

The Asset-Backed Securities Markets, the Crisis and TALF

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Introduction and Summary

Credit provides the essential function of moving funds from the savers who want to lend to the investors and consumers who wish to borrow. Under ideal conditions this process ensures that funds are invested by the most skilled and productive individuals, thus improving efficiency and stimulating growth, and that consumers can get funds when they need them the most to satisfy their consumption needs.

Over the years, lots of financial innovation has taken place and many different instruments of borrowing and lending have been developed to better address the richness of needs of borrowers and lenders. Examples are trade credit, banks, stocks and commodities markets, and an enormous variety of financial institutions.

For many years banks and financial institutions were collecting and lending funds while keeping the resulting loans on their books until they were repaid. Regulations and the need of following sound and prudent lending practices were generating a need for collateral, thus tightly linking the amount of funds collected to the amount of loans created, even in presence of more profitable and productive lending activities. For example, a bank generating lots of mortgage loans, which are typically financed by the short-term deposits, had to keep a significant share of collateral to insure that they could repay the depositors in case they wanted their money back on a short notice.

To better allow investors and institutions to share risk, asset-backed securities products were born in 1970. Asset-backed securities (ABS) are bonds backed by the cash flow of a variety of pooled receivables or loans. To follow up on our example, a bank holding mortgages on its books could pool a large number of loans together and issue bonds giving the rights to specific flows of income streams generated by this pool of mortgages. In this case, the bank would transfer the loans to a separate entity. Selling the loans would generate cash flows that can be used to issue additional loans on the market.

ABS issuance gradually took off since their introduction, increasing liquidity and reducing the cost of financing. From an annual issuance of \$10 billion in 1986, the ABS market peaked in 2006 with issuance of \$893 billion in the US¹. This growth was accompanied by an expansion in the ABS market investor base, from banks and institutional investors to hedge funds and

¹ ABS data from JP Morgan includes US issuance for the following sectors: student loan, auto, credit card, equipment, floorplan, global RMBS, subprime/HELOC, manufactured housing, franchise, insurance, servicing advances, marine, stranded assets, RV, tax lien, tobacco and time share.

structured investment vehicles (SIV). Although it is hard to rank the factors giving rise to such a fast development in this market, the sheer increase in its size provide an indication of its importance in facilitating the issuance of credit.

The recent crisis was characterized by a big reduction in ABS issuances and by a credit crunch more generally. It started with a decrease in house price appreciation and an increase in subprime-mortgages defaults. As more uncertainty about the housing market developed, residential investment started declining and residential borrowing and lending dropped. In July 2007, ABS issues backed by residential mortgages dried up. The failure of Lehman Brothers in October 2008, was a big shock to the financial markets and to investor confidence, and yields on ABS skyrocketed². In this new high-yield environment, there was no economic incentive for lenders to issue new ABS. Consumer ABS (auto, credit card, and student loan segments) commercial mortgage-backed securities markets³ issuances vanished. The intermediation of household and business credit between investors and borrowers stopped.

This credit crisis was in many ways also a credit rating crisis. Given the complication and difficulty to evaluate these structured finance products, most ABS bonds were rated. Not only that, but many of these products were highly rated. For example, more than half of the structured finance securities rated by Moody's (one of the top rating agencies) carried AAA rating, the highest possible rating that is typically reserved for securities that are believed to be essentially riskless. In 2007 and 2008 the credit worthiness of structured finance securities deteriorated dramatically. Almost 40,000 Moody's rated tranches were downgraded, and almost one third of the downgraded tranches were rated AAA. The ensuing confusion about the true value of these complicated financial products and the extent of exposure by financial institutions, further increase uncertainty and reduced the availability of credit.

The Board of Governors of the Federal Reserve Bank System recognized the importance of keeping a healthy supply of credit alive and acknowledged the importance role of ABS markets in this process. The official document announcing the creation of Term Asset-Backed Securities Loan Facility (TALF) on November 25, 2008 stated: "The ABS markets historically have funded a substantial share of consumer credit and SBA-guaranteed small business loans. Continued disruption of these markets could significantly limit the availability of credit to households and small businesses and thereby contribute to further weakening of U.S. economic activity." The same release also explained that "The TALF is intended to assist the credit markets in accommodating the credit needs of consumers and small businesses by facilitating the issuance of asset-backed securities (ABS) and improving the market conditions for ABS more generally."

² Data from Deutsche Bank, see Figure 13.

³ Data from JP Morgan shows that subprime/HELOC ABS issuance fell from \$31 billion in June 2007 to \$9 billion in July 2007. ABS issuance backed by autos and credit cards fell to zero in August and October 2008, respectively.

TALF reached its purpose. It facilitated issuance of new ABS and, even more importantly, provided a safety net by allowing people holding ABS products to borrow by putting up these products as collateral at a given price. This not only allowed these investors to satisfy their liquidity needs but also provided an important guarantee of a maximum price of liquidity for qualified borrowers, thus generating a crucial backstop against irrational fears lowering the value of these assets well below what one could expect based on reasonable fundamentals.

In this article, we analyze the role of ABS markets in generating credit and liquidity, we study how this role was disrupted during the crisis, and we argue that TALF successfully helped reestablish the ABS markets and the credit supply. We start by illustrating how ABS are structured to provide some insight into how they work, what are their advantages and disadvantages, and their significance to the broader economy. We also describe the basics of the credit rating process and the interplay between credit rating and regulatory capital requirements to shed some light on the role of credit rating on the ABS expansion and subsequent crisis. We then provide an historical perspective on the development of the ABS credit market to put the recent crisis in context. Finally, we describe the Crisis and the timeline of TALF and examine its impact on the ABS market and show that TALF helped calm the markets and helped re-start ABS issuance and reduce credit spreads, thus contributing to reestablish a healthy credit supply to the markets.

Background

ABS Market

The essence of securitization is pooling and tranching. After pooling a set of assets, the originator creates different classes of securities, known as tranches, which have prioritized claims against the collateral pool. In a tranching deal, some investors hold more senior claims than others. In the event of default, the losses are absorbed by the lowest priority class of investors before the higher priority class investors are affected. Thus, the pooling and tranching create some securities that are safer than the average asset in the collateral pool and some that are much riskier.

Asset-backed securities can refer to securities backed by any type of asset with an associated cash flow, but generally refer to securities collateralized by certain types of consumer and business loans, as opposed to mortgage-backed securities which are backed by mortgages. Firms issue ABS to diversify sources of capital, borrow more cheaply, reduce the size of their balance sheets, and free up capital.

To explain the mechanics of securitization, we focus on credit card ABS, which make up for the largest share of consumer ABS. Credit card ABS are bonds backed by credit card receivables,

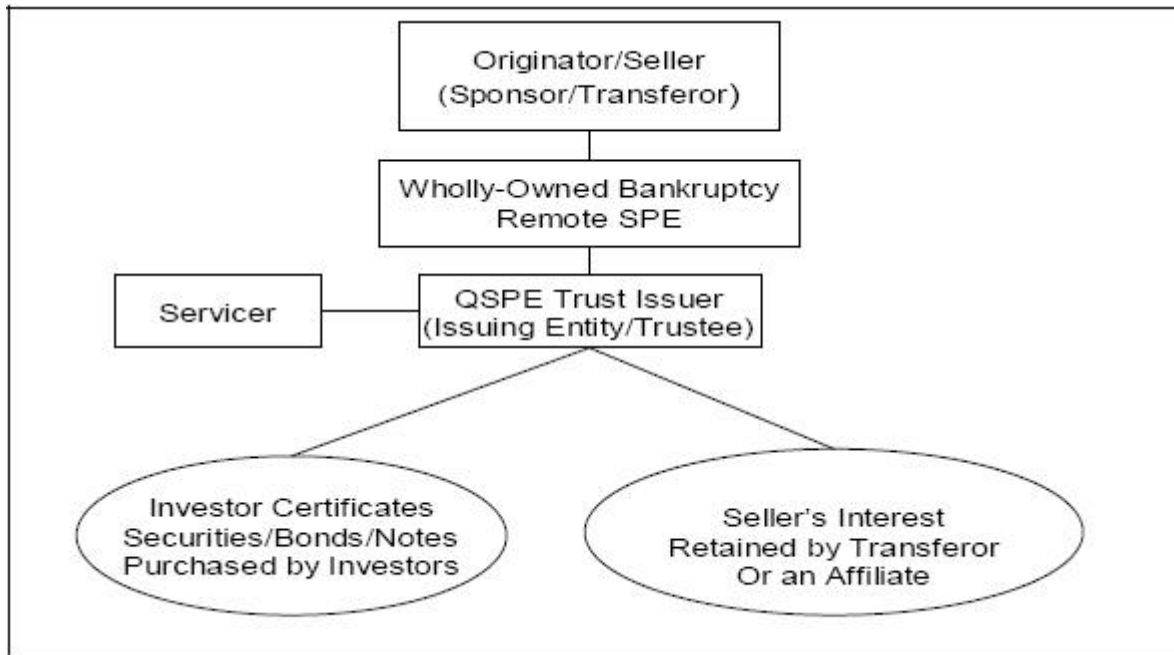
which include APR charges, annual fees, late payment fees, overlimit fees, recoveries on charged-off accounts and interchange. Interchange is income from card associations (Visa, MasterCard, Novus) paid to the issuing bank, which varies from 1-2% of charge volume.

