

What the Federal Reserve is Doing to Save the Economy from the COVID-19 Crisis

Below is a list of tools that the United States Federal Reserve System (the Fed) is using to counteract the economic effects resulting from the social-distancing policies needed to combat the COVID-19 virus and save lives. The tools include traditional monetary policy implements, quantitative easing, short-term credit market operations, arrangements with foreign central banks, prudential capital and liquidity requirements, and temporary credit facilities that are anticipated to last only as long as this crisis and its repercussions continue.

Traditional Monetary Policy Implements

Federal Funds Rate lowered to 0.00 – 0.25%, effectively 0.00%

Considered the primary tool of monetary policy, the Federal Funds Rate is the rate at which banks borrow from and lend to one another on a short-term basis. Often referred to as the overnight borrowing rate, the term "overnight" gives an indication of how short term a basis this borrowing and lending is conducted, usually less than a day. The Fed does not set this rate directly, rather, it pursues its ultimate goal of adjusting the money supply, which moves interest rates toward the Fed's target rate. The Fed adjusts the money supply through what are known as Open Market Operations, which are conducted at the Federal Reserve Bank of New York. Open Market Operations consist of buying and selling Treasury securities in the public market. When the Fed buys a Treasury security, it pays the bank it buys it from, adding dollars to that bank's reserves, expanding the money supply and lowering interest rates, which encourages borrowing throughout the economy. <u>By lowering the Federal Funds Rate, the Fed has made borrowing, and thus spending, more attractive to consumers and businesses.</u>

- On Tuesday, March 3, 2020, the Federal Reserve cut its overnight interbank depository rate by 0.50% (50 bps). The target rate range prior to this cut was 1.50 1.75%. The target rate range following this cut was 1.00 1.25%.
- On Sunday, March 15, 2020, the Federal Reserve cut its overnight rate by 1.00% (100 bps). This cut the target rate range to 0.00 0.25%.
- The likelihood of rates going any lower, i.e. negative, is low. In the minutes of the FOMC meeting of October 29–30, 2019, all meeting participants (both on and off the FOMC) judged that "negative interest rates... did not appear to be an attractive monetary policy tool in the United States." This continuing sentiment of the FOMC was echoed by Chairman Powell in his March 15, 2020 press conference.

Discount Window

The discount window once was a physical window for bankers to access funding. Though the window is now gone, the purpose is the same. With the discount window borrowing rate set slightly above the federal funds rate, borrowing from the window isn't as cheap, but in cases of market stress is sometimes cheaper that borrowing from other sources. To borrow from the discount window, a bank brings a Treasury security or other highly rated security as collateral, and receives cash minus a reduction on the security's market value to pay the Fed for lending. After the borrowing term is complete, the borrower can buy the security back from the Fed or if they are unable, the Fed can sell the security at its full market value, turning a profit. By lowering the discount window rate, the Fed has made it easier for banks to solve potential liquidity crunches.

- On Sunday, March 15, 2020, the Federal Reserve lowered the primary credit rate (discount window rate) by 1.50% (150 bps) to a rate of 0.25%. The term of lending from the discount window was also extended to 90 days.
- On Monday, March 16, 2020, eight major banks borrowed from the discount window "not out of panic but to remove the public stigma of doing so in case the economic fallout of the coronavirus gets worse."

Interest on Required and Excess Reserve Balances

To maintain adequate liquidity to pay depositors, banks are required to keep adequate levels of cash reserves at their respective Federal Reserve regional branch bank. The Fed pays one interest rate on these required reserves and a separate interest rate on any reserves in excess of the requirement. By lowering these rates, the Fed encourages banks to lend more by drawing out the excess reserves and lending them into the public markets where they will fetch a higher rate of return.

• On Sunday, March 15, 2020, the Federal Reserve lowered its Rate on Required Reserves (IORR) to 0.10% and lowered its Rate on Excess Reserves (IOER) to 0.10%.

