The Primary Dealer Credit Facility

Antoine Martin and Susan McLaughlin

OVERVIEW

- The Federal Reserve established a new Primary Dealer Credit Facility (PDCF) in March 2020 to enable primary dealers to support smooth market functioning and facilitate the availability of credit to businesses and households.
- The PDCF was one of many facilities introduced by the Federal Reserve to support the U.S. economy in the face of deteriorating conditions in the market due to the coronavirus pandemic.
- The Federal Reserve had established a similar facility in March 2008 after the near-bankruptcy of Bear Stearns to help restore the orderly functioning of the market and prevent the spillover of distress to other financial firms.
- This article provides an overview of the 2020 PDCF and compares it to the 2008 facility.

On March 17, 2020, in response to deteriorating conditions in the market for tri-party repo financing, the Federal Reserve announced that it would establish a new Primary Dealer Credit Facility (PDCF) to enable 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; it 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 compare it to the 2008 version.

Antoine Martin is a financial research advisor for Financial Stability Policy Research in the Research and Statistics Group and Susan McLaughlin is head of Treasury Debt Financing and Emergency Lending Facilities in the Markets Group at the Federal Reserve Bank of New York. Emails: antoine.martin@ny.frb.org, susan.mclaughlin@ny.frb.org.

1. 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] 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; accordingly, they 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: investors tried to reduce their level of debt and risk positions and build up cash reserves.[4] Markets for nongovernment securities were also affected, because 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 Board of Governors of the Federal Reserve determined that circumstances were "unusual and exigent." In response, the Federal Reserve established the PDCF, with the approval of the Treasury Secretary, under the authority provided in Section 13(3) of the Federal Reserve Act.

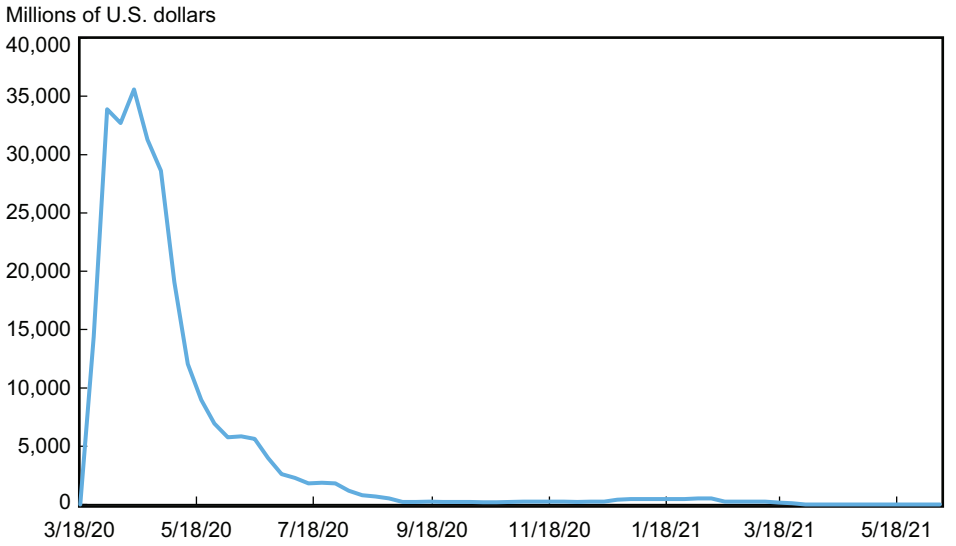
Funding extended to primary dealers under the PDCF took the form of repurchase agreement transactions that settled through tri-party repo.[5] Eligible assets consisted of a broad range of investment-grade debt securities, including commercial paper and municipal bonds, and a broad range of equity securities. PDCF loans were made with recourse to the firm's assets in the event of a borrower default. This approach contrasts with some of the Federal Reserve'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 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; however, they have less granularity, which reflects some operational constraints in the tri-party 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—such as equities—that are not eligible at the discount window because they are not or cannot be held by banks; these security types are routinely funded by primary dealers in the tri-party repo market due to the critical role they play in making markets in these instruments.[6]

