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United States: Commercial Paper Funding Facility II¹

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Abstract

The outbreak of the COVID-19 pandemic in early 2020 caused widespread economic uncertainty, prompting government officials to act swiftly to combat potentially severe fallout. On March 17, 2020, the Board of Governors of the Federal Reserve announced the revival of the Commercial Paper Funding Facility (CPFF), a program that the government had utilized during the Global Financial Crisis (GFC) to provide a liquidity backstop to domestic issuers of commercial paper (CP). As with the first iteration of the program, the Federal Reserve Bank of New York (FRBNY) funded a special purpose vehicle (SPV) to purchase highly rated, US dollar-denominated CP, including asset-backed commercial paper (ABCP). The FRBNY's loans were secured by all assets of the SPV, as well as a \$10 billion equity investment from the Treasury Department. The SPV's CP holdings peaked at \$4.3 billion in the week of May 14, 2020, but quickly dropped over the following months. Although the SPV was scheduled to cease operations on March 17, 2021, the Fed extended the program through March 31, 2021. On July 8, 2021, the Fed announced the legal termination of the facility.

Keywords: asset-backed commercial paper (ABCP), asset purchases, commercial paper, liquidity facility, money market mutual funds, short-term funding, wholesale funding

¹ This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering market support programs in response to COVID-19. Cases are available from the *Journal of Financial Crises* at https://elischolar.library.yale.edu/journal-of-financial-crises/.

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Overview

The sudden spread of the COVID-19 pandemic to the US in mid-March 2020 prompted government officials to enact a series of measures to combat the potentially severe economic fallout. Shortterm funding markets rapidly dried up, and investors were particularly reluctant to purchase commercial paper (CP). Interest rates on longer-term CP (e.g., those with tenors of three months) spiked to levels not seen since the Global Financial Crisis (GFC) of 2007-2009 (FRBNY 2020b). Data from the Federal Reserve (the Fed) indicate that spreads between one-month and threemonth AA-rated CP and three-month constant maturity Treasury rates rose by about 200 basis points in March 2020 (Miller 2020). Firms attempting to issue CP with terms longer than a week faced extremely low demand, increasing rollover and further hampering market risk. operations (FRBNY 2020b). As major purchasers of CP, prime money market funds were subject to large redemptions (Labonte 2021). Given the vital importance of the trillion-dollar CP market in providing credit for households and businesses, it was imperative that the government act to "[ensure] the smooth functioning of this market" (FRB 2020f).

Using its authority under Section 13(3) of the Federal Reserve Act and with the required approval of the Treasury Secretary, the Fed announced on March 17, 2020, the reintroduction of the GFC-era Commercial Paper Funding Facility (CPFF) to provide a liquidity backstop to issuers of commercial paper through a special purpose vehicle (SPV). The Fed intended for the CPFF to ease strains in the CP

Key Terms

Purpose: "To provide a liquidity backstop to US issuers of commercial paper, including municipalities, by purchasing three-month unsecured and asset-backed commercial paper directly from eligible issuers."

Launch Dates	Authorized: March 17, 2020 Announced: March 17, 2020
Operational Date	April 14, 2020
End Date	March 31, 2021
Legal Authority	Section 13(3) of the Federal Reserve Act
	U.S.C. 31 § 5302 Exchange Stabilization Fund
Source of Funding	Federal Reserve Bank of New York
Administrators	Federal Reserve Bank of New York
	US Department of the Treasury
Overall Size	Aggregate amount of CP that each eligible institution could issue to the Fed
Purchased Assets	Three-month US dollar- denominated CP (including ABCP) rated at least A1/P1/F1
Peak Utilization	\$4.3 billion in total outstanding CP held by the SPV as of May 14, 2020

market, an important source of short-term unsecured funding for corporations (FRBNY 2020b). The SPV was financed by loans from the Federal Reserve Bank of New York (FRBNY) and received an additional \$10 billion equity investment from the Treasury

Department through the Exchange Stabilization Fund (ESF). The FRBNY committed to funding the SPV until its underlying assets matured.

