple assets, modelers cannot neglect to assess diversification of risk among underlying assets. The degree of diversification can be assessed as a function of the number of underlying assets and their correlation coefficients. Of particular importance is the accuracy of correlation coefficient estimates. In the ongoing subprime crisis, mortgage default rates have ended up rising similarly throughout the US. Diversification's failure to work as anticipated is cited as a shortcoming of the models employed. This failure highlights the importance of ascertaining worstcase losses through stress-testing under various assumptions.

It is doubtful that many Japanese investors are currently selfsufficient vis-à-vis such quantitative techniques. The same is true for US and European investors also, but they are compensating by increasingly utilizing external vendors of valuation and risk assessment services, having valuations and risk assessments checked by third parties, and/or outsourcing quantitative functions⁸⁾. By adroitly utilizing such external resources, investors should be able to efficiently acquire expertise in advanced quantitative techniques. Such an approach is an option for Japanese investors also.

In terms of securitized product evaluation and risk quantification, many investors' highest-priority is likely assessment of market liquidity. Liquidity is conventionally measured by (1) bid-ask spreads, (2) the depth of market makers' order books at a given point in time, and (3) the speed with which price returns to its pre-trade level after a price movement triggered by trade execution⁹. However, it will take quite some time for market infrastructure to develop

and secondary trading volume to increase to where bid-ask spreads and other such information on individual products become readily available. Investors consequently must make do with whatever information is available concerning market liquidity, but any such information is currently very difficult to obtain for many types of products. As a workaround solution to the difficulty of obtaining information on individual products, it may be useful to produce and distribute analysis of market liquidity for a certain market segment or types of products on an ongoing basis and utilize the information gathered for such reports to gauge liquidity. One idea is to devise hypothetical standard products by product category (like JGB futures with a 6% notional coupon) and periodically contact leading brokers for hypothetical bid-ask quotes by trade size (e.g., when asked for quotes based on a hypothetical mid-price of ¥100, the broker might reply with a bid price of ¥99.5 for a ¥3bn trade, ¥99.0 for ¥5bn, and ¥98.5 for ¥10bn). Compiling and publishing such information may be a means to gain access to information on bid-ask spreads and the depth of market makers' order books. Such an approach could, for example, reveal that when a given market is highly liquid, bidask spreads tend to be tight and the distribution of bid-ask size tends to be concentrated around the mid-price, but when market liquidity diminishes, bid-ask spreads tend to widen and the distribution of bid-ask size tends to disperse or become lopsided. We propose taking such information on changes in market liquidity spreads, processing it somehow, and utilizing it for risk management or valuation purposes.

Management system issues

It is up to investors themselves to build sophisticated risk management systems whereby gathered information and quantified risk assessments enable swift and appropriate decision-making and execution. All they need to do so is strong will.

Below we look at examples of foreign investors' risk management practices and then discuss implications for Japanese investors in terms of upgrading their own risk management.

Case study of foreign investors' risk management practices

In February–April 2008, we conducted a study of overseas investors' risk management approach to investing in relatively illiquid products such as securitized products. Our sample comprised three major commercial banks, three major investment banks, and one hedge fund. The study was designed not as a survey of investors in general but a case study of selected investors. We believe that our study findings offer a number of risk-management suggestions for Japanese financial institutions. Our key findings are summarized as follows.

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Investment objective

• Commercial banks' main objective is hedging risk in conjunction with their loan portfolios. Investment banks and the hedge fund's main objective is enhancement of returns.

Investment assumptions

- The commercial banks, investment banks, and hedge fund all invest based on the assumption that they (a) possess deep knowledge of the underlying assets and underlying asset markets, (b) can proficiently gather information, and/ or (c) can proficiently assess risk. Most reported that they do not invest in products in which they lack expertise.
- One commercial bank and one investment bank that claimed to possess deep knowledge of underlying assets/ markets detected changes in underlying assets' behavior based on their knowledge, enabling them to exit positions before the subprime crisis erupted in earnest. Another investment bank reported incurring substantial losses as a result of overconfidence in its information-gathering and risk-assessment capabilities despite a lack of adequate knowledge of the underlying assets.

Utilization of information

- The subjects' front and middle offices both gather a broad range of information through various channels.
- The gathered information is utilized for risk management after its reliability has been assessed based on staff's knowledge and experience.



Quantitative information

- The investment banks gather a broad range of marketprice information, including brokers' market-price quotes, external vendors' price data and, for reference, benchmark prices (e.g., spreads, substitutive-market prices). They also track VaR and underlying assets' performance (e.g., defaults, delinquencies, prepayments).
- The commercial banks place more priority on information on underlying asset performance. The market-price information they collect is limited in scope in comparison to investment banks.

