[Journal of Financial Crises](https://elischolar.library.yale.edu/journal-of-financial-crises)

Volume 2 | Issue 3

2020

The Money Market Investor Funding Facility (U.S. GFC)

Rosalind Z. Wiggins
Yale Program on Financial Stability

Recommended Citation
Wiggins, Rosalind Z. (2020) "The Money Market Investor Funding Facility (U.S. GFC)," *Journal of Financial Crises*: Vol. 2 : Iss. 3, 257-280.
Available at: https://elischolar.library.yale.edu/journal-of-financial-crises/vol2/iss3/9

Money Market Investor Funding Facility (U.S. GFC)[1]

Rosalind Z. Wiggins [2]

Yale Program on Financial Stability Case Study
August 16, 2017; Revised: October 10, 2020

Abstract

In mid-September 2008, money market mutual funds (MMMFs) began to experience run-like redemption requests after the Reserve Primary Fund "broke the buck." As a result, MMMFs became reluctant to roll over or invest in commercial paper (CP) and faced the prospect of selling asset-backed commercial paper (ABCP) they held into a declining market to raise cash. The money markets quickly became negatively impacted, and on October 21, 2008, the Fed announced the Money Market Investor Funding Facility (MMIFF), which would loan funds to a series of special purpose vehicles (SPVs) established by the private sector. The SPVs would use the funds (and proceeds from ABCP that they issued) to purchase eligible US dollar–denominated money market instruments (certificates of deposit, bank notes, and CP) from eligible money market investors, a group originally limited to MMMFs. The Fed authorized up to $540 billion for the MMIFF, which would have facilitated the purchase of $600 billion of assets. No fund accessed the facility, however, and it was closed on October 30, 2009. Although not utilized, it cannot conclusively be said whether the availability of the MMIFF had an impact on the market. Any such impact is difficult to isolate given the coexistence of other government programs aimed at addressing similar stresses.

Keywords: money market mutual funds (MMMFs), certificates of deposit, commercial paper, asset-backed commercial paper (ABCP), wholesale funding, MMIFF, AMLF, Reserve Primary Fund, break the buck

---

[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/.

[2] Rosalind Z. Wiggins – Director, Global Financial Crisis Project and Senior Editor, YPFS, Yale School of Management.

Money Market Investor Funding Facility

At a Glance

During the fall of 2008, hundreds of billions of dollars were withdrawn from money market mutual funds (MMMFs), due to investor redemptions sparked by the Reserve Primary Fund "breaking the buck". Many MMMFs, which are significant holders of commercial paper (CP) and asset-backed commercial paper (ABCP), refused to rollover such securities or to make new purchases, especially of longer terms. These actions all but froze the market for term CP and ABCP putting great stress on financial institutions and businesses that relied on such funding to make loans to businesses and households. Additionally, MMMFs needing cash found it difficult to sell their assets into an illiquid market. The Money Market Investor Funding Facility (MMIFF), was intended to improve conditions in the CP and ABCP markets and provide MMMFs a market for assets that they wanted to sell.

Summary of Key Terms	
Purpose: To provide funding to a series of SPVs established by the private sector to finance the purchase of certain money market instruments from eligible investors, originally US MMMFs.	
Announcement Date	October 21, 2008
Operational Date	November 24, 2008
Expiration Date	October 30, 2009
Legal Authority	Sec. 13(3) of the Federal Reserve Act
Authorization	$540 billion
Peak Utilization	$0
Participants	US MMMFs and certain other money market investors
Rate of FRBNY loan	Primary credit rate
Collateral	US dollar CDs, bank notes, and CP
Haircut/Recourse	Yes/Yes
Terms of collateral	Originally 90 days or less, then 7 to 90 days
Managed By	FRBNY

Under the MMIFF, the Federal Reserve Bank of New York (FRBNY) was to provide funding to a series of special purpose vehicles (SPVs) established by the private sector to finance 90% of the amortized purchase of certain term money market instruments from eligible investors, originally US MMMFs. The remaining 10% of the purchase price was to be funded by the investors' purchase of subordinated ABCP issued by the SPVs. The FRBNY was authorized to lend up to $540 billion under the MMIFF, enabling the SPVs to purchase a combined $600 billion of assets. FRBNY loans under the MMIFF were to be fully collateralized by the assets of the SPVs, and investors using the facility would absorb approximately the first 10% of any losses due to the ABCP being subordinated to the FRBNY loans. (FR OIG 2010).

Summary Evaluation

The MMIFF expired on October 30, 2009, and was never utilized, making it difficult to assess what the program's impact might have been. However, its mere existence "may have provided investors with additional assurance about holding securities with longer -term maturities and, thus, had a positive effect on the money markets." However, given its coexistence with other programs such as the Asset -Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), the US Treasury Department's Temporary Guarantee Program for Money Market Funds, and the Commercial Paper Funding Facility, it may ultimately be difficult to isolate any impact the availability of the MMIFF might have had (FR OIG 2010).