Quantitative Easing (large volume, long-term asset purchases)

The Federal Reserve purchases long-term securities to accomplish two goals. First, the purchases are used to maintain appropriate balance in the money supply. When the Fed purchases a security from a financial institution, money is exchanged for the security and that money is deposited into the institution's reserve account at the Fed, increasing the money supply (the opposite holds true if the Fed sells a security). Second, the purchases are used to lower long-term interest rates in securities markets that ripple through to markets for mortgages, car loans, and other consumer loans – making it easier to borrow for consumers. The securities purchased have a longer date to maturity – multiple years – and which when purchased decreases the supply of such securities, raising their price, and reducing their yield (prices and yields of securities move in opposite directions).

- On Sunday, March 15, 2020, the Federal Reserve announced ongoing purchases of up to \$500 billion in U.S. Treasury securities (maturities over one year) and \$200 billion in agency MBS. The purchases are aimed at increasing liquidity, supporting prices of purchasable security classes and functioning of their underlying markets, and lowering long-term interest rates to incentivize borrowing, which would stimulate the demand for housing, autos, and capital investment.
- On Monday, March 23, 2020, the Federal Reserve effectively suspended the above limits on Treasury and agency MBS, announcing it would "...purchase Treasury securities and agency [MBS] in the amounts needed to support smooth market functioning..."
- On Monday, March 23, 2020, the Federal Reserve announced it would also purchase agency commercial MBS in its agency MBS purchases.

Short-Term Credit Market Operations (Repos)

To maintain balance in the short-term credit markets for securities with a tenor (term) that is typically overnight (often known as repurchase agreement- or repo-markets), the Federal Reserve keeps account of liquidity to assure effective market functioning, maintain sustainable credit availability for buyers and sellers, and reduce volatility in these markets' interest rates.

- On Thursday, March 12, 2020, the Federal Reserve made a rolling \$1.5 trillion in short-term funding continually available and released it in three separate tranches over that day and the next. Continuing weekly repos totaling \$500 billion dollars in addition to twice weekly repos of \$175 billion in overnight funds and \$45 billion in 14-day funds will be offered on a continuing basis.
- On Monday, March 23, 2020, the Federal Reserve set the repo offer rate at 0% with a percounterparty limit of \$30 billion per day and directed the Open Market Trading Desk of the NY Fed roll over all principal payments from its holdings of Treasury securities and to reinvest all principal payments from agency MBS/debt.

Arrangements with Foreign Central Banks

Currency Swap Arrangements

Because of the importance of U.S. dollars in international markets and transactions, it is necessary for foreign central banks to hold balances of dollars to maintain effective functioning in their markets that use dollars (commonly known as offshore U.S. dollar markets or sometimes as Eurodollar markets). These foreign central banks lend out dollars to firms that import U.S. goods and services for which they need to pay in dollars and maintain smooth market functioning for foreign firms that borrow in dollars to finance such purchases by themselves or other firms and individuals. Expanding the set of countries with which the Federal Reserve maintains currency swap arrangements reduces the risks to the U.S. financial system caused by financial stresses abroad.

• On Thursday, March 19, 2020 the Federal Reserve expanded the countries with which it maintains currency swaps to include countries with which it temporarily established agreements during the global financial crisis. It currently has currency swap lines to enable offshore U.S. dollar market liquidity with the central banks of the EU, England, Japan, Canada, Mexico, Switzerland, Australia, New Zealand, Brazil, Korea, Denmark, Norway, Sweden, and Singapore.

Foreign and International Monetary Authority (FIMA) Repo Facility

The Fed has long acted as a facilitator of U.S. dollar liquidity for official foreign and international monetary authorities given the U.S. dollar's predominant role in the international financial system and as an international reserve currency. These foreign partners are holders of what are known as FIMA accounts at the Federal Reserve Bank of New York. <u>Benefits accrue not just to foreign authorities and markets</u>, but to U.S. markets as well given the additional input to the supply of credit for U.S. households and businesses.

• On Tuesday, March 31, 2020, the Federal Reserve announced the FIMA Repo Facility which allows FIMA account holders to engage in repurchase agreements with the Federal Reserve. In these transactions, the FIMA account holders temporarily exchange U.S. Treasury securities they own for U.S. dollars that they can then lend to financial institutions within their jurisdiction.

