

## **Why is Loan Securitization and Syndication Important for Japan's Financial System?**

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September 28, 2006

### Part I: Real Estate Revisited

The recovering real estate market in Tokyo exposes some of the difficulties Japan has distributing risk in digestible chunks. The record price of 143 billion yen paid by DaVinci Advisors for the Tokyo "Battleship" building (Shiba Park Building) in a recent transaction (see Nikkei Net, July 4, 2006) suggests the creation of a new series of lumpy credit risk exposures entering Japanese bank portfolios. While the details are not available, it is likely that a good chunk of the acquisition price was in the form of non-recourse loans held by Japanese banks. In the U.S. and, to a growing extent, in Europe, these types of large, concentrated exposures can be transformed into smaller pieces of risk using syndication or securitization. In Japan, the infrastructure for transforming and distributing credit risk exposure is still in its infancy. The Japanese financial community in coordination with the regulators should work to accelerate the expansion of loan syndication and securitization. Otherwise, these lumpy exposures may come back to haunt the banks the next time the real estate market cycles back downward. In Japan, the expansion of real estate lending in the late 1980s followed by portfolio meltdowns provides a poignant example of what can happen. This kind of concentration risk leads to bank crises.

In order to better understand this prescription, let me explain the mechanics and motivation behind syndication and securitization in the context of this Battleship building transaction. Consider a bank willing to lend DaVinci Advisors a sizable portion of the 143 billion yen purchase price. This bank will likely have developed an expertise in real estate financing and already have or will have a number of real estate exposures on their balance sheet. What is interesting about this situation is that each loan in isolation may look like a great deal i.e. healthy return for minimal risk (in fact, real estate lending today in Japan looks like a great business in the current economic environment: the economy is recovering, rents are rising, and buyers have returned to the market.) However, the accumulation of many of these types of loans in large chunks creates correlation and concentration risk. If (when) the real estate sector becomes distressed, these large correlated concentrations place the entire financial institution at risk. If the exposure to each loan were smaller and more widely dispersed across portfolios around the world, then a down cycle will have much less severe impact. Each portfolio would take only a small, non-material hit. Herein lies the power of diversification.

The problem, of course, is that a financial institution cannot always move to a portfolio composition that reflects healthy diversification. Only a small number of market players have the expertise to originate a large loan on a transaction such as the Battleship building sale. If selling the loan after its origination is difficult and no instruments for hedging exist, the financial institution with the origination expertise can only originate and hope that no difficulties arise. Unfortunately, history tends to dash these hopes on the rocks of unexpected losses. Each developed country around the world has seen a bank crisis arising out of concentration risk in some particular product, sector, or region. At the time the loans were made, each transaction likely looked profitable. The difficulty arose from the natural concentrations that accumulated over time. The development of syndication and securitization markets provides an antidote to this creeping risk of crisis as concentrations deepen. Let us turn to how these financial technologies work.

Syndication is the process of gathering together a group of financial institutions so that the institution that originates the loan does not retain all the credit risk exposure. Members of the syndication agree to take on some of the risk. In this way, financial institutions without origination expertise in the particular segment (e.g. real estate) represented by the large loan can still add to their portfolio exposures that improve their portfolio's diversification profile.

Syndication transforms the existing debt exposure from one large lump into a number of smaller pieces. However, the underlying stand-alone risk of the exposures stays the same. The specific correlation and concentration characteristics of each institution's portfolio buying into the syndication will result in different contributions to their particular portfolio's risk. But this scenario only works when the return/risk characteristics of the specific loan make sense for the particular portfolio manager's portfolio. What if the stand-alone return and risk characteristics of the exposure are not appropriate for enough of the other financial institutions? What if no one else thinks that particular return-risk profile makes sense? Is the financial market still stuck with the correlation and concentration risk?

In recent years, the answer has moved from maybe in Japan to a qualified yes in Europe and a definitive yes in the U.S. The mechanism is securitization. Here is how securitization works: In the case of loans, a special purpose vehicle (SPV), which is a stand-alone entity, is created to receive the loan(s) as collateral. The cash flows associated with these loans are distributed according to a set of rules called the "cash waterfall" to several claimants who have purchased what is called a "tranche." A tranche is similar to a bond that has a promised payment on a regular basis plus the promised repayment of principal at maturity of the deal. Each tranche has an assigned coupon or fee to be paid by the cash flow from the collateral pool and reflects a different risk and return profile. The senior tranche holders receive their promised coupon first. The mezzanine tranche holders receive their promised payment second. And the subordinated tranche or equity holders receive whatever is left over. If a number of loans in the collateral pool default, the most junior claimants (e.g. equity holders) are the first to feel the pain. Depending how one specifies when one tranche absorbs loss over another tranche, the risk profile changes dramatically. The return profile is generally driven by market conditions for each level of risk. The power in this financial technology is the ability to take one type of exposure (e.g. moderately risky real estate) and convert it into a set of exposures that are nearly risk-free (e.g. senior tranches), moderately risky (e.g. mezzanine tranches) and very risky (e.g. equity tranches.) It's as if we took milk and turned it into butter, cheese, and ice cream. Except here our transformation focuses on the return and risk characteristics of each exposure (and cannot be eaten.)

