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The Federal Reserve and the 2020 Economic and Financial Crisis

Lev Menand*

Abstract

This Article provides a comprehensive legal analysis of the Federal Reserve's response to the 2020 economic and financial crisis. First, it examines the sixteen ad hoc lending facilities that the Fed established to fight the crisis and sorts them into two categories. Six advance the Fed's monetary mission and were designed to halt a run on financial institutions. Ten go beyond the Fed's traditional role and are designed to directly support financial markets and the real economy. Second, it maps these programs onto the statutory framework for money and banking. It shows that Congress's signature crisis legislation, the CARES Act, suspended several existing restrictions on Fed lending sub silentio. And it reveals how the Fed's lending to securities dealers and foreign central banks, a practice dating back more than fifty years, has never been expressly authorized by Congress. Third, it argues that these tensions reflect deficiencies in our contemporary economic and financial architecture. Finally, it suggests reforms targeted at improving the government's response to future economic and financial emergencies.

^{*} Academic Fellow and Lecturer in Law, Columbia Law School. Thanks to the European Corporate Governance Institute for inviting me to present an earlier version of this paper (titled "Unappropriated Dollars: The Fed's Ad Hoc Lending Facilities and the Rules That Govern Them") in April 2020. Thanks also to Ash Ahmed, Patrick Bolton, Erik Gerding, Jeff Gordon, David Grewal, Daniel Herz-Roiphe, Bob Hockett, Aziz Huq, Kate Judge, Robert Katzmann, Yair Listokin, Katherine Di Lucido, Jon Macey, Gillian Metzger, Saule Omarova, Katharina Pistor, Morgan Ricks, George Selgin, Joe Sommer, Paul Tucker, Art Wilmarth, David Zaring, and participants in the Wharton Financial Regulation Workshop for helpful comments and suggestions. Thanks also to the Gray Center at George Mason University for its support and for inviting me to present this paper at a roundtable on Administration in Crisis. All errors and omissions are my own.

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Introduction

In 2020, the Federal Reserve ("Fed") went to "war." It established sixteen ad hoc lending facilities, lent over \$1 trillion to banks, financial firms, businesses, nonprofits, and municipalities, and purchased more than \$2 trillion of financial assets. In March, as panic spread across the financial system, the Fed's Chair, Jerome Powell, assured the public the Fed would not "run out of ammunition."

The Fed is a monetary authority: Its "ammunition" is money—notes known as dollar bills or cash—and among the Fed's powers is the power to create notes ex nihilo. There is no statutory limit on the number of notes the Fed can issue.³ And because the Fed is set up to operate independently, it can create notes without the prior approval of Congress or the President.⁴

But this does not mean that the Fed faces no constraints. Although its *ammunition* is unlimited, its weaponry is not.⁵ The Federal Reserve Act ("FRA")—the Fed's organic statute—empowers the Fed to issue dollars in only two ways: by using them to buy statutorily specified financial assets and by lending. The FRA includes strict statutory rules governing Fed lending because the Fed is designed for monetary purposes, i.e.,

^{1.} See, e.g., Stephen G. Cecchetti & Kim Schoenholtz, The Fed Goes to War: Part I, Money and Banking Blog (Mar. 23, 2020), https://perma.cc/D7GZ-HTWY. Applying military metaphors to central banking is a popular trope. See Adam Tooze, Crashed: How a Decade of Financial Crises Changed the World 169-70, 613 (2018) (cataloging references to "big bazookas" and "shock and awe"); David Wessel, in Fed We Trust: Bernanke's War on the Great Panic (2009). Analogies to life-saving professions are also common. See, e.g., Ben S. Bernanke et al., Firefighting: The Financial Crisis and Its Lessons (2019); First Responders (Ben S. Bernanke et al. eds., 2020). The reality of central banking is more mundane. It is a species of accounting. See infra Part I.A.

^{2.} Christopher Condon et al., Fed is 'Not Going to Run Out of Ammunition,' Powell Vows, BLOOMBERG (Mar. 26, 2020, 5:38 AM), https://perma.cc/N5X9-YZC4.

^{3.} See 12 U.S.C. § 411 ("Federal reserve notes, to be issued at the discretion of the Board of Governors of the Federal Reserve System . . . are authorized"). The Fed is required to back its notes with collateral. Id. § 412. Accordingly, the Fed's note issue is limited by the amount of eligible collateral in the economy: the sum of assets it is authorized to buy and loans it is authorized to make. But this is of no practical significance given the current collateral rules.

^{4.} See United States ex rel. Kraus v. Wells Fargo, 943 F.3d 588, 597 (2d Cir. 2019). The Fed's notes are not drawn on the U.S. Treasury, so they need not be appropriated by Congress. See U.S. Const. art. 1, § 9, cl. 7. Nor are they part of the U.S. debt, so the Fed's balance sheet is not subject to the debt ceiling. And even though Fed notes are formally liabilities, they do not represent any actionable legal obligation. Cash cannot be redeemed for gold or any other asset; the Fed cannot default. See Kraus, 943 F.3d at 603 & n.15. Compare 12 U.S.C. § 411 (providing that Federal reserve notes "be redeemed in lawful money on demand at the Treasury Department . . . or at any Federal Reserve bank"), with 31 U.S.C. § 5103 (defining lawful money to include "Federal reserve notes").

^{5.} Congress can also rescind the Fed's powers or repeal the Federal Reserve Act—critical informal constraints. See Sarah Binder & Mark Spindel, The Myth of Independence: How Congress Governs the Federal Reserve (2017). As discussed further herein, Congress adopted a series of restrictive measures in 2010 in response to the Fed's actions during the 2008 financial crisis and considered further changes just this past December. See Victoria Guida, Fed Enters Biden Era with Clipped Wings and a Warning from Republicans, Politico (Dec. 22, 2020), https://perma.cc/26AK-LBHW.

to ensure that the banking system creates enough money to achieve maximum employment, price stability, and moderate long-term interest rates. The Fed is not designed to backstop nonbank financial institutions, except in special circumstances involving stringent procedural safeguards. Nor is the Fed designed to serve as a state bank; when it comes to government credit support for businesses, nonprofits, and municipalities, Congress has traditionally been the only game in town.

In 2020, this changed. Faced with a financial crisis more severe in certain respects than the one that crashed the economy in 2008,⁷ and an economic crisis driven by the COVID-19 pandemic, the Fed stretched its statutory lending authorities in unprecedented ways. To respond to the financial crisis, the Fed lent over \$1 trillion to nonbank financial institutions in less than a month. To respond to the economic crisis, the Fed invested \$40 billion in businesses, nonprofits, and municipalities.⁸

Neither effort was wholly consistent with the Fed's institutional design. Most of the Fed's loans to nonbank financial institutions did not comply with the FRA's procedural requirements governing nonbank lending. Instead, they were structured as purchase and sale agreements, even though the FRA does not permit the Fed to use its buying and selling powers to lend. Meanwhile, the Fed's programs for nonfinancial firms also clashed with its enabling act, supporting businesses and municipalities in ways Congress restricted in 2010.

To date, the statutory framework governing Fed lending and how it interacts with the Fed's recent activities has not received much attention from legal scholars. This

^{6.} See 12 U.S.C. 225(a).

^{7.} See Carolyn Sissoko, A Fire Sale in the U.S. Treasury Market: What the Coronavirus Crisis Teaches Us About the Fundamental Instability of our Current Financial Structure, JUST MONEY (Mar. 27, 2020), https://perma.cc/YG3V-DWMV.

^{8.} The Fed also took major steps that did not involve lending. For example, the Fed conducted over \$1 trillion in market functioning purchases, an unprecedented step. See Lorie Logan, Executive Vice President, Fed. Rsrv. Bank of N.Y., The Federal Reserve's Market Functioning Purchases: From Supporting to Sustaining, Remarks at SIFMA Webinar (July 15, 2020), https://perma.cc/WA88-NM6G. The Fed also restarted its quantitative easing programs, lowered interest rates, issued new forward guidance, and adjusted its monetary policy framework. See Lael Brainard, Governor, Bd. of Governors of the Fed. Rsrv. Sys, Full Employment in the New Monetary Policy Framework, Inaugural Mike McCracken Lecture on Full Employment Sponsored by the Canadian Association for Business Economics (Jan. 13, 2021), https://perma.cc/4BAC-K2UL. This Article focuses exclusively on the legally complex and institutionally challenging lending activities.

^{9.} The canonical treatment of the Fed's lending authorities is 48 years old. Howard Hackley, Lending Functions of the Federal Reserve Banks: A History (1973). More recent contributions focus on specific mandates or programs. See, e.g., Nadav Orian Peer, Negotiating the Lender-of-Last-Resort: The 1913 Fed Act as a Debate over Credit Distribution, 15 N.Y.U. J.L. & Bus. (2019) (analyzing the discount window); Kathryn Judge, Three Discount Windows, Cornell L. Rev. 795 (2014) (same); Colleen Baker, The Federal Reserve's Use of International Swap Lines, 55 Ariz. L. Rev. 603 (2013) (analyzing swap lines with foreign central banks). For the definitive work on the Fed's nonbank lending power, see Parinitha Sastry, The Political Origins of Section 13(3) of the Federal Reserve Act, FRBNY Econ. Pol'y Rev., Sept. 2018. For a general overview, see Marc Labonte, Cong. Rsch. Serv., R44185, Federal Reserve: Emergency Lending (2020); Hal S. Scott, Connectedness and Contagion: Protecting the Financial System from Panics (2016); David H. Small & James A. Clouse, The Scope of Monetary Policy Actions Authorized Under the Federal Reserve

Article addresses that gap. It provides a comprehensive legal analysis of the Fed's response to 2020's economic and financial crises. It offers a functional interpretation of the Fed's facilities, distinguishing those related to the Fed's monetary mission from those casting the Fed in a role akin to a national investment authority ("NIA"). It explains how many of the Fed's facilities conflict with the FRA and existing money and banking law. It raises questions about whether this expanded role for the Fed is a durable and attractive one over the long term. And it suggests three possible statutory reforms to improve the government's ability to respond effectively to future economic and financial crises.

The Article proceeds in four parts. Part I begins by revisiting the Fed's purpose, and why Congress empowered it to create money ex nihilo. It focuses on the Fed's statutory lending facility known as the discount window. The discount window enables the Fed to serve as a monetary authority by regulating the ability of banks to issue cash substitutes known as deposits. By operating the discount window, the Fed acts as a "lender of last resort" to banks—it sets a price for cash, in both good times and bad, in order to affect the ability of banks to increase the amount of cash substitutes in circulation and to support stable economic growth. Its lending is part of the Fed's role in setting monetary policy; it is not supposed to involve the Fed in industrial policy (i.e., in allocating credit among different actors in what economists call "the real economy").

Part I then turns to the Fed's ad hoc lending. It distinguishes between six *liquidity facilities*, which are similar to the discount window and based on programs the Fed invented in 2008, and ten *credit facilities*, which are different from the discount window and which, with one exception, the Fed has never used before. The liquidity facilities are more consistent with the Fed's traditional role as a monetary authority, although they extend the Fed's purview from banks (and bank deposits) to shadow banks (and the deposit substitutes they issue). Shadow banks are financial firms like securities dealers, foreign financial institutions, and money market mutual funds ("MMFs") that perform economic functions similar to banks but lack their legal status and therefore cannot access the discount window. Former Bank of England Deputy Governor Paul Tucker calls backstopping these firms "modern" central banking. The program of t

Act, 5 B.E. J. Macroeconomics 1 (2005). For a comparative theoretical assessment, see Dan Awrey, The Puzzling Divergence of the Lender of Last Resort Regimes in the US and UK, 45 J. Corp. L. 597 (2020). For an analysis of the legal dimensions of the Fed's lending in 2008, see Scott G. Alvarez et al., The Legal Authorities Framing the Government's Response to the Global Financial Crises, 2 J. Fin. Crises 1, 3 (2020); Christian A. Johnson, From Fire Hose to Garden Hose: Section 13(3) of the Federal Reserve Act, 50 Loy. U. Chi. L. J. 715 (2019); Eric Posner, Last Resort: The Financial Crisis and the Future of Bailouts 55–67 (2018); Peter Conti-Brown, The Power & Independence of the Federal Reserve 94–97 (2016); Phillip Wallach, To the Edge: Legality, Legitimacy, and the Responses to the 2008 Financial Crisis (2015); Alexander Mehra, Legal Authority in Unusual and Exigent Circumstances: The Federal Reserve and the Financial Crisis, 13 U. Penn. J. Bus. L. 221 (2010). For recent work on the Fed's 2020 response, see Robert C. Hockett, Spread the Fed: Distributed Central Banking in Pandemic and Beyond (May 18, 2020) (unpublished manuscript), https://perma.cc/E62U-6VYS; George Selgin, The Constitutional Case for the Fed's Treasury Backstops, Alt-M (Apr. 13, 2020), https://perma.cc/6FNR-HWEC.

^{10.} As discussed further herein, the Fed pioneered the Term Asset-backed Loan Facility or "TALF" in 2008.

^{11.} Paul Tucker, The Lender of Last Resort and Modern Central Banking: Principles and

The Fed's new credit facilities are a horse of a different color. They rely on loss-absorbing equity investments from the Treasury Department's Exchange Stabilization Fund ("ESF"). And they do not lend for monetary purposes but extend credit to the real economy, i.e., to municipalities, large corporations, nonprofits, and other businesses. These activities are not part of the traditional or "modern" remit of public monetary authorities; they are a form of state investment support.¹²

Part II comprises the heart of the Article. It maps the Fed's recent activities onto the statutory framework for money and banking. It distinguishes between thirteen facilities established pursuant to section 13(3) of the FRA, which governs the Fed's emergency nonbank lending, and three facilities established pursuant to section 14, which governs the Fed's "open market operations"—its outright purchases of gold, foreign exchange, and government securities. Part II concludes that fifteen of the sixteen facilities as constituted are out of step with one or more provisions of either the FRA, the Gold Reserve Act (which governs the ESF), or both.

First, it shows that as many as seven of the Fed's credit facilities are in tension with section 13(3)(B)(i) of the FRA, which limits the Fed to "providing liquidity to the financial system." Congress added this language to the FRA in 2010. It allows the Fed, in an emergency, to act as a "modern" lender of last resort for shadow banks, but it is best read to bar the Fed from using 13(3) to extend credit to the real economy (at least in most circumstances). Although Congress could have removed or expressly suspended this restriction, it instead passed the Coronavirus, Aid, Relief, and Economic Security ("CARES") Act, which appropriated \$500 billion for the Treasury Secretary to invest in Fed facilities that extend credit to businesses and municipalities. The CARES Act described these facilities as being for the purpose of "providing liquidity to the financial system." In effect, the CARES Act, as the more recent and more specific legislative pronouncement, amended the FRA sub silentio. 15

Second, Part II reveals that Congress employed a similar tactic in conjunction with two of the Fed's 13(3) liquidity facilities. These programs rely on investments by the Secretary of the Treasury using \$20 billion from the ESF. These investments are out of

Reconstruction, in 79 Bank for Int'l Settlements, Re-Thinking the Lender of Last Resort 10-42, 27-28 (2014) (articulating principles for a "modern" central bank to lend to shadow banks that "form part of the *de facto* monetary system"). See also Kathryn Judge, The First Year: The Role of a Modern Lender of Last Resort, 116 Colum. L. Rev. 843, 846 (2016). The economist Perry Mehrling calls providing these firms with funding liquidity acting as a "dealer of last resort." Perry Mehrling, The New Lombard Street: How the Federal Reserve Became the Dealer of Last Resort 10 (2010).

^{12.} Public monetary authorities, as defined here, administer the monetary activities of banks. The Fed has a strong claim to being the first public monetary authority. Many of the world's older "central banks," like the Bank of England or the Bank of the United States, were privately owned institutions that, in addition to acting as a bank for banks, conducted a banking business with the general public.

^{13. 12} U.S.C. § 343(3)(B)(i).

^{14.} Pub. L. No. 116-136, § 4003 (2020) (codified at 15 U.S.C § 9042).

^{15.} Congress can be said to amend an existing law sub silentio, on my usage of the term, when it enacts a statute that is inconsistent with a prior enactment but does not repeal or explicitly suspend its prior inconsistent enactment. In this way, Congress acts like a court overruling a prior decision without acknowledging it. *See infra* Part III.A.

step with Section 10(a) of the Gold Reserve Act ("GRA"), which authorizes the Treasury Secretary to use the ESF to "deal" in "securities" to stabilize "exchange rates." Although neither investment relates to exchange rates, once again, the CARES Act suggests a different reading of the existing law. Among other things, it appropriates money to the ESF for the Secretary to carry out the purposes of the CARES Act and explicitly suspends a 2008 law that prohibits the Secretary from using the ESF to guarantee the value of money market mutual fund shares.

Third, Part II argues that the Fed's credit facility designed to buy corporate bonds and corporate bond Exchange Traded Funds ("ETFs") on secondary markets is inconsistent with section 13(3)(A) of the FRA, which permits the Fed to use 13(3) facilities only after it has "obtain[ed] evidence" that participants are "unable to secure adequate credit accommodations from other banking institutions." It is not clear how the Fed complied with its obligation to obtain this evidence. But the CARES Act contemplates Treasury investments in Fed facilities that "purchas[e] obligations or other interests in secondary markets," imposing a reading of this language that arguably permits secondary market purchases. 18

Fourth, Part II explains why two of the Fed's section 14 liquidity programs—its repurchase operations and its FIMA repurchase facility—should be conducted under section 13(13) and meet the relevant procedural requirements. These facilities lend money to securities dealers and foreign central banks using U.S. government debt as collateral. The Fed structures these loans as sale-and-repurchase agreements, or "repos." And it has been conducting these repos with nonbanks for decades. Nonetheless, these repos are impossible to square with section 14. Although section 14(2)(b) authorizes the Fed to buy and sell U.S. government debt, it requires that the Fed's purchases and sales be in "the open market." In a repo, the purchase and subsequent resale are both off-market transactions at non-market prices. Moreover, since section 14 is a corporate powers provision—not a regulatory statute—any ambiguity should be construed against the Fed under longstanding doctrine.

Fifth, Part II identifies a problem with the Fed's foreign central bank swap lines—another of the Fed's longstanding section 14 programs. In a swap, the Fed sells dollars for foreign currency and then buys the dollars back at a later date. Section 14 permits purchases and sales of foreign currencies, but again only in the open market. In a swap, the purchases and sales transact off-market at non-market prices. And, even if swap lines *were* authorized by section 14, swaps are constructively loans, and the requirements of section 13(3) should apply. Among these requirements is that the Fed report the transactions to Congress and seek prior approval of the Treasury Secretary.

Three conclusions follow in Part III. First, all or nearly all of the Fed's 13(3) lending in 2020 is consistent with federal law taken as a whole—the CARES Act is a more recent pronouncement and, as a matter of statutory interpretation, the specific controls the general. But this sub silentio overruling of other legal restrictions is troubling for

^{16. 31} U.S.C. § 5302(b).

^{17. 12} U.S.C. § 343(3).

^{18.} CARES Act § 4003(b).

^{19. 12} U.S.C. § 355.

many of the same reasons as sub silentio judicial decisions: it reduces clarity and hampers accountability. Here, Congress likely acted not just out of expediency but also to avoid drawing attention to the fact that it was asking the Fed to take on an enlarged economic role.²⁰

Second, the Fed lacks the power to lend through section 14, and although the Fed's section 14 lending has been "open and notorious" for decades, the adverse possession of legal powers by federal corporations (the Fed's operational arms) is not—and should not be—recognized by courts.²¹ Indeed, just last year, in a different context, the Supreme Court explained that "[u]nlawful acts, performed long enough and with sufficient vigor, are never enough to amend the law."²² And, even if they were, adverse possession of authority by government agencies or corporations tears at the statutory fabric, often disrupting coherent legislative schemes by making changes in one place without updating other provisions accordingly.

Third, legality notwithstanding, Congress's use of the Fed to prop up financial markets and extend credit support to the real economy adds nonmonetary responsibilities to the Fed's monetary policy portfolio in ways that undermine its ability to effectively execute either mission. Among other things, the proper degree of independence for a monetary authority is different from the proper degree of independence for a NIA. Because the Fed's tools are financial in nature, its leaders are unelected, and its procedures are relatively insulated from democratic participation and public disclosure, this sort of state banking by the Fed is likely to disproportionately favor asset owners compared with economic policy that draws on the Treasury.

Part IV identifies three potential reforms that could improve the government's ability to respond to future economic and financial crises. These are (1) establishing a lending authority designed to extend government credit to businesses, nonprofits, and municipalities; (2) creating a standing account (with corresponding safeguards) for the Treasury to use to conduct emergency fiscal relief including by investing in Fed facilities; and (3) regulating shadow banks as banks so that they are subject to the same ex ante controls as banks and can access the discount window.

Emergencies have their own logics. Sheer necessity compelled Congress and the Fed to stretch existing regulatory frameworks to address unprecedented economic and financial crises last year. But the results of the Fed's interventions, with over \$1 trillion

^{20.} Already the CARES Act's approach has generated controversy and confusion. In December, after the Treasury Secretary withdrew his CARES Act investments from several of the Fed's facilities (thereby limiting the ability of his successor to modify them and the Fed to use them to support the economy), Congress debated whether to further amend the law to prevent the Fed from restarting the programs in 2021. See infra note 242. Members disagreed about whether and to what extent the Fed already had the statutory authority to restart some facilities or whether its power to do so expired with the CARES Act. See Smialek, infra note 230.

^{21.} Cf. NLRB v. Noel Canning, 573 U.S. 513, 570 (Scalia, J., concurring) (rejecting "an adverse possession theory of executive authority" whereby because "Presidents have long claimed the powers in question, and the [Congress] has not disputed those claims with sufficient vigor, . . . the Court should not 'upset the compromises and working arrangements that the elected branches of Government themselves have reached'").

^{22.} McGirt v. Oklahoma, 140 S. Ct. 2452, 2482 (2020).

going to financial firms and foreign central banks in March and April, and less than \$40 billion in credit support going to businesses, nonprofits, and municipalities over a much longer period, indicate that our legal and institutional design could be improved. There is a tendency in the face of gridlock for monetary authorities to take on more of the burden of what should be a government-wide response. Monetary authorities are designed for confidential decision-making, limited day-to-day political oversight, and ongoing engagement with financial interests. When they are asked to do more than they are built for, the distributional consequences are predictable. If we persist in relying on the Fed, rather than developing new institutional structures, at best we have an imperfect solution to public problems that skews benefits towards those already advantaged and at worst we short circuit the legislative process, undermining prospects for more democratic policy responses to deeply damaging economic stagnation.

I. The Fed's Lending Facilities: A Functional Analysis

This Part examines the Fed's response to 2020's economic and financial crises. It starts by recovering the purpose of the Fed's statutory lending facility, the discount window, and highlights how Congress designed the window as a tool for monetary policy. It then turns to the Fed's sixteen "ad hoc" lending programs, established to address the fallout from the spread of COVID-19. Six of these programs provide funding liquidity to nonbank financial firms to prevent a run on deposit substitutes and ten extend credit to nonfinancial entities to improve capital market functioning and lower borrowing costs. The first type of program expands the Fed's monetary lender of last resort role to shadow banks. The second type has the Fed acting in a different capacity—as a de facto NIA supporting the flow of credit to particular sectors of the real economy.

A. The Discount Window

Congress created the Federal Reserve in 1913 to administer the monetary system. But it did not give the Fed complete control over money. It left the power to expand and contract the money supply in the hands of privately-owned banks, and it made the Fed a public monetary authority, charged with backstopping bank money, particularly bank deposits, by lending banks cash to handle withdrawals. The Fed performs this function through "the discount window." This Section revisits the discount window—a core piece of government machinery now often misunderstood—and explains how it makes the Fed a "lender of last resort."

1. Providing Liquidity to Banks to Backstop Deposits

First, the mechanics. The Federal Reserve is a *system*. It includes a Board of Governors ("Board") in Washington²³ and twelve regional Federal Reserve Banks ("FRBs")

located in cities around the country.²⁴ The FRBs are supervised by the Board and have charters from the Comptroller of the Currency, a bureau in the Treasury Department that also charters the banking subsidiaries of financial conglomerates like Bank of America, J.P. Morgan Chase, and Wells Fargo.²⁵ Thousands of banks have accounts at the FRBs, and the balances in these accounts are like deposits in ordinary checking accounts. Banks call their FRB accounts "reserve accounts," and they call their FRB balances "reserves."²⁶ Banks can withdraw cash from their accounts but most of the time they use their reserves to make payments to each other electronically and to clear payments between their own customers. For example, when Person *A* at Bank 1 sends a wire to Person *B* at Bank 2, three banks edit their records: Bank 1 reduces the account balance of Person *A* on its books; Bank 2 increases the account balance of Person *B* on its books; and the Fed adjusts its books too, reducing the account balance of Bank 1 and increasing the account balance of Bank 2.

If Bank 1 does not have enough reserves to cover the amount of the wire, the Fed gives Bank 1 until the end of the day to borrow reserves.²⁷ One way that Bank 1 can do this is in what is known as the "federal funds" or "fed funds" market. The fed funds market is an interbank lending market where banks lend reserves to each other. (The interest rate in this market is what the Fed targets as part of its conventional monetary policy.)²⁸

But Bank 1 always has another option. It can borrow reserves from the Fed. The Fed stands ready at all times to lend reserves to banks²⁹ at the discount window at what is known as the "discount rate."³⁰ To encourage banks to borrow in the fed funds

^{24.} Id. §§ 222-25, 341.

