

Analysis

Central Banks Introduce Programs to Improve Liquidity in Key Markets

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Original post [here](#).

As the coronavirus crisis continues to disrupt global markets, several countries have adopted new or revised programs to improve liquidity in specific credit markets that are critical to households and businesses. Similar market liquidity programs were introduced during the 2007-2009 Global Financial Crisis (GFC) to backstop wholesale funding markets. Although evaluations of these programs are limited due to the difficulty in isolating the independent effects of these programs, studies report that most of these programs, regardless of size, were helpful in reducing disruptions in these markets by assisting [price discovery](#), [restoring confidence](#) and [catalyzing market volume](#).

When designing a market liquidity program, policymakers need to make key design decisions about:

1. Legal authority - what is the legal authority of the central bank for intervening in these markets?
2. Stigma problem - how do you ensure wide enough participation in the programs?
3. Loans: recourse or non-recourse and term - if the central bank is providing a loan, what are specific features that the central bank should be mindful of?
4. Eligibility - which institutions are allowed to participate in the program?
5. Haircuts, interest rates, and fees - how will the central bank strike a balance between incentivizing the participants to reenter the market and minimizing the risk to the central bank?
6. Relief from regulatory requirements - what existing regulatory restrictions may restrict the usage and efficiency of the program?

Below is a summary of how policymakers have approached these questions in the past.

Legal Authority

The legal authority of a central bank can influence the method by which it intervenes in credit markets. During the GFC, central banks either purchased or made loans in market liquidity programs. The Bank of England, ECB, and Bank of Japan directly purchased securities. Their legal framework authorized them to make outright asset purchases and they had a history of direct participation.

In contrast, in the U.S., [section 13\(3\)](#) of the Federal Reserve Act allows the Fed to lend to nonbanks through its discount window only in “unusual or exigent” circumstances. Its power to purchase market instruments is limited. For that reason, in designing several programs during

the GFC, the Fed lent funds to an intermediary, and the intermediary would then purchase eligible market instruments and post them to the Fed as collateral for the loan.

Because of the legal limitations, the Fed's [Term Asset-Backed Securities Loan Facility](#) (TALF) provided term credit against newly issued ABS rather than making outright purchases. Similarly, the Fed's [Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility \(AMLF\)](#) lent funds to an intermediary such as a depository institution or a broker-dealer so that entity could purchase asset-backed commercial paper (ABCP) from money market mutual funds. The Fed has reintroduced revised versions of the TALF and AMLF recently in response to the coronavirus crisis. Posts on the recent TALF can be found [here](#) and the recent AMLF can be found [here](#).

One [study](#) observed that the legal restrictions were the only reason the Fed used an intermediary to purchase assets in the earlier GFC programs. The loan vs. purchase decision does not seem to have made a noticeable difference on the effectiveness of these programs. Non-recourse loans and purchasing are economically similar for central banks.

On the other hand, some countries' central banks are able to use their regular or standing operations to lend to nonbanks. These programs naturally took the form of loans, as seen in [Australia](#), [Canada](#) and [Chile](#).

Limitation on legal authority also led the Fed to use special purpose vehicles (SPVs) as a third party intermediary in these programs. A caution for using an SPV is that they can be complex. Utilization of an SPV in the Fed's GFC-era [Money Market Investor Funding Facility \(MMIFF\)](#) may have delayed the Fed's efforts to reach illiquid markets. The program took more than one month to get off the ground. Certainly, [response time is an element of effectiveness](#).

SPVs have advantages. [South Korea](#) has and is now using a fund jointly financed by the Bank of Korea and private institutional investors to conduct market liquidity programs. [Some observers](#) [p.42] argue that the existence of an intermediary vehicle separate from the central bank can make it easier to use private institutions as agents, asset managers, and custodians.

Stigma Problem

These programs can only work if financial institutions participate. During a crisis, financial institutions may be reluctant to draw on emergency lines of credit from the central bank if doing so could signal weakness to others. Moreover, the perception of weakness does not need to be based on reality to keep eligible institutions from participating in emergency lending programs (see [here](#) [p.25]).

One way the Fed addressed stigma during the GFC was through auctions, as in its [Term Auction Facility](#). For that facility, auctions provided safety in numbers. Also, since the price was set by the auction, it did not imply that borrowers were paying a penalty rate. Moreover, because auctions were held only at certain times, unlike a standing facility, using the facility did not imply a borrower had an immediate need for funding (see [here](#)).

Some programs were run as standing facilities and used other features to deal with stigma.

First, [limited or lagging disclosure](#) can prevent stigma: if the market doesn't know a bank has received government liquidity, that bank won't suffer from stigma. In the U.S., however, post-GFC disclosure requirements imposed on the Fed may raise stigma problems. The Fed now must report to the Congress for any use of emergency lending authority under [section 13\(3\) of](#)

[the Federal Reserve Act](#). Within seven days of establishment of any section 13(3) program, also, the Board must report detailed transaction-level information to the Congress on any lending activity it conducts under those programs.

Second, offering uniform access for all financial institutions, irrespective of their condition and systemic importance, can prevent stigma. For that reason, central banks sometimes [encourage healthy institutions to participate](#).

The stigma problem is mainly relevant for government programs that financial institutions don't use in normal times. The ECB during the GFC was able to lend billions of euros in the early days of the GFC in part because its facility was already available to hundreds of financial institutions and had been used regularly. Banks could avoid stigma because that borrowing was seen as [unremarkable](#).

