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Term Asset-Backed Securities Loan Facility¹

June Rhee²

Yale Program on Financial Stability Case Study March 13, 2019; Revised: October 10, 2020

Abstract

In the fall of 2008, the securitization market, which was the major provider of credit for consumers and small businesses, came to a near halt. Investors in this market abandoned not only the residential mortgage-backed securities that triggered the financial crisis but also consumer and business asset-backed securities (ABS), which had a long track record of strong performance, and commercial mortgage-backed securities (CMBS). Also, the unprecedented widening of spreads for these securities rendered new issuance uneconomical, and the shutdown of the securitization market threatened to exacerbate the downturn in the economy.

On November 25, 2008, the Federal Reserve (the Fed) thus announced the Term Asset-Backed Securities Loan Facility (TALF). TALF was launched on March 3, 2009, to help stabilize funding markets for issuers in the securitization market. The TALF extended term loans, collateralized by the securities, to buyers of certain high-quality asset-backed securities. By reopening the ABS market, the Fed intended to ultimately support the provision of credit to consumers and small businesses. Instead of directly participating in the securitization market, the Fed encouraged private investors to do so by providing them with liquidity and only took risk in the loss of the value of ABS.

In aggregate, the Fed issued 2,152 loans, totaling \$71.1 billion. The volume of outstanding loans peaked in March 2010 at \$48.2 billion. Loans secured by nonmortgage ABS totaled \$59 billion, and loans secured by legacy CMBS totaled \$12 billion. The original expiration date for the TALF of December 31, 2009, was extended to March 31, 2010, for loans against ABS and legacy CMBS, and until June 30, 2010, for loans against newly issued CMBS. On October 29, 2014, the final outstanding TALF loan was repaid in full, and in the following month, a total of \$745.7 million in accumulated fees and income was paid to the Treasury (90%) and the Federal Reserve Bank of New York (10%).

Keywords: asset-backed securities, ABS, commercial mortgage-backed securities, CMBS, securitization, loan, lending

¹ This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering the responses to the global financial crisis that pertain to market liquidity programs.

Cases are available from the *Journal of Financial Crises* at https://elischolar.library.yale.edu/journal-of-financial-crises/.

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Term Asset-Backed Securities Loan Facility

Summary of Key Terms

At a Glance

When the subprime mortgage market began to sour in early 2007, investors participating in the securitization market became concerned about not only subprime mortgage asset-backed securities (ABS) but also all other ABS. By the fall of 2008, the consumer debt and business loan ABS market was severely disrupted, and after the bankruptcy of Lehman Brothers, the ABS market came to a near-complete halt. Since ABS markets had funded a substantial share of credit to consumers and businesses, continued disruption of these markets could significantly limit the availability of credit to households and businesses of all sizes and thereby contribute to further weakening of US economic activity. This concern prompted the Federal Reserve (the Fed) to introduce the Term Asset-Backed Securities Loan Facility (TALF).

Under the TALF, the Fed initially committed to provide up to \$200 billion of one-year loans to investors to purchase eligible securities. However, the term of the loans was lengthened to three years, and later the TALF added five-year loans for certain collaterals. Also, the Fed expanded its commitment up to a potential \$1 trillion on February 10, 2009.

In aggregate, the Fed issued 2,152 loans, totaling

economic activity by facilitating renewed issuance of consumer and business ABS. Announcement Date November 25, 2008 **Operational Date** March 3, 2009 **Expiration Date** March 31, 2010 (ABS and legacy CMBS) June 30, 2010 (newly issued CMBS) Legal Authority Federal Reserve Act. Section 13(3) Three and five years Term Rate Determined by the type of collateral

Newly issued non-

legacy CMBS

2010)

mortgage-backed ABS,

\$48.2 billion (in March

Department of Treasury

Federal Reserve, US

newly issued CMBS, and

Purpose: To increase credit availability and support

\$71.1 billion. Loans secured by nonmortgage ABS totaled \$59 billion and loans secured by legacy commercial mortgage-backed securities (CMBS) totaled \$12 billion. Although the usage of the TALF grew gradually after the first lending in March 2009, overall, the utilization of the TALF loans remained well below the intended levels of the Fed and the Treasury and did not even reach half of the \$200 billion initially committed by the Fed. TALF generated no losses and collected \$745.7 million in accumulated fees and income, paid to the Treasury (90%) and Federal Reserve Bank of New York (10%).

Collateral

Peak Utilization

Participants

Summary Evaluation

Lending through TALF remained lower than expected, and an early assessment of TALF by the Congressional Oversight Panel attributed the low-level usage of the program to the lack of demand for securitization, flaws in the program's design, and fear of political risk. However, later studies also showed that TALF had a positive impact in restarting the asset-backed securities market.

TALF Rhee

Term Asset-Backed Se	curities Loan Facility: United States Context
GDP (SAAR, Nominal GDP in LCU converted to USD)	\$14,681.5 billion in 2007 \$14,559.5 billion in 2008
	Source: Bloomberg
GDP per capita (SAAR, Nominal GDP in LCU converted to USD)	\$47,976 in 2007 \$48,383 in 2008
	Source: Bloomberg
	As of Q4, 2007:
Sovereign credit rating (5-year senior debt)	Fitch: AAA
	Moody's: Aaa
	S&P: AAA
	As of Q4, 2008:
	Fitch: AAA
	Moody's: Aaa
	S&P: AAA
	Source: Bloomberg

	\$9,231.7 billion in total assets in 2007
Size of banking system	\$9,938.3 billion in total assets in 2008
	Source: Bloomberg
	62.9% in 2007
Size of banking system as a percentage of GDP	68.3% in 2008
	Source: Bloomberg
Size of banking system as a percentage of financial system	Banking system assets equal to 29.0% of financial system in 2007 Banking system assets equal to 30.5% of financial system in 2008
	Source: World Bank Global Financial Development Database
	43.9% of total banking assets in 2007
5-bank concentration of banking system	44.9% of total banking assets in 2008
	Source: World Bank Global Financial Development Database
	22% of total banking assets in 2007
Foreign involvement in banking system	18% of total banking assets in 2008
	Source: World Bank Global Financial Development Database