^{25.} *Id.* § 341. The Federal Reserve System also includes thousands of "member banks," which nominally own the FRBs, 12 U.S.C. §§ 222, 282, 287, and receive fixed dividends, *id.* § 289. Each FRB has a nine-person board of directors. *Id.* § 302. Member banks elect six of the nine directors, three from their own ranks to represent their interests and three from outside their ranks to represent the public. *Id.* The Board of Governors selects the other three directors, *id.*, one of whom it picks to be chair, *id.* § 305. FRB Presidents are selected by the three directors appointed by the Board and the three directors who represent the public. The Board must approve the selection. *Id.* § 341.

^{26.} See Fed. RSRV. Sys., Federal Reserve System: Purposes & Functions (2016) [hereinafter Purposes & Functions]. In 1913, Congress limited access to reserve accounts to member banks—national banks chartered by the federal government and state banks choosing to opt in. Member banks must submit to Fed oversight. See Federal Reserve Act, Pub. L. No. 63-43, § 9, 38 Stat. 251, 259-60 (1913). In 1980, Congress expanded access to the Fed's balance sheet to all state banks, as part of a law empowering the Fed to set minimum reserve requirements for all banks. See 12 U.S.C. § 342.

^{27.} The Fed still increases the balance of Bank 2 immediately.

^{28.} Purposes & Functions, supra note 26, at 17, 27-28.

^{29.} In 1913, access to the discount window was limited to member banks, see supra note 26, but when Congress required the Fed to allow state depository institutions to open reserve accounts, see id., it also amended the law to "[entitle] [any depository institutions with transaction accounts or nonpersonal time deposits] to the same discount and borrowing privileges as member banks," Federal Reserve Act §19(b)(7).

^{30.} One way that Bank 1 can borrow is by selling the Fed one or more of its loans for less than par (the amount the borrower owes on the loan at maturity). The difference between the purchase price and par is the "discount." The discount divided by the purchase price is

market, the Fed usually sets the discount rate above the fed funds rate. And when it changes monetary policy to make it more or less expensive for banks to access cash, it moves the two rates in tandem. (By creating this gap, the Fed has stigmatized the discount window, and so discount window lending has become less common.)³¹

2. Acting as a "Lender of Last Resort"

When the Fed lends to banks at the discount window, it acts as a "lender of last resort" or "LOLR." LOLR is a term of art.³² The point of LOLR lending is not to *invest* in banks—to lend to banks in the way that ordinary people or banks themselves lend. It is to regulate the amount of money in the economy in a way that promotes stable, long-term economic growth. A bit of background about money is required to understand why this is the case and how it works.

Modern economies rely on two types of money.³³ One type is created by the government—cash and coin issued by the Fed and the U.S. Mint—known as "base money," or "high-powered money." The other, far more important type is created by financial institutions—deposits issued by banks and other promises to pay cash and

- 31. Mark Carlson & Jonathan D. Rose, *Stigma and the Discount Window*, FEDS NOTES (Dec. 19, 2017), https://perma.cc/C5CX-RD3C. Hackley dates the decline of the discount window to 1959. HACKLEY, *supra* note 9, at 4.
- 32. The phrase was first used by Francis Baring in 1797 to describe the role the Bank of England played in 1793 when a spike in demand for specie prompted a run on bank notes and deposits. SIR FRANCIS BARING, OBSERVATIONS ON THE ESTABLISHMENT OF THE BANK OF ENGLAND AND ON THE PAPER CIRCULATION OF THE COUNTRY 47-48 (photo. reprt. 1967) (1797) (explaining that securities brokers "were driven to the Bank as a dernier resort" and that "the Bank acted ... to satisfy the public ... demand for guineas" which was enormous). The concept was later developed by HENRY THORNTON, AN ENQUIRY INTO THE NATURE AND EFFECTS OF THE PAPER CREDIT OF GREAT BRITAIN (F.A v. Hayek ed., Frank Cass & Co. Ltd 1962) (1802) and Walter Bagehot, Lombard Street: A Description of the MONEY MARKET (Wiley 1999) (1873). For the classic definition, see Ralph Hawtrey, Lender of Last Resort, in THE ART OF CENTRAL BANKING (1962). For a more recent definition, see Thomas M. Humphrey, Lender of Last Resort, in AN ENCYCLOPEDIA OF KEYNESIAN ECONOMICS 393 (Thomas Cate ed., 2d ed. 2013). See also Tucker, supra note 11, at 12, 15 (describing the modern LOLR as a liquidity reinsurer for liquidity insurers including banks and shadow banks); MICHAEL D. BORDO, Rules for a Lender of Last Resort – An Historical Perspective, in Hoover Inst. Stan., Central Banking in the Next Century: A Policy CONFERENCE 3-4, (May 29-30, 2014).
- 33. There are other types of money, see Lev Menand, Regulate Virtual Currencies as Currency, JUST MONEY (Feb. 14, 2020), https://perma.cc/5YX4-VY8Q, but they are not relevant here.

the interest rate—the amount the Fed earns for giving the bank the reserves it needs. (The bank must endorse these loans so that if they default, the bank is still on the hook.) Such lending is governed by various parts of sections 13 and 14 most notably section 13(2), which was part of the original FRA, and is limited to notes, drafts, and bills of exchange maturing in 90 days or less arising out of actual commercial transactions including debt issued for agricultural, industrial, or commercial purposes. 12 U.S.C. § 343. Today, most "discount window" lending actually takes the form of an advance, in which the Fed swaps reserves for a debt instrument newly issued by the bank through which the bank pledges loans or other assets on its books as collateral. Advances are authorized by section 10(b), added in 1932. See Federal Reserve Act, ch. 58, sec. 2, §10(b), 47 Stat. 56, 56-57 (1932). Section 10(b) permits advances of up to four months. See 12 U.S.C. § 347(b).

coin known as "inside money."³⁴ By design, most of the money in the economy is inside money. ³⁵ For example, all the dollars in your bank account are deposits and a type of inside money. People use deposits to conduct most transactions, transferring account balances by check or by wire, and there are far more deposits in "circulation" than cash—\$15 trillion compared to \$1.5 trillion.³⁶

The supply of deposits exceeds the supply of cash because banks can create deposits at the stroke of a keyboard; they do not need cash to increase the balance in someone's account. And because it is larger, the supply of deposits is a much more important factor affecting prices. If banks create more deposits, people will have an easier time buying things and paying their bills. If banks shut down and deposits disappear, ways to pay for things will become scarcer and prices will fall making it harder for debtors to repay their debts.³⁷

Congress created the Fed to ensure that deposits trade at par with base money—that deposits and cash are interchangeable. When the Fed is doing its job, no one notices any difference between cash and a bank's promise to pay cash. This is what the discount window is for and what it means for the Fed to serve as the "lender of last resort." As former Fed economist and monetary historian Thomas Humphrey explains, a LOLR "lend[s] to solvent banks facing massive cash withdrawals when no other source of cash is available."³⁸ This lending is, Humphrey explains, "essentially a monetary rather than a banking or a credit function." While the LOLR acts to "forestall bank runs and avert credit crises," this result is "nevertheless ancillary and incidental to the L[O]LR's main task of protecting the money supply."³⁹ In other words, "the lender of last resort's overriding objective" is "the prevention of panic-induced declines in the money stock, declines that might produce depressions in the level of economic activity."⁴⁰

The LOLR is not purely a crisis role. The LOLR also regulates the supply of

^{34.} Money Stock and Debt Measures – H.6 Release, BD. GOVERNORS FED. RSRV. SYS. (Feb. 14, 2019), https://perma.cc/2B8X-J28Z; JOHN G. GURLEY & EDWARD S. SHAW, MONEY IN A THEORY OF FINANCE 72-73 (1960) (coining the term "inside money"). Reserves are treated as base money.

^{35.} See, e.g., COMM. ON BANKING & CURRENCY, FINANCIAL INSTITUTIONS SUPERVISORY ACT OF 1966, S. REP. No. 89-1482, at 5 (1966) ("The banking system is a fundamental part of our monetary system and [its] demand deposits represent[] the principal element in the Nation's money supply.").

^{36.} Deposits, All Commercial Banks, FRED, https://perma.cc/YYM7-8H6V. Indeed, since most cash circulates overseas, extraordinarily little of it is available to banks. See Ruth Judson, The Death of Cash? Not So Fast: Demand for U.S. Currency at Home and Abroad, 1990-2016 (Apr. 25-27, 2017) (unpublished conference paper), https://perma.cc/3GU9-JJA4. When a bank needs cash it has to get it from the Fed or another bank, and when the banking system needs cash, it has to get it from the Fed.

^{37.} See, e.g., Ben S. Bernanke, The Real Effects of the Financial Crisis, 2018 BROOKINGS PAPERS ON ECON. ACTIVITY 251; Ben S. Bernanke, Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression, 73 Am. Econ. Rev. 257 (1983).

^{38.} Humphrey, supra note 32, at 393.

^{39.} Id. at 396.

^{40.} Thomas M. Humphrey, The Classical Concept of the Lender of Last Resort, FED. RSRV. BANK RICHMOND ECON. REV. 2, 5 (1975).

deposits ex ante by raising and lowering the price for base money.⁴¹ Today, the Fed primarily targets the Fed funds rate for this purpose, so banks rarely borrow from the discount window in normal times. But bank deposit creation still takes place in the shadow of the discount rate. And, at least in theory, the Fed can use its control over the price of base money to ensure that government backing of bank deposits does not lead banks to create too many deposits (triggering inflation).

Figure 1: The Fed's Ad Hoc Lending Facilities

Date	Program	Size	Eligible Borrowers/Beneficiaries	Collateral/Assets
3/12	Repurchase Operations*	\$1.5T	24 broker dealers in U.S. government securities	Treasuries, agencies
3/15; 3/19	Swap Lines*	Various	ECB and the CBs of Canada, U.K., Japan, and Switzerland; CBs of Australia, Brazil, Denmark, S. Korea, Mexico, Norway, New Zealand, Singapore, and Sweden	Foreign currency
3/17	Commercial Paper Funding Facility (CPFF)*	No Limit	U.S. issuers of commercial paper rated at least A-1/P-1/F-1 by major NRSRO	Commercial paper
3/17	Primary Dealer Credit Facility (PDCF)*	No Limit	24 broker dealers in U.S. government securities	Treasuries, agencies, corp. bonds, equities
3/18	MMF Liquidity Facility (MMFLF)*	No Limit	U.S. depositories, U.S. BHCs, U.S. branches and agencies of foreign banks on-lending to prime MMFs	Treasuries, agencies, commercial paper
3/23	Term Asset-Backed Securities Loan Facility (TALF)*	\$1008	U.S. companies with eligible collateral and account relationships with designated dealers	Asset-backed securities
3/23 3/23	Primary Market Corporate Credit Factive (PMCCF) Secondary Market Corporate Credit	\$5008 \$2508	U.S. companies in the U.S. with material U.S. operations and investment grade ratings prior to Mana-22 U.S. companies in the U.S. with material U.S. operations	Corporate bonds and commercial boars Corporate bonds
	Facility (SMCOF)		including those with junk ratings	corporate bond ETFs
3/31	Foreign and International Monetary Authorities (FIMA) Repo Facility	No Limit	Foreign central banks and monetary authorities with accounts at the New York Fed	Treasuries
4/9	PPP Liquidity Facility (PPPLF)	\$9498	Depository institutions that originate PPP loans guarantees by the Small Business Administration	Commercial loans
4/9	Municipal Liquidity Facility (MLF)	\$500B	States: cities with population > 250,000, counties with population > 500,000, and certain designees	Short-term muni bonds
4/9; 4/30 6/35	Main Street New Loan Facility (MSNLF); Main Street Expanded Loan Facility (MSELF); Main Street Priority Loan Facility (MSPLF); Nonprofit New Loan Facility (MOLF); Nonprofit Expanded Loan Facility (NOELF)	5600B	U.S. depositories & holding companies on-lending to U.S. Businesses and nonprofits with up to 25k employees or 35 billion in arroual revenues and majority of employees in U.S.	Commercial loans

Liquidity facilities are unshaded. Credit facilities are dark gray, except for the TALF which is light gray due to its liquidity component.

B. The Ad Hoc Liquidity Facilities

In March 2020, the Fed successfully backstopped bank deposits. It lent over \$50 billion to banks through the discount window and lowered its discount rate to 0.25%. ⁴² But stabilizing deposits was not enough to prevent a financial market meltdown.

^{*} Denominates programs based on facilities that the Fed operated previously.

^{41.} Perry Mehrling calls this quoting the "outside spread." Perry Mehrling, A Money View of Credit and Debt 10 (Nov. 18, 2012) (unpublished conference paper) https://perma.cc/V5MW-FDDE.

^{42.} See H.4.1, Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks, Bd. Governors Fed. Resv. Sys. (Mar. 26, 2020), https://perma.cc/V6FZ-FS4N (reflecting \$50.7 billion in primary credit outstanding as of March 25).

This Subpart considers six ad hoc liquidity programs that the Fed used to supplement its discount window lending: Repurchase Operations, Swap Lines, the Commercial Paper Funding Facility ("CPFF"), the Primary Dealer Credit Facility ("PDCF"), the MMF Liquidity Facility ("MMFLF"), and the Foreign and International Monetary Authority ("FIMA") Repo Facility. These facilities targeted (1) domestic shadow banks, especially securities broker dealers, MMFs, and finance companies like the lending arms of automobile companies, and (2) foreign entities without U.S. banking charters issuing dollar-denominated deposits and other demandable dollar debt.

1. Providing Liquidity to Shadow Banks to Backstop Deposit Substitutes

The Fed used Repurchase Operations, the CPFF, the PDCF, and the MMFLF to backstop domestic shadow banks and their deposit substitutes. Many domestic shadow banks issue a type of cash alternative known as a sale-and-repurchase agreement or "repo." Repos serve similar functions to deposits. In a repo, a party known as the cash provider "buys" a debt security from a "cash borrower," a shadow bank (a firm without a charter to issue deposits) or a bank (banks also participate in the repo market). The cash provider pays for the security using a commercial bank deposit. And both parties agree that the next day the cash borrower will buy back the debt security for a pre-arranged price and that any interest earned by the debt security in the interim will go to the cash borrower not the cash provider. The security is the collateral—it serves, as Professor Jeffrey Gordon puts it, as "self-help deposit insurance." In much the same way that each day bank depositors decide not to draw down their account and ask their bank for cash, most of the time, the cash provider in a repo transaction rolls over the arrangement.

When a cash provider decides to unwind a repo, the cash borrower must come up with a commercial bank deposit. The cash borrower, therefore, is in much the same position as a commercial bank that needs an FRB deposit to clear a payment at one of the FRBs. Whereas commercial banks have the fed funds market, dealers and other shadow banks have what is known as the "repo market"—the market for excess commercial bank deposits. The Fed formally stands behind the former, but not the latter.

Thousands of cash borrowers nonetheless use this market to finance their assets. The most important of them are securities broker-dealers, but hedge funds also borrow in this market. The main cash providers are MMFs and corporate treasurers, although banks, which can create deposits just like the FRBs can create reserves, and other dealers also participate. MMFs are investment companies registered with the Securities and Exchange Commission ("SEC"). MMFs issue shares to retail and institutional investors who would otherwise store their wealth in bank deposits. MMF shares are designed to trade at par with cash and offer daily liquidity. They are another form of

^{43.} Norman N. Bowsher, *Repurchase Agreements*, FED. RSRV. BANK ST. LOUIS REV. 17, 19 (1979), https://perma.cc/Q75Z-DTGE (explaining that "corporations and municipalities treat RPs as income-earning 'demand deposits'").

^{44.} See generally id.; MARCIA STIGUM, STIGUM'S MONEY MARKET 531-79 (2007).

^{45.} See Victoria Baklanova et al., Reference Guide to the U.S. Repo Market, Fed. Rsrv. Bank of N.Y. Staff Report No. 740 15-17 (2015).

deposit substitute.46

Figure 2: The Money Markets

	Federal Funds Market	Repo Market	Eurodollar Market
Monetary Instrument	Deposit Balances at the Fed	Deposit Balances at U.S. Banks	Deposit Balances at U.S. Banks
Primary Borrowers	Banks	Dealers	Foreign Banks, Foreign Dealers
Primary Lenders	Banks	Banks, Dealers, MMFs	Banks, Dealers, MMFs
Collateral	None	Government Debt Securities; Mortgage-Backed Securities	None

In the last three decades, repo markets have grown quite large. Although banks normally serve as back up lenders to these markets by lending deposits in the repo market (in much the same way that the FRBs lend reserves at the discount window), banks are motivated by profit (not public welfare) and sometimes the demand for cash will exceed the willingness of banks to supply it, driving borrowing costs up.⁴⁷ In a panic, cash providers often run on shadow banks, eager to replace their repo agreements with safer forms of inside money such as commercial bank deposits backed by the Fed through the discount window. (This is what happened to Bear Stearns and Lehman Brothers in 2008.)⁴⁸

The Fed has no explicit remit to support repo market rates. But the reality is that a large fraction of economic activity depends on these cash substitutes. It would be extraordinarily difficult for the Fed to prevent monetary contraction if it allowed shadow banks to collapse. Were shadow banks to fail, the money supply would shrink. Prices would plummet. Our complex economy, in which constantly adjusting price signals coordinate the economic activity of millions of people, would grind to a halt.⁴⁹

Thus, with the onset of the COVID-19 crisis, one of the first steps the Fed took was to offer 1.5 trillion dollars to backstop the repo market. This was an easy step to take

^{46.} See Jeffrey N. Gordon & Christopher M. Gandia, Money Market Funds Run Risk: Will Floating Net Asset Value Fix the Problem?, 2014 COLUM. BUS. L. REV. 313, 368.

^{47.} See MEHRLING, supra note 11, at 103-04.

^{48.} Lehman Brothers had over sixty repo "depositors" in August 2008 with balances exceeding \$150 billion. Two weeks later it had less than ten depositors with balances less than \$50 billion. See FIN. STABILITY OVERSIGHT COUNCIL, 2011 ANNUAL REPORT 95 (2011) (depicting the run on Lehman's repo funding in September 2008 in charts 5.3.19 and 5.3.20).

^{49.} Indeed, something like this happened in the 1930s when the Fed let a bloated shadow banking sector collapse. *See* MEHRLING, *supra* note 11, at 41-43. In 1932, some members of Congress hoped that the addition of section 13(3) would prompt the Fed to backstop nonmember banks and shadow banks. *See* Sastry, *supra* note 9, at 25-57. It did not. *Id*.

^{50.} Statement, Fed. Rsrv. Bank of New York, Statement Regarding Treasury Reserve

for two reasons. First, prior to the 2008 financial crisis, the Fed routinely used small-scale repo operations with primary dealers to adjust the level of reserves in the banking system as part of its ordinary monetary policy implementation. Second, when the 2020 financial crisis hit, the Fed was already conducting scaled-up repo operations designed to suppress repo rates. These efforts began on September 17, 2019, after the cost of borrowing commercial bank deposits overnight in the repo market spiked eight points above the federal funds rate (for reasons that were unclear at the time and remain murky today).⁵¹

The Fed's repo operations provide an ersatz discount window for dealers. The way they work is the Fed itself enters into sale-and-repurchase agreements as a cash provider to 24 SEC-registered broker-dealers known as "primary dealers." The primary dealers are not banks, nor do they have accounts at the FRBs. They are selected by the New York Fed as counterparties for its purchases and sales of government securities. The Fed lends to them not just to backstop their balance sheets, but also so that they can on-lend to thousands of other dealers and repo market participants. The sale of the

On March 17, the Fed dialed up its support for dealers and other repo market participants by establishing the PDCF. The PDCF lends against a wider set of collateral, not just government securities, for a term of up to 90 days. PDCF loans carry the same interest rate offered to banks via the discount window.⁵⁴ The Fed also announced

Management Purchases and Repurchase Operations (Mar 12. 2020), https://perma.cc/G3LW-9WVV.

^{51.} Statement, Fed. Rsrv. Bank of New York, Statement Regarding Repurchase Operation (Sept. 17, 2019), https://perma.cc/HHY9-MUCT (announcing a \$75 billion operation). The Fed's announcements state that its operations, which began in September, were designed "to help maintain the federal funds rate within the target range." But the federal funds rate quickly settled into range, and the scale of repo operations continued to expand. The Federal Open Market Committee ("FOMC") could have achieved its goal of stabilizing the fed funds rate through outright purchases or by lowering the discount rate at the discount window. Remarks by Fed officials suggest their goal was to suppress repo rates. See Lorie Logan, Manager of the Sys. Open Mrkt. Account, Remarks at the Annual Primary Dealer Meeting: Money Market Developments: Views from the Desk (Nov. 4, 2019), https://perma.cc/42FE-FT39 ("The repo operations ... have been effective at restoring calm in money markets and maintaining control over the federal funds rate. Overnight and term money market rates have moderated, on average, relative to [Interest on Excess Reserves ("IOER")], and the effective federal funds rate has stayed well within the FOMC's target range. Participation in the repo operations has been robust and the transmission to the broader money markets has been good.... On October 23, the Desk announced an increase in the amount offered in overnight repo operations from at least \$75 billion to at least \$120 billion. . . . This increased capacity was supportive to money markets.").

^{52.} Purposes & Functions, *supra* note 26, at 41. For a history of the primary dealer system, see Kenneth D. Garbade, The Early Years of the Primary Dealer System, Fed. Rsrv. Bank of N.Y. Staff Reports No. 777 (2016).

^{53.} Logan, *supra* note 51 (noting that the "transition to the broader money markets has been good"); Victoria Guida, *Fed's push into funding markets stirs fears of widening role*, POLITICO (Nov. 15, 2019, 1:03 PM), https://perma.cc/XKP4-FX63 (quoting Bill Nelson, former deputy director of the Fed's division of monetary affairs, "you definitely get the sense that the Fed now sees itself as responsible for the level of repo rates").

^{54.} Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve, Federal Reserve Board Announces Establishment of a Primary Dealer Credit Facility (PDCF) to Support

that it would backstop the \$1 trillion commercial paper ("CP") market by opening the CPFF. CP is a short-term debt obligation—like a time deposit for between one week and three months. CP is issued primarily by banks and financial companies that originate consumer loans, including non-bank financial companies.⁵⁵ CP is primarily owned by MMFs, large companies, and institutional investors. The CP market is vulnerable to runs just like the repo market, and a run on CP destabilizes the repo market by undermining the solvency of repo market participants.⁵⁶

Among the repo market participants most threatened by instability in the CP market are MMFs. For example, the failure of the Reserve Primary Fund—one of the oldest and largest MMFs—in 2008 was prompted by Lehman's default on its CP. MMFs are vulnerable to runs because they also create a form of money designed to trade at par with cash. And since MMF shares are backed only by the assets in the MMF, even the prospect of a default on one of these assets can shatter that expectation. Earlier this year, fears that falling asset prices might cause MMFs to "break the buck" led to a spike in redemptions.⁵⁷ On March 18, the Fed established the MMFLF to squelch this run. The MMFLF lends money to banks to on-lend to MMFs.⁵⁸

Figure 3: A Closer Look at the Ad Hoc Liquidity Facilities

Fodoral	Reserve	Crisis	Resnance:	Liquidity	Facilities

Cacial Neseric Strain Nesponse, Square, Families						
Date	Facility	Underwriter	Credit Risk	Risk Level		
3/12	Repurchase Operations	FRBNY	Federal Reserve	None		
3/15; 3/19	Swap Lines	FRBNY	Federal Reserve	Low		
3/17	Commercial Paper Funding Facility (CPFF)	FRBNY (+ State Street)	Treasury (first \$10 billion)	Moderate		
3/17	Primary Dealer Credit Facility (PDCF)	FRBNY	Federal Reserve	Low		
3/18	MMF Liquidity Facility (MMFLF)	FRB Boston (+ Depository Institutions)	Treasury (first \$10 billion)	Moderate		
3/31	Foreign and International Monetary Authorities (FIMA) Repo Facility	FRBNY	Federal Reserve	None		

Operationally, for the repo facility and the PDCF, the Fed underwrote its loans

the Credit Needs of Households and Businesses (Mar. 17, 2020), https://perma.cc/2PS6-497E.

^{55.} Lance Pan, Cap. Advisors Grp., A Decade of the Commercial Paper Market and Its Role in Institutional Liquidity Portfolios 6 (2018) (listing the top five issuers as Toronto Dominion Bank, Toyota Motor Credit Corporation, ING Financial Services, J.P. Morgan Chase, and National Australia Bank).

^{56.} The Fed's interventions are supporting both the borrowers and the lenders in these markets.

^{57.} Tim McLaughlin, Exclusive: Goldman Injects \$1 Billion into Own Money-market Funds After Heavy Withdrawals, REUTERS (Mar. 21, 2020, 1:09 PM), https://perma.cc/YN8S-Z9UH.

^{58.} Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve, Federal Reserve Board Broadens Program of Support for the Flow of Credit to Households and Businesses by Establishing a Money Market Mutual Fund Liquidity Facility (MMLF) (Mar. 18, 2020), https://perma.cc/59SF-2R9J; Peter Eavis, Why We Are Once Again Rescuing a 'Safe' Investment, N.Y. TIMES (Mar. 19, 2020), https://perma.cc/MC8A-S7Z5.

directly without any outside equity investment to absorb potential losses. The Fed has longstanding relationships with the primary dealers and insight in their solvency. The risk of loss was de minimis. The CPFF and MMFLF involved more risk. To reduce the Fed's exposure to that risk, the Treasury Department invested \$10 billion from its ESF in each to serve as an equity cushion. The Fed recruited banks and primary dealers to originate MMFLF loans so that the Fed would not have to take on new counterparties, and the Fed hired PIMCO and State Street to help it administer the CPFF. Even before many of these facilities started lending, they achieved their goal: repo markets, CP markets, and MMFs stabilized as the holders of deposit substitutes recognized that their shadow banks could turn to the Fed to exchange their financial assets for cash if needed.