The program began operations on April 14, 2020,³ at which point eligible institutions could issue to the SPV US dollar-denominated commercial paper (including asset-backed commercial paper [ABCP]) rated A1/P1 as of March 17, 2020, with terms of three months. Although firms were initially quick to access the facility, the SPV's CP holdings peaked two months later at just \$4.3 billion, a fraction of the \$348.2 billion held by its GFC-era predecessor (FRB 2020; CRS 2020). The Fed reported in August 2020 that as of August 12, 2020, the facility held "only minimal amounts of commercial paper, as past holdings matured" (FRB 2020m, 13).

Along with several other Section 13(3) lending facilities, the CPFF's operations were scheduled to terminate on March 17, 2021. On November 30, 2020, however, the Fed announced a broad-based extension for these programs through March 31, 2021. With approval from the Treasury Secretary, the Fed noted that the continued availability of the programs through the first quarter of 2021 would further "help the economy recover from the COVID-19 pandemic" (FRB 2020h, 1). On July 8, 2021, the FRBNY terminated the SPV. Although the SPV had continued operations well into 2021, it had not held any outstanding CP since October 31, 2020 (FRB 2020l, 2).

Summary Evaluation

In a positive sign of recovery following the announcement of the CPFF, issuance of threemonth CP improved and overnight issuance of CP dropped in the weeks after the program launched. Credit spreads on highly rated, overnight CP swiftly declined, while redemptions from money market mutual funds slowed to an eventual reversal. Indicators of market functioning also improved as tensions eased after an initial wave of borrowing (FRB 2020j). Cox, Greenwald, and Ludvigson (2020) estimate that the announcement of the CPFF led to a 2.65% increase in the S&P 500 stock market index. Boyarchenko et al. attribute these improvements to the speed with which the Fed was able to announce, design, and establish the facility based on its GFC-era predecessor (2021).

However, it seemed that these improvements were limited to highly rated CP. The rating agency Fitch noted that interest rates for F2-rated issuers remained elevated compared with pre-COVID levels. This may have been because of the relative inability of lower-rated investment-grade issuers to participate in the CPFF, despite their heightened exposure to pandemic-related credit risk (FitchWire 2020). Still, although the program was available only to CP issuers rated A1/P1/F1 on March 17, Boyarchenko, Crump, and Kovner (2020) demonstrated that the CPFF positively impacted market liquidity and functioning for lower-rated issuers as well.

³ It took weeks from the announcement date for the program to become fully functional because of the need to register new counterparties unaccustomed to dealing with the Fed (Muzinich 2020).

While spreads on CP with shorter maturities tightened promptly with the announcement of the CPFF, those with longer maturities responded more slowly (Boyarchenko, Crump, and Kovner 2020). The CPFF also failed to resolve liquidity and pricing pressure in the market for already outstanding CP, which then began to affect prime money market mutual funds. According to Deputy Treasury Secretary Justin Muzinich (2020), there was a substantial risk that the outflows from money markets would cause more selling pressure on CP, reinforcing a "negative loop." The Fed stepped in to address these concerns by creating the Primary Dealer Credit Facility (PDCF) and Money Market Mutual Fund Liquidity Facility (MMLF).

Conditions in the municipal bond markets improved following the March 23 announcement that the CPFF (along with the MMLF) would accept short-term securities issued by state and local governments (Clarida, Duygan-Bump, and Scotti 2021). By mid-April, it appeared that the CPFF had achieved its overall twin goals of bolstering CP market liquidity while also allowing market participants to identify appropriate pricing for issuers with different risk profiles (Boyarchenko, Crump, and Kovner 2020, 4). By mid-July, according to the Fed's August 2020 quarterly balance sheet report, "highly-rated issuers [were] able to fund three-month commercial paper in the market at or below the CPFF's purchase price. As a result, the CPFF saw limited further usage, with no usage since mid-July" (FRB 2020m, 13). The Government Accountability Office (GAO) reported that spreads on commercial paper had returned to their pre-pandemic levels by September 2020 (GAO 2020).