Money Market Investor Funding 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*
Sovereign credit rating (5-year senior debt)	As of Q4, 2007: Fitch: AAA Moody's: Aaa S&P: AAA As of Q4, 2008: Fitch: AAA Moody's: Aaa S&P: AAA *Source: Bloomberg*
Size of banking system	$9,231.7 billion in total assets in 2007 $9,938.3 billion in total assets in 2008 *Source: Bloomberg*
Size of banking system as a percentage of GDP	62.9% in 2007 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*
5-bank concentration of banking system	43.9% of total banking assets in 2007 44.9% of total banking assets in 2008 *Source: World Bank Global Financial Development Database*

Foreign involvement in banking system	22% of total banking assets in 2007 18% of total banking assets in 2008 *Source: World Bank Global Financial Development Database*
Government ownership of banking system	0% of banks owned by the state in 2008 *Source: World Bank, Bank Regulation and Supervision Survey*
Existence of deposit insurance	100% insurance on deposits up to $100,000 for 2007 100% insurance on deposits up to $250,000 for 2008 *Source: Federal Deposit Insurance Corporation*

I. Overview

Background

On September 16, 2008, the day after Lehman Brothers filed for bankruptcy, the $62 billion Reserve Primary Fund money market mutual fund (MMMF), which had a $785 million exposure to Lehman commercial paper (CP)that it wrote down to zero, "broke the buck" by announcing a net asset value (NAV) of less than $1 per share (Anderson and Gascon 2009). This quickly led to run-like redemption requests by many MMMF investors, especially institutional investors who fled prime MMMFs for those investing only in government securities. In the week following Lehman's bankruptcy, investors withdrew $230 billion from MMMFs, including $117 billion from prime MMMFs, as they sought out funds investing only in government securities (Adrian, Kimbrough, and Marchioni 2011).

As MMMFs scrambled to raise cash to pay redemptions and maintain their $1 per share NAV[3], many funds refused to roll over maturing CP or purchase new CP, including asset-backed commercial paper (ABCP). Further, despite their need for cash, many funds resisted selling assets at depressed prices. Notably, ABCP represented approximately 45% of fund assets, but the secondary market was limited and experiencing increasing stress (Duygan - Bump, et al. 2013).

Further, despite their need for cash, many funds resisted selling assets at depressed prices. Notably, ABCP represented approximately 45% of fund assets, but the secondary market was limited and experiencing increasing stress (Duygan-Bump et al. 2013).

Because MMMFs were the largest investor group in CP, their actions led to a general contraction in the short-term wholesale funding market; within a month after Lehman's bankruptcy, outstanding CP had declined by $300 billion (Adrian, Kimbrough, and Marchioni 2011). In addition, CP maturities became severely restricted and rates soon elevated sharply, particularly on longer-term paper, making it difficult, if not impossible, for many issuers to place their CP (Adrian, Kimbrough, and Marchioni 2011). These developments in turn disrupted the business and household financing supported by CP and ABCP, raising concern about possible contagion of the broader financial markets and economy (Adrian, Kimbrough, and Marchioni 2011).

On September 19, 2008, the government took steps to address the redemption stresses on MMMFs. The US Treasury Department announced the Temporary Guarantee Program for Money Market Funds (Temporary Guarantee),[4] which offered to guarantee the accounts of eligible MMMFs choosing to participate against losses resulting from a fund breaking the buck. On that same day, the Federal Reserve (the Fed) announced the Asset-Backed

[3] During the crisis, many fund sponsors provided significant assistance to their funds, at least 21 of which would have "broken the buck" without such aid (Brady, Anadu and Cooper (2012)).
[4] See McNamara 2016 for a discussion of the program.

Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF),[5] which provided loans to depository institutions to purchase CP from the MMMFs experiencing redemption pressures.

Program Description

On October 21, 2008, with money markets still seized up, the Fed announced the Money Market Investor Funding Facility (MMIFF), which would indirectly fund 90% of the amortized purchase price of certain term money market assets from eligible investors. including MMMFs. The remaining 10% of the purchase price would be funded by subordinated ABCP issued pursuant to the program.

Under the MMIFF, the Federal Reserve Bank of New York (FRBNY) would loan funds to a series of special purpose vehicles (SPVs) established by the private sector, which would then purchase eligible assets from certain eligible money market investors. The eligible assets included US dollar–denominated certificates of deposit (CDs), bank notes, and commercial paper issued by 50 highly rated financial institutions that had remaining maturities of at least seven and not more than 90 days (FRBNY 2008a). Also, as of November 10, 2008, assets had to be eligible for settlement by the Depository Trust Company (DTC); later clearance was required. (FRBNY 2008a). A total of $540 billion was authorized for MMIFF loans, so it might have been possible for the program to finance the purchase of $600 billion of assets. The MMIFF complemented the other actions taken by the government to address MMMF distress and the frozen CP market.

Authority for the MMIFF

The Fed relied on its emergency authority under Section 13(3) of the Federal Reserve Act (FRA) in adopting the MMIFF. Section 13(3) allows a Reserve Bank to make loans to any individual, partnership, or corporation in "unusual and exigent circumstances" if the Fed determines that the entity is "unable to secure adequate credit accommodations from other banking institutions" and that such loans were secured to its satisfaction. In implementing the MMIFF, the Fed noted that "the short-term debt markets continued to be under considerable strain" and the difficulty being experienced by MMMFs in "selling assets to satisfy redemption requests and portfolio rebalancing needs" (Federal Reserve 2008c). The Fed hoped that stimulating a secondary market for money market instruments would give MMMFs confidence that they could meet liquidity needs for redemption requests, and that they would then restart investing in money market instruments and ultimately extend the

[5] Under the AMLF, the Federal Reserve Bank of Boston provided funding to US depository institutions to finance purchases of high-quality ABCP from MMMFs experiencing redemption pressures. The ABCP secured the loans, which were otherwise without recourse to the borrowing institutions. In its first weeks, the AMLF extended $152 billion in loans, but utilization soon decreased significantly. See Wiggins and Metrick 2016 for a discussion of the program.

terms of their investments (which were then largely being held to less than seven days) (Federal Reserve 2008c; FRBNY 2008a).

Original Proposal

As originally proposed, the MMIFF was to serve as a backup liquidity facility to the SPVs that would fund their purchases of eligible assets by issuing senior and subordinated ABCP. The original design was deemed favorable in two ways: (1) the Fed would have a "well-secured position"; and (2) industry participants might be more amenable to utilizing a facility that was privately managed (Federal Reserve 2008b). However, consultation with industry participants produced a substantial revision of the financing to be provided to the SPVs by the Fed, so that the Fed's position shifted to being a direct lender instead of a backup (Federal Reserve 2008c).