2. Providing Liquidity to Foreign Central Banks to Backstop Deposit Substitutes

The Fed opened another two facilities—swap lines and the FIMA repo facility—to stabilize the overseas dollar funding market known as the eurodollar market. Eurodollars—which have nothing to do with euros, the currency—are short-term debt denominated in dollars. Like CP, a repurchase agreement, or a money fund share, a eurodollar is an agreement in which one party, the issuer, is on the hook to pay the other party dollars on demand or within a short period of time. The simplest type of eurodollar is a dollar deposit, a bank account denominated in dollars, maintained by a bank outside of the United States. Today, financial institutions all around the world, including foreign nonbanks like insurance companies, issue eurodollars in various forms including as repurchase agreements.

Eurodollars are an arbitrage—a way of issuing dollar money instruments without complying with U.S. laws governing dollar deposits.⁶³ They are not authorized by the

^{59.} Eric Platt, Fed Taps Pimco and State Street for Funding Programme, FIN. TIMES (Apr. 3, 2020), https://perma.cc/L65D-3ZUB.

^{60.} The name derives from one of the banks that pioneered the practice of maintaining dollar-denominated deposit balances without a U.S. banking charter: the Paris-based, Sovietowned Banque Commerciale pour L'Europe du Nord known as "Eurobank." Anthony Sampson, The Money Lenders: Bankers and a World in Turmoil. 109 (1982). See also Charles A. E. Goodhart, The Basel Committee on Banking Supervision: A History of the Early Years 1974-1997 29 (2011); Joseph G. Kvasnicka, Eurodollars—An Important Source of Funds for American Banks, Bus. Conditions 9, 10 n.2 (June 1969).

^{61.} Stephen A. Fowler, *The Monetary Fifth Column: The Eurodollar Threat*, 47 VAND. J. TRANSNAT'L L. 825, 830 (2014) (defining eurodollars as "dollar-denominated time deposit liabilities of non-U.S. institutions"). *See also* Stigum, *supra* note 44, at 199; Ronald David Greenberg, *The Eurodollar Market: The Case for Disclosure*, 71 CALIF. L. REV. 1492, 1493 (1983); Milton Friedman, *The Euro-Dollar Market: Some First Principles*, MORGAN GUARANTY SURV. (Oct. 1969).

^{62.} See, e.g., Inaki Aldasoro & Torsten Ehlers, The Geography of Dollar Funding of Non-US Banks, BIS Q. Rev., Dec. 2018, at 21.

^{63.} The first overseas dollar deposits were used by the Chinese and Soviet governments to evade U.S. sanctions and legal process. The market grew as a way to skirt U.S. restrictions on bank balance sheets, interest rate controls, deposit insurance requirements, and U.S. taxes. See Paul Einzig, The Euro-Dollar System (1970).

U.S. government, nor are they insured by the Federal Deposit Insurance Corporation ("FDIC"). Often, the firms that issue eurodollars do not have access to the discount window. When the customers of these firms demand dollars, these firms typically draw down bank accounts that they maintain with banks in the U.S. (institutions that do have access to the discount window). When these firms run through their correspondent accounts (their own U.S. commercial bank deposits), they borrow from other financial institutions with positive balances in what is known as the eurodollar market. 65

In a crisis, asset prices fall, and asset owners need cash. Rates in eurodollar markets rise because foreign banks do not have enough dollar reserves at U.S. banks to satisfy the demand for dollars from their eurodollar account holders. The only place these banks can turn is their own central bank, but unlike the Federal Reserve these banks cannot create dollars out of thin air. They are limited by the balances they hold in their own accounts at the Federal Reserve (foreign central banks have accounts at the Federal Reserve just like domestic member banks). Most of these central banks carry minimal balances in their accounts. Instead, they hold "reserves" of dollars in the form of U.S. treasury securities. So, when their banks come calling for dollars, they are forced to sell U.S. treasury securities to raise dollar deposit balances to lend to their banks.

Rapid forced selling of treasury securities can damage the United States and its domestic capital markets, especially during a credit crunch when few actors can buy the securities being sold.⁶⁷ The Fed was not designed to backstop foreign central banks or foreign banks issuing dollar deposits because, as mentioned, its architects assumed that only domestic banks would engage in this sort of activity. To support eurodollar markets, however, the Fed resorts to an ersatz discount window for foreign central banks it calls a "swap line." It first started using swap lines in the 1960s, on a small scale. But eurodollar markets grew so big in the decades that followed, that in 2008 it lent hundreds of billions of dollars through swaps to backstop foreign firms issuing dollars.

The way these swaps work is that the Fed lends dollars to a foreign central bank by increasing that bank's account balance at the Fed (creating new money out of thin air). In exchange for raising its balance at the Fed, the foreign central bank credits an account that the Fed maintains on its books. The banks swap: The Fed creates dollars in exchange for foreign currency.

These swaps are not well secured. After the Fed increases the account balance of

^{64.} Sometimes banks are able to settle dollar balances entirely overseas.

^{65.} Marvin Goodfriend, *The Nature of the Eurodollar, in* Instruments of the Money Market 51 (Timothy Q. Cook & Robert K Laroche eds., 1998).

^{66.} See 12 U.S.C. § 358.

^{67.} In March, forced selling surpassed 2008. See Sissoko, supra note 7.

^{68.} See infra Part III(B); see also Robert N. McCauley & Catherine R. Schenk, Central Bank Swaps Then and Now: Swaps and Dollar Liquidity in the 1960s (Bank for Int'l Settlements, Monetary & Econ. Dep't Working Papers, Paper No. 851, 2020).

^{69.} McCauley & Schenk, supra note 68, at 11.

^{70.} See TOOZE, supra note 1, at 215-16.

the foreign central bank, the foreign central bank lends that money to its own banking system. If all goes well, at some point in the future the foreign central bank repays the Fed by replenishing its account. If things go badly, all the Fed has is an account balance at the foreign central bank—nothing more than a promise to pay foreign currency in a foreign country. Unsurprisingly, then, the Fed is selective about its swap counterparties. In September 2008, it opened swap lines with five central banks (known as the C5): The Bank of England, the European Central Bank ("ECB"), the Bank of Japan, the Bank of Canada, and the Swiss National Bank. (These lines remain in place today.) In October 2008, the Fed added temporary lines with Australia, Sweden, Norway, Denmark, New Zealand, Brazil, Mexico, South Korea, and Singapore.⁷¹

On March 15, 2020, the Fed lowered the pricing on its C5 swap lines—how much interest foreign central banks must pay—by 25 basis points (1/4 of one percent).⁷² On March 19, it added lines with the nine other central banks from 2008.⁷³ But foreign selling continued. The eurodollar markets in 2020 were broader than they had been in 2008. Helping the same fourteen central banks was no longer enough to staunch overseas selling of treasury securities.⁷⁴ Accordingly, on March 31 the Fed established a new program: the FIMA repo facility.⁷⁵ The FIMA repo facility does not swap currencies. It enters into purchase-and-sale agreements like the ones the Fed conducts with the primary dealers to lend dollars in exchange for collateral in the form of U.S. treasury securities. If the recipients of FIMA loans do not or cannot pay the Fed back, the Fed is fully secured by U.S. government debt.⁷⁶

3. Acting as a "Modern Lender of Last Resort"

These seven liquidity facilities extend the Fed's classic "lender of last resort" function to the shadow banking system.⁷⁷ While the Fed lacks the tools to control the

^{71.} Michael J. Fleming & Nicholas J. Klagge, *The Federal Reserve's Foreign Exchange Swap Lines*, Current Issues Econ. & Fin., Apr. 2010, at 3.

^{72.} Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Coordinated Central Bank Action to Enhance the Provision of U.S. Dollar Liquidity (Mar. 15, 2020), https://perma.cc/5C2V-C7JA.

^{73.} Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve Announces the Establishment of Temporary U.S. Dollar Liquidity Arrangements with Other Central Banks (Mar. 19, 2020), https://perma.cc/6SRH-AQSQ.

^{74.} Aldasoro & Ehlers, *supra* note 62, at 20 (showing non-European, non-U.S. bank dollar liabilities growing from around \$1 trillion in 2008 to over \$3 trillion in 2018 while U.S. dollar liabilities of European banks remained constant at \$3 trillion).

^{75.} Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve Announces Establishment of a Temporary FIMA Repo Facility to Help Support the Smooth Functioning of Financial Markets (Mar. 31, 2020), https://perma.cc/ GJ7V-MMLH.

^{76.} The FIMA repo facility is only open to foreign central banks that hold their treasury securities with the Federal Reserve Bank of New York. For more information about the New York Fed's custody services, see https://perma.cc/TQL2-CS3G.

^{77.} Perry Mehrling calls this acting as a "dealer of last resort" because when the Fed operates these facilities it is dealing in the securities that this system uses as collateral—it is back-stopping capital market lending as opposed to bank lending, securities as opposed to loans. Mehrling, supra note 11, at 10 ("The main lesson is that a modern money view

expansion and contraction of shadow bank balance sheets in normal times, it is relatively well-equipped to backstop them in a crisis.⁷⁸ Its experience standing up multiple ersatz discount windows in 2008 meant that it was able to react quickly. Its facilities also involve minimal credit risk and are highly scalable: a relatively small amount of lending can prop up giant markets. Once the Fed announces that it will backstop a promise to pay dollars, those promises—whether structured as repurchase agreements or eurodollars—are as good as dollars. Oftentimes, that is all it takes to stop a run.⁷⁹

C. The Ad Hoc Credit Facilities

The Fed's ten credit facilities are different animals. These programs—the Term Asset-Backed Securities Loan Facility ("TALF"), the Municipal Liquidity Facility ("MLF"), the Primary Market Corporate Credit Facility ("PMCCF"), the Secondary Market Corporate Credit Facility ("SMCCF"), the Main Street New Loan Facility ("MSNLF"), the Main Street Expanded Loan Facility ("MSELF"), the Main Street Priority Loan Facility ("MSPLF"), the Nonprofit Organization New Loan Facility ("NONLF"), the Nonprofit Organization Expanded Loan Facility ("NOELF"), and the Paycheck Protection Program Liquidity Facility ("PPPLF")—extend credit (1) to owners of asset-backed securities ("ABS") by taking ABS as collateral; (2) to municipalities by buying bonds in the primary market; (3) to large corporations by lending and buying bonds in primary and secondary markets; and (4) to medium-sized enterprises by lending through the banking system. Whereas the Fed's lender of last resort and modern lender of last resort programs backstop money markets—meaning they stabilize the value of deposits and deposit substitutes (ensuring that these private moneys trade at par with cash)—the Fed's credit facilities have little to do with money markets. These facilities are not designed to preserve existing credit arrangements by preventing fire sales and runs on financial institutions. They are designed to support markets for certain financial assets.

requires updating Bagehot's conception of the central bank as a 'lender of last resort.' Under the condition of the New Lombard Street, the central bank is better conceptualized as a 'dealer of last resort.'").

^{78.} Kate Judge, Paul Tucker, and others have studied how to "modernize" the lender of last resort framework for shadow banks. As Professor Mehrling explains, the "Fed now recognizes that, for our market-based credit system, it must remake itself as dealer of last resort." MEHRLING, *supra* note 11, at 135. Mehrling also uses the word "modern." *Id.* at 107.

^{79.} The Bank of England discovered this dynamic in 1847 when the British government agreed to advance a bill in Parliament that would authorize the Bank to expand its balance sheet. That news ended a crippling panic within hours and made passing the bill unnecessary. See Curzio Giannini, The Age of Central Banks 87 (2011). As Curzio Giannini explains, "The experience [with the bank bill in 1847] provided irrefutable proof that [bank] panics could be overcome even without a sharp increase in [the base] money supply, provided prompt and firm action were taken to restore market confidence." Id. at 88.

Figure 4: A Closer Look at the Ad Hoc Credit Facilities

Federal Reserve Crisis Response: Lending Facilities

Date	Facility	Underwriter	Credit Risk	Risk Level
3/23	Term Asset-Backed Securities Loan Facility (TALF)	FRBNY (+ Qualifying Dealers)	Treasury (first \$10 billion; 10:1 leverage)	Moderate
3/23	Primary Market Corporate Credit Facility (PMCCF)	FRBNY (+ Blackrock)	Treasury (first \$50 billion; 10:1 leverage)	Moderate
3/23	Secondary Market Corporate Credit Facility (SMCCF)	FRBNY (+ Blackrock)	Treasury (first \$25 billion; 10:1 leverage)	Moderate
4/9	PPP Liquidity Facility (PPPLF)	All FRBS (+ Depository Institutions)	Guaranteed by SBA	None
4/9	Municipal Liquidity Facility (MLF)	FRBNY (+ PFM Financial Advisors)	Treasury (first \$35 billion; 12:1 leverage)	Moderate
4/9; 4/30; 6/15	Main Street New Loan Facility (MSNLF); Main Street Expanded Loan Facility (MSELF); Main Street Priority Loan Facility (MSPLF); Nonprofit New Loan Facility (NOLF) & Nonprofit Expanded Loan Facility (NOELF)	FRB Boston (+ Depository Institutions)	Treasury (first \$75 billion; 7:1 leverage) + Depository Institutions retain 5-15% skin- in-the-game	High

1. Extending Credit to Owners of Asset-Backed Securities

The first credit facility the Fed announced in 2020 was the TALF, a program which it invented in 2008 and in which the Treasury Secretary invested \$10 billion to absorb potential losses. The Fed authorized the TALF to lend up to \$100 billion to financial and nonfinancial firms against highly rated, dollar denominated ABS where the underlying credit exposures are things like auto loans, student loans, and credit card receivables. Although some of these firms may issue CP, and hence the facility may in some cases serve a similar function to the liquidity facilities described above, the main purpose of the TALF is not to quell runs on money claims, but to juice ABS markets. As Ben Bernanke explained of TALF 1.0, the program "substitute[s] public for private balance sheet capacity . . . to lower rates and [prompt] greater availability of consumer and small business credit."

2. Extending Credit to Large Corporations

On March 23, the Fed announced two credit facilities to extend up to \$750 billion of credit to large corporations: the PMCCF and SMCCF. It authorized the PMCCF to

^{80.} Term Asset Backed Securities Loan Facility, BD. GOVERNORS FED. RSRV. SYS. (Mar. 23, 2020), https://perma.cc/6KZD-AH9U. Initially, the investment was to come from core ESF funds but after the CARES Act took effect, the Treasury announced it would instead fund its equity investment in the TALF using CARES Act appropriations. Term Asset Backed Securities Loan Facility, BD. GOVERNORS FED. RSRV. SYS. (May 23, 2020), https://perma.cc/4HNK-YRWM.

^{81.} Term Asset Backed Securities Loan Facility, BD. GOVERNORS FED. RSRV. SYS. (Mar. 23, 2020), https://perma.cc/6KZD-AH9U.

^{82.} Ben Bernanke, Chairman, Fed. Rsrv., Stamp Lecture at the London School of Economics: The Crisis and the Policy Response (Jan. 13, 2009), https://perma.cc/QDU6-G5GU.

buy bonds issued by investment-grade U.S. companies headquartered in the U.S. with material U.S. operations and portions of syndicated loans that mature in four years or less.⁸³ It authorized the SMCCF to augment these efforts by purchasing bonds on the secondary market.⁸⁴ It subsequently authorized the SMCCF to purchase bond ETFs including ones invested in high yield (aka "junk") bonds.⁸⁵ To absorb potential losses, the Treasury committed \$75 billion from the CARES Act.⁸⁶ The Fed hired Blackrock to help manage the facilities.⁸⁷

As discussed further herein, the PMCCF, which was designed to lend only upon application and charge a 100-basis point facility fee, did not purchase any bonds or loans before it was discontinued in December 2020. By contrast, the SMCCF bought over one thousand bonds and 16 ETFs at market prices. These acquisitions totaled \$13.5 billion and remain on the Fed's books, even though the SMCCF's purchasing authority expired at the end of 2020.

The SMCCF also functioned quite differently from the PMCCF in another way. Since it bought securities on the open market, it did not extend credit directly to any borrowers. As the Fed put it, the SMCCF "support[ed] credit to employers by providing liquidity to the market for outstanding corporate bonds." A large point of the SMCCF, in other words, was to lower the cost and reduce the time for market participants to trade in size without moving the price. Many of the program's immediate beneficiaries were market makers in corporate bonds and existing owners of corporate bonds, especially those looking to buy or sell them. But this liquidity function, does not make the SMCCF a "liquidity facility" in the sense described above. The liquidity facilities defined in the previous section provide firms with *funding* liquidity—they allow eligible borrowers (those that issue money claims) to shore up the liability sides of their balance sheets. Like the TALF, the SMCCF enhanced liquidity in a *market* by serving as a buyer of last resort for certain assets. Although market liquidity can be a function of funding liquidity (because runs on dealers prevent them from being able

^{83.} Primary Market Corporate Credit Facility, BD. GOVERNORS FED. RSRV. SYS. (Mar. 23, 2020), https://perma.cc/JWK4-7XFH.

^{84.} Secondary Market Corporate Credit Facility, Bd. Governors Fed. Rsrv. Sys. (Mar. 23, 2020), https://perma.cc/JWK4-7XFH.

^{85.} Secondary Market Corporate Credit Facility, Bd. Governors Fed. Rsrv. Sys. (Apr. 9, 2020), https://perma.cc/JWK4-7XFH.

^{86.} It is worth noting that unlike state and local governments, large corporations can access equity markets and for much of 2020 equity valuations were at all-time highs.

^{87.} Matthew Goldstein, *The Fed Asks Blackrock for Help in an Echo of 2008*, N.Y. TIMES (Mar. 25, 2020), https://perma.cc/N8K3-FEVZ. The Fed has not extended credit to nonfinancial businesses since the 1950s. *See infra* note 119. Nor does the Fed still conduct monetary policy by lending routinely to banks against corporate credit as collateral. Accordingly, it has little in-house capacity to evaluate loan applications or corporate bond investments. In terms of their credit capabilities, today's FRBs are much more like government agencies than operational banks.

^{88.} Secondary Market Corporate Credit Facility, Bd. Governors Fed. Rsrv. Sys. (Mar. 23, 2020), https://perma.cc/JWK4-7XFH.

^{89.} Cf. Markus K. Brunnermeier & Lasse Heje Pedersen, Market Liquidity and Funding Liquidity, 22 Rev. OF FIN. STUD. 2201 (2009) (distinguishing between market liquidity and funding liquidity).

to intermediate capital markets), restoring market liquidity by directly acting as a dealer is very different from restoring market liquidity by providing funding liquidity to dealers; the former is not a monetary function.⁹⁰

Action Duration Eligibility **Pricing** Date PM First Term Sheet <4 years issuer specific + 100 bps facility fee Corporate bonds and loans rated IG as of March 22, 2020 (at minimum) 4/9 SM First Term Sheet <5 years Corporate bonds rated IG as of Fair market value March 22, 2020 (at minimum) 6/15 **SM Second Term Sheet** <5 years Corporate bonds rated IG as of Fair market value (expands eligible beneficiaries) March 22, 2020 (at minimum) and IG + HY corporate bond ETFs 6/29 PM Second Term Sheet <4 years Corporate bonds and loans rated IG Issuer specific + 100 bps facility fee (tightens pricing) as of March 22, 2020 (at minimum) + subject to minimum spreads of comparable maturity Treasuries

Figure 5: Evolving Terms of the CCFs

3. Extending Credit to Municipalities

On April 9, the Fed established the MLF to purchase up to \$500 billion of short-term debt issued by states, cities with a population exceeding one million residents, and counties with a population exceeding two million residents. On April 27, the Fed lowered the population threshold to 500,000 for counties and 250,000 for cities and extended eligible duration from two years to three. In June, the Fed authorized additional designated issuers to participate. The Treasury Department committed \$35 billion of CARES Act money to absorb potential losses.

^{90.} That does not mean that the SMCCF did not have an indirect monetary function (or motive). During March, uncertainty about the value of the assets on shadow bank balance sheets fueled the run of these firms. The main way the Fed stopped the run was by lending directly to these firms. See supra. But another way the Fed stopped the run was by putting a floor on the value of shadow banks' assets—indirectly assuaging fears in the market that shadow banks could become insolvent. In this regard, both the SMCCF and the MLF, discussed infra, were creative (highly unorthodox) means of achieving the Section 2 mandate.

^{91.} Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve Takes Additional Actions to Provide Up to \$2.3 Trillion in Loans to Support Economy (Apr. 9, 2020), https://perma.cc/XC49-YVMJ; Municipal Liquidity Facility, Bd. Governors Fed. Rsrv. Sys., https://perma.cc/U99T-YU33 (archived Oct. 26, 2020).

^{92.} For related press releases and term sheets, see *Municipal Liquidity Facility*, BD. GOVERNORS FED. RSRV. Sys., https://perma.cc/L4PN-WUEV (archived Jan. 30, 2021). On May 10, Bob Hockett released a memorandum suggesting ways the Fed could improve the MLF including by extending duration, easing lending terms, and expanding access. *The Fed's Municipal Liquidity Facility: Present & Future Possibilities & Necessities* (May 10, 2020), https://perma.cc/57MJ-X5RL. *See also* Hockett, *supra* note 9, at 20 (arguing that the MLF should operate out of all the FRBs).

^{93.} Municipal Liquidity Facility, supra note 91.

		0	3	
Date	Action	Duration	Eligibility	Pricing
4/9	First Term Sheet	<2 years	States, cities > 1 million, and counties > 2 million	Details TBD + 10 bps origination fee
4/27	Second Term Sheet (expands eligible borrowers)	<3 years	States, cities > 250,000, and counties > 500,000; at least rated IG as of April 8, 2020	Details TBD + 10 bps origination fee
5/11	Third Term Sheet (extends duration)	<3 years	States, cities > 250,000, and counties > 500,000; at least rated IG as of April 8, 2020	10 bps origination fee + comparable maturity OIS + spread of 150 bps for AAA, 250 bps for A, and 380 bps for BBB-
6/3	Fourth Term Sheet (adds eligible borrowers)	<3 years	States, cities > 250,000, counties > 500,000, designated counties, and designated revenue bonds; at least rated IG as of April 8, 2020	10 bps origination fee + comparable maturity OIS + spread of 150 bps for AAA, 250 bps for A, and 380 bps for BBB-
8/11	Fifth Term Sheet (drops pricing by 50 bps)	<3 years	States, cities > 250,000, counties > 500,000, designated counties, and designated revenue bonds; at least rated IG as of April 8, 2020	10 bps origination fee + comparable maturity OIS + spread of 100 bps for AAA, 200 bps for A, and 330 bps for BBB-

Figure 6: Evolving Terms of the MLF

The Fed has long had the authority to buy short-term municipal debt securities outright. Has not used this authority since 1933. Unlike Treasury securities, municipal debt carries credit risk. In some cases that risk is substantial. Accordingly, municipal debt is difficult to price and to purchase. Moreover, while credit rating agencies evaluate municipal bonds, their ratings are of limited use during a crisis. Determining a fair price to pay for municipal debt requires a review of local conditions including data relating to tax revenues and other indebtedness. Such analysis is challenging for market participants in the best of times.

This challenge may be part of the reason why the MLF set high interest rates.97

^{94. 12} U.S.C. § 355.

^{95.} See 43 Fed. Reg. 53,708 (Nov. 11, 1978). For a comprehensive overview of the Fed's municipal bond purchases from its founding to March 31, 1932, see Municipal Warrants Purchased by Federal Reserve Banks (Apr. 29, 1932), https://perma.cc/LW2N-BC8K. These purchases total \$219,943,000 and are concentrated between 1915 and 1917 (in the latter year the Board told the FRBs that it was "inadvisable for them to invest...in [municipal] warrants") and in 1931 and 1932 (when the FRBs resumed purchasing municipal warrants in size to "accommodate member banks" under stress). Id.

^{96.} See Jeanna Smialek, Why State and Local Debt is Fraught Territory for the Fed, N.Y. TIMES (Apr. 1, 2020), https://perma.cc/M37E-2ZPA.

^{97. &}quot;Regulation A" currently requires the Fed to charge penalty rates. See 12 C.F.R. § 201.4(c)(7)(ii) (2020) (requiring that the Board set rates "at a penalty level" that is at "a premium to the market rate in normal circumstances[,] . . . [e]ncourages repayment, and discourages use . . . as . . . economic conditions normalize"). The Board self-imposed this requirement in 2015. 80 Fed. Reg. 78,960 (Dec. 18, 2015) (codified at 12 C.F.R § 201.4(c)(7)(ii)). Section 14(d) of the FRA empowers the Board to establish "rates of discount," including rates on 13(3) loans, to accommodate commerce and business at whatever levels it deems appropriate. See 12 U.S.C. § 357; see also Raichle v. Fed. Rsrv. Bank of N.Y., 34 F.2d 910, 915 (2d Cir. 1929) ("It would be an unthinkable burden upon any banking system if its . . . discount rates were to be subject to judicial review.").

The last MLF term sheet, released in August, quoted a 10-basis point origination fee plus a 100-basis point spread over the comparable maturity Overnight Index Swap ("OIS") rate for AAA-rated borrowers and a 330-basis point spread for BBB- borrowers. Most municipalities at that time were able to access substantially cheaper financing in private markets. As a result, the Fed only purchased municipal bonds from two issuers.

