THE FEDERAL RESERVE'S FISCAL AGENT MANDATE AND THE PROBLEM FOR CENTRAL BANK INDEPENDENCE

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ABSTRACT

The Federal Reserve is among the most powerful organs of government. It is tasked primarily with maintaining the growth of monetary and credit aggregates consistent with long-run maximum employment and price stability. This mandate is widely known and the subject of extensive public debate. But another mandate lies within the statute that is largely overlooked—to serve as fiscal agent of the United States. This distinct responsibility is older, and also important. This Article offers a comprehensive assessment of where the Fed's two mandates overlap and occasionally sharply conflict: in the market for U.S. government debt. First, it identifies the legal and historical bases for the Fed's role in facilitating "orderly markets" in government debt. Second, it clarifies what we call the "two mandates" problem: the Fed's role as agent of the Treasury can compromise its ability to formulate independent monetary policy. Third, it reconstructs how the Fed outsourced the maintenance of orderly markets to the private sector to resolve the two mandates problem—an arrangement that was so successful that the Fed's direct role slipped from view. Fourth, it explains how the outsourcing framework broke down after the 2008 financial crisis and why, in 2020, the Fed engaged in massive "market functioning" purchases. It concludes with an initial assessment of how the Fed might better fulfill its two mandates and avoid fiscal and policy dominance by the Treasury.

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INTRODUCTION

In 2020, the Federal Reserve (the Fed) authorized enormous and unlimited[1] "market functioning purchases" of U.S. government debt (Treasury securities).[2] These purchases were intended to address dysfunction in government bond markets that threatened catastrophic spillover into the broader financial system.[3] And they came in the midst of a major transformation of the Fed's relationship to the market: The Fed is now the largest single owner of U.S. Treasury securities.[4] At times it has owned more than a quarter of outstanding issuance.[5]

To date, attempts to ground the Fed's market functioning purchases in the Federal Reserve Act have been unsatisfying. Most either attempt to reconcile them with the Fed's monetary policy objectives codified at Section 2A, or gesture at a "financial stability"[6] purpose supposedly lurking in the statute.[7] But both approaches quickly run into problems.

Section 2A, enacted in 1977, mandates that the Board of Governors and Federal Open Market Committee, the Fed's two primary policy-making bodies, ensure monetary expansion consistent with maximum employment, stable prices, and moderate long-term interest rates.[8] Although this language has since been interpreted broadly to include interventions in cross-border funding markets, domestic credit markets, and small business lending,[9] there is no obvious link between managing the

1. Press Release, Fed. Open Mkt. Comm. (March 23, 2020).
2. Press Release, Fed. Open Mkt. Comm. (March 15, 2020).
3. *See* ADAM TOOZE, SHUTDOWN: HOW COVID SHOOK THE WORLD'S ECONOMY 133 (2021).
4. *The Federal Government Has Borrowed Trillions. Who Owns All That Debt?*, PETER G. PETERSON FOUNDATION (Mar. 18, 2026), https://www.pgpf.org/article/the-federal-government-has-borrowed-trillions-but-who-owns-all-that-debt/.
5. Cong. Budget Off., *How the Federal Reserve's Quantitative Easing Affects the Federal Budget* (Sept. 2022), *https://www.cbo.gov/publication/58457*.
6. In a 2018 speech, Fed Chair Jerome Powell defined financial stability as a condition in which the financial system "continues to function effectively even in severely adverse conditions." Jerome Powell, Remarks Before the Econ. Club of N.Y.: The Federal Reserve's Framework for Monitoring Financial Stability (Nov. 28, 2018).
7. RENEE HALTOM & JOHN A. WEINBERG, DOES THE FED HAVE A FINANCIAL STABILITY MANDATE?, FEDERAL RESERVE BANK OF RICHMOND ECONOMIC BRIEF NO. 17-06 (2017).
8. The Federal Reserve Reform Act of 1977, Pub. L. 95-188, incorporated this mandate into the Federal Reserve Act, reiterating the goals of the Employment Act of 1946, which committed the whole of the federal government, including the Federal Reserve Board, to "promote maximum employment, production, and purchasing power." Pub. L. 79-304 Section 2. This is often (confusingly) referred to as the "dual mandate." AARON STEELMAN, THE FEDERAL RESERVE'S "DUAL MANDATE": THE EVOLUTION OF AN IDEA, FED RSRV. BK. OF ST. LOUIS ECONOMIC BRIEF NO. 11-12 (2011).
9. *See generally* ADAM TOOZE, CRASHED: HOW A DECADE OF FINANCIAL CRISES CHANGED THE WORLD (2018); LEV MENAND, THE FED UNBOUND: CENTRAL BANKING IN A TIME OF CRISIS (2022). *See also* Kathryn Judge, *The Federal Reserve: A Study in Soft Constraints*, 78(3) LAW & CONTEMP. PROBS. 65 (2015); David Zaring, *Law and Custom on the Federal Open Market Committee*, 78(3) LAW & CONTEMP. PROBS. 157 (2015); PETER CONTI-BROWN, THE POWER AND INDEPENDENCE OF THE FEDERAL RESERVE (2016); Peter Conti-Brown, Yair Listokin & Nicholas R. Parrillo, *Towards an Administrative Law of Central Banking*, 38 YALE J. ON REG. 1

expansion of monetary aggregates and preventing disorderly conditions in bond markets. One route would be to tie market functioning purchases to the ability of the Fed to implement its monetary policy stance—either by maintaining control over short-term interest rates (and hence the pace of expansion of monetary and credit aggregates) or transmitting changes in those rates to the broader economy. But this is a tenuous and ambiguous connection at best.

Meanwhile, justifications that rest on financial stability stumble into the fact that the Federal Reserve Act was written with the banking system in mind, not the financial system as a whole.[10] Neither the statute nor the Fed's interpretive documents refer to financial stability or financial market functioning. And while financial stability may be a precondition for maximum employment and price stability, so is the rule of law, full disclosure in capital markets, and robust competition. Just because monetary policy tools can affect financial stability doesn't mean Congress delegated those tools to be used towards that end. In fact, federal law expressly locates responsibility for broader financial stability policy outside of the Fed in the Financial Stability Oversight Council (FSOC).[11] Worse, in many cases, market functioning purchases[12] actually interfere with and undermine the Fed's ability to carry out its monetary policy mandate.[13]

This Article examines the legal and historical bases for the Fed's role in government securities markets. It reveals that the Fed's market functioning purchases have grounding in the Federal Reserve Act but not in the Section 2A mandate or financial stability. They are related to a different mandate that has gone largely overlooked. This mandate—to serve as fiscal agent of the United States—dates to the origins of the system in the 1910s and was cashed out in the organization's early decades to entail responsibility for the stability of public debt markets. This Article recovers that history and diagnoses a conflict at the heart of the statutory scheme, one that threatens the Fed's ability to execute monetary policy effectively and independently of the Treasury. We call this conflict the "one system, two mandates

(2021).

10. H.R. REP, NO. 63-69, CHANGES IN THE BANKING AND CURRENCY SYSTEM OF THE UNITED STATES, at 3 (1913).

11. 12 U.S.C. § 5321(b). Only the Fed Chair, and not the Fed itself, is part of the FSOC, and even then as just one of its ten voting members.

12. Any comingling of market functioning- and monetary policy-related purchases in Fed communications threaten to erode the clarity of central bank communications and thus impair the efficacy of policy more broadly. Thomas J. Sargent, DYNAMIC MACROECONOMIC THEORY 105 (1987); Samuel G. Hanson & Jeremy C. Stein, *Monetary Policy and Long-term Real Rates*, 115 J. FIN. ECON. 429 (2015); Stephen Hansen, Michael McMahon & Matthew Tong, *The Long-run Information Effect of Central Bank Communication*, 108 J. MON. ECON. 185 (2019); Michiel De Pooter, Giovanni Favara, Michele Modugno & Jason Wu, *Monetary Policy Uncertainty and Monetary Policy Surprises*, 114 J. INT'L MONEY AND FIN. 102401 (2021). Along those lines, the FOMC's *Statement on Longer-Run Goals and Monetary Policy Strategy* highlights their intention to "explain its monetary policy decisions to the public as clearly as possible" is motivated in part by a desire to "increases the effectiveness of monetary policy." Fed. Rsrv. Bk., *Statement on Longer-Run Goals and Monetary Policy Strategy* (2026), https://perma.cc/QKD4-25FG.

13. 12 U.S.C. § 5321. The FSOC is charged with identifying and responding to threats to the financial stability of the U.S. as well as mitigating moral hazard by promoting "market discipline." 12 U.S.C. § 5322(a).

problem" and explain how policy makers at midcentury solved it. We then recount how this solution fell apart and why observers are now confused about the problem. Finally, we conclude with an assessment of how the Fed might improve its ability to manage the tension between its two mandates.

This reconstruction is especially urgent right now. Legal and conceptual confusion about the Fed's role in debt markets has real-world consequences.[14] Based on the experience of 2020 in particular, market participants have grown to expect the Fed to intervene to stabilize Treasury markets in the event of stress. As David Wilcox, a former Fed official, once put it: "Even more important than the Fed's rate-cutting function is the market-calming function."[15] This expectation can show up in the *ex-ante* pricing of Treasury securities, which can incorporate those expectations via a lower overall rate of return.[16] If lofty expectations are disappointed, the impact of any future shock could be considerably greater. Given the fiscal trajectory, with the national debt expected to grow for the foreseeable future,[17] and shifts in market structure, economists have argued that the frequency and severity of these shocks will likely increase going forward.[18] A clear understanding of statutory mandates is one of the most effective ways to avoid such an outcome.[19]

The recent change of administration has heightened even further the need to properly locate market functioning purchases (and the Fed's relationship to

14. MICHAEL WOODFORD, CENTRAL BANK COMMUNICATION AND POLICY EFFECTIVENESS, FED. RSRV. BK. OF KANSAS CITY ECON. POLICY SYMPOSIUM 401-02 (2005) ("It is important to the public to understand the central bank's actions to the greatest extent possible, not only for reasons of democratic legitimacy—though this is an excellent reason, given that central banks are granted substantial autonomy in the execution of their task—but also in order for monetary policy to be most effective. Not only do expectations about policy matter, but, at least under currency conditions, very little *else* matters." [original emphasis]).

15. Christopher Rugabar, *Fed May Take Boldest Steps in a Decade to Ease Virus Impact*, ASSOCIATED PRESS (Mar. 15, 2020), https://perma.cc/69VS-29SM.

16. Darrell Duffie & Frank Keane, *Market-Function Asset Purchases*, FED. RSRV. BK. OF N.Y., Staff Rep. No. 1054 (2023).

17. Cong. Budget Office, *The Budget and Economic Outlook: 2025 to 2035* (Jan. 2025), https://www.cbo.gov/publication/60870.

18. Anil K Kashyap et al., *Treasury Market Dysfunction and the Role of the Central Bank*, BROOKINGS PAPERS ON ECON. ACTIVITY: SPRING 2025 (Mar. 26, 2025), https://perma.cc/XM29-8CCM; Yesha Yadav & Joshua Younger, *Central Clearing the U.S. Treasury Market*, 92 U. CHI. L. REV. 545 (2025).

19. Bankers have also broadly agreed with this sentiment. As Reginald McKenna, Chairman of the Midland Bank in London, put it in 1938: "The importance of a legislative mandate is that monetary policy should be a matter of statute law upon which businessmen may predicate their future contracts with dependable security on a dollar of uniform, permanent, debt-paying, purchasing power." *Government Ownership of the Twelve Federal Reserve Banks*, Hearings Before the House Committee on Banking and Currency, 75th Cong. 87 (3rd Sess. 1938). Roughly eighty years later, Alan Blinder summarized this view as: "I am a big believer in democratic accountability, which requires communicating with the broad public. But in truth, the part of central bank communication that matters most is the way policymakers communicate with markets—and for a simple reason: Market participants listen." Alan S. Blinder, *Through a Crystal Ball Darkly: The Future of Monetary Policy Communication*, 108 AM. ECON. ASS'N PAPERS AND PROC. 567, 569 (2018).

government securities, generally) within the Fed's statutory scheme. First, the President has argued that the current level of interest rates is costing the Treasury hundreds of billions of dollars in interest paid on the federal debt.[20] And the President's supporters have proposed a new "accord"[21] between the Fed and the Treasury that would permit some degree of fiscal accommodation.[22]

Second, in April 2025, the announcement of the Trump Administration's tariff program (often referred to simply as "Liberation Day" by the President and others) catalyzed panic across financial markets. That included a rapid unwind of highly levered Treasury positions which severely impacted the ability of that market to function properly. Pricing relationships between Treasuries and similar derivatives which are typically very stable became extremely volatile, and long-term Treasury yields saw their largest one-week increase in decades.[23] That, in turn, threatened a much broader unwinding of other similar positions.[24] Wall Street analysts immediately began to game out scenarios in which the Fed would be forced to step in with market functioning purchases along the lines of 2020.[25]

Markets calmed when the President announced a pause to the implementation of the most punitive "reciprocal tariffs" and specifically cited a "queasy" bond market as driving his decision.[26] That was reinforced by comments from some policy makers emphasizing the Fed's commitment to maintaining orderly markets in Treasuries.[27] But their threshold for intervention was never clarified. In other words, under what circumstances Treasury market dysfunction rises to the level of implicating monetary

20. Erin Doherty, *Trump Rips Into 'Too Late' Jerome Powell After Fed Holds Rates Steady*, NBC NEWS (June 19, 2025), https://www.nbcnews.com/business/markets/trump-attacks-powell-fed-interest-rates-rcna213959.