Basic set-up for a securitization

Securitization structures are designed to isolate loans from the bankruptcy or insolvency risks of the other entities involved in the transaction. This is typically accomplished by the originator transferring the receivables to one or more bankruptcy-remote entities, one of which will ultimately issue the ABS to investors. Bankruptcy remote refers to a subsidiary or affiliate corporation whose asset/liability structure and legal status makes its obligations secure even in the event of the bankruptcy of its parent or guarantor. Since this off-balance sheet debt is isolated from bankruptcy risks, this debt should be cheaper as it does not include a premium reflecting expected bankruptcy costs (Gorton and Souleles, 2005).

The securitization is created when the financial institution (also known as the originator, transferor, seller or sponsor) accumulates a significant volume of receivables and transfers these receivables to a wholly-owned bankruptcy remote Special Purpose Entity (SPE). The SPE then transfers the receivables to a securitization vehicle (typically a qualified SPE trust, or QSPE) (Figure 1)

Figure 1



The trust then packages the receivables and issues investor certificates (sold to investors) and trust certificates (retained by the transferor or affiliate). Proceeds from the sale of the investor

certificates go to the trust. The trust in turn pays the financial institution (seller) for the purchase of the underlying receivables.

The investor certificates noted in Figure 1 are usually issued with a senior/subordinated structure. The seller/originator often retains the bottom or most subordinated piece or pieces in order to obtain high ratings from rating agencies. The trust certificates are also referred to as transferor's interest, seller's certificate or seller's interest. The seller's interest is traditionally retained by the originator, but as the ABS market expanded, an active market in subordinated seller's tranches developed. Credit derivatives could also be used to hedge away exposure risk. This meant that it was relatively easy for originators to sell their interest in securitizations, or at least hedge away some of the risk⁴.

Master Trust Securitization Format

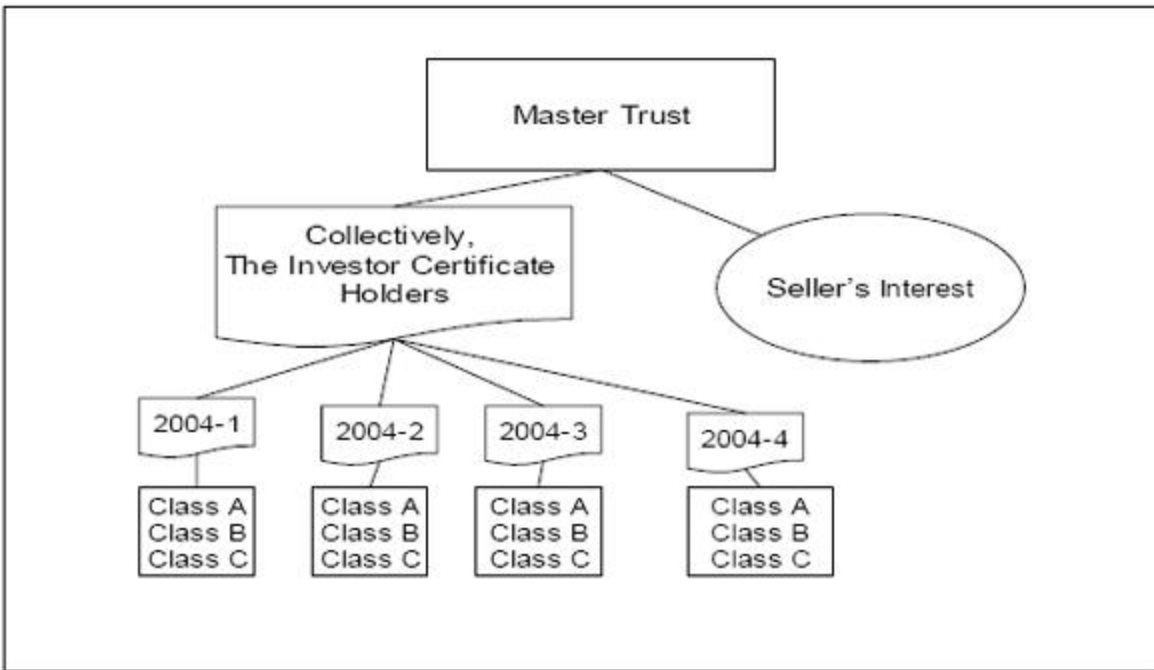
Rather than setting up a new trust for each securitization issued, a single master trust is used for multiple issues, as illustrated in Figure 2. A master trust allows for receivables to be added to the trust over time and to issue multiple "series" of certificates identified by specific issue dates, all backed by a single pool of receivables in the master trust. Additional series can be offered from the master trust at any time. The cash flow generated from all of the receivables in the master trust is used to fund debt service payments on each series.

Series issued by the same master trust also have the ability to share excess finance charge collections. If finance charges allocated to one series are not needed to cover the corresponding interest, defaults and servicing payments, the funds can be instead be applied to absorb shortages in another series.

Trust assets are allocated among current and future noteholders, and the seller's interest. The seller's interest represents ownership interest in the trust assets that have not been allocated to any investor certificate holders' interest. The seller's interest insulates investors from non-credit-related reductions in receivables by serving as a first layer of protection to absorb such fluctuations. This ensures that the receivables balance is sufficiently high, following dilutions due to charge reversals, fraud, seasonal swings in new receivable generation and over-concentration amounts. Credit losses, on the other hand, are shared pro-rata between the seller's interest and investors. Trusts generally have a specified minimum seller's interest, determined by the rating agencies, to ensure a base level of collateralization.

⁴ Fender, I., Mitchell, J, 2009, "The future of securitization: how to align incentives," Bank for International Settlements, *BIS Quarterly Review*, September, 27-43.

Figure 2



Cash Flows

The Monthly Payment Rate (MPR) is the principal collected during the month divided by the ending or average principal balance of receivables for the same period. The MPR measures the portion of outstanding receivables paid down each month; an MPR of 50% indicates full loan repayment in two months.

The underlying receivables may have different maturities from the outstanding certificates. For example, credit card securitizations have a relatively short life, typically eight to ten months, while supporting outstanding certificates which may have three, five, or ten year maturities. As a result of this maturity mismatch, each series issued out of the master trust is structured to have a revolving period, typically followed by controlled accumulation period.

During the revolving period, payments are made to the servicer for cash flows from the receivables. The servicer deposits the payments into two collection accounts, one reserved for principal and the other for trust expenses and interest payments on the investors' certificates. New receivables generated by the designated accounts are purchased from the originating institution/seller with funds from the principal account.

During a controlled accumulation period, the principal payments are reinvested in short-term investments and become the collateral for the outstanding investor certificates. As principal payments are received, the short-term investments grow until they equal the amount of the

outstanding investor certificates in the maturing series. At this point, the trustee makes a bullet payment to all investment certificate holders. During a controlled amortization period, principal collections are paid out to investors monthly throughout the period.

If funds in the principal and interest payment reserve accounts are insufficient to repay investors on the expected maturity date, the accumulation or controlled amortization period will continue until the legal final maturity date. At this time, the trust will sell the remaining receivables to pay investors, if necessary.

Default and Early Amortization Events

Various performance events can trigger an early amortization or accelerated payment of the ABS. For most deals, early amortization is triggered when three-month average MPR is less than a predetermined percentage. Other early amortization events can include bankruptcy, failure to maintain receivables balances at predetermined levels, failure to pay the outstanding dollar amount of the notes by the expected payment date, and failure to pay interest for a predetermined period.

In the event of default, principal collections are distributed to investors, with senior notes paid off first. Principal collections are allocated as a percentage of the invested amount of the receivables balance at the onset of early amortization.

The Role of Credit Rating and the Credit Analysis of Securitizations by Rating Agencies

ABS products are thus backed by a pool of receivables, have a complicated seniority structure, and rely on specific legal guarantees in case of default. In addition, there is asymmetric information between the issuers of the securities and the investors. To help inform investors and the market at large, rating agencies analyze ABS bonds and attach credit ratings to their various tranches. These ratings serve as a focal point for the quality of the securities.

The credit analysis of securitizations is a complex process which includes an evaluation of the originator, servicer, an assessment of the collateral, historical asset performance, an understanding of the securitization and legal structure, and modeling of cash flows under various stress scenarios. Rating agencies may employ a “worst-case scenario” approach or Monte Carlo simulations to analyze credit quality.