4. Extending Credit to Medium-Sized Enterprises

The CARES Act opened the door to six new facilities targeted at enterprises without credit ratings or access to the capital markets: five known as the Main Street Lending Program (the MSNLF, MSELF, MPLF, NONLF, NOELF) and the PPPLF, which supports a CARES Act program run by the Small Business Administration ("SBA"). Unlike the CCFs, the five Main Street facilities were designed to invest in small- and medium-sized enterprises, a task made more challenging because many of these organizations lack the inhouse legal and accounting expertise to apply for and negotiate loan agreements. The Fed used banks to underwrite, originate, and service these loans. They were available to U.S. businesses with up to 15,000 employees or up to \$5 billion in 2019 annual revenues (subject to a variety of further limitations including leverage limits of between four and six times 2019 adjusted earnings).98 Borrowers were required to certify compliance with applicable regulations, including restrictions on executive compensation, stock repurchase plans, and capital distribution restrictions, and attest that they need financing due to the exigent circumstances presented by the COVID-19 pandemic. Banks retained 5% of Main Street loans on their own balance sheets as skin-in-the-game (for the priority facility, which lent to more leveraged borrowers, banks retained 15%). The Treasury Department committed \$75 billion from its CARES Act appropriation to absorb potential losses.⁹⁹

^{98.} See Fed. RSRV., Main Street New Loan Facility 1-2 (2020), https://perma.cc/GEV7-2RPM; Fed. RSRV., Main Street Expanded Loan Facility (2020), https://perma.cc/4YRT-VBEH.

Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve Takes Additional Actions to Provide Up to \$2.3 Trillion in Loans to Support Economy (Apr. 9, 2020), https://perma.cc/XC49-YVMJ.

Figure 7: Evolving Terms of the MSLP

Evolving Terms of the Credit Facilities: Main Street Programs

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Date	Action	Duration	Eligibility	Pricing
4/9	NLF + ELF First Term Sheets	4 years	<10,000 employees; <\$2.5 bn in 2019 revenues; loans from \$1 mm - \$25 mm for NLF, \$150 mm for ELF but limited to 4x adjusted 2019 EBITDA and 6x for ELF	100 bps facility fee + SOFR + spread of 250-400 bps
4/30	NLF + ELF Second Term Sheets (expand eligibility to larger businesses and both larger and smaller loans; adjust pricing)	4 years	<15,000 employees; <\$5 bn in 2019 revenues; loans from \$0.5 mm - \$25 mm for NLF and \$200 mm for ELF but limited to 4x adjusted 2019 EBITDA for NLF and 6x for ELF	100 bps facility fee + LIBOR + spread of 300bps
4/30	PLF First Term Sheet	4 years	<15,000 employees; <\$5 bn in 2019 revenues; loans from \$0.5 mm - \$25 mm but limited to 6x adjusted 2019 EBITDA	100 bps facility fee + LIBOR + spread of 300bps
6/8	NLF + ELF Third Term Sheets (extend duration; expand eligibility to smaller and larger loans)	5 years	<15,000 employees; <\$5 bn in 2019 revenues; loans from \$0.25 -\$35 mm for NLF and \$10 - \$300 mm for ELF but limited to 4x adjusted 2019 EBITDA for NLF and 6x for ELF	100 bps facility fee + LIBOR + spread of 300bps
6/8	PLF Second Term Sheet (extend duration; expand eligibility to smaller and larger loans)	5 years	<15,000 employees; <\$5 bn in 2019 revenues; loans from \$0.25 mm – \$50 mm but limited to 6x adjusted 2019 EBITDA	100 bps facility fee + LIBOR + spread of 300bps
6/15	NONLF + NOELF First Term Sheets	5 years	50-15,000 employees; < 5bn in 2019 revenues; up to \$35 mm for NLF and \$300 mm for ELF	100 bps facility fee + LIBOR + spread of 300bps
7/17	NONLF + NOELF Second Term Sheets (eligibility criteria shifted to favor smaller borrowers)	5 years	>10 employees; either <15,000 employees or <\$5 bn 2019 revenues; endowment <\$3 bn; \$0.25 mm - \$35 for NLF, \$10 - \$300 for ELF	100 bps facility fee + LIBOR + spread of 300bps

The PPPLF is a bit different. The Fed takes no credit risk. The SBA guarantees PPP loans, which are really more like conditional grants. ¹⁰⁰ Banks originate them, and the Fed's facility buys them from the banks—exchanging the loans for dollars which the banks can then use to make other loans. The banks continue to service the loans, but they no longer hold them on their balance sheets. ¹⁰¹

Like the MLF, the Main Street programs charged a high interest rate: a 1% facility fee and 3% spread over LIBOR. They also required (profit-seeking) banks to retain skin-in-the-game. Accordingly, take-up was relatively limited. Overall, the Fed purchased around 1,800 loans totaling \$16.5 billion, a fraction of the program's \$500 capacity. By contrast, the PPPLF made over 10,000 advances to over 500 banks totaling over \$70 billion over the same period and the PPP program itself lent over \$650 billion. 102

See George Selgin, The Fed-Treasury Relationship, New Lending Facilities, and the Fed's Evolving Role in Response to COVID-19, THE BRIDGE (Apr. 27, 2020), https://perma.cc/27HK-REXL.

^{101.} See Fed. Rsrv., Paycheck Protection Program Lending Facility Term Sheet (2020), https://perma.cc/J7HC-XECD.

^{102.} See Paycheck Protection Program (PPP) Timeline, Program on Financial Stability, Yale School of Management, https://perma.cc/6STA-4VFT.

5. Acting as a "National Investment Authority"

The Fed's purchases of corporate and municipal debt as well as its loans to big and medium-sized businesses and nonprofits are distinct from its role as a monetary authority—as a lender of last resort charged with ensuring that money created by the financial sector trades at par with government cash. The Fed's credit programs allocate capital to the real economy either directly as in the case of the Main Street program or indirectly by enhancing liquidity in certain secondary markets. They put the Fed in the role of what Professors Bob Hockett and Saule Omarova call a national investment authority, employing its balance sheet in ways that shape economic activity. Normally, banks do this sort of thing for profit. A government agency does it to promote the public welfare. As one might expect given the Fed's design and monetary mission, the Fed's efforts as an investment authority skewed toward lubricating capital markets by acting as a buyer of last resort to absorb tail risk that would otherwise be borne by dealers and other market participants. Because the Fed's Main Street and municipal lending facilities charged penalty rates, they extended little credit.

Consider a few further differences between the Fed's work as a de facto NIA in 2020 and its traditional monetary role:

Whereas a monetary authority strives to manage the money supply in a neutral way (in a way that treats all asset classes the same under rules set by Congress), an investment authority is necessarily non-neutral. Its investments affect relative prices and make some projects more attractive and cheaper to finance and other projects more expensive and difficult to finance. People holding assets that the Fed is buying (or offering to buy) experience a wealth effect, 106 which results from the new source of demand for those assets (and improved liquidity in secondary markets for those assets). These wealth effects can be large. They can happen quickly—markets rose substantially in 2020 in response to the news that the Fed would buy corporate credit at market prices. And they persist—once an NIA makes investments, the government has a vested interest in the survival of the issuers it has invested in. The government also signals to market participants that it is willing and able, at least in certain circumstances, to support certain issuers.

^{103.} Saule T. Omarova, Why We Need a National Investment Authority (Cornell L. Sch. Legal Stud. Rsch., Paper No. 20-34, 2020), https://perma.cc/6DQL-4RXL; Robert C. Hockett & Saule T. Omarova, Private Wealth and Public Goods: A Case for a National Investment Authority, 43 J. CORP. L. 437 (2018); Robert C. Hockett & Saule T. Omarova, White Paper: A National Investment Authority (Cornell L. Sch. Legal Stud. Rsch., Paper No. 18-10, 2018), https://perma.cc/U29F-PMJD.

^{104.} See Robert C. Hockett & Saule T. Omarova, The Finance Franchise, 102 CORNELL L. Rev. 1143 (2017).

^{105.} See Ben Eisen & Akane Otani, The Fed's Intervention Is Widening the Gap Between Market Haves and Have-Notes, WALL St. J. (Apr. 7, 2020), https://perma.cc/E7VW-EZT9.

^{106.} See RICHARD CANTILLON, AN ESSAY ON ECONOMIC THEORY (Mark Thorton ed., Chantal Saucier trans., Ludwig won Mises Institute 2010) (1755). See also Matt Stoller, The Cantillon Effect: Why Wall Street Gets a Bailout and You Don't, BIG (Apr. 9, 2020), https://perma.cc/3PTN-VTJW.

Limit **Facility** Maximum Usage **Number of Loans** Repurchase Operations* \$1.5T \$441B (March 18) Unknown Swap Lines* Various \$448B (May 28) Unknown Commercial Paper Funding No \$13B (July 9) Unknown Facility (CPFF)* Limit Primary Dealer Credit Facility No \$35B (April 16) Unknown (PDCF)* Limit MMF Liquidity Facility (MMFLF)* No \$53B (April 9) Unknown Limit FIMA Repo Facility No \$1B (May 14) Unknown Limit PPP Loan Facility (PPPLF) \$349B \$72B (Dec. 31) >10,000 advances to >500 banks Term Asset-Backed Securities \$1008 224 loans to 20 borrowers through 14 \$4:48 (Dec. 31) Loan Facility (TALF) investment managers Primary Market Corporate Credit | \$5008 50 (Dec. 31) None Facility (PMCCF) Secondary Market Corporate \$2508 \$13.5B (Dec. 31) 1,084 bonds from S20 issuers and 16 ETH Credit Facility (SMICCF) Municipal Liquidity Facility (MLF \$500B 56.38 (Dec. 31) 2 bonds to Illinois; 2 bonds to New York's Metropolitan Transit Authority Main Street Lending Program \$16.58 (Dec. 31) 1.810 loans to 1,796 barrowers through 318

Figure 8: Facility Usage

- Unlike liquidity facilities, credit facilities are technically and operationally challenging to run. Most invest in debt instruments with substantial credit risk during a time when even private market specialists are unsure how to price that risk. Accordingly, the Fed may end up with a portfolio of nonperforming debt and stranded assets. If it seeks to avoid that by tightening its terms, it may quicken the decline of certain industries. In 2020, the government mitigated this problem by limiting the Fed's lending, preventing it from getting where it was most needed. The Fed and Treasury charged penalty rates; the government, thus, was not able to avert the financial pressures facing many smaller business and local governments.
- Credit extension generates lobbying pressure and entanglement with the
 political branches. For example, lobbying may have prompted the Fed to
 modify the terms and conditions of the SMCCF to include junk bonds.¹⁰⁷
 It may also have led the Fed to expand access to Main Street loans by

^{*} Denominates programs based on facilities that the Fed operated previously.

^{107.} Secondary Market Corporate Credit Facility, supra note 84, at 1 (noting that the "preponderance of ETF holdings will be of ETFs whose primary investment objective is exposure to U.S. investment-grade corporate bonds" but that "the remainder will be in ETFs whose primary investment objective is exposure to U.S. high-yield corporate bonds").

raising the qualifying size thresholds from 10,000 employees to 15,000 employees and from \$2.5 billion in annual revenues to \$5 billion, dropping its prohibition on using loans to refinance existing debt, and raising the maximum loan size from \$150 million to \$300 million. The Fed also reduced a limit on how indebted a company could be before taking out a loan. Similarly, the Fed expanded access to the MLF to cover smaller cities and counties and extended duration from two to three years. There is little indication that any of these changes were in response to a lack of demand for dollars at the safer criteria. To

• Finally, many of these facilities require volume to be effective. Unlike with lender of last resort lending, where a job well done involves no lending at all, success as a NIA is generally not measured by the loans that do not get made, but by those that do.¹¹¹ For example, for the five Main Street facilities to work, the Fed must send dollars out the door to actual businesses and nonprofits.

II. The Rules That Govern the Fed's Lending

This Part examines the legal dimensions of the Fed's ad hoc lending facilities. First, it examines (1) section 13(3) of the FRA, which authorizes the Fed to lend to nonbanks "in unusual and exigent circumstances"; (2) the CARES Act, which appropriates money for the Treasury Secretary to invest in 13(3) facilities; and (3) Title 31 U.S.C. § 5302, which governs the Secretary's use of the Exchange Stabilization Fund. Then it turns to section 14 of the FRA, which authorizes the Fed to buy and sell gold, foreign currencies, and certain debt securities. It concludes: (A) that the Fed's 13(3) facilities rely on provisions in the CARES Act that are best read to suspend sub silentio three statutory restrictions on the Fed and the Treasury, and (B) that the Fed's section 14 operations are not authorized by section 14 and should therefore be configured under section 13 and comply with the relevant procedural requirements.

^{108.} See Main Street New Loan Facility, supra note 98; Main Street Expanded Loan Facility, supra note 98.

^{109.} Municipal Liquidity Facility, supra note 91.

^{110.} See, e.g., Victoria Guida & Zack Colman, Fed's Expansion of Lending Program Sparks Oil Bailout Worries, Politico (Apr. 30, 2020, 7:35 PM), https://perma.cc/K675-FLNG; Letter from Ted Cruz, Sen., Texas, to Steven T. Mnuchin, Sec'y, Dep't of the Treasury, and Jerome Powell, Chairman, Bd. Of Governors of the Fed. Rsrv. Sys. (Apr. 24, 2020), https://perma.cc/ZDP2-BKMW (requesting a new lending facility to "provide emergency liquidity for small-and-medium sized businesses that work directly or indirectly with the oil and gas industry"); Timothy Gardner, Trump administration working to ease drilling industry cash crunch, Reuters (Apr. 17, 2020, 4:07 AM), https://perma.cc/32SR-EXTM.

^{111.} Credit facilities like the SMCCF designed to provide market liquidity—to act as a government dealer in certain capital markets—are an exception. An announcement that the government is going to quote an outside spread in a market causes prices to appreciate immediately. See supra note 84; Nina Boyarchenko et al., It's What You Say and What You Buy: A Holistic Evaluation of the Corporate Credit Facilities, Fed. Rsrv. Bank. of N.Y. Staff Reports, No. 935 (2020).

PDCF Repurchase Operations

CPFF * Swap Lines

MMFLE * FIMA-Repo Facility

TALF †

PMCCF †

PPPLE †

MSNLF, MSELF, MSPLE, NONLE, NOELF †

MLF †

Figure 9: The Fed's Ad Hoc Lending Authorities

A. The Fed's Section 13(3) Facilities

The Fed established the PDCF, MMFLF, CPFF, TALF, PMCCF, SMCCF, PPPFLC, MSNLF, MSELF, MSPLF, NONLF, NOELF, and MLF pursuant to section 13(3) of the Federal Reserve Act. The statute provides in relevant part that:

- A. In unusual and exigent circumstances, the Board . . . , by the affirmative vote of not less than five members, may authorize any Federal reserve bank . . . to discount for any participant in any program with broad-based eligibility, notes . . . when such notes . . . are . . . secured to the satisfaction of the Federal reserve bank: *Provided*, That before discounting any such note . . . , the Federal reserve bank shall obtain evidence that such participant . . . is unable to secure adequate credit accommodations from other banking institutions.
- B. i. [The] Board shall establish . . . policies and procedures designed to ensure that any emergency lending program or facility is for the purpose of providing liquidity to the financial system, and not to aid a failing financial company, and that the security for emergency loans is sufficient to protect taxpayers from losses.
 - ii. The Board shall establish procedures to prohibit borrowing . . . by borrowers that are insolvent. $^{\rm 112}$

The law further requires that the Board: (iii) prohibit programs designed to "remove assets from the balance sheet of a single and specific company" or to "assist[] a single and specific company [in] avoid[ing] bankruptcy" or resolution, and that (iv)

^{*} Treasury Investment Pursuant to 31 U.S.C. § 5302 (Exchange Stabilization Fund)

[†] Treasury Investment Pursuant to Section 4003 of the CARES Act

^{112. 12} U.S.C. § 343(3).

the Board, before authorizing any facility to lend under section 13(3), first secure approval from the Secretary of the Treasury. 113

Three of these provisions are of interest here: (1) the requirement that the Board establish policies and procedures to permit emergency lending only "for the purpose of providing liquidity to the financial system";¹¹⁴ (2) the requirement that these procedures ensure security "sufficient to protect taxpayers from losses";¹¹⁵ and (3) the requirement that the Fed "obtain evidence" that participants are "unable to secure adequate credit accommodations from other banking institutions" before discounting their notes.¹¹⁶ This Section examines each provision in turn.

1. The Financial System Liquidity Clause

Most of the Fed's credit facilities are in tension with the FRA's requirement that the Board permit emergency lending only "for the purpose of providing liquidity to the financial system." Congress adopted this provision in 2010 in response to the Fed's expansive 13(3) lending during the 2008 financial crisis. Many of the revisions, codified by Title XI of the Dodd-Frank Act, have received extensive scrutiny. But this requirement has not. It restricts the Board's lending powers, as the Board itself

^{113.} Id. § 343(3)(B).

^{114.} Id. § 343(3)(B)(i).

^{115.} Id.

^{116.} Id. § 343(3)(A).

^{117.} Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 2113-29 (2010) (codified as amended at 12 U.S.C. § 343). The SMCCF is an exception, as the law does not specify funding liquidity and the SMCFF was designed to provide liquidity to secondary markets in corporate bonds.

^{118.} In 2008, the Fed invoked 13(3) to set up some of the same facilities it used in 2020 to backstop deposit substitutes like repos, CP, and MMF shares. The Fed also used 13(3) in 2008 to lend to Bear Stearns and AIG, whose collapse threatened to wipe out many of the major shadow banks. See Sastry, supra note 9, at 3-4.

^{119.} The underlying nonbank lending power was not part of the original FRA. When the Fed was founded, the FRBs could lend only to banks. In July 1932, Congress amended the law to empower the FRBs to lend to any "individual, partnership, or corporation" in "unusual and exigent circumstances" if they determine that a creditworthy borrower is unable to access adequate credit from the banking system. Emergency Relief and Construction Act of 1932, Pub. L. No. 72-302, § 210, 47 Stat. 715 (codified as amended at 12 U.S.C. § 343). The Fed used this authority sparingly, lending \$1.45 million to 123 different borrowers between August 1932 and November 1935. Over half of this lending was done out of New York. Six reserve banks did not make a single loan. See Compiled Data on 13(3) Lending (on file with author). In 1934, Congress added Section 13(b) to the FRA, authorizing business lending on far more attractive terms. The Fed did comparatively more of this lending. See also HACKLEY, supra note 9, at 144-45; Fettig, infra note 126. In the 1950s, the Fed successfully lobbied Congress to repeal Section 13(b), id., and, as discussed herein, the Fed did not invoke Section 13(3) again until 2008.

^{120.} See, e.g., Scott, supra note 9, at 93-106; BERNANKE ET AL., supra note 1, at 120; Eric Posner, What Legal Authority Does the Fed Need During a Financial Crisis?, 101 MINN. L. Rev. 1529, 1574 (2017).

^{121.} Federal Reserve Act § 13(3), 12 U.S.C. § 343(3)(B)(i). The full sentence includes an errant comma. It reads:

acknowledges,¹²² limiting the FRBs to supporting financial institutions and markets. And lest there be any doubt that the text obligates the Board to prevent the FRBs from operating facilities designed to extend credit to the real economy, the law also specifically prohibits Fed lending "to aid a failing financial company."¹²³ If Congress meant to permit the Fed to extend credit to nonfinancial companies, legislators presumably would have omitted the word "financial" from this provision. It is, after all, highly unlikely that Congress meant to bar the Fed from aiding failing financial companies but to permit it to aid failing nonfinancial companies.¹²⁴

"Such policies and procedures shall be designed to ensure that any emergency lending program or facility is for the purpose of providing liquidity to the financial system, and not to aid a failing financial company, and that the security for emergency loans is sufficient to protect taxpayers from losses and that any such program is terminated in a timely and orderly fashion."

The best way to parse this sentence is:

"Such policies and procedures shall be designed to ensure (i) that any emergency lending program or facility is for the purpose of providing liquidity to the financial system[] and not to aid a failing financial company, and (ii) that the security for emergency loans is sufficient to protect taxpayers from losses and that any such program is terminated in a timely and orderly fashion."

Whether the comma is included or not, the first clause plainly requires that 13(3) loans be for the *financial system*. Consistent with this reading, Congress stripped 13(3)(A) of its reference to "individuals, partnerships and corporations" and replaced it with language regarding participants. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 2113-29 (2010) (codified as amended at 12 U.S.C. § 343).

- 122. Extension of Credit by Federal Reserve Banks, 80 Fed. Reg. 7859, 7859-60 (Dec. 18, 2015) (describing subsection (B)(i) as "limit[ing] the use of [13(3)] to the provision of liquidity"; describing subsection (B)(i) as "limit[ing] [13(3)] to . . . facilities that relieve liquidity pressures in financial markets"; describing 13(3) as "limited . . . to extend[ing] emergency credit . . . to participants in a . . . facility . . . designed for the purpose of providing liquidity to the financial system"). The Board has adopted a regulation that requires it to publicly disclose "the market or sector of the financial system to which a . . . facility . . . is intended to provide liquidity." 12 C.F.R. § 201.4(d)(3) (2020).
- 123. Id.
- 124. It is similarly implausible that subsection (B)(i) imposes obligations on the Board, which the Board can meet solely by promulgating regulations, such that the Board can then ignore subsequent lending by the FRBs even if that lending is not for the purpose of providing liquidity to the financial system. As soon as the Board becomes aware that the FRBs are lending for purposes inconsistent with subsection (B)(i), the Board would be in default of its obligation to establish rules ensuring that facilities are only for the purpose of providing liquidity to the financial system. At that point, the Board would have to revise its regulations (or withdraw its authorization for the relevant facilities). In addition, as a practical matter, the Board's practice is to authorize 13(3) facilities pursuant to specific term sheets; in other words, the Board, not the FRBs, identified the class of eligible borrowers and the purpose of the programs.

Importantly, a restrictive interpretation still gives effect to the legislature's choice to impose a regulatory mandate on the Board instead of directly prohibiting the FRBs from extending credit to the real economy. Because the new obligation falls on the Board, FRB lending to the real economy is not ultra vires. FRBs, in other words, still have the power to lend to nonfinancial companies under 13(3)(A). Only the Board, and not the FRBs, can be held accountable for FRB lending that is not for the purpose of providing liquidity to the financial system. And this distinction is not academic: The Board is entitled to judicial deference for its interpretation of subsection (B)(i), a regulatory statute, whereas courts

Thus, in adding subsection (B)(i), Congress formalized the Fed's role as a LOLR for shadow banks, ¹²⁵ retrofitting 13(3) to function as an emergency discount window facility for nonbank financial institutions. The lack of attention to the clause likely reflects a consensus, which dates to the late 1950s, that the Fed should stick to monetary policy and limit its lending to furthering its monetary mission. ¹²⁶ Most policy makers in 2010 probably did not think the country would ever find itself in a position where it made sense for the FRBs to extend credit to the real economy.

But the Fed's 2020 credit facilities—despite their contrary purposes¹²⁷—were

must construe ambiguity regarding the corporate powers of the FRBs strictly against them. *See infra* notes 163, 179. In the case of an egregious violation of subsection (B)(i) this might not matter much. But in cases that were surely foreseeable when the law was written in 2010, the difference gives the Board some leeway. For example, it likely allows the Board to re-establish programs like the TALF, even though TALF 1.0 had only a partial liquidity purpose. *Cf.* Bernanke, *supra* note 82 ("In contrast, our forthcoming asset-backed securities program, a joint effort with the Treasury, is not purely for liquidity provision ... [the TALF] combines Federal Reserve liquidity with capital provided by the Treasury, which allows it to accept some credit risk. By providing a combination of capital and liquidity, this facility will effectively substitute public for private balance sheet capacity, in a period of sharp deleveraging ... If the program works as planned, it should lead to lower rates and greater availability of consumer and small business credit.").