The MMIFF was announced on October 21, 2008, and became operational on November 24. The facility was originally set to terminate on April 30, 2009; however, the Fed's Board of Governors extended the termination date to October 30, 2009, when the MMIFF expired without being used.

How the MMIFF Was to Work

According to the FRBNY, under the MMIFF, five SPVs were to be established by JPMorgan Chase & Company (rather than by the Fed), which would be the program's sponsor and manager of the conduits. JPMorgan was selected for this role by representatives from the MMMF industry (FRBNY 2008a).

The SPVs would purchase money market instruments meeting certain criteria from investors, initially MMMFs, at amortized cost, and pay 90% of the purchase price in cash funded with loans from the FRBNY. The remaining 10% of the purchase price would be paid by the SPVs by issuing subordinated ABCP to the selling eligible investor.

It was anticipated that other banks and financial institutions would provide custodial, private placement and administrative services to the SPVs, but it is not clear if any such contracts were entered into (FRBNY 2008a).

FRBNY Loans

Each SPV was eligible to borrow from the FRBNY 90% of the amortized cost of "eligible assets" that it intended to purchase from "eligible investors" (both defined below). The FRBNY loans would be senior secured funding and collateralized by all the assets of the borrowing SPV, providing the FRBNY a 10% haircut. Additionally, the ABCP issued to the eligible investor by the SPV would be subordinated to the FRBNY loans and would absorb approximately the first 10% of any losses incurred by the SPV (FRBNY 2008c).

The FRBNY loans would be overnight loans, but the FRBNY committed to funding the purchased assets until their maturity (FRBNY 2008c). The loans would bear interest at the primary credit rate, with certain limited subordination if the rate increased above a specified amount.[6] Any excess spread earned by the SPVs with respect to the yield on the purchased assets would be retained as a further buffer against FRBNY losses (FRBNY 2008c).

The SPVs would be authorized to purchase, in aggregate, up to $600 billion in eligible assets, indicating that the FRBNY was authorized to provide up to $540 billion in loans.

Asset-Backed Commercial Paper (ABCP)

With respect to each purchase of eligible assets, the SPV would also issue to the eligible investor ABCP equaling 10% of the purchase price (amortized cost) of the eligible asset. The ABCP would be subordinated to the FRBNY loans and had to be rated at least A-1/P-1/F1 by two or more major nationally recognized statistical rating organizations (NRSROs), e.g., S&P, Moody's, and Fitch.[7]

The SPV was required to hold the purchased eligible asset until maturity. When it received payment from the issuer of the asset, it would then repay the loan to the FRBNY. When all the eligible assets had matured and all FRBNY loans were repaid, the SPV would redeem the ABCP.

The ABCP was to bear interest at a rate that was at least 25 basis points below the interest rate of the eligible asset sold. This provided an additional cushion of collateral for the FRBNY's loans as they were secured by all the assets of the SPV. Upon the SPV being wound down, an eligible investor would retain a right to receive a possible contingent distribution of funds that would increase its total yield (including its yield on the ABCP) up to 25 basis points above the yield on the eligible asset that it sold, if there was accumulated income available in the SPV. In this way, an eligible investor that used the MMIFF retained some possibility of sharing in the upside appreciation of the eligible assets that it sold. However, only an eligible investor that sold an eligible asset to the SPV had the right to receive any contingent distribution; the right was not transferable and did not apply to a person who purchased the ABCP in the secondary market (FRBNY 2008a).

Eligible Investors

---

[6] "Specifically, if the primary credit rate rose above 50 basis points plus the lower of (i) the current primary credit rate and (ii) the primary credit rate 90 days before (the subordination threshold), the FRBNY's right to receive interest above the threshold rate would be subordinated to the rights of the ABCP holders to receive principal and interest" (FRBNY 2009b).

[7] Initially, the agencies were not named, but the specific agencies were added as of January 7, 2009 (FRBNY 2009c).

The MMIFF was open, and originally limited to, any fund that qualified as a US 2a-7[8] MMMF (FRBNY 2008a). MMMFs were originally the only eligible investors for two reasons: (1) the purpose of the facility was to provide liquidity to MMMFs; and (2) the "key role money market mutual funds play as a source of short-term credit for financial and nonfinancial corporations" (FRBNY 2008a).

However, it was always intended that eligibility might be extended to other money market investors, and on January 7, 2009, the category of eligible investors was expanded to include, in addition to US 2a-7 MMMFs:

1) US-based securities-lending cash collateral reinvestment funds, portfolios, and accounts (securities lenders);[9] and

2) US-based investment funds that operated in a manner like MMMFs, such as certain local government investment pools, common trust funds, and collective investment funds.[10]

The FRBNY was authorized to vet potential eligible investors, including subjecting them to debt and/or deposit rating criteria (FRBNY 2008a).

Eligible Assets

Eligible assets that an SPV could purchase were initially limited to US dollar—denominated certificates of deposit, bank notes, and CP issued by highly rated financial institutions and having remaining maturities of 90 days or less. This wording permitted even assets with overnight maturities to be eligible assets, contrary to the facility's stated purpose of easing the constraints in the short-term funding market. Therefore, the criteria were refined, as of November 10, 2008, to require that an eligible asset have a remaining maturity of at least seven and not more than 90 days (FRBNY 2008b).

Eligible assets also had to be at least $250,000 in value. The MMIFF did not limit how much any eligible investor could sell to an SPV.