Government	0% of banks owned by the state in 2008
ownership of banking system	Source: World Bank, Bank Regulation and Supervision Survey
Existence of deposit	100% insurance on deposits up to \$100,000 for 2007
insurance	100% insurance on deposits up to \$250,000 for 2008
	Source: Federal Deposit Insurance Corporation

I. Overview

Background

Traditionally, banks maintained the loans they made on their balance sheets until the maturity of these loans. However, with securitization, the banks were able to sell off these loans before maturity and fund new loans. Moreover, through securitization, banks became less and less important intermediaries of auto loans, student loans, and equipment loans, and were displaced by finance companies as the main originators of these types of credit. Finance companies used asset-backed securities (ABS) to fund these loans. In the year leading up to the financial crisis, about half of credit card loans and one-third of auto loans were funded through securitization, and credit intermediation through ABS exceeded commercial bank loans (Ashcraft, Malz, and Pozsar 2012; Campbell et al. 2011; COP 2009).

When the subprime mortgage market began to sour in early 2007, investors participating in the securitization market became concerned about not only subprime mortgage ABS but also all other ABS. Interest rate spreads on AAA-rated tranches of ABS rose to levels well outside the range of historical experience, reflecting unusually high risk premiums. By the fall of 2008, the consumer debt and business loan ABS market was severely disrupted, and after the bankruptcy of Lehman Brothers, the ABS market came to a near-complete halt. Since ABS markets had funded a substantial share of credit to consumers and businesses, continued disruption of these markets could significantly limit the availability of credit to households and businesses of all sizes and thereby contribute to further weakening of US economic activity. This concern prompted the Federal Reserve (the Fed) to address the troubles in the ABS market (Ashcraft, Malz, and Pozsar 2012).

Normally, the monetary authorities would have approached the funding liquidity problem in securitization markets by reducing the cost of funding for depository institutions. But this was not a viable course of action in October 2008 because short-term interest rates were already near zero. More importantly, depository institutions, like other financial institutions with significant exposure to residential and commercial real estate, were eager to reduce, not expand, their balance sheets and thus were in no position to fully take up the slack caused by the collapse of ABS (Ashcraft, Malz, and Pozsar 2012).

The most direct alternative approach would have been to extend discount window access to nonbank financial institutions. But such a program would have been operationally demanding for the Fed's district banks to carry out. In particular, direct lending would have required the Fed to accurately assess both the overall financial condition of nonbank lenders, of which it had little knowledge, and the risk of the whole loan pools. Consequently, the Term Asset-Backed Securities Loan Facility (TALF) was announced on November 25, 2008, to provide term liquidity to issuers through securitization rather than direct loans (Ashcraft, Malz, and Pozsar 2012).

Program Description

On November 25, 2008, the Federal Reserve announced its plans for TALF. For TALF, the Fed relied on its emergency powers under Section 13(3) of the Federal Reserve Act of 1913 (FRA) to extend loans to investors that purchased newly issued ABS. Treasury also committed funds under the Emergency Economic Stabilization Act of 2008 (EESA) to provide a degree of credit protection for the Fed's TALF loans. The TALF was "designed to increase credit availability and support economic activity by facilitating renewed issuance of consumer and business ABS at more normal interest rate spreads." The TALF was a facility that would "help market participants meet the credit needs of households and small

businesses by supporting the issuance of ABS collateralized by student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration" (SBA) (FRBNY 2008).

Under the TALF, the Fed initially committed to provide up to \$200 billion of one-year loans to investors to purchase eligible securities (Ashcraft, Malz, and Pozsar 2012). However, the term of the loans was lengthened to three years, and later the TALF added five-year loans for certain collaterals. Also, the Fed expanded its commitment up to a potential \$1 trillion on February 10, 2009 (FRBNY 2009).

The TALF loans were collateralized by eligible securities. Eligible collateral included (1) newly issued ABS backed by credit card, auto, small business, dealer floor plan, equipment, and student loans, and by insurance premium and residential mortgage servicing advance receivables; (2) newly issued commercial mortgage-backed securities (CMBS) secured by fixed-rate commercial real estate loans; and (3) structurally senior legacy CMBS³ secured by fixed-rate commercial real estate loans (Ashcraft, Malz, and Pozsar 2012).

After the announcement of TALF on November 25, 2008, it began operation on March 3, 2009. To implement the TALF, the Fed flowed funds to the Federal Reserve Bank of New York (FRBNY) to make nonrecourse loans to eligible investors that would buy eligible ABS and CMBS. It imposed haircuts on the loans by lending an amount against the bonds that was materially smaller than the value of the bonds taken as collateral. The TALF permitted any US investment fund to borrow, as long as it met certain eligibility criteria and could deliver the eligible collateral to support the loan. Because the Fed had limited experience with evaluating nondepository institutions, it relied on some of its existing administrative infrastructure in organizing the TALF. Each borrower was required to establish an account with a TALF agent, usually a primary dealer, which would evaluate the borrower for eligibility and also provide certain administrative functions in the processing of the TALF loans.

Originally, the TALF funds were to be allocated through monthly auctions of preannounced amounts through sealed auction bid, but ultimately, the TALF operated as a standing facility with monthly subscription dates lending at a rate set by the Fed. The TALF made fixed-rate or floating-rate loans. Fixed rates were set prior to each subscription for each eligible collateral type, basis, and loan maturity as a spread over an index. The level of the index, not the spread, varied by subscription month. The Fed would hold the TALF collateral until the loan was paid off, at which time the collateral was redelivered to the borrower. Loans could be prepaid, and the collateral would be returned to the borrower. The borrower could also surrender the collateral as prepayment.(Ashcraft, Malz, and Pozsar 2012).