US Context: 2019–2020		
GDP	\$21.7 trillion in 2019	
(SAAR, Nominal GDP in LCU converted to USD)	\$21.5 trillion in 2020	
GDP per capita	\$65,280 in 2019	
(SAAR, Nominal GDP in LCU converted to USD)	\$63,414 in 2020	
	Data for 2019:	
	Moody's: Aaa	
	S&P: AA+u	
Sovereign credit rating (five-year senior debt)	Fitch: AAA	
sovereign createrating (nive year senior dest)		
	Data for 2020:	
	Moody's: Aaa	
	S&P: AA+u	
	Fitch: AAA	
Size of banking system	\$13.8 trillion in 2019	
	\$15.9 trillion in 2020	
Size of banking system as a percentage of GDP	63.7% in 2019	
	74% in 2020	
Size of banking system as a percentage of	27.1% in 2019	
financial system	27.3% in 2020	
	27.5% 111 2020	
Five-bank concentration of banking system	45.7% in 2019	
	46.2% 2020	
Foreign involvement in banking system	Data not available for 2019	
	Data not available for 2020	
Government ownership of banking system	Data not available for 2019	
	Data not available for 2020	
Evictoria of donosit insurance	Yes, in 2019	
Existence of deposit insurance	Yes, in 2020	
Sources: Bloomberg; FRED; World Bank Global Financial Development Database; World		
Bank Deposit Insurance Dataset.	-	

Key Design Decisions

1. Purpose: The Federal Reserve established the second iteration of the Commercial Paper Funding Facility (CPFF) to enhance liquidity in the CP market.

On March 17, 2020, the Board of Governors of the Federal Reserve announced that it had authorized the Federal Reserve Bank of New York (FRBNY) to begin purchasing commercial paper (CP) under the CPFF. The purpose of the temporary facility was to enhance liquidity in the CP market by providing a backstop to US issuers and, by extension, reassure investors that firms and municipalities would be able to roll over their maturing CP. The Fed further intended for the liquidity backstop to support the flow of credit to "families, businesses, and jobs across the economy" (FRB 2020f).

2. Part of a Package: The Fed created the CPFF as part of a slate of programs intended to support market functioning at the outset of the COVID-19 pandemic.

The Fed took extensive measures to enable the flow of credit to the economy through programs such as the Primary and Secondary Market Corporate Credit Facilities, the Term Asset-Backed Securities Loan Facility (TALF), the Primary Dealer Credit Facility (PDCF), and the Money Market Mutual Fund Liquidity Facility (MMLF). According to Boyarchenko et al. and the GAO, the Fed designed the CPFF to work "in concert" with the MMLF: While the CPFF helped to reduce strains on money market funds, the MMLF alleviated "fire-sale dynamics" that could have negatively affected CP liquidity (2020, 3; GAO 2020, 28). Both facilities were intended to support state and local governments before the announcement of the \$500 billion Municipal Liquidity Facility (MLF) in early April 2020 (Boyarchenko et al. 2021).

3. Legal Authority: The Fed, with approval from the Treasury Secretary, established the CPFF pursuant to Section 13(3) of the Federal Reserve Act.

The Fed authorized the CPFF by invoking its authority under Section 13(3) of the Federal Reserve Act. Section 13(3) permits the Fed, in "unusual and exigent circumstances," to "discount for any participant in any program or facility with broad-based eligibility" (FRB 2017). The invocation of Section 13(3) allows the Fed to provide liquidity more broadly than its monetary policy and discount window authorities allow.

As noted in an internal Fed legal memo from 2008, the Fed Board "consistently has viewed the term 'discount' under Section 13(3) as including a Reserve Bank extension of credit . . . as well as a purchase by a Reserve Bank of third-party notes" (Alvarez et al. 2008). In the case of the CPFF, the Fed was effecting the latter function.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act of 2010) required Treasury pre-approval for the facility's establishment; this stipulation did not exist for the GFC-era iteration of the CPFF (CRS 2020).

4. Governance: As with other emergency Fed facilities, CPFF operations were subject to scrutiny by the GAO.

In its October 2021 report, "Credit Markets Served by the Programs Have Stabilized, but Vulnerabilities Remain," the GAO remarked that credit risks in short-term corporate credit markets had continued to remain low since its previous assessment, in December 2020). The GAO said that since June 2020, the CPFF, the MMLF, and the PDCF had contributed to a decrease in such risks to pre-pandemic levels (GAO 2021).

After completing two phases of its oversight, the Reserve Bank Operations and Payment Systems (RBOPS)—a division of the Fed that reviews the Federal Reserve Banks' provision of financial services to the financial sector, among other responsibilities—reported that it did not identify any gaps in the design controls of the CPFF (GAO 2020).

5. Administration: The FRBNY purchased CP from eligible issuers through designated dealers and contracted several private entities to assist with the administration of the CPFF.