21. This is a reference to the 1951 Treasury-Federal Reserve Accord, discussed extensively at *infra* Part II.A.

22. *Ex-Fed Governor Warsh Says New Accord Between Treasury, Central Bank Needed*, REUTERS (July 17, 2025), https://www.reuters.com/business/ex-fed-governor-warsh-says-new-accord-between-treasury-central-bank-needed-2025-07-17/. Fiscal accommodation involves the Fed monetizing the federal debt, meaning creating new money and using it to buy bonds issued by the Treasury.

23. Sydney Maki & Carter Johnson, *Treasury Yields See Biggest Weekly Jump Since 2001 as Cash Flees*, BLOOMBERG (Apr. 11, 2025), https://www.bloomberg.com/news/articles/2025-04-11/us-treasury-selloff-is-worst-since-repo-market-chaos-in-2019.

24. Lucas Becker, *Inside the Week that Shook the US Treasury Market*, RISK.NET (April 14, 2025), https://www.risk.net/markets/7961385/inside-the-week-that-shook-the-us-treasury-market; Robin Wigglesworth, *A Treasury Market Meltdown Postmortem*, FIN. TIMES (Apr. 10, 2025), https://www.ft.com/content/af032e00-982c-4507-8ae7-5acbedbc1b30.

25. Michael S. Derby, *Analysts Game Out Use of Fed Toolkit if Market Needs Central Bank's Help*, REUTERS (Apr. 24, 2025), https://www.reuters.com/sustainability/boards-policy-regulation/analysts-game-out-use-fed-toolkit-if-market-needs-central-banks-help-2025-04-24/.

26. Colby Smith & Jason Karaian, *Why the Bond Market Holds Sway Over Trump*, N.Y. TIMES (Apr. 18, 2025), https://www.nytimes.com/2025/04/18/business/bond-market-tariffs-trump.html.

27. Clarie Jones & Kate Duguid, *Federal Reserve 'Absolutely' Ready to Help Staiblise Market if Needed, Top Official Says*, FIN. TIMES (Apr. 11, 2025), https://www.ft.com/content/0273371d-b90c-43e4-845a-e51982dd4fdf?syn-25a6b1a6=1.

policy remains highly uncertain and was never directly addressed by policymakers at the time.[28]

Critically, had the Fed decided that intervention was necessary to protect "financial stability" (defined broadly), it could have significantly complicated their primary role: modulating the rate of monetary expansion. Dramatically higher tariffs on U.S. imports could serve to both trigger inflation and spark a recession. Which impact would dominate, and therefore determine the monetary policy response, was a very open question. The Fed has repeatedly emphasized the difficultly of gauging that impact in the context of the dual mandate.[29] Had Treasury market functioning deteriorated further, any intervention could have inadvertently indicated a desire to focus on growth over inflation. Depending on the impact of tariffs on inflation, that could have undermined the Fed's future efforts to bring prices back under control.

This Article proceeds in four parts. Part I recovers the statutory foundations of the Fed's interventions in government debt markets. We show that the concept of orderly markets is central and that, as it was being formulated, the Federal Reserve did not think of its actions in terms of financial stability at all. Instead, officials understood them as downstream of the Federal Reserve System's (the System's) fiscal agent responsibilities. Their legal basis was seen to be Section 15 of the Federal Reserve Act, which requires that the Fed act as fiscal agent of the United States. We further show that the creation of the Federal Open Market Committee (FOMC) in 1933—the body within the Federal Reserve System charged primarily with formulating monetary policy—further entrenched the System's responsibility for orderly markets in Treasuries. Congress established the FOMC, at least in part, to formalize existing ad hoc arrangements that were designed to prevent Fed purchases and sales of government debt ("open market operations") from disrupting market functioning—in other words, to keep monetary policy from interfering with fiscal agency duties.

Part II diagnoses and examines what we call the one system, two mandates problem. In the 1930s and 40s, the FOMC employed a range of tools to order Treasury markets. But many of these tools impaired its ability to conduct monetary policy. Most notably, market functioning purchases confused market participants, as they could not be easily distinguished from purchases of the same securities to affect an expansion or contraction of reserves for purposes of accelerating or decelerating monetary expansion. After World War II, for example, the Fed's direct purchases, perversely, undermined both the orderliness of the public debt markets and the Fed's ability to

28. Roberto Perli, the Manager of the System Open Market Account, offered some thoughts in a speech, delivered after the market turbulence had subsided, that implied funding markets would be the linchpin in any decision to intervene. But he stopped short of laying out an explicit framework. Roberto Perli, Remarks at the 8th Short-Term Funding Markets Conference: Recent Developments in Treasury Market Liquidity and Funding Conditions, Washington, D.C. (May 9, 2025).

29. *See generally* Jerome Powell, Remarks at the Economic Club of Chicago, Chicago, Illinois (Apr. 16, 2025) ("The level of the tariff increases announced so far is significantly larger than anticipated. The same is likely to be true of the economic effects, which will include higher inflation and slower growth. . . We may find ourselves in the challenging scenario in which our dual-mandate goals are in tension. If that were to occur, we would consider how far the economy is from each goal, and the potentially different time horizons over which those respective gaps would be anticipated to close.")

control inflation.

In the 1950s, the Fed developed an elaborate institutional framework to solve the two mandates problem. It outsourced responsibility for maintaining orderly markets to private broker dealers—now known as the "primary dealers." The Fed subsidized and backstopped these dealers in exchange for their support for Treasury markets. As a result, the Fed was able to reserve the use of its own open market operations for monetary policy implementation. Although far from perfect, this new framework worked to disentangle the mandates for many decades—so well that many market participants and outside observers lost sight of the Fed's orderly markets role altogether.

Part III examines four recent tests of the post-war framework and teases out the reasons why it is no longer working. The fundamental problem is that, after 2008, primary dealer balance sheets became rigid and unable to easily (or economically) expand during periods of market turmoil. In other words, dealers could no longer profitably conduct the market functioning purchases that the Fed had come to rely on them to conduct. In March 2020, the new rigidities, the causes of which we delineate, meant that market liquidity all but evaporated.

Part IV suggests steps, drawn from the history, that might improve the Fed's ability to carry out its two mandates. Credibility is central to both effective monetary policy implementation and effective Treasury market functioning policy. The Fed could enhance its credibility by having a clearly articulated policy goal with equally clear underlying authority to act in its furtherance. If done properly, this commitment would come with a powerful "announcement effect," whereby markets react and re-price before any actual actions are taken by the central bank.[30]

We also consider the creation of two distinct policymaking bodies to manage and communicate with respect to its mandates. Comingling market functioning and monetary policy-related large-scale asset purchases (LSAPs) in the context of the Covid market shock may have been convenient—in the face of a historic collapse in activity, the U.S. economy clearly needed whatever stimulus could be offered—but it also muddied the waters in ways that could prove problematic. It is unclear, for example, how the Fed would respond to the need to undertake similar purchases when the stance of monetary policy is restrictive.[31] This potential for mixed messages when the monetary needs of the Treasury market are orthogonal to the monetary needs of the U.S. economy has been the subject of consistent concern among Fed policy makers since at least the 1930s. Without credibility, the Treasury market is more vulnerable to shocks, and any policy response is more likely to require a 'shock and awe' approach. That, in turn, raises important questions of fiscal dominance and political economy. It also threatens independent monetary policy, by implicating the Fed in responsibility for Treasury pricing in ways that are unwarranted under the statutory scheme.

30. *See generally* Duffie & Keane, *supra* note 16, at 6 (Noting that, if some investors opt not to hold Treasuries as a safe haven asset, yields will be higher than would otherwise be the case, all else equal.)

31. Lorie Logan, Speech at the Fed. Rsrv. Bank of Dall.: Preventing and Responding to Dysfunction in Core Markets (Mar. 3, 2023).

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I. HISTORICAL AND STATUTORY FOUNDATIONS

This Part reconstructs the legal bases for the Fed's efforts to sustain orderly markets in public debt. It begins with two surprising ways in which the Fed's monetary policy mandate—which has nothing directly to do with public debt markets—nonetheless informed and structured the Fed's responsibility to facilitate orderly markets in government securities. Then it turns to the Fed's role as fiscal agent of the United States. We argue that, beginning in World War I, officials at both the Fed and the Treasury understood fiscal agency in terms of sustaining orderly secondary markets in public debt. By mid-century, the Fed had recognized that it had an orderly markets mandate as part of its fiscal agency responsibilities that was distinct from, and often in tension with, its role facilitating monetary elasticity.

A. Monetary Policy Antecedents

This Section traces the idea of "orderly" financial markets to late nineteenth century agricultural economics and explains how the Fed was designed to order markets in crops by expanding the money supply. It also shows how monetary policy implementation entangled the Fed in nascent public debt markets, setting the stage for conflict between the Fed and Treasury.

1. Monetary Elasticity and the Orderly Marketing of Crops

The concept of orderly markets has animated the Fed from the start. But the markets that Fed officials were initially determined to order were not financial but agricultural. And the motivation for ordering them was monetary rather than commercial. Mismatches in the money supply caused crop price volatility, and the Fed was designed to improve market functioning by facilitating monetary elasticity. To appreciate the contours of the Fed's orderly markets mandate in public debt, therefore, we start by recovering these agricultural antecedents.

In the early twentieth century, the phrase "orderly marketing" was commonly used to describe techniques for optimizing the sale of crops.[32] Before these techniques were developed, most agricultural production was funded by mortgages secured by

32. The first references to orderly financial markets date to the turn of the twentieth century. *See, e.g.*, *Reaction to the Market*, WALL ST. J., June 5, 1899 (describing stock price declines as having occurred in an "orderly manner" between March and April 1899); *A Substantial Rally in Order*, WALL ST. J., Apr. 15, 1903 (using the term to describe another sell-off in U.S. equities). But these references were sporadic and "orderly markets" does not appear to be a commonly used phrase in that context. Moreover, there are essentially no mentions of "orderly" trading or market price action in reference to government bond markets prior to the founding of the Fed. Its first use in such a context does not appear until the early-1920s. *See Stabilization: Hearings Before the H. Comm. on Banking and Currency, A Bill to Amend Paragraph (d) of Section 14 of the Federal Reserve Act, as Amended, to Provide for the Stabilization of the Price Level for Commodities in General*, 69TH CONG. 203 (April 1926–Feb. 1927) (hereinafter *Stabilization Hearings*).

the products to be sold[33] which matured right after the harvest season.[34] This financing structure incentivized "uneconomic dumping" of crops on the market, depressing prices and leading to considerable volatility.[35] Orderly marketing used intermediaries to align production and consumption so as to shift the financial incentives in favor of more stable prices for crops and livestock.[36] First implemented by orange grower cooperatives in California in the 1870s,[37] by 1913, orderly marketing techniques were ubiquitous throughout the U.S.[38] Their heavy reliance on bank credit was, in fact, one of the prime stressors on the national banking system which led to frequent instability, bank runs, and financial crises.[39]

Facilitating the orderly marketing of crops was one of the central goals of the Federal Reserve Act (FRA). Indeed, the support of the agrarian caucus and the outspoken promotion of the Federal Reserve Act by William Jennings Bryan proved to be critical in getting the law to the President's desk.[40] The idea was that the Fed's unusual, decentralized structure—with one Federal Reserve Board overseeing twelve semi-autonomous Federal Reserve Banks—would spread credit geographically and help to avert seasonal monetary and financial stringency related to the harvest.[41] Congressman Henry of Texas, for example, thought the FRA would create an "agricultural currency" to complement the "asset currency" already produced by the country's existing commercial banks.[42] Bryan and his agrarian supporters became so closely and publicly associated with the FRA that the financial press at one point

33. As late as the 1920s, only a very small proportion of American famers were able to self-finance their crops. *See* R. R. ENFIELD, THE AGRICULTURAL CRISIS: 1920-1923 178 n.2 (1924).

34. *Id.* at 198-199 (1924).

35. HERMAN STEEN, COOPERATIVE MARKETING: THE GOLDEN RULE IN AGRICULTURE 294 (1923).

36. JAMES E. BOYLE, MARKETING OF AGRICULTURAL PRODUCTS 213-216 (1925).

37. STEEN, *supra* note 35, at 38-40.

38. *Id.* at 293.

39. James E. Boyle, *Marketing of Agricultural Products*, 11 THE AM. ECON. REV. 207, 209-213 (1921); THE SPECIAL CURRENCY COMM. OF THE CHAMBER OF COM. OF THE STATE OF NEW YORK, THE CURRENCY 4 (1906). *See also* W. H. Allen, *Seasonable Variations in Money Rates: A Reply to Professor Kemmerer*, 15 MOODY'S MAGAZINE 127 (1913); Edwin W. Kemmerer, *Prices Vary with the Money Supply*, 2 MOODY'S MAGAZINE 489 (1906). *See generally* EDWIN WALTER KEMMERER, NAT'L MONETARY COMM'N, 61ST CONG., S. DOC. NO. 598, SEASONAL VARIATIONS IN THE RELATIVE DEMAND FOR MONEY AND CAPITAL IN THE UNITED STATES: A STATISTICAL STUDY (1910); O. M. W. SPRAGUE, NAT'L MONETARY COMM'N, 61ST CONG., S. DOC. N. 538, HISTORY OF CRISIS UNDER THE NATIONAL BANKING SYSTEM (1910).

40. Writing to Glass, Bryan highlighted "Government control of the issue of. . .money" as "another distinct triumph for the people." He urged his supporters in Congress to "assist in securing the passage of this measure at the earliest possible moment." Glass brandished that letter as objections from the "radicals" threatened to derail the progression of the bill to a floor debate. After reading it aloud at a meeting of the Banking and Currency Committee, the New York Times reported, "it swung the Bryan men almost solidly into line." *Bryan Letter Routs Currency Radicals*, New York Times, Aug. 23, 1913.