2. Experience with the PDCF

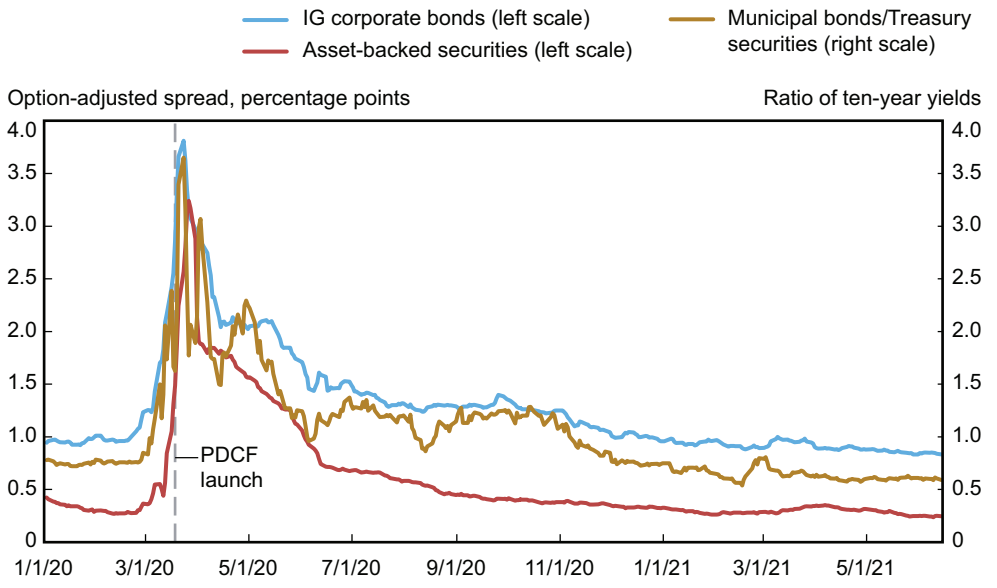
Lending rose quickly after the PDCF's launch, and the weekly average of outstanding loans peaked at more than $35 billion for the week ending April 15, as shown in Chart 1. Outstanding loans remained in the $30–35 billion range for a few weeks before decreasing as market conditions improved.

Chart 1
Total Loans Outstanding at the PDCF



Source: Board of Governors of the Federal Reserve System, Statistical Release H.4.1., "Factors Affecting Reserve Balances."

Chart 2
Spreads since PDCF Launch



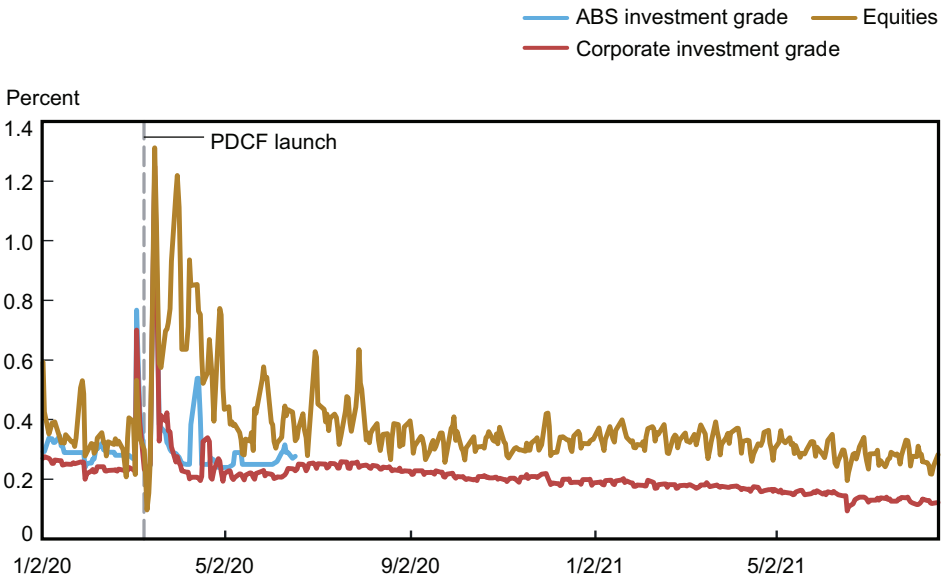
Sources: Bloomberg L.P.; Barclays Capital Aggregate Bond Index.