Qualitative information

- The subjects all gather a broad range of qualitative information regarding markets in general and market participants' behavior. Brokers serve as an extremely important source of such information.
- The commercial banks also track originators' asset screening policies.

Utilization of techniques for quantifying fair-values and risks

- The subjects rely on stress testing as a key risk management tool.
- Most of the subjects use proprietary assessment models to test the validity of the incoming market-price information.
- The investment banks and hedge fund use more sophisticated and diverse quantitative techniques than the commercial banks.
- The subjects incessantly back-test their models and reassess them under the latest market conditions.

Management systems

- The investment banks and hedge funds have established more functional and nimble management systems than the commercial banks.
- Front- and middle-office staff cultivate a shared riskmanagement mentality through conversation with each other.
- Any red flags detected through monitoring are promptly reported to senior management.
- The subjects use credit rating information also, but they

assess rating information in comparison with their own methodologies based on an understanding of the rating agencies' evaluation methods.

- Because the hedge fund invests in illiquid products, it has authorized front-office staff to close out positions to enable a rapid exit before liquidity dries up.
- Certain of the commercial banks practice conservative accounting, provisioning for liquidity risk in cases that pose difficulty in terms of valuation or access to information.

Implications for Japanese investors

Although the overseas investors that were the subject of our study do not necessarily epitomize best practices, many of their practices are instructive in terms of how to upgrade risk management. Another insight is that Western investors' putatively advanced risk management practices are by no means beyond the reach of other investors. Below are some suggestions for Japanese investors as gleaned from our study.

Understand the underlying assets, collect information, and acquire analytical capabilities

- Deepening one's understanding of underlying assets based on proprietary and market information is extremely important for nimble risk management.
- It is also valuable to apply in-house risk-analysis and risk-management know-how concerning loans to risk management of securitized products (we surmise that not many Japanese investors are currently effectively utilizing their in-house knowhow).

Gain access to a broad range of information sources

 Instead of depending on selected information sources, obtain a wide variety of information from a broad range of sources, from information about individual transactions to news and even rumors.

Establish nimble risk-management and rapid risk-reporting systems

 Establish triggers that alert the front office to exercise heightened vigilance and flexibly modify them in response to market conditions, thereby building risk-management



systems that enable the front office to detect prospective crises in advance and swiftly take preemptive action.

- It is important to constantly ascertain the magnitude of latent risk exposures through regular stress testing.
- The front and middle offices (risk-management staff) should closely communicate with each other promptly report any matters of operational concern to senior management.

Develop judgment to screen incoming information

- Cultivate the judgment (market knowledge and experience) to identify important information essential for risk management from a diverse stream of incoming information.
- Rating information is one important information source for risk analysis and assessment, but do not accept ratings at face value. Assess ratings in light of your own knowledge and experience based on an understanding of rating

agencies' risk analysis and assessment methods and the assumptions underlying individual rating decisions.

Japanese investors are as capable of utilizing quantitative techniques as overseas investors. Even with respect to securitized products, Japanese investors can achieve an equivalent if not higher level of competence as their overseas counterparts by utilizing in-house and external resources. Currently, Japanese investors may not have an adequate understanding of the markets for their securitized product holdings' underlying assets or even the securitized products themselves, but this largely reflects an existing information deficit, which should be gradually rectified by pending plans to expand information disclosure. We hope that Japanese investors build nimble and effective risk-management systems based on a recognition that doing so will confer a competitive advantage in asset management capability over the medium term.

Conclusion

The Japanese securitization market today is reminiscent of events in the derivatives market in the early 1990s. The Japanese market for derivatives, another key financial innovation on a par with securitization, grew substantially in the 1980s, driven mainly by speculative trading of forexrelated products (carry trades). The market subsequently shrank drastically for a while in the wake of yen appreciation and the collapse of Japan's asset bubble. Later, the Japanese derivatives market resumed growing through the efforts of market participants. The derivatives industry went back to basics, market infrastructure developed further, and interest rate derivatives gained widespread prevalence as a financial risk management tool for corporations. To reiterate, development of market infrastructure through the commitment of market participants is essential to restore the Japanese securitized products market to a growth trajectory. The market's future growth prospects also hinge upon the extent to which key investors upgrade their risk management practices. For investors, the path to gaining a medium-to long-term advantage in terms of asset management capabilities and competitiveness lies in building the requisite investment capabilities and amassing experience in nimbly capitalizing on advantageous investment opportunities.



