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United States: Primary Market Corporate Credit Facility and Secondary Market Corporate Credit Facility

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Abstract

The COVID-19 pandemic reached a critical stage in early 2020 causing severe distress and disruption in financial markets, and the United States government declared a federal state of emergency in the second week of March. As institutional investors including mutual funds, pension funds, and insurance companies withdrew from corporate bond markets and funding options for large US businesses dried up, the Federal Reserve became concerned that solvent businesses might have difficulty financing their operations. On March 23, the Federal Reserve Board invoked Section 13(3) of the Federal Reserve Act, creating two novel emergency lending facilities to support the corporate bond market: The Primary Market Corporate Credit Facility (PMCCF) and the Secondary Market Corporate Credit Facility (SMCCF). These corporate credit facilities (CCFs) authorized the Federal Reserve Bank of New York to create and lend to a special purpose vehicle (SPV) up to a combined $750 billion to purchase individual corporate bonds and exchange-traded funds (ETFs), and broad market index bonds. The Treasury committed to provide first-loss protection for the facilities through equity investments in the SPV up to $75 billion, using funds from the Coronavirus Aid, Relief, and Economic Security (CARES) Act. The SMCCF became operational on May 12 while the PMCCF became operational June 29. Usage of the SMCCF facilities peaked at $14.1 billion in December 2020; the PMCCF did not make any purchases.

Keywords: broad market index funds, corporate debt, exchange-traded funds, Federal Reserve, lending facilities, lender of last resort, market liquidity

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[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

In early 2020, the novel and rapidly spreading COVID-19 began to disrupt business activity and generate extreme uncertainty over the state of the global economy (Board of Governors 2020c). By March 9, 2020, this uncertainty materialized into financial panic as investors fled to safe assets. This flight to liquidity had impacts on equities, bonds, and corporate debt, with credit spreads between corporate bonds and comparable-maturity US Treasuries increasing rapidly. AAA-rated corporate credit spreads rose from below 50 basis points (bps) to over 200 bps in the leadup to March 23 (Ebsim, Faria-e-Castro, and Kozlowski 2020) (See Figure 1).

Contributing to this tightening were significant outflows, totaling $174 billion from mutual funds and exchange-traded funds (ETFs) specializing in corporate debt (Boyarchenko, Kovner, and Shachar 2020) (see Figure 2). Morningstar estimated that total redemptions from mutual funds and ETFs totaled $326 billion in March, more than three times as high as October 2008. Moreover, between February and March 2020, the average fund saw cumulative outflows of around 10% of net asset value, significantly higher than outflows totaling 2.2% during the "Taper Tantrum" in 2013, which was the second most stressful episode in the last decade (Falato, Goldstein, and Hortaçsu 2020).

Key Terms

Purpose: To "support credit to large employers" which the PMCCF provided for "new bond and loan issuance" while the SMCCF "provide[d] liquidity for outstanding corporate bonds" (Board of Governors 2020d).

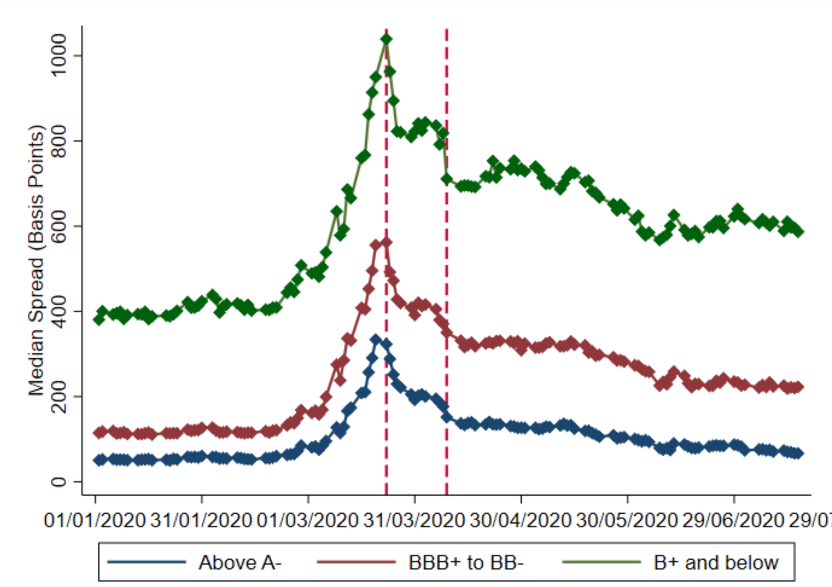
	PMCCF	**SMCCF**
Launch Dates:	March 23, 2020	
Operational Date:	June 29, 2020	May 12, 2020
End Date:	December 31, 2020	
Legal Authority:	Section 13(3) of the Federal Reserve Act	
Administrator:	Federal Reserve Bank of New York; Blackrock	
Overall Size:	$500 billion	$250 billion
Purchased Assets:	Corporate bonds with maturities up to four years	Corporate bonds (maturity up to five years) and exchange-traded funds (ETFs)
Peak Utilization:	$0	$14.1 billion on December 30, 2020

ETFs and mutual funds have long been considered fragile, for a few reasons.[3] First, the share of corporate debt assets managed by investment funds has increased substantially for the last decade, as demonstrated by Figure 3 (Falato, Goldstein, and Hortaçsu 2020). Much of

[3] Nick Timiaros, in his book on the Fed's response to the COVID-19 crisis, writes that Andreas Lehnert, director of the Division of Financial Stability, had begun "pulling together another backstop to bail out mutual funds that had invested in corporate debt" in light of extreme stress in late March (Timiraos 2022, 229). However, the announcement of corporate bond backstops alleviated the pressure, and the Fed never had to create a dedicated mutual fund program (Timiraos 2022, 230).