---

[8] Securities and Exchange Commission Rule 2a-7 issued pursuant to the Investment Company Act of 1940.
[9] "Eligible investors will also include any US dollar-denominated cash collateral reinvestment fund, account, or portfolio associated with securities lending transactions that is managed or owned by a US bank, insurance company, pension fund, trust company, or SEC-registered investment advisor." (FRBNY 2009a)
[10] "In addition to US 2a-7 money market mutual funds, eligible investors will include funds that are managed or owned by a US bank, insurance company, pension fund, trust company, SEC-registered investment advisor or a US state or local government entity and are required to (i) maintain a dollar-weighted average portfolio maturity of 90 days or less; (ii) hold the fund's assets until maturity under usual circumstances; and (iii) hold only assets that, at time of purchase, are rated by an NRSRO in one of the top three long-term investment-grade rating categories (A and above) or the top two short-term investment-grade rating categories (A-2 and above), or that are the credit equivalent thereof." (FRBNY 2009a)

Additionally, as of November 10, 2008, eligible assets had to be eligible for settlement at the DTC (FRBNY 2008b). This criterion was later refined to require clearance by DTC, not just settlement (FRBNY 2009a). As of January 7, 2009, eligible assets were required to have a yield of at least 60 basis points above the primary credit rate at the time of purchase by the SPV to provide some additional protection to the FRBNY, which was to be paid the primary credit rate for its loan (FRBNY 2008b).

Under the MMIFF, each SPV could purchase only debt instruments issued by the 10 financial institutions designated in its operational documents as issuers. Issuers were required to have a short-term debt rating of at least A-1/P-1/F1 from two or more NRSROs, and they were chosen by representatives of the MMMF industry largely because, (i) they represented the largest issuers of highly rated short-term liabilities held by MMMFs, and (ii) they met an objective of achieving geographical diversification in each SPV. (FRBNY 2008b). Designated issuers included most of the largest North American and European financial institutions, including Bank of America Corp., General Electric Co., BNP Paribas SA, and Société Générale SA. (FRBNY 2008b; NASDAQ, n.d.). The Fed also indicated that it might consider expanding the list of issuers but only after reviewing the operations of the MMIFF (FRBNY 2008b).

Downgrade or Default of an Eligible Asset

If an eligible asset held by an SPV was downgraded, the SPV would cease all asset purchases until all the SPV's assets issued by that issuer had matured.

If there was a payment default with respect to any eligible assets held by an SPV, the SPV would cease all asset purchases and repayments on outstanding ABCP. Proceeds from maturation of the SPV's assets were to be used to repay the FRBNY, and upon maturation of all assets in the SPV, any remaining funds could be used to repay principal and interest on the ABCP.

Termination and Wind-Down Process

During any wind-down period, an SPV could not purchase any new assets, however, the FRBNY would continue to fund eligible assets held by an SPV during the wind-down process (FRBNY 2008a). During wind-down, an SPV could use proceeds from maturing assets to repay principal and interest on the FRBNY loans and then to repay principal and interest on ABCP that matured on that day (FRBNY 2008a). Upon completion of the wind-down process, if there were assets remaining, any contingent payment would be paid to the eligible investors and the FRBNY would receive any remaining amounts (FRBNY 2008a).

Outcomes

Announced on October 21, 2008, the MMIFF complemented the other programs instituted by the government to provide liquidity and stability to MMMFs and promote liquidity in the CP markets, the Treasury's guarantee and the Fed's AMLF.[11] While other programs, such as the AMLF and the CPFF[12] saw significant use in the fall of 2008 and modest usage thereafter, no investor took advantage of the MMIFF.

Under the AMLF[13] (announced a month prior to the MMIFF), the Federal Reserve Bank of Boston (FRBB) provided funding to US depository institutions to purchase high-quality ABCP from MMMFs experiencing redemption pressures. The ABCP secured the loans, which were otherwise without recourse to the borrowing institutions. Because the Fed made loans to depository institutions, which then purchased the ABCP, the Fed could make the AMLF operational in a few days by relying on much of its existing discount window lending structure. Although the AMLF was adopted without any authorized limit, it permitted loans only for purchases of ABCP. The continuing liquidity problems of the MMMFs were perceived as greater than the relief the AMLF could provide, and thus the MMIFF, which provided a market for a variety of securities held by MMMFs, was adopted (Federal Reserve 2008c). Although the MMIFF carried a spending limit, its capacity to finance the purchase of $600 billion in eligible assets sent a strong message that the Fed was committed to supporting the money markets.

The MMIFF was originally established with an expiration date of April 30, 2009. Although not utilized, the Fed extended the program three times, indicating its commitment to maintaining the availability of liquidity while markets remained stressed (Federal Reserve 2009b). The MMIFF expired on October 30, 2009.

I. Key Design Decisions

1. The Federal Reserve determined that "unusual and exigent circumstances" existed as required by Section 13(3) of the Federal Reserve Act.

In establishing the MMIFF, the Fed relied on its authority under Section 13(3) of the FRA, which permitted the Board, in "unusual and exigent circumstances," to authorize Reserve Banks to extend credit to individuals, partnerships, or corporations that were unable to obtain adequate credit accommodations, provided that the Reserve Bank was secured to its satisfaction.

---

[11] See page 1 and accompanying footnotes.

[12] The CPFF provided a liquidity backstop to US issuers of CP. The FRBNY would make loans to an SPV (that it sponsored) at above-market interest rates to purchase eligible unsecured CP and ABCP from eligible issuers. The loans were secured by all the assets of the SPV. Holdings of the CPFF grew to $334 billion by year-end 2008, when usage slowed. However, the CPFF was one of the Fed's largest liquidity programs. (See also Wiggins 2016 and Wiggins and Metrick 2016.)

[13] See Wiggins and Metrick 2016 for detailed discussion of the AMLF.

In making its determination to invoke Section 13(3), the Fed made note of the continuing strain on the short-term debt markets "as money market mutual funds and other investors had become increasingly unable to sell assets to satisfy redemption requests and meet their portfolio-rebalancing needs" (Federal Reserve 2008c). The Fed further noted in its Section 129 Report the key role MMMFs played in the funding cycle that permitted financial intermediaries to meet the credit needs of businesses and households. The report also explained how the current situation presented significant risk to the country's financial stability and economic condition (Federal Reserve 2008d).