Without liquid syndication and securitization markets, Japanese financial institutions will continue to be stuck with large, correlated exposures that will set the stage for another financial crisis in the future. The U.S. has pioneered this technology and now securitizes mortgages (vehicle is called a mortgage-backed security or MBS), credit card receivables and auto loans (vehicle is called an asset-backed security or ABS), and loans and bonds (vehicle is called a collateralized debt obligation or CDO)—to name a few. Interestingly enough, other types of non-traditional assets such as rights to revenue from movies and music are finding their way into securitizations. Figure 1 shows the difference in the size of these markets around the world. Japan still has a long way to go to catch up.

Japan's recovery may inadvertently set up the next crisis if large loan exposures such as those generated in the context of real estate transactions are not transformed into more manageable pieces. The days of liquidity crunches and a contracting economy may return if the structure of the market is not modified to better manage concentration risk. A rising number of portfolio managers outside of Japan at banks, hedge funds, and pension funds are looking to add real estate loans to their portfolios. The diversifying characteristic of these loans for non-Japanese portfolios makes them well suited for overseas investors. Japan could not ask for a better set of circumstances to sell efficiently pieces of debt exposure so that everyone's portfolios are better off. The key is transformation of these large unwieldy exposures using syndication and securitization. Without the mechanisms for distributing and managing risk, Japan will forever lag the rest of the developed world in terms of financial market development and financial market competitiveness.

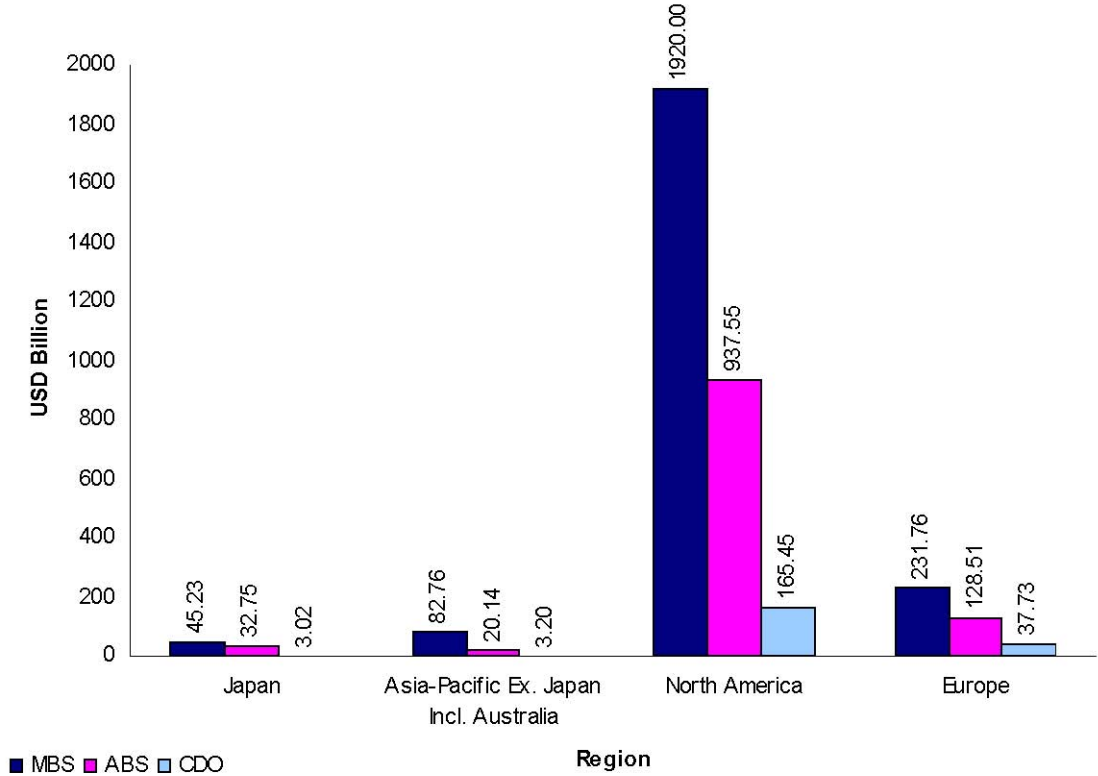


Figure 1: Aggregate collateral for different types of securitizations across regions. (Data collected from publicly available sources on the internet.)