41. Carter Glass and H. Parker Willis, two of the Fed's architects, initially envisioned an even more diffuse system with very limited federal government involvement. Gerald T. Dunne, A Christmas Present for the President, Fed. Rsrv. Bk. of St. Louis at 2 (1964).

42. V. GILMORE IDEN, THE FEDERAL RESERVE ACT OF 1913: HISTORY AND DIGEST 18-19 (1914).

referred to it in derogatory terms as the "Bryan rag-baby banking bill"[43] and the "Bryan gospel of money."[44] Although the banking establishment came around to support (and, as best they could, co-opt) the organization after its passage,[45] the influence of the agricultural lobby and its representatives in Congress was a key element of the System's understanding of its mission and priorities in its early years.

The leadership of the newly constituted Federal Reserve Board[46] treated orderly marketing as a top priority from the outset.[47] In early August 1915, less than a year after their first meeting, the first Chair of the Fed Board, Charles Hamlin, touted a program designed to stabilize agricultural finance.[48] He hoped it would be a "potent factor" in "assist[ing] effectively…in the normal movement of such products [crops] in orderly transfer to the consumer."[49] A few weeks later, the Board approved a new regulation which encouraged the regional Reserve banks to offer preferential rates[50] for loans secured by nonperishable staples like cotton and grain.[51] That included a condition that member banks receiving that "accommodation" pass the savings along to the ultimate borrower rather than simply earning wider interest rate spreads.[52] Those banks were expected "to do their part in promoting orderly methods of crop marketing, and to a greater extent than would otherwise be the case."[53] In that sense, the Board was seeking to use financial incentives to encourage banks to extend more credit at lower prices than the private market would otherwise accommodate if left to its own devices.

Rather than bemoan the debasement of the free market, Wall Street appears to have been pleased: "It is expected," reported the *Wall Street Journal*, "that this new class of paper, with special rates, will prove of particular efficacy in meeting the season's

43. *Rags and Wind as a Basis of Banking*, 87 BANKERS' MAGAZINE 370 (1913).

44. *Bryanizing the Money Bill*, N.Y. TIMES, Nov. 16, 1913.

45. *Banks Here Wait for Formal Action*, N.Y. TIMES, Dec. 25, 1913.

46. HENRY PARKER WILLIS, THE FEDERAL RESERVE SYSTEM: LEGISLATION, ORGANIZATION AND OPERATION 256-257 (1923).

47. The Federal Reserve Bulletin of December 1919 notes "The Board has consistently advocated during the past five years the policy of orderly marketing of crops." BD. OF GOVERNORS OF THE FED. RSRV. SYS.., BULLETIN (Dec. 1919) at 1109.

48. That policy was specifically designed to jump start a market in trade acceptances—a novel application of a familiar financial instrument designed to facilitate extensions of credit for the movement of crops. BD. OF GOVERNORS OF THE FED. RSRV. SYS., BULLETIN 259 (Sept. 1915).

49. The Board also committed to making orderly marketing an ongoing focus of policymaking. *Id.* at 258-259.

50. *Reserve Board Broadens Commodity Paper Definition*, WALL ST. J., Sept. 9, 1915.

51. BD. OF GOVERNORS OF THE FED. RSRV. SYS., BULLETIN 297 (Oct. 1915); BD. OF GOVERNORS OF THE FED. RSRV. SYS., ANNUAL REPORT (1915) at 7-8.

52. BULLETIN, *supra* note 51, at 297. The New York Times reported that preferential rates "will be of special service at this time in aiding the gradual and orderly marketing of the cotton and other crops." *$15,000,000 AT ONCE TO FINANCE COTTON; McAdoo Promises Great Deposit and the Reserve Board Makes Terms. 6 PER CENT. FROM GROWERS New Regulation Issued for "Commodity Paper" Limits the Profits of All Member Banks*, N.Y. TIMES, Sept. 4, 1915.

53. *$15,000,000 AT ONCE TO FINANCE COTTON*, *supra* note 52.

demands for credit facilities in the crop."[54] Towards the end of the year, the *New York Times* editorial board claimed "both sides [banks and farmers] have profited from the arrangement" and cited it as evidence that "the utility of the Federal Reserve system is far towards demonstration."[55]

2. The Effect of Monetary Policy on Public Debt Markets

Widespread support for the government engineering markets in agricultural finance is not particularly surprising—the prior system had clearly failed, often in spectacular fashion. Government securities markets, on the other hand, were less of a focus at first. They were, importantly, still rather small. At the time of the Fed's founding, the public debt stood at 3.2% of gross domestic product (GDP).[56] Cash receipts from crop and livestock sales were, by comparison, almost 17% of GDP.[57]

Nonetheless, the Fed almost immediately became entangled in the government securities market. At first, that was a byproduct of monetary policy implementation, broadly construed. In the 1910s, most of the Fed's monetary expansion was facilitated through discounting paper tied to real economic activity—the so-called "real bills" doctrine.[58] Legislators in 1913 did not expect the Fed to engage in extensive buying and selling of government debt. But after the Fed was established, officials discovered that the revenue generated by discounting was insufficient to meet growing expenses.[59] Outright assessments on the banking system were quickly ruled out as "disastrous."[60] That left investing in government debt, which was authorized by Section 14 of the FRA, as an appealing prospect to boost income.

To that end, in December 1914 the Board authorized purchases of government securities "within the limits of prudence, as [the Reserve banks] see fit."[61] Bond trading began almost immediately and was quickly concentrated in certain Treasury securities held with conversion options that could generate arbitrage profits.[62] While some

54. *Reserve Board Broadens Commodity Paper Definition*, WALL ST. J., Sept. 9, 1915.

55. *The Federal Reserve System at Work*, N.Y. TIMES, Aug. 9, 1915.

56. CONG. BUDGET OFF., HISTORICAL DATA ON FEDERAL DEBT HELD BY THE PUBLIC (July 2010).

57. CAMBRIDGE UNIV. PRESS, TABLE GROUP: INCOME AND FINANCES, SERIES DA 1266-1356 (2006).

58. The term 'real bills' was not in general use until the 1940s, when it was coined by Lloyd Mints. Lloyd Mints, History of Banking Theory in Great Britain and the United States (1945). At the time it was known as "the commercial loan theory of banking." J.A. SCHUMPETER, HISTORY OF ECONOMIC ANALYSIS 729-732 (1954).

59. Seigniorage refers to the revenue generated by money creation and originally referred to the difference between the cost of input materials for and value of coins. For the Federal Reserve, it referred to the difference between interest income earned on its lending and ownership of securities and interest expense on its liabilities, which is retained by the reserve banks to cover "all necessary expenses." 12 U.S.C. § 289(a).

60. COMM. ON BANKING AND CURRENCY, 92D CONG., FED. RSRV. STRUCTURE AND THE DEV. OF MONETARY POL'Y 1915-1935, at 18 n.17 (1971); BD. OF GOVERNORS OF THE FED. RSRV. SYS., SECOND ANNUAL REPORT: COVERING OPERATIONS FOR THE YEAR 1915, at 19 (1916).

61. BD. OF GOVERNORS OF THE FED. RSRV. SYS., *supra* note 60, at 19.

62. FED. RSRV. BANK OF PHILA., SECOND ANNUAL REPORT 16 (1917); FED. RSRV. BANK OF DALL., SECOND ANNUAL REPORT 10 (1917). FED. RSRV. BANK OF ST. LOUIS, SECOND ANNUAL REPORT

Reserve banks claimed benevolent motives,[63] others were less discreet. The Cleveland Fed, for example, noted its bond trading activities accounted for almost the entirety of its revenue.[64]

Soon, the competition among Reserve banks to juice profits through these purchase-convert-and-sell operations raised concerns. As early as mid-1915, there were signs that Fed activity could distort the market.[65] Rather than leave money on the table, however, the Reserve banks active in this trade hoped greater coordination could reduce the price impact of their purchases. Governor Bejamin Strong offered up his Bank in New York to act as agent for the System. Although the Board never formally sanctioned the arrangement, several other Governors took Strong up on his proposal. The trading desk in New York was strategic: it sought to execute orders in a deliberate way so as not to overwhelm the market—or, in Strong's words, to avoid making an "artificial market with our cheap money."[66]

Strong eventually succeeded in forcing a resolution which, in effect, recognized New York as agent for the System, placing that Bank in an elevated position amongst its peers more generally—something of a 'first among equals' structure. But his cautious approach, designed to avoid overly impacting trading and prices, generated frustration in the ranks and didn't last long. By the fall of 1916, the Board was concerned that Federal Reserve Banks "blindly bidding against each other" was creating an "unnatural market."[67] While within their legal rights, this competition among the Reserve banks for arbitrage profits was creating an "artificial" premium in certain Treasury securities that was, in their view, "fraught with certain dangers."

The solution, as proposed by the Board, and supported by Strong, was to have a central committee with the power to set price targets on Treasury purchases for the System as a whole. That, they hoped, would help reestablish "a more healthy and normal market."[68] It was the first time the Reserve banks had acted in a deliberate and coordinated manner—they were finally "an embryonic central bank."[69] Even if not recognized at the time, it was a fundamental shift in perspective and norms for the still-nascent Federal Reserve.

B. Orderly Markets and the Fed as Fiscal Agent

At first, the Fed's fiscal agent role was front and center but also fairly straightforward to execute. With debt totaling less than 3% of GDP in 1916, the

9 (1917). There were, of course, exceptions. FED. RSRV. BANK OF RICHMOND, SECOND ANNUAL REPORT 3 (1917). FED. RSRV. BANK OF S.F., SECOND ANNUAL REPORT 30 (1917).

63. FED. RSRV. BANK OF N.Y., SECOND ANNUAL REPORT 15 (1917).

64. FED. RSRV. BANK OF CLEVELAND, SECOND ANNUAL REPORT 5, 10 (1917).

65. FED. RSRV. STRUCTURE AND THE DEV. OF MONETARY POL'Y: 1915-1935, *supra* note 60, at 17.

66. *Id.* at 19.

67. "The power of the Federal reserve banks to make open market purchases of bonds is not limited by law. . . even though their competitive bidding is forcing the price of two's above par." Letter from Paul M. Warburg to Federal Reserve Bank Agents (Nov. 24, 1916).

68. FED. RSRV. STRUCTURE AND THE DEV. OF MONETARY POL'Y: 1915-1935, *supra* note 60, at 21.

69. *Id.*

government's finances were an afterthought to broader markets at best. Then World War I brought about a fiscal transformation that thrust the Fed into a new role supporting government debt markets as part of its statutory mandate to serve as fiscal agent of the United States. That role began in the primary markets—where the Treasury first issues debt securities—and later expanded to the secondary markets, where officials cashed out the Fed's responsibility as maintaining orderly markets over time. Ultimately, this responsibility was reinforced through amendments to the Fed's enabling Act which created a new policymaking body, the FOMC. Yet the FOMC was faced with a conflict between the Fed's two distinct mandates: monetary elasticity, on the one hand, and orderly public debt markets, on the other. By the late 1940s, this conflict had reached a crisis point. The Fed had made good on its orderly markets responsibilities, but in a way that jeopardized monetary policy efficacy, with potentially disastrous consequences in view.

1. The Fed and Primary Markets in Government Debt

Congress ordered the Fed to serve as fiscal agent to the U.S. Treasury in the Federal Reserve Act. However, it was the rapid expansion of government borrowing during World War I that led the Fed to carry out that responsibility in primary and secondary markets for U.S. Treasuries. At the end of 1915, the Fed balance sheet was roughly 1% of GDP, and only 3% of that was government securities (70% was specie).[70] Such modest activity only threatened to create an "unnatural" market in Treasuries because the public debt remained small. Issuance of new debt was rare and each bond was individually authorized by Congress. As of mid-1916 there was less than $1 billion outstanding—at roughly 2% of GDP,[71] that was the lowest level relative to economic activity since the Independent Treasury era of the 1840s.[72] That meager balance was spread across only a handful of instruments, the most recent of which was issued several years earlier as part of financing the construction of the Panama Canal.[73] The debt was also very narrowly held; the vast majority was locked up in the vaults of commercial banks. The market for U.S. government bonds was a "financial backwater."[74]

That all changed quickly in the spring of 1917 The demands of war finance transformed the relationship between the Treasury, Federal Reserve, and society at large. Enormous wartime deficits led to an explosion of federal debt. But its ownership expanded in equally dramatic fashion. In a bid to avoid the inflation of the Civil War,[75]

70. CTR. FOR FIN. STABILITY, THE FEDERAL RESERVE SYSTEM'S WEEKLY BALANCE SHEET SINCE 1914 (2018).

71. SEC'Y OF THE TREASURY, THE STATE OF THE FINANCES FOR THE FISCAL YEAR ENDED JUNE 30, 1916, at 185 (1917).

72. CONG. BUDGET OFF., *supra* note 56.

73. KENNETH D. GARBADE, BIRTH OF A MARKET: THE U.S. TREASURY SECURITIES MARKET FROM THE GREAT WAR TO THE GREAT DEPRESSION 1 (2012).

74. *Id.*

75. *See generally* BRAY HAMMOND, SOVEREIGNTY AND AN EMPTY PURSE: BANKS AND POLITICS IN THE CIVIL WAR (1970).