2. The Federal Reserve determined that it would be sufficiently secured.

The FRBNY was authorized to make loans pursuant to the MMIFF, but under Section 13(3), the bank was required to ensure that its loans would be properly secured; several elements provided for this.

First, loans made under the MMIFF were to be overnight loans, and as such, they would remain highly liquid. They were to be fully collateralized by the eligible assets being purchased. These assets would be highly rated and issued by highly rated financial institutions. Additionally, the FRBNY would loan only 90% of the amortized cost of the asset, providing a 10% haircut to further protect the FRBNY's loan. Loans would be nonrecourse to the selling eligible investor but fully recourse to the SPV, and they were additionally secured by all assets of the SPV.

The loans would also be senior to the ABCP issued by the SPV to the eligible investor, representing 10% of the purchase price. The ABCP was to yield a rate 25 basis points less than the yield of the eligible assets sold, providing additional cushion to the SPV, although there was the possibility of the investor receiving some appreciation upon winding down.

Additionally, as of January 7, 2009, eligible assets had to yield at least 60 basis points above the primary credit rate at the time of purchase. Since, the SPV was to pay the primary credit rate to the FRBNY with respect to any loans, the enhanced rate requirement provided the SPV with additional funds that further secured the FRBNY loans.

In the event of a default by an issuer, the FRBNY would look to the eligible assets held as collateral, to the SPV, and to the SPV's other assets to be made whole before experiencing a loss.

3. The Federal Reserve was to make loans to SPVs, which would purchase eligible assets from MMMFs rather than make collateralized loans to the MMMFs or purchase and hold the assets directly.

Under FRA Section 13(3), the Fed did not have authority to purchase the eligible assets directly, although it did have the authority to make collateralized loans directly to MMMFs. However, except for ABCP, the eligible assets were largely unsecured and might have been questioned as acceptable collateral. Also, in September 2008, just a month before adopting the MMIFF, the Fed had approved the Direct Money Market Mutual Fund Lending Facility (DMLF), which would have made collateralized loans directly to the MMMFs (Federal Reserve 2008a). However, consultation with market participants indicated that they would not use the DMLF, and the DMLF was rescinded without implementation by notation vote on October 20, 2008. Consequently, it was concluded that an intermediary was needed to facilitate the making of collateralized loans to MMMFs, and it was thought that a privately sponsored SPV would appeal to the MMMFs (Federal Reserve 2008e).

Utilizing an SPV required additional structuring and administrative work to be completed before the MMIFF could become operational on November 24, 2008, a month after it was announced. By comparison, the AMLF, pursuant to which the FRBB made loans to depository institutions to purchase certain ABCP from MMMFs, and which utilized existing discount window processes and documentation for the basic infrastructure of the program, was announced on a Friday and was operating the next Monday. It is not clear whether the complexity of the MMIFF contributed to its lack of utilization.

4. The MMIFF relied on five SPVs rather than one.

The MMIFF called for five SPVs to be established, and each SPV would be limited to purchasing eligible assets from the 10 financial institutions (issuers) designated in its operating documents. The issuers were chosen with input from the MMMF industry and represented the largest issuers of highly rated, short-term liabilities held by money market mutual funds. The distribution of issuers among SPVs was intended to achieve some geographical diversification within each SPV (FRBNY 2008).

5. Only certain high-quality assets were eligible to be purchased by the SPVs.

To minimize risk, the Fed limited the eligible assets that could be purchased under the MMIFF (and as a result, pledged as collateral for the FRBNY loans) to certificates of deposit, bank notes, and CP that:

- Were US dollar–denominated;
- Had a remaining maturity of 90 days or less; as of June 2009, seven to 90 days;
- Were issued by a financial institution designated in the operating documents of the purchasing SPV;
- Had a short-term debt rating of at least A-1/P-1/F1 from at least two NRSROs;
- Had a face value of at least $250,000;
- As of November 10, 2008, needed to be eligible for DTC settlement; later DTC clearance required (FRBNY 2008b; FRBNY 2009a).

Downgrade or Default of an Eligible Asset

If an eligible asset held by an SPV was downgraded, the SPV would cease all asset purchases until all the SPV's assets issued by that issuer had matured.

If there was a payment default with respect to any eligible assets held by an SPV, the SPV would cease all asset purchases and repayments on outstanding ABCP. Proceeds from maturation of the SPV's assets were to be used to repay the FRBNY, and upon maturation of all assets in the SPV, any remaining funds could be used to repay principal and interest on the ABCP.

6. The amount of eligible assets that any eligible investor could sell pursuant to the MMIFF was not limited.

At no time was the amount of assets an eligible investor could sell to an SPV limited by the MMIFF. This enabled individual funds to access the program as their needs arose and changed.

7. The amount of eligible assets that an SPV could purchase was not limited.

The Fed announced that it would commit up to $540 billion under the MMIFF to facilitate purchases of up to $600 billion in eligible assets, but the amount of funding that any SPV could request was not limited. An alternative strategy would have been to allocate the total amount among the five SPVs. By not doing so, the Fed built maximum flexibility into the program, allowing the MMIFF to respond to market needs.

8. The amount of eligible assets of any issuer that an SPV could hold at any one time was limited.

No more than 15% of any SPV's assets could represent eligible assets of any single issuer. However, during the initial ramp-up period, this limit was permitted to rise to 20%. This "concentration limit" was most likely adopted to provide diversification and to manage risk among the holdings of any one SPV. The limit also would ensure that certain issuers did not receive an oversize portion of the benefit (e.g., a secondary market for its securities) offered by MMIFF, and the limit furthered the distributive impact of the facility.

