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Antoine Martin

Susan McLaughlin

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The Primary Dealer Credit Facility

Antoine Martin | Susan McLaughlin

FEDERAL RESERVE BANK *of* NEW YORK

The Primary Dealer Credit Facility
Antoine Martin and Susan McLaughlin
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Abstract

The Federal Reserve established a new Primary Dealer Credit Facility (PDCF) in March 2020, to allow primary dealers to support smooth market functioning and facilitate the availability of credit to businesses and households, in the face of deteriorating conditions in the market for triparty repo financing due to the coronavirus pandemic. A similar facility had been established in March 2008 to help restore the orderly functioning of the market, following the near-bankruptcy of Bear Stearns, and to prevent the spillover of distress to other financial firms. This paper provides an overview of the 2020 PDCF and compares it to the 2008 version.

Key words: Primary Dealer Credit Facility, COVID-19 pandemic, Federal Reserve lending facilities

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Martin, McLaughlin: Federal Reserve Bank of New York (emails: antoine.martin@ny.frb.org, susan.mclaughlin@ny.frb.org).

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This paper presents preliminary findings and is being distributed to economists and other interested readers solely to stimulate discussion and elicit comments. The views expressed in this paper are those of the author(s) and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System. Any errors or omissions are the responsibility of the author(s).

To view the authors' disclosure statements, visit
https://www.newyorkfed.org/research/staff_reports/sr981.html.

On March 17, 2020, in response to a deterioration in conditions in the market for triparty repo financing, the Federal Reserve announced that it would establish a new Primary Dealer Credit Facility (PDCF) to allow primary dealers to support smooth market functioning and facilitate the availability of credit to businesses and households.[1] The PDCF started offering overnight and term funding with maturities of up to ninety days on March 20, 2020 and ceased extending credit on March 31, 2021.

A similar facility had been established in March 2008, following the near-bankruptcy of Bear Stearns, to help restore the orderly functioning of the market and to prevent the spillover of distress to other financial firms.[2] After the bankruptcy of Lehman Brothers in October, the 2008 PDCF was expanded by broadening the types of collateral that could be financed at the facility.

In this article, we provide an overview of the 2020 PDCF and its usage. We also compare it to the 2008 and the 2020 versions.

Background

Primary dealers are trading counterparties of the Federal Reserve Bank of New York that support its implementation of monetary policy. Primary dealers are the largest market makers in the U.S. government securities markets.[3] In that role, they help provide liquidity in the market for government securities. Primary dealers also act as market makers for other fixed-income securities and for equity securities. Most primary dealers are securities broker-dealers rather than depository institutions and, thus, do not have direct access to the discount window, even if they are affiliated with a bank holding company.

The coronavirus pandemic led to extreme uncertainty regarding the future path of the economy. This uncertainty, in turn, led to considerable market volatility for a wide range of assets, as investors tried to deleverage, reduce risk positions, and build up cash reserves.[4] Markets for nongovernment securities were also affected, as selling pressures strained financial intermediaries' ability to make markets for buyers and sellers of securities. By mid-March, repo market conditions had deteriorated so sharply that the Federal Reserve determined that circumstances were "unusual and exigent" and established the PDCF, with the approval of the Treasury Secretary, under the authority provided in Section 13(3) of the Federal Reserve Act.

Funding extended to primary dealers under the PDCF took the form of repurchase agreement transactions that settled through triparty repo.[5] Eligible assets consisted of a broad range of investment grade debt securities, including commercial paper and municipal bonds, and a broad range of equity securities. PDCF loans were made with recourse to the firm's assets in the event of a borrower default. This contrasts with some of the Fed's non-recourse facilities, for which the Treasury Department provided capital to absorb any initial losses experienced.

The PDCF was designed as a discount-window-like program for broker-dealers, who are not eligible to borrow

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[1] Detailed information about the PDCF is available at: https://www.newyorkfed.org/markets/primary-dealer-credit-facility.