The interaction between credit ratings and financial regulation was an important contributor to the growth in securitization markets. The use of credit ratings in the regulation of financial institutions created a large demand for highly rated securities, especially for AAA rated ones. Minimum capital requirements for banks, insurance companies, and broker-dealers depend on the credit ratings of the assets on their balance sheet. Pension funds also face rating-based investment restrictions. The process of securitization allowed investors to participate in asset

classes in which they would normally not be able to buy in. For example, an investor could invest in AAA-rated ABS securities which are issued on a pool of B-rated corporate bonds, even if it could not directly invest in B-rated bonds.

In order to receive higher debt ratings, and thus improve marketability and financing costs, credit enhancements are required. Enhancements can be internal, external or a combination of both. Common external credit enhancement facilities include cash collateral accounts, collateral invested amounts (CIA), third-party letters of credit, and reserve accounts. Internal credit enhancements facilities can include senior/subordinated certificates, excess finance charges, spread accounts and over collateralization.

ABS Market History

The ABS market that had such a prominent role in the recent financial crisis evolved over the course of several decades. Before the 1970s, banks usually held loans on their balance sheet until they matured or were paid off. The loans were primarily funded by bank deposits and depository institutions and mainly provided credit to the areas where they accepted these deposits. As a result, geographic imbalances in the flow of credit to borrowers emerged. Although investors traded whole loans, the market was relatively illiquid and mortgage lenders faced a risk of being unable to find investors to purchase the whole loans as well exposure to interest rate changes.

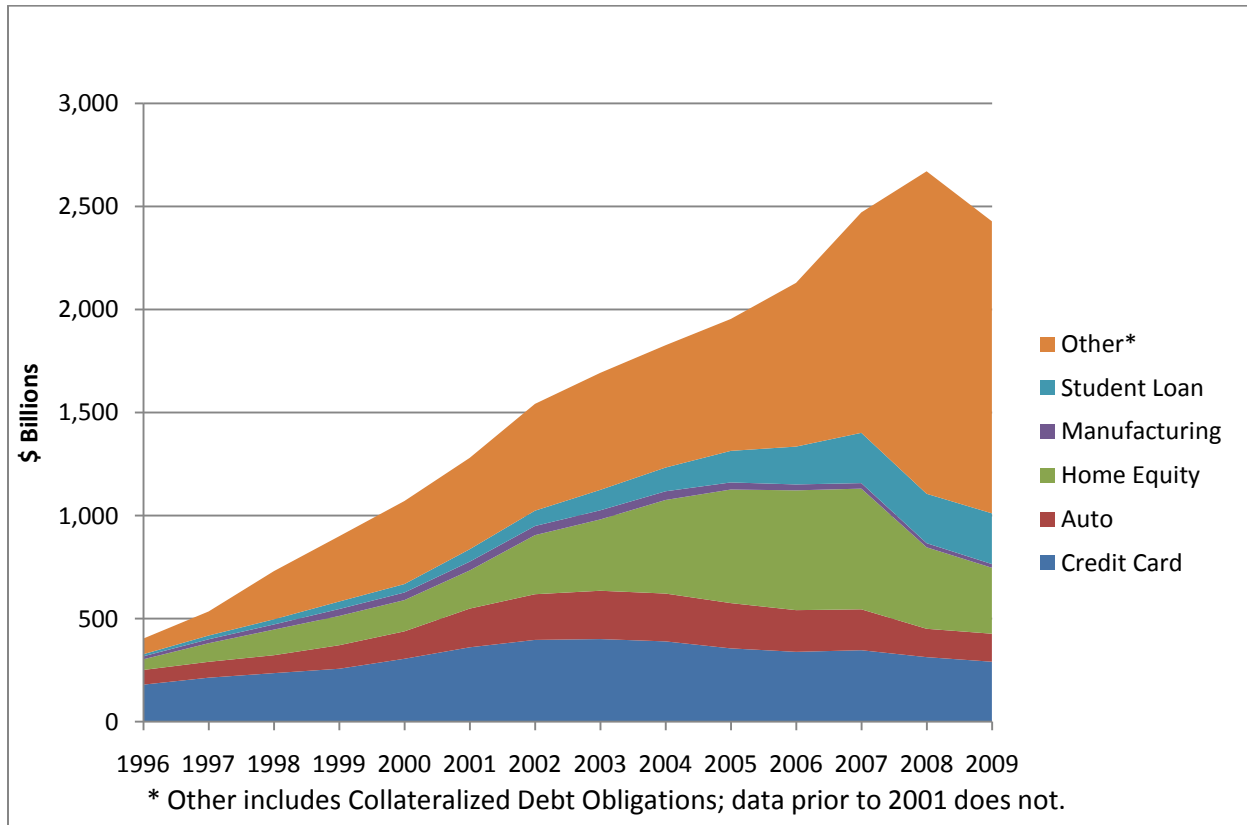
The introduction of securitization addressed several of the shortfalls in the housing market. In 1970, the first form of securitization was brought to the marketplace. At this time, the Government National Mortgage Association (GNMA) introduced government-insured pass-through securities, in which the principal and interest payments were passed from borrowers to investors who purchased bonds that were backed by Federal Housing Administration and Veterans Administration 30-year single-family mortgages. Soon after, the Federal Home Loan Mortgage Corporation (FHLMC) and the Federal National Mortgage Association (FNMA) also began issuing pass-through securities of their own. The pass-throughs were structured so that interest payments on the mortgages were used to pay interest to investors of the bonds, and principal payments are passed to pay down the principal of the bonds (Rosen). The launch of pass-through securities provided several advantages. Investors were provided with a liquid instrument that was free of credit risk. Lenders had the option to move any interest rate risk associated with mortgages off of their balance sheet and were able to make additional loans with the new capital that they received from securitizing older loans. Businesses and consumers faced lower borrowing costs and were given increased access to credit as the geographic inefficiencies that were previously present were eliminated. One of the drawbacks to these new securities is that they were unable to accommodate different risk preferences and time horizons of investors.

The mortgage market continued to evolve with the issuance of the first private-label mortgage pass-through security by Bank of America in 1977 and the first collateralized mortgage obligation (CMO) by FHLMC in 1983. CMOs addressed an important risk of owning pass-through securities: prepayment risk. Prepayment risk is the unexpected early return of principal as a result of refinancing. Borrowers are most likely to refinance when interest rates fall and investors are forced to reinvest the returned principal at a lower return than they previously expected. CMOs lowered prepayment risk for certain investors with different classes of securities that offered principal repayment at varying speeds. The introduction of tranches in CMOs set the stage for more sophisticated debt vehicles that were tailored to the preferences of different types of investors. Tranches are slices of a security which allows investors to assume different levels of risk. The senior tranches are highly rated and have the lowest risk. In the event that defaults occur in the underlying bonds, the losses are distributed among the junior tranches until those classes are exhausted. The senior tranches do not experience losses until all of the junior tranches have absorbed the losses. The junior tranches are high risk instruments that come with the potential for high yields but also the possibility of large losses in the event of defaults.

In the mid 1980s, securitization techniques that were developed for the mortgage market were applied to nonmortgage assets. Other types of receivables such as auto loans and equipment leases involved predictable cash flows, which made them attractive for securitization. Banks also soon developed structures to normalize the cash flows of credit card receivables which enabled securities backed by credit card receivables to come to market. In order to provide additional protection to investors on these securities that were not government insured, the pools of assets were overcollateralized so that the value of the underlying loan portfolio was larger than the value of the security. Additional credit enhancements such as the excess spread, the creation of reserve accounts and letters of credit were also implemented. The purpose of these credit enhancements was to limit losses for investors in the event of defaults. Since the 1980s, the market has grown to include the securitization of additional asset types, including home equity loans, manufactured housing loans, and student loans.