TALF LLC, a special purpose vehicle (SPV), was established specifically for TALF. Treasury purchased \$20 billion of subordinated debt in TALF LLC. If loans under TALF were not repaid and the proceeds from the sale of the related collateral could not be recouped, Treasury bore the loss up to a specified amount. The Fed then bore any losses exceeding such amount (Ashcraft, Malz, and Pozsar 2012).

Outcomes

In aggregate, the Fed issued 2,152 loans, totaling \$71.1 billion. The volume of outstanding loans peaked in March 2010 at \$48.2 billion. Loans secured by nonmortgage ABS totaled \$59 billion, and loans secured by legacy CMBS totaled \$12 billion. Although the usage of the

³ US dollar-denominated CMBS issued before January 1, 2009.

TALF grew gradually after the first lending in March 2009, overall, the utilization of the TALF loans remained well below the intended levels of the Fed and the Treasury and did not even reach half of the \$200 billion initially committed by the Fed (Ashcraft, Malz, and Pozsar 2012).

The most common collaterals financed through TALF were credit cards (37%), auto and floor plan loans (23%), commercial mortgages (17%), and student loans (13%) (Ashcraft, Malz, and Pozsar 2012).

The original expiration date for the TALF of December 31, 2009, was extended to March 31, 2010, for loans against ABS and legacy CMBS, and until June 30, 2010, for loans against newly issued CMBS. TALF LLC was terminated on November 6, 2014, after distributing a total of \$745.7 million in accumulated fees and income to the Treasury (90%) and FRBNY (10%). On October 29, 2014, the final outstanding TALF loan was repaid in full. Over the life of the program, all TALF loans were repaid in full at or before their respective maturity dates, and FRBNY did not incur a loss on any TALF loan (FRBNY n.d.-a).

II. Key Design Decisions

1. TALF intended to increase credit availability and support economic activity by facilitating renewed issuance of consumer and small business ABS at more normal interest rate spreads.

The Fed announced the creation of the program on November 25, 2008. It described TALF as a facility that would help meet the credit needs of households and small businesses by supporting the issuance of ABS collateralized by student loans, auto loans, credit card loans, and loans guaranteed by the SBA (FRBNY 2008). The Fed initially committed to provide up to \$200 billion of loans to investors to purchase eligible securities (Ashcraft, Malz, and Pozsar 2012). The Fed subsequently expanded its commitment up to a potential \$1 trillion on February 10, 2009.

2. TALF was created under Section 13(3) of the FRA and the Troubled Assets Relief Program (TARP) of the EESA.

The Fed relied on its emergency powers under Section 13(3) of the FRA to extend loans to investors under TALF. Treasury also committed funds under the Troubled Assets Relief Program of the EESA. It provided \$20 billion of credit protection to the FRBNY in connection with the TALF.

3. The TALF program relied on the purchase of ABS by private investors that took the first-loss position of the purchased ABS.

The TALF program relied on the purchase of ABS by private investors rather than directly by the Federal Reserve. In view of the long term to maturity of the loans, and wide variety of newly issued spreads and credit quality across the ABS market, it was desirable to have private investors' scrutiny. This involvement also avoided undercutting market mechanisms for allocating credit to borrowers by relying on private structuring and pricing of new securitizations (Ashcraft, Malz, and Pozsar 2012)

Relying on private investors in newly issued ABS and CMBS also provided benchmark pricing to the market. Even a small number of transactions informed market participants about

where securitization liabilities would tend to price. This reduced market and funding liquidity risk by diminishing uncertainty about the funding cost of the underlying loans and the feasibility of a securitization exit, easing a key constraint on willingness to lend to creditworthy borrowers. Additionally, with a first-loss position, investors had skin in the game, incentivizing them to screen collateral for credit quality (Ashcraft, Malz, and Pozsar 2012).

4. A number of private entities helped to administer the TALF program.

The FRBNY was the Fed entity responsible for managing the TALF, but it required several parties to assess values of collateral eligibility of borrowers and to manage the loans once entered into.

- TALF agents were primary dealers or other designated agents that handled certain administrative activities between the FRBNY and the borrowers. Agents paid TALF loan principal and interest from the proceeds of collateral sales and paid the excess to the borrower.
- Bank of New York Mellon Corporation, the program custodian, was responsible for holding collateral, collecting and distributing payments and administrative fees, verifying the data provided by the TALF agents, and validating the pricing and ratings submitted for pledged securities.
- Collateral monitors,⁴ selected by the FRBNY, provided data and modeling services used in risk assessments and validated collateral pricing and ratings.

5. Any US company that owned eligible collateral was able to borrow from the TALF.

An entity was defined as a US company if it was: (1) a business entity or institution that was organized under the US law and conducted significant operations or activities in the USA; (2) a US branch or agency of a foreign bank that maintained reserves with the Fed; (3) a US insured depository institution; or (4) an investment fund that was organized under the US law and managed by an investment manager that had its principal place of business in the USA. Any foreign-government-controlled entity or institution was excluded (FRBNY, n.d.-b).

Specifically, for item (4), investment fund included pooled investment vehicles such as hedge funds, private equity funds, and mutual funds, and single-investor vehicles. These funds did not need to exclusively invest in TALF-eligible ABS but could be multistrategy funds. The financing subsidiaries of a public-private investment fund (PPIF) established pursuant to the Legacy Securities Public-Private Investment Program (PPIP) could participate only in legacy CMBS and if the PPIF was receiving Treasury-supplied debt financing equal to or less than 50% of the PPIF's total equity (FRBNY, n.d.-b). This was to prevent double leveraging (Ashcraft, Malz, and Pozsar 2012). For more information on PPIP, please refer to the Yale Program on Financial Stability (YPFS) case study on that program (Henken, 2020).