[2] See Adrian, Burke, and McAndrews (2009) for a detailed account of the 2008 PDCF.

[3] A list of primary dealers can be found at: https://www.newyorkfed.org/markets/primarydealers.

[4] Fleming and Ruela (2020) describe the impact of that volatility in the Treasury market.

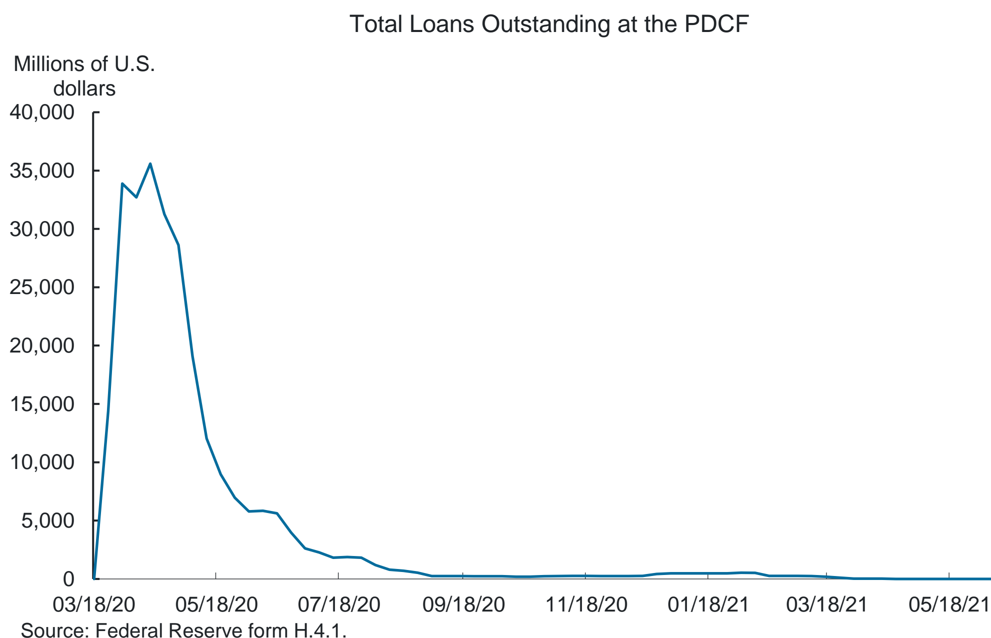
[5] Brickler, Copeland and Martin (2011) describe the tri-party repo market in simple terms. However, that post is somewhat dated as there is only one remaining clearing bank for tri-party repo in the United States.

at the discount window. The rate charged for PDCF loans was set equal to the discount window's primary credit rate. The methodologies used to price and margin collateral pledged to the PDCF were based on those utilized for collateral pledged by banks to the Discount Window, but with less granularity, reflecting some operational constraints in the triparty repo clearing bank infrastructure. The set of assets eligible for pledge to the PDCF generally aligned with the assets eligible for pledge to the Discount Window. However, the PDCF accepted a few security types that are not eligible at the discount window because they are not or cannot be held by banks, such as equities, but that are routinely funded by primary dealers in the triparty repo market due to the critical role they play in making markets in these instruments.[6]

Experience with the PDCF

Lending rose quickly after the PDCF's launch, and the weekly average of outstanding loans peaked at over $35 billion for the week ending April 15, as shown on chart 1. Outstanding loans remained in the $30-35 billion range for a few weeks, before decreasing as market conditions improved.

Chart 1:



Source: Federal Reserve form H.4.1.