Prudential Regulatory Requirements

Capital and Liquidity Requirements

For purposes of maintaining sufficient liquidity to pay depositors, banks are required to keep adequate levels of cash reserves at their respective Federal Reserve regional branch bank. For purposes of overall solvency banks are required to maintain sufficient capital (composed of common stock and retained earnings) to absorb any losses they may experience from nonpayment of loans and other investments. The Fed can encourage or discourage banks from lending by adjusting the capital and liquidity requirements as needed. By lowering capital and liquidity requirements, the Fed encourages lending, freeing up more of a bank's resources that can be lent to consumers and businesses.

- On Sunday, March 15, 2020, the Federal Reserve announced its encouragement for financial firms to use their capital and liquidity buffers in a countercyclical fashion to support lending to households and businesses. For the same reason, the Fed also announced a lowering of reserve requirements to zero effective March 26, 2020.
- On Monday, March 23, 2020, the Fed announced a rule change regarding Total Loss Absorbing Capacity (TLAC) frameworks for financial sector firms. The rule will (as above) allow firms to use more of their capital and liquidity buffers for lending and will be phased in gradually to avoid automatic restrictions caused by a firm's TLAC buffers falling below a predetermined threshold during times of stress.

Community Bank Leverage Ratio (CBLR)

The CBLR was created as part of the 2018 legislation reforming the 2010 Dodd-Frank legislation to create a more tailored approach for measuring capital adequacy for small community banks. The 2018 reforms provided alternative reporting requirements for banks with less than \$10 billion in assets by using the CBLR, which is a simple ratio of a bank's capital to unweighted assets. The legislation left it up to the discretion of the Fed, the FDIC, and Treasury's Office of the Comptroller of the Currency (OCC) to choose a CBLR between 8% and 10%, with the agencies eventually settling on 9% on October 29, 2019.

• On April 6, 2020, the Fed announced the temporary lowering of the CBLR to 8%, in line with Section 4012 of the CARES Act (H.R. 748) to allow small community banks to use more of their assets to extend loans to individuals and businesses in the communities they serve. The CBLR will revert back to 9% in stages, with the first rise to 8.5% starting in 2021 and the return to 9% in 2022.

Temporary Credit Facilities

Main Street Lending Program (MSLP)

On Thursday, April 9, 2020, with authority under Section 13(3) of the Federal Reserve Act, the Fed established the MSLP. The MSLP will support small and medium businesses with up to 10,000 workers or with revenues less than \$2.5 billion by purchasing up to \$600 billion in participations in eligible loans to those businesses from eligible lenders. Eligible loans have a term of four years with amortization of principal and interest payments deferred for one year. The MSLP is administered through a Special Purpose Vehicle (SPV), which will purchase 95% participations in loans. The U.S. Treasury will make a \$75 billion equity investment in the SPV, and a Federal Reserve Bank will commit to lend to the SPV. The MSLP loan purchases will support small and medium businesses by increasing the amount of credit available to them. The MSLP is broken up into two parts:

- Main Street New Loan Facility (MSNLF): This portion of the MSLP will support new loans through Fed-approved lenders to borrowers that meet the MSLP worker and revenue requirements.
- Main Street Expanded Loan Facility (MSELF): This portion of the MSLP will allow Fedapproved lenders to expand the size of existing loans to borrowers that meet the MSLP worker and revenue requirements.

Paycheck Protection Program Liquidity Facility (PPPLF)

The Small Business Administration's (SBA) Paycheck Protection Program (PPP) was created by the CARES Act (H.R. 748) to provide forgivable loans to small businesses. Loans are forgiven if 75% or more of a loan's proceeds are used to maintain employees on payroll. The first tranche of \$349 billion in PPP funds was made available on Friday, April 3, 2020 and the second tranche of \$310 billion in PPP funds was made available on Monday, April 27, 2020. To receive PPP funds, small businesses apply through their bank or credit union. The PPP loan is processed and originated by the bank or credit union and logged on its balance sheet. Any portion of a PPP loan that is not forgiven carries an interest rate of 1% and must be paid back within two years, though the first six months of payments can be deferred.