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⁴ Pacific Investment Management Company LLC (PIMCO), Trepp, LLC (Trepp), and BlackRock Financial Management, Inc. (BlackRock) were selected to serve as collateral monitors for the FRBNY. Each collateral monitor assisted the FRBNY by providing valuation, modeling, analytics, and reporting. PIMCO performed a broad role that encompassed the entire TALF portfolio. Trepp focused on both newly issued and legacy CMBS, and BlackRock focused on legacy CMBS. CWCapital Investments LLC provided underwriting advisory services with regard to certain commercial mortgage loans backing newly issued CMBS. However, the collateral monitors did not make decisions for the FRBNY (FRBNY, n.d.-b).

Figure 1: TALF Haircuts by Asset Class (percent)

				ABS Weigh	nted Average I	Life (Years)		
Sector	Subsector	0<1	1<2	2<3	3<4	4<5	5<6	6<7
Auto	Prime retail lease	10	11	12	13	14		
Auto	Prime retail Ioan	6	7	8	9	10		
Auto	Subprime retail loan	9	10	11	12	13		
Auto	Motorcycle/other RV	7	8	9	10	11		
Auto	Commercial and government fleets	9	10	11	12	13		
Auto	Rental fleets	12	13	14	15	16		
Credit card	Prime	5	5	6	7	8		
Credit card	Subprime	6	7	8	9	10		
Equipment	Loans and leases	5	6	7	8	9		
Floorplan	Auto	12	13	14	15	16		
Floorplan	Nonauto	11	12	13	14	15		
Premium finance	Property and casualty	5	6	7	8	9		
Servicing advances	Residential mortgages	12	13	14	15	16		
Small business	SBA loans	5	5	5	5	5	6	6
Student loan	Private	8	9	10	11	12	13	14
Student loan	Government-guaranteed	5	5	5	5	5	6	6
CMBS	New-issue	15	15	15	15	15	16	17
CMBS	Legacy	15	15	15	15	15	17	17

Source: FRBNY, n.d.-b.

Figure 2: TALF Prepayment Assumptions⁵

Sector	Subsector	Prepayment Assumption
Auto	Prime retail lease	75 percent of prepayment curve
Auto	Prime retail loan	1.3 percent ABS
Auto	Subprime	1.5 percent ABS
Auto	Motorcycle/other RV	1.5 percent ABS
Auto	Commercial and government fleets	100 percent of prepayment curve
Commercial mortgage	_	0 percent CPR
Equipment	Loans and leases	8 percent CPR
Small business	SBA 7a	14 percent CPR
Small business	SBA 504	5 percent CPR
Student loan	Student loan private	4 percent CPR
Student loan	Student Ioan FFELP	4 percent CPR
Student loan	Student loan consolidation	50 percent of CLR curve

Source: FRBNY, n.d.-b.

For all four categories of US companies, they could not have a material economic interest in the underlying collateral pool of ABS they were posting against the TALF loans. This was to prevent conflicts of interest that could lead to collateral being presented at inflated prices (Ashcraft, Malz, and Pozsar 2012).

6. The term for TALF loans was ultimately extended to three or five years.

⁵ CPR is conditional payment rate; it represents the proportion of the principal of a pool of loans that is assumed to be paid off prematurely in each period. APS is absolute prepayment speed; it represents the percentage of the original number of loans that prepay during a given period.

TALF loans were originally announced to be a three-year loan. However, there was a mismatch between the three-year maximum loan term and the five-year maximum range of the underlying assets backing the loans. As pointed out in the May 2009 Congressional Oversight Panel report, this mismatch meant the nonrecourse financing through TALF would expire before the underlying debt securities fully matured, leaving the investors to take on the full risk of those debt securities for the rest of two years (COP 2009). Therefore, the Fed announced on May 1, 2009, that it was extending the TALF loan to five years for certain class of ABS (Federal Reserve 2009b).

7. The loan amount was determined by the market value of the ABS, and a haircut and an administrative fee were imposed.

Minimum loan amount was \$10 million, and there was no maximum. To avoid undercutting market mechanisms of risk monitoring and due diligence regarding the creditworthiness of the loans, the program imposed haircuts on the TALF loans by lending an amount against the bonds that was materially smaller than the value of the bonds taken as collateral. Haircut was a key risk mitigant for the Fed since the TALF loans were nonrecourse (Ashcraft, Malz, and Pozsar 2012).

Haircuts were risk sensitive, varying by the underlying asset class and the security's weighted average life, as seen in Figure 1. The average life of a security is the average timing of principal repayment, which in turn depends on assumptions about prepayment for ABS. In order to prevent issuers from gaming TALF haircuts by asserting high prepayment rates and thus shortening the average lives for the securities they wished to pledge, the program set standardized prepayment assumptions by asset class, as shown in Table 2. This permitted the issuer to calculate the TALF average life of each security and the investors to know the haircut on a TALF loan.

The weighted average life of a legacy CMBS was calculated on the basis of: (1) the current composition of the mortgage pool, as reflected in recent servicer and trustee reports; (2) the entitlement of the legacy CMBS to distributions; (3) the assumption that "anticipated repayment dates" are maturity dates; and (4) a 0% conditional payment rate and the absence of future defaults. Loans in default or special servicing were considered as if they had not defaulted, and previously modified loans were considered according to their terms as modified (FRBNY, n.d.-b).

The haircut was measured as a percent of market value for newly issued ABS and CMBS and as a percent of par for legacy CMBS. A haircut measured as a fraction of par instead of price implies a market-value haircut that is higher for lower-value collateral, adding another protection against adverse selection in the legacy program (FRBNY, n.d.-b).

The loan amount for newly issued ABS and CMBS was calculated by subtracting a haircut from the market value of the pledged collateral. The loan amount for legacy CMBS was determined by subtracting a haircut from the lesser of the dollar purchase price on bond trade date, the market price as of loan subscription date, or a value based on the FRBNY's risk assessment (FRBNY, n.d.-b).