Notes: The option-adjusted spreads for investment-grade (IG) corporate bonds and asset-backed securities are calculated for the respective Barclays Aggregate Bond Index benchmark indexes 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.

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 the 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 Federal Reserve interventions, including the PDCF.[7] Although it is difficult to measure the contribution 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 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 tri-party repo funding spreads for several PDCF-eligible asset classes.

Chart 3

One-Month Repo Spreads to IOER for Select PDCF-Eligible Collateral



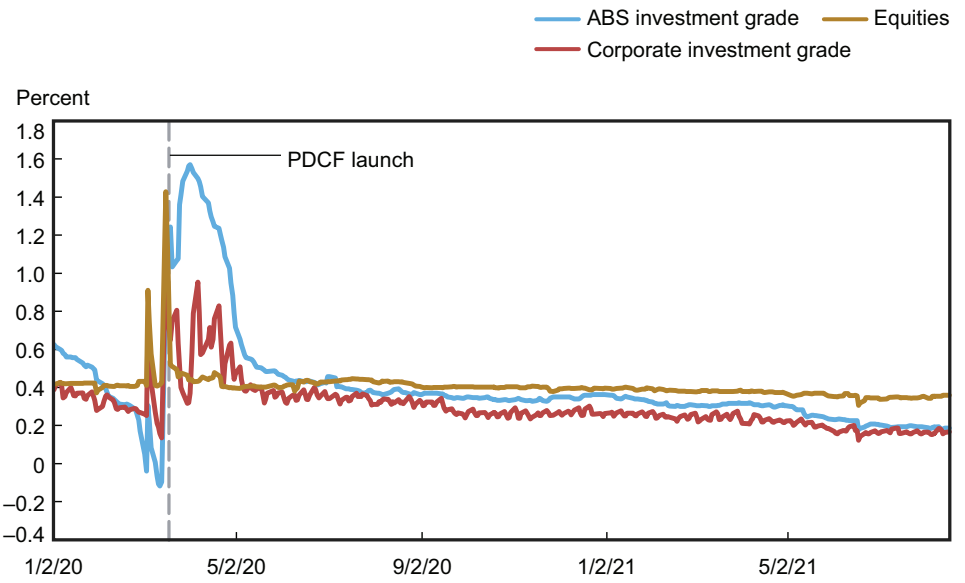
Sources: BNY Mellon; Bloomberg L.P.; New York Fed analysis.

Notes: Three-day rolling average spread of one-month tri-party repo rates over IOER for indicated collateral types. ABS is an asset-backed security; IOER is the interest rate on excess reserves.

3. 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 that were 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 in 2008. In 2008, the repo market stress that led to the creation of the PDCF was largely driven by concerns about the exposure of some dealers to subprime mortgages. In contrast, as noted above, market participants' broad response to the emerging pandemic and the uncertainty it created was to liquidate holdings to build

Chart 4
Three-Month Repo Spreads to IOER for Select PDCF Eligible Collateral



Sources: BNY Mellon; Bloomberg L.P.; New York Fed analysis.

Notes: Three-day rolling average spread of three-month tri-party repo rates over IOER for indicated collateral types. ABS is an asset-backed security; IOER is the interest rate on excess reserves.