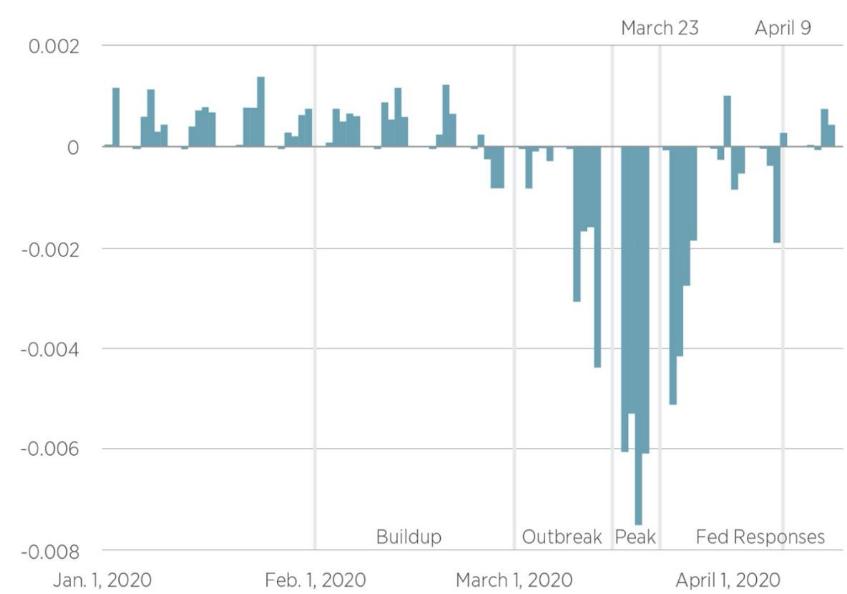
this growth has been attributed to regulation in the banking sector, pushing "activities from banks to other non-bank intermediaries" (Falato, Goldstein, and Hortaçsu 2020, 1). Second, while funds hold illiquid assets, they promise "investors high levels of liquidity" creating a potential "run" dynamic (Falato, Goldstein, and Hortaçsu 2020, 4).

Figure 1: Median Corporate Credit Spread by Credit Rating



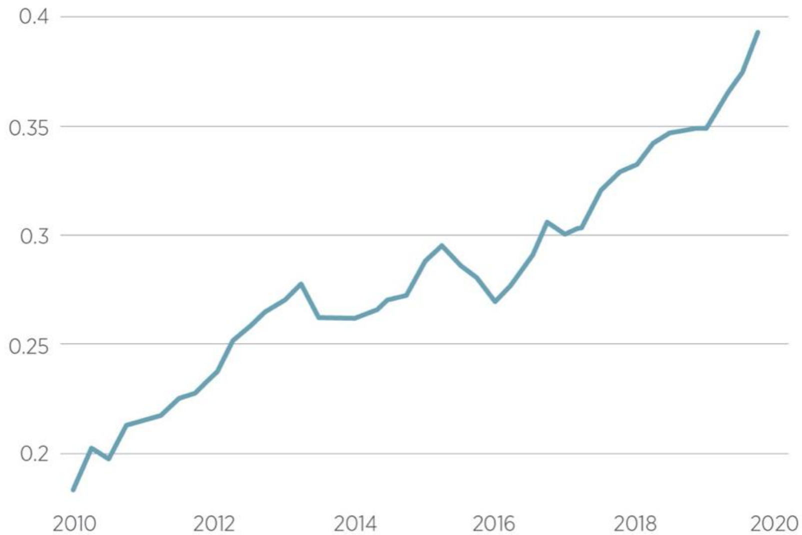
Source: Ebsim, Faria-e-Castro, and Kozlowski 2020.

Figure 2: Daily Net Flows of Corporate Bond Funds as a Percentage of Net Assets



Source: Falato, Goldstein, and Hortaçsu 2020.

Figure 3: Growing Importance of Funds: the Dollar Size of Corporate Debt Assets Managed by Funds vs. the Total Dollar Size of Outstanding Corporate Debt



Source: Falato, Goldstein, and Hortaçsu 2020.

On March 15, the Federal Open Market Committee first discussed strains in the corporate bond market. In corporate bond markets, "activity and liquidity were at very low levels" and "primary issuance of investment-grade corporate bonds was sporadic, and that of speculative-grade corporate bonds and leveraged loans virtually stopped after late February" (Board of Governors 2020c, 2).

On March 23, 2020, the Fed announced the creation of a number of emergency programs to support the economy using its authority under Section 13(3) of the Federal Reserve Act., including the Secondary Market Corporate Credit Facility (SMCCF) and the Primary Market Corporate Credit Facility (PMCCF) (together referred to as the Corporate Credit Facilities [CCFs]) (Board of Governors 2020d). The Fed stated that the purpose of the PMCCF was to provide credit to large businesses through "new bond and loan issuance" while that of the SMCCF was to "provide liquidity for outstanding corporate bonds" by purchasing individual corporate bonds, syndicated loans, ETFs, and broad market index funds (Board of Governors 2020d). The PMCCF intended to purchase corporate bonds and syndicated loans at issuance, while the SMCCF purchased in the secondary market. The CCFs allowed the Fed to purchase corporate bonds and ETFs for the first time (Kargar et al. 2020).