Note

1) Law Concerning Regulation of Businesses Involving Specific Claims ("Specified Claims Law," effective June 1993) and Law Concerning Exceptions to Civil Code Requirements for Claims Transfers ("Exceptions Law," effective October 1998)

2) The Specified Claims Law permits assignment of lease claims and installment claims to be perfected by publication of a public notice in a daily newspaper or official gazette, if done in compliance with prescribed procedures. The Exceptions Law enables all nominative claims assignments by corporate assignors to be perfected against third parties by registration of the assignment at a Ministry of Justice Legal Affairs Bureau.

3) The key catalyst that called attention to subprime problems was likely the June 2007 news that two hedge funds run by major US investment bank Bear Stearns were in crisis, mass downgrades of subprime securities by major US rating agencies in July, or French investment bank BNP Paribas's freeze of several of its funds' assets in August.

4) However, issuance was inflated by all-time record CMBS issuance, largely because of foreign investment banks liquidating their inventories of assets related to commercial real estate.

5) FSA Comprehensive Guidelines for Supervision of Financial Product Dealers

6) Interim Report of JSDA Working Group on Distributions of Securitized Products (http://www.jsda.or.jp/html/eigo/wg/com_i_llist.pdf)

7) Minutes of Working Group's 5th and 6th meetings. Said guidelines are the JSDA Guidelines for Provision of Market-Value Information by Securities Companies (http://www.jsda.or.jp/html/oshirase/jika.pdf (in Japanese)).

8) NRI June 2008 IT Focus Use of Valuation Vendors Is Gaining Prevalence on the Buy Side (http://www.nri.co.jp/opinion/kinyu_itf/2008/pdf/ itf20080604.pdf (in Japanese))

9) BIS Market Liquidity: Research Findings and Selected Policy Implications (http://www.bis.org/publ/cgfs11overview.pdf)



Column

Securitized product investment and the information divide among financial institutions

Investment products' risk-assessability has become a key factor in investment decisions in the wake of the subprime crisis. For securitized products in particular, access to information required for risk assessment varies widely among financial institutions. Eliminating this information divide is a key issue in terms of broadening investment demand for securitized products.

Portfolio management survey of financial institutions

In July 2008, we surveyed Japanese financial institutions about their securities portfolios for a second consecutive year¹⁾. Last year's survey was conducted in July, before global financial markets were roiled by the subprime crisis. Comparison of last year's survey results with this year's sheds light on how the market turmoil has impacted securities portfolio management at Japanese financial institutions.

First, when survey respondents were asked whether they had revised their investment policies over the past year, about half answered affirmatively. In terms of how they had done so, 13% of these respondents had "tightened risk management through such means as setting position limits by product," but a vast majority (74%) of them had altogether "ceased investing in products difficult to risk-assess." Financial products' risk-assessability thus appears to have become a key factor in investment decisions.

	Responses	Have you revised your investment policies since subprime problems emerged?		
		Yes	No	
UT financial institutions	39	18	21	
		46.2%	53.8%	
LT financial institutions	229	95	133	
		41.5%	58.1%	

Exhibit 1. Revision of investment policies

		How did you revise your investment policies?			
	Responses	Ceased investing in products difficult to risk-assess	Tightened risk management (e.g., imposed position limits by product)	Other	
UT financial institutions	18	13	2	3	
		72.2%	11.1%	16.7%	
LT financial institutions	95	71	13	11	
		74.7%	13.7%	11.6%	

Note: UT: upper-tier, LT: lower-tier

Source: NRI, "2nd Survey of Financial Institutions' Securities Portfolio Management"



Investment in securitized products

In terms of risk-assessment difficulty, securitized products have been singled out as particularly opaque since the subprime crisis erupted. Among survey respondents, some 80% of upper-tier financial institutions (megabanks, trust banks, and regional banks) invest in securitized products versus only about 40% of lower-tier financial institutions (second-tier regional banks, shinkin banks, and credit unions).

The financial institutions that do not invest in securitized products were asked why not. Some respondents cited market illiquidity as their reason, but the predominant response (73%) was "complexity of product structure and difficulty of assessing risk²." For lower-tier financial

institutions, securitized products apparently pose a formidable challenge in terms of ascertaining risk.

Interestingly, the survey results did not reveal much of a causal relationship between securitized product investment policies and the market turmoil triggered by subprime woes. Only about 7% of respondents among both upper- and lower-tier financial institutions reported that they stopped investing in securitized products in response to subprime mortgage problems. The main factor behind financial institutions' reluctance to invest in securitized products is apparently difficulty of assessing the risk of investing in such products.