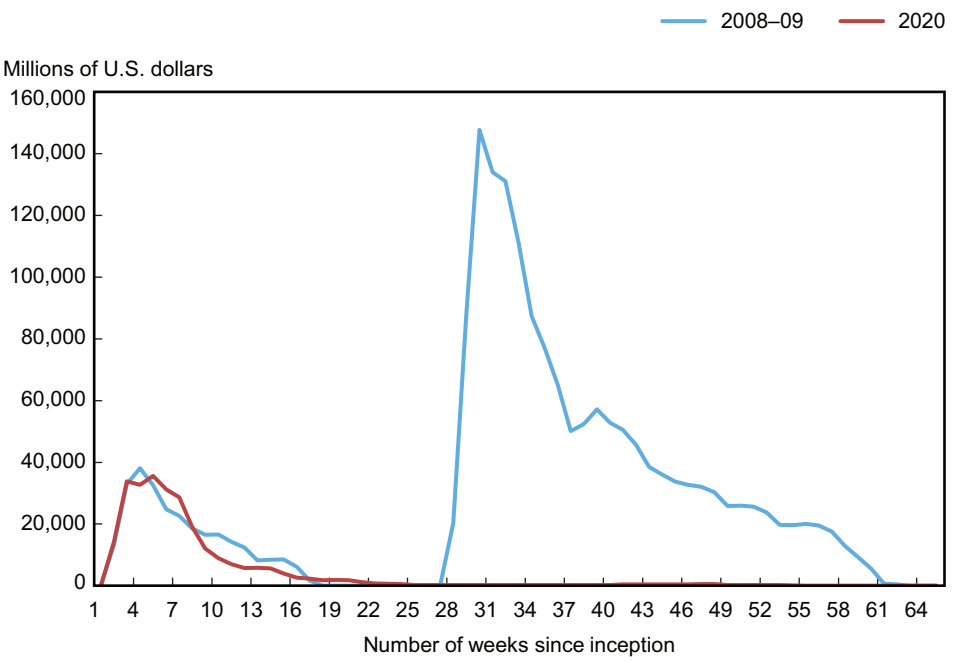
up large cash positions. The 2020 PDCF was implemented in response to the stress that arose in a wide range of financial markets; the PDCF's purpose was to support credit intermediation by primary dealers and thereby facilitate the availability of credit to businesses, households, and municipalities.

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 5. 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 more than $140 billion, as seen on Chart 5. This peak is much higher than the peak use of the 2020 PDCF. The range of securities eligible for the PDCF post-Lehman Brothers, however, was much broader than the range of securities accepted as collateral at the 2020 PDCF, making comparisons difficult.[9]

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 tri-party repo market reform and bank regulatory changes. Total tri-party repo financing of nongovernment securities was approximately $340 billion in March 2020, compared to $600 billion in August 2008.[10] Accordingly, it is 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, 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,

Chart 5
PDCF Loans Outstanding, 2008 vs. 2020



Source: Board of Governors of the Federal Reserve System, Statistical Release H.4.1., "Factors Affecting Reserve Balances."

which aligned it with the term primary credit program for banks announced on March 15, to respond to the disruption to the functioning of term funding markets. 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 (1) providing funding at tenors beyond 30 days and (2) allowing borrowers to prepay or renew the loans 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 demand for PDCF financing was for term funding. Of the dollars loaned, 96 percent were for tenors of one week or longer; 41 percent of loans were made for tenors of more than three months (eighty-four days). The change in loan tenor appears to have positioned the 2020 version of the PDCF as a more effective tool to stabilize tri-party repo market functioning than an overnight-only facility.

4. Was the PDCF Effective?

Some academic work suggests that the PDCF was effective in improving market functioning. Carlson and Macchiavelli (2021) find evidence that the 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, because 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 immediately reverted to accumulating inventories. Such improvement is consistent with the Federal Reserve's actions to ease funding liquidity problems via direct lending. They also show that transaction costs began to fall and that 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 considered to have been successful, based on a review of the existing literature focusing on reactions in spreads. 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 that its usage would be unattractive when normal market conditions would be restored. This is also the case for the 2020 PDCF; in that case, usage also declined quickly after the peak. That said, as noted, multiple facilities were introduced in both 2008 and 2020 to restore market functioning, and it is difficult to isolate the effect of the PDCF given that it provided a backstop for some of the asset classes backstopped by other programs introduced in 2020.

5. 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 to 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.

Notes

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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 is available 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 because there is only one remaining clearing bank for tri-party repo in the United States.

[6] The discount window collateral schedule is available at: https://www.frbdiscountwindow.org/~/media/documents/discountmargins_2021.xlsx. The PDCF collateral schedule is available at: 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.

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

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

[10] Tri-party data starting in May 2010 are available at: 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 available at https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/financial-stability-oversight-council/studies-and-reports/annual-reports/fsoc-2011-annual-report.

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

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