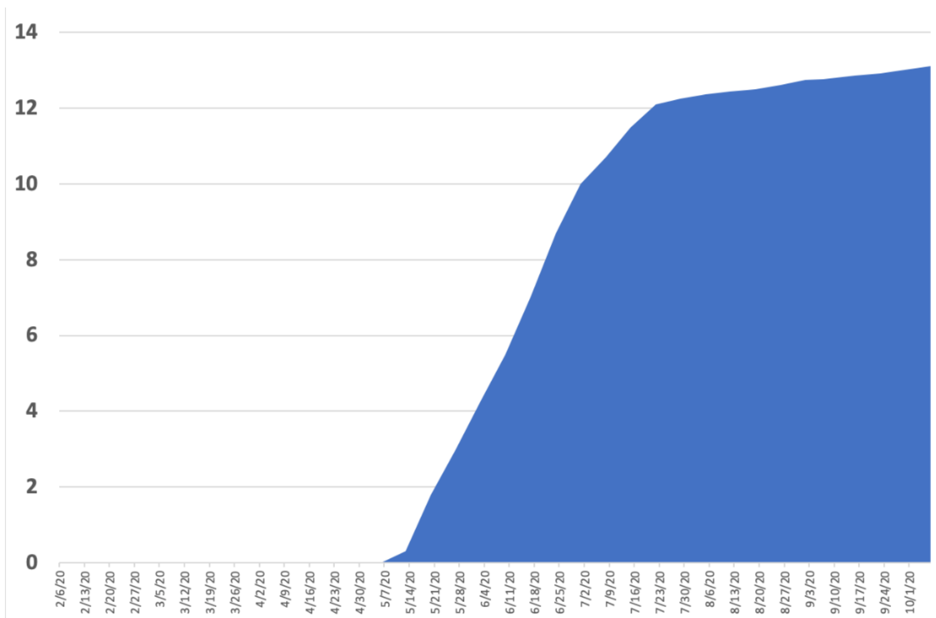
The combined maximum size of the CCFs was $750 billion. The SMCCF's peak utilization was $14.1 billion in December 30, 2020, while the PMCCF went unused (Clarida, Duygan-Bump, and Scotti 2021). The CCFs ceased purchasing eligible bonds on December 31, 2020 and ceased purchasing ETFs in late July 2020 (FRB 2020a). Starting June 7, 2021, the SMCCF began selling off its assets, winding down the portfolio entirely by the end of August 2021 (FRBNY 2021c; Powell 2021).

Summary Evaluation

Fed officials, including Daleep Singh, Executive Vice President of the FRBNY, emphasized in speeches that by supporting "companies' access to funding, firms employing millions of Americans are in a better position to keep workers on payrolls" and cited statistics on the number of employees that public-bond-issuing companies had on payroll (Singh 2020; Powell 2021).

The announcement of the CCFs on March 23, 2020, had an immediate and measurable impact on the corporate bond market. O'Hara et. al. found that bond transaction costs[4] dropped from "their peak of over 90 bps right before Fed interventions to about 70 bps" (O'Hara and Zhou 2020, 5). By the end of April, transaction costs declined to about 40 bps (O'Hara and Zhou 2020, 17).

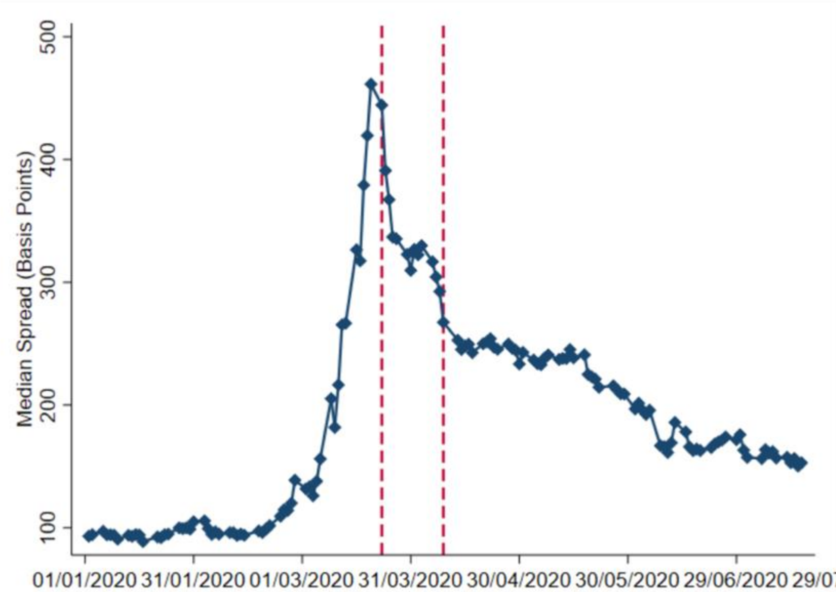
Figure 4: Utilization of CCF Facilities, Billions of US dollars



Source: Author's graphs, data from Fed's H.4.1 release.

[4] Bond transaction costs are brokerage fees that bond sellers charge, and they serve as one measure for liquidity.

Figure 5: Median Credit Spreads



Source: Ebsim, Faria-e-Castro, and Kozlowski 2020.

While the announcement of the SMCCF had a strong effect, its implementation had little effect on market conditions. O'Hara et. al. argued that "these effects are consistent with the Fed's market-maker role—by signaling a liquidity backstop for corporate bonds, the SMCCF reduced the risk to dealers of facing a one-sided market, and by extension, the risk of holding inventory" (O'Hara and Zhou 2020, 6).

Kargar et. al. (2020) find that a significant cause of market deterioration came from primary dealer balance sheets, finding that "the dealer sector as a whole absorbed *no* inventory, on net, during the most tumultuous period of trading" forcing "customers themselves who ultimately stepped up to provide additional liquidity" (Kargar et al. 2020, 3). Following the announcement of Fed interventions, primary dealers resumed absorbing inventory on their balance sheets, and trading conditions began to improve.

