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Securitization

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Obscure just 20 years ago, the securitization of loan portfolios by private and government-sponsored enterprises is a $5 trillion business today. This *Commentary* explains why the use of asset-backed securities has grown so spectacularly.

Securitization is the process of pooling and repackaging loans into securities that are then sold to investors. Although the practice of selling loans among banks is quite old—beginning in the late nineteenth century—sales to investors are more recent, dating back to 1970 when the Government National Mortgage Association (Ginnie Mae) offered investors a new type of bond—a *mortgage pass-through*. This security promised investors the principal and interest payments generated by a pool of Federal Housing Administration and Veterans Administration single-family mortgage loans. Beginning with this first Ginnie Mae pass-through, the list of securitized assets has expanded to commercial mortgage loans, car loans, computer and truck leases, loans for mobile homes, credit card receivables, trade receivables, and student loans.

Despite the wide variety of assets that can be securitized today, government agencies and government-sponsored enterprises were the main issuers of asset-backed securities early on (see figure 1). Ginnie Mae began doing so as a way to increase homeownership: By buying banks' mortgage loans and selling them to investors, it provided the banks with fresh funds to make additional mortgages. Bank of America issued the first private-sector pass-through backed by conventional mortgages in 1977, but other financial institutions showed little interest in the area until the mid-1980s. In 1983, privately securitized assets totaled less than $4 billion. Then, private issues took off sharply, reaching more than $2 trillion in total assets at the end of 2002—a more than 600-fold increase in 19 years.

Such remarkable growth would not have been possible without some economic and regulatory incentives. This *Economic Commentary* describes the mechanics of asset-backed securities. In doing so, it reviews how regulatory changes bolstered the privately issued asset-backed-security industry by allowing the creation of new securities that benefit both issuers and investors.

What Is an Asset-Backed Security?

"Asset-backed security" is a broad name given to a wide variety of financial instruments that give investors a claim on the interest and principal payments generated by a pool of loans. The securitization process begins when a lender (usually a bank or a finance company) creates a special-purpose entity, such as a corporation, a limited liability corporation, or a business trust, and transfers to it the ownership of a portfolio of loans that are similar in type (mortgage, auto loan, and so on), maturity, interest rate, and their likelihood of default. Ownership shares in the special-purpose entity can be sold to investors (a pass-through security), or, alternatively, the bank can retain ownership but issue securities that promise investors interest and principal payments after these are collected from borrowers (a pay-through security). From the investor's point of view, the former is similar to owning the stock of the special-purpose entity, and the latter is similar to owning a debt security. In either case, the lender uses the sale proceeds to make new loans or for other corporate purposes. It also continues to service the loans—collect principal and interest from borrowers—for which it deducts a servicing fee (see figure 2).

As described thus far, investors would quickly recognize a major conflict of interest in this structure. The lender could keep all the good loans for itself and dump all the bad ones into the special-purpose entity. Because investors don't originate the loans, they cannot verify the quality of every loan being securitized. To reassure investors, the lender asks a credit-rating agency to certify the quality of the loan portfolio. The rating agency estimates the default risk of the portfolio relative to that of an investment-grade (low-risk) security and decides how much default protection the lender must provide to investors to make the asset-backed security investment grade. The lender can enhance the quality of the loan pool in several ways. It can create a reserve fund that makes up for defaults; it can post excess collateral by setting some loans aside to replace loans that default; or it can purchase loan-default insurance up to a prespecified percentage of the pool. For example, a 10 percent credit enhancement would pay for the defaults up to 10 percent of the value of the loan pool. In any case, a credit-enhanced, asset-backed security can be made investment grade and more easily sold to investors.

As one can easily imagine, each step in this securitization process costs the lender money. There are legal costs associated with the formation of the special-purpose entity. Dealing with a rating agency and credit enhancement also cost money. Then, there is the cost of issuing securities. How do lenders benefit from such a deal? Let's consider the case of banks for an explanation.