Eligible issuers participating in the CPFF were required to sell CP to the SPV through designated CPFF dealers, defined as the FRBNY's primary dealers and any other dealers that the New York Fed selected. The mechanism for electronic trade execution allowed for a simple processing procedure "requiring little manual intervention" (Boyarchenko et al. 2021). The efficiency of the same-day settlements also assured issuers that the facility could meet any unexpected liquidity shortfalls (Boyarchenko et al. 2021).

The FRBNY required eligible dealers to be highly rated US broker-dealers registered with the SEC and regulated as a member of FINRA. They were also obliged to have held at least \$1 million in net regulatory capital and demonstrate an "active and established" business presence in the CP market (FRB 2020a, 1).⁴ As part of its commitment to supporting equal opportunity and diversity, the FRBNY twice expanded its eligibility criteria for agents and counterparties to address the fair inclusion of women, minorities, and veterans. The press releases, dated September 9 and October 23, 2020, stated that the chosen firms represented a "diverse range of market participants in terms of . . . ownership, including Minority, Women, and Veteran Business Enterprises (MWVBEs)" (FRBNY 2020e, 1). Additionally, the FRBNY mandated all firms submitting expressions of interest in any of the 13(3) facilities to provide details about their efforts to support equal opportunity and diversity within their workforce.

On March 22, 2020, the FRBNY announced that it had appointed Pacific Investment Management Company, LLC (PIMCO) to temporarily act as a third-party investment manager for the facility. The FRBNY chose PIMCO for its experience in the CP markets and

¹ "A firm may demonstrate an 'active' business presence by having transacted in the facility's targeted market segment over the last year, preferably at volumes consistent with or above the prior two years ... A firm may demonstrate an 'established' presence by having been active in the facility's targeted market segment for at least 3 years" (FRB 2020a, 1).

credit risk management, particularly its involvement with the GFC-era iteration of the CPFF (FRBNY 2021a).

Additionally, the FRBNY announced on March 25, 2020, that it had commissioned State Street Bank & Trust Company to provisionally serve as a third-party custodian and accounting administrator. The FRBNY selected State Street in part because of its pre-existing relationship with PIMCO (FRBNY 2021a).

6. Communication: The Federal Reserve committed itself to supporting the flow of credit to households and businesses in order to ameliorate the economic effects of the COVID-19 pandemic.

The Fed noted by mid-March 2020 that the CP market was under "considerable strain" because of the economic uncertainty surrounding the outbreak of COVID-19 in the US (FRB 2020f, 1). In response, it announced the revival of the CPFF, a GFC-era facility that it hoped would "enhance the ability of businesses to maintain employment and investment" (FRB 2020f, 1). Its communications noted that households and businesses would benefit from its support of the flow of credit.

7. Disclosure: As with other emergency lending facilities authorized under Section 13(3), the Federal Reserve Act compelled the Board to submit periodic updates to Congress on the CPFF's utilization. The CPFF was not subject to disclosures beyond those specified by the Federal Reserve Act.

Pursuant to the modifications specified by the Dodd-Frank Act of 2010, the Fed presented to Congress two types of reports: (1) one submitted within a week of the facility's establishment that included "information regarding the justification for the exercise of the authority and information on the transactions and expected cost to taxpayers," and (2) a monthly update "regarding the value of collateral, the amount of fees and other items of value received, and the expected or final cost to the taxpayer" (FRB 2020m, 29; FRBNY 2020b).

The Fed published the latter reports on its website beginning on April 28, 2020, but withheld identifying details because, according to a GAO report, publicly disclosing the information could have "adversely" affected the program's participants by signaling an entity's financial distress (FRB 2020i; GAO 2020, 20). However, pursuant to Section 11(s) of the Federal Reserve Act, the Fed disclosed the names and identifying details of each participant in the facility one year following the effective date of termination (FRBNY 2020b; FRB 2022c).

Additionally, the Fed published annual audited financial statements specific to the SPV, CP Funding Facility II LLC; two have been published as of this writing (FRBNY 2021c; FRBNY 2021d).

Balance sheet information was also reported weekly, on an aggregated basis, on the Fed's H.4.1. statistical release, "Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks."