Secretary of the Treasury William G. McAdoo embarked on an extraordinary public experiment. Through the Liberty Loan drives, he tapped the collective resources of millions of individual investors to support the war effort.[76] A majority of Americans likely bought Liberty Bonds in one form or another.[77] "Any great war must necessarily be a popular movement," he later recalled, "it is a kind of crusade; and like all crusades it sweeps along on a powerful stream of romanticism."[78]

Facilitating such extensive and broad debt issuance required major changes to the way those bonds were sold to the public. Some of those changes did not involve the Fed. For example, since it was no longer optimal for the government to authorize each individual issue, Congress instead opted to authorize debt up to a limit.[79] That debt limit is the subject of political rancor today. But the government also needed help with logistics, including marketing, printing, and distribution. For that it tapped the Federal Reserve—its fiscal agent.[80]

It was clear from its inception that the Fed-as-fiscal agent was responsible for facilitating government payments. It maintained the government's bank account. This followed from the plain text of Section 15, which provided that:

> The moneys held in the general fund of the Treasury . . . may, upon the direction of the Secretary of the Treasury, be deposited in Federal reserve banks, which banks, when required by the Secretary of the Treasury, shall act as fiscal agents of the United States; and the revenues of the Government or any part thereof may be deposited in such banks, and disbursements may be made by checks drawn against such deposits.[81]

Receiving deposits and drawing checks are traditional *commercial banking* services. The War period clarified that this language also entailed *investment banking* services. The Fed would serve not just as a depository but also as a facilitator of government borrowing and intermediary in the government's interactions with capital markets.

This role was expressly conceptualized and operationalized in the immediate aftermath of the Fed's creation. For example, the first section of the Board's 1917

76. *See generally* GARBADE, *supra* note 73.

77. Roughly 4, 9.5, 17, 21, and 15 million Americans subscribed to the fourth Liberty Loans and the Victory Loan, respectively. SEC'Y OF THE TREASURY, THE STATE OF THE FINANCES FOR THE FISCAL YEAR ENDED JUNE 30, 1918 (1919); SEC'Y OF THE TREASURY, THE STATE OF THE FINANCES FOR THE FISCAL YEAR ENDED JUNE 30, 1919 (1920); SEC'Y OF THE TREASURY, THE STATE OF THE FINANCES FOR THE FISCAL YEAR ENDED JUNE 30, 1920 (1921). *See also* GARBADE, *supra* note 73, at 97. The total labor force of the United States was 40 million in 1916 and 44 million in 1918. Hugh Rockoff, *U.S. Economy in World War I*, ECON. HIST. ASSOC., https://perma.cc/Z9W3-3GQ8.

78. WILLIAM G. MCADOO, CROWDED YEARS: THE REMINISCENCES OF WILLIAM G. MCADOO 374 (1931).

79. Second Liberty Bond Act of 1917, Pub. L. No. 65-43, 40 Stat. 288 (1917).

80. *See generally* George J. Hall & Thomas J. Sargent, *A History of U.S. Debt Limits* (Nat'l Bureau of Econ. Rsch., Working Paper No. 21799, 2015); LIBRARY OF CONG., THE DEBT LIMIT (2025), https://crsreports.congress.gov/product/pdf/IF/IF10292.

81. Federal Reserve Act, 38 Stat. 251 § 15. *See also* BD. OF GOVERNORS OF THE FED. RSRV. SYS., *supra* note 60, at 6-7.

Annual Report is devoted to the "Federal Reserve Banks as Fiscal Agents of the United States."[82] It states that "The entry of the country into war resulted almost immediately in the assignment to the Federal Reserve Banks of a new and important fiscal agency function." [83] It continues:

> Under authority of section 15 . . . Federal Reserve Banks were charged by the Secretary . . . with the duty of placing issues of short-time Treasury certificates and redeeming them at maturity. During the latter part of April the Secretary . . . announced that each Federal Reserve Bank would be constituted a central agency in its district for the organization of a bond campaign, receiving subscriptions and payments, making deliveries, and managing the necessary details.[84]

The bureaucratic necessities of this effort drove a sizeable expansion in manpower; the Federal Reserve Bank of New York alone increased its headcount sixfold in just a few months.[85] By the end of the war total headcount at the Reserve banks had swelled from 920 to 7,700.[86]

Increased headcount meant increased expenses which needed more seigniorage. Between the spring of 1917 and Armistice Day, the Fed grew its consolidated balance sheet nearly fivefold (triple the pace of expansion in economic activity).[87] That growth included innovations in providing credit to the commercial banking system, most importantly the advent of central bank repurchase agreements ("repos").[88] The Board, with Secretary McAdoo as its *ex-officio* Chair, also leaned on commercial banks to channel the nation's savings into the war effort.[89] But, the desire for orderliness in the trading of financial instruments appears not to have been a regular topic of discussion. The Fed was concerned with primary markets at this time, not secondary ones.

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82. BD. OF GOVERNORS OF THE FED. RSRV. SYS., SECOND ANNUAL REPORT: COVERING OPERATIONS FOR THE YEAR 1917, at 2-3 (1918).

83. *Id.*

84. *Id.*

85. *Important Part Played by Federal Reserve Banks*, N.Y. TIMES, Oct. 7, 1917.

86. BD. OF GOVERNORS OF THE FED. RSRV. SYS., *supra* note 60, at 182; BD. OF GOVERNORS OF THE FED. RSRV. SYS., *supra* note 82, at 244. *See also* SEC'Y OF THE TREASURY, *supra* note 71 ("The Federal Reserve system has been of incalculable value during this period of war financing on the most extensive scale ever undertaken by any nation in the history of the world. It would have been impossible to carry through these unprecedented financing operations under our old banking system. The effective machinery afforded by the Federal Reserve Banks has permitted the Government to execute its plans without a tremor of disturbance. Great credit is due the 12 Federal Reserve Banks for their broad grasp of the situation and their intelligent and comprehensive cooperation.").

87. CTR. FOR FIN. STABILITY, THE FEDERAL RESERVE SYSTEM'S WEEKLY BALANCE SHEET SINCE 1914: RESOURCES AND ASSETS: TOTAL RESOURCES AND ASSETS (2018); CONG. BUDGET OFF., *supra* note 56.

88. Lev Menand & Joshua Younger, *Money and the Public Debt: Treasury Market Liquidity as a Legal Phenomenon*, 2023 COLUM. BUS. L. REV. 224 (2023).

89. *See* SEC'Y OF THE TREASURY, *supra* note 77, at 20 (1919); *Sternness to Financial Slackers*, N.Y. TIMES, Feb. 25, 1918.

2. The Fed's Turn to Secondary Markets

By 1921, the transition back to a peacetime economy had progressed to the point where private credit creation could increasingly take over for the Federal Reserve. As banks paid off their discount borrowings, the resulting reduction in revenue threatened to leave the System dangerously underfunded.[90] Over just one year, from 1920 to 1921, net income fell more than 45%[91] as gross income dropped sharply while expenses kept growing along with headcount.[92] Without doing something dramatic, net income would turn negative within a year.[93]

As in the early days of the System's operation, the solution was to generate additional seigniorage[94]—or, as Strong later described it, to use their "the power to invest money" to make "considerable investments in the market, buying bills and buying Government securities."[95] To that end, the Reserve banks significantly stepped up their purchases of Treasuries in the fall of 1921, tripling their consolidated holdings.[96] Those purchases were blamed for a rather dramatic fall in bond yields (i.e., bond prices rose): After 18 months of relative stability, generic yields on long-term government debt dropped from 5.1% in September to less than 4.5% by Christmas. At that point, the Treasury grew concerned about the impact of Fed purchases on government bond markets.[97] Undersecretary Parker Gilbert argued on several occasions that the System should liquidate all its holdings.[98]

90. The total balance of bills discounted peaked at just over $2.8 billion early-November 1920 then declined by more than half over the next year. CTR. FOR FIN. STABILITY, THE FEDERAL RESERVE SYSTEM'S WEEKLY BALANCE SHEET SINCE 1914: RESOURCES AND ASSETS: RESOURCES AND ASSETS: BILLS DISCOUNTED: TOTAL BILLS DISCOUNTED (2018).

91. CAMBRIDGE UNIV. PRESS, FEDERAL RESERVE BANKS – EARNINGS AND EXPENSES: 1915-1998, SERIES CJ 283-288 (2006).

92. BD. OF GOVERNORS OF THE FED. RSRV. SYS., COVERING OPERATIONS FOR THE YEAR 1918, at 244-245 (1919); BD. OF GOVERNORS OF THE FED. RSRV. SYS., COVERING OPERATIONS FOR THE YEAR 1920, at 272-273 (1921); BD. OF GOVERNORS OF THE FED. RSRV. SYS., COVERING OPERATIONS FOR THE YEAR 1922, at 235-236 (1923).

93. CAMBRIDGE UNIV. PRESS, *supra* note 91. We infer the risk of negative earnings from the fact that net earnings were $16.5 million in 1922 even with increased holdings of government securities, discussed in this section.

94. *Stabilization Hearings*, *supra* note 32 (Benjamin strong is quoted as saying, in reference to Treasury purchases by Federal Reserve banks in 1921, that their leadership "strongly held the feeling that a part of their duty was to earn enough to pay expenses.").

95. *Id.*

96. CTR. FOR FIN. STABILITY, THE FEDERAL RESERVE SYSTEM'S WEEKLY BALANCE SHEET SINCE 1914: RESOURCES AND ASSETS: U.S. GOVERNMENT SECURITIES: BOUGHT OR HELD OUTRIGHT: TOTAL BOUGHT OUTRIGHT (2018).

97. Legislative History of the National Banking and Federal Reserve Act Amendments (hereinafter McFadden Act), P.L. 69-639 (1927); *Stabilization Hearings*, supra note 32, at 309. *See also* ALLAN H. MELTZER, A HISTORY OF THE FEDERAL RESERVE, VOLUME 1: 1913-1951, at 143-144 (2004).

98. *Stabilization Hearings*, *supra* note 32, at 144. This contrasted with some of Gilbert's public statements. For example, his claim in January 1922 that the Treasury had not received any "artificial assistance" in refunding its debt from the Federal Reserve. S. P. Gilbert, Jr., Remarks at the Annual Meeting of the Philadelphia Bankers: The Treasury's Currency

It may seem at first surprising that the Treasury would object to rising prices for its debt—the implication is, of course, a lower cost of debt service for the federal government. But Gilbert's concerns were warranted in the context of his government's fiscal policy. President Warren G. Harding, who assumed office the prior March, was squarely focused on reducing the national debt. "The staggering load of war debt," he told a joint session of Congress only a few weeks after being inaugurated, "must be cared for in orderly funding and gradual liquidation."[99] Harding had an ample surplus with which to do so.[100] Treasury had been using that surplus in part to repurchase its own debt before maturity.[101] Higher prices thus forced the federal government to buy back its own debt at a premium to face value.

Gilbert was not just asking the Fed to change its policy as a favor between agencies. He was implicitly leaning on their role as fiscal agent to the federal government. Like the antebellum Bank of the United States, the Treasury expected the Federal Reserve to serve as investment banker to the Treasury.[102] That did not mean controlling prices or suppressing volatility in those prices, but it did mean using its balance sheet to mitigate known distortions and manage disruptions. Governor Strong generally agreed, recalling in later Congressional testimony that the Reserve banks, in disrupting the Treasury's operations, were in abrogation of their responsibility as fiscal agents: "… sometimes we were treading on the toes of the Treasury, so to speak, and as the reserve banks are the fiscal agents of the Treasury, it was highly important that they should not be in that position."[103]

Undersecretary Gilbert was, in fact, going even further. He was implicitly asking that the Fed, in its role as fiscal agent, facilitate the Harding Administration's policy of the "orderly refunding and gradual liquidation" of war debt by ensuring bond prices were relatively stable, along the lines of orderly marketing in crops and livestock.[104] As an academic recalled: "this orderly market idea had come into vogue in many departments."[105] And this logic was applied directly to government bond markets around that time.[106]

The choice of the term "orderly markets" in this context was notable in its explicit conceptual link to stable asset prices. It deviated from a desire to ensure "continuous markets," which was a more commonly used term in contemporary market structure

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Problem (Jan. 12, 1922).

99. Warren Harding, *U.S. President, Address to a Joint Session of Congress on Urgent National Matters*, THE AM. PRESIDENCY PROJECT (April 12, 1921), https://perma.cc/PE99-4KU8.

100. *Federal Surplus or Deficit*, FED. RSRV. BANK OF ST. LOUIS (Jan. 11, 2026), https://perma.cc/CA5X-PJFN; Cong. Budget Off., *Historical Data on Debt Held by the Public: 1790 to 2000* (Jul. 2010), https://www.cbo.gov/publication/21728.

101. GARBADE, *supra* note 73, at 161-183.

102. BRAY HAMMOND, BANKS AND POLITICS IN AMERICA FROM THE REVOLUTION TO THE CIVIL WAR 311-312 (1957) (explaining that the "fiscal agency duties of the Bank [of the United States] dovetailed in the handling of the public debt").

103. *Stabilization Hearings*, *supra* note 32, at 309.