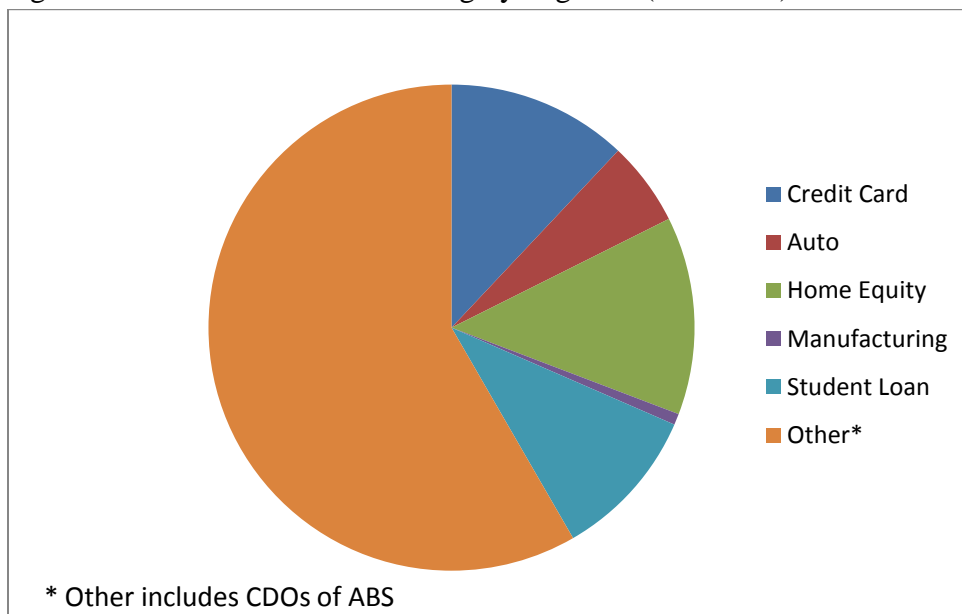
Asset securitization has also grown substantially over time. The ABS market increased dramatically from 1996, when the value of outstanding securities was \$404.8 Billion, to 2008, when the value of outstanding securities reached \$2,671.8 Billion. (Figure 3). Although each type of security exhibited growth during this period, the largest expansions were seen in home equity ABS, student loan ABS and collateralized debt obligations (CDOs), which are securities that can be backed by several diverse types of debt. While securities backed by credit card receivables made up the largest portion of ABS in 1996, by 2009, home equity ABS and CDOs made up the largest portion of the market (Figure 4). The value of ABS issuance also followed a steady increase until June of 2006 when it peaked at \$110 billion and subsequently dried up (Figure 5).

Figure 3: Total ABS Outstanding (\$ Billions)



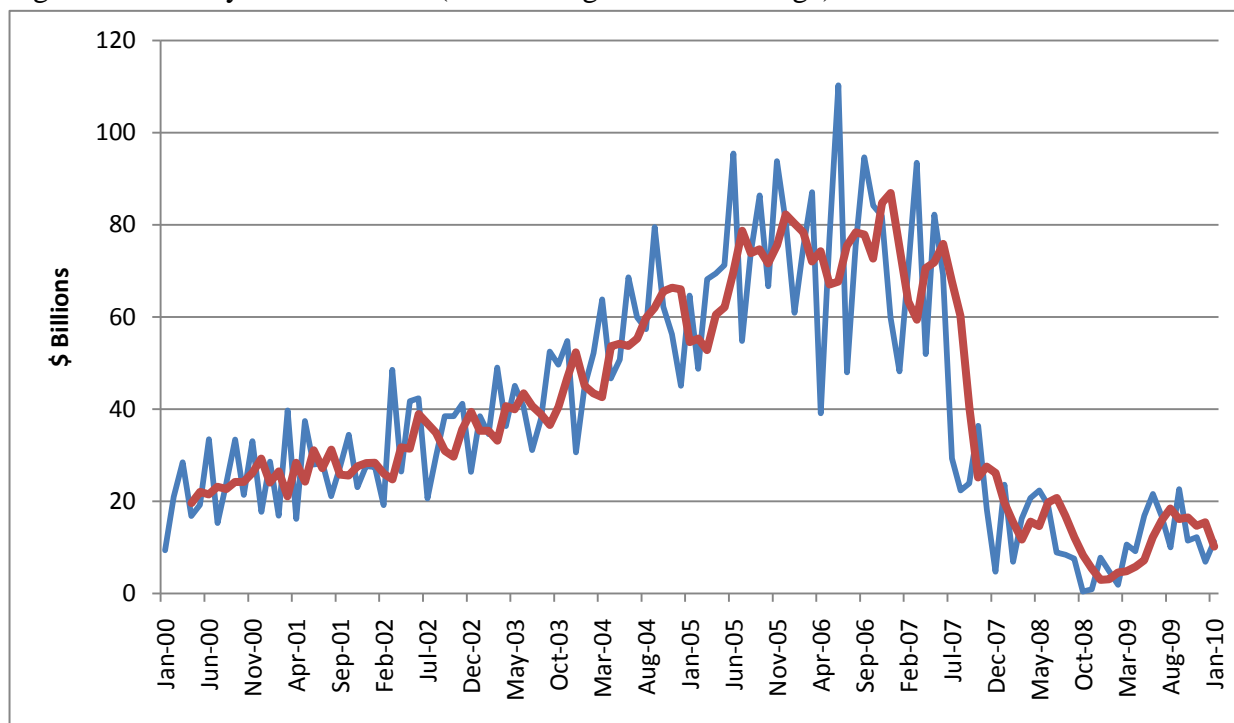
Source: SIFMA

Figure 4: 2009 US ABS Outstanding by Segment (\$ Billions)



Source: SIFMA

Figure 5: Monthly ABS Issuance (with rolling 3-month average)



Source: JP Morgan

The Crisis

The formation and burst of the housing bubble played an important role in both starting and subsequently deepening the financial crisis. Among the factors contributing to the housing bubble were programs aiming at increasing home ownership, low interest rates, and reduced credit standards.

For decades, increasing homeownership has been a central policy objective, implemented through subsidies, tax breaks and dedicated agencies. As part of this program, the Fannie Mae and Freddie Mac were required to fund a larger percentage of loans for low-income borrowers. These policy interventions coupled with historically low interest rates encouraged unprecedented borrowing. As home prices surged, many households borrowed against the value of their homes by refinancing mortgages or taking out home equity lines of credit. At the same time, the banks that originated the loans were selling them rather than keeping them on their balance sheets. By securitizing mortgages, banks were able to originate more mortgages, but the quality of these mortgages deteriorated as the quantity increased. Lenders allowed risky subprime borrowers to purchase homes with little or no down payments. The credit rating companies compounded the problems by rating the ABS securities under the assumption that house prices would keep appreciating at a fast clip.

In 2007 the housing market started to decline: home sales and construction starts slowed, home prices dropped and interest rates rose. Defaults on subprime loans, especially those that did not require a down payment or income verification, started to surge. As the interest rates started rising, the rates on adjustable mortgages started to reset at higher levels and fears surfaced that foreclosures would increase. Lenders and mortgage buyers responded to the defaults by tightening credit standards. Despite this, several subprime lenders suffered losses and eventually were forced to file for bankruptcy. As it became clear that several of the mortgages in default had been securitized, the previously highly rated securities were downgraded, causing demand for outstanding asset-backed securities to collapse. At the same time, a banking panic in the sale and repurchase agreement (“repo”) market forced banks to sell their assets at unfavorable prices (Gorton and Metrick, 2009). There was also a sharp decline in the issuance of new housing-related securities. Although securities backed by housing-related collateral made up the majority of new ABS issuances in 2005 and 2006, starting in 2007, issuances for housing-related securities dried up (Figure 6). By 2008, securities that were backed by student loans, credit card receivables, and automobile loans made up the majority of new ABS issuance because there were so few securities backed by the real estate loans.

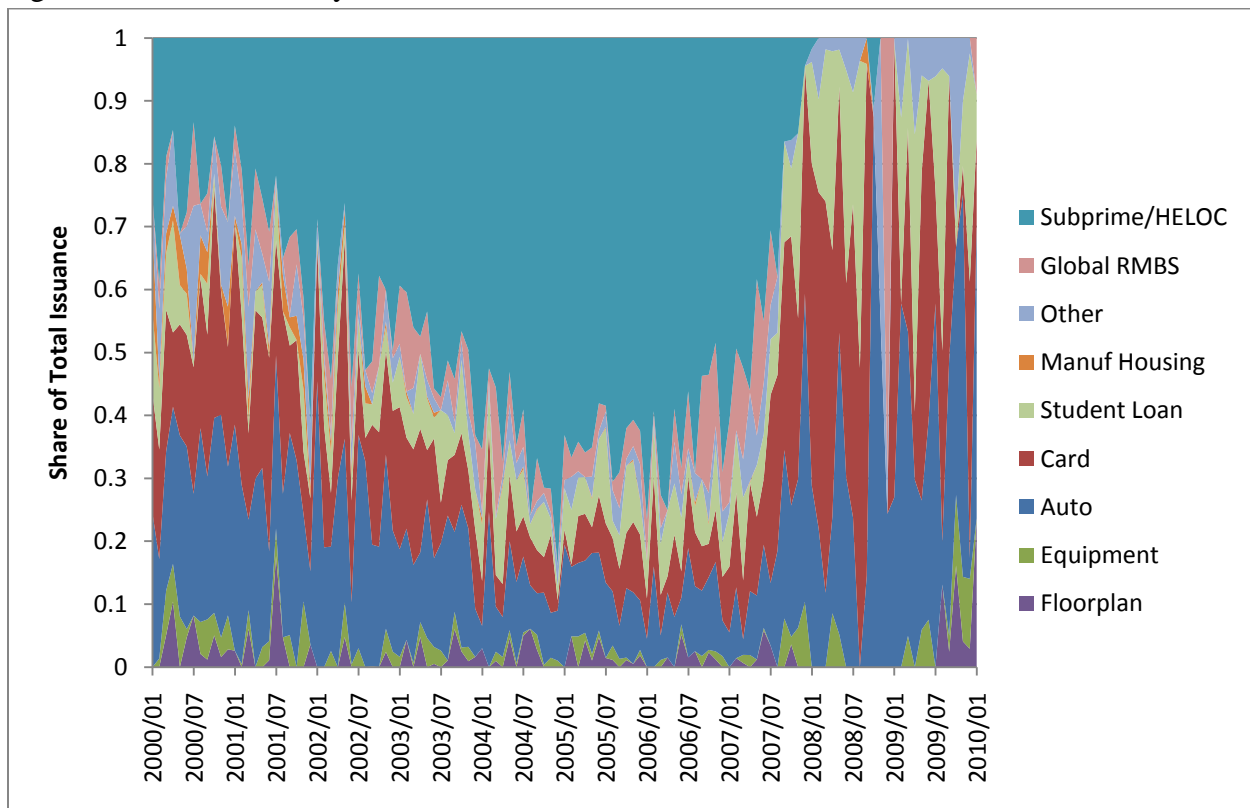
Dlugosz and Benmelech show that the deterioration in the credit ratings of structured financial products began in 2007, when there were more than 8,000 downgrades, and eightfold increase over the previous year. In the first three quarters of 2008 there were almost 40,000 downgrades, which overshadowed the cumulative number of downgrades since 1990. In 2007 downgrades were not only more common, but also more severe. The average downgrade was 4.7 notches in 2007 and 5.8 notches in 2008, compared with 2.5 notches in both 2005 and 2006. A notch is defined as the distance between two adjacent ratings, where, for instance, a bond whose rating has changed from A2 to A3 has been downgraded by one notch.