8. Use of SPV: The FRBNY established a special purpose vehicle (SPV), CPFF II LLC, to purchase commercial paper, including asset-backed commercial paper and certain high-quality, tax-exempt CP.

The Fed has viewed use of the SPV structure as providing management, accounting, and legal advantages to an intervention—especially when the Fed operates multiple Section 13(3) programs in parallel.⁵ Use of an SPV allows the Fed to better tailor a 13(3) program to the goals of the intervention (Baxter 2009, 12–13). Each intervention has its own specific terms, timeline, capital structure, and management team. The management teams may also be in geographically separate reserve banks, depending on which is administering a given intervention.

The SPV structure simplifies the reporting of income and the management of any sales of assets discounted by the facility. As noted in Key Design Decision No. 7, Disclosure, the Fed provided separate annual financial statements for the CPFF that were independently audited by an outside accounting firm. These statements provided greater detail and transparency than existed for Fed facilities that did not utilize the SPV structure (Bernanke, Geithner, and Paulson 2020, 157; FRB 2022b). Moreover, the degree of corporate separation from both the Fed and other 13(3) interventions provided by an SPV structure may provide those other entities some protection in the event a 13(3) program is sued.

SPVs are also typically easy and inexpensive to set up. The Fed has viewed its creation of the structures as falling under the "incidental powers as shall be necessary to carry on the business of banking within the limitations" of the Federal Reserve Act (FRB n.d.; Bernanke, Geithner, and Paulson 2020, 156, fn 28).

The FRBNY had full recourse to all of the assets in the SPV, including all fees and earnings generated throughout its operation. Each loan bore interest on the outstanding principal amount equal to the interest rate on excess reserves. As a result, the Fed expected that the program would not result in losses to its own balance sheet or to taxpayers through the Treasury's equity investment (FRB 2020b).

9. Size: The maximum size of the CPFF was limited to the aggregate amount of CP that each eligible institution could issue to the Fed.

The maximum amount of CP that a single participant could issue to the CPFF could not exceed the greatest amount of USD-denominated CP that the issuer had outstanding on any day between March 16, 2019, and March 16, 2020. According to FRBNY Staff Economist Nina Boyarchenko, the purpose of the look-back period was to ensure that firms were not borrowing more than they would have under "normal" market conditions.⁶ This restriction was similar to that of the GFC-era iteration of the CPFF, which based its maximum amounts on issuance between January and August 2008.

⁵ See also Bernanke, Geithner, and Paulson 2020, 156–158.

⁶ According to Dr. Boyarchenko, all 2020 facilities used 2019 as a "rule-of-thumb" normal market.

For an issuer that on March 17, 2020, was rated at least A1/P1/F1 by a major NRSRO or, if rated by multiple major NRSROs, was rated at least A1/P1/F1 by two or more major NRSROs but was later downgraded, the maximum amount of the issuer's CP that the CPFF would purchase equaled the amount of US dollar-denominated CP that the issuer had outstanding the day before it was downgraded.

The CPFF would not purchase additional CP from an issuer whose total CP outstanding to all investors (including the SPV) equaled or exceeded the aforementioned limits. Although the FRBNY did not impose any minimum purchase limits, the Bloomberg Professional Boom platform accepted transactions over \$100,000.

Utilization peaked at approximately \$4.3 billion in total outstanding CP held by the SPV as of May 14, 2020 (FRB 2020). By contrast, the GFC-era iteration of the CPFF saw usage in the hundreds of billions of dollars, peaking at about \$348.2 billion on January 21, 2009 (CRS 2020).

The Fed reported on November 6, 2020, that the total outstanding amount of CP held by the SPV had fallen to zero as of October 31, 2020 (FRB 2020l).

10. Source of Funding: The CPFF was wholly funded by the Fed and secured by the SPV assets and the Treasury.

The FRBNY provided loans to the CPFF II LLC at the rate of interest on excess reserves. It fully funded any loans that the SPV extended, which stood at \$4.2 billion as of Q2 2020, falling to \$30 million as of Q3 2020. The FRBNY's balance fell to zero and remained there for the rest of the program's operations (Hoops and Kurtzman 2021). According to the FRBNY, any credit extended during the program was made with full recourse to the SPV and secured by all assets of the SPV (FRBNY 2020b). Treasury also used the Exchange Stabilization Fund to provide a \$10 billion equity investment to protect the Fed from losses. The FRBNY committed to funding the SPV until its underlying assets matured.