The bulk of the assets financed in the PDCF were corporate and municipal debt, as well as asset-backed securities and commercial paper. These are asset classes that were experiencing considerable price volatility and selling pressure in early March 2020. Market conditions improved markedly after the introduction of a variety of Fed interventions, including the PDCF.[7] While it is difficult to measure the importance of each individual facility to improving market functioning, the interventions together had a beneficial effect. Both cash and funding market pressures in PDCF-eligible asset classes diminished after

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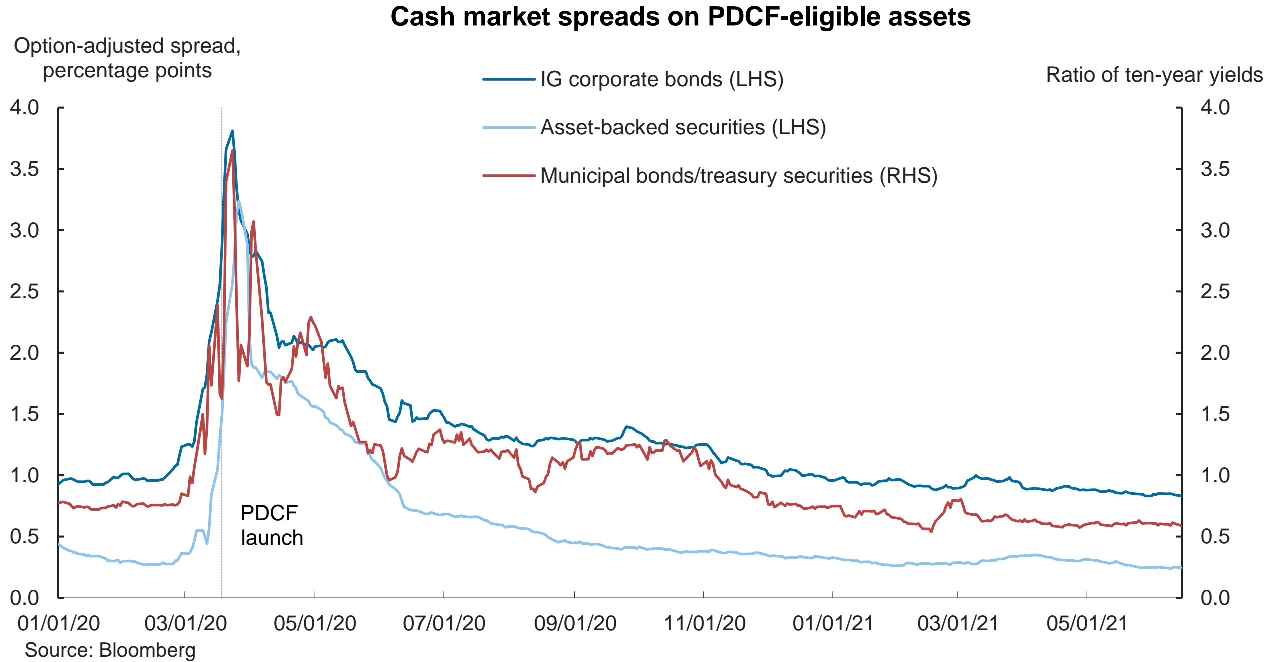
[6] The Discount Window collateral schedule can be found at this link: https://www.frbdiscountwindow.org/~/media/documents/discountmargins_2021.xlsx. The PDCF collateral schedule is available at this link: https://www.newyorkfed.org/markets/primary-dealer-credit-facility/primary-dealer-credit-facility-collateral-schedule.

[7] Fleming, Sarkar, and Van Tassel (2020) offer an overview of these interventions.

the PDCF launched. Chart 2 represents spreads in the cash market for some of the asset types funded in the PDCF; Charts 3 and 4 present triparty repo funding spreads for several PDCF-eligible asset classes.