9. The SPVs held the assets they purchased to maturity.

By holding to maturity the assets that they purchased, the SPVs would validate the Fed's intent that the MMIFF support the short-term debt market by providing longer-term holdings that would help stabilize the secondary market and prices.

10. The eligible investors shared in the risk of the assets purchased by the SPVs.

Although the FRBNY loans were to be made without recourse to the eligible investors, the investors shared in the downside and upside risk of the MMIFF. First, when it sold an asset to the SPV, the eligible investor would receive cash representing 90% of the purchase price of the asset (funded by a FRBNY loan), and ABCP representing the other 10%. The FRBNY loan would be secured by the asset purchased, would be recourse to the SPV (and all its assets), and would also be senior to the ABCP. Therefore, the ABCP would absorb approximately the first 10% of losses experienced by the SPV stemming from any cause, and the eligible investor would be made whole only after all FRBNY loans had been repaid.

Second, the yield on the ABCP was at least 25 basis points less than the yield on the eligible asset sold, providing additional spread to the SPV. Upon maturity of the asset, the SPV would repay the FRBNY loan and retire the ABCP. The MMIFF allowed for an adjusting payout by each SPV that might increase the total yield to the investor to an amount that was up to 25 basis points over the yield on the eligible asset sold, but the investor would have to wait until the SPV was wound down to determine if it would receive any additional payment.

11. The Fed engaged MMMF industry representatives in designing the MMIFF.

MMMF industry representatives were involved in several decisions made in designing the MMIFF, including: (1) choosing JPMorgan to be the sponsor and manager of the conduit SPVs, (2) deciding to establish five SPVs, and (3) choosing the 50 issuers whose debt would be eligible for purchase. Additionally, Investment Company Institute (ICI), the MMMF industry association, was enlisted to play an administrative role and to distribute information.

The Fed sought this involvement to ensure that the facility would be suitable for the task and appropriate to the MMMF industry, a type of regulated entity that the Fed did not usually deal with. In fact, the MMIFF was substantially redesigned and reauthorized after consultation with industry participants.

Yet, it still was not utilized. Therefore, questions remain whether the MMIFF was an ill fit, despite industry consultation. We have not been able to discern whether the facility's lack of use reflected the Fed's limited knowledge of MMMFs, the extreme pressure and urgency in which it was compelled to make decisions and design billion-dollar rescue facilities, the availability of more attractive vehicles to meet the funds' needs, or some combination of these factors.

II. Evaluation

Given that the MMIFF was not utilized, very little academic research considering the facility exists, and it is difficult to know what its impact on the markets might have been. The Fed committed sufficient funds under the facility to purchase up to $600 billion in assets. The outflows from prime MMMFs from September to October 2008 totaled approximately $500 billion. At the very least, the facility signaled a firm commitment from the Fed to maintain impactful liquidity during the stressed period and to encourage the secondary market in money market instruments (Bernanke 2008).

In this vein, a 2010 Fed Inspector General report posited that "the mere existence of the MMIFF may have provided investors with additional assurance about holding securities with longer-term maturities and, thus, had a positive effect on the money markets" (OIG 2010). However, given its coexistence with other programs such as the Treasury's guarantee for MMMFs and the AMLF, it may ultimately be difficult to isolate any impact that the availability of the MMIFF might have had.

Additionally, one might speculate that the MMIFF was not utilized because it was not as attractive as other programs or because circumstances changed. The AMLF, announced on September 19, 2008, purchased ABCP from MMMFs without recourse to the fund and was available quickly. The Treasury guarantee, announced the same day as the AMLF, coexisted with the MMIFF and provided some comfort to fund investors, which may have helped reduce redemption requests. By the time the MMIFF became operational on November 24, eligible investors may have determined that their liquidity needs were already being met by more attractive vehicles.

III. References

Adrian, Tobias, Karin J. Kimbrough, and Dina Marchioni. 2011. "The Federal Reserve's Commercial Paper Funding Facility." *FRBNY Economic Policy Review*, May 2011. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/AdrianKimbroughMarchioni2011_0.pdf.

Anderson, Richard G., and Charles S. Gascon. 2009. "The Commercial Paper Market, the Fed, and the 2007-2009 Financial Crisis." *Federal Reserve Bank of St. Louis Review* 91, no. 6 (November/December): 589–612 https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Anderson, Richard and Charles S Gascon The Commercial Paper Market the Fed and the 2007-2009 Financial Crisis 2009.pdf.

Bernanke, Ben S. 2008. "Economic Outlook and Financial Markets." Testimony before the Committee on the Budget, US House of Representatives, October 20, 2008. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/bernanke_outlook.pdf.

Board of Governors of the Federal Reserve System. Federal Reserve 2008a. Minutes, October 3, 2008. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Fed_Discount_Window_2008_07_13.pdf.

Board of Governors of the Federal Reserve System. Federal Reserve 2008b. Minutes, October 13, 2008. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Fed_Discount_Window_2008_07_13.pdf.

Board of Governors of the Federal Reserve System. Federal Reserve 2008c. Minutes, October 21, 2008. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Fed_Discount_Window_2008_07_13.pdf.

Board of Governors of the Federal Reserve System. Federal Reserve 2008d. Report Pursuant to Section 129(b) of the Emergency Economic Stabilization Act of 2008: Money Market Investor Funding Facility. Press Release, 2008. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRB Report Pursuant to Section 129 of the EESA of 2008 Authorization to Provide Residual Financing to Citigroup Inc 2008.PDF.

Board of Governors of the Federal Reserve System. Federal Reserve 2008e. "Federal Reserve Announces the Creation of the Money Market Investor Funding Facility (MMIFF)." Press Release, October 21, 2008. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Federal Reserve Board - Federal Reserve announces the creation of the Money Market Investor Funding Facility (MMIFF).pdf.