The CPFF II LLC used the proceeds from maturing CP and other assets of the SPV to repay its loan to the FRBNY (FRBNY 2020b).

11. Eligible Institutions: Highly rated US issuers of CP, including municipal issuers, and US issuers with a foreign parent were eligible to participate in the CPFF.

As with the GFC-era version of the CPFF, US subsidiaries of foreign parent companies were eligible. On March 23, 2020, the Fed changed the term sheet to explicitly allow municipalities to issue CP for the first time.⁷ This complemented the Fed's expansion of the MMLF to accept a wider range of municipal instruments for secondary market purchases (Boyarchenko et al. 2021). The Fed decided not to establish a secondary market facility for municipal bonds because, as Senator Pat Toomey and Representative French Hill testified

⁷ The term sheet released on March 17, 2020, specified that "eligible issuers are U.S. issuers of commercial paper, which includes municipalities by definition."

to the Congressional Oversight Commission, it would have taken "much longer" than expanding access to liquidity through the CPFF or the MMLF (COC 2020, 43–44).

The SPV would not purchase CP from issuers that had been inactive prior to the creation of the CPFF. Specifically, an issuer was considered inactive if it had not issued ABCP to institutions—other than the sponsoring institution—for any consecutive three-month period or longer between March 16, 2019, and March 16, 2020.

The FRBNY required issuers to certify that they were unable to "secure adequate credit accommodations from other banking institutions" (FRBNY 2020b, 2). In order to meet this condition, the borrower could cite the availability, pricing, and terms of credit given prevailing market conditions. Applicants wishing to issue ABCP were also required to have been active prior to the announcement of the CPFF.

Furthermore, applicants had to prove that they were solvent and not participating in the CPFF for the purpose of lending proceeds to a person or entity that was insolvent. This stipulation was not enforced under the terms of the GFC-era version of the CPFF (FRBNY 2009; FRBNY 2020b).

According to the transaction-specific disclosures released on March 31, 2022, there were only 27 draws on the facility by seven distinct borrowers. Two of those borrowers were domestic, one of which (Cummins) was a nonfinancial institution. Of the \$4.2 billion extended, \$1.5 billion went to the Industrial Commercial Bank of China (ICBC) (FRB 2022c).

12. Auction or Standing Facility: The CPFF was designed to operate as a standing facility that allowed institutions to issue CP on a continuous basis.

The CPFF II LLC was able to purchase CP or ABCP "at any time while the CPFF [remained] open, subject to applicable limits" (FRBNY 2020b, 4).

13. Loan or Purchase: Using financing from the FRBNY, the CPFF II LLC purchased and held until maturity eligible CP and ABCP.

Rather than purchasing CP directly, the Fed preferred to lend to an SPV because, as was the case with the GFC-era iteration of the CPFF, it was dealing in an unusual security and with many counterparties it did not normally lend to (Wiggins 2020).

14. Eligible Assets: The CPFF initially purchased only three-month US dollardenominated commercial paper (including asset-backed commercial paper [ABCP]) with the highest rating as of March 17, 2020, but later expanded to include high-quality, tax-exempt CP as eligible securities.

CP was required to be rated at least A1/P1/F1 by a major nationally recognized statistical rating organization (NRSRO) as of March 17, 2020. If rated by multiple major NRSROs, it was required to be rated at least A1/P1/F1 by two or more major NRSROs. If the issuer was subsequently downgraded while participating in the CPFF, it would be able to make a one-time sale of CP to the SPV, as long as the issuer was rated at least A2/P2/F2 by a major

NRSRO or, if rated by multiple major NRSROs, was rated at least A2/P2/F2 by two or more major NRSROs. Downgraded issuers were allowed to make a one-time sale to the facility, with the goal of allowing them to roll over maturing CP while seeking alternative funding (Boyarchenko et al. 2021). Although the GFC-era iteration of the CPFF issued the same guidance around multiple ratings, the terms did not include a downgrade provision (Wiggins 2020).

On March 23, 2020, the Fed expanded eligibility to include tax-exempt CP as eligible securities in order to support credit to municipalities. The updated terms also included a provision wherein an issuer that was subsequently downgraded to A2/P2/F2 could make a single sale of CP to the CPFF (FRB 2020d, 1).