Underwriters of TALF-eligible ABS generally set the issue date close to the TALF subscription date. Otherwise, between the issue and subscription dates, investors would have to seek alternative financing and face the risk of securing lower TALF loan proceeds if the bond price dropped. While the value of a newly issued ABS or CMBS bond for purposes of determining the loan amount was based on its price on the subscription date, the value of a legacy CMBS was the dollar purchase price of the CMBS at subscription less the base dollar haircut from

par, exposing the TALF investor to a larger market risk in the period between the bond purchase date and the loan subscription date (Ashcraft, Malz, and Pozsar 2012).

In addition to the haircut, an administrative fee of 10 basis points of the loan amount was applied to loans secured by nonmortgage ABS and a fee of 20 basis points was applied to TALF loans backed by CMBS collateral (Ashcraft, Malz, and Pozsar 2012).

8. The TALF provided long-term nonrecourse loans.

One of the designers of TALF emphasized that the nonrecourse feature was key to TALF design. Nonrecourse meant that if the market price of ABS declined, whether because of risk aversion in the market or because of mounting credit losses, the borrowers would not take the capital loss and could exit the loan, leaving the collateral ABS with the Fed. This highlights the purpose of TALF, which was to heal the market and keep the investors active in the market.

The loan term was a key design element of the TALF program. Investors were eager to avoid the refinancing risk associated with funding longer-dated collateral with a shorter-dated loan. Most TALF collateral was eligible only for a three-year loan term, but longer-dated collateral (such as ABS secured by student loans, loans guaranteed by the SBA, or commercial real estate loans) was eligible for a five-year loan term (Ashcraft, Malz, and Pozsar 2012).

For example, credit card ABS was commonly issued by revolving master trusts, which accepted new credit card loans to the ABS' asset pool as the investment qualities of this underlying pool changed. Credit card securitizations differed from other ABS since the underlying credit card loans had a relatively short life, typically eight to 10 months, whereas ABS typically had three-year or longer maturities. As a result of this maturity mismatch, each series of securities issued out of the master trust was structured to have a revolving period. The revolving period was for a predetermined period that was established at the time the series of securities was structured, and the maturities of the longest senior tranches of most credit card ABS were close to three years. Therefore, three-year TALF loans were offered for credit card ABS.

On the other hand, Small Business Administration loans, student loans, and commercial real estate sectors had longer maturities of seven to 10 years, 15 years, and 10 years, respectively. Therefore, five-year loans were offered for these ABS under TALF; and while the TALF loan term was shorter than the terms of these ABS, the government explained that investors could reasonably assume that market conditions would have normalized by the time the TALF loan matured (five years), permitting them to either finance their positions in the private market or unwind them in an orderly way (Ashcraft, Malz, and Pozsar 2012).

The loans under TALF were nonrecourse. While recourse is a significant risk mitigant for a secured lender, the government reasoned that it could have been expensive for the borrower given the volatility in securitization markets. Not only would this have reduced the number of borrowers willing to participate in TALF, but it would have prompted these borrowers to demand higher returns to ABS issuers to compensate for refinancing risk associated with the ABS it was investing in. This ultimately would have reduced the program's efficacy. Moreover, a meaningful recourse provision was in any event impractical without a regime, which the Fed lacked the ability and resources to institute, to verify the financial condition of ABS issuers (Ashcraft, Malz, and Pozsar 2012).

Brian P. Sack of the FRBNY emphasizes that the combination of these two elements—long maturities and nonrecourse—was critical to the success of the program. Without one or the

other, investors would have had exposure to short-term swings in risk premiums in a time of extreme volatility, which would have likely limited participation and thus reduced the program's effectiveness (Sack 2010).

9. Interest rates on TALF loans were fixed or floating and generally high relative to the historical coupon rate on ABS and CMBS.

The interest rate on TALF loans was generally high relative to the historical coupon rate on ABS and CMBS. This high rate served two important purposes. First, it was an important source of credit enhancement to the public sector. Second, the high loan rate was also an important part of the exit strategy. The loan rate made the program uneconomic as the spreads for newly issued ABS and CMBS reverted toward their historical norms, and thus, the demand for the program diminished as the markets recovered. TALF borrowers also had an incentive to repay loans prior to maturity (Ashcraft, Malz, and Pozsar 2012).

A designer of TALF also explains that this was the "penalty rate" from the Bagehot dictum, and once spreads tightened below 100 basis points, the program size did not matter and TALF achieved what it was set to achieve.

The TALF loan rate was set as a spread, fixed over the life of the program but varying by asset class and loan term, over an index, as shown in Table 3. The indexes were chosen to correspond to bond pricing conventions at issue, thus minimizing the interest rate risk for the borrower in case it decided to exit from the TALF loan. The index for fixed-rate loans was the Libor⁶ swap rate, generally with a maturity equal to that of the TALF loan. For most asset classes, the index for floating-rate loans was the one-month Libor rate, but for some, the index was the prime rate or target federal funds rate (Ashcraft, Malz, and Pozsar 2012).

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⁶ Libor is the London interbank offered rate.

Figure 3: TALF Loan Rates

Collateral Type	TALF Loan Rate
Fixed-rate	
Fixed-rate asset-backed securities (ABS)	
< One year average life	One-year Libor swap rate + 100 basis points (bps)
>= One year average life	Two-year Libor swap rate + 100 bps
>= Two years average life	Three-year Libor swap rate + 100 bps
SBA Development Company participation certificates	1
Three-year TALF loan	Three-year Libor swap rate + 50 bps
Five-year TALF loan	Five-year Libor swap rate + 50 bps
Commercial mortgage-backed securities	
Three-year TALF loan	Three-year Libor swap rate + 100 bps
Five-year TALF loan	Five-year Libor swap rate + 100 bps
Floating-rate	
Floating-rate ABS	One-month Libor + 100 bps
FFELP loans	One-month Libor + 50 bps
SBA pool certificates	Federal funds target + 75 bps
Private student loan	Max (100 bps, prime rate – 175 bps)

Source: FRBNY, n.d.-b.