- 125. The legislative history supports this interpretation. For example, the Senate Report titles its section on 13(3): "Liquidity Programs." S. REP. No. 111-176, at 6 (2010). It describes Title XI's 13(3) amendments as eliminating the ability of the Fed "to rescue an individual financial firm that is failing, while preserving" its ability "to provide needed *liquidity and confidence in financial markets* during times of severe stress." *Id.* (emphasis added). "In the committee's words, the law "requir[es] all emergency lending to be done through widely-available *liquidity* facilities." *Id.* (emphasis added). The Conference Report also describes 13(3) as governing the Fed's "Liquidity Programs." H.R. REP. No. 111-157, at 875 (2010) (Conf. Rep.). In crafting these revisions, Congress considered "whether the Fed can maintain its current role as the independent authority on monetary policy, and take on a new role, a significantly new role, as the systemic risk regulator" and whether the Fed had become "stretched too thin" in 2008 by "using its powers under section 13(3) . . . to purchase securities in distressed industries." *Regulatory Restructuring: Balancing the Independence of the Federal Reserve in Monetary Policy with Systemic Risk Regulation: Hearing Before the Subcomm. On Dom. Monetary Pol'y and Tech. of the H. Comm. On Fin. Servs., 111th Cong. 2 (2009) (statement of Melvin Watt, Chairman, Subcomm. On Dom. Monetary Pol'y and Tech.). Watt here appears to be referring to the TALF which, as discussed above in note 124, Bernanke conceded was more than a "liquidity facility."*
- 126. In the 1950s, Fed Chairman William McChesney Martin asked Congress to repeal section 13(b), which the Fed used beginning in 1934 to extend credit to businesses. According to Martin, the country's monetary authority should not also serve as an investment authority. See William McChesney Martin, Jr., Chairman, Bd. of Governors of the Fed. Rsrv. Sys., Statement Before the Subcommittee on Small Business of the Senate Banking and Currency Committee (June 20, 1957), reprinted in Problem of Small Business Financing, 43 FED. RSRV. BULL. 767, 768-69 (1957) ("[O]ur concern stems from the belief that it is good government as well as good central banking for the Federal Reserve to devote itself primarily to objectives set for it by the Congress, namely, guiding monetary policy and credit policy so as to exert its influence toward maintaining the value of the dollar and fostering orderly economy growth"). In 1958, Congress transferred this function to the SBA. See Small Business Investment Act of 1958, Pub. L. No. 85-699, 72 Stat. 689 (1958). For an overview of 13(b) lending, see David Fettig, Lender of More Than Last Resort, FED. RSRV. BANK OF MINNEAPOLIS (Dec. 1, 2002), https://perma.cc/VD2D-994T.
- 127. For example, the PMCCF and MLF explicitly profess purposes that have little or nothing

arguably nonetheless lawful because the CARES Act amended the financial system liquidity clause sub silentio. Specifically, section 4003(b) provides that,

- (a) Notwithstanding any other provision of law, to provide liquidity to eligible businesses, States, and municipalities related to losses incurred as a result of coronavirus, the Secretary is authorized to make loans, loan guarantees, and other investments in support of eligible businesses, States, municipalities . . .
- (b) ... [Including] (4) [n]ot more than [\$500 billion] ... in, programs or facilities established by the Board ... for the purpose of providing liquidity to the financial system that supports lending to eligible businesses, States, or municipalities by—(A) purchasing obligations ... directly; (B) ... in secondary markets; or (C) making loans, including loans or other advances secured by collateral.¹²⁸

This provision expressly contemplates Fed facilities that lend directly to businesses, States, and municipalities.¹²⁹ Indeed, seemingly aware of the tension with the 2010 restriction, it quotes the limiting language, describing the business and municipal lending facilities it authorizes the Secretary to invest in as being "for the purpose of providing liquidity to the financial system." If the Fed were *not* allowed to extend credit to businesses and municipalities, then section 4003(b) of the CARES Act would be a dead letter.¹³⁰ In other words, the Fed's 2020 facilities present a relatively straightforward application of the "predicate-act" cannon of statutory interpretation. That cannon holds that the authorization of an act also authorizes a necessary predicate act.¹³¹ As Sir Henry Finch put it in 1759, "[w]here the king is to have mines, the law giveth him the power to dig in the land." This reading is bolstered by the cannon on specificity, which provides that if there is a conflict between a general provision, like the financial system liquidity clause, and a specific provision, like the CARES Act

at all to do with financial system liquidity. See, e.g., Primary Market Corporate Credit Facility, BD. Governors Fed. Rsrv. Sys. (Mar. 23, 2020), https://perma.cc/JWK4-7XFH (describing the purpose of the PMCCF as "support[ing] credit to employers through bond and loan issuances"); Federal Reserve 13(3) Facilities Announced during COVID-19 Pandemic, Fed. Rsrv. Bank N.Y. (2020), https://perma.cc/HEU7-TGCG (describing the "[p]urpose" of the MLF as "[p]urchas[ing] short term notes from state and local governments to help them better manage cash flow pressures").

^{128.} CARES Act § 4003, 15 U.S.C.A. § 9042 (West) (emphasis added).

^{129.} The CARES Act also contemplates the Main Street program and MLF in two further provisions. See id. at § 4003(c)(3)(D)(i) (providing that the Secretary "shall endeavor to seek the implementation of a program or facility . . . that provides financing to banks and other lenders that make direct loans to eligible businesses"); id. at § 4003(c)(3)(D)(ii) (referring to the Fed's authority "to establish a Main Street Lending Program or other similar program or facility that supports lending to small and mid-sized businesses"); id. at § 4003(c)(3)(E) (providing that the Secretary "shall endeavor to seek the implementation of a program or facility . . . that provides liquidity to the financial system that supports lending to States and municipalities").

^{130.} See Antonin S. Scalia & Bryan A. Garner, Reading the Law: The Interpretation of Legal Texts 192-94 (2012).

^{131.} Id. at 192.

^{132.} HENRY FINCH, LAW, OR A DISCOURSE THEREOF 63 (1759).

language authorizing the Treasury Secretary to invest in Fed facilities that lend to states and municipalities, the specific provision prevails.¹³³

2. The Fiscal Safeguard

A further statutory obstacle for the Fed's 2020 lending initiatives is also traceable to Title XI, in this case its "fiscal safeguard"—its provision requiring the Board to ensure that "the security for emergency loans is sufficient to protect taxpayers from losses." In 2020, the Fed complied with this obligation. But in two cases—the CPFF and the MMFLF—it did so using \$10 billion invested by Treasury from its Exchange Stabilization Fund ("ESF"). The ESF is a \$100 billion investment account created by the Gold Reserve Act in 1934, administered by the Treasury Secretary. The ESF holds primarily U.S. government debt, SDRs, Teuros, and Yen. Congress designed the ESF so that the Secretary could stabilize the value of the dollar against foreign currencies by buying and selling them. Congress later directed the Secretary to use the ESF to fulfill the country's obligations to the IMF to buy SDRs.

The relevant statutory provision states: "Consistent with . . . a stable system of

^{133.} See Scalia & Garner, supra note 130, at 183-88.

^{134.} Prior to 2010, section 13(3) authorized the Board, in an emergency, to permit the FRBs to extend credit in much the same way that banks do, meaning by making risky investments that could lose money. But, when the FRBs used 13(3) to lend to the real economy, i.e., between 1932 and 1935, they were more like their member banks. After Congress amended the FRA in 1935, shifting control of the FRBs from their nominal owners (the member banks) to the Board, the FRBs came to resemble government agencies. Title XI can thus be understood to minimize the fiscal component of section 13(3) lending by requiring that the Board ensure that FRB lending is secured in such a way that the FRBs do not expect to lose money when they make loans (and by requiring, as discussed in Section II.A.1 supra, that all such lending be for the purposes of providing liquidity to the financial system). See Selgin, supra note 9. The result is that riskier ersatz discount window facilities like the CPFF that were permissible in 2008 may not be permissible today without a backstop either from a private sector firm (as in the case of the Fed's 13(3) loans to Bear Stearns) or the Treasury Department (using funds appropriated by Congress).

^{135.} It cannot reasonably be maintained that the extent of the Board's obligation is to adopt policies and procedures designed to ensure security sufficient to protect against losses, but that the Board can look the other way as FRBs operate facilities the Board expects will result in losses. See supra note 124. Not only is there no support for this interpretation in the legislative history, see S. Rep. 111-176, supra note 125, at 6 (describing Title XI as "requiring all emergency lending to be . . . backed by collateral sufficient to protect taxpayers from loss"), but the Board would violate its obligations under 13(3)(B)(i) as soon as it became apparent that collateral was insufficient to protect taxpayers from losses. It is likely for this reason that the Fed sought investments from Treasury, and the Secretary announced he would make such investments—and then sought Congressional approval for them. See also BERNANKE ET AL., supra note 1 (opposing the inclusion of this language due to its limiting effect).

^{136.} U.S. Treasury Dep't, Exchange Stabilization Fund Revised Statement of Financial Position (2020), https://perma.cc/3QZS-S74Q [hereinafter ESF Statement].

^{137.} SDRs stand for Special Drawing Rights. SDRs are a type of foreign currency issued by the International Monetary Fund ("IMF").

^{138.} ESF STATEMENT, supra note 136.

^{139.} See Special Drawing Rights Act, 22 U.S.C. § 286n-r.

exchange rates, the Secretary . . . may deal in gold, foreign exchange, and other instruments of credit and securities the Secretary considers necessary."¹⁴⁰ Because the dollar is the premier global reserve currency, the ESF gets little use. But exchange rate stabilization is a critical government function in most countries, where responsibility for stabilizing the value of the country's currency, usually against the dollar but also against other currencies, is delegated either to the central bank or to the finance ministry.¹⁴¹

In 2008, Treasury used the ESF to guarantee MMF liabilities, ¹⁴² even though guaranteeing the obligations of private investment companies does not involve dealing in gold, foreign exchange, or other instruments of credit. Congress immediately passed a law explicitly prohibiting the practice. ("The Secretary is prohibited from using the [ESF] for the establishment of any future guaranty programs for the United States [MMF] industry."¹⁴³)

This legislative history, and the statutory text, raise questions about the Treasury's recent investments of core ESF funds using section 5302(b). None of its investments involve dealing in gold, foreign exchange, or other instruments of credit. Buying equity in a Fed lending facility by entering into a bespoke investment agreement is surely not what Congress had in mind when it enacted or amended the Gold Reserve Act. ¹⁴⁴ Further, as a matter of pure textual interpretation, it is not clear how Treasury's investments are related to maintaining "a stable system of exchange rates," the predicate upon which the Secretary is authorized to deal in securities. ¹⁴⁵ The Treasury's investment itself has nothing to do with foreign currencies or exchange rates between those currencies and the dollar. ¹⁴⁶ Nor does the Fed's facility itself—which backstops dollar

Id.

^{140. 31} U.S.C. § 5302.

^{141.} For a comprehensive overview of international exchange rate stabilization practices, see IMF, ANNUAL REPORT ON EXCHANGE ARRANGEMENTS AND EXCHANGE RESTRICTIONS 2018 (2019), https://perma.cc/WTY7-YSLN.

^{142.} Press Release, U.S. Treasury Dep't, Treasury Announces Guaranty Program for Money Market Funds (Sept. 19, 2008), https://perma.cc/75FH-TGUS.

^{143.} Emergency Economic Stabilization Act of 2008 § 131, 12 U.S.C. § 5236.

^{144.} The ESF was created by section 10 of the Gold Reserve Act of 1934. Pub. L. No. 73-87, ch. 6 § 10(a), 48. Stat. 337, 341 (codified as amended at 31 U.S.C. § 5302(b)). The original text read:

[&]quot;For the purpose of stabilizing the exchange value of the dollar, the Secretary of the Treasury, with the approval of the President, directly or through such agencies as he may designate, is authorized, for the account of the funds established in this section, to deal in gold and foreign exchange and such other instruments of credit and securities as he may deem necessary to carry out the purposes of this section."

^{145. 31} U.S.C. § 5302(b).

^{146.} The Secretary's power to deal in securities is probably best read to be limited to (a) buying securities denominated in foreign currencies using dollars and (b) buying securities denominated in dollars using foreign currencies. The Treasury's recent investments involve neither. Although the large holdings of dollar denominated Treasury securities in the ESF might seem to undermine this interpretation, the opposite is true: The law includes an additional provision explicitly authorizing "investing in obligations of the United States

denominated debt instruments using central bank dollar reserves. Moreover, it is not clear that the Secretary's investment can be construed as "dealing" in securities—being that it is the private purchase of a bespoke instrument that is not traded (or tradeable) on secondary markets. ¹⁴⁷ There is also the trouble of the 2008 amendment, which prohibits the Treasury Secretary from using the ESF to establish guarantee programs for the MMF industry. While the MMFLF does not explicitly guarantee MMF shares, the effect of the facility is to support the industry.

But once again the CARES Act offers a different reading of the statute. First, in explicit terms, it suspends (until the end of 2020) the 2008 prohibition on using the ESF to guarantee MMFs. Second, it amends the ESF to provide that the fund "is available to carry out . . . the Coronavirus Economic Stabilization Act of 2020."148 Third, it directs \$500 billion appropriated as part of the Treasury's CARES Act investment authority to the ESF. 149 Fourth, it contemplates that the Secretary will use the ESF to support MMFs because the suspension specifies that any "guarantee established as a result of" the suspension shall be "limited to a guarantee of the total value of a shareholder's account" as of the date before the guarantee and terminate not later than year-end.¹⁵⁰ And if that was Congress's intent, and Treasury's investment in the MFFLF was only permissible under a reading of the ESF statute that permits the Secretary to invest in Fed facilities that stabilize the exchange rates between cash and cash substitutes even though both are dollar instruments, arguably Treasury's investments in the CPPF are permissible as well, along with any other investment that involves the \$500 billion appropriated by the CARES Act. The best reading of the statutory corpus taken as a whole arguably privileges a permissive reading of the GRA that is consistent with the CARES Act provisions. 151

3. The Credit Availability Proviso

A third provision of interest, subsection 13(3)(A), dates to the original legislation that created section 13(3) in the summer of 1932. It says that the FRBs can use section 13(3) to "discount . . . notes, *Provided*, That before discounting any such note," the FRB "obtain[s] evidence that such participant . . . is unable to secure adequate credit

Government those amounts in the fund . . . not required at the time to carry out this section." 31 U.S.C. § 5302(a)(1). The inclusion of this provision suggests that Congress interpreted the text regarding dealing in securities narrowly and did *not* believe that it permitted the Secretary to buy government debt, even though it is standard practice for governments to maintain foreign reserves in debt instruments issued by finance ministries rather than in account balances at central banks or physical currency.

^{147.} The instrument here being whatever investment agreement was struck between the special purpose vehicle created by the Fed (the facility) and the Treasury Department.

^{148.} CARES Act § 4027(b), 31 U.S.C.A § 5302(a)(1) (West 2020).

^{149.} CARES Act § 4027(a), 15 U.S.C.A § 9061(a) (West 2020).

^{150.} *Id.* § 5236 (temporarily permitting the suspension of restrictions on the ESF during a national emergency).

^{151.} It is not certain, of course. *Cf.* Nat'l Fed'n of Indep. Bus. v. Sebelius, 567 U.S. 519, 666 (2012) (Scalia, Kennedy, Thomas & Alito, JJ., dissenting) ("[w]hat counts is what the statute says").

accommodations from other banking institutions."¹⁵² Congress included this "credit availability proviso" in order to preserve the Fed's status as a monetary authority. The idea was that in normal times the Fed would conduct monetary policy through commercial banks but that if the banking system collapsed, the Fed could step in temporarily and lend directly to nonbanks. Charles Hamlin, the Fed Board member who proposed section 13(3) and drafted the initial text (from which this portion of the provision is drawn word for word), explained its purpose to Senator Carter Glass, then the Chairman of the Senate Banking Committee, and the member who pushed section 13(3) through Congress:

I firmly believe, but cannot prove, that there are many merchants in the United States today who are unable to obtain credit, although they can give satisfactory collateral. *I know that there are large areas where there are no banks left*. I therefore, personally, would favor giving this power in emergencies to the Federal reserve banks.¹⁵³

Hamlin's rationale appears to be precisely the rationale on which President Hoover, a skeptic of direct government lending, supported the legislation. And, shortly after Hoover signed the bill, the Board issued a circular to the FRBs requiring prospective borrowers to submit applications for discount including:

A statement of the efforts made by the applicant to obtain adequate credit accommodations from other banking institutions, including the names and addresses of all other banking institutions to which applications for such credit accommodations were made, the dates upon

Letter from Herbert Hoover, President of the U.S., to Eugene Meyer, Governor, Fed. Rsrv. Bd., (July 23, 1932) (on file with Library of Congress, Manuscript Division in Charles S. Hamlin Papers Archive, volume 231 of the Federal Reserve Board's files), https://perma.cc/H7X5-4XPW (emphasis added).

^{152.} Federal Reserve Act § 13(3)(A), 12 U.S.C. § 343(3)(A).

^{153.} Letter from Charles Hamlin, Member, Fed. Rsrv. Bd., to Carter Glass, Chair, Senate Comm. on Banking (July 9, 1932) (on file with Library of Congress, Manuscript Division in Charles S. Hamlin Papers Archive, volume 230 of the Federal Reserve Board's files) (emphasis added), https://perma.cc/PR8T-8QAT.

^{154.} For example, the head of the Fed's Board, Eugene Meyer, wrote to Hoover that the Board had asked the FRBs to "ascertain the extent to which there may be demands for loans which are not being met by other banking institutions and which properly might be granted by the Federal Reserve Bank under the provisions of the amendment, with the view of taking steps to meet the need for loans of this character." Letter from Eugene Meyer, Governor, Fed. Rsrv. Bd., to Herbert Hoover, President of the U.S. 3 (July 26, 1932) (on file with author). And Hoover wrote back after signing the amendment:

This statement [regarding credit availability] is a complete indictment of the banking situation because its conclusions are that loans have been refused . . . of the type subject to rediscount by the Federal Reserve System, and that the result of these restrictions has been to increase unemployment and to stifle business activity in the country. The conviction I get . . . is that the Federal Reserve System should at once instruct the Federal reserve banks to undertake direct rediscount under authorities provided in the Relief Bill. We cannot stand by and see the American people suffering as they are today and to the extent that may imperil the very stability of the Government because of the unwillingness of the banks to take advantage of the facilities provided by the Government.

which such applications were made, whether such applications were definitely refused and the reasons, if any, given for such refusal; [and] A list showing each bank with which the applicant has had banking relations, either as a depositor or as a borrower, during the preceding year, with the approximate date upon which such banking relations commenced and, if such banking relations have been terminated, the approximate date of their termination.¹⁵⁵

The Board also required that the FRBs, before discounting, ascertain that "there is a reasonable need for such credit accommodations" and that "the applicant is unable to obtain adequate credit accommodations from other banking institutions." The Board further elaborated that a "special effort should be made to determine whether the banking institutions with which the applicant ordinarily transacts his banking business or any other banking institution to which the applicant ordinarily would have access is willing to grant such credit accommodation." During this period, the FRBs attempted to place 13(3) loan applications with other banks. And many FRBs declined to lend, sometimes citing this provision as a reason. 158

While complying with subsection (A) is not a trivial matter for any of the Fed's 2020 credit facilities, given the comparatively well capitalized state of the banking system, it is particularly difficult for the Fed to comply in the case of the SMCCF, which purchased corporate bonds and ETFs on the secondary markets. ¹⁵⁹ This is because when the Fed "discounts" a corporate bond or ETF on the secondary market, the seller (not the issuer) of the security is likely the "participant" for purposes of section 13(3). ¹⁶⁰

^{155.} Letter from Chester Morrill, Sec'y, Fed. Rsrv. Bd., to all Fed. Rsrv. Banks, Discounts for Individuals, Partnerships and Corporations (July 26, 1932) (on file with Library of Congress, Manuscript Division in Charles S. Hamlin Papers Archive, volume 231 of the Federal Reserve Board's files) https://perma.cc/H7X5-4XPW.

^{156.} Id. at 23-24.

^{157.} *Id.* at 24. The Board's internal legal analysis of the new provision reinforced this point: "Such a note, draft or bill, may be discounted only when the Federal reserve bank has obtained evidence that the individual or corporation for which such discount is to be made is unable to secure adequate credit accommodations from banking institutions other than Federal reserve banks." Memorandum from Charles Hamlin, Member, Fed. Rsrv. Bd. (on file with Library of Congress, Manuscript Division in Charles S. Hamlin Papers Archive, volume 230 of the Federal Reserve Board's files), https://perma.cc/PR8T-8QAT.

^{158.} Memorandum from Mr. Parry to Charles Hamlin, Member, Fed. Rsrv. Bd., (Aug. 23, 1932) (on file with Library of Congress, Manuscript Division in Charles S. Hamlin Papers Archive, volume 233 of the Federal Reserve Board's files), https://perma.cc/2MHH-VNNX. For example, in the first report on lending, of the 277 applications refused, three were rejected because "present credit deemed adequate," two were rejected because "denial of credit by other banks [was] not shown," and four were rejected because the FRB was able to place the loan with other banks. *Id*.

^{159.} Press Release, Fed. Rsrv. Bank of N.Y., New York Fed Announces Start of Certain SMCCF Purchases on May 12 (May 11, 2020), https://perma.cc/XE3V-W2DG.

^{160.} Presumably, the seller, a financial institution, is also therefore the "borrower" within the meaning of the Title XI amendments. For example, subsection (B)(i) describes subsection (A) discounts as "emergency loans," and requires FRBs to assign "a lendable value to all collateral for a loan executed . . . under this paragraph in determining whether the loan is

But a broad reading of the CARES Act arguably permits these purchases. Section 4003(b)(4)(B) contemplates Treasury investments in Fed facilities that "purchas[e] obligations or other interests in secondary markets." This text would be meaningless if the Fed could not purchase obligations in secondary markets. Moreover, the use of the phrase "other interests" appears to encompass ETFs. ¹⁶¹ It is not clear whether this means that the Fed does not have to comply with the credit availability proviso, which makes sense primarily with regard to loan applications, or whether the Fed is complying with the proviso in some novel way by, for example, commissioning a report from its research department on the availability of credit for corporate issuers or by obtaining evidence for its counterparties about their access to credit.

That said, the SMCCF presents a close question. Section 13(A) is a corporate powers provision and part of the federal charters of the FRBs. It is not a regulatory statute for which courts should defer to reasonable interpretations of ambiguous provisions. ¹⁶² Instead, courts should construe ambiguity with respect to these sorts of provisions strictly against the FRBs. ¹⁶³ While corporate charters can be amended indirectly by subsequent legislative acts, ¹⁶⁴ even assuming that the FRBs are now permitted to purchase obligations in the secondary markets, the CARES Act does not clearly resolve whether they can do so without first obtaining at least some sort of evidence regarding credit accommodations or how that would work in the case of instruments like ETFs. ¹⁶⁵

secured satisfactorily for purposes of this paragraph." 12 U.S.C. § 343(3)(B)(i). Subsection (B)(ii) also uses the word "borrowing" and discusses "the time the borrower initially borrows under the program or facility." *Id.* at § 343(3)(B)(ii). Additionally, it says that "the borrower" has a duty to update the Fed if it becomes insolvent. *Id.* at § 343(3)(B)(ii).

^{161.} When the Fed purchases an ETF, it is actually making an equity investment, buying shares in a trust. It is the trust that owns the corporate bonds.

^{162.} Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984). See Lev Menand & Morgan Ricks, Federal Corporate Law and the Business of Banking, 88 U. CHI. L. REV. (forthcoming 2021) (showing that bank powers provisions are corporation law).

^{163. 6} FLETCHER CYCLOPEDIA OF THE LAW OF CORPORATIONS § 2483, Westlaw (database updated Sept. 2020) ("[a]ny ambiguity respecting the extent of the powers will be strictly construed against the corporation").

Cf. Reconstruction Fin. Corp. v. Cent. Republic Tr. Co., 30 F. Supp. 1018, 1019 (N.D. Ill. 1939).

^{165.} In this regard, there is a question of what to make of section 4003(c)(3)(B) of the CARES Act, which states that "[f] or the avoidance of any doubt, any applicable requirements under section 13(3) . . . including requirements relating to loan collateralization, taxpayer protection, and borrower solvency, shall apply with respect to any program or facility described in subsection (b)(4)." CARES Act § 4003(c)(3)(B), 15 U.S.C.A. § 9042(c)(3)(B) (West 2020). Is it that the credit availability proviso is not "applicable"? Id. Assuming it is applicable, how did the Fed comply in the case of ETFs? Presumably, the Fed did not treat the ETF itself as the 13(3) participant and seek some sort of certification regarding credit availability from the ETF's issuer. One problem with this approach would be that the ETF may not even be authorized to borrow, and it is not clear what it would mean for the ETF itself to lack adequate credit accommodations. Nor does it seem likely the Fed treated the issuers of the underlying bonds as the participants. While this would be a more plausible approach in some respects, then the Fed would have to seek certifications from them (or conduct some sort of analysis of the portfolio of bonds regarding the ability of those issuers to access adequate credit). The other problem with this "pass-through" approach is that it raises questions about how the Fed ensures that none of the bonds are issued by

B. The Section 14 Operations

The Fed's section 14 facilities, which include its repo operations, FIMA facility, and swap lines, are not authorized by section 14. But this usurpation of corporate powers is not new: The Fed has a long history of using section 14 to lend, with the first instance dating to 1917. How this history cuts when it comes to interpreting section 14 today is a complicated question. This Section argues that the best reading of the FRA requires that the Fed operate these facilities under sections 13(3) and 13(13).

Section 14 governs "Open-Market Operations." As relevant, section 14(1) authorizes FRBs to "purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances and bills of exchange." Cable transfers are foreign currency instruments. 166

Section 14(2)(b) authorizes every FRB

- 1. To buy and sell, at home or abroad, bonds and notes of the United States . . . but only in the open market [and]
- 2. To buy and sell in the open market . . . any obligation which is a direct obligation of, or fully guaranteed as to principal and interest by, any agency of the United States. 167

Further, section 14(2)(e) empowers FRBs to "open and maintain accounts in foreign countries \dots wheresoever it may be deemed best for the purpose of purchasing, selling, and collecting bills of exchange \dots and to open and maintain banking accounts for such foreign correspondents or agencies, or for foreign banks or bankers." ¹⁶⁸

The Fed's repo operations, FIMA facility, and swap lines lend dollars to securities dealers and foreign central banks by buying U.S. treasury securities, agency mortgage-backed securities, and foreign currency bilaterally and obtaining their agreement to buy the securities or currency back at higher prices at a future date. The securities serve as collateral, and if the Fed's counterparty fails to repurchase them, the Fed can sell them to recoup its losses. The currency is collateral in theory, although it exists only on the books of the foreign central bank.

While section 14 plainly authorizes the Fed to buy and sell government debt and

companies that are insolvent. *See id.* ("including requirements relating to ... borrower solvency"); 12 U.S.C. § 343(B)(ii) (requiring the Board to "establish procedures to prohibit borrowing from programs and facilities by borrowers that are insolvent"). The most likely possibility, as mentioned above, is that the Fed treated the sellers as the "participants." Consistent with this possibility, the Fed did require those *selling* bonds or ETFs to the Fed to certify that they were not insolvent. *See Secondary Market Corporate Credit Facility Seller Certification Materials*, FED. RSRV. BANK N.Y., (May 5, 2020), https://perma.cc/8YKL-F77Y. But if so, it is not clear how the Fed complied, if at all, with the credit availability proviso.

^{166.} GLENN GAYWAINE MUNN, ENCYCLOPEDIA OF BANKING AND FINANCE 81 (1924) (defining "cable transfer" as "[a] means by which a bank or foreign exchange dealer enables its customers to remit funds abroad immediately ... in a foreign currency, usually"); cf. 31 U.S.C. § 5151(a)(1) (describing "cable transfers" as instruments "payable in the currency of a foreign country").

^{167. 12} U.S.C. § 355.

^{168. 12} U.S.C. § 358.