On May 26, 2020, the Federal Reserve expanded the set of nationally recognized statistical rating organizations (NRSROs) whose ratings would be accepted in determining the eligibility of CP—adding DBRS, Inc.; Kroll Bond Rating Agency, Inc.; and only with respect to insurance companies, A.M. Best Rating Services, Inc.—to the extent the issuer also had a qualifying rating from one of the original three NRSROs (Boyarchenko et al. 2021).

15. Purchase Price: The FRBNY based pricing on the rating of the CP and the prevailing three-month overnight index swap (OIS) rate.

The initial terms and conditions, released on March 17, 2020, priced Tier 1 CP (rated A1/P1/F1) based on the three-month OIS rate plus 200 basis points, equivalent to the all-in pricing offered by the GFC-era facility (Boyarchenko et al. 2021).

The FRBNY updated its pricing terms on March 23, 2020. For CP rated A1/P1/F1, pricing was based on the prevailing three-month OIS rate plus 110 bps. Pricing for Tier 2 CP that was rated A2/P2/F2 was based on the then-current three-month OIS rate plus 200 bps. Although this scheme was similar to that used for the GFC-era CPFF, architects of the first version determined pricing guidelines based on whether the CP was secured, rather than the NRSRO rating (FRBNY 2009). The COVID-era rates thus reflected an overall decrease in price (CRS 2020).⁸ Furthermore, Boyarchenko et al. emphasized the importance of pricing assets such that "usage should naturally decline" with normalizing conditions (2021, 10).

16. Haircuts: This Key Design Decision does not apply to asset purchase programs.

Haircuts apply only to programs that involve lending to counterparties.

17. Interest Rates: The Fed charged slightly higher rates than it did in 2008.

According to *Wall Street Journal* reporter Nick Timiraos, Treasury Secretary Mnuchin encouraged the Fed to charge "slightly higher rates" than it had done during the GFC (Timiraos 2022, 167). The agreed-upon penalty rate was thus set at 2 percentage points above an overnight-borrowing benchmark (Timiraos 2022).

⁸ Markups for the GFC-era CPFF varied from 100 bps to 300 bps over the OIS rate (CRS 2020, 13).

18. Fees: The FRBNY charged issuers a facility fee upon registration with the CPFF.

As was the case during the GFC, the 10-basis-point facility fee was determined by the maximum amount of an issuer's CP that the SPV may have owned (FRBNY 2009).

19. Term/Repayment: This Key Design Decision does not apply to asset purchase programs.

This refers to the loan maturity and applies only to programs that involve lending to counterparties.

20. Other Restrictions on Eligible Participants: There were no restrictions associated with participation in the program.

Sources consulted do not indicate the imposition of restrictions on CPFF participants.

21. Regulatory Relief: The Fed did not implement any regulatory changes to assist with the operation of—or participation in—the program.

Sources consulted do not indicate the existence of regulatory concessions.

22. International Coordination: The Fed did not coordinate with other jurisdictions when designing or operating the CPFF.

Sources consulted do not indicate that the Fed consulted with international parties.

23. Duration: Although the SPV was initially designed to conduct purchases for six months, its operations were extended twice to terminate on December 31, 2021.

On November 30, 2020, the Fed, with approval from the Treasury Secretary, announced an extension through March 31, 2021, for several of its emergency lending facilities. The Fed noted that the continued availability of the programs through the first quarter of 2021 would further "help the economy recover from the COVID-19 pandemic" (FRB 2020h, 1).

The FRBNY terminated the SPV on July 8, 2021, having returned Treasury's equity contribution and an additional \$4.8 million in interest. The SPV also distributed its \$49.1 million in profits to the Treasury and the FRBNY (Boyarchenko et al. 2021).

References and Key Program Documents

Summary of Program

(Boyarchenko, Crump, and Kovner 2020) Boyarchenko, Nina, Richard Crump, and Anna Kovner. May 15, 2020. "The Commercial Paper Funding Facility." Liberty Street Economics. *FRBNY blog post describing the background, operations, and early impact of the second iteration of the CPFF.*

https://ypfs.som.yale.edu/node/15063

(FRB 2020a) Board of Governors of the Federal Reserve System (FRB). 2020. "TALF, SMCCF, and CPFF Expanded Counterparty FAQs."

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