Boyarchenko et. al. (2020) find evidence that the CCFs positively impacted the corporate bond market through at least three channels. First, the announcement of the facilities improved the outlook for the economy as a whole, reducing credit risk and therefore risk premia. Second, the Fed, in acting as a buyer of last resort, increased dealers' willingness to trade corporate debt securities and therefore improved liquidity in the market. Third, the authors estimate that there may have been a "direct impact on eligible securities from purchases and the presence of a backstop facility" (Boyarchenko, Kovner, and Shachar 2020, 1–2).

Similarly, D'Amico et. al. (2020) find that the announcement of the CCFs had an immediate effect on ETF prices and credit default swap spreads. Specifically, the announcement triggered large jumps in the prices of ETFs that were directly eligible for the program and a drop in the perceived credit risk of eligible bonds. The authors also find that investment-grade issuance fell while high-yield issuance picked up (D'Amico, Kurakula, and Lee 2020, 2). They conclude that yields fell because the CCFs eliminated "disaster risk" for eligible issuers, while ineligible bond yields remained somewhat elevated (D'Amico, Kurakula, and Lee 2020, 3). In other words, the Fed's status as a market maker of last resort served to lessen the perceived risk of an abrupt credit crunch.

Critics said the facilities aided companies and their investors, but not workers. The House of Representative Select Subcommittee on the Coronavirus found that of the 500 corporations whose bonds the Fed purchased on the secondary market, 140 had furloughed or laid off a combined 1 million workers, 383 had paid dividends, and 227 had been "accused of illegal conduct since 2017" (Select Subcommittee on the Coronavirus Crisis 2020, 1). The report also found that while the fossil fuel industry employees make up only 2% of workers within the S&P 500 stock market index, over 10% of CCF-purchased bonds were in the fossil fuel industry. The Subcommittee contrasted these findings with testimony from Chair Jerome Powell stating that purchasing corporate bonds allowed companies "to go out and finance themselves. They've been able to avoid big layoffs. That is the point of all this" (Select Subcommittee on the Coronavirus Crisis 2020, 1).

Context: United States 2019–2020	
GDP (SAAR, nominal GDP in LCU converted to USD)	$21.694 trillion in 2019 $21.477 trillion in 2020
GDP per capita (SAAR, nominal GDP in LCU converted to USD)	$65,280 in 2019 $63,414 in 2020
Sovereign credit rating (five-year senior debt)	Data for 2019: Moody's: Aaa S&P: AA+u Fitch: AAA Data for 2020: Moody's: Aaa S&P: AA+u Fitch: AAA
Size of banking system	$13.825 trillion in 2019 $15.882 trillion in 2020
Size of banking system as a percentage of GDP	63.73% in 2019 73.95% in 2020
Size of banking system as a percentage of financial system	27.14% in 2019 27.30% in 2020
Five-bank concentration of banking system	45.74% in 2019 46.24% in 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
Existence of deposit insurance	Yes in 2019 Yes in 2020
Sources: Bloomberg, World Bank Global Financial Development Database and World Bank Deposit Insurance Dataset.	

Key Design Decisions

1. Purpose: The Corporate Credit Facilities (CCFs) were created to facilitate access to credit to help maintain business operations and capacity in light of the COVID-19 pandemic.

In a March 23, 2020, press release announcing the CCFs, the Fed stated that the purpose of the two facilities was to "support credit to large employers" (Board of Governors 2020d). The PMCCF provided for "new bond and loan issuance" while the SMCCF "provide[d] liquidity for outstanding corporate bonds" (Board of Governors 2020d). In the first report to Congress on the CCFs on March 30, the Fed stated that:

> the availability of credit has contracted for issuers of debt, while, at the same time, the disruptions to economic activity have heightened the needs for companies to obtain financing in order to pay off maturing debt and sustain themselves until economic conditions normalize. These disruptions have extended to even highly rated companies, who have seen a significant drop-off in demand for new debt issuance. (Board of Governors 2020e)

In the March 30 report, the stated purpose of the CCFs was "to help facilitate access to credit so that companies are better able to maintain business operations and capacity during the period of dislocations related to the pandemic" (Board of Governors 2020e).

2. Part of a Package: The Fed announced the CCFs as well as other emergency programs on March 23, 2020.

On March 23, 2020, the Fed announced the creation of a number of emergency programs to support the economy, including the Corporate Credit Facilities (CCFs), the Term Asset-Backed Securities Loan Facility (TALF), an expanded Money Market Mutual Fund Liquidity Facility (MMLF), and an expanded Commercial Paper Funding Facility (CPFF) (Board of Governors 2020d). Before the creation of these facilities, the Fed also created the Primary Dealer Credit Facility (PDCF) on March 17, 2020, which offered 90-day credit to primary dealers at the Discount Window's primary credit rate to "support smooth market functioning" (FRB 2020b).

3. Legal Authority: The Federal Reserve Board invoked its emergency powers under Section 13(3) to establish the Primary Market Corporate Credit Facility (PMCCF) and the Secondary Market Corporate Credit Facility (SMCCF).

The PMCCF and the SMCCF were authorized 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" (Federal Reserve Act 1913, vol. 12, sec. 13(3)). 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" (FRB 2008, 13).

The Treasury approved the facilities, consistent with the requirements of Section 13(3) (FRBNY n.d.b). The Treasury also committed a first-loss equity investment to the CCFs, using funds appropriated by Section 4027 of the CARES Act (CARES Act 2020, sec. 4027).

4. Governance: The Fed provided Congress with periodic reports on the CCFs. The Government Accountability Office published reports surveying the Fed's emergency lending facilities.