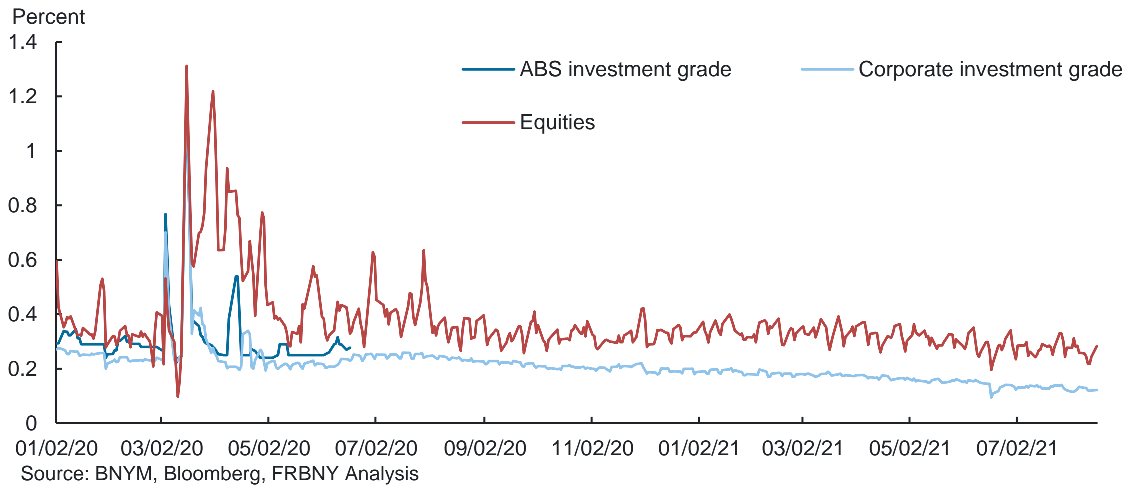
Chart 2.



Sources: Bloomberg; Barclays Capital Aggregate Bond Index.

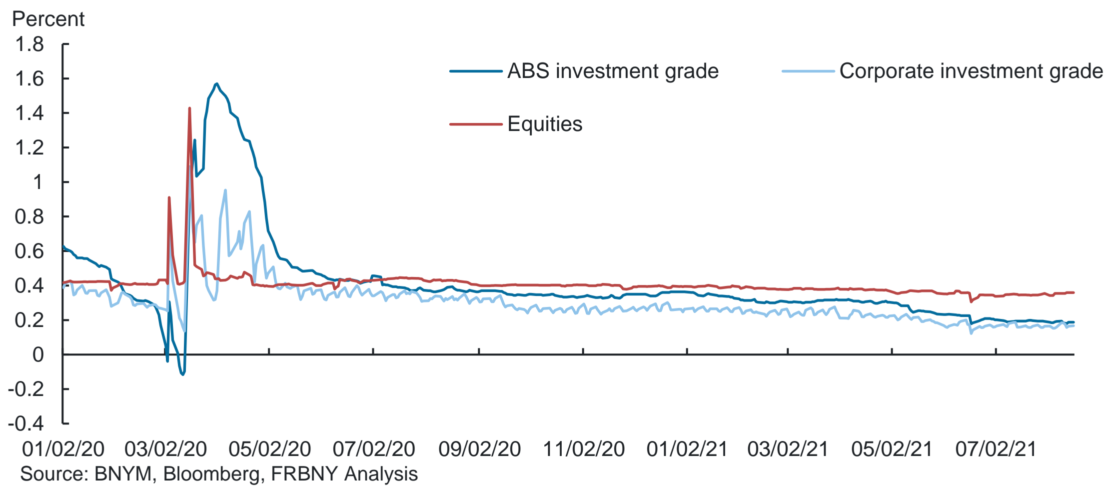
Notes: The option-adjusted spreads for investment-grade (IG) corporate bonds and asset-backed securities are calculated for the respective Barclays Agg benchmark indices relative to Treasury securities. The municipal debt curve presents the yield on ten-year municipal bonds as a ratio to the yield on ten-year U.S. Treasury securities.

Chart 3.



Note: 3-day rolling average spread of 1-month tri-party repo rates over IOER for indicated collateral types.

Chart 4.