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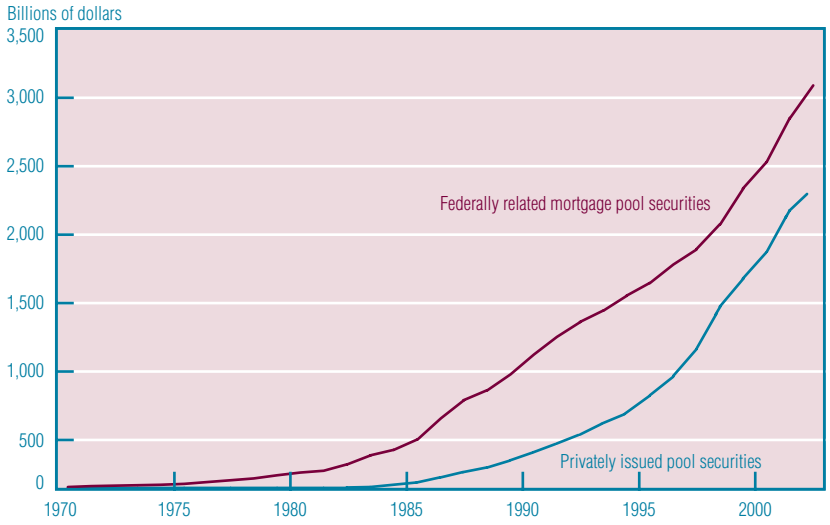
Why Securitize?

Banks began to securitize a large volume of their loan portfolios in response to changing regulations and market forces during the 1980s. Starting with the International Banking Act of 1978, and partially in response to debt problems of the less-developed countries during the early 1980s, federal regulators ratcheted up minimum capital requirements for commercial banks. By the mid-1980s, banks were required to hold primary capital (basically shareholder equity and reserves set aside for future loan losses) of at least 5.5 cents for every dollar of assets carried on the balance sheet. Capital requirements limit the risks banks will take by putting bank owners' own money at risk. However, raising capital is costly for the bank owners. For example, regulators may force the bank to raise equity when stock market conditions are not favorable for a new stock issue, or the bank may have to retain its earnings instead of distributing them to shareholders as dividends.

But there is a way to circumvent capital requirements, and it hinges on the fact that the bank does not have to hold capital against the loans it *originates*, only those it actually carries on its balance sheet. So, there is no capital requirement if the bank originates loans and transfers their ownership to a special-purpose entity, effectively removing them from its balance sheet. Unless there is an arrangement in the securitization deal whereby investors can demand compensation from the bank for loan defaults in the securitized asset pool (recourse), regulators allow banks to keep these loans off the balance sheet, reducing the need for additional capital.

The ability to remove loans from the balance sheet was especially handy for credit card banks because the Competitive Equality Banking Act of 1987 limited their total asset growth to 7 percent a year. Major lenders in this market had to find a way to remove their credit card receivables from their balance sheets. Securitizing those receipts helped banks to keep their asset growth under control, while they collected fees for servicing the securitized loans. It should not come as a surprise that credit card asset-backed securities first appeared in the public debt market in 1987.

FIGURE 1 TOTAL FINANCIAL ASSETS OF ABS ISSUERS



SOURCE: Board of Governors of the Federal Reserve System, "Flow of Funds Accounts of the United States," Z.1, *Federal Reserve Statistical Releases*.
NOTE: Privately issued pool securities include those that are backed by federally related mortgage pools.

In addition to these changes in the regulatory environment, the deposit market—banks' traditional funding source—went through significant changes in the 1980s. With the Great Depression and bank failures a distant memory, depositors were willing to take more risk in return for higher rewards by shifting their money into money market funds and other uninsured investments. As deposits became increasingly scarce and expensive, banks had few options. One was to give up lending opportunities—not a first choice. Another was (and still is) to finance loans with short-term borrowings from the money markets. Yet, unlike deposits, these are not a stable source of financing. Short-term lenders in this highly liquid market chase the highest rate of interest and pull their money out at the slightest sign of trouble. Under these circumstances, recycling existing resources—by selling existing loans and using the proceeds to make new loans—is an invaluable capability.