## Part II: Mid-size Company Malaise

As an economy develops, extension of credit becomes an important catalyst for further expansion of businesses. Most company owners and shareholders do not have the capital to fund business expansion by themselves. Consequently, they look to banks or capital markets to borrow money so they can retain control of their business, building, or other assets and still facilitate growth. Around the world, large, well known firms have typically had efficient and low-cost access to credit. In the U.S. and now to an increasing extent in Europe, this access to credit has become widely available to small and mid-size enterprises (SMEs), as well. The situation is different in Japan. As figures 2 and 3 show, Japan has lagged in terms of lending to these types of firms. While even large firms in Japan have leverage ratios (total debt/total market capitalization) less than their counterparts in the U.S., the difference is not large. It is small firms that show substantial differences in the extent of leverage.

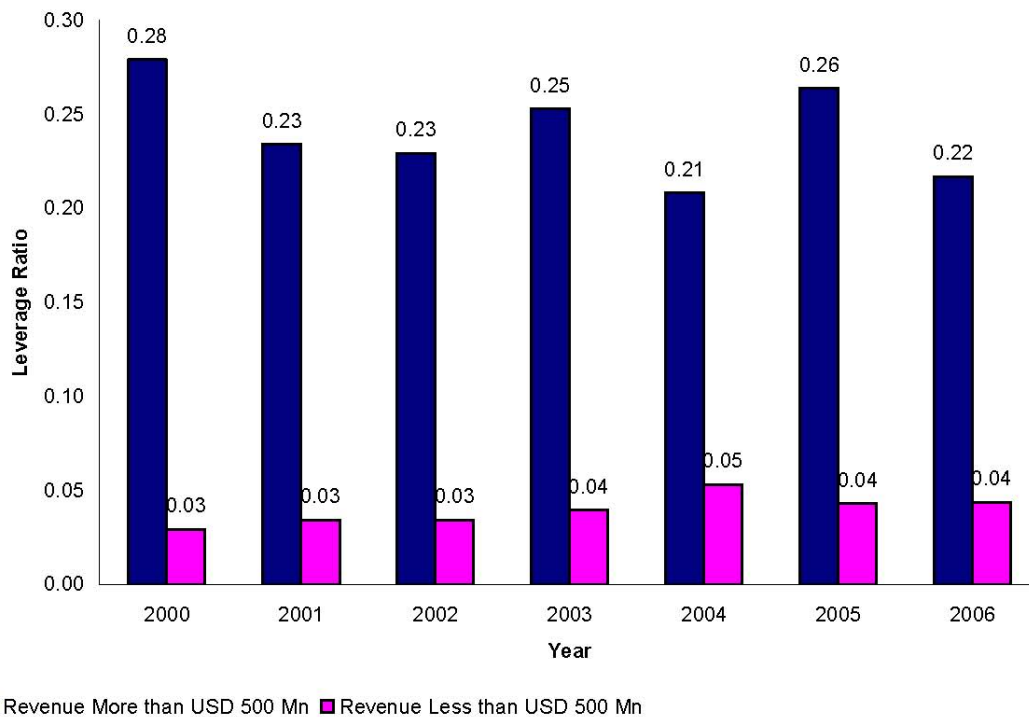


Figure 2: Total debt divided by total market capitalization for large and small publicly traded firms in Japan. (Source is Bloomberg.)