Pursuant to Section 13(3) of the Federal Reserve Act, the Fed submitted to Congress regular reports every 30 days including "the value of collateral, the amount of fees and other items of value received; and the expected or final cost to the taxpayer" (Board of Governors 2020g). The CARES Act additionally required the Board to publish these reports on its website within seven days of them being submitted to Congress (Board of Governors 2020g).

The Government Accountability Office (GAO) published one report surveying the Fed's pandemic response and two reports on the Fed's emergency lending facilities specifically (GAO 2020b; GAO 2021). The first report, released November 30, 2020, overviewed the emergency lending facilities created in response to the pandemic, and reiterated an earlier recommendation that the Fed strengthen its procedures for lending to high-risk borrowers and for estimating and tracking losses across emergency facilities (GAO 2020a).

5. Administration: The CCFs' joint SPV was initially administered by BlackRock Financial Markets Advisory, which held custody of the CCFs and performed all administrative functions. Afterwards, a competitive bidding process selected State Street Bank & Trust Company as the administrator of the facilities.

The Federal Reserve Bank of New York (FRBNY) administered the CCFs and established a single special purpose vehicle (SPV) to be initially managed by BlackRock Financial Markets Advisory (FRBNY 2020b). BlackRock managed the facilities from March 24, 2020, through April 15, 2020, at which point State Street Bank & Trust Company became the custodian and administrator of the facilities following a competitive bidding process (FRBNY n.d.b). On February 8, 2021, the FRBNY announced that Payden & Rygel, a Los Angeles-based investment management firm, would serve as cash investment manager for the facility, also following a competitive bidding process (FRBNY n.d.b).

According to GAO, FRBNY staff in charge of administering the facility received daily updates from the investment manager on developments in the bond market and made decisions about the pace of purchases accordingly (GAO 2020b).

The SMCCF first purchased eligible ETFs on May 12, 2020, and individual corporate bonds on June 16, 2020 (FRBNY 2021b). The PMCCF became operational on June 29, 2020 but did not make any purchases (FRBNY 2021b).

The Fed strongly encouraged companies issuing bonds to the PMCCF to utilize "minority-, women-, and veteran-owned (MWV) businesses as underwriters" (FRBNY 2020b).

6. Communication: The Federal Reserve created the CCFs to respond to the economic effects of the COVID-19 pandemic.

At the March 15 Federal Open Market Committee Meeting, the committee noted and discussed strains in the corporate bond market. The Fed noted that "activity and liquidity were at very low levels" and "primary issuance of investment-grade corporate bonds was sporadic, and that of speculative-grade corporate bonds and leveraged loans virtually stopped after late February" (Board of Governors 2020c, 2).

In the press release announcing the CCFs, the Fed stated that the purpose of the two facilities was to "support credit to large employers" which the PMCCF provided for "new bond and loan issuance" while the SMCCF "provide[d] liquidity for outstanding corporate bonds" (Board of Governors 2020d). Fed officials, including Daleep Singh, Executive Vice President of the FRBNY, emphasized in speeches that by supporting "companies' access to funding, firms employing millions of Americans are in a better position to keep workers on payrolls" and cited statistics on the number of employees that public-bond-issuing companies had on payroll (Singh 2020; Powell 2021). Chair Jerome Powell stated that purchasing corporate bonds allowed companies "to go out and finance themselves. They've been able to avoid big layoffs" (Select Subcommittee on the Coronavirus Crisis 2020, 1).

7. Disclosure: Section 13(3) of the Federal Reserve Act established disclosure requirements for Fed emergency facilities.

Section 13(3) of the Federal Reserve Act required that the Fed submit two types of reports on emergency facilities authorized under Section 13(3) of the Federal Reserve Act to Congress. First, the Fed submitted a report within seven days of the Board's authorization of the CCFs including "information regarding the justification for the exercise of the authority and information on the transactions and expected cost to taxpayers" (Board of Governors 2020g, 29). Second, the Fed wrote regular reports every 30 days including "the value of collateral, the amount of fees and other items of value received; and the expected or final cost to the taxpayer" (Board of Governors 2020g, 29). The CARES Act required the Board to publish these reports on its website within seven days of them being submitted to Congress.

8. Use of SPV: The FRBNY established a single special purpose vehicle (SPV) to be initially administered by BlackRock Financial Markets Advisory.

The FRBNY administered the CCFs and established a single special purpose vehicle (SPV) (FRBNY 2020b). BlackRock managed the facilities from March 24, 2020, through April 15, 2020, at which point State Street Bank & Trust Company became the custodian and administrator of the facilities following a competitive bidding process (FRBNY n.d.b).

The FRBNY lent on a recourse basis to the SPV which purchased eligible corporate bonds in the secondary market (Board of Governors 2020b). The Treasury committed up to $75 billion to the SPV to support the two CCFs. The equity would be split so that $25 billion would support the SMCCF, and $50 billion would support the PMCCF (Board of Governors 2020b).

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. (See also Bernanke, Geithner, and Paulson 2020, 156–58.) 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 one(s) 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 CCFs 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 et al. 2020, 157; FRBNY 2021a; FRBNY 2022). Moreover, the degree of corporate separation from both the Fed and other 13(3) interventions provided by an SPV structure may afford 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 (Federal Reserve Act 1913, vol. 12, sec. 4(4); Bernanke et al. 2020, 156, fn 28).

9. Size: The combined maximum size of the CCFs was up to $750 billion. The Fed imposed limits on the size of its purchases from a single eligible issuer relative to both the CCF's broad portfolio of holdings and the eligible issuer's outstanding bonds.