Board of Governors of the Federal Reserve System. Federal Reserve 2009b. "Federal Reserve Announces Extension through October 30, 2009, of Its Existing Liquidity Programs That Were Scheduled to Expire on April 30, 2009." Press Release, February 3, 2009. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Fed_announces_ext_through_Oct_30_2009_existing_liquidity_progs.pdf.

Board of Governors of the Federal Reserve System, Office of Inspector General. OIG 2010. *The Federal Reserve's Section 13(3) Lending Facilities to Support Overall Market Liquidity: Function, Status, and Risk Management.* Washington, DC: Board of Governors of the Federal Reserve System, Office of Inspector General, November 16, 2010. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRS_Lending_Facilities_Report_final-11-23-10_web.pdf.

Brady, Steffanie A., Ken E. Anadu, and Nathaniel R. Cooper. 2012. "The Stability of Prime Money Market Mutual Funds: Sponsor Support from 2007 to 2011." Federal Reserve Bank of Boston, Risk and Analysis Unit, Working Paper RPA12-3, 2012. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Brady_Anadu_Cooper_The_Stability_of_Prime_Money_Market_Mutual_Funds.pdf.

Duygan-Bump, Burcu, Patrick M. Parkinson, Eric S. Rosengren, Gustavo A. Suarez, and Paul S. Willen. 2013. "How Effective Were the Federal Reserve Emergency Liquidity Facilities? Evidence from the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility." *Journal of Finance* 68, no. 2 (April): 715–37. doi:10.1111/jofi.12011. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Duygan, Burcu et al How

Effective Were The FRS Emergency Liquidity Facilities Evidence from the Asset Backed 02-21-2012.pdf.

Federal Reserve Act of 1913, Section 13(3). "Discount of Obligations Arising out of Actual Commercial Transactions, as Amended" (12 U.S.C. § 343). https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRB_Section_13(3).pdf.

Federal Reserve Bank of New York. FRBNY 2008a. "Money Market Investor Funding Facility: Frequently Asked Questions, Effective October 23, 2008." https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_oct_23.pdf.

Federal Reserve Bank of New York. FRBNY 2008b. "Money Market Investor Funding Facility: Frequently Asked Questions, Effective November 10, 2008." https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_nov_10.pdf.

Federal Reserve Bank of New York. FRBNY 2008c. "Money Market Investor Funding Facility: Program Terms and Conditions, Effective October 22, 2008." https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_oct_22.pdf.

Federal Reserve Bank of New York. FRBNY 2009a. "Money Market Investor Funding Facility: Frequently Asked Questions, Effective January 7, 2009." https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_jan_7.pdf.

Federal Reserve Bank of New York. FRBNY 2009b. "Money Market Investor Funding Facility: Frequently Asked Questions, Effective June 25, 2009." https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_june_25.pdf.

Federal Reserve Bank of New York. FRBNY 2009c. "Money Market Investor Funding Facility: Program Terms and Conditions, Effective January 7, 2009." https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_jan_7_0.pdf.

Investment Company Act of 1940, Rules and Regulations, Part 270. "Money Market Funds, as Amended" (17 C.F.R. § 270.2a-7; SEC Rule 2a-7). https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Rule_2a-7_Money_Market_Funds.pdf.

McNamara, Christian. 2016. "Temporary Guarantee Program for Money Market Funds." Yale Program on Financial Stability Case Study, January 13, 2016. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/sites_default_files_private_Cases_YPFS_Temporary-Guarantee-Program-for-Money-Market-Funds-13Jan16-v1.pdf.

NASDAQ. n.d. Financial Glossary: Money Market Investor Funding Facility (MMIFF). https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmiff.pdf.

Wiggins, Rosalind Z. 2016. "Commercial Paper Funding Facility." Yale Program on Financial Stability Case Study. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Wiggins Commercial Paper Funding Facility (US GFC) 20-03-18 PD (1).pdf.

Wiggins, Rosalind Z., and Andrew Metrick. 2016. "The Federal Reserve's Financial Crisis Response D: Commercial Paper Market Facilities." Yale Program on Financial Stability Case Study 2015-1D-V2. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Wiggins, Rosalind Z and Andrew Metrick Commercial Paper Markets Facilities 02-01-2016.PDF.

IV. Key Program Documents

Summary of Program

Federal Reserve Board Announces Money Market Investor Funding Facility (MMIFF) (October 21, 2008) – *Federal Reserve Board announcement of the creation of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Federal Reserve Board - Federal Reserve announces the creation of the Money Market Investor Funding Facility (MMIFF).pdf.

Implementation Documents

Fund Representation Letter – *to be completed by an eligible investor to participate in the MMIFF*. [See FAQs].

Asset Allocation Sheet – *to be completed by an eligible investor to participate in the MMIFF*. [See FAQs].

Private Placement Memorandum – *required disclosure memorandum regarding the ABCP*. [See FAQs].

Money Market Investor Funding Facility: Program Terms and Conditions, Effective October 22, 2008 – *FRBNY web page outlining the basic terms of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_oct_22.pdf.

Money Market Investor Funding Facility: Program Terms and Conditions, Effective November 10, 2008 – *FRBNY web page outlining the basic terms of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_nov_10.pdf.

Money Market Investor Funding Facility: Program Terms and Conditions, Effective January 7, 2009 – *FRBNY web page outlining the basic terms of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_jan_7_0.pdf.

Money Market Investor Funding Facility: Program Terms and Conditions, Effective February 3, 2009 – *FRBNY web page outlining the basic terms of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_feb_3.pdf.

Money Market Investor Funding Facility: Program Terms and Conditions, Effective June 25, 2009 – *FRBNY web page outlining the basic terms of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_june_25.pdf.

Money Market Investor Funding Facility: Frequently Asked Questions, Effective October 23, 2008 – *FRBNY web page providing details regarding the rules and requirements of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_oct_23.pdf.