The unforeseen nationwide decline in the housing market and the related economic downturn were important factors that lead to the deterioration in credit quality of these securities, but it is natural to wonder whether the credit agencies made honest mistakes in estimating default risk or whether they assigned inflated credit ratings to risky securities.

Benmelech and Dlugosz provide empirical evidence that rating shopping played a role in the collapse of the structured finance market. Rating shopping occurs when an originator chooses the rating agency that will assign the highest rating or that has the most lax criteria for obtaining a desired rating. Most rating agencies are hired and paid by the originator to provide credit ratings. The probability that a tranche will be downgraded within a year after issuance is higher for tranches rated by only one rating agency. Also, the drop in rating is more severe in this case.

When the market broke down, the banks that were holding securities off balance sheet until their expected sale, were forced to bring them back on their balance sheet due the provisions in the original ABS issuance contract. These banks incurred large and unplanned regulatory capital charges. At a time when these institutions needed to raise new capital to cover the losses, investors were unwilling to provide it, except at a very large premium. These problems were further exacerbated by the fact that financial firms were reluctant to lend to each other. The insolvencies that emerged led to additional distress through defaults on payment obligations. The credit crisis caused the demise or bailout of Bear Stearns, Lehman Brothers, Fannie Mae, Freddie Mac, Merrill Lynch, Washington Mutual, Wachovia, AIG and many other financial institutions around the world. The crisis reached a global scale as investors started selling foreign stocks and bonds in order to cover losses, to meet margin calls and to replace the risky assets with securities that were safer and more liquid.

Figure 6: ABS Issuance by Sector



Source: JP Morgan

Impact of TALF on the ABS Market

In the fall of 2008, at the height of the crisis following the fall of Lehman Brothers, interest rate spreads on AAA-rated tranches of ABS skyrocketed to historic highs, reflecting unusually large

risk premiums. Issuance of ABS slowed to a trickle in September and October, and the disruptions of the market significantly limited the availability of credit to small businesses and households. These disturbances further weakened the U.S. economy.

On November 25, 2008, the Federal Reserve announced the creation of the Term Asset-Backed Securities Loan Facility (TALF). This program was designed to meet the credit market needs of households and small business, by facilitating the issuance of ABS collateralized by auto loans, student loans, credit card loans and loans guaranteed by the Small Business Administration. The aim of the program was to stimulate demand for ABS in order to lower the cost and increase the availability of new credit. Under the terms of this program, the Federal Reserve Bank of New York would lend up to \$200 billion to holders of AAA-rated ABS, backed by newly originated loans from the designated sectors. The Federal Reserve Bank of NY would lend an amount equal to the market value of the ABS less a fraction of their value, called “haircut”. The haircuts served as a form of credit protection and minimized the risk that the purchaser would not repay the loan if the assets that they pledged for collateral declined in value. These non-recourse loans would have a term of one year and be secured by the ABS. The TALF would stop making new loans on December 31, 2009 unless the Federal Reserve Board found it necessary to extend the program. In addition, the Treasury Department would provide \$20 billion of TARP funds as a form of credit protection to the Federal Reserve Bank of New York to protect against the possibility that the loans are not repaid.

On December 19, 2008, the the maturity of TALF loans was extended from one year to three years.

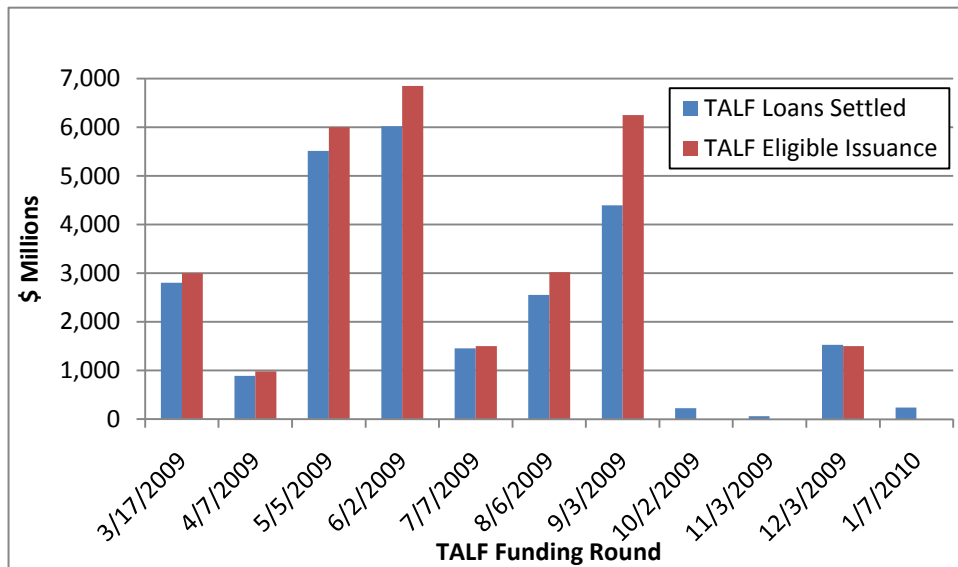
On February 10, 2009, the Federal Reserve announced that along with the Treasury Department, it was prepared to expand the scope and size of TALF. Previously the Treasury was to use \$20 billion to leverage \$200 billion of lending from the Federal Reserve. Under the Treasury’s Financial Stability Plan, the Treasury would use \$100 billion to leverage up to \$1 trillion in lending. On March 17-19 the first TALF operation was conducted. The total amount of TALF loan settled was \$ 4.7 1 billion dollars, split between \$1.91 billion in auto loans and \$2.8 billion in credit card loans.

The Federal Reserve announced on March 19, 2009 that the set of collateral eligible for loans through TALF would be further expanded to include residential mortgage servicing advances, loans backed by business equipment, floorplan loans and vehicle fleet leases. The Federal Reserve further expanded the set of eligible collateral for TALF to include commercial mortgage backed securities (CMBS) and insurance premium finance loans soon after. The CMBS market had ground to a halt in mid-2008, and the inclusion of CMBS for TALF loans was designed to prevent defaults on viable properties and facilitate the sale of distressed properties. The Federal Reserve also decided to allow up to \$100 billion of TALF loans to be given an extended maturity

of five years. On May 19, 2009, the Federal Reserve announced that beginning in July, certain commercial mortgage-backed securities issued before January 1, 2009 would be eligible collateral for TALF loans.