The combined maximum size of the CCFs was up to $750 billion (Board of Governors 2020b). The CCFs were capitalized by up to $75 billion of equity investments from Treasury (Board of Governors 2020b). The PMCCF was authorized to leverage the equity funding 10 to 1 when purchasing investment grade individual bonds and syndicated loans, and 7 to 1 when purchasing all other types of eligible assets (Board of Governors 2020a). The SMCCF was authorized to leverage at 10 to 1 when buying investment grade corporate bonds and ETFs, 7 to 1 when buying below investment grade corporate bonds, and between 3 to 1 and 7 to 1 depending on risk for all other eligible assets (Board of Governors 2020b).

PMCCF

For the PMCCF, eligible issuers were limited by the "130% issuer cap": the PMCCF would purchase debt from an eligible issuer up to the point that the issuer's outstanding bonds and loans were less than 130% of its maximum outstanding bonds and loans on any day between March 22, 2019, and March 22, 2020 (FRBNY 2020b).

SMCCF

The SMCCF would purchase no more than 10 percent of an eligible issuer's outstanding bonds on any day between March 22, 2019, and March 22, 2020 (Board of Governors 2020b).

The SMCCF would not purchase ETF shares if, after the purchase, the SMCCF would have held 20 percent of the ETF's total outstanding shares (FRBNY 2020b).

Combined Limit

The FRBNY also imposed individual limits on the two facilities combined. Total purchases by both CCFs of any single eligible issuer's bonds could constitute no more than 1.5% of the combined potential size of the CCFs (Board of Governors 2020b).

10. Sources of Funding: The SPV was funded through a loan from FRBNY and the Treasury provided first-loss protection through an equity investment.

Initially, the Treasury committed a $20 billion equity investment from the Exchange Stabilization Fund (ESF) in the CCFs—$10 billion for each facility (Board of Governors 2020e; Board of Governors 2020f). After the passage of the CARES Act, the Treasury instead offered $75 billion from CARES Act funds to the facilities as first-loss protection, replacing the ESF funds: $50 billion toward the PMCCF and $25 billion toward the SMCCF (FRBNY 2020b). Ultimately the Treasury contributed $37.5 billion to the SPV. The peak utilization of the facilities at $14.1 billion never exceeded the size of Treasury's equity investment (Board of Governors 2020).

11. Eligible Institutions: Participation was limited to US-based, nonbank corporations who did not receive specific support from the CARES Act and met a minimum rating requirement.

Both the PMCCF and SMCCF restricted eligibility to corporate bond issuers that:

- Were created or organized in the US, with significant operations in the US, and a majority of its employees in the US;
- Had investment-grade ratings, defined as ratings of at least BBB-/Baa3 as of March 22, 2020, by a major nationally recognized statistical rating organization ("NRSRO"). If the business was rated BBB-/Baa3 as of March 22 but subsequently downgraded, it must have been rated at least BB-/Ba3 at the time of purchase;
- Were not an insured depository institution, depository institution holding company, or a subsidiary of a depository institution holding company;
- Had not received specific support from the CARES Act or subsequent federal legislation;
- Satisfied the conflict-of-interest clauses pursuant of section 4019 of the CARES Act (Board of Governors 2020a).[5]

[5] Section 4019 prohibits entities that certain government officials have a "controlling interest" in from participating in some government programs. See (FRBNY n.d.e).

ETFs purchased by the SMCCF could invest in bonds that did not meet these criteria (Board of Governors 2020b). The SMCCF purchased both investment-grade and high-yield ETFs, which by definition may invest in bonds that do not have investment-grade ratings. The SMCCF also purchased ETFs that had exposure to depository institutions. As of September 2020, over 26% of the SMCCF's portfolio was invested in bank bonds, through ETFs (Kelly 2020).

The PMCCF required that issuers certify eligibility through the submission of certification documents, including CARES Act certifications, a Regulation A[6] certification, and a PMCCF specific authorization form (FRBNY 2020b). In a May 25, 2020, FAQ, the FRBNY stated that all eligible issuers under both the PMCCF and SMCCF would be required to certify compliance with eligibility criteria (FRBNY 2020a). The SMCCF ultimately did not require certification by issuers whose bonds FRBNY purchased to create the Broad Market Index portfolio.

The SMCCF did not ultimately purchase individual corporate bonds outside of the index portfolio. FRBNY's FAQs noted that, if it did, any issuers would be required to meet the eligibility requirements in the original Term Sheet. The final version of the FAQs in December 2020 noted that "the requirements and processes for issuer certification will be provided before the SMCCF begins any Eligible Individual Corporate Bond purchases" (FRBNY 2020b).

12. Auction or Standing Facility: Both programs were standing facilities.

The SMCCF purchased eligible corporate bonds and ETFs on a standing basis (FRBNY 2020b). The pace of purchases was based on "a percentage of average daily volumes in the respective markets" (FRBNY 2020b). The PMCCF was also open to eligible companies on a standing basis (FRBNY n.d.a). (See Key Design Decision No. 14, Eligible Assets, for a discussion of the facilities' pricing mechanics.)

Initially, the SMCCF purchased ETFs while it developed its "Broad Market Index" of individual corporate bonds (Singh 2020). As the index program became available and market functioning improved, the SMCCF scaled back purchases of ETFs and began purchasing individual bonds across the index portfolio. The facility ceased purchasing ETFs in late July. FRBNY Executive Vice President Daleep Singh stated in a speech that the SMCCF would scale up purchases of individual corporate bonds for the index portfolio if "market stress were to return…and in a scenario of significant market stress, we could buy both bonds and ETFs" (Singh 2020).