104. Harding, *supra* note 99.

105. McFadden Act, *supra* note 97.

106. *Stabilization Hearings*, *supra* note 32, at 1090.

research. *Continuous markets* were described as consistently and promptly tradeable (during regular trading hours) with reasonable transaction costs (encoded in the spread between the bid and ask prices).[107] *Orderly markets*, on the other hand, were characterized by stable asset prices in the first instance.[108] The Fed, "at the insistence of the Treasury," was focused on the latter.[109]

3. The Formation of the OMIC

Reorienting the Fed's activity to ensure orderly public debt markets was no simple task. By design, the Reserve banks operated independently from each other. Although the Board in Washington had authority to regulate the banks, that authority was either indirect—i.e., through its Section 4 authority to approve compensation for officers, directors, and employees and appoint certain directors of the reserve banks[110]—or required formal forward looking policymaking—through its Section 14 authority to establish "rules and regulations" concerning the conduct of open market operations.[111] Decisions related to the actual buying and selling Treasuries were, at the time, at the discretion of the Reserve banks.[112]

To that end, the Conference of Governors convened the Committee on the Centralized Control of Purchases and Sales of Government Securities by Federal Reserve Banks (the Control Committee). Its purpose was to develop programs and procedures to promote the "orderly buying and selling of government securities by reserve banks" by facilitating coordination among them.[113] The Control Committee consisted of representatives from Boston, Chicago, San Francisco, and, of course, New York.[114] It was mandated simply to use its "best judgement" and "knowledge of conditions" to "so far as possible . . . preserve those markets [in government securities]."[115] But adherence to its dictates was ultimately voluntary, based on an individual Reserve Bank's sense of what constituted, in the words of Governor Morse of Boston, a "good purpose."[116]

107. S. S. HUEBNER, THE STOCK MARKET 31-32 (1st ed. 1922).

108. *Stabilization Hearings*, , at 1090. John Commons described the Fed and Treasury's goals for the Treasury market as facilitating orderly marketing: "The orderly marketing idea was to prevent fluctuations in the prices of United States securities in the securities market."

109. *Id.*

110. Pub L. 63-43 § 4 (1913).

111. *Id.* § 14.

112. *Id.* ("Any Federal reserve bank may, under rules and regulations prescribed by the Federal Reserve Board, 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 of the kinds and maturities by this Act made eligible for rediscount, with or without the indorsement of a member bank.")

113. FED. RSRV. BANK OF CHI., NINTH ANNUAL REPORT TO THE FEDERAL RESERVE BOARD 1 (1923).

114. *Id.*

115. COMM. OF GOVERNORS ON CENTRALIZED CONTROL OF PURCHASES AND SALES OF GOV'T SEC. BY FED. RSRV. BANKS, MINUTES 2 (MAY 22, 1922).

116. COMM. OF GOVERNORS ON CENTRALIZED CONTROL OF PURCHASES AND SALES OF GOV'T SEC. BY FED. RSRV. BANKS, MINUTES 5 (MAY 2-4, 1922).

That led to a more explicit commitment on the part of the Board to give "careful regard" to the "bearing" of purchases on "the market for such [government] securities"—i.e., to take into account the impact of System activities on the health of the market—and yet a third committee to execute on that commitment.[117] The Open Market Investment Committee (OMIC) would be under the "general supervision" of the Board in Washington D.C., an attempt to reassert control over an overly hands-off delegation of Board authority of open market operations. Its membership included representatives of a subset of the Fed, with the New York representative as permanent Chairman.[118] Soon thereafter, management of securities purchased by the Reserve banks was explicitly centralized in a single new account under the control of the OMIC, with legal ownership distributed among the Reserve banks on a pro-rata basis.[119]

That coincided with a broader shift towards more active use of monetary policy tools to manage the business cycle over the course of the 1920s. It was, as Milton Friedman and Anna Schwartz later described, a "conscious attempt, for perhaps the first time in monetary history, to use central bank powers to promote internal economic stability as well as to preserve balance in international payments and to prevent and moderate strictly financial crises"[120]—the "high tide" of the System. That empowerment was made possible in large part by more extensive use of open market operations,[121] with the OMIC and New York Fed at their center.[122]

The primary goal of this arrangement was maintaining an orderly market in government securities. Benjamin Strong was quite clear on that point on numerous occasions.[123] To ensure New York had sufficient flexibility to act promptly and as needed, the OMIC pre-authorized a certain quantity of purchases for maintaining orderly market conditions. Although clearly useful in an "emergency," some on the Committee preferred a lower threshold for their use.[124]

The OMIC's anticipation of the need for prompt emergency purchases would prove prescient. A bit more than a year later, in late-October 1929, the stock market suffered what would soon become known as the Great Crash.[125] That event, in addition

117. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 2 (MAR. 22, 1923).

118. OPEN MARKET INV. COMM. OF THE FED. RSRV. SYS., MINUTES 1-2 (April 13, 1923).

119. W. RANDOLPH BURGESS, THE RESERVE BANKS AND THE MONEY MARKET 218-219 (1927); LAWRENCE E. CLARK, CENTRAL BANKING UNDER THE FEDERAL RESERVE SYSTEM 167 (1935).

120. MILTON FRIEDMAN & ANNA JACOBSON SCHWARTZ, A MONETARY HISTORY OF THE UNITED STATES, 1867-1960, at 240 (1963).

121. *Id.* at 279-287, 292-298; Mark Carlson and Burcu Duygan-Bump, *"Unconventional" Monetary Policy as Conventional Monetary Policy: A Perspective from the United States in the 1920s*, 17 INT'L J. OF CENT. BANKING 207 (2021).

122. LAWRENCE E. CLARK, CENTRAL BANKING UNDER THE FEDERAL RESERVE SYSTEM 169-170 (1935).

123. *Stabilization Hearings*, *supra* note 32, at 314, 342, 486 (The inspiration for this policy was the bankers' pools previously organized by J.P. Morgan to stabilize markets on prior occasions); FED. RSRV. STRUCTURE AND THE DEV. OF MONETARY POL'Y: 1915-1935, *supra* note 60, at 100.

124. FED. RSRV. STRUCTURE AND THE DEV. OF MONETARY POL'Y: 1915-1935, *supra* note 60, at 120.

125. *See generally* JOHN KENNETH GALBRAITH, THE GREAT CRASH OF 1929 (1954); MAUREY KLEIN, RAINBOW'S END: THE CRASH OF 1929 (2001).

to heralding the end of the Roaring Twenties and the onset of the Great Depression, proved a critical, formative moment for the Fed. Once again, the need to ensure orderly markets in government securities under stress revealed weakness in its institutional design. Open market authority, previously delegated to the OMIC on a voluntary basis (a "gentleman's agreement") would need to be clarified.[126]

The Great Crash began on October 24, 1929 with Black Thursday and continued into the following Monday and Tuesday. [127] George Harrison, the newly appointed Governor of the New York Fed, was determined to support "the orderly sale" of securities held in dealer inventories[128] and avoid the "absolute collapse of securities markets."[129] The New York Fed board of directors promptly authorized open ended purchases of government securities ("without limit" and "at [Harrison's] discretion") for the Bank's own account.[130] Harrison gave the Board in D.C. some sense of his plans,[131] but saw it as informing them rather than asking for permission.[132] Indeed, he had already arranged to purchase $50 million that evening, well before markets opened.[133]

The Board was wary, but there was little they could do to stop Harrison. The OMIC was, after all, no more than a "gentleman's agreement" among the Reserve banks. To regain control, the Board voted unanimously to suspend New York's asset purchases awaiting their "further consideration and approval."[134] They went so far as to put out a press release informing the public that Harrison had gone rogue and acted without the Board's approval.[135] Harrison ultimately complied, but not without complaint,[136] provocatively characterizing the Board's cease and desist order as a "suggestion."[137]

A few days later, the Board meeting included a "special order of business" to consider new regulations governing the authorization of open market operations.[138] Attempts to draft new regulations, however, ran aground on concerns about their "legality."[139] In the meantime, Harrison and the New York Fed board attempted to

126. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 2 (Oct. 29, 1929).

127. *Worst Stock Crash Stemmed by Banks; 12,894,650 Share Day Swaps Market*, N.Y. Times, Oct. 25, 1929.

128. *Operation of the National and Federal Reserve Banking Systems: Appendix, Part 1, Hearings Before a Subcomm. of the S. Comm. on Banking and Currency*, 71st Cong. 98 (1931) (statement of George Harrison, Governor, Fed. Rsrv. Bank of N.Y.).

129. *Operation of the National and Federal Reserve Banking Systems: Appendix, Part 6, Hearings Before a Subcomm. of the S. Comm. on Banking and Currency*, 71st Cong. 796 (1931) *Buying Government Bonds*, N.Y. Times, Oct. 25, 1929.

130. BD. OF GOVERNORS OF THE FED. RSRV. SYS., *supra* note 126, at 2.

131. *Id.* at 1.

132. *Id*.

133. *Id*.

134. *Id.* at 5.

135. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 4-5, 19 (Oct. 31, 1929).

136. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 2 (Oct. 30, 1929).

137. *Id.* at 1.

138. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 2-3 (Nov. 5, 1929).

139. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 7 (Nov. 7, 1929).

circumvent the Board's proposed restrictions by appealing to the OMIC, which was set to meet the following week. The OMIC, in turn, expressed their "unanimous opinion" that purchases of Treasuries should be continued.[140] Later that week, the OMIC further sided with New York on the need for "emergency purchases" without waiting for Board authorization, at least when required to preserve financial stability.[141]

In the end, the Board stood their ground. Their only concession was to indicate that the Board "appreciates the possibility" of another market panic, and to that end would be prepared to "act promptly" on any request to approve Treasury purchases.[142] In the meantime, the board of directors in New York took it upon themselves to authorize more purchases of government securities "at their discretion for the account of the bank."[143] To resolve their dispute, Governor Young suggested the Board consider the New York and OMIC proposed procedures for open market operations, including a standing emergency purchase authority, with the stipulation that the Board was prepared to "express itself" if it disapproved of the rapidity or quantity of such purchases.[144] The result was a new procedure for open market operations, including a fourth coordination committee, the Open Market Policy Conference (OMPC). The OMPC was to include representatives of all twelve Reserve banks and was charged with developing and recommending plans for open market operations in securities. The Conference was given a wide berth. Its policies were required only to be formulated "with the view of accommodating commerce and business and with regard for their bearing upon the credit situation." Once approved by both the Board and Reserve banks, the Open Market Executive Committee, a subcommittee of the OMIC, would execute any required purchase or sales.

The new policy passed with unanimous support.[145] When the OMPC first met in late-March, the New York Fed representative was promptly elected Chair.[146] Early on, its members ratified similar plans for open market operations as had existed before its formation.[147] Soon thereafter they granted the standing emergency authority sought by the New York Fed, allowing additional purchases up to a preset limit if needed to "maintain the status quo."[148] Harrison used that authority only a few weeks later: when

140. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 3-4 (Nov. 8, 1929).

141. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 1-2 (Nov. 12, 1929).

142. The Board also authorized Governor Young to act on their behalf if a quorum was not immediately available. *Id.* at 4.

143. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 1 (Nov. 25, 1929).

144. The minutes refer to "the difficulty which has existed between the New York bank and the Board regarding jurisdiction in open market operations." *Id.* at 2.

145. Young in fact was the only vote against the motion, but, as he described it, only because he preferred to make it more clear to the Federal Reserve Bank of New York that no concrete action would be taken "just at this time." Board of Governors of the Federal Reserve System, Minutes (Jan. 16, 1930) at 15.

146. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 1 (March 25, 1930).

147. OPEN MKT. POL'Y CONF., MINUTES 2 (June 23, 1930).

148. OPEN MKT. POL'Y CONF., MINUTES 5 (Sept. 25, 1930).

a run on a large New York bank left markets at the tipping point,[149] he opted to make $40 million of "temporary emergency purchases" of Treasuries to calm the situation.[150] But that event appears more related to injecting liquidity into the banking system than addressing issues in the Treasury market specifically.

After "much discussion and many compromises,"[151] the Fed finally had a centralized body for developing open market policy and a clear procedure for authorizing its execution. It was a seminal moment in the evolution of the System from a somewhat loosely coordinated network of regional discount banks into a more traditional central bank—as Governor A.C. Miller, a Governor at the Board who had been at the Fed since its inception, described to Congress a bit less than a year later, "the system, as a system, is coming into its own."[152] In doing so, he saw open market operations as "the most powerful instrument the System ever uses."[153]

4. From OMPC to FOMC

In 1933, Congress formalized the OMPC, creating a Federal Open Market Committee (FOMC) consisting of representatives of the Reserve banks and Governors of the Federal Reserve Board.[154] The 1933 Act also, importantly, put to rest any residual ambiguities regarding authorization of open market operations. Any Reserve Bank was prohibited from engaging in such activity without adhering to regulations set by the Board in Washington.[155] In practice, it was only a recognition of the existing arrangement. As Senator Carter Glass, architect of both the FRA and the 1933 Act put it, "It is exactly the same [as the OMPC]. It is just simply to legalize the thing."[156] But it was somewhat more binding in the sense that the roles and responsibilities of the FOMC were established by statute—it was a "statutory" rather than a "voluntary"

149. *False Rumor Leads to Trouble at Bank*, N.Y. TIMES, Dec. 12, 1930.

150. OPEN MKT. POL'Y CONF., MINUTES 1 (Dec. 20, 1930).

151. BD. OF GOVERNORS OF THE FED. RSRV. SYS., *supra* note 146, at 2.

152. *Operation of the National and Federal Reserve Banking Systems*, *supra* note 128, at 132. Miller also noted "We have set up a procedure, called, first, in 1923, the open market investment committee; later on—I think in 1929 or 1930—the open market policy conference, for the purpose of more definitely regularizing the procedure with regard to these operations that concern the whole country and that concern all of the Federal reserve banks in maintaining control in their respective districts." *Ibid* at 130. Later, he commented "I think the country will get a more competent performance from the Federal reserve system than it has had in recent years." *Id.* at 133.

153. *Id.* at 132.

154. 12 U.S.C. 227 § 8 (2011).

155. *Id*. § 12A(b). Individual Reserve banks could, however, opt out of any action recommended by the Board or the FOMC.