Note: 3-day rolling average spread of 3-month tri-party repo rates over IOER for indicated collateral types.

Comparison with the 2008 PDCF

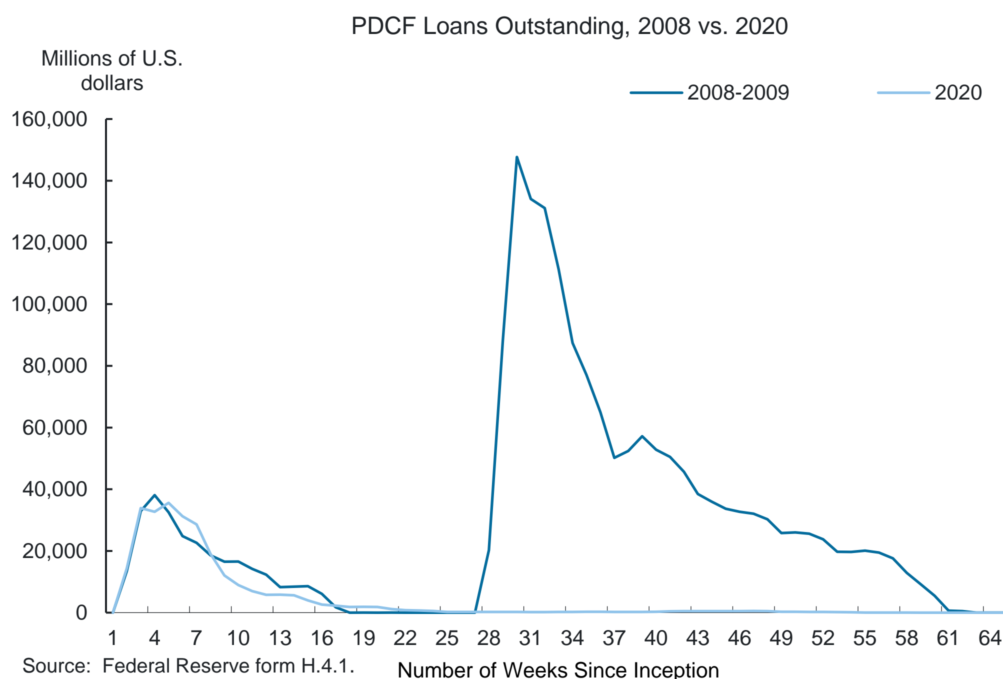
The Federal Reserve initially established the PDCF in March of 2008, following severe strains in the tri-party repo market, associated in part with Bear Stearns' troubles.[8] The economic stress and the drivers of financial market disruptions were very different in March 2020 than they were in 2008. In 2008, the

[8] See Adrian, Burke, and McAndrews (2009) for a detailed account of the 2008 PDCF.

repo market stress that led to the creation of the PDCF was largely driven by concerns about some dealers' exposure to subprime mortgages. In contrast, as the pandemic emerged in the first quarter of 2020, market participants pulled back broadly from risk assets to build up cash positions, due to uncertainty about the economic effects of the coronavirus pandemic and how long they might last. The PDCF was implemented in response to the stress that arose in a wide range of financial markets, to support credit intermediation by primary dealers, thereby facilitating the availability of credit to businesses, households, and municipalities.

Following its inception in March 2008, usage of the original PDCF increased to approximately $40 billion, before decreasing to zero by mid-2008, as shown in chart 3. This $40 billion level is roughly comparable in current dollar terms to the peak usage of the 2020 PDCF. In September 2008, following the bankruptcy of Lehman Brothers, usage of the original PDCF increased to over $140 billion. This peak is much higher than the peak use of the 2020 PDCF. However, the range of securities eligible for the PDCF post-Lehman was much broader than the range of securities accepted as collateral at the 2020 PDCF, making comparisons difficult.[9]

Chart 5.



Source: Federal Reserve form H.4.1.