13. Loan or Purchase: FRBNY lent funds to the SPV, which then purchased securities from issuers.

The Fed relied on a single SPV to purchase, lending to the SPV which in turn purchased from issuers (Board of Governors 2020b). The CCFs were authorized to purchase eligible corporate bonds, ETFs, syndicated loans, and broad market index funds (FRBNY 2020a).

[6] Regulation A constitutes the Fed's rule-making consistent with its authority from 12 C.F.R pt. 201 to extend credit to financial institutions (Board of Governors 2022).

A report by the Government Accountability Office (GAO) stated that the Fed created economic indicators across sectors that it analyzed daily to determine if the credit market for each sector was deteriorating and improving. These indicators included “transaction cost estimates, bid-ask spreads, credit curve shape, spread levels and volatility, trading volumes, and dealer inventories” (GAO 2021, 24). The Fed increased or decreased the distribution of its purchases according to these indicators.

14. Eligible Assets: The PMCCF was authorized to purchase, at issuance, individual corporate bonds or portions of syndicated loans or syndicated bonds; the SMCCF was authorized to purchase individual corporate bonds and ETFs.

PMCCF

The PMCCF was authorized to purchase individual corporate bonds at issuance, subject to eligibility requirements. Specifically, the SPV was authorized to purchase corporate bonds, or portions of syndicated loans or syndicated bonds. It could purchase no more than 25% of any loan syndication or bond issuance. It could purchase bonds or loans with maturities less than four years (FRBNY n.d.a).

To prove eligibility at the PMCCF, an issuer had to submit nine forms, including a CARES Act certification form, a PMCCF-specific form, and a Regulation A certification form (FRBNY n.d.d).

SMCCF

The SMCCF was authorized to purchase individual corporate bonds and exchange-traded funds (ETFs). The SMCCF purchased individual corporate bonds to create a portfolio based on a broad, diversified market index of US corporate bonds. It could also purchase individual corporate bonds outside of these portfolio purchases, although it did not ultimately do so. The SMCCF purchased both investment-grade and high-yield ETFs (Board of Governors 2020b).

Before April 9, only corporate bonds with at least investment grade (BBB-/Baa3 or higher) credit ratings were eligible for purchase by the SMCCF. On April 9, the SMCCF revised the terms of the facility to include corporate bonds that were investment grade as of March 22, but subsequently downgraded to at least BB-/Ba3 by two or more nationally recognized statistical rating organizations (NRSROs). These corporate bonds were termed “fallen angels,” and credit spreads for these bonds improved considerably after the announcement (S&P Global Market Intelligence 2020). This announcement coincided with the passage of the CARES Act, which expanded the Treasury’s committed equity investment in the CCFs from $20 billion to $75 billion (Board of Governors 2020e; Board of Governors 2020f).

To inform the SMCCF’s index portfolio purchases, the Fed created a Broad Market Index with the intention of tracking the market of secondary bonds that met the criteria in the Term Sheet (FRBNY n.d.c). To create the index, all eligible issuers were given a weight based on market capitalization, yielding an individual issuer weight. This number was used to calculate the index contribution for each eligible issuer, subject to the constraints that the weight not be higher than 10% of an issuer's maximum historical outstanding bonds, and not higher than 1.5% of the combined CCF facility size (FRBNY 2021b). The Fed updated the composition of the index every 4-5 weeks.

For example, the September 8, 2020, Broad Market Index included 1,005 eligible corporate bonds and 16 eligible ETFs. The FRBNY also published monthly the Broad Market Index sectoral breakdown. The sectoral breakdown sorted eligible corporate bonds by industry (FRBNY n.d.c) (see Figure 6).

Figure 6: Median Credit Spreads

Broad Market Index Sector	**Par Value (US $)**	**% Total Par Value**	**SMCCF Index**
Basic Industry	137.5 million	3.66%	3.64%
Capital Goods	277.5 million	7.38%	7.36%
Communications	296.5 million	7.89%	7.87%
Consumer Cyclical	615.5 million	16.37%	16.39%
Consumer Non-cyclical	763. million	20.30%	20.20%
Energy	355.5 million	9.46%	9.45%
Insurance	305.5 million	8.13%	8.06%
Nonbank/Insurance Financials	74.5 million	1.98%	1.93%
REITs	109.5 million	2.91%	2.96%
Technology	345 million	9.18%	9.20%
Transportation	97 million	2.58%	2.59%
Utilities	382.5 million	10.17%	10.36%

Source: FRBNY n.d.c.

The Fed published monthly data on the weighted average maturity and credit rating distribution of the SMCCF's portfolio (see Figure 7).

Figure 7: Maturity Breakdown of Broad Market Index – September 8, 2020

Rating	**SMCCF Holding**	**SMCCF Index**
AAA/AA/A	41.35%	42.14%
BBB	55.71%	55.02%
BB	2.94%	2.84%
Weighted Average Maturity	2.9 years	2.8 years

Source: FRBNY n.d.c.

The Fed also published data on the breakdown of ETFs purchased (see Figure 8). By the end of July, all of the SMCCF's new purchases were of individual corporate bonds (Singh 2020).