156. *Operation of the National and Federal Reserve Banking Systems: Part 1, Hearings Before a Subcomm. of the S. Comm. on Banking and Currency*, 72d Cong. 82 (Mar. 23-25, 1932). The House Report on their version of the bill confirms this motivation, stating of Section 12A(b) "this, in effect, legalizes and gives official recognition to the present open-market committee [the OMPC]." Banking Act of 1933, H.R. No. 150, 73d Cong. 2 (May 19, 1933).

committee.[157]

The initial FOMC had the power to approve or disapprove of actions to be taken by the Reserve banks, and to recommend certain actions, but participation was voluntary.[158] In practice that meant more than one hundred individuals across the country had a say in open market policy.[159] Two years later, the Banking Act of 1935 consolidated control of open market operations in the hands of the FOMC.[160] The newly empowered FOMC, consisting of all the members of the Fed Board as well as a rotating group of five Reserve bank presidents, had formal control over open market operations across the System.[161] Its initial mandate was broad: to conduct open market operations "with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country."[162]

At its first meeting, the FOMC filled in the details.[163] Most critical was the creation of a subcommittee of the FOMC, referred to as its "Executive Committee" (EC), consisting of three members from the Board, two from the Reserve banks.[164] New York was also officially designated as agent to execute approved transactions on behalf of the System.[165] The role of the Executive Committee was clarified to include directing the execution of open market operations approved by the FOMC, allocating those purchases and sales among the reserve banks, and keeping the full FOMC informed of its actions.[166] Among the officer positions created by the FOMC was a Manager for the System Open Market Account (SOMA),[167] who was to attend all meetings of both the Committee and the Executive Committee.[168]

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157. *Banking Act of 1935, Hearings before the H. Comm. on Banking and Currency*, 74th Cong. 440 (Feb. 21-22, 26-28, Mar. 1, 4-6, 11-15, 18-23, 26-28, April 2, 8, 1935). The Federal Reserve Board chafed at this statutory intrusion into what it considered an internal matter. It was "inadvisable," they argued in a letter to Glass, to "disturb" the "natural development" of their policy and procedure by "crystalizing into law any particular procedure." *Operation of the National and Federal Reserve Banking Systems, Part II*, Hearings Before the Senate Committee on Banking and Currency, 72d Congress (March 28-30, 1932) at 358. (They did, however, support a more limited amendment "clarifying" Board power and supervision of open market operations. *Id.*) But Congress ultimately rejected their concerns, establishing the FOMC largely as it was proposed in the original version of the bill. *See* 12 U.S.C. 227 § 8.

158. M.S. Szymczak, Remarks at the New York Bankers' Convention: The Banking Act of 1935, at 16-17 (Jun. 8, 1935).

159. *Id.* at 16.

160. Banking Act of 1955, Pub. L. 74-305, § 205.

161. *Id.*

162. *Id.* § 205(c).

163. FED. OPEN MKT. COMM., MINUTES 2-6 (Mar. 18. 1936).

164. *Id.* at 5.

165. *Id.* at 6.

166. FED. OPEN MKT. COMM., MINUTES 3 (Mar. 19. 1936).

167. The System Open Market Account, or SOMA, is a portfolio of securities held in the name of the Federal Reserve banks, with ownership assigned on a *pro rata* basis, and managed by the Federal Reserve Bank of New York. Bukhari et al., *The SOMA Portfolio through Time*, FEDERAL RESERVE BANK OF NEW YORK (Aug. 12, 2013), https://perma.cc/8N55-KKFX.

168. FED. OPEN MKT. COMM., supra note 166, at 4.

Under this arrangement, the full FOMC would set the stance of monetary policy, but the details of its implementation were left to the Executive Committee. This separation was only partial—the Executive Committee was simply a subset of the full Committee and shared the same Chair.[169] That separation was also not necessary for communicating with the public, since the decisions and minutes of the FOMC were strictly confidential.[170] In other words, the public did not have much transparency in FOMC decisions and therefore was not at risk of confusion as to their motivations in taking certain actions. But, as we will see, it allowed open market operations related to market functioning to be procedurally cordoned off from those related to monetary policy. This would prove a useful distinction over the next twenty years or so.

5. The Orderly Markets Directive

The FOMC clearly understood its mandate to include orderly markets in government securities.[171] Importantly, that commitment was preemptive: the FOMC authorized the EC to "use its influence towards preventing any possible disturbances in the market requiring action before the full Committee could be convened."[172] Examining how that authority was used in practice provides useful examples of the complexities of balancing the Fed's fiscal agent and monetary policy responsibilities.[173]

The Treasury soon made clear its expectations that such "influence" would be deployed for their benefit. In early December 1936, Secretary of the Treasury Henry Morgenthau Jr., called Randolph Burgess, SOMA Manager at the New York Fed.[174] Morgenthau was worried that the rumored abdication of King Edward VII of England could unsettle the Treasury market, and he wanted to make sure the Fed was set up to limit any potential impact.[175] Treasury had a large maturity coming up;[176] although Morgenthau typically preferred the Fed not intervene before financings, this time, he waived that self-imposed rule. "The thing is just not acting normally," he told Burgess, "if there should be a repercussion over here, I don't think we should let the thing go too sharp."[177] Morgenthau went on to give Burgess a specific price target below which

169. FED. OPEN MKT. COMM., *supra* note 163, at 3.

170. *Id.* at 3.

171. Its minutes suggest actions taken to that end in late-1934, and indicate a more explicit commitment a few months later. In December 1934, the Committee considered using the System Open Market Account (SOMA) as "an aid to maintaining stability in government bond markets" under a range of conditions, including Treasury financing operations and "at other times." Federal Open Market Committee, Minutes (Dec. 17, 1934) at 1. And at a meeting of Executive Committee in March 1935, its Secretary Randolph Burgess briefly reviews $25mn of purchases executed to "under the agreement of the committee" to "maintain an orderly market." EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 2 (Mar. 13, 1935).

172. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 2 (Jan. 25, 1935).

173. *Id.*

174. HENRY MORGENTHAU JR., DIARY BOOK 47: DECEMBER 1 – DECEMBER 7, 1936, at 93-96 (1936).

175. *Id.*

176. *Id.* at 145-146.

177. *Id.*

it would "bother" him.[178] Although likely not the first incident, this was a particularly clear example of Morgenthau asking the Fed, as its fiscal agent, to "foam the runway" for its upcoming issuance if needed.

A few weeks later, the FOMC formalized its commitment to maintain orderly market conditions. Given their already stated objective of maintaining an "orderly money market" in addition to "general credit policy," the EC also saw the Fed as having implicitly accepted "some measure of responsibility for avoiding disorderly conditions in the government security market."[179] It was, therefore, the "duty" of the System to identify periods of "disturbing weakness" and intervene to restore orderly conditions.[180] Importantly, the EC also recognized the need for prompt action and voted to authorize the SOMA manager to use their own individual discretion to purchase government securities in the event of "undue disturbance."[181]

That newfound authority would prove useful only a few months later. In mid-March 1937, government bond prices suddenly declined on some of the heaviest trading volume since the early-1920s.[182] Secretary Henry Morgenthau expected the Federal Reserve to do its part to restore orderly market conditions.[183] Harrison, Eccles, and the rest of the FOMC were initially hesitant to do so, citing "no cause for alarm,"[184] but were ultimately convinced to supplement, even if on a sterilized basis,[185] Treasury purchases so as to avoid "disorderly" conditions.[186] That program continued for a few days until sufficient private market buying had resumed.[187]

Morgenthau was displeased. The FOMC had not, he informed Eccles in a "cold statement" of fact, lived up to its responsibilities with respect to the government securities market.[188] ("Now, I never threaten. I don't want to threaten. I just wanted to make a cold statement.")[189] Morgenthau was, therefore, "serv[ing] notice" on behalf of the federal government that the Fed was to "keep an orderly market."[190] The market, he thought, needed reassurance that the Fed itself had "confidence" in Treasuries.[191]

178. *Id.* at 94.

179. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 4-5 (Dec. 21, 1936).

180. *Id.*

181. *Id.*

182. *Government Bond Turnover Largest in 16 Years Here as Prices Ease*, N.Y. TIMES, Mar. 13, 1937.

183. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 1 (Mar. 13, 1937); ALAN H. MELTZER, A HISTORY OF THE FEDERAL RESERVE VOLUME 1: 1913-1951, at 510 (2003).

184. *Treasury's Bonds Regain Some Poise*, N.Y. TIMES, Mar. 13, 1937.

185. Sterilized in the sense that purchases of longer-term securities were offset by sales of Bills and notes such that overall holdings were little changed. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 6 (Mar. 15, 1937).

186. *Id.* at 5-6; *Reserve Banks Buy Governments, Sell Notes, Bills*, WALL ST. J., Mar. 19, 1937.

187. *Treasury's Buying of Own Securities Heavy this Week*, WALL ST. J., Mar. 18, 1937; *What's News*, WALL ST. J., Mar. 18, 1937.

188. HENRY MORGENTHAU JR., DIARY BOOK 62: APRIL 1 – APRIL 4, 1937, at 272-273 (1937).

189. *Id.*

190. *Id.* at 271. Morgenthau goes on to suggest that he viewed the FOMC as having been set up specifically for the purpose of maintaining an orderly government securities market.

191. *Id.* at 282.

That meant going beyond what had already been done—swaps of different securities—to "new measures to keep this thing [the government securities market] orderly."[192] In other words, the Fed needed to simply buy more bonds.[193]

That episode clarified the Committee's position on using its balance sheet to safeguard orderly markets in Treasury securities—i.e., to ensure that volatility in bond prices reflected fundamentals rather than market idiosyncrasies.[194] Although somewhat controversial—several members of the Committee were concerned about how such actions might be interpreted when they conflicted with the stance of monetary policy[195]—the FOMC ultimately came to the consensus that an "emergency" purchase authority was necessary to deal with fast-moving, unforeseen situations such as what had just transpired.[196] To that end, they authorized up to $250 million of purchases without obtaining approval from the full FOMC.[197] They did so, however, while also voting to "make clear" to the Secretary of the Treasury that the "present situation" did not meet that threshold.[198]

Over the next two years, the looming threat of war in Europe pushed the FOMC towards significantly expanding this emergency purchase authority. Their primary concern was that financial markets would struggle to efficiently price in the fiscal and economic consequences of another World War. That raised the risk of overshooting and disorderly conditions. Harrison in particular was concerned that the government securities market was at risk of "panicky disorder" in the event of a large-scale war.[199] Were shots to be fired, Harrison argued, the Fed should be prepared to purchase significant quantities of government securities as well, to "lend freely" against them as collateral to banks and non-banks, or both.[200] Not only that, but Harrison wanted to provide another inducement against selling: loans in his view should be made at par regardless of the market price (i.e., the full face value regardless of how much prices had declined)—at least for member banks.[201] By the spring of 1939, as war looked

192. *Id.* at 280, 282.

193. *Id.* at 280, 293.

194. EXEC. COMM. OF THE FED. OPEN MKT. COMM., *supra* note 185, at 10-11.

195. *Id.* at 14.

196. *Id.* at 15-16.

197. *Id.*

198. At the January FOMC meeting, the Committee voted to authorize purchases of government securities up to $50mn without the prior consent of the Executive Committee (and up to $100mn with prior consent) "in an emergency" in which it was necessary to "afford relief in a situation involving one or more specific banking institutions in its district." President Harrison of New York explained that this authority was necessary "not only that the banks may be in a position to meet the emergency, but also that there may be no basis for a charge that the System is not prepared to act promptly and vigorously on all occasions." In the end, the resolution passed, but by a single vote. FED. OPEN MKT. COMM., MINUTES 12-16 (Jan. 26, 1937).

199. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 3-4 (Sept. 15, 1938).

200. *Id.*

201. More recently the Fed offered to lend against par for government security collateral in the wake of the failure of Silicon Valley Bank. See e.g., LIDA R. WEINSTOCK & MARC LABONTE, CONG. RSCH. SERV., IN12134, BANK TERM FUNDING PROGRAM (BTFP) AND OTHER FEDERAL

increasingly likely, Morgenthau was asking what the System was prepared to do if an escalation disrupted government securities markets.[202] At Eccles' suggestion the FOMC more than doubled their emergency purchase allowance, from $200mn to $500mn, specifically to respond in the event of "armed conflict or political developments threatening armed conflict."[203]

By the spring of 1939, the Treasury was meeting with senior officials at the Fed to draft contingency plans for protecting the Treasury market in the event of war.[204] Eccles was open to an "indefinite" purchase program similar to what the Powell Fed would execute eighty years later.[205] He also seconded Harrison's earlier suggestion to lend against Treasury collateral at par (including to nonmember banks).[206] Harry Dexter White, who would later emerge as the architect of the Bretton Woods System, went so far as to suggest using Fed buying to put a hard price floor at par.[207] Jerome Frank, Chairman of the SEC, offered, in the event things reached "a serious panic stage" and upon the approval of the President, to simply close the exchanges and suspend trading.[208] In the end, the Fed specifically agreed, in a summary Morgenthau provided directly to the President, to: "give support to the Government bond market, that is, without any idea of pegging it, but of providing a market, keeping a market open for Government bonds, and attempting to maintain an orderly market."[209]

The conflict itself was, it turned out, only a few months away. By the latter half of August, as tensions in Europe ratcheted higher, market conditions started to deteriorate.[210] Harrison put pressure on the commercial banks in New York to "stand pat" and not sell their holdings of Treasuries,[211] the Treasury itself suspended its issuance schedule,[212] and the New York Stock Exchange readied emergency measures.[213]

After the war began, corporate America sought to stockpile precautionary liquidity.[214] With commercial banks still nursing the wounds of the nearly decade-long Depression and capital markets functionally shut down by the outbreak of war, sales

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RESERVE SUPPORT TO BANKING SYSTEM IN TURMOIL (Mar. 31, 2023).

202. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 1-3 (Apr. 13, 1939).

203. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 8 (Apr. 19, 1939).

204. HENRY MORGENTHAU JR., DIARY BOOK 179: APRIL 4 – APRIL 16, 1939, at 210-232, 541-272 (1939).

205. *Id.* at 222.

206. *Id.* at 221.

207. *Id.*

208. *Id.* at 245.

209. *Id.* at 272A.

210. *Bond Prices Sag; Bids thin in All Sections of List*, WALL ST. J., Aug. 22, 1939; *As Finance Sees It*, WALL ST. J., Aug. 23, 1939; *Treasury Bonds in Sharpest Drop of Past 5 Years*, WALL ST. J., Aug. 25, 1939.

211. *Reserve Reveals No Dumping of Treasuries*, N.Y. TIMES, Sept. 1, 1939.

212. *Treasury May Pass Up Financing for September*, WALL ST. J., Sept. 1, 1939.

213. *Exchange Ready for Emergency*, N.Y. TIMES, Aug. 29, 1939.

214. *Industry Foresees Higher Operations*, WALL ST. J., Sept. 2, 1939.

of Treasuries were their first port of call to raise funds.[215] The result was a dash for cash, with the Treasury market showing clear signs of dysfunction.[216]

In September 1939, the Fed acted immediately under its emergency authority. During those initial hectic days, the System was described as "the main buyer"[217] (sometimes "the only buyer").[218] As in 2020, it relied to some extent on announcement effects, in this case very publicly operating on the NYSE to "make its influence in the market felt."[219] Behind the scenes, the Open Markets Desk reached out to dealers directly with offers to buy their entire inventory at a modest discount.[220] Harrison also used his bully pulpit to discourage sales by asking dealers to name liquidating counterparties[221] "for their own good." [222]

Publicly, the Fed would only commit to adjusting its activity "day-to-day as conditions in the market warrant."[223] Privately the FOMC's "essential objective" was to keep capital markets "alive and active" by maintaining "orderly market conditions."[224] In fact, the EC attempted to define what "orderly" meant in a series of "general principles" for further intervention: to ensure a clear price at which investors could sell and to avoid "violent fluctuations," while still allowing markets to dictate prices themselves.[225] The Fed would apply counterpressure but generally "follow the trend" of price action. To that end, the FOMC authorized another $500 million of emergency purchases.[226] Despite at least two aborted attempts by the Fed to step away from the market over the next few days,[227] conditions improved by early October. Bank credit was expanding rapidly, and the Desk could finally pull back.

The whole episode emphasizes how central the maintenance of orderly markets had become in the eyes of the FOMC. While there were in principle limits on the extent to which the Desk in New York was authorized to intervene, purchase caps were lifted promptly when needed. The creative use of lending authority to use par value for government collateral instead of market value is also quite notable. The Desk had almost carte blanche to restore order to bond markets.

But it also put the FOMC in an awkward position. Since the start of the Depression

215. *Federal Bonds Off to New Low Levels*, N.Y. TIMES, Sept. 22, 1939; *War and U.S. Markets*, THE ECONOMIST, Sept. 16, 1939, at 523.

216. *Loses in Bonds Reach 10 Points*, N.Y. TIMES, Sept. 2, 1939; *Corporate, U.S. Bonds Off Sharply in Heavier Trade*, WALL ST. J., Sept. 2, 1939.

217. *Wall Street Initial Spur Not Maintained*, THE FIN. TIMES, Sept. 4, 1939.

218. *Selling Resumes in Federal Bonds*, N.Y. TIMES, Sept. 12, 1939.

219. *NYSE, SEC Laud Orderly Trading*, WALL ST. J., Sept. 2, 1939.

220. *Support for U.S. Gov't Bonds*, THE FIN. TIMES, Sept. 2, 1939; B. H. McCormack, *Following the News*, WALL ST. J., Sept. 5, 1939.

221. *Corporate, U.S. Bonds Off Sharply in Heavier Trade*, WALL ST. J., Sept. 2, 1939.

222. B. H. McCormack, *Following the News*, WALL ST. J., Sept. 5, 1939.

223. *Selling Resumed in Federal Bonds*, N.Y. TIMES, Sept. 12, 1939.

224. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 3 (Sept. 18, 1939).

225. *Id.* at 9.

226. *Id.* at 4-5.

227. *Support Withdrawn*, WALL ST. J., Sept. 21, 1939; *The Bond Situation*, WALL ST. J., Sept. 23, 1939; *The Bond Situation*, WALL ST. J., Sept. 23, 1939.

in 1929, the System had pursued an "easy money" policy.[228] Initially, this took the form of lowering discount rates and purchasing government securities to ease credit conditions—a forerunner to current QE policies.[229] Beginning in 1933, however, as tensions in Europe drove substantial inflows of gold to U.S. banks, easy money transitioned from active to passive monetary policy.[230] The Fed essentially opted not to offset those inflows, keeping its securities holdings fixed while bank reserves nearly tripled over less than five years.[231]

By mid-1939, as the economic recovery gathered steam, the Fed came under increased criticism for refusing to offset continued gold inflows. In June, the Federal Advisory Council (FAC), a statutory committee created by the Federal Reserve Act[232] to "keep the Federal Reserve Board in intimate touch with the banking business of the country,"[233] objected strongly to the Fed staying on the sidelines while the gold kept flowing in. "Easy money" was now "extreme," they argued, and was a "serious problem portending critical consequences."[234] The Board agreed something should be done.[235] They allowed some of their holdings of short-term Treasuries to mature without reinvestment ("run off"), which would reduce the stock of high-powered money[236] provided by the System.[237] Although characterized by some as an attempt to maintain orderly markets in bills and avoid negative interest rates,[238] the timing and motivations for that reduction were still clearly related to monetary policy.[239] The FOMC took the unusual step of announcing its decision publicly.[240]

The abrupt shift from passive run off in the lead-up to September 1939 to aggressive buying after the invasion of Poland put the Fed in an awkward position—and markets took note of that tension. The FOMC in September 1939 thus found itself in a somewhat similar position to the Bank of England almost precisely 83 years later:

228. Memorandum from E. A. Goldenweiser to the Fed. Rsrv. Bd. of Governors, Easy Money Policies 2-3 (Oct. 8, 1939); Matthew Jaremski & Gabriel Mathy, *How Was the Quantitative Easing Program of the 1930s Unwound?*, 69 EXPLS. IN ECON. HIST. 27 (2018).

229. Ben S. Bernanke, Vincent R. Reinhart, & Brian P. Sack, *Monetary Policy Alternatives at the Zero Bound: An Empirical Assessment* 18 (Brookings Papers on Econ. Activity No. 2, 2004).

230. Goldenweiser, *supra* note 228, at 3-4.

231. *Id.* at 4-5. The System was generally defensive of this policy, citing exogenous geopolitical factors and even objecting to it being characterized as "easy money." They took some steps on the margins, for example by raising reserve requirements three times (and lowering them once). But, overall, they took a rather *laissez faire* approach.

232. 12 U.S.C. § 261 (1913).

233. S. REP. NO. 133, PART 2, at 20 (1913).

234. BD. OF GOVERNORS OF THE FED. RSRV. SYS., MINUTES 6-7 (June 6, 1939).

235. *Id.* at 7-20.

236. Direct liabilities of the central bank like currency and bank reserves, in contrast to the depository liabilities of commercial banks.

237. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 5-7 (June 21, 1939).

238. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 2-4 (June 20, 1939).

239. BD. OF GOVERNORS OF THE FED. RSRV. SYS., *Plans for Reducing the Size of the Federal Reserve's Balance Sheet* (May 4, 2022), https://perma.cc/R3RM-GB4B. It was, in fact, a somewhat lighter touch relative to the implementation of quantitative tightening (QT) today.

240. EXEC. COMM. OF THE FED. OPEN MKT. COMM., *supra* note 237, at 7.

market functioning purchases were clearly needed but were at odds with the preferred stance of monetary policy.[241] It was not the first time the Committee had struggled with how to address inconsistencies between the monetary needs of the government securities market and the monetary needs of the real economy. They had, in fact, considered the issue at length with Morgenthau and senior Treasury staff just eighteen months earlier. George Harrison thought the solution was clear communication with Congress and the public.[242] But this time the FOMC did not express a view on how this potential inconsistency should be addressed, instead directing the EC to use its "judgement" in formulating an open market policy to restore orderly market conditions.[243]

Without clarity as to how market functioning purchases fit into the Committee's monetary policy objectives, speculation swirled that Fed purchases of Treasuries were part of a stealth attempt to restore easy money policies.[244] Eccles muddied the situation further, interrupting his vacation to assert, in a rare public statement, that so-called "easy money" was, in fact, a benefit to the coming wartime economic expansion.[245] The FAC was concerned as well; while they "recogniz[ed] the need in a grave emergency… of taking steps designed to preserve and orderly market in Government securities," any such operations should not be "influenced by any considerations of maintaining or extending the former policy of extremely easy money."[246]

But the FOMC as a whole remained concerned about the potential inflationary impact of maintaining a large supply of excess liquidity. Memories of the inflationary shock of World War I were still quite fresh in 1939, and, with war clearly on the horizon, some were sounding the alarm bells by the summer.[247] Perceptions of that risk metastasized after the German invasion of Poland.[248] As markets stabilized, the Fed

241. For an overview of the so-called "Truss shock," see Andrew Hauser, Exec. Dir. for Mkts., Speech at the European Central Bank Conference on Money Markets: Thirteen Days in October: How Central Bank Balance Sheets Can Support Monetary and Financial Stability (Nov. 4, 2022), https://perma.cc/H8DA-2AMX.

242. This incident came from a different concern—namely the FOMC's desire to check the rapid appreciation of government securities prices by passively reducing their holdings (i.e., allowing securities to mature without reinvestment) without appearing to conflict with a desire to provide monetary stimulus. HENRY MORGENTHAU JR., DIARY BOOK 120: APRIL 20 – APRIL 25, 1938, at 27 (1938) ("And if it is necessary, in order to maintain an orderly market, that the portfolio should drop somewhat, I should think that it would be possible adequately to explain it both to the Congress, if there is a political inquiry about it, and certainly to the public.").

243. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 12 (Sept. 18, 1939).

244. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 16 (Oct. 10, 1939) (Fraser referring to "rumors" that the FOMC had bought bonds "in pursuance of the easy money policy.").

245. *Eccles Says Large Excess Funds Assure Indefinite Continuation of Easy Money*, N.Y. TIMES, Sept. 13, 1939.

246. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 3 (Oct. 8, 1939).

247. Memorandum from Lauchlin Bernard Currie to Chair Marriner Eccles, Debt and Inflation (Aug. 4, 1939).

248. Memorandum from Emile Despres to Chair Marriner Eccles, Economic Effects of European War Upon the United States 2 (Sept. 30, 1939); Memorandum from George C. Haas to Sec'y Morgenthau, The Business Situation: Week Ending September 16, 1939, at

quickly turned its attention to the side effects of its actions—a significant expansion in the money supply which threatened to stoke those inflationary fires. "Even the present volume of excess reserves, if used as a basis for credit expansion," Eccles noted in a November speech, "would create a dangerous inflationary situation entirely beyond the present powers of the Federal Reserve to control."[249] By early December, the EC had allowed all of their bill holdings to mature. They also authorized the sale of roughly $72 million in longer-term securities when imbalances in the market produced "unusually rapid advances in prices."[250]

The whole episode is a useful case study, not just in how the orderly markets directive was executed in practice, but in how the FOMC could and did opt for market functioning purchases which were adverse to its preferred stance on monetary policy.

6. Fixing Prices in Government Debt

The FOMC's focus on orderly markets would endure even as the demands of war spending forced much more heavy-handed collaboration between the Treasury and the Fed. The success of the September 1939 intervention proved short-lived—by the fall of 1940, Harrison was worried that the accelerating flood of Treasury debt risked another incident.[251] Despite their reluctance to "peg" rates,[252] by June 1941 the FOMC was discussing potentially establishing a "definite rate… for long-term Treasury offerings"[253] and "regular conferences" to coordinate "the entire field of fiscal and monetary policy."[254] When war finally came, the System released a clear and concise statement on December 8th:

> The System is prepared to use its powers to assure that an ample supply of funds is available at all times for financing the war effort and to exert its influence toward maintaining conditions in the United States Government security market that are satisfactory from the stand-point of the Government's requirements.[255]

That included "tak[ing] whatever action was necessary in an effort to prevent disorderly conditions in the Government securities market that might otherwise develop as a result of the entry of the United States into the war."[256]

To that end the FOMC increased the limit on tactical purchases but also made it

3 (Sept. 18, 1939), reproduced in HENRY MORGENTHAU JR., DIARY BOOK 212: SEPTEMBER 20 – SEPTEMBER 25, 1939, at 69-73 (1939).

249. Marriner Eccles, Address at the 25th Anniversary of the Opening of the Federal Reserve Bank of St. Louis 6 (Nov. 9, 1939).

250. FED. RSRV. BANK OF N.Y., TWENTY-FIFTH ANNUAL REPORT 27 (1940).

251. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 3-4 (Sept. 27, 1940).

252. FED. ADVISORY COUNCIL, MINUTES 3 (Oct. 9, 1939).

253. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 8 (June 10, 1941).

254. *Id.* at 10.

255. BD. OF GOVERNORS OF THE FED. RSRV. SYS., *Record of Policy Actions: Federal Open Market Committee*, *in* ANNUAL REPORT, at 1 (1941).