10. The TALF accepted three categories of collateral: (1) newly issued non-mortgage-backed ABS, (2) newly issued CMBS, and (3) legacy CMBS.

A designer for TALF comments that there were two main debates on the design of collateral: (1) whether to open the program to legacy securities or keep it only for the newly issued ones; and (2) whether to open the program to residential mortgage-backed securities.

The TALF program avoided undercutting market mechanisms for allocating credit to different sectors of the economy by defining eligible collateral broadly within these three general classes of underlying loans. However, ABS asset classes with historically poor performance (for example, timeshares, aircraft leasing, and manufactured housing) were excluded as they were considered not central to the goal of averting a deeper recession. Also, nonagency residential mortgage-backed securities and securitizations of corporate loans were excluded, in part because of risk considerations but also because the TALF program's approach of providing funding liquidity for senior bonds would not address the problems facing those sectors (Ashcraft, Malz, and Pozsar 2012).

Eligible collateral had to have AAA credit ratings from two eligible nationally recognized statistical rating organizations (NRSROs) and have no lower rating from any NRSRO.⁷ The

⁷ 12 C.F.R. Part 201 provided the FRBNY with the process by which it determined the eligibility of credit rating agencies for TALF. NRSROs for newly issued non-mortgage-backed ABS included Moody's, Fitch, and

AAA rating had to be attained on the strength of the securitization collateral and structure itself, rather than through a financial guarantee or "wrap" provided by an insurance company or other third party (Ashcraft, Malz, and Pozsar 2012). In case of a downgrade of an ABS, TALF loans backed by such ABS were not affected, but it could not be used as a collateral for any new TALF loans until it regained its status as eligible collateral.

Moreover, in order to address the potential risk and problem with program effectiveness posed by the use of credit rating agencies' ratings, the Fed conducted internal credit reviews before accepting bonds as collateral. This review provided a layer of due diligence beyond that of the credit rating agencies and investors, putting the public sector in a better position to manage adverse selection. It also was an important check on adverse selection by TALF borrowers, despite the low rejection rate of 13 percent (Ashcraft, Malz, and Pozsar 2012).

(1) Newly Issued Non-Mortgage-Backed ABS

At inception, eligible collateral that was accepted under the TALF was US dollar-denominated non-mortgage-backed ABS issued on or after January 1, 2009. (FRBNY TALF Terms and Conditions)

This included ABS backed by:

- Retail auto loans;
- Federally guaranteed and private student loans;
- Credit card receivables; and
- Small-business loans, fully guaranteed as to principal and interest by the US government, originated under the SBA's 7(a) (Pool Certificates) and 504 (Development Company Participation Certificates) programs.

On February 10, 2009, the Fed announced that it was prepared to take expansion under TALF. The objective of the expansion was to provide additional assistance to financial markets and institutions in meeting the credit needs of households and businesses (FRBNY 2009).

On March 19, 2009, the Fed announced that TALF-eligible collateral would expand to include ABS backed by loans related to:

- Commercial, rental car company, and government fleet leases;
- Business equipment loans and leases;
- Floor plan loans, by which, for example, auto dealers finance inventories; and
- Servicing advance receivables, which arise from residential mortgage servicing advances.

On May 1, 2009, the Fed again expanded the categories of TALF-eligible collateral to include securities backed by:

Standard and Poor's, and beginning with the February 2010 subscription, DBRS was also included in this list. SBA Pool Certificates or Development Company Participation Certificates had an issuance cutoff date of January 1, 2008, and were exempt from the ratings requirements. For newly issued and legacy CMBS, eligible credit rating agencies included Moody's, Fitch, Standard and Poor's, Realpoint, and DBRS (Federal Reserve 2009a).

• Insurance premium finance loans, by which businesses finance lump-sum insurance premium payments.

(2) Newly Issued CMBS

On May 1, 2009, the Fed further expanded TALF-eligible collateral to include newly issued CMBS. At the same time, the Fed also authorized five-year loans (up to \$100 billion) to purchase newly issued CMBS, and ABS backed by student loans and by SBA loans. Extension to the five-year term brought TALF loan maturities closer to the longer average of these types of securities (FRBNY n.d.-a).

(3) Legacy CMBS

Beginning with the subscription held on July 16, 2009, the TALF accepted conduit CMBS issued before January 1, 2009, that was structurally senior to all other interest in the underling pool of mortgages and that had two AAA rating from NRSROs. Since the purchase price factored into the determination of the loan amount, borrowers had to have purchased the legacy CMBS in recent secondary-market transactions between unaffiliated parties, executed on an arm's-length basis at prevailing market prices. This was to prevent conflicts of interest that could lead to collateral being presented at inflated prices (Ashcraft, Malz, and Pozsar 2012). The FRBNY independently reviewed and rejected any CMBS that did not meet the stated criteria or that otherwise posed unacceptable risk (FRBNY n.d.-a).

11. The TALF was a standing facility with borrowers submitting subscriptions to buy at preannounced rates set by the Fed.

Although originally announced to be an auction facility, the TALF was changed to be a standing facility with borrowers submitting subscriptions to buy at preannounced rates set by the Fed.

12. A special purpose vehicle, TALF LLC, was established in connection with the TALF.

TALF LLC, a special purpose vehicle, was established specifically for the purpose of managing any collateral surrendered by TALF borrowers to the FRBNY. Treasury purchased \$20 billion of subordinated debt in TALF LLC. If loans under TALF were not repaid and the proceeds from the sale of the related collateral could not be recouped, Treasury bore the loss up to a specified amount. The Fed then bore any losses exceeding such amount (Ashcraft, Malz, and Pozsar 2012).