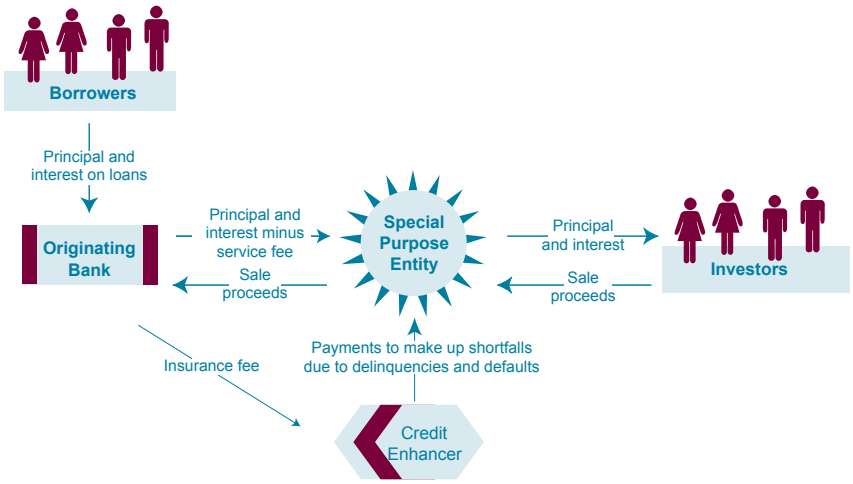
Yet even with the impetus from regulatory costs and funding constraints, securitization by private issuers remained subdued until the mid-1980s; there were only $10 billion in private-sector pass-throughs outstanding at the end of 1984, amounting to just 3.5 percent of the value of all federal agency pass-throughs outstanding at the time. A major inhibiting factor was uncertainty about whether securitization was banned by the Glass-Steagall Act's prohibition of commercial banks' underwriting of corporate securities. This uncertainty was resolved by the Office of the Comptroller of the Currency when it decided that banks could sell interests in a pool of loans. A court of appeals upheld that decision in 1985 and ruled that these instruments were not corporate securities but investments in the underlying loans; therefore, Glass-Steagall did not apply. This ruling and the Supreme Court's refusal to hear an appeal by the Securities Industry Association opened the floodgates. By 2002, private issuers had securitized more than $2 trillion in assets compared with $37 billion in 1985.

The incentives banks have to sell their loan portfolios to investors is, however, only half of the story. The spectacular growth of asset-backed securities is also explained by the reasons investors have for embracing this instrument.

Why Buy Asset-Backed Securities?

In general, investors do not like to put all their eggs in the same basket lest something awful happen to that basket and they lose all their eggs. Therefore, they diversify their holdings among a number of unrelated baskets that are not all likely to get knocked down at the same time. Now, suppose an investor wishes to invest some money in a bank's credit card business for diversification purposes. In the absence of asset-backed securities, what are the investor's alternatives? The easiest thing to do is to buy the bank's stock. But the return on the

FIGURE 2 SUMMARY OF AN ABS



stock will depend not only on the success of the credit card business, but also a whole bunch of other activities, from commercial and real-estate loans to off-balance-sheet activities. If the investor is only interested in the credit card business, he needs to create a "homemade" credit card portfolio; that is, he needs to find a way of undoing the effect of the unwanted bank activities on the stock price.

In practice, this is not an easy task. In the same way the investor cannot buy a share of the bank's credit card receipts, he also may be unable to find a security that will undo the effect of, say, real estate loans on the stock price. Consequently, the investor may never be able to build an exact replica of the bank's credit card business. Even if we assume that the homemade portfolio is good enough in the absence of a better alternative, there are transaction costs associated with buying and selling multiple securities. So, the presence of a security that represents an ownership claim on a certain class of the bank's assets is advantageous to the investor because it is exactly what he wants, it is a security he could not have created by himself, and it can be purchased and sold in one transaction.