Money Market Investor Funding Facility: Frequently Asked Questions, Effective November 10, 2008 – *FRBNY web page providing details regarding the rules and requirements of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_nov_10.pdf.

Money Market Investor Funding Facility: Frequently Asked Questions, Effective January 7, 2009 – *FRBNY web page providing details regarding the rules and requirements of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_jan_7.pdf.

Money Market Investor Funding Facility: Frequently Asked Questions, Effective February 3, 2009 – *FRBNY web page providing details regarding the rules and requirements of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_feb_3.pdf.

Money Market Investor Funding Facility: Frequently Asked Questions, Effective June 25, 2009 – *FRBNY web page providing details regarding the rules and requirements of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/faq_june_25.pdf.

Legal/Regulatory Guidance

Minutes of October 13, 2008 – *minutes of the Board adopting and authorizing the MMIFF in its original form*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Fed_Discount_Window_2008_07_13.pdf.

Minutes of October 21, 2008 – *minutes of the Board adopting and reauthorizing the MMIFF in its substantially modified form, which was then implemented*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Fed_Discount_Window_2008_07_13.pdf.

SEC No-Action Letter: J.P. Morgan Securities Inc. (October 22, 2008) – *letter issued by the SEC addressing issues how the MMIFF was to operate under certain SEC MMMF rules*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/SEC_JPM_MMIFF_Ltr_10_22_2008.pdf.

Federal Reserve Act, Section13(3) (as of September 2008) – *section of the Federal Reserve Act that embodies the Fed's emergency authority*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRB_Section_13(3).pdf.

SEC Rule 2a-7 (17 C.F.R. § 270.2a-7) – *SEC rule governing MMMFs*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/sec_investment_company_act.pdf.

Press Releases/Announcements

Federal Reserve Board Announces Money Market Investor Funding Facility (MMIFF) (October 21, 2008) – *Federal Reserve Board press release announcing creation of the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Federal Reserve Board - Federal Reserve announces the creation of the Money Market Investor Funding Facility (MMIFF).pdf.

Federal Reserve Board Announces Two Changes to the Money Market Investor Funding Facility (MMIFF) (January 7, 2009) – *Federal Reserve Board press release announcing two changes to the MMIFF, including new eligible investors*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRS_Press_Release_01_07_2009.pdf.

Federal Reserve Board Announces MMIFF Extension (February 03, 2009) – *Federal Reserve Board press release announcing the extension of several liquidity programs, including the MMIFF, through October 30, 2009*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/mmif_extension.pdf.

The Federal Reserve Announces Extensions and Modifications to a Number of its Programs (June 25, 2009) – *Federal Reserve Board press release announcing various matters concerning several its liquidity programs, including the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/extensions_modifications.pdf.

Media Stories

Fed Prepared to Prop Up Money-Market Funds (*Washington Post*, October 22, 2008) – *Article on the Fed's Money Market Investor Funding Facility to provide cash to money market mutual funds*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/media_prop_up.docx.

Paulson: Fed Will Do What It Takes in Credit Crisis (Greeley Tribune, October 22, 2008) – *Article on the Fed's Money Market Investor Funding Facility to provide cash to money market mutual funds* https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/media_greeley_tribune.docx.

Key Academic Papers

Federal Reserve Liquidity Provision during the Financial Crisis of 2007–2009 (Fleming 2012) – *an overview of the various Federal Reserve lending programs including the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Federal Reserve Liquidity Provision During The Financial Crisis of 2007–2009 2012.PDF.

The Federal Reserve's Financial Crisis Response D: Commercial Paper Market Facilities (Wiggins and Metrick 2016) – *paper examining the programs adopted by the Federal Reserve during the 2007-2009 financial crisis to address the disrupted commercial paper market*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Wiggins, Rosalind Z and Andrew Metrick Commercial Paper Markets Facilities 02-01-2016.PDF.

When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007-2009 (Kacperczyk and Schnabl 2010) – *paper discussing the impact of various Fed credit and lending programs, including the MMIFF, on the commercial paper markets during the crisis*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Kacperczyk, Marcin & Philipp Schnabl When Safe Proved Risky Commercial Paper during the Financial Crisis of 2007 & 2009 2010.pdf.

Reports/Assessments

Domestic Open Market Operations During 2008 (Markets Group of the Federal Reserve Bank of New York, January 2009) – *report prepared for the FOMC by the Markets Group of the FRBNY discussing various lending programs, including the MMIFF*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRBNY_Domestic_Open_Market_Operations_01_2009.pdf.

The Federal Reserve's Section 13(3) Lending Facilities to Support Overall Market Liquidity: Function, Status, and Risk Management (Office of Inspector General, November 2010) – *report prepared by the Fed Office of Inspector General that discusses the function and status of the various Fed lending programs*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/FRS_Lending_Facilities_Report_final-11-23-10_web.pdf.

Periodic Report Pursuant to Section 129(b) of the EESA (February 18, 2009) – *Fed report specifically addressing the MMIFF. Report is updated by the later, general, Section 129 reports*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/frsbog_129mmiff.pdf.

Periodic Report Pursuant to Section 129(b) of the EESA (February 25, 2009) – *Fed report updating the status of outstanding lending facilities authorized under FRA Section 13(3)*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Section129_EESA_Update_Outstanding_Lending_Facilities_2009.pdf.

Periodic Report Pursuant to Section 129(b) of the EESA (June 26, 2009) – *Fed report updating the status of outstanding lending facilities authorized under FRA Section 13(3).* https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/129periodicupdate06262009.pdf.

Testimony of Chairman Bernanke (November 18, 2008) – *Testimony of Federal Reserve Chairman before the House Committee on Financial Services discussing the Fed liquidity programs*. https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Bernanake_Ben_Testimony_11_18_2008.pdf.