TALF LLC held any collateral surrendered by a borrower with respect to a TALF loan and entered into lending transactions with eligible investment funds wishing to purchase eligible ABS. It was initially funded by a \$100 million drawing on the Treasury's \$20 billion commitment.

TALF LLC also held the accumulated interest from TALF loans in excess of the interest earned by the FRBNY. The Fed retained a portion of TALF loan interest equal to its cost of funds that was calculated as the overnight indexed swap (OIS) rate plus 25 basis points. The accumulated excess interest from TALF loans and the Treasury funding was invested to earn interest income (Ashcraft, Malz, and Pozsar 2012).

13. Participants in TALF were exempt from executive compensation restrictions required under TARP.

The reasoning behind this exemption was that the principle in executive compensation restrictions need not apply to TALF borrowers. Executive compensation restrictions were to ensure that executives of institutions that received government support did not unjustly enrich themselves at the expense of taxpayers. On the other hand, the goals of the TALF was to encourage securitization of privately originated loans in important asset classes to consumers and businesses. It provided support to ABS sponsors, who provided credit to consumers and businesses, and to ABS investors, who brought new capital to this frozen market. Therefore, the restrictions did not apply to TALF sponsors, underwriters, and borrowers as a result of their participation in the TALF (FRBNY n.d.-b). Additionally, the Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) included correspondence demonstrating that because the executive compensation restrictions "would not enhance the effectiveness of TALF in restoring consumer credits," Treasury and FRBNY decided to remove these restrictions (SIGTARP 2009).

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III. **Evaluation**

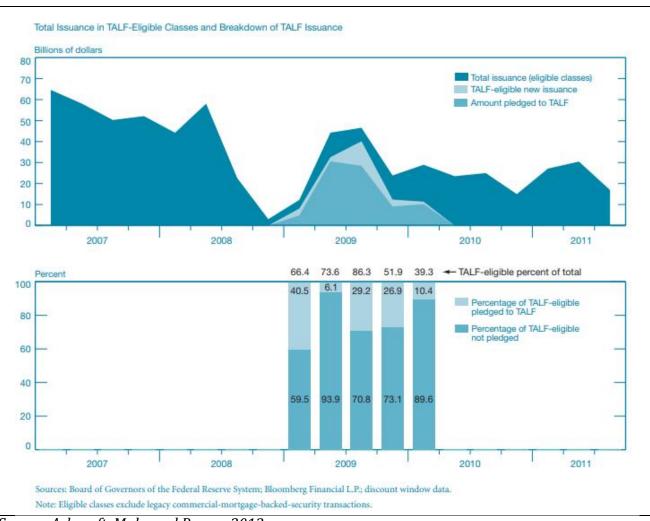
A designer of TALF commented that the program was extremely complex to administer due to two factors: (1) the Fed had to deal with a new set of counterparties, and (2) the underlying collateral ABS needed to be valued carefully.

Lending through the TALF program remained lower than expected, totaling \$71.1 billion although the program was authorized to reach \$200 billion, and at one point, up to \$1 trillion was envisioned. In an early assessment of the TALF program by the Congressional Oversight Panel, low-level usage of the program was attributed to lack of demand for securitization, flaws in the program's design, and fear of political risk (COP 2009).

A recent piece on TALF commented that although extensive credit protection was necessary due to the complexity and variety of collateral, this structural feature diminished the effectiveness of the program. TALF took four months from initial conception to initial operation, and it required multiple expansions that took place over the next seven months, demonstrating that it was unable to promptly respond to the problem. Moreover, there has been a perception that the program was for the rich because the eligible borrowers were largely hedge funds or specialized TALF funds established by asset management companies (Logan, Nelson, and Parkinson 2018).

Later, another report on the program explained that the low level of TALF usage reflected the strong risk mitigants the program incorporated as well as the rapid improvement in market conditions in the term ABS and CMBS markets. By the end of the program, more than half of ABS issuance in TALF asset classes was financed away from the TALF or held unlevered (Table 4). The report suggested that these trends showed that as market conditions improved, cash investors were induced to participate in the term ABS market, and private sector financing became more available to levered investors, permitting TALF to operate as a backstop rather than a form of direct support (Ashcraft, Malz, and Pozsar 2012).

Figure 4: TALF ABS Issuance, 2007-11



Source: Ashcraft, Malz, and Pozsar 2012

Moreover, as spreads narrowed, the balance of risk and reward in levered positions in ABS and CMBS shifted, and these considerations reduced incentives to borrow through TALF and led some borrowers to repay TALF loans prior to maturity, which they were permitted to do at no cost. (Ashcraft, Malz, and Pozsar 2012).

Secondary-market credit spreads are a key indicator of liquidity conditions as well as of credit risk, and spreads on structured credit products tightened dramatically in the early months of TALF operations. Ashcraft, Malz, and Pozsar interpreted this as indicating that although one cannot say with certainty how much of this improvement is attributable to TALF, rather than to a more positive view on credit risk, the suddenness and rapidity of the tightening suggest that TALF had a disproportionate effect on liquidity (Ashcraft, Malz, and Pozsar 2012).

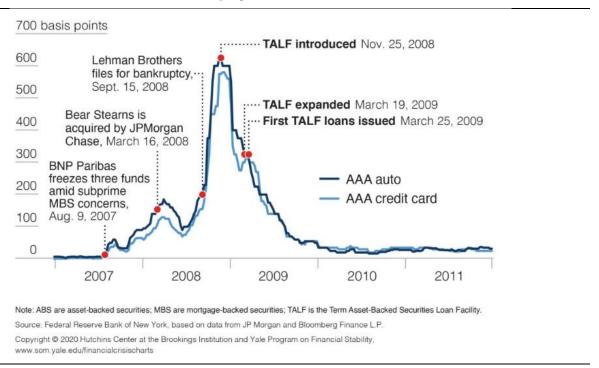
Some considered the TALF to be distinctive in offering a more direct impact to the consumer, because nearly all of the auto lenders supported by the TALF reported that the facility

TALF

enabled them to offer more credit to consumers at lower rates. Lenders attributed this impact to the program's success in reopening the securitization channel through which roughly half of consumer loans were financed (Sack 2010).