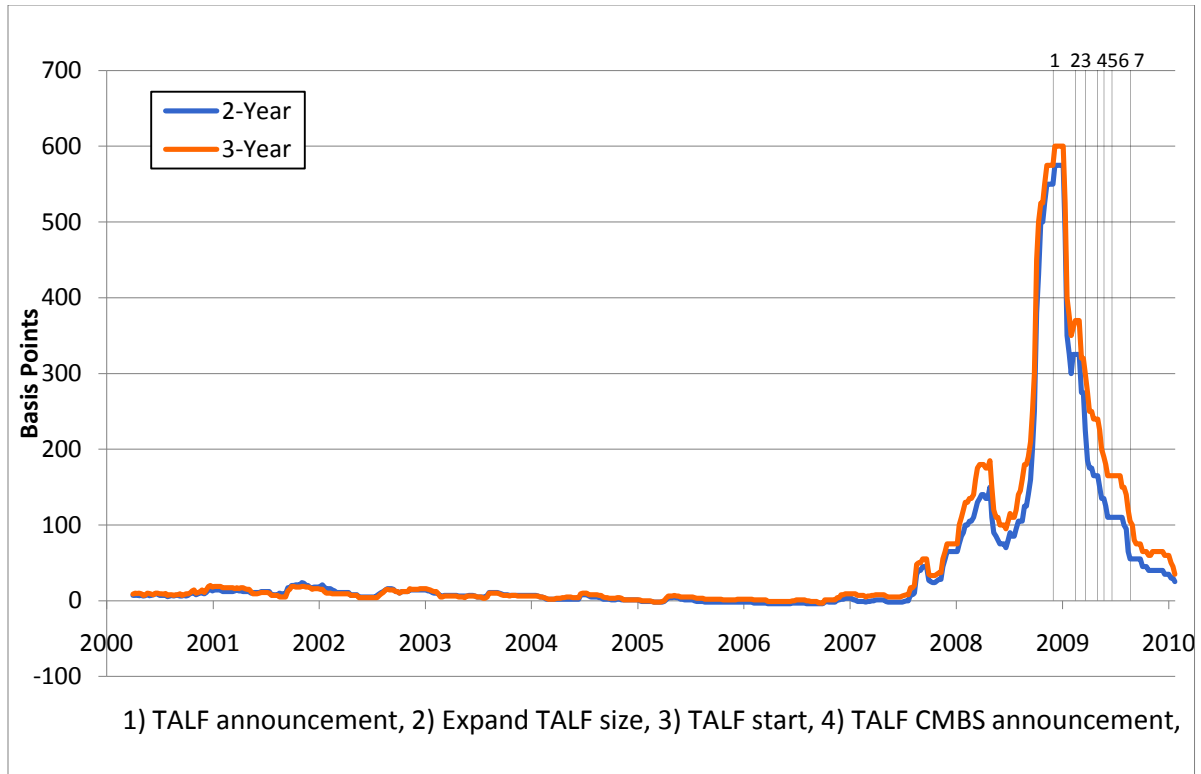
On August 17, 2009, the Federal Reserve Board and Treasury announced that they approved an extension to TALF. Newly issued ABS and legacy CMBS would be eligible to receive TALF money through March 31, 2010 and newly issued CMBS would be eligible to receive loans through June 30, 2010. They also announced that they did not foresee the addition of other types of collateral.

Figure 7: Credit Card ABS Issuance Backed by TALF



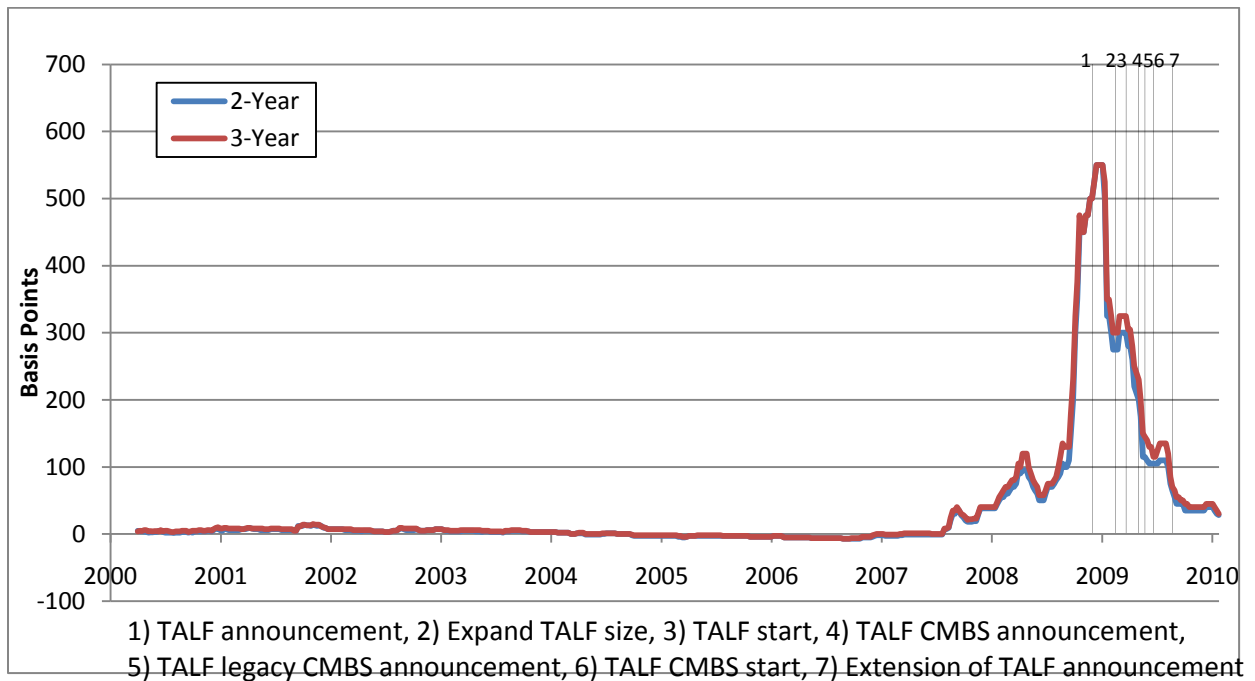
Market volatility before November 2008, lack of stability in the mortgage market, and the absence of a consistent subordinated market were important factors generating the need for the TALF program. TALF helped unlock ABS issuance by providing a backstop to market uncertainty and fears by providing credit to people holding eligible ABS products. This helped generate some new ABS issuances. Figure 7 displays TALF eligible credit cards issuances and TALF credit card loans settled, starting from the first TALF issuance. The graphs shows a close match between the two: basically all credit card TALF-eligible loans received TALF support, with the difference being basically explained by the TALF-required haircut.

Figure 8: Auto ABS Spreads to Swaps



Source: Deutsche Bank

Figure 9: Credit Card ABS Spreads to Swaps



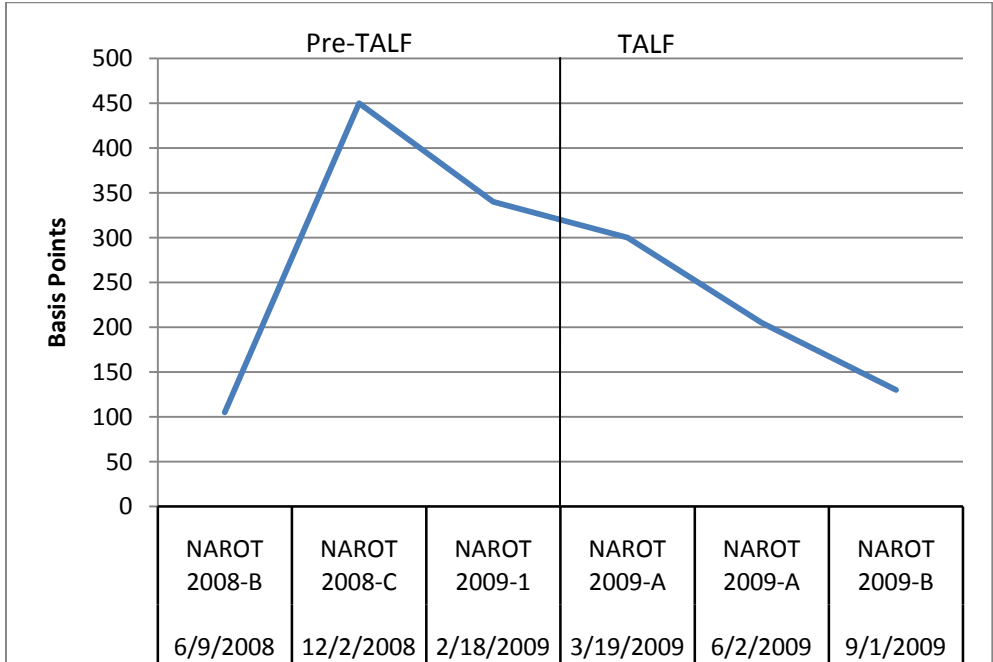
Source: Deutsche Bank

There was, to be sure, ABS market activity outside TALF, and market participants said that the TALF program still had a lot to do with the success of these offerings by providing a floor to the market. In fact, in addition to the direct effect of TALF on TALF-eligible deals, TALF also had a beneficial effect on non-TALF deals by helping to reduce spreads and decrease market volatility more broadly.

Since the introduction of the TALF, ABS interest rate spreads have narrowed from historical highs in the fourth quarter of 2008. Spreads on three-year AAA-rated ABS (the highest quality rating) backed by credit card receivables and auto loans have fallen to approximately pre-crisis levels (Figures 8-9). The spreads for both types of securities peaked in December of 2008 and began to fall soon after the announcement of TALF. These spreads continued to fall as TALF was expanded to include additional types of securities.