Figure 8: Breakdown of Purchased ETFs

Ticker	Fund Name	Shares Purchased[1]	Market Value as of August 31, 2020[1] (US $)
ANGL	VanEck Vectors Fallen Angel High Yield Bond ETF	1,129,770	34.4 million
HYG	iShares iBoxx High Yield Corporate Bond ETF	3,875,790	329.6 million
HYLB	Xtrackers US Dollar High Yield Corporate Bond ETF	1,644,970	80.2 million
IGIB	iShares Intermediate-Term Corporate Bond ETF	8,046,720	492.1 million
IGSB	iShares Short-Term Corporate Bond ETF	12,448,466	685.8 million
JNK	SPDR Bloomberg Barclays High Yield Bond ETF	5,285,048	558.9 million
LQD	iShares iBoxx US Dollar Investment Grade Corporate Bond ETF	17,860,663	2,421.9 million
SHYG	iShares 0-5 Year High Yield Corporate Bond ETF	685,850	30.4 million
SJNK	SPDR Bloomberg Barclays Short-Term High Yield Bond ETF	1,220,506	31.8 million
SLQD	iShares 0-5 Year Investment Grade Corporate Bond ETF	841,975	44.0 million
SPIB	SPDR Portfolio Intermediate-Term Corporate Bond ETF	13,181,447	486.3 million
SPSB	SPDR Portfolio Short-Term Corporate Bond ETF	8,954,460	281.4 million
USHY	iShares Broad US Dollar High Yield Corporate Bond ETF	1,555,865	62.2 million
USIG	iShares Broad US Dollar Investment Grade Corporate Bond ETF	2,997,120	183.1 million
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	14,875,069	1,433.8 million
VCSH	Vanguard Short-Term Corporate Bond ETF	18,237,015	1,515.3 million
1. Includes all ETFs purchased through August 27, 2020, with contractual settlement date through August 31, 2020. No purchases were made over the current reporting period.			

Source: FRBNY n.d.c.

15. Purchase Price: Pricing for the CCFs was informed by market conditions. The PMCCF charged a penalty rate, while the SMCCF did not.

PMCCF

Pricing for the PMCCF was issuer-specific and informed by market conditions. The PMCCF also charged an additional penalty rate consistent with the Fed's Regulation A, which requires that emergency facilities charge a rate that is a premium to a "normal" market rate, afford liquidity in unusual and exigent circumstances, and encourage repayment (COC 2020; Board of Governors 2022). The pricing methodology considered spreads on existing bonds issued by similar issuers (e.g. by sector and rating) over comparable-maturity Treasuries. This calculated spread was then added to the rate on a comparable-maturity newly issued ("on-the-run") Treasury. The PMCCF applied a ratings-based spread premium for lower-rated issuers. It also charged a 100bps facility fee (FRBNY 2020b). Maximum spreads were capped by historical ratings: "these levels are set around the 95th to 97th percentile of spreads over the past 15 years on three- to five-year senior debt of US firms (excluding banks) to maturity matched on-the-run Treasuries" (FRBNY 2020b).

SMCCF

The SMCCF purchased eligible bonds at fair market value in the secondary market (Board of Governors 2020b). The SMCCF avoided purchasing eligible ETFs that traded at prices that materially exceeded the estimated net asset value of the underlying portfolio (Board of Governors 2020b). Specifically, the SMCCF would "generally not purchase shares of an ETF that were determined to have closed at a premium above the lower of the following limits relative to the prior end-of-day official net asset value (NAV): (a) 1%, or (b) the mean premium observed over the prior 52 weeks, on a rolling basis, plus the 1-standard deviation of the premium for the same period" (FRBNY 2020b).

The SMCCF did not charge a penalty rate, unlike the PMCCF. The Fed stated to the Congressional Oversight Commission that it interpreted Regulation A as applying to primary-market purchases but not purchases in the secondary market (COC 2020).

16. Fees: The PMCCF charged a 100 bps facility fee.

In addition to a ratings-based spread premium, the PMCCF charged a 100 bps facility fee upon closing on the amount issued to the PMCCF (FRBNY 2020b). As the SMCCF purchased in the secondary market, it did not charge a facility fee.

17. Duration: The SMCCF ceased purchasing ETFs in late July and bonds in December.

When the CCFs were first announced, the Fed indicated that the facility would function through September 30, 2020, unless extended by the Board of Governors and the Treasury (FRBNY 2020b). On July 28, 2020, the Fed extended the CCFs through December 31, 2020 (FRB 2020a). By late July 2020, the facility ceased purchasing ETFs, instead purchasing individual corporate bonds for its broad market index portfolio (Singh 2020).

On November 19, 2020, Secretary of the Treasury Steven Mnuchin requested in a letter to Chair Powell that the Fed return unused CARES Act Treasury funds, consistent with Secretary Mnuchin's interpretation of Section 4029 of the CARES Act (Mnuchin 2020). Fed Chair Powell responded with a letter on November 20, 2020, stating:

> You have indicated that the limits on your authority do not permit the CARES Act facilities to make new loans or purchase new assets after December 31, 2020, and you have requested that we return Treasury's excess capital in the CARES Act facilities. We will work out arrangements with you for returning the unused portions of the funds allocated to the CARES Act facilities in connection with their year-end termination.
>
> As you noted in your letter, non-CARES Act funds remain in the Exchange Stabilization

> Fund and are, as always, available, to the extent permitted by law, to capitalize any Federal Reserve lending facilities that are needed to maintain financial stability and support the economy. (J. Powell 2020)

Some commentators described the interaction as unusually politically fraught (Conti-Brown 2020; Siegel and Stein 2020).

On June 2, 2021, the Fed announced that the SMCCF would begin selling its portfolio in a “gradual and orderly” way, so as to minimize any adverse impact on market functionality (Board of Governors 2021). On June 3, the FRBNY indicated that the SMCCF would begin selling ETFs on June 7 (FRBNY 2021c). On July 8, the FRBNY indicated that the SMCCF would begin selling individual corporate bonds (FRBNY 2021d). The Fed completely wound down the portfolio by the end of August 2021 (FRBNY 2021c; J. Powell 2021).

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