Note that the volume of privately issued securities financed in the tri-party repo market was markedly lower in 2020 than in 2008, partly as a result of the impact of triparty repo market reform and bank regulatory changes. Total triparty repo financing of nongovernment securities was approximately $340

[9] For example, the 2008 PDCF accepted non-investment-grade forms of DW eligible securities after September 14, 2008. (See https://www.federalreserve.gov/newsevents/pressreleases/monetary20080914a.htm.)

billion in March 2020 compared to $600 billion in August 2008.[10] So, it's interesting to observe how similar the level of borrowing was between 2008 and 2020, in light of the decline in market size over that period.

One noteworthy difference in the design of the 2020 version of the program was the extension of the term of financing. In the 2008 version of the program, loans were only granted for an overnight term. The 2020 version of the PDCF made loans for terms up to a maximum of ninety days, to align it with the term primary credit program announced on March 15. As noted in the Federal Reserve System FAQs about discount window lending, this design feature made PDCF loans compliant with the Liquidity Coverage Ratio (LCR) by providing funding at tenors beyond 30 days, and allowing borrowers to prepay or renew the loan at will.[11]

As shown in Charts 3 and 4 , stress was evident in term repo funding rates for nongovernment securities in early 2020. Data for usage of the program demonstrate that a considerable share of the of demand for PDCF financing was for term funding, Ninety-six percent of the dollars loaned were for tenors of 1 week or longer; forty-one percent of loans were made for tenors over 3 months (84 days). The change in loan tenor appears to have positioned the 2020 version of the PDCF as a more effective tool to stabilize triparty repo market functioning than an overnight-only facility would have been.

Was the PDCF effective?

There is some academic work suggesting that the PDCF was effective at improving market functioning. Carlson and Macchiavelli (2021) find evidence that he PDCF enhanced the ability of primary dealers to provide intermediation services, such as facilitating the issuance of commercial paper (CP) and negotiable certificates of deposit (CD). They also show that CP and CD issuers benefited indirectly from the PDCF, as these issuers were able to issue in greater size or at lower cost when the CP or CD that was issued was pledged as collateral to the PDCF by a dealer.

O'Hara and Zhou (2021) study how the PDCF and the secondary market corporate credit facility affected dealer behavior. They find that after the introduction of the PDCF, dealers almost immediate reverted to accumulating inventories. Such improvement is consistent with the Fed's actions easing funding liquidity problems via direct lending. They also show that transaction costs began to fall, and block trade effects subsided.

There is less work studying the effectiveness of the 2008 PDCF, although Yang (2020) notes that the 2008 PDCF is generally seen as having been successful. Adrian and Schaumburg (2012) argue that the sharp drop-off in the 2008 PDCF usage following the peak can be seen as evidence of its effectiveness. Indeed, the PDCF was priced at a backstop rate, so its usage would be unattractive when normal market conditions would be restored. This is also the case for the 2020 PDCF and in that case also, usage declined quickly after the peak. That said, as noted above, both in 2008 and in 2020, a number of

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[10] Tri-party data starting in May 2010 are available on the New York Fed's website (https://www.newyorkfed.org/data-and-statistics/data-visualization/tri-party-repo/index.html#interactive/volume). Earlier data were made public with the Financial Stability Oversight Council's 2011 annual report (https://www.treasury.gov/initiatives/fsoc/studies-reports/Pages/2011-Annual-Report.aspx).

[11] See the the System DW FAQ page at https://www.frbdiscountwindow.org/Pages/General-Information/faq#collapseExample-2-26

facilities were introduced to restore market functioning and it is difficult to isolate the effect of the PDCF.

To Sum Up

The PDCF was one of many facilities introduced by the Federal Reserve to support the U.S. economy in the face of the coronavirus pandemic. The PDCF helped primary dealers support smooth market functioning and facilitate the availability of credit to businesses and households in their capacity as market makers for corporate, consumer, and municipal obligations.

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