Loans: Non-recourse and Term

The [advantage of recourse loans](#) is that repayment is backed by the financial resources of the borrower. Earlier programs by the Fed heading into the GFC were recourse but later ones were non-recourse as the Fed was lending to [new counterparties whose financial condition could not be readily assessed](#). In other cases, the Fed found it would be [counterproductive to expose counterparties to the risk of a decline in the collateral's value](#).

Non-recourse loans by the Fed generally accompanied a private loss-sharing arrangement to mitigate the risk it took in collateralized non-recourse loans. In [TALF](#), this created an [incentive for participants to establish sound collateral for the securities](#), since they took the first risk of loss. In view of the long term to maturity of the loans, and wide-variety of newly issued spreads and credit quality across the ABS market, it was [desirable to have private investors' scrutiny](#). This involvement also [avoided undercutting market mechanisms](#) for allocating credit to borrowers by relying on private structuring and pricing of new securitizations. Relying on private investors in newly issued ABS and CMBS also [provided benchmark pricing to the market](#).

The terms of loans generally mirrored the terms of underlying collateral ([AMLF](#) and [Commercial Paper Funding Facility \(CPFF\)](#)). In [TALF](#), the term was initially one year, which was shorter than that of underlying assets posted as collateral for the loan. This mismatch meant that the financing would expire before the underlying debt securities were paid back, leaving the investors to assume the full risk for the rest of the term left in the investment. The Fed recognized that flaw and extended the term to three to five years, reflecting the maturity of underlying assets.

Eligibility

Many U.S. programs during the GFC were limited to institutions the government was already familiar with. In the case of the [AMLF](#), to facilitate quick implementation of the program, the Fed relied on institutions with which it had existing relationships (depository institutions and broker-dealers) to act as intermediaries and to be the actual borrowers under the program.

Haircuts, Interest Rates and Fees

Setting haircuts, interest rates and fees are a balancing act. For a program to be effective and ensure widespread use, these should be high enough to minimize moral hazard but not too high as to deter participation.

[The Bank of England's GFC-era Commercial Paper Facility](#) bought CP at spreads that were significantly below market rates at the time, but significantly above those expected to prevail in normal conditions. Initially this was to help drive market spreads down and provide a backstop. This was set up to [be self-liquidating as normal market conditions returned](#).

Haircuts and interest rates also represented the risks the central bank was taking on with illiquid assets. In launching Outright Purchases of CP, [Bank of Japan governor Masaaki Shirakawa stated](#) that the bid rate would be “more favorable than the market interest rates when the market is malfunctioning;” since losses on any purchased CP come at a cost to the taxpayers, a penalty rate would ensure that taxpayers were compensated for taking on the credit risk. The [CPFF](#) used interest rate as a security feature where the accumulation of interest was expected to absorb losses and provide additional protection for central banks (see [here](#)[p.197]).

However, the [AMLF](#) did not impose any haircuts. Under the AMLF, borrowers purchased ABCP at amortized cost, not at depressed values. The Fed feared further market instability if another money market fund were to “break the buck,” that is, to announce that the market value of its assets had fallen below 99.5% of book value. The Fed, instead, to minimize the risk that it undertook, only took high-quality ABCP as collateral and tightened the requirements as the program progressed.

Fees should be sufficient to cover central banks' costs of managing each program. A Bank of England report emphasizes that fees in GFC programs were not designed to manage the risks to the central bank or to the public—those risks should have been adequately covered by collateral and haircuts (see [here](#)).

The Fed sometimes relies on private institutions to ensure the accuracy and efficacy of these programs. In the [TALF](#), agents were hired to handle administrative activities between the Fed and the borrowers. Bank of New York Mellon, the program custodian, was responsible for holding collateral, collecting and distributing payments and administrative fees, and validating the pricing and ratings submitted for pledged securities. Collateral monitors, selected by the Federal Reserve Bank of New York, provided data and modeling services used in risk assessments and also validated collateral pricing and ratings.

Relief from Regulatory Requirements

To ensure the effectiveness of these programs to reach their intended markets, central banks have at times exempted or limited existing legal restrictions.

In the [AMLF](#), because the Fed protected borrowing banks from credit or market risk in holding ABCP, the Fed assessed no regulatory capital charge on banks for those holdings. The Fed also exempted banks from the maximum limit that Fed rules imposed on a bank's “covered transactions” with any single affiliate of the bank from 10% of the bank's equity to 20%. This allowed the AMLF borrowing banks to purchase ABCP from their affiliated money market funds.

In the [TALF](#), the government made it clear that the executive compensation restrictions that Congress had mandated for companies receiving taxpayer support under the Troubled Asset Relief Program (TARP) would not be applied to TALF sponsors, underwriters, and borrowers. This was to encourage participation in the program. In [another program](#), the Fed didn't make this clear, and some potential borrowers were unsure whether to participate.

Effect on Lending to Households and Businesses

Market participants and government officials have claimed that various market liquidity programs succeeded in channeling credit to frozen markets, although empirical evidence is limited. Post-GFC, some in the U.S. have attempted to compare programs to identify which have been the most effective in channeling credit to households and businesses. [One paper by Fed economists argued](#) that TALF had the most direct impact on consumers. They attribute TALF's success to its three features: (i) a non-recourse loan structure, (ii) longer maturities than discount window and other lending programs, and (iii) availability to a wide set of market participants, beyond the Fed's traditional counterparties.