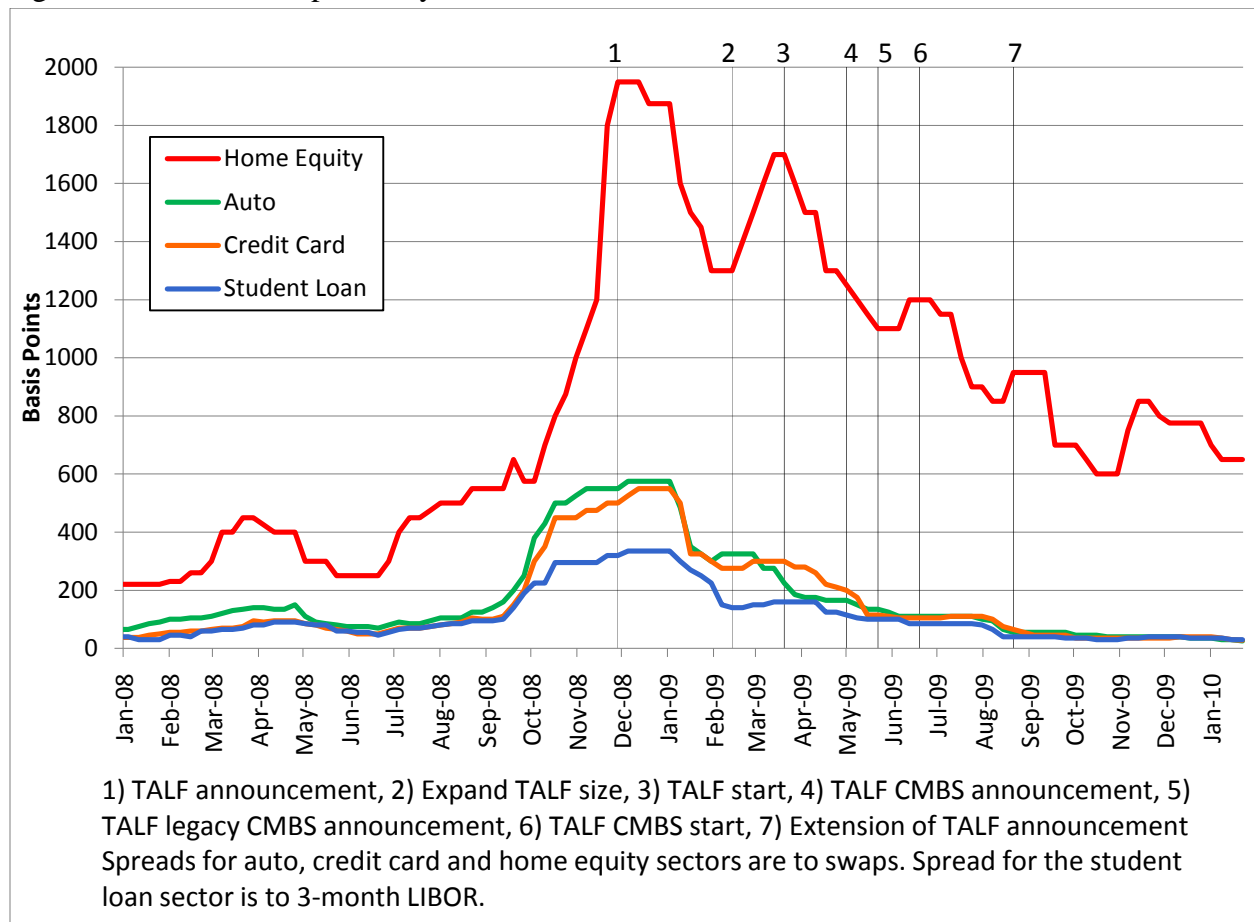
With spreads tightening and volatility declining, analysts say that traditional cash investors have re-entered the market. Auto finance companies that have issued multiple deals this year have seen funding costs fall with successive deals. Figure 10 illustrates the spreads on ABS backed by Nissan auto loans both before TALF was put into effect and after. Since the securities were issued by the same manufacturer, the deals are comparable. The spreads reached 450 basis points before TALF was enacted and ultimately fell to 150 basis points by September of 2009. This indicates greater liquidity in the ABS markets and improved capital funding options for firms.

Figure 10: Spreads on Recent Nissan Auto Deals



Inspection of ABS spreads for sectors that were not the focus of TALF operations further suggests that TALF played a large role in reducing spreads. In Figure 11, AAA-rated ABS spreads are shown for various sectors. After the announcement of TALF's expansion to as much as \$1 billion on February 10, 2009, spreads for the credit card, auto and student loan sectors narrowed, while spreads for TALF-ineligible securitized home equity loans rose.

Figure 11: AAA ABS Spreads by Sector



Source: Deutsche Bank

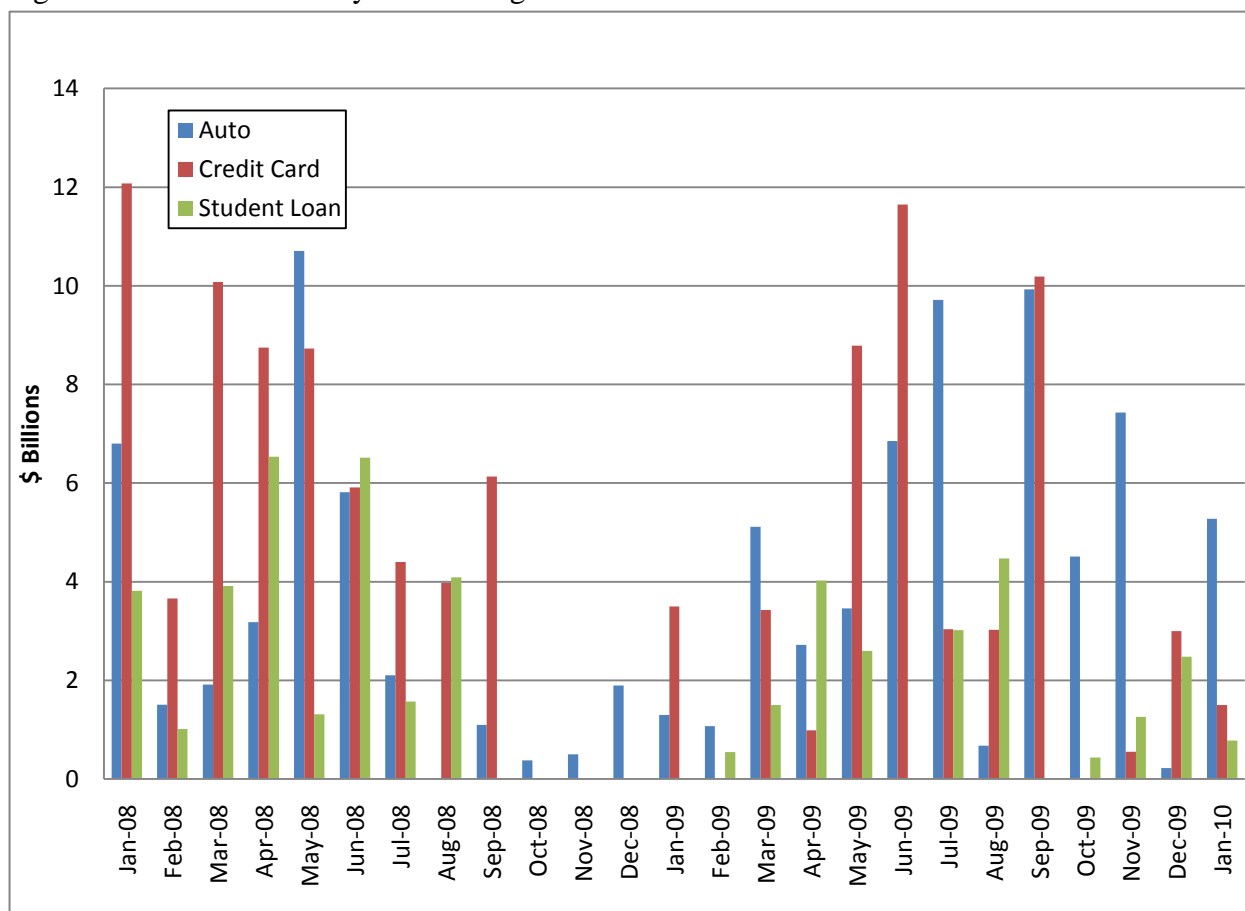
Issuance for the consumer ABS market has also increased across the credit card, auto loan, and student loan (Figure 12). Even before the first TALF operation, student loan ABS reemerged in February 2009, the first issuance in the sector since August 2008. TALF loans in March and April 2009 supported the first credit card deals since October 2008, and more auto loan ABS were issued in those two months than in the previous four months combined.