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foreign currency, and section 4(3) of the Federal Reserve Act permits the FRBs to enter into contracts, this disguised lending runs afoul of the critical clauses in section 14 that limit the Fed to purchase and sell in the "open market." An "open market" purchase or sale is a purchase or sale at a market price. 169 The openness requirement ensures

169. "Open market" is not defined in the statute but is a legal term of art with a settled meaning. The Oxford English Dictionary defines "open market" as an "unrestricted market in which any buyer or seller may trade freely, and where prices are determined by supply and demand." Open market, THE OXFORD ENGLISH DICTIONARY (3d ed. 2004) [hereinafter OED 2004], https://perma.cc/FMY8-AAXQ. See Webster's Third New International DICTIONARY 1580 (1993) (defining "open market" as a "freely competitive market in which any buyer or seller may trade and in which prices are determined by competition"); RANDOM HOUSE UNABRIDGED DICTIONARY 1357 (2d ed. 2001) (defining "open market" as "an unrestricted competitive market in which any buyer and seller is free to participate"). The Supreme Court has adopted this usage. See, e.g., Basic Inc. v. Levinson, 485 U.S. 224, 241 (1988) ("The fraud on the market theory is based on the hypothesis that, in an open and developed securities market, the price of a company's stock is determined by the available material information regarding the company and its business." (emphasis added) (quoting Peil v. Speiser, 806 F.2d 1154, 1160-61 (3d Cir. 1986))).

Legal dictionaries and courts have long defined market prices as the price in an "open market" transaction. See, e.g., Henry Campbell Black, A Law Dictionary 761 (2d ed. 1910) (defining "market price" as "[t]he actual price at which the given commodity is currently sold, or has recently been sold, in the open market"); CHRISTOPHER A. SHEA, THE STANDARD FINANCIAL DICTIONARY: AN ENCYCLOPEDIA COVERING THE ENTIRE FIELD OF FINANCE 136, 209 (1906) (defining "market price" as "[a]ny price prevailing for securities in the open markets" and "valuation" as the "amount of money a security of property will bring in the open market"); 5 WILLIAM DWIGHT WHITNEY, THE CENTURY DICTIONARY AND CYCLOPEDIA 3633 (1906) (defining "market price" as "the price a commodity will bring when sold in open market"); 3 JUDICIAL AND STATUTORY DEFINITIONS OF WORDS AND Phrases 303 (1914) (defining "price in open market" as "what it will cost one to purchase [goods] in the open market"); S. Bus. Co. v. Simpson, 215 S.W.2d 699, 700 (Ark. 1948) ("The market value of an article or commodity is what it will bring on the open market when sold by a willing seller to a willing and able buyer."); Stein v. Idaho State Tax Comm'n, 577 P.2d 798, 799 (Idaho 1978) ("We hold that the U. S. [sic] Treasury bonds have a value for inheritance tax purposes determined by the open market at the time of death; i.e., 'the price which a buyer willing but not obliged to buy would pay a seller willing but not obligated to sell, both having full knowledge of all pertinent facts affecting value. " (quoting In re Estate of Power, 476 P.2d 506, 507-08 (Mont. 1970))); Eastman Kodak Co. v. Altek Corp., 936 F. Supp. 2d 342, 351-52 (S.D.N.Y. 2013) (concluding that an "open market price" is a price determined by supply and demand where buyers and sellers may trade freely); Fahey v. Updike Elevator Co., 166 N.W. 622 (Neb. 1918) (concluding that "the prices of wheat on the open market" are "the market price"); Koella v. McHargue, 976 S.W.2d 658, 661 (Tenn. Ct. App. 1998) (concluding that in an "open market" prices are determined by competition and that "the term is not ambiguous" (citing Webster's Third New International Dictionary 1580 (1981))).

The concept is derived from the medieval legal doctrine of the "market overt." 2 JOHN BOUVIER, BOUVIER'S LAW DICTIONARY AND CONCISE ENCYCLOPEDIA 2095-96 (8th ed. 1914). Purchasers in a market overt are protected against third-party claims contesting title. Contracts in a market overt are binding. Id. at 2096. Unsurprisingly, then, the term "open market" precludes private sales. See, e.g., OED 2004, supra ("The new stock is to be sold in open market, and not to the holders of the old stock, in order to forestall criticism that the bank is owned by a ring of capitalists" (quoting Sidney Sherwood, The New German Bank Law, 14 Q.J. Econ. 274 (1900))). An open market is public. See Howard Irving Smith, SMITH'S FINANCIAL DICTIONARY 394 (2d ed. 1908) (defining "open market" as "a market that is free to all, as distinguished from one in which participation is restricted to members of an exchange"); 1 EDWARD COKE, INSTITUTES OF THE LAW OF ENGLAND (London, W. Clarke 1817) (in "an open market" contracts are "made openly, for of old time, privy or secret contracts were forbidden"); Albany Supply & Equip. Co. v. City of Cohoes, 262 N.Y.S.2d 603, 605 (Sup. Ct. 1965) ("an open market is one open to all who wish to purchase at the vendor's prices").

Transactions occur freely. See Miller v. Corp. Comm'n, 635 P.2d 1006, 1008–09 (Okla. 1981) ("The fair market value is one which can neither be inflated nor deflated by reference to special types of sales. The latter are not reflective of open-market conditions. A compulsory sale of an owner's interest in realty, when taken by eminent domain, is the most common example of a sale not made in the open market. It is said to be affected by special circumstances which do not exist in open market transactions. . . . By its very nature, the sealed-bid process is incompatible with an open market sale. Sealed bidding reflects the seller's unwillingness to bargain openly in, and yield to the forces of, the open market-place.").

This definition of "open market" is fundamental to securities law. *Basic*, 485 U.S. at 242 (1988) (discussing the impact of the allegedly fraudulent trades "upon the open market for Basic shares"). *See also* Hevesi v. Citigroup Inc., 366 F.3d 70, 77 (2d Cir. 2004) (explaining that the *Basic v. Levinson* fraud-on-the-market theory involves the presumptions "that (1) misrepresentations by the issuer affect the price of securities traded *in the open market*, and (2) investors rely on the market price of securities as an accurate measure of their intrinsic value" (emphasis added) (citing *Basic*, 485 U.S. at 245-47)).

The concept also plays an important role in calculating contract damages. *See, e.g.,* Boyer v. Cox, 52 N.W. 715, 716-17 (Neb. 1892) (explaining that where "the articles sold can be purchased in the open market the rule of damages on breach of an agreement is the market price at the day appointed for delivery, less the contract price, when the latter is not paid" (citing Davis v. Shields, 24 Wend. 322 (N.Y. Sup. Ct. 1840); Dey v. Dox, 9 Wend. 129 (N.Y. Sup. Ct. 1832); and Clark v. Pinney, 7 Cow. 681 (N.Y. Sup. Ct. 1827)).

And the term is a core concept in procurement law. When purchases are not subject to notice and competitive bidding, they must take place on "the open market," where the government can be assured of a fair price. For example, the Secretary of War must give notice and an opportunity for competition for government contracts unless, among other things, "(3) the aggregate amount involved in any purchase of supplies or procurement of services does not exceed \$500; in which case such purchases of supplies or procurement of services may be made in the open market in the manner common among businessmen." 1 U.S. DEP'T OF THE INTERIOR, FEDERAL RECLAMATION LAWS ANNOTATED 576 (Richard K. Pelz. ed., 1972) (emphasis added). The law further provides that "the purchase of supplies, materials and equipment or procurement of services in the open market without advertising is subject to the \$300 proviso and limitations heretofore effective." 1 FEDERAL RECLAMATION LAWS ANNOTATED 795. See also Procurement Act, ch. 74, sec. 7, 13 Stat. 462, 467 (1865) (providing that the "Secretary of War, the Secretary of the Navy, and the Secretary of the Treasury may enter into contract, in open market, for bunting of American manufacture, as their respective services require . . . at a price not exceeding that at which an article of equal quality can be imported" (emphasis added)); Act of July 12, 1876, ch. 182, 9 Stat. 88 (empowering the Commissioner of Indian Affairs "to purchase in open market, without the usual advertisement, for immediate use of the Indian tribes, such supplies as are required . . . to serve until . . . the time now required by law for advertisement and acceptance of proposals shall have elapsed" (emphasis added)).

The insistence by Congress that government purchases take place in the open market, i.e., at a market price, goes back to the founding. For example, a precursor to Section 14 of the FRA, the Act Providing for the Reduction of the Public Debt, created a Sinking Fund Commission to purchase treasury securities and specifically required that purchases be made "openly." Act Providing for the Reduction of the Public Debt, ch. 74, sec. 2, 1 Stat. 186 (1790) (emphasis added). The commissioners interpreted this to mean that purchases should be made "at the market price, & in an open and public manner." Alexander

non-prejudicial access to the Fed's business and that the Fed's purchases take place at arm's length.

Neither of the transactions in a repo or a swap execute at a market price. The purchase price is below market—the difference is known as the haircut and protects the Fed from fluctuations in the value of the collateral during the course of the loan. And the sale price is above the purchase price—the difference is the interest rate, the Fed's profit from extending the loan. In fact, one could argue that in the case of a repo neither leg is even a "sale" or a "purchase" within the meaning of section 14, as full ownership rights do not transfer with the initial sale (e.g., the "seller" is entitled to keep any interest payments on the underlying security) and the repurchase is the settlement of a forward transaction.

There are several reasons why the Fed's contrary interpretation of the statute is unreasonable. First, there is the rule against surplusage and superfluity. ¹⁷⁰ On the Fed's reading, which encompasses transactions with specially selected counterparties at non-market prices, what purchase or sale would not be on the open market? ¹⁷¹

- 170. Cooper Indus., Inc. v. Aviall Servs., Inc., 543 U.S. 157, 166 (2004) (noting the policy against reading a provision in a way that "would render part of the statute entirely superfluous, something we are loath to do" (citing Hibbs v. Winn, 542 U.S. 88, 101 (2004))).
- 171. The Fed's best argument is probably that the words "open market" are intended to expand the powers of the FRBs, not restrict them. On this view—call it the "emancipation" interpretation of open market—the Fed is generally confined to dealing with its members and section 14 creates an exception: it permits the Fed to deal directly in the "open market," to transact with anyone. And surely this is correct so far as it goes. See HENRY PARKER WILLIS, AMERICAN BANKING 169-73 (1916) (describing open market operations as designed to allow FRBs to buy from nonmembers); Hearings on H.R. 7837 Before the S. Comm. on Banking and Currency, 63d Cong. 812 (1913) (statement of Samuel Untermeyer) (explaining that the central banks in France and Germany "buy mainly in the open market in competition with the banks"); Henry Parker Willis, Theory and Practice of Central Banking 181 (1936) (explaining the need for open market operations to make the discount rate "effective"). But were this the extent of the meaning of the term, much of section 14 would make no sense. For example, subsection 2(b), governing treasury securities, did not originally include the words "in the open market." Does this mean that before the law was changed the FRBs could only purchase them from member banks? That was not the practice at the time. Further, subsection 2(a), which authorizes dealing in gold, still does not include the modifier "open market," even though this subsection plainly contemplates

Hamilton, Minutes of the Meeting of the Commissioners of the Sinking Fund (Aug. 27, 1790), in 6 The Papers of Alexander Hamilton, Dec.1789–Aug. 1790, 570-71 (Harold C. Srett ed., Columbia Univ. Press 1962) (adopting resolution to that effect, endorsed by President Washington). Indeed, in proposing the fund, Hamilton wrote that it should purchase "the public debt at the price it shall bear in the market, while it continues below its true [par] value." Report from Alexander Hamilton to the Speaker of the House of Reps., Report Relative to the Provision of the Support of Public Credit (Jan. 9, 1790), in 6 THE PAPERS OF ALEXANDER HAMILTON, supra, at 120 (emphasis added). After the fund was established, in a letter to Hamilton, an official described the fund's purchases as taking place "at the open market." Letter from David Ross to Alexander Hamilton (Apr. 25, 1793) in 14 THE PAPERS OF ALEXANDER HAMILTON, supra, at 342-43. In 1790, during a debate in the House of Representatives one Congressman remarked that "the public securities of the United States . . . are sold in open market, and at the market price, which is always an equivalent; for the market price of stock was regulated by the public opinion, and depended, in great measure, on the circumstances of the nation and on events." 2 Annals of Cong. 1281 (1790) (emphasis added).

foreign transactions in gold with foreign counterparties. Even more difficult is squaring the emancipation interpretation with subsection 2(f), added in 1923, which permits FRBs "to purchase and sell in the open market, either from or to domestic banks, firms, corporations, or individuals, acceptances of Federal Intermediate Credit Banks." Act of March 4, 1923, ch. 252, sec. 406, 42 Stat. 1480 (codified as amended at 12 U.S.C. § 359) (emphasis added.) As subsection 2(f) specifies precisely who the FRBs can buy and sell from or to, on the emancipation interpretation the words "open market" would be entirely redundant. Nor can the emancipation view be reconciled with subsection (h), added in 1979 and later repealed, which empowered the Treasury Secretary to borrow securities from the Fed and "sell any such obligation in the open market for the purpose of meeting [its] short-term cash needs." Act of June 8, 1979, Pub. L. No. 96-18, sec. 2, 93 Stat. 35 (repealed 1981). Surely it cannot be that if the words "open market" were removed the Secretary could sell only to member banks.

Similarly, two lesser-known provisions of section 13 contemplate nonmember dealing, and yet the words "open market" are absent. For example, subsection (4) permits FRBs to buy sight drafts, provided they are endorsed by a member bank, yet it does not use the term "open market"—it simply specifies that such bills may be "purchase[d]." 12 U.S.C. § 344. See also Federal Reserve Act § 13(6), 12 U.S.C. 346 (authorizing FRBs to discount acceptances endorsed by a member bank drawn for agricultural purposes and secured by warehouse receipts conveying title to readily marketable staples).

Section 14(2)(c) presents an interesting case. It permits FRBs to "purchase from member banks and to sell, with or without its indorsement, bills of exchange," and looks to be consistent with the emancipation interpretation. 12 U.S.C. § 356. After all, 2(c) does not use the words "open market." See id. But it does specify "member banks"—suggesting that such a limitation is not implied in its absence. See id. And as subsection 14(1) authorizes FRBs to purchase and sell bills of exchange "in the open market, at home or abroad," subject to "rules and regulations prescribed" by the Board, id. at § 353, it stands to reason that subsection 2(c) was included to permit FRBs to transact with their members on their own terms. Admittedly, this raises the question of whether the FRBs can conduct private sales of these instruments as well as gold bullion. I believe the answer is yes.

The real downfall of the emancipation interpretation is the amendment of subsection 2(b) in 1935 to add the phrase "but only in the open market" to modify FRB authority to buy and sell government bonds. It is inconceivable that this means the FRBs are restricted from buying government bonds from member banks. Even the Fed does not interpret it to mean that. Instead, it interprets the phrase as prohibiting buying securities directly from the Treasury. See Why Doesn't the Federal Reserve Just Buy Treasury Securities Directly From the U.S. Treasury?, Bd. Governors Fed. Rsrv. Sys.: Current FAQs, (Aug. 3, 2013), https://perma.cc/43U7-JWD4 ("The Federal Reserve Act specifies that the Federal Reserve may buy and sell Treasury securities only in the 'open market.'"); KENNETH D. Garbade, Federal Reserve Participation in Public Treasury Offerings, Fed. Rsrv. Bank OF N.Y. STAFF REPORT NO. 906 (2015), https://perma.cc/HW9Q-76J8. The Fed's interpretation rests on a single comment in the legislative history made by a controversial witness. See, e.g., Banking At of 1935: Hearings on S. 1715 Before a Subcomm. of the S. Comm. on Banking and Currency, 74th Cong., 409 (1935) (statement of Winthrop Aldrich, Chairman of the Chase National Bank of New York) (recommending that, to avoid runaway inflation, "the direct purchase of Government obligations from the Treasury . . . be specifically declared not to be open-market operations within the meaning of the act"). But not only was Aldrich's suggested language not adopted (Congress could easily have prohibited "direct purchases"), the Fed's position assumes that the words "on the open market" advance the goal of preventing handouts to Treasury, Aldrich's purported concern, by preventing the Fed from transacting with the Treasury as a counterparty. They do not. See, e.g., GARBADE, supra. In so far as they address Aldrich's concern, they do so by prohibiting the Fed from buying from Treasury in a private sale at a non-market price. Carter Glass explained this at the time:

Second is the policy against reading statutes piecemeal. ¹⁷² If the Fed were allowed to buy and sell securities at non-market prices it could evade all of the requirements of section 13 restricting its lending activities. For example, the Fed could lend to a single company without the approval of the Treasury Secretary and without reporting the transaction to Congress in contravention of section 13(3) just by structuring the loan as a sale-and-repurchase agreement of agency MBS or foreign currency. It could also usurp Congress's power of the purse ¹⁷³ by purchasing securities outright and overpaying for them, thereby reducing its earnings, which it is required to pay periodically to the Treasury. ¹⁷⁴ And the Federal Open Market Committee ("FOMC"), which Congress carefully designed in 1935 to manage the System's securities portfolio, could use section 14 to effectively override the Board on lending rates and override the FRBs on lending counterparties even though Congress intentionally housed decision-making authority over these matters in the Board and the FRBs and not in the FOMC.

Third, it is inconceivable that anyone in 1913 understood section 14 to permit lending, as Congress specifically designed the legislation to condition access to the Fed's balance sheet to membership in the System, and compliance with all of the requirements that such membership entailed. The goal was to eliminate special deals, which were a despised feature of the banking system's reliance on large New York banks during panics, and to create a statutory framework governing who could access

Suppose, for example, the open-market quotation for Federal Reserve bonds is [substantially] below par . . . No one can conceive of any fair reason why a Federal Reserve bank should use the reserve funds of their member[] banks to purchase Government bonds at par directly from Treasury when they could go into the open market and buy them at a greatly depreciated price. Therefore, we require that the purchases shall be in the open market.

⁷⁹ CONG. REC. 11826 (1935). See also 88 CONG. REC. 766 (1942) ("Mr. Vandenberg. There must have been some reason for writing in the language [but only on the open market]. Mr. Barkley. The Senator from Virginia is the author of the law . . . Mr. Glass. We simply did not want the Federal Reserve banks to go into the speculative business; that is all." (emphasis added)); Id. (statement of Sen. Alden V. Barkley) (explaining that in 1935 "it was felt, as a matter of caution, the Federal Reserve banks should be limited to the facilities enjoyed by the ordinary citizen at that time, of going into the open market and buying bonds at the market price"). Indeed, this is the only way to read "open market" consistently, as the words modify all the other asset classes just discussed where it would make little sense to interpret them as prohibiting direct purchases from the issuer. To drive this point home, one need only consider subsection (h), which as mentioned empowered the Treasury Secretary to borrow treasury securities from the Fed and sell them "in the open market for the purpose of meeting [its] short-term cash needs." Act of June 8, 1979, Pub. L. No. 96–18, § 2, 93 Stat. 35 (repealed 1981). On the Fed's interpretation, Congress added these words to prevent Treasury from selling its securities to itself.

^{172.} See, e.g., U.S. Nat'l Bank of Oregon v. Indep. Ins. Agents of Am., Inc., 508 U.S. 439, 455 (1993) ("[I]n expounding a statute, we must not be guided by a single sentence or member of a sentence, but [we must] look to the provisions of the whole law, and to its object and policy." (quoting United States v. Heirs of Boisdore, 49 U.S. (8 How.) 113, 122 (1849))); PHH Corp. v. CFPB, 881 F.3d 75, 123 (D.C. Cir. 2018) (quoting id.), abrogated by Selia Law L.L.C. v. CFPB, 140 S. Ct. 2183 (2020).

^{173.} Kate Stith, Congress's Power of the Purse, 97 YALE L.J. 1343 (1988).

^{174. 12} U.S.C. § 289(a)(3)(B).

emergency loans and who could not.¹⁷⁵ Perhaps the Fed's own General Counsel put it best in 1923 when he wrote of the Fed's repurchase operations: "It was never contemplated by Congress that the Federal reserve banks should make direct loans to non-member banks nor to stock, bond and acceptance brokers or other individuals, partnerships or corporations which ordinarily would seek such accommodations from member banks." ¹⁷⁶ So concerned was Congress about fair treatment when it came to lending that it wrote section 4(8) to prohibit the FRBs from "discriminat[ing] in favor of or against any member bank or banks" when "extend[ing] to each member bank such discounts, advancements, and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks."

Moreover, it would be truly bizarre if section 14 permitted lending against *Treasury collateral*, given that when the relevant text was written in 1913, U.S. government securities were not eligible assets for discounting under section 13(2). Indeed, after the United States entered World War I, Congress specifically amended the Act to authorize advances to member banks secured by treasury securities (and then *only for fifteen days*). There would have been no need for this amendment if section 14 already allowed sale-and-repurchase agreements of treasuries.

But even if the Fed's interpretation were a reasonable reading of an ambiguous statute, section 14 is not a regulatory provision for which *Chevron* deference applies, and the FRBs are not government agencies; they are federal corporations. Section 14 is part of the corporate charter of the FRBs. And it enumerates corporate powers. The rule of construction in this class of cases is:

that it shall be most strongly against the corporation. Every reasonable doubt is to be resolved adversely. Nothing is to be taken as conceded but what is given in unmistakable terms, or by an implication equally clear. The affirmative must be shown. Silence is negation, and doubt is fatal to the claim. The doctrine is vital to the public welfare. It is

^{175.} See ROGER LOWENSTEIN, AMERICA'S BANK: THE EPIC BATTLE TO CREATE THE FEDERAL RESERVE 191-94 (2015) (describing the influence on President Wilson (and the FRA) of Samuel Untermyer's 1913 report revealing inside dealing among New York banks). See also Ida Tarbell, The Hunt for a Money Trust, III. The Clearing House, Am. MAG., July 1913; LOWENSTEIN, supra, at 61-63 (explaining how many financial firms were dependent on the whims of the New York Clearing House and J.P. Morgan who could determine which firms could access Clearing House "loan certificates"—a sort of private base money—and which could not).

^{176.} Memorandum from Walter Wyatt, Gen. Couns. of the Fed. Rsrv. Bd., to Daniel Crissinger, Governor of the Fed. Rsrv. Bd. 10 (Aug. 18, 1923), https://perma.cc/Z4Y6-JS7P. See also Thomas Conway & Ernest Patterson, The Operation of the New Bank Act 173 (1914) (analyzing section 14 and concluding that "a careful reading of it will show that there are a number of different ways in which the reserve banks may deal with the public" but there is "no authorization under which they may discount or lend directly to private individuals").

^{177. 12} U.S.C. § 301.

^{178.} Federal Reserve Act, ch. 461, sec. 13, 39 Stat. 753 (1916). This provision is still on the books—although it was superseded by section 10B, which gave FRBs the power to lend to banks against a wide range of collateral for up to four months.

axiomatic in the jurisprudence of this court. 179

Thus, such transactions lack authorization under section 14.

Finally, even if artificial purchases and sales *were* permissible under section 14, it is hard to see why the requirements of section 13 should not also apply. After all, the relevant transactions are constructively loans; courts have long treated such conditional sales as loans, ¹⁸⁰ and the evidence here is overwhelming that the facilities at issue are lending facilities. For example, the Fed retains the right to force resale at an above-market price that serves as an interest payment. And the parties describe these price differentials as interest rates.¹⁸¹

This remains good law. For the canonical statement, see *In re Grand Union Co.*, 219 F. 353, 359 (2d Cir. 1914) ("Stripped of the verbiage with which the parties have sought to clothe their transactions, the naked facts disclose that what they were doing was not a sale, but a loan, and that the leases were turned over simply by way of security. The Grand Union Company needed money, and the Hamilton Company advanced it."). *See also In re* Renshaw, 222 F.3d 82, 88 (2d Cir. 2000) ("To constitute a loan there must be (i) a contract, whereby (ii) one party transfers a defined quantity of money, goods, or services, to another, and (iii) the other party agrees to pay for the sum or items transferred at a later date. . . . Where such is the intent of the parties, the transaction will be considered a loan regardless of its form." (citing *In re Grand Union*, 219 F. at 356)).

181. See, e.g., Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve, Coordinated Central Bank Action to Enhance the Provision of U.S. Dollar Liquidity (Mar. 15, 2020), https://perma.cc/UH9K-XBNZ (noting that the Fed and its counterparties "have agreed to lower the pricing on the standing U.S. dollar liquidity swap arrangements to 25

^{179.} Fertilizing Co. v. Vill. of Hyde Park, 97 U.S. 659, 666 (1878). See also 6 FLETCHER CYCLOPEDIA OF THE LAW OF CORPORATIONS § 2483, Westlaw (database updated Sept. 2020) ("any ambiguity respecting the extent of the powers will be strictly construed against the corporation").