Exhibit 2. Securitized	l product investment status

		Do you invest in securitized products?			
	Responses	Yes	No, not since even before subprime problems emerged	No, we stopped since subprime problems emerged	No response
UT financial institutions	39	30	5	3	1
		76.9%	12.8%	7.7%	2.6%
LT financial institutions	229	95	115	16	3
		41.5%	50.2%	7.0%	1.3%

Note: UT: upper-tier, LT: lower-tier Source: same as Exhibit 1

Information divide

This raises the question of how much information financial institutions actually have about the securitized products that they claim are difficult to risk-assess. Our survey queried financial institutions about their current access to specific information deemed important in terms of assessing securitized products' risk. Their responses revealed large disparities between upper- and lower-tier financial institutions' access to certain information. Of the information listed in the survey, Exhibit 3 lists those items that the respondents consider important in terms of ascertaining securitized products' risk. Items marked with a ⊚ in the farright column were designated as particularly important by respondents. Most of these higherpriority items pertain to reliability of cash flows, such as credit ratings and delinquency rates.

Among these particularly important items, credit



	UT (A)	LT (B)	A – B	Importance
Rating information	100.0%	96.2%	3.8%	O
Scheduled maturity dates	100.0%	84.4%	15.6%	0
Average remaining maturities	90.9%	84.2%	6.7%	0
Coupon rates (distribution rates)	100.0%	93.6%	6.4%	0
Risk controls (e.g., credit/liquidity enhancements)	90.5%	41.1%	49.4%	0
Subordinated tranches' current principal balances	81.0%	48.6%	32.3%	0
Subordinated tranches' principal impairment	76.2%	47.3%	28.9%	O
Outstanding principal balances by tranche	90.5%	65.3%	25.1%	0
Debtors' creditworthiness	61.9%	50.7%	11.2%	0
Scheduled cash flows (schedule for receipt of interest/principal)	85.7%	43.5%	42.2%	0
Delinquency rates	85.7%	50.5%	35.7%	O
Default rates	85.7%	51.4%	34.3%	O
Recovery rates (loss severities)	81.0%	46.4%	34.6%	O
Prepayment rates	71.4%	42.0%	29.4%	0

Exhibit 3. Access to information related to investing in securitized products

Note: UT: upper-tier, LT: lower-tier

Source: same as Exhibits 1 and 2

rating information is nearly equally accessible to both upper- and lower-tier financial institutions, reflecting the widespread availability of rating information. For delinquency, default, and recovery rates, however, the accessibility gap between upper- and lower-tier financial institutions widens beyond 30 percentage points. Even wider gaps were observed for information about risk controls (e.g., credit/liquidity enhancement) and scheduled cash flows (e.g., scheduled principal/interest receipt dates).

Securitized products vary widely in structure and underlying asset class. For certain types of securitized products, information required for investment decisions is extremely difficult to access. When not only accessibility but also currency of information is taken into consideration, information gaps between individual financial institutions are likely even wider than shown in Exhibit 3. While some financial institutions have access to ample information for ascertaining securitized products' risk, many others' access to essential information is limited. Our survey results suggest that limited access to information required for risk assessment may be an impediment to investment in securitized products by lower-tier financial institutions. Discussions of how to improve information disclosure about securitized products are currently underway within the financial industry. Such efforts are significant in terms of restoring confidence in securitization markets. Looking ahead, we anticipate that specific initiatives will be proposed to improve information disclosure without imposing an onerous burden on market participants. Eliminating the information divide should be a key priority of such initiatives.

Note

1) The survey was sent to 533 domestic financial institutions. Responses were received from 269 of them (50.5% response rate). The respondents comprised 8 major financial institutions (megabanks, trust banks), 32 regional banks, 17 second-tier regional banks, 159 *shinkin* banks, and 53 credit unions.

2) This question permitted multiple responses per respondent. The second most common response was "lack of personnel with risk management expertise" (40%) followed in third place by "market illiquidity" (38%). The reported lack of qualified personnel presumably reflects the difficulty of assessing securitized products' risk.



Author's Profile

Current state of Japan's securitization market

Kousai Arimura

Senior Researcher Financial Technology and Market Research Department

Securitized product investment and the information divide among financial institutions

Yasuki Okai

General Manager Financial Technology and Market Research Department

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Inquiries to : Department of Financial Markets and Technology studies Nomura Research Institute, Ltd. Marunouchi Kitaguchi Bldg. 1-6-5 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan

E-mail : kyara@nri.co.jp

http://www.nri.co.jp/english/opinion/lakyara