- On Thursday, April 16, 2020, the Fed announced the establishment of <u>the PPPLF</u>, <u>which will</u> <u>extend credit to eligible depository institutions (banks and credit unions) secured by PPP loans.</u> <u>These depository institutions can use the loan proceeds to extend other loans, thereby supporting</u> <u>credit for businesses and households.</u>
- On Thursday, April 23, 2020, the Fed announced it would allow the PPPLF to extend credit to other SBA-qualified lenders. Prior to that, non-depository PPP-lenders such as Community Development Financial Institutions (CDFI) were not eligible. That same day, the Fed announced that over 1,000 depository institutions had been approved to access the PPPLF.

Municipal Liquidity Facility (MLF)

Municipal debt instruments are securities issued by states and localities like cities and counties to raise funds for community projects and investments like roads and hospitals. Short-term municipal debt securities are called municipal notes. Because the securities' proceeds help states and localities, municipal debt interest payments are exempt from federal taxes and often exempt from state and local taxes as well. Many investors and pension funds invest in municipal debt, and in 2019, the U.S. municipal securities market held \$3.8 trillion in outstanding securities. The MLF will support the steady function of the municipal debt market, facilitating continued credit to states and localities that need it to meet increased spending on COVID-19 response efforts and make up shortfalls in revenue from lost taxes previously generated from now-shuttered businesses.

- On Thursday, April 9, 2020, the Fed established the MLF to support state and local governments experiencing funding stresses caused by higher spending and lost revenue through purchases of up to \$500 billion of short-term notes. The U.S. Treasury will make a \$35 billion equity investment in a Special Purpose Vehicle (SPV), and the Federal Reserve Bank of New York will commit to lend to the SPV on a recourse basis. The SPV will make purchases of short-term notes from the states and the District of Columbia, cities with more than one million residents, and counties with more than two million residents. The SPV will only make purchases of securities that expire two years or less following the date they were originally issued. Total SPV purchases cannot be greater than 20% of a state's or locality's 2017 income from tax revenue and utilities income.
- On Monday, April 27, 2020, the Fed expanded the MLF to make counties with populations of 500,000 or more residents and cities with populations of 250,000 or more residents eligible to receive assistance. The Fed also expanded the securities eligible for purchase to those with maturities of three years or less. Both actions, along with an extension of the MLF to December 31, 2020, are meant to provide support for more communities.

Primary Dealer Credit Facility (PDCF)

A primary dealer is a large, well-capitalized financial institution that has worked out an arrangement with the Federal Reserve Bank of New York to directly buy large amounts of Treasury securities from the Treasury in what is known as the primary market (a market defined by large amounts of Treasury securities' direct sale from the Treasury to the primary dealer following their winning bid in a competitive auction). After obtaining Treasuries in the primary market, the primary dealer sells the Treasury securities in the secondary market, which is also where the Fed conducts its open market operations to raise and lower the Federal Funds Rate. By maintaining a sufficient scale of transactions, the primary dealers act as market makers to secondary markets, giving the Federal Reserve Bank of New York the environment to conduct monetary policy and make Treasury securities available to purchase by the public.

• On Tuesday, March 17, 2020, using Section 13(3) of the Federal Reserve Act, the Fed established the PDCF to maintain adequate liquidity in the market for U.S. Treasury securities by providing a credit line to institutions that buy these securities directly from the Treasury (primary dealers) and then sell them on the secondary market (i.e. the "general public" market). The PDCF works

similarly to the discount window, offering overnight and term funding up to 90 days, charges the primary interest rate (0.25%), and is effective for six months – with renewal if conditions warrant.

Commercial Paper Funding Facility (CPFF)

Commercial paper is an unsecured (without collateral) short-term (less than 270 days) debt of a business or institution. Large holders of commercial paper such as banks and pensions provide a continuing source of funds to the businesses that issue commercial paper to finance their operations. Often, maturing commercial paper is "rolled over" (i.e. issuing debt to replace the maturing debt.) When markets are under strain, investors may hesitate to invest in commercial paper, because of the increased risk that an issuer will be unable to "roll over" the debt. By providing liquidity to this market, the Fed is supporting the continued availability of credit to businesses.