^{180.} The key consideration is the intent of the parties. Chief Justice Marshall established the rule in 1812: "the inquiry in every case must be, whether the contract in the specific case is a security for the repayment of money or an actual sale." Conway's Ex'rs v. Alexander, 11 U.S. 218, 237 (1812). To determine intent, courts look to the legal documents and the "extrinsic circumstances." Id. at 238. In Conway's, Marshall concluded that there was no intent to lend. Id. at 239 ("Had there been any treaty—any conversation respecting a loan or mortgage, the deed might have been, with more reason, considered as a cover intended to veil a transaction differing in reality from the appearance it assumed. But there was no such conversation. The parties met and treated upon the ground of a sale and not of a mortgage."). When there was an intent to lend, courts considered the sale as a loan. See, e.g., Eaton v. Green, 39 Mass. (22 Pick.) 526 (1839) (holding that where land was sold subject to an agreement to resell upon the repayment of the money within a given time with interest there was "not a sale with a right to purchase on condition" but an equitable mortgage). See also Robinson v. Farrelly, 16 Ala. 472, 477 (1849) ("The nature of a sale, with the right to repurchase for a given sum, and within a specified time, is a conveyance of the title to the purchaser . . . [but if] the purchaser retain [sic] the right to demand the money of the vendor, notwithstanding his purchase, a debt is then due from the vendor to him, and the existence of this debt within itself shows that the conveyance is a mere security for its payment."); Cake v. Shull, 16 A. 434, 434 (N.J. 1889) ("The right of a court of equity to declare a deed or bill of sale, which is absolute on its face, to be a mortgage, is clear, as is also the competency of parol[e] evidence to prove the fact. The question turns upon the actual intention of the parties at the time of the transaction." (citation omitted)). But see id. at 529-30 ("whenever it appears doubtful whether the parties intended a mortgage, or a sale with an agreement to repurchase, courts of equity incline to consider the transaction a mortgage").

The subparts that follow consider the application of these conclusions to (1) the Fed's repo operations and FIMA facility and (2) its swap lines.

1. Purchases and Sales of Government Debt

Repos are loans secured by U.S. government obligations and such loans, when extended to nonbanks, are permitted by section 13(13) of the Federal Reserve Act, added by Congress during the Great Depression. Section 13(13) authorizes "advances to individuals, partnerships, and corporations on direct obligations of the United States," for up to 90 days "[s]ubject to such limitations, restrictions and regulations as the Board . . . may prescribe." 183

There are two aspects of section 13(13) that are relevant to the Fed's current lending. The first is procedural. Unlike section 14, which is subject to the special direction of the Federal Open Market Committee, section 13 lending requires approval by the Board of Directors of the relevant FRB. (This is, by the way, yet another reason why the Fed's interpretation of section 14 is implausible: the Fed's internal governance was carefully debated and when Congress created the FOMC in 1935 and gave it the power to override the regional reserve banks for the purpose of establishing a single Systemwide open market policy no one thought that it could override the power of the regional banks to decide when, or on what terms, to lend.) Section 13(13) also empowers the Board, not the FOMC, to set the rate governing these loans.

The second regards regulations that the Board has voluntarily imposed on section 13(13) lending. As mentioned, section 13(13) empowers the Board to subject 13(13) lending to "limitations, restrictions and regulations" and the operative version of those regulations—promulgated in 2015—applies many of the same restrictions required by statute in the case of section 13(3).¹⁸⁴ Among these are the requirements (1) that FRBs "obtain evidence that credit is not available from other sources and failure to obtain such credit would adversely affect the economy," (2) that credit be extended "at a rate above the highest rate in effect for advances to depository institutions as determined in accordance with section 14(d)," and (3) that 13(13) lending be limited to "unusual and exigent circumstances."¹⁸⁵

The Board has likely tied its hands in this way for political reasons. Part of the reason may also be path dependence. The Fed has a long history of entering into sale-and-repurchase agreements, one that dates to before 13(13) was on the books.

basis points, so that *the new rate* will be the U.S. dollar overnight index swap (OIS) rate plus 25 basis points" (emphasis added)); Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve, FIMA Repo Facility FAQs (Mar. 31, 2020), https://perma.cc/MK7S-49NJ (noting that the repurchase agreements will "be conducted at *an interest rate* of 25 basis points over the rate of IOER (Interest on Excess Reserves), which generally exceeds private repo rates when the Treasury market is functioning well, so the facility would primarily be used only in unusual circumstances such as those prevailing at present" (emphasis added)).

^{182.} Emergency Banking Act of March 9, 1933, 12 U.S.C. § 347(c).

^{183.} Extensions of Credit by Federal Reserve Banks, 12 C.F.R. § 201 (2020).

^{184.} *Id*.

^{185.} Id. § 201.4(d)(13).

Although a resurrection of the saga of Fed open market lending is beyond the scope of this Article, several historical details bear recounting.

The FRBs first entered into sale-and-repurchase agreements in 1917 with the permission of the Board. ¹⁸⁶ They were inspired to stretch the limits of section 14 by expediency: the country was fighting the First World War and Congress had just passed a new revenue measure that, among other things, imposed a tax on promissory notes issued by banks. The Treasury determined that this tax applied to the notes used by banks for borrowing against U.S. government securities, ¹⁸⁷ which had been authorized in 1916 for periods of up to 15 days in order to help finance the war. Unfortunately, the tax made notes with very short maturities uneconomical. ¹⁸⁸ So the Board determined that the System might properly avoid the tax by structuring its section 13 15-day advances as sale-and-repurchase agreements with a 15-day duration. ¹⁸⁹ The Treasury appears to have blessed this practice (the Secretary was then a member of the Board ex officio and the administration was eager for the Fed to continue to accommodate banks dealing in government debt).

In April 1918, Congress carved out an exception to the tax.¹⁹⁰ And, the Board suggested that the FRBs discontinue repo lending.¹⁹¹ But some FRBs continued. The Board ultimately acquiesced,¹⁹² and in the early 1920s certain FRBs expanded the practice to support nonmember banks; in particular the New York Fed, under the leadership of former trust company executive Benjamin Strong, began to use repos to lend to Wall Street dealer firms.¹⁹³ Thereafter, faced with the question of how banks engaging in these transactions should account for them, the Comptroller of the Currency issued a

^{186.} Memorandum from William Harding, Governor of the Fed. Rsrv. Bd., to all Fed. Rsrv. Banks (November 30, 1917) (on file with author).

^{187.} Memorandum from William Harding, Governor of the Fed. Rsrv. Bd., to all Fed. Rsrv. Banks (Dec. 1, 1917) (on file with author) (noting that "the stamp tax imposed by the War Revenue Act has been held to apply to the promissory notes of member banks").

^{188.} *Id.* at 1 ("[T]his tax practically prohibits this form of short-term borrowing by member banks").

^{189.} Id.

^{190.} Act of Apr. 5, 1918, Pub. L. No. 121, 40 Stat. 506 § 301 (providing for national security and defense).

^{191.} Memorandum from Henry Parker Willis, Sec'y of the Fed. Rsrv. Bd., to Fed. Rsrv. Agents (Apr. 6, 1918) (on file with author) ("It is suggested, therefore, that the practice of purchasing Liberty Bonds and Certificates of Indebtedness under so-called repurchase agreements be discontinued and that such borrowing by member banks be made on their own promissory notes secured by such bonds and certificates.").

^{192.} Memorandum from William Harding, Governor of the Fed. Rsrv. Bd., to Fed. Rsrv. Agents (July 22, 1918) (on file with author) (noting that the practice is authorized under its 1917 ruling and that it "sees no occasion to withdraw the ruling").

^{193.} Memorandum from Benjamin Strong, Governor of the Fed. Rsrv. Bd. N. Y., to William Harding, Governor of the Fed. Rsrv. Bd. (Nov. 22, 1921) (on file with author) (discussing the merits of lending to securities dealers through repos); Memorandum from William Harding, Governor of the Fed. Rsrv. Bd., to Benjamin Strong, Governor of the Fed. Rsrv. Bd. N.Y. (Dec. 2, 1921) (replying that "the Board is of the opinion that the practice in question is legal" and that the "the Board has no objection to its adoption in some form," but that "the Board feels . . . it is only proper to give careful consideration to the question of whether it is advisable to modify in any way the practice as outlined in your letter").

ruling that they were loans. ¹⁹⁴ The Board's general counsel then also decided they were loans and concluded that the FRBs had no legal authority to enter into them. Among other things, whereas the 1917 practice of lending to member banks was used to avoid a tax, loans to dealer firms plainly exceeded the System's lending powers. ¹⁹⁵ As he put it:

The practice . . . of buying bonds and bankers' acceptances under so-called "repurchase agreements" amounts to nothing more nor less than the making of direct loans on the security of such bonds or acceptances; and the making of such loans to parties other than member banks is manifestly inconsistent with the purposes of the Act in that it enables nonmember banks and stock, bond and acceptance brokers to tap the resources of the Federal reserve banks directly and without the intervention of a member bank. 196

... Federal reserve banks have no power to engage in such transactions and such agreements on the part of these banks are entirely ultra vires. ¹⁹⁷

Several FRB Presidents, led by Strong in New York, fought the Board to a standstill, and in 1925, the banks agreed to modify the practice so that they were no longer contractually obligated to resell the collateral. The Board then agreed to reauthorize the practice on that basis, 199 securing in writing the approval of Andrew Mellon, the Treasury Secretary. 200

In 1926, Congress learned of the New York Fed's loans to dealer firms, ²⁰¹ and several members of the House Banking and Currency Committee publicly challenged

^{194.} Wyatt, *supra* note 176, at 1 (noting that the Comptroller "has ruled that national banks which have sold securities to the Federal reserve banks under [repo] agreements shall consider the transactions as borrowings of money and shall carry them on their books accordingly").

^{195.} Id. at 2, 8.

^{196.} Id. at 10.

^{197.} Id. at 9.

^{198.} George B. Vest, Historical Background with Respect to Repurchase Agreements by the Federal Reserve Banks 5 (Oct. 1, 1954) (unpublished manuscript) (on file with the United States, National Archives and Record Administration, Records of the Federal Reserve System, Record Group 82, Discount Rates: Operations of FR Banks: Repurchase Paper (1942–1958) [hereinafter Repurchase]), https://perma.cc/STS4-44YC (explaining that "[a]n optional form of agreement was suggested, and Mr. Wyatt apparently felt that, if divested of its loan features, such an option agreement might be construed as constituting a purchase").

Memorandum from Daniel Crissinger, Gov. of the Fed. Rsrv. Bd. N.Y., to William Harding, Gov. of the Fed. Rsrv. Bd. (Mar. 6, 1925) (on file with author).

^{200.} Memorandum from Andrew Mellon, Sec'y of the Treasury, to Daniel Crissinger, Gov. of the Fed. Rsrv. Bd. (Mar. 6, 1925) (on file with author) ("the resolution [regarding 'the 15-day repurchase agreement'] has my approval").

^{201.} The FRBs disclosed information regarding their repo lending in their annual reports starting for the year ending December 31, 1918. See, e.g., FOURTH ANNUAL REPORT OF THE FEDERAL RESERVE BANK OF NEW YORK 13-15 (1919).

Governor Strong and W. R. Burgess, another New York Fed official. ²⁰²After the hearing, the New York Fed wrote the Committee: "If there is still any doubt as to the legality of these arrangements, then the law might well be amended specifically and expressly to authorize them." ²⁰³ The law was not amended, but no contrary legislation was enacted either. ²⁰⁴ Perhaps in response to this episode, Congress added 13(13) in March 1933 (the legislative history is not clear). The FRBs used that power sparingly for about two years, and then 13(13) lending and open market repo lending largely ceased for a decade. ²⁰⁵

In the 1950s, William McChesney Martin revived and expanded nonbank repos. Martin, a former head of the New York Stock Exchange and a former securities dealer, reoriented Fed monetary policy around nonbank dealer firms. ²⁰⁶ As part of this effort, he expanded the role of open market operations, which depend on dealers, not banks, as counterparties, and the Fed started using section 14 to provide an ersatz discount window for these new "members." ²⁰⁷

Internally, the Fed prepared legal memos blessing the practice.²⁰⁸ But the memos did not address the requirement that transactions take place on the open market, and soon after the Fed ramped up its repo operations, Congress challenged the practice. In 1957, Rep. Wright Patman said:

^{202.} Stabilization: Hearings on H.R. 7895 Before the H. Comm. on Banking and Currency, 69th Cong., 1st Sess., 983-88 (1927)

^{203.} Stabilization: Hearings on H.R. 7895 Before the H. Comm. on Banking and Currency, 69th Cong. 434 (1927) (statement of Benjamin Strong, Governor, Federal Reserve Bank of New York attached Memorandum Concerning Sales Contracts Covering Open-Market Operations in Government Securities and Bankers' Acceptances).

^{204.} Stabilization: Hearings on H.R. 7895 Before the H. Comm. on Banking and Currency, 69th Cong. (1927).

^{205.} The New York Fed did not enter into a single repurchase agreement between 1933 and June 27, 1949. *See* Letter from Coheen to Robert Leonard and Lowell Myrick, Div. of Bank Operations (June 28, 1949) (on file with author).

^{206.} Id.

The Federal Reserve System After Fifty Years: Hearings Before the Subcomm. on Domestic Fin. of the H. Comm. on Banking and Currency — Report of Ad Hoc Subcommittee on the Govt. Securities Market, 88th Cong. 2004-34 (1964).

^{208.} Memorandum from George B. Vest, Gen. Couns. of the Fed. Rsrv. Bd., to the Exec. Comm. of the Fed. Open Mkt. Comm. 1 (Oct. 1, 1954) in Repurchase, supra note 198 ("It is my opinion that under the present law the use of repurchase agreements is within the legal authority of the Federal Reserve Banks under section 14 ... because (1) Although they contain certain features normally found in loans, such transactions which are in form purchases and sales of Government securities are entered into for the primary purpose of implementing open market policies ... rather than for the purpose of providing credit accommodations to particular institutions; and (2) The use of such repurchase agreements as purchases and sales pursuant to section 14 has been recognized and approved administratively for some 30 years, first by the Board and later by the [FOMC], and this administrative practice has been called to the attention of Congress in the Board's annual reports."); id. at 3 ("The form of the agreement now in use is as a legal matter optional rather than obligatory ... [I]t is believed clear that, even though such agreements may incidentally have the effect of providing dealers with credit, their primary purpose is, by providing funds to the market, to implement open market policies determined by the [FOMC].").

The Open Market Committee is right now doing something I do not consider to be legal at all. They are permitting dealers in Government securities to borrow money directly from the New York Federal Reserve Bank. Now, I thought Federal Reserve Banks were set up to accommodate members banks. But here we find a half dozen dealers—not over 15—in the city of New York who get their money directly from the Federal Reserve to speculate in Government securities . . . There is nothing in the Federal Reserve Act . . . that permits them to borrow money from the Federal Reserve for that purpose . . . ²⁰⁹

Martin, like Strong before him, asked Congress to amend the law to "clarify" the legality of the Fed's repo operations.²¹⁰ While the relevant provisions have been amended many times since, no amendment ratified or endorsed the Fed's continued use of repo transactions to lend to nonbanks without complying with the requirements of section 13.

How does this history bear on the question of whether the Fed's current practice is kosher? It cuts two ways.

On the one hand, Congress has been on notice of the Fed's interpretation. The Fed's repo activities are open and notorious. They appear in countless reports to Congress, and the practice has been debated on the Hill on several occasions. On the other hand, the Fed's current initiatives differ from its past use of section 14 repos. For example, it cannot reasonably be argued that the purpose of entering into repos with foreign central banks is to temporarily increase the amount of reserves in the U.S. banking system. Similarly, the Fed's expanded repo operations beginning in September of last year were designed to bring down borrowing costs in the repo market—to ensure smooth functioning of the treasury market by subsidizing dealer firms and other repo market participants that could not borrow from banks at equivalent rates.

^{209.} Financial Institutions Act of 1957: Hearings on S. 1451 and H.R. 7026 Before the H. Comm. on Banking and Currency, 85th Cong. 1546 (1957).

^{210.} Id. at 25 (statement of Chairman William McChesney Martin on behalf of the Board of Governors, Federal Reserve System) (noting that repurchase "transactions admittedly have some of the attributes of a loan and present law contains no specific reference to these transactions" and that "[a]ccordingly, the Board believes that a clarifying amendment which would specifically authorize such repurchase agreements by the Federal Reserve banks would be desirable").

^{211.} Another recent initiative, the Overnight Reverse Repurchase Facility ("ON RRP") also bears mentioning. Unlike the lending programs discussed herein, the ON RRP is designed to open up the right-hand side of the Fed's balance sheet by allowing select counterparties to have ersatz deposit accounts at the New York Fed. ON RRP purchases and sales are not at market rates. They are also seemingly inconsistent with section 13(1), which governs FRB deposit accounts and section 11, which governs the pricing of FRB services.

^{212.} See supra note 51. In private memos, and even some public testimony, Fed officials have previously conceded that past open market lending was also designed to reduce the funding costs of dealer firms. See, e.g., Memorandum of Benjamin Strong, Stabilization Hearings, supra note 203, at 433 ("The margin of profit on their business being so small, unless they have recourse to the Federal reserve banks at relatively stable rates in times of need, they would not be able to continue in business. At such times of need, when it is impossible for the dealers to procure funds in the market either at all or at rates economically possible for them, assistance must be given to them by the Federal reserve banks by means of spot

Moreover, the Fed appears to recognize that its current repo operations are not intended to temporarily infuse reserves into the banking system but to lend. For example, the New York Fed described its March 12, 2020 actions as designed to address highly unusual disruptions in Treasury financing markets. And the Board stated on March 31 that the new FIMA facility should help support the smooth functioning of the U.S. Treasury market by providing an alternative temporary source of U.S. dollars other than sales of securities in the open market. The Board, in other words, conceded that a foreign central bank's sale of treasuries to the Fed in a repo is not an open market sale of securities—this despite the fact that section 14 by its plain terms permits the Fed to purchase such securities only in the open market.

2. The Purchase and Sale of Foreign Currency

A similar problem affects the Fed's swap lines. These swaps are loans to foreign central banks. As mentioned above, in a swap the Fed increases on its books the account balance of a foreign central bank. In exchange, the foreign central bank increases the Fed's balance on its books denominated in whatever currency it issues. The arrangement is structured as a purchase of foreign currency, but it is really a loan. Sometime in the future, the foreign central bank will repurchase its currency at an artificial price; the difference between the repurchase price and the initial price is the interest rate paid to the Fed on the loan. Loans to foreign central banks secured by promises to pay foreign currency are governed by section 13(3), which permits such lending in unusual and exigent circumstances, provided that there is "broad-based eligibility" and that the lending complies with policies and procedures designed to ensure that the loans are "for the purpose of providing liquidity to the financial system," "not to aid a failing financial company," and that "the security . . . is sufficient to protect tax-payers from losses." In the case of the Fed's swap lines, all of these requirements arguably could be met.

But the Fed would likely need to make several changes. It would have to establish a central bank swap facility, following the procedural requirements of 13(3).²¹⁶ These requirements include securing at least five votes from the Fed's Board, approval by the Board of Directors of the relevant FRB (presumably the New York Fed), approval by

purchases of a portion of their supply of bankers' acceptances or Government securities.").

^{213.} See supra notes 180, 208.

^{214.} Statement, Fed. Rsrv. Bank of N.Y., Statement Regarding Treasury Reserve Management Purchases and Repurchase Operations (Mar. 12, 2020), https://perma.cc/G3LW-9WVV.

^{215.} Press Release, Bd. of Governors of the Fed. Rsrv. Sys, Federal Reserve, Federal Reserve Announces Establishment of a Temporary FIMA Repo Facility to Help Support the Smooth Functioning of Financial Markets (Mar. 31, 2020), https://perma.cc/GJ7V-MMLH (emphasis added).

^{216.} These procedural requirements are substantively important and significant. They ensure that the legislature's policy goals are advanced by the Fed's lending activities. As discussed *supra*, these goals were relatively narrow as regards lending outside the banking system. As Mel Watt explained in 2009, the Fed was designed to serve as a monetary authority and other powers, including limited-purpose NIA powers, could interfere with its ability to perform that function properly. *See supra* note 125.

the Secretary of the Treasury, and a series of findings by the Board and the New York Fed regarding the circumstances and the ability of foreign central banks to borrow dollars from the U.S. commercial banking system.²¹⁷ It would also have to meet the relevant reporting obligations to Congress.

Why isn't the Fed complying with these requirements already? Probably because of some combination of political concerns and path dependence.²¹⁸ The Fed established its first swap lines around the same time Chairman Martin oversaw the expansion of dealer repos. The system's leadership was well aware then that swaps were a stretch. The Board's general counsel, Howard Hackley, acknowledged this in 1961,²¹⁹ writing that "this matter is admittedly subject to question; and, while it is unlikely that the plan would be challenged in court, there can be no assurance, in the absence of legislation, that it would not be criticized from some sources on legal grounds." With regard to the "open market" clause, Hackley reasoned that a "term may sometimes be differently construed in the light of different statutory contexts and purposes." Accordingly, "an 'open market' in cable transfers may be regarded as embracing any person with whom a Reserve bank may feel free to deal . . . which is part of that market."220 Hackley was determined to distinguish purchases of foreign currency from foreign central banks from bilateral purchases of treasury securities from Treasury, which it was widely agreed was prohibited by the requirement that section 14(b)(1) purchases occur only in the open market.²²¹ But he does not explain what the words "open market" mean in the context of foreign currency transactions.

Like the Fed's repo operations, the Fed's swap lines with foreign central banks are open and notorious. For example, the Fed relied on swap lines heavily during the 2008 global financial crisis. Moreover, unlike the Fed's recent FIMA facility, the Fed's swap lines are not appreciably different in design from the Fed's earlier practice during the twentieth century. Even the intent is similar. When the Fed first established its swap lines in the 1960s it used them for two purposes. One is well known: to maintain a fixed-exchange rate regime. The other is less appreciated: to lend dollars to foreign central banks so that they could on-lend the dollars to institutions in their jurisdiction issuing dollar denominated deposits and equivalent debt. The Fed's legal analysis

^{217.} The Board would also have to amend Regulation A to continue to charge below market rates instead of penalty interest rates. *See supra* note 97.

^{218.} The Treasury Secretary and Congress may also desire to reduce the salience of these foreign lending activities for political reasons. Section 14 allows the Fed to conduct this lending without labeling it as lending, billing it instead as a matter of more traditional interest rate policy.

^{219.} Memorandum of Howard Hackley, Gen. Couns., to the Fed. Open Mrkt. Comm. (Nov. 22, 1961), reprinted in Bretton Woods Agreements Act Amendment: Hearings Before the Comm. on Banking and Currency, 87th Cong. 144 (1962).

^{220.} Id. at 149.

^{221.} See supra note 171.

^{222.} TOOZE, supra note 1.

^{223.} See Robert N. McCauley & Catherine R. Schenk, Central Bank Swaps Then and Now: Swaps and Dollar Liquidity in the 1960s (Bank for Int'l Settlements, Monetary & Econ. Dep't Working Papers, Paper No. 851, 2020); see also Benjamin Braun et al., Financial Globalization as Positive Integration: Monetary Technocrats and the Eurodollar Market in the 1970s, Rev. OF

when it first opened its swap lines emphasized the former purpose.²²⁴ Accordingly, that analysis did not fully grapple with the ways in which the latter purpose conflicts with section 13 and its procedural and substantive lending requirements.

III. The Case for Statutory Reform

The benefits to Congress and the President of using the Fed to address economic emergencies are self-evident. Fed dollars are not part of the national debt. Fed lending does not require presidential signature or passage by both houses of Congress. Fed expertise and independence reduces the likelihood of corruption, self-dealing, and reckless credit allocation. But there are drawbacks, especially with the indirect approach taken by Congress in 2020. This Part considers some of them, including (A) the costs of sub silentio law making; (B) the problem with agency adverse possession; and (C) the downsides, given the Fed's institutional design, of assigning it nonmonetary credit functions alongside its monetary role.

A. The Costs of Sub Silentio Lawmaking

The Federal Reserve Act as amended by Dodd-Frank creates a limited-purpose monetary authority and is thus in tension with the CARES Act, which charges the Fed with acting as a de facto NIA, extending credit to businesses and municipalities. The failure of Congress to update the statutory design to empower the Fed to perform these roles—or even to explicitly suspend the rules that conflict with them for the duration of the current crisis—has costs along at least three dimensions.

First, a loss of clarity. By enacting the CARES Act on top of inconsistent existing law, Congress obscured the limits of the Fed's authority to lend. Which requirements of section 13(3) still apply and which do not? Although the CARES Act controls as the more recent pronouncement,²²⁵ and the more specific,²²⁶ it does not, on its own, resolve all of the questions raised by interaction of § 4003(b) with the FRA (and the GRA). For example, the CARES Act clouds the meaning of the credit availability proviso. Section 4003(b)(4) authorizes the Secretary to invest in Fed facilities that purchase "obligations or other interests in secondary markets or otherwise," which, under the "predicate-act" cannon presupposes that the Fed can create facilities that purchase such obligations and interests.²²⁷ But to what extent does the Fed still have to obtain evidence regarding credit availability before buying corporate bonds on secondary markets? Does the language in the CARES Act regarding "other instruments" permit the Fed to

INT'L POL. ECON. (2020).

^{224.} Hackley, *supra* note 219, at 143 ("[T]he principal purposes of operations in foreign currencies through such accounts would be to promote international monetary cooperation among the central banks of countries maintaining convertible currencies, to foster orderly conditions in exchange markets for such currencies, to facilitate the expansion and balance growth of international trade, and to supplement the activities of the International Monetary Fund in this field.").

^{225.} See Scalia & Garner, supra note 130, at 189.

^{226.} Id. at 183.

^{227.} Id. at 192-94.

purchase even equity securities?

Congress's approach also creates uncertainty about the Fed's obligation to ensure borrower solvency. Who is the borrower when the Fed purchases bond ETFs? Does the Fed have to divest itself of ETFs if the underlying bonds default or if the Fed cannot assure itself that the issuers are solvent?