As markets resumed more normal levels of issuance, new issuance was increasingly done without TALF support. TALF loans settled peaked in the June 2009 round of funding, with a decrease in loan requests through the rest of 2009 (Figure 15). Overall issuance, particularly for both auto sector ABS (Figure 13) and credit cards ABS (Figure 14) remained healthy, as

originators were able to issue ABS without reliance on TALF support. While half of the ABS in these 2 sectors was supported by TALF in the second quarter of 2009, by the fourth quarter of 2009, only a very small portion of the issuances were supported by TALF.

In addition, TALF has eased funding pressure by providing alternative funding for firms. After issuing TALF-eligible ABS, 80% of issuers were able to decrease funding costs, with approximately half of issuers reducing costs by over 100 basis points, and about one-quarter of issuers reducing costs by over 200 basis points. Market players credit TALF with reducing market volatility, which could lead to abrupt changes in ABS prices, which would result in write-downs on newly acquired positions. These benefits to the economy occurred with minimal risk to the Federal Reserve Bank of New York or the Treasury. As of February 2010, the Treasury anticipated a profit from the TALF program.⁵

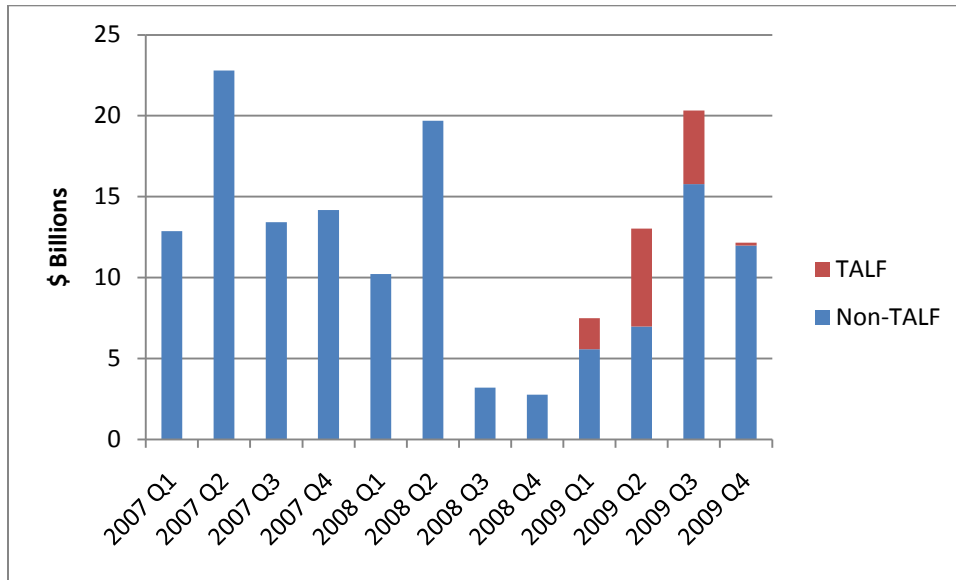
Figure 12: ABS Issuance by Sector Surges Post-TALF



Source: JP Morgan

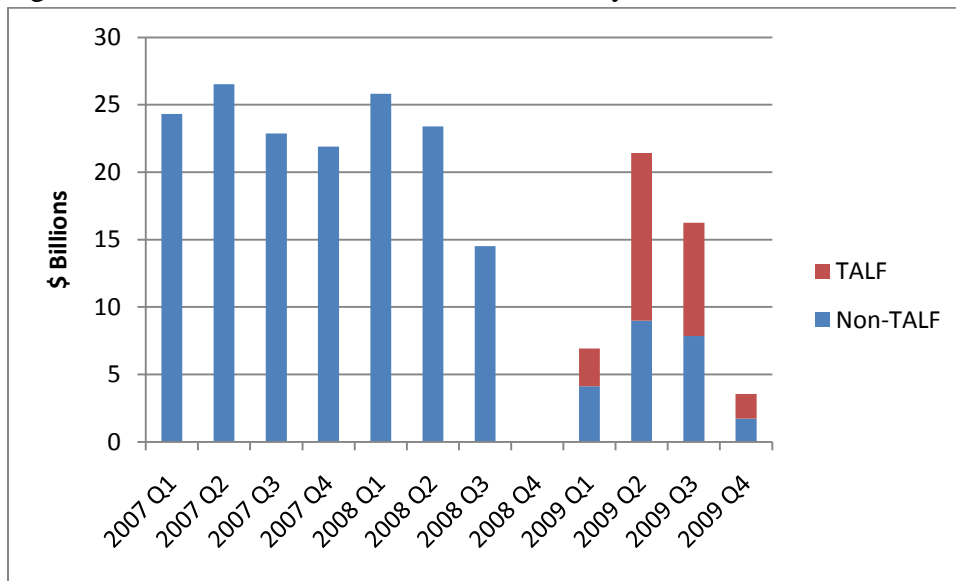
⁵ <http://www.gao.gov/products/GAO-10-25>

Figure 13: Auto ABS Issuance Backed by TALF



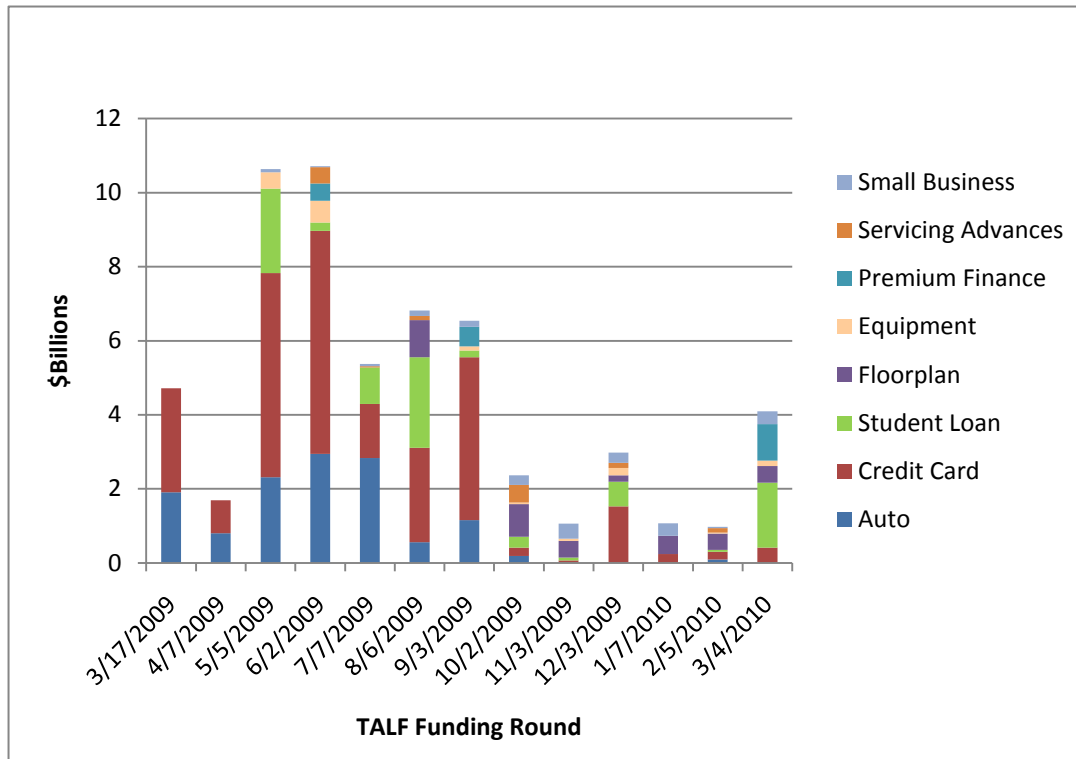
Source: Federal Reserve Bank of New York, JP Morgan

Figure 14: Credit Card ABS Issuance Backed by TALF



Source: Federal Reserve Bank of New York, JP Morgan

Figure 15: TALF Loans by Sector



Source: Federal Reserve Bank of New York

Conclusion

The ABS market augments the banking industry’s balance sheet capacity and provides an important source of funding for market participants. Liquid and well-functioning ABS markets are critical to keep credit freely flowing between consumers, firms, and investors. The TALF program offered a liquidity backstop and leverage to investors in the ABS and CMBS markets. The resultant increase in market liquidity helped narrow spreads, with spreads in core ABS classes, such as credit card and prime auto, falling to levels similar to those seen before the Lehman bankruptcy. TALF was also instrumental in funding new issuance to return ABS markets to pre-crisis operations. As ABS markets recovered, increasing amounts of ABS were issued without TALF support.

ABS spreads for many sectors, including prime auto, equipment and credit cards, are pricing below the TALF loan rate, and are thus expected to be little impacted by the conclusion of the TALF program. However, spreads for ABS backed by longer maturity and subprime assets, such as subprime credit card, private credit student loans, and floorplan, will likely widen following the end of TALF. Issuance in these asset classes is more reliant on TALF financing, and spreads may increase modestly to make the deals attractive enough to investors to replace levered TALF investors.

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