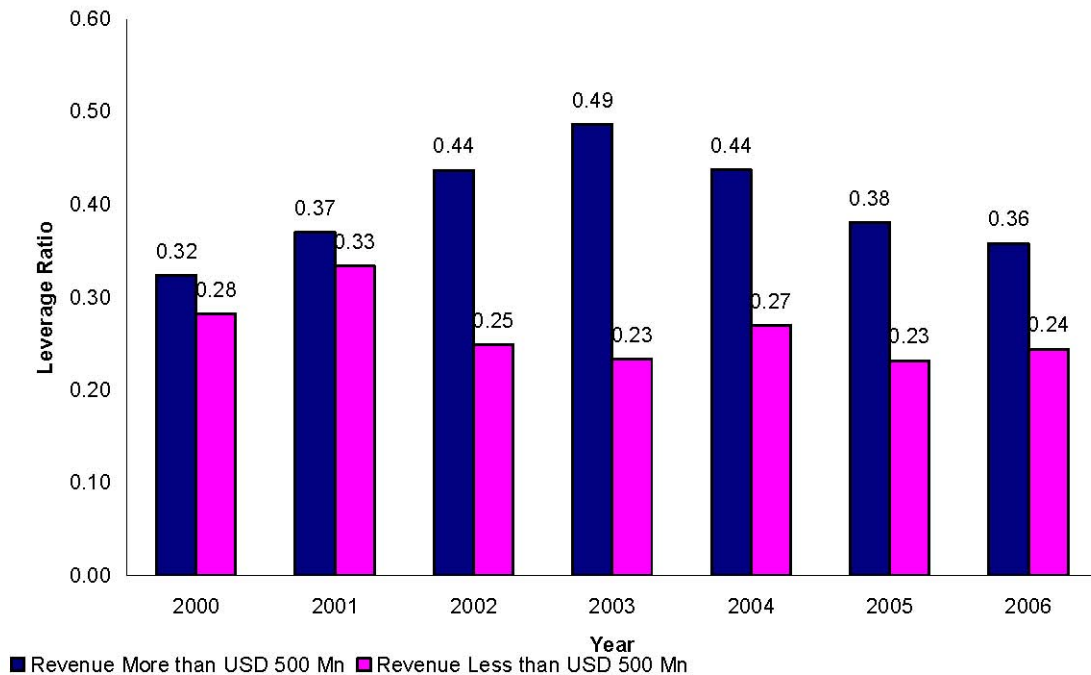


Figure 3: Total debt divided by total market capitalization for large and small publicly traded firms in the U.S. (Source is Bloomberg.)

The difficulty with lending to SMEs is a different problem than is faced when absorbing large chunks of real estate loans into a portfolio. Here we have many small exposures, which are good for diversification; however, risks can be quite high for each individual borrower. The costs of analyzing and monitoring each firm can also be a daunting task if an institution does not look to build a large portfolio of these companies. Nonetheless, SME growth is critical to sustainable economic growth as these firms as a group can be more adaptive to changing economic conditions and plant the seeds for creating the next generation of large firms. Japan's 15 years of economic difficulty is due in no small part to the lack of loans available to promising SMEs. In part I, I discussed how securitization facilitates continued lending in large chunks for real estate transactions without putting the financial system at risk. Here I will discuss how securitization can make it easier for SMEs to obtain access to credit.

The financial technology used in this transformation is called a collateralized loan obligations or CLO. A CLO is one type of a CDO discussed above. A large number of SME loans are placed in this CLO special purpose vehicle (SPV) and claims called tranches are sold to investors. As discussed before, a nearly risk-free senior tranche, a moderately risky mezzanine tranche, and a risky equity tranche now draw the cash flows from the CLO pool of loans. The specific nature of the risk of each tranche depends on the rules for how cash is distributed (called a cash waterfall) and the size of each tranche. A bigger equity tranche will make the mezzanine and senior tranches safer (all else equal) since more of the losses can be absorbed by the equity tranche holders. The beauty of this structure is that a pool of moderately risky to very risk SME loans that may not be touched by a Japanese bank can now be converted into a mixture of securities with various return-risk profiles. Investors outside of Japan will likely find these tranches appealing given the low correlation with their existing portfolios. Securitization resolves the problem of granting credit to SMEs. Moreover, the development of CLO creation and

distribution capacity reduces the risk that the economy unduly suffers when its domestic financial institutions are unwilling to loan money to this segment in the economy as has been the case for the past 15 years.

By using quantitative models and building large pools of these borrowers, the difficulties banks have had in monitoring these loans are mostly avoided. The distribution of the tranches into many different investors' portfolios reduces the concentration risk that may arise from lending to SMEs in the same country. While it will always be the case that many of these small firms will default and some may even commit fraud, the pooling of this risk subject to quantitative criteria makes it much easier to absorb these losses and still make credit available to those firms who are healthy. The fact that the risks are parceled out to many investors inside and outside Japan substantially reduces the long-term impact of these loss events and of the economic situation generally. The key is to have a well functioning market for the tranche claims. As long as there is liquidity, an investor somewhere will find each tranche attractive at a reasonable price given the risk.

Building a robust market for SME CLOs in Japan is an essential part of structural change in the economy to facilitate future growth. The experience in the U.S. and now in Europe demonstrates the value of opening up this channel for credit to SMEs. More and more non-Japanese investors are looking for this kind of exposure. And, most importantly, SMEs will see their businesses expand with this new source of funding. The result will be better economic growth for years to come.