One study showed that since the introduction of TALF, ABS interest rate spreads narrowed from historical highs in the fourth quarter of 2008, which suggested a significant improvement in liquidity and availability of credit in the ABS market. More specifically, after the announcement of TALF's expansion to as much as \$1 billion on February 10, 2009, the study showed that spreads for the credit card, auto, and student loan sectors narrowed. The same study also showed that TALF helped restart the ABS market as the percentage of ABS issuance unsupported by TALF increased by the fourth quarter of 2009 (Agarwal et al. 2010). The same is also shown in Table 5, produced by FRBNY.

Figure 5: Consumer Asset-Backed Security Spreads



Source: Hutchins Center at the Brookings Institution and Yale Program on Financial Stability, Visualizing the Financial Crisis, Consumer Asset-Backed Security Spreads, 2007–2011 (2020).

Another study showed that the TALF program appears to have had substantially stronger effects at the market level than at the security level, which suggested that the impact of the TALF may have been to calm investors, broadly speaking, about US ABS markets rather than to subsidize or certify the particular securities that were funded by the program. It also showed that, in terms of costs to the US government, the program included a number of structural features to keep risks low, and the program appeared to have screened out the riskiest deals but have attracted somewhat riskier-than-average deals among the pool of potentially eligible securities (Campbell et al. 2011).

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V. Key Program Documents

Summary of Program

Term Asset-Backed Securities Loan Facility: Terms and Conditions – the Federal Reserve Bank of New York webpage detailing the terms and conditions of TALF. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRS%20Bank%20of%20New%20York%20Term%20Asset%20Backed%20Securities%20Loan%20Facility%20Terms%20and%20Conditions%2011-13-2009.pdf.

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<u>Term Asset-Backed Securities Loan Facility: CMBS</u> – the Federal Reserve Bank of New York web page announcing operations of TALF pertaining to newly issued commercial mortgage-backed securities. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Term%20Asset-Backed%20Securities%20Loan%20Facility-%20CMBS%20.pdf.

<u>Term Asset-Backed Securities Loan Facility: Non-CMBS</u> – the Federal Reserve Bank of New York web page announcing operations of TALF pertaining to non-mortgage-backed ABS. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Term%20Asset-Backed%20Securities%20Loan%20Facility-%20Non-CMBS%20.pdf.

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Implementation Documents

<u>TALF Precertification Process</u> – the Federal Reserve Bank of New York document explaining the process of precertification for borrower eligibility.

https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/TALF%20Precertification% 20Process.pdf.

<u>TALF Master Loan and Security Agreement</u> – the Federal Reserve Bank of New York document setting forth the terms under which a borrower may obtain loans and pledge collateral under TALF.

https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/TALF%20Master%20Loan%20and%20Security%20Agreement.pdf.

<u>Conflicts of Interest Guidance for TALF Agents Participating in TALF</u> – the Federal Reserve Bank of New York guidance highlighting certain requirements and expectations of TALF agents in order to safeguard public confidence in the TALF program, the Federal Reserve, and the participating TALF agents.

Form of Certification as to TALF Eligibility for Non-Mortgage-Backed ABS – the Federal Reserve Bank of New York disclosure form to be included in any offering document in order for securities to be TALF-eligible. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Form%20of%20Certificatio n%20as%20to%20TALF%20Eligibility%20for%20Non-Mortgage-Backed%20.pdf.

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Press Releases/Announcements

<u>Term Asset-Backed Securities Loan Facility: Announcements</u> – a comprehensive list of the Fed and FRBNY announcements relating to TALF. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Term%20Asset-Backed%20Securities%20Loan%20Facility-%20Announcements.pdf.

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Reports/Assessments

A Preliminary Assessment of the TALF (Dudley 2009) – remarks by William C. Dudley at the Securities Industry and Financial Markets Association and Pension Real Estate Association's Public-Private Investment Program Summit in New York City about the operations of TALF. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/A%20Preliminary%20Asse ssment%20of%20the%20TALF%20(Dudley%202009).pdf.

COP May Oversight Report, Reviving Lending to Small Businesses and Families and the Impact of the TALF (COP 2009) – report looking at the state of lending for small businesses and families, then examining the TALF and finding that there is reason for caution in predicting the ultimate impact of TALF, though the program may have succeeded in improving investor demand for asset-backed securities. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/US%20Congressional%200 versight%20Panel%20(COP).%202009.,%20Reviving%20Lending%20to%20Small%20Bu sinesses%20and%20Families%20and%20the%20Impact%20of%20the%20TALF-%20Congressional%20Oversight%20Panel%20May%20Oversight%20Report.%20Washin gton,%20DC-%20US%20Government%20Printing%20Office,%20May%207,%202009.pdf.

Conference Call of the Federal Open Market Committee on February 7, 2009 – the Federal Open Market Committee considered extending the TALF in a conference call, and three days later, the Fed announced the program's expansion to what could be as much as \$1 trillion. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Conference%20Call%20of%20the%20Federal%20Open%20Market%20Committee%20on%20February%207,%202009%20.pdf.

Reflections on the TALF and the Federal Reserve's Role as Liquidity Provider (Sack 2010) speech stating that TALF, with the other facilities launched during the financial crisis, suggested that liquidity programs can be quite effective at restoring market functioning and the flow credit households and businesses. facilitating of to https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Sack,%20Brian%20P.%202 010.%20%E2%80%9CReflections%20on%20the%20TALF%20and%20the%20Federal% 20Reserve%E2%80%99s%20Role%20as%20Liquidity%20Provider.%E2%80%9D%20Re marks%20delivered%20at%20the%20New%20York%20Association%20for%20Business %20Economics,%20New%20York%20City,%20June%209,%202010.pdf.

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