- On Tuesday, March 17, 2020, using Section 13(3) of the Federal Reserve Act, the Fed established the CPFF as an SPV to provide liquidity to the unsecured and asset-backed commercial paper market. As an SPV, the CPFF is backstopped with \$10 billion from Treasury's Exchange Stabilization Fund, approved by Secretary Mnuchin. The Fed will make loans to the CPFF that will in turn use those monies to purchase commercial paper securities.
- On Monday, March 23, 2020, the Fed expanded acceptable securities for CPFF funding to include tax-exempt securities issued by states and municipalities.

Money Market Mutual Fund Liquidity Facility (MMLF)

Money Market Mutual Funds are financial vehicles that invest in high-quality liquid assets such as Treasury securities and highly-rated commercial paper. They resemble banks accounts in that they allow checks to be written and drawn on customers' underlying accounts. Many individuals, businesses, municipal governments and pension funds keep funds in Money Market Mutual Funds. <u>Through the MMLF, the Fed is supporting the integrity of money market mutual funds by helping them to meet</u> demands for redemptions (withdrawals). Specifically, the MMLF would be helpful to funds that have trouble selling their assets to meet redemptions; it would provide secured loans to financial institutions to buy those assets.

- On Wednesday, March 18, 2020, using Section 13(3) of the Federal Reserve Act, the Fed established the MMLF as a means to provide a backstop to redemptions by households, firms, and institutional investors (e.g., pension funds).
- On Friday, March 20, 2020, the fund was authorized to cover tax-exempt assets issued by states and municipalities to maintain functioning credit liquidity in state and municipal bond markets. This expansion also extends to bank CDs.

Term Asset-Backed Securities Loan Facility (TALF)

Asset-Backed Securities (ABS) are financial securities whose income comes from payment streams of an underlying set of cash-flow producing assets, such as mortgages, credit card loans, student loans, and commercial loans. When the originator of such a loan sells it to be packaged into an ABS, the originator can use the proceeds from the sale to make more loans to businesses and consumers. Thus, by providing liquidity to this market, the Fed is facilitating the continued availability of credit for businesses and consumers.

- On Monday, March 23, 2020, the Fed established TALF under its authority under Section 13(3) of the Federal Reserve Act. TALF will furnish credit liquidity to the market for AAA-rated assetbacked securities (ABS) that are backed by student loans, auto loans, credit card loans, loans guaranteed by the SBA, and other assets.
- On Thursday, April 9, 2020, the Fed announced that TALF along with the PMCCF and SMCCF, would henceforth support \$850 billion in credit, backed by \$85 billion in credit protection from the U.S. Treasury.

Primary Market Corporate Credit Facility (PMCCF)

Corporate bonds finance the activities of businesses and have maturities longer than one year. Corporate bonds are widely traded and are considered a less risky investment than stocks in the same company, as a corporate bond's return is based on its interest rate, rather than the company's profitability, as with stock. The PMCCF will purchase bonds thereby helping businesses maintain access to credit so they can continue to provide jobs and services.

- On Monday, March 23, 2020, the Fed announced under its authority under Section 13(3) of the Federal Reserve Act the PMCCF which will directly purchase eligible corporate bonds from investment-grade issuing firms. The facility will be backed with the liquidity of the Treasury's ESF and administered via an SPV. Loan terms will be up to a maximum of four years with borrowers able to defer interest and principal payments for the first six months, extendable at Fed discretion.
- On Thursday, April 9, 2020, the Fed announced that PMCCF along with the SMCCF and TALF, would henceforth support \$850 billion in credit, backed by \$85 billion in credit protection from the U.S. Treasury.

Secondary Market Corporate Credit Facility (SMCCF)

Secondary markets in corporate bonds exist to buy and sell corporate bonds that have already been issued by businesses and sold to original bondholders. Buyers in secondary corporate bond markets provide additional sources of liquidity and investment by paying the original holder of a bond the bond's market value, allowing the seller of the bond to invest in other assets.

- On Monday, March 23, 2020, the Fed announced under its authority under Section 13(3) of the Federal Reserve Act the SMCCF which will provide liquidity in the secondary markets for eligible corporate bonds from investment grade issuing firms. The facility will be backed with the liquidity of the Treasury's ESF and administered via an SPV.
- On Thursday, April 9, 2020, the Fed announced that SMCCF along with the PMCCF and TALF, would henceforth support \$850 billion in credit, backed by \$85 billion in credit protection from the U.S. Treasury.