Furthermore, the CARES Act fails to specify the extent of the Fed's authority *after* its provisions expire. Does the CARES Act leave any lasting mark on the rules governing Fed lending? For example, what sort of future Fed facilities can be characterized as being "for the purpose of providing liquidity to the financial system"?²²⁸ On the one hand, the CARES Act appears to create a specific exception for lending to nonfinancial businesses and municipalities. On the other hand, it does not say whether it is suspending the requirement only in this context. Does the CARES Act merely provide an example of what sort of lending to the real economy satisfies the requirements of the FRA? While one reading of the CARES Act—and its failure to explicitly amend the FRA—is that the Fed's current facilities are exceptions, not the new normal,²²⁹ in the absence of further legislative pronouncements, there will probably be future efforts to read the CARES Act not as suspending inconsistent provisions but as adopting interpretations of the FRA that leave the FRA's purpose requirement with a very different meaning.²³⁰

Second, reduced accountability of Congress to the public. While part of the explanation for the way in which the CARES Act deals with existing law is expediency, it is likely that other factors were at work. For example, by declining to amend the FRA, Congress avoided drawing public attention to the fact that it asked the Fed to take on a new role. Thus, although Congress shifted part of the responsibility for responding to the economic collapse to a technocratic domain, it did not explicitly acknowledge that it did so.

Congress also avoided suspending rules that prior legislators put in place to limit the Fed's ability to lend. For example, although the CARES Act expressly appropriated money for Fed facilities to lend to businesses and municipalities, it did not acknowledge that some of the investments it envisioned the Fed making were inconsistent with existing statutory restrictions requiring the Fed not to compete with banks in extending credit to the real economy. Nor did Congress address in the CARES Act whether the Secretary was, in fact, authorized to carry out his announced investment

^{228. 12} U.S.C. § 343(3)(B)(i).

^{229.} On this reading, if we assume that Congress is a rational legislature that reads its own statutes reasonably, it decided not to explicitly amend inconsistent provisions of background law because it wanted to suspend them only temporarily. In other words, if it had wanted to strike these requirements, it could have easily done so.

^{230.} The debate has already begun. Compare Lee Reiners, The Pandemic Relief Bill and the Battle Over Federal Reserve Emergency Lending Authority, THE FINREG BLOG (Dec. 21, 2020) (arguing that "the Fed had the legal authority—before the CARES Act—under Section 13(3) to roll out the MLF, MSLP, and the other lending programs funded by the CARES Act" and that the CARES Act confirmed this), with Jeanna Smialek, The Year the Fed Changed Forever, N.Y. TIMES (Dec. 23, 2020), https://perma.cc/ZM49-VMAD (explaining that Sen. Pat Toomey told the NYT that the Fed could not, going forward, use 13(3) to buy municipal bonds or make business loans without additional congressional authorization).

in the CPFF using ESF funds under the law as it stood prior to enactment.

B. The Problem with Agency Adverse Possession

Agency adverse possession—the acquisition of administrative or other authority based on the continuous exercise of such authority without the permission of Congress—is also dangerous.²³¹ First, such power grabs, especially in the financial sector,²³² can spur changes in other areas, often beyond an agency's sphere of activity.²³³ And even if an agency is permitted to claim a new power for itself, it cannot also rewrite other parts of the law to make them work well in tandem.²³⁴ The result can be a muddled and malfunctioning legal framework. In the case of the FRA: The Fed's open market lending is backstopping shadow banks in a way that Congress intended only for banks. But neither the Fed nor any other government agency can control shadow banks ex ante (the way the banking agencies regulate banks). The result is rent extraction and the growth of shadow banks and their profits²³⁵—a result neither the Fed nor Congress

^{231.} Although adverse possession is an actual legal principle in property law, see RESTATEMENT (SECOND) OF TORTS § 161 (Am. L. INST. 1964), there is no corresponding doctrine in administrative or corporate law. An agency's or corporation's open and notorious exercise of authority does not amend its enabling act or charter. That said, courts have sometimes recognized what amounts to adverse possession in the guise of applying Chevron deference. One interesting case, currently before the Second Circuit, involves the OCC's attempt to seize the power to issue federal charters to nondepository financial technology companies. See Lacewell v. OCC, No. 19 Civ. 4271 (2d Cir. July 29, 2020). The OCC lacks such power under the National Bank Act. See Brief of 33 Banking Law Scholars as Amici Curiae in Support of Appellee, Lacewell, No. 19 Civ. 4271 (2d Cir. July 29, 2020). But one of its arguments is that it claimed the authority two decades ago in an administrative rulemaking with no objection from Congress. See Brief for Defendants-Appellants at 6, Lacewell, No. 19 Civ. 4271 (2d Cir. Apr. 23, 2020).

^{232.} The Fed's adverse possession of section 14 lending powers is not unique. Adverse possession tends to occur in situations where there are low political payoffs to members of Congress in acting, leading to a large delegation or deference to lawless executive action. For example, Presidents have occasionally seized statutory authority in the foreign affairs and military context, sometimes with judicial sanction. See Dames & Moore v. Regan, 453 U.S. 654 (1981). They have also claimed powers over federal lands and immigration without authorization. See United States v. Midwest Oil, 236 U.S. 459 (1915). Recent doctrine does not recognize adverse possession as a legal basis for executive action. Rapanos v. United States, 547 U.S. 715, 750 (2006) ("Congress takes no governmental action except by legislation. What the dissent refers to as 'Congress' [sic] deliberate acquiescence' should more appropriately be called Congress's failure to express any opinion. We have no idea whether the Members' failure to act . . . was attributable to their belief that the [agency's] regulations were correct, or rather to their belief that the courts would eliminate any excesses, or indeed simply to their unwillingness to confront the environmental lobby."). See also McGirt v. Oklahoma, 140 S. Ct. 2452, 2482 (2020).

^{233.} Jeff Gordon and Kate Judge call this "financial structure law." Jeff Gordon & Kate Judge, *The Origins of a Capital Market Union in the United States* (Eur. Corp. Governance Inst. (ECGI), Law Working Paper No. 395, 2018), https://perma.cc/T68H-PNUH.

^{234.} One example of this in the financial context is the SEC's seizure of the power to create MMFs—which function like banks without being subject to regulation as banks. See MORGAN RICKS, THE MONEY PROBLEM: RETHINKING FINANCIAL REGULATION 233 (2016).

^{235.} See generally id.

desired or intended.

Second, adverse possession can undermine key policy objectives. The FRA does not permit the Fed to lend to foreign central banks or securities dealers through the discount window for a reason. Congress sought to limit the Fed to acting through the decentralized banking system—to constrain its power and to prevent it from picking winners and losers in the economy. Congress also crafted the banking laws to limit the sorts of assets that banks can monetize (purchase by issuing new money and money substitutes)—intentionally excluding the sorts of assets that many shadow banks buy.²³⁶

Third, adverse possession undermines important democratic values. The FRBs enjoy a limited delegation of authority, and that delegation does not include the power to rewrite the law, even when it is expedient to do so. The Fed's foreign lending facilities, for example, have the potential to affect foreign policy.²³⁷ If legislators turn a blind eye to agency power grabs, they frustrate the constitutional design which requires them to change the law by passing bills and presenting them to the President.²³⁸

C. The Downsides of Government by Central Bank

There are also institutional, practical, and distributional downsides to relying on the Fed to perform nonmonetary functions. Mixing monetary and nonmonetary functions together in one agency creates problems for the execution of both. Because the Fed is designed to perform monetary functions, it is poorly suited to execute on nonmonetary ones and taking on these tasks threatens to interfere with its ability to do its primary work.

The Fed is built to administer a two-tiered money system in a way that ensures there is enough bank money in the economy to support maximum employment, price stability, and moderate long-term interest rates. This mission entails an unusual degree of independence from both judges and the President. It means the Fed's activities are generally not subject to the same sort of judicial review nor is its policy making process structured with as much public participation and engagement as other agencies. The Fed's mission also requires a close relationship to the economy's financial sector and a set of tools that are financial in nature. And just as important, monetary policy is associated with, and depends upon, a distinct internal culture, which means the Fed's staff and leadership tend to avoid financial risk and political conflict.

Adding credit support functions to the Fed's remit affects its monetary mission in several ways.²³⁹ First, real economy lending tends to entangle the Fed with the

^{236.} See, e.g., ROGER LOWENSTEIN, AMERICA'S BANK: THE EPIC STRUGGLE TO CREATE THE FEDERAL RESERVE (2015); FED. RSRV. SYS., THE FEDERAL RESERVE SYSTEM: PURPOSES AND FUNCTIONS 109 (1939); HACKLEY, supra note 9, at 37-38.

^{237.} See Katherine Harris, Hidden in Plain Sight: The Federal Reserve's Role in U.S. Foreign Policy, 40 YALE J. INT'L L. 393 (2015).

^{238.} U.S. CONST. art. 1, § 7, cl. 2.

^{239.} What follows is not a comprehensive cataloging of the problems that might arise by expanding the Fed's role. For a treatment of the role of a monetary authority in a democracy, see Paul Tucker, Unelected Power: The Quest For Legitimacy in Central Banking and The Regulatory State (2018).

executive. Title XI, for example, requires the Fed to seek approval from the Treasury Secretary before establishing a 13(3) facility. And, in 2020, the Treasury Secretary agreed only to high penalty interest rates for many borrowers, limiting take-up especially among smaller businesses and local governments. As Paul Tucker warns, if executive branch officials hold formal levers over some areas of central bank policy, they will be "sorely tempted to use them as informal bargaining chips over monetary policy. That's just how the world works." Second, whereas the statutory framework governing the Fed's monetary mission is carefully constructed to limit the Fed's ability to favor particular economic sectors or groups in managing the money supply, credit support activities entail difficult distributive choices likely to embroil the Fed in political disputes. Politicizing the Fed is likely to change how the public views its decisions. The result may be a more political appointments process and a less expertise-driven organization.

At the same time, delegating NIA responsibilities to the Fed is unlikely to produce great national investment policy. The Fed's procedural insulation means that it is unlikely to be especially responsive to public input. The Fed's technocratic culture suggests the Fed will be overly cautious in disbursing government aid. The Fed's financial tools mean that it cannot distribute money democratically, in the way that Congress can. And, the Fed's independence limits its accountability for exercising its discretion in ways that overlook certain segments of society. The result is likely to be policies that disproportionately benefit asset owners, financial firms, and large corporations. And the Fed's independence limits its accountability for exercising its discretion in ways that overlook certain segments of society. The result is likely to be policies that disproportionately benefit asset owners, financial firms, and large corporations.

^{240.} See Jeanna Smialek, A Coffee Chain Reveals Flaws in the Fed's Plan to Save Main Street, N.Y. TIMES (July 9, 2020), https://perma.cc/5XCR-U8FH (reporting that "some at Treasury saw the program as more of an absolute backstop for firms that were out of options" and that "the Treasury secretary, has resisted taking on too much risk, saying at one point that he did not want to lose money on the programs").

^{241.} TUCKER, *supra* note 239, at 450.

^{242.} We saw a preview of this last year. Following the presidential election in November, the outgoing Treasury Secretary declined to authorize the Fed to continue operating most of the credit facilities beyond December 31 and requested that the Fed return the unneeded balance of the Treasury's equity investments. See Jeanna Smialek & Alan Rappeport, Mnuchin to End Key Fed Emergency Programs, Limiting Biden, N.Y. TIMES (Nov. 19, 2020), https://perma.cc/F4QQ-Y4RF. Thereafter, Congress rescinded the unobligated balances made available under the CARES Act to invest in Fed facilities, see Consolidated Appropriations Act, 2021, Pub. L. 116-260 (2020), § 1003(a)(1); barred the Fed from modifying the terms and conditions of those facilities in which the Treasury Secretary invested CARES Act funds, id. at § 1005; and prohibited the Treasury Secretary from drawing on core ESF funds to invest in facilities "the same as" the ones the Secretary invested CARES Act funds in, except the TALF, id.

^{243.} See Craig Torres & Liz McCormick, Fed's 'Run It Hot' Recipe Works for Markets. Jobs? Not So Much, Bloomberg (June 28, 2020), https://perma.cc/X2GL-72R4; Lisa Lee, Fed Is Propping Up Companies It Had Warned Banks Not to Touch, Bloomberg (May 5, 2020), https://perma.cc/5PC2-TYY8; David Scigliuzzo & Julie Johnsson, The Non-Bailout: How the Fed Saved Boeing Without Paying a Dime, Bloomberg (updated May 2, 2020, 5:59 AM PDT), https://perma.cc/X27B-QSBQ; Jeanna Smialek & Deborah B. Solomon, A Hedge Fund Bailout Highlights How Regulators Ignored Big Risks, N.Y. TIMES (July 1, 2020), https://perma.cc/DJD6-F8LL.

^{244.} *Cf.* Lawrence Summers, Remarks at the Economic Club of N.Y. (May 4, 2020), https://perma.cc/TCY6-F7G2 ("We may be slipping into a kind of central bank socialism

Perhaps most importantly, piling too many tasks into one government body, in particular a body that has the power to create money, risks short circuiting the democratic process.²⁴⁵ The problem lies in the dynamics over time. The more Congress uses unappropriated dollars to advance government priorities, the less likely it will legislate solutions of its own. It is easier for the government to spend via the Fed. But every time the Fed acts to execute on a task, the less likely it becomes that Congress will act. Fed action satisfies certain interests, alleviating political pressure that would otherwise drive legislation. Although central banks tend to operate more smoothly than the political branches, government by central bank is a poor substitute to legislative action.²⁴⁶

IV. Possible Reforms

This Part suggests three possible reforms: building an alternative lending authority, establishing a fiscal emergency fund with appropriate safeguards, and regulating shadow banks as banks. Each would either avoid calling on the Fed in the future to perform tasks it is ill-equipped to discharge or address the tensions between the Fed's 2020 response and the existing statutory framework for money and banking or both.

A. Building an Alternative Lending Authority

The most straightforward way to align the statutory framework for money and banking and the CARES Act would be to amend section 13(3) to expand the Fed's power to serve as a limited purpose national investment authority in an emergency. Such a role would not be unprecedented for the Fed, which served as a government business lender from the Great Depression until 1957, and it is easy to imagine institutionalizing the Fed's Main Street and municipal lending programs in a similar way. But, as discussed above, this would mix functions that do not go well together. Accordingly, Congress should consider designing a more robust institutional structure for responding to economic crises.

One option would be to transfer the responsibility for disbursing CARES Act funds to the Treasury Secretary or the SBA: two existing agencies designed to engage in politically fraught fiscal policy implementation.²⁴⁷ The SBA is specifically designed to extend credit on behalf of the government and has already taken over industrial lending responsibilities from the Fed once before, when Congress repealed section

that is problematic.").

^{245.} TUCKER, supra note 239, at 525.

^{246.} For an excellent examination of this problem, see TUCKER, *supra* note 239, at 436 (explaining that the "more central banks can do, the less the elected fiscal authority will be incentivized to do, creating a tension with our deepest political values").

^{247.} Kathryn Judge, *The Design Flaw at the Heart of the CARES Act*, Forbes (Apr. 20, 2020), https://perma.cc/2FBE-ECET. Peter Conti-Brown, *Explaining the New Fed-Treasury Emergency Fund*, Brookings Series on Financial Markets and Regulation (Apr. 3, 2020), https://perma.cc/3D54-WQDS (explaining that the CARES Act "invites pressure on a traditional line between monetary and financial policy controlled by the central bank and the financial, economic, and fiscal policy controlled by the President of the United States and his representatives"); George Selgin, *The Constitutional Case for the Fed's Treasury Backstops*, CATO INSTITUTE (Apr. 13, 2020), https://perma.cc/5Z5J-RNGF.

13(b) of the FRA in the 1950s.

Another option, advanced by Professors Bob Hockett and Saule Omarova, ²⁴⁸ would be to design a new agency to serve as a NIA similar to the now-defunct Reconstruction Finance Corporation ("RFC"). ²⁴⁹ The RFC played a major role in combatting the Great Depression and in implementing national industrial policy during the Second World War. Congress could design a new NIA to be more politically accountable to both the executive and legislative branches than the Fed, providing for leaders removable by the President at pleasure and a budget subject to the annual appropriations process. A new agency could hire a staff with expertise in operating nationwide investment programs. Among other things, this would allow the government to avoid hiring private firms to assist in crises. Moreover, a NIA could be designed to have a risk culture commensurate with its policy goals.

B. Establishing a Fiscal Emergency Fund

Another area where Congress could grab an off-the-shelf solution is the ESF. Even assuming that the CARES Act authorized the Treasury's investments in the CPFF and MMFLF, the availability of ESF funds going forward is unclear. Section 13(3), as amended in 2010, requires outside backstopping for certain sorts of emergency lending that we can expect the Fed to pursue in every business cycle downturn—assuming no structural reforms to our monetary system. Rather than leave it to future Congresses to scramble during a crisis to authorize Treasury investment in 13(3) facilities, Congress could create a standing authority for the Treasury to make 13(3) investments and design rules in advance to ensure that the authority is used properly. Jeff Gordon and Chris Muller proposed such a revision in 2009 and designed corresponding safeguards.²⁵⁰

C. Regulating Shadow Banks as Banks

March of last year was the second time in less than two decades that the Fed had to roll out a series of ad hoc lending facilities to support shadow banks. And because of the fiscal safeguard provision added to the FRA in 2010, Treasury backstopping was

^{248.} The sort of lending that Hockett and Omarova's proposed NIA would do is quite different from what the Fed is doing now. Among other things, the new agency would be designed to extend credit to the real economy, whereas the Fed was not designed for this purpose and has been extending credit primarily with a focus on easing financial conditions. *See* Hockett & Omarova, White Paper, *infra* note 249. Hockett, for example, identifies some of the shortcomings of the Fed's current approach to municipal lending from a broader policy perspective. *See supra* note 92.

^{249.} Saule T. Omarova, Why We Need a National Investment Authority (Cornell L. Sch. Legal Stud. Rsrch., Paper No. 20-34, 2020), https://perma.cc/6DQL-4RXL; Robert C. Hockett & Saule T. Omarova, Private Wealth and Public Goods: A Case for a National Investment Authority, 43 J. CORP. L. 437 (2018); Robert C. Hockett & Saule T. Omarova, White Paper: A National Investment Authority (Cornell L. Sch. Legal Stud. Rsrch., Paper No. 18-10, 2018), https://perma.cc/U29F-PMJD.

^{250.} Jeffrey N. Gordon & Christopher Muller, Confronting Financial Crises: Dodd-Frank's Dangers and the Case for a Systemic Emergency Insurance Fund, 28 YALE J. REG. 151 (2011).

also required. These measures could be avoided if Congress reformed the monetary system to regulate shadow banks as banks, providing them with access to the Fed's standing liquidity facility, the discount window.²⁵¹

In the aftermath of the 2008 crisis, Congress focused on regulatory and supervisory approaches to strengthen the system.²⁵² Although many of these reforms were effective, the 2020 crisis revealed that structural reform is also needed. Shadow banks are likely to require a government backstop in every business cycle downturn in order to maintain par between their monetary liabilities and cash. This is not surprising. The Fed was designed specifically to address the fact that private money creation requires public elasticity when asset prices fall, and the shadow banking system has grown too large in size and scope for the banking system to support shadow banks on its own.

A structural approach would apply the safeguards designed in the twentieth century to stabilize banks to shadow banks. The federal funds market and the repo market play similar roles in our economy, and if the Fed is going to backstop both, it makes sense to formalize the arrangement and regulate it accordingly.²⁵³ Banks are subject to portfolio constraints, balance sheet limits, and close government supervision.²⁵⁴ These prudential measures, especially supervision,²⁵⁵ play a critical role in forcing banks to internalize the externalities of their failure; otherwise, money issuing firms will take advantage of their ability to expand the money supply to extract wealth from the rest of the economy. Erik Gerding,²⁵⁶ Katharina Pistor,²⁵⁷ Morgan Ricks,²⁵⁸ and Paul Tucker,²⁵⁹ among others, have examined this problem and proposed various reforms.

The most difficult obstacle to structural reform of our monetary architecture may be foreign shadow banking. The scope of eurodollar markets and the costs to the government of supporting them have not been sufficiently examined.²⁶⁰ Countries around

^{251.} *Cf.* TUCKER, *supra* note 239, at 490 ("the sequential unrolling of multiple, experimental acronymed programs can and should be avoided").

^{252.} See Lev Menand, Stilling the Pendulum: Regulatory, Supervisory, and Structural Approaches, 70 VAND. L. REV. EN BANC 273 (2017).

^{253.} See Perry Mehrling, Beyond Bancor, in 59 CHALLENGE 22 (2016).

^{254.} See Lev Menand, Why Supervise Banks? The Foundations of the American Monetary Settlement, 74 VAND. L. REV. (forthcoming 2021).

^{255.} See Lev Menand, Too Big To Supervise: The Rise of Financial Conglomerates and the Decline of Discretionary Oversight in Banking, 103 CORNELL L. REV. 1527, 1586-87 (2018).

^{256.} Erik Gerding, Law, Bubbles, and Financial Regulation (2014).

^{257.} KATHARINA PISTOR, THE CODE OF CAPITAL: HOW THE LAW CREATES WEALTH AND INEQUALITY 106 (2019) (explaining that after the 2008 crisis policy makers put "few if any brakes" on the ability of shadow banks "to mint private money"); id. at 92 (arguing that states should recognize that "the more they bend to the will of private debt minters in boom times, the more they will be on the hook when it turns out that the economy cannot sustain the debt burden they created").

^{258.} RICKS, supra note 234.

^{259.} Tucker, *supra* note 239, at 513 (explaining that anyone who can borrow from the central bank and thereby procure legal tender money should be regulated as a monetary institution).

^{260.} But see Colleen Baker, The Federal Reserve's Use of International Swap Lines, 55 ARIZ. L. REV. 603 (2013); Katherine Harris, Hidden in Plain Sight: The Federal Reserve's Role in U.S. Foreign Policy, 40 Yale J. Int'l L. 393 (2015); Peter Conti-Brown & David Zaring, The Foreign Affairs

the world that depend on financial institutions issuing dollar deposits and deposit substitutes face significant strain in the absence of Fed backstopping.²⁶¹ Without a global governance framework, the Fed has turned to ad hoc solutions.²⁶² While the Fed could comply with the relevant section 13 requirements discussed in Part II, a more robust framework would allow policy makers to impose conditions on access to dollars and exert ex ante control over foreign dollar creation. This is an area in need of further scholarly attention and analysis.

Conclusion

In 2020, a global pandemic prompted a repricing of risk assets and a global run on dollar deposit substitutes. It also triggered an unprecedented economic shock, which pushed many businesses to the brink of insolvency and put significant pressure on many state and local government budgets. In response to the financial component of the crisis, the Fed drew on and further expanded its 2008-era toolkit, lending enormous sums to domestic shadow banks and foreign central banks while sidestepping the stringent procedural requirements that govern nonbank lending. Meanwhile, to address the economic collapse, Congress called on the Fed to take on new responsibilities by amending the FRA sub silentio so that the Fed could extend credit to municipalities, large corporations, and medium-sized enterprises.

The Fed's liquidity programs were a resounding success: over \$1 trillion was lent in less than a month and the crisis in funding markets quickly abated. The Fed's credit facilities were less successful. Although several had a significant impact, often their effects were felt directly by financial institutions and large corporations and indirectly by medium-sized enterprises and municipalities. The Fed's credit facilities were also much smaller in scale, lending less than \$40 billion over three quarters despite stated capacities in excess of \$1.5 trillion. The exceptions—major loans to the State of Illinois and NYC's transit authority—proved the rule: when it came to the Fed's industrial policy making, much low hanging fruit went unpicked.

These outcomes were predictable (indeed, some predicted them).²⁶³ Section 4003 of the CARES Act was poorly designed, in part because the federal government lacks a robust institutional infrastructure for responding to major economic shocks, and in part because of the temptation to rely on the Fed's unappropriated dollars to solve difficult problems. Meanwhile, the money and banking laws remain out of sync with the nature of the U.S. dollar system today. The Fed's longstanding failure to comply with the procedural requirements governing emergency lending to nonbank financial institutions (including foreign central banks) decreases the likelihood that Congress will address the shadow banking problem, leaving the U.S. economy vulnerable to

of the Federal Reserve, 44 J. CORP. L. 665 (2019).

^{261.} TOOZE, supra note 1; Adam Tooze, The Coronavirus Is the Biggest Emerging Markets Crisis Ever, FOREIGN POL'Y (Mar. 28, 2020), https://perma.cc/N36D-796Y.

^{262.} Brad W. Setser, Addressing the Global Dollar Shortage: More Swap Lines? A New Repo Facility for Central Banks? More IMF Lending?, Follow the Money, CFR (Mar. 17, 2020), https://perma.cc/6YV4-NTNU.

^{263.} Judge, supra note 247.

another financial panic. By revealing the tensions between our existing statutory framework and the Fed's response to the crises of 2020, this Article takes a first step toward resolving them and improving our government's ability to prevent and fight financial and economic disruptions in the future.

Glossary of Terms

CP Commercial Paper

CPPF Commercial Paper Funding Facility

ESF Exchange Stabilization Fund

ETF Exchange Traded Fund

FIMA Foreign and International Monetary Authorities

FOMC Federal Open Market Committee

FRA Federal Reserve Act

FRB Federal Reserve Bank

GRA Gold Reserve Act

IMF International Monetary Fund

LOLR Lender of Last Resort

MLF Municipal Liquidity Facility
MMF Money Market Mutual Fund

MMFLF Money Market Mutual Fund Liquidity Facility

MSNLF Main Street New Loan Facility

MSELF Main Street Expanded Loan Facility

MSPLF Main Street Priority Loan Facility

NIA National Investment Authority

NONLF Nonprofit Organization New Loan Facility

NOELF Nonprofit Organization Expanded Loan Facility

PMCCF Primary Market Corporate Credit Facility

PDCF Primary Dealer Credit Facility
PPP Paycheck Protection Program

PPPLF Paycheck Protection Program Liquidity Facility

RFC Reconstruction Finance Corporation

SBA Small Business Administration

SDR Special Drawing Right

SEC Securities and Exchange Commission

SMCCF Secondary Market Corporate Credit Facility

TALF Term Asset-Backed Securities Loan Facility