■ More Than an Ownership Claim

So far, we have described an asset-backed security as a certificate that allows the investor to collect payments from an asset pool. But this is an oversimplification because this type of security has many quality enhancements that would, once again, be too costly for the investor to achieve by himself. In order to understand how securitization adds value, let's review the various risks associated with the ownership of a credit card portfolio.

By assuming ownership of the credit card receipts, the investor takes on two types of risk. First, he bears the default risk; every uncollectible credit card debt is money out of his pocket. Second, he assumes the prepayment risk; when interest rates go down, consumers prepay their credit card bills by switching to a lower-interest credit card. So, an income-generating credit card receipt converts into cash, which the investor must reinvest and thereby incur additional transaction costs.

An asset-backed security lessens the impact of these two risks. As a protection against default risk, banks issue securities against only a fraction of the asset pool. The rest of the pool is used to absorb any loan defaults. For example, the bank may put $300 million worth of credit card receipts in the special-purpose entity and sell securities against $260 million. The remaining $40 million is excess collateral that loan defaults are deducted from, while the investors' claim remains intact. At maturity, whatever is left from the excess collateral goes back to the bank. This kind of overcollateralization protects the investor from the occasional loan default, although the investor still has an exposure to the large, industrywide fluctuations in the credit card business.

As a protection against prepayment risk, the bank replenishes the asset pool with new credit card receipts whenever a payment occurs. Again, as with default insurance, the protection from prepayments is limited—usually to a prespecified percentage of the asset pool. In other words, the goal is to protect the investor from the occasional prepayment and not to completely eliminate his exposure to the industry.

But how much protection is optimal? After all, investors' taste for risk varies over a wide spectrum. If an investor is not very sensitive to cash flow disruptions due to prepayments, for example, and wishes to track the performance of the credit card portfolio more closely, the protection provided by the bank may seem excessive.

Banks have found a creative way to make securities more attractive to investors with different risk preferences: They issue securities with multiple bondholder classes against the same asset pool, with each class attractive to one type of investor. In the case of mortgages, for example, Freddie Mac and First Boston issued in 1983 the first collateralized mortgage obligation (CMO) that had three classes of securities (A, B, and C) against the same mortgage pool. While all classes received regular interest payments, Class A bonds were first to receive principal payments and any prepayments. Class B bondholders began to receive principal payments only after all Class A investors were paid off, and Class C bondholders received principal payments after Class B bondholders were completely paid off. The important point to remember is that, at any one time, prepayments are directed to retiring only one class of bonds while the remaining classes are protected from prepayments. So an investor who has a long investment horizon (such as an insurance company) and dislikes prepayments would be more interested in a Class C bond, while an investor who would like to track the real estate business more closely would purchase the Class A bond and expose himself to the vagaries of mortgage prepayments.

Although CMOs were the first multiple-class securities, multiple classes are not a peculiarity of mortgage securitization. They are also common in auto loan and credit card asset-backed securities. In addition, other multiple-class securities allow investors to choose the degree of default risk they prefer, with credit ratings ranging from investment grade

AAA (last to absorb the loan defaults in the pool) to default grade C (first to absorb defaults).

Engine of Growth

Pools of loans securitized by government-sponsored enterprises and private financial institutions are worth more than $5 trillion today. Banks were attracted to this business to reduce their funding costs, whereas investors benefited from the new investment opportunities that did not exist before and which offered a cheaper alternative to homemade portfolios.

Furthermore, because securitization also involves cash-flow partitioning and credit enhancement, the asset-backed security is more than a basket of bank loans. It is a new kind of security that caters to the diverse cash flow and risk preferences of investors.

With these characteristics, securitization provides an ever-growing funding source to banks and may well be the most important engine of growth in bank lending.

Recommended Readings

Charles T. Carlstrom and Katherine A. Samolyk, 1992, "Securitization: More than Just a Regulatory Artifact," Federal Reserve Bank of Cleveland, *Economic Commentary*, May 1.

Frank J. Fabozzi, 2001, "Accessing Capital Markets through Securitization," Frank Fabozzi Associates, New Hope, Pa.

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