256. *Id.* at 65.

clear that the EC could, in practice, could "take [any] such action as in its judgment might be required by any conditions that might arise."[257] By January 1942, it was clear that the exigencies of war required "private funds [be] diverted from their normal uses."[258] To do so without excessive cost to the taxpayer required "price control … in the field of credit, just as in other fields when the Government is the principal borrower in the market and the cause of its borrowing is the defense of our national existence." In other words, the FOMC was proposing to "fix[] a pattern of rates" on Treasury securities."[259]

Their goal was not to simply monetize the debt, but to control prices while still attracting as large a volume as possible of the nation's private savings into the war effort. To that end, the FOMC chose to simply freeze the market in place at the interest rates which the private market had settled on as of early 1942, hoping to steer a "middle course" between damaging declines in bond prices and too low a return to attractive meaningful investment.[260]

By midcentury, the Fed had reached a crisis point: its efforts to carry out its fiscal agent mandate by maintaining orderly markets in government securities had stymied its statutory mandate to manage monetary expansion. Monetary policy was, in effect, captive to fiscal policy—in economics jargon, the U.S. had entered a period of "fiscal dominance."[261] An expanding money supply led to a buildup of inflationary pressure. Although federal controls had kept prices reasonably stable during the war years, the sudden and unexpected lifting of these caps in 1946 set off a massive inflationary shock.[262] To address that shock, the Fed would likely have to unpeg Treasuries. But what would happen to the Fed-dominated secondary market?

II. ONE SYSTEM, TWO MANDATES: THE POST-WAR FRAMEWORK

257. *Id.*

258. Memorandum from Fed. Open Market Comm. to Dep't of the Treasury, Treasury Financing 1 (Jan. 28, 1942).

259. *Id. at* 4.

260. *Id*. In early March 1942, after quite a bit of further consideration and inter-agency back and forth, the two agencies reached a tentative agreement along the lines of the proposed program. It was announced publicly the following month. For a narrative account, see Elmus R. Wicker, *The World War II Policy of Fixing a Pattern of Interest Rates*. 24 J. FIN. 447 (1969). *See also* Memorandum Submitted by the Dep't of the Treasury, Suggestions for the Open-market Financing Program, Document R&S 100-365 (Feb. 20, 1942); L.M. Piser, *Meeting on War-Time Financing Program*, Document R&S 100-365 (Feb. 23, 1942).

261. Owen F. Humpage, *Fiscal Dominance and US Monetary: 1940–1975* (Fed. Rsrv. Bank of Cleveland Working Paper 16-32, 2016); GARBADE, AFTER THE ACCORD: A HISTORY OF FEDERAL RESERVE OPEN MARKET OPERATIONS, THE US GOVERNMENT SECURITIES MARKET, AND TREASURY DEBT MANAGEMENT FROM 1951 TO 1979, at 9-49 (2020).

262. *See generally* Isabella M. Weber, *From Market to Swar Economy and Back: American Price Control During the Second World War and its Aftermath, in* HOW CHINA ESCAPED SHOCK THERAPY: THE MARKET REFORM DEBATE (2021) (Describing how price controls were abruptly lifted following a political miscalculation by President Truman. Truman vetoed legislation reauthorizing price controls after the War in favor of stronger controls but Congress failed to pass alternative legislation.).

THE FEDERAL RESERVE'S FISCAL AGENT MANDATE AND THE PROBLEM FOR CENTRAL BANK INDEPENDENCE

By 1951, policy makers knew they faced a Catch-22. Tightening policy to control inflation risked a disorderly market in Treasuries. But intervening to reestablish orderly market conditions would counteract any attempt to slow or reverse growth in the money supply and put further pressure on prices. In other words, the Fed's responsibilities as a monetary authority were in direct conflict with its role as a fiscal agent. The Fed needed a new way to solve its two mandates problem. It needed, in the words of the New York Fed staff, an "indirect form of intervention designed to facilitate the functioning of the Government security market."[263]

The Fed turned to outsourcing. Rather than use the System's balance sheet to sustain orderly markets, officials embraced an outside-the-box, legally adventurous solution: they recruited private securities dealers to perform the work. This Part reconstructs the post-war framework. First, it examines the famous Fed-Treasury Accord of 1951, reinterpreting the agreement as, essentially, a byproduct of the two mandates problem. Then, it examines the origins of the primary dealer system, explaining it also as a solution to the two mandates problem and a way to make good on the Accord. It argues that the primary dealer system was built by the Fed to restore monetary policy independence, whereby the Fed functionally rented outside balance sheet capacity. In exchange for maintaining orderly markets on the Fed's behalf, dealers received below-market repo loans. Through a series of key interventions in the 1950s and 1960s, the Fed established itself as a market maker and lender of last resort to these dealers. This facilitated an entire standalone repo market and imbued the primary dealer system with the ability to provide resilient market making services on its own. Even as the national debt grew dramatically in the 1970s, the Fed could step back and let dealers underwrite the market's orderliness.

A. The Fed-Treasury Accord and the First Attempt

Yield curve control had brought an orderliness to Treasury markets that bordered on dormancy. The result was a very satisfied fiscal authority and a growing problem with inflation. The next step, according to the Martin Fed, had to be moving from "pegged markets" to "free markets."[264] Unsurprisingly, both the Fed and Treasury were primarily concerned with maintaining orderly market conditions. At first, concerns over the potential disruptive impact of releasing the Treasury market were prioritized. The conflict in Korea, which began in June 1950 was a major catalyst. A month later, the leadership of the Fed thought the old arrangement had reached its limit. In a letter to Treasury Secretary John Snyder, the EC warned that recent, rapid increases in consumer and business spending, commodity prices, and wages would likely lead to a further expansion of bank credit—the last thing an already

263. *The Federal Reserve System After Fifty Years: Hearings Before the Subcomm. on Domestic Fin. of the H. Comm. on Banking and Currency*, 83d Cong. 2076 (April 1964) (Report of the Ad Hoc Subcomm. on the Gov't Sec. Mkt. of the Open Mkt. Comm., Nov. 12, 1952) (hereinafter *Ad Hoc Report*).

264. *See generally* GARBADE, *supra* note 261, at 74-83; Menand and Younger, *supra* note 88; Robert L. Hetzel and Ralph F. Leach, *The Treasury-Fed Accord: A New Narrative Account*, FEDERAL RESERVE BANK OF ST. LOUIS ECONOMIC QUARTERLY (2001).

overextended economy needed. [265] Fed efforts to maintain the prevailing pattern of interest rates were, they believed, only making matters worse. To that end, the Executive Committee asked Snyder to make an immediate, public, and "vigorous" effort to shift its borrowing outside the banking system.[266]

It was not until the spring of 1951 that the Fed and Treasury reached "full accord with respect to debt-management and monetary policies."[267] The Treasury-Federal Reserve Accord was short, but reflected a commitment to find a way for the Fed to achieve both of its mandates. It stated that both organizations shared a "common purpose to assure the successful financing of the Government's requirements"—the Fed's fiscal agent mandate—while, "at the same time, to minimize monetization of the public debt," understood as engaging direct central bank purchases.[268] Among the perceived problems with the latter activity was a loss of monetary policy control.[269]

It took years of experimentation and learning for the Fed to actually achieve the promise represented by the Accord. It began with a recognition that orderly markets in government debt would have to be sustained even after pegs were listed. Four days after the announcement, the FOMC EC instructed the Open Market Desk in New York to, among other things, execute "such purchases, sales and exchanges" as it deemed necessary to "maintain orderly conditions" in Treasury markets.[270]

The task of developing a longer-term plan initially fell to the Ad Hoc Subcommittee on the Government Securities Market of the Federal Open Market Committee (henceforth simply the "Ad Hoc Subcommittee"). In November 1952, it produced an extensive report (the "Ad Hoc Report") "as a critique of their own [the Federal Reserve System's] operations."[271] The Ad Hoc Report included a fundamental rethinking of the practice of monetary policy in the United States. The Ad Hoc Subcommittee argued for using open market operations in Treasury securities as the primary tool of monetary policy implementation.[272] They were, the Report argued, a "continuously available and flexible instrument of monetary policy for which there is no substitute" and "the only effective means" of delivering on the FOMC's monetary policy mandate.[273]

One prerequisite was, however, a deeper, broader, and more 'resilient' secondary

265. *Letter from the Exec. Comm. of the Fed. Open Mkt. Comm. to John Synder, Sec'y of the Treasury*, *in* MINUTES – AUG. 18, 1950 (Fed. Open Mkt. Comm., July 12, 1950).

266. *Id*.

267. JOINT ANNOUNCEMENT BY THE SECRETARY OF THE TREASURY AND THE CHAIRMAN OF THE BOARD OF GOVERNORS, AND OF THE FEDERAL OPEN MARKET COMMITTEE, OF THE FEDERAL RESERVE SYSTEM (Mar. 4, 1951).

268. *Id*.

269. *Id*.

270. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 2 (Mar. 8, 1951).

271. This was a description later added when the report was released as part of Congressional hearings on The Federal Reserve System after Fifty Years. *Ad Hoc Report*, *supra* note 263, at 2004.

272. *Id.* at 2007.

273. *Id*.

market.[274] This new catch phrase was not intended to supplant a commitment to "maintaining orderly markets," but to supplement and clarify that obligation.[275] That clarity was very well received by the FOMC—as Bill Martin, Chairman of the Board and FOMC, recalled, there was a great deal of "misapprehension and confusion" as to what maintaining orderly markets actually meant.[276] The writers of the Ad Hoc Subcommittee saw their Report as an opportunity to constructively "amend" the definition.[277]

The needle to be threaded, however, was ensuring that depth, breadth, and liquidity while simultaneously allowing "market forces of supply and demand and of savings and investment…to express themselves in market prices."[278] Or, as they later put it more succinctly, the market had to "stand on its own two feet."[279] That too, the FOMC believed, was an essential ingredient in the implementation of monetary policy.[280] Achieving depth, breadth, and liquidity in long-term Treasuries without "continuous support" was the fundamental challenge of implementing the Accord.

To have their cake and eat it too, the Committee recommended a policy, not of maintaining orderly markets, but of correcting "disorderly conditions."[281] The SOMA Manager in New York was deputized to notify the EC when disorderly conditions emerged and recommend a set of actions.[282] Those recommendations would then be put to a vote of the EC and, if approved, executed by the Open Markets Desk in New York.[283] Triggering market functioning purchases was a high bar—it was, the Committee suggested, "only rarely that selling creates a sufficiently disorderly situation to require intervention in other than the very short market"[284]—e.g., "an emergency, such as an unexpected development in international relations"[285] (clearly referring to the events of September 1939, discussed above).[286]

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274. *Id*. ("They [open market operations in government securities] require an efficiently functioning Government securities market characterized by depth, breadth, and resiliency. It is with these characteristics of the market that this report Is mainly concerned.").

275. *Id.* at 2016.

276. *United States Monetary Policy: Recent Thinking and Experience: Hearings Before the Subcomm. on Econ. Stabilization of the Joint Comm. on the Econ. Rep.*, 83d Cong. 22-23 (1954) (Replies to Questions Addressed to the Treasury and the Bd. of Governors of the Fed. Rsrv. Sys.) (hereinafter *Flanders Hearing*).

277. *Ad Hoc Report*, *supra* note 263, at 2032-33.

278. *Id*. at 2007.

279. *Id*. at 2016.

280. *Id*. at 2007 ("[A free market in government securities] was indispensable to the effective execution of monetary policies directed toward financial equilibrium and economic stability at a high level of activity without detriment to the long-run purchasing power of the dollar.").

281. *Id*. at 2016.

282. *Id*.

283. *Id*. at 2017.

284. *Id*. at 2016.

285. *Id*. at 2046.

286. The authority Harrison expanded in anticipation of the German invasion and relied upon

This separation from the full Committee was important. The EC was an operational rather than a policy organ, fundamentally responsible for executing the decisions of the broader committee rather than setting its own monetary policy objectives.[287] Although it had "considerable discretion" in doing so, that was ultimately a practical choice given the difficulty in summoning the full Committee at a cadence consistent with market dynamics.[288] The SOMA Manager was, in turn, simply an "agent for the committee in carrying out open market operations."[289] The Ad Hoc Report, in effect, called for a separation of key decisions and authority related to the Fed's fiscal agent functions from those related to monetary policy.

A clear separation would hopefully reinvigorate the dealer community. But this was easier said than done. Dealers had lost their muscle memory and struggled to profitably fund their trading activity. The increased cost of brokers' loans had neutered their business model. To correct the situation, the Fed had reintroduced repo lending, last used in the early-1930s.[290] Although noted earlier, it bears repeating: in the view of the New York Fed, repo was less a tool for implementing monetary policy and more an "indirect form of intervention designed to facilitate the functioning of the Government security market."[291] New York Fed President Allan Sproul believed such a tool would "be of greater use in a period such as that immediately ahead."[292]

The FOMC took up the issue a few months later and approved most of its recommendations unanimously.[293] This included adjusting its directive to the EC, removing the phrase "maintaining orderly conditions" to acting "with a view to … correcting a disorderly situation" in the government securities market.[294] The FOMC also adopted the Ad Hoc Subcommittee's recommendation that the SOMA Manager determine whether the threshold had been crossed while leaving the ultimate decision to intervene to the EC.[295] But it added the caveat that it may, under certain "emergency" conditions (e.g., an "international crisis"), not be possible to poll all the members of the EC before intervening in the market.[296] The SOMA Manager, in other words, had some independent discretion.

The Ad Hoc Committee's revised mandate was elegant in theory. By making clear the roles and responsibilities of certain officers and policy makers with respect to the

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in executing his market functioning purchases that September was reserved for "emergency" circumstances. *See, e.g.*, EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 5 (Apr. 19, 1939).

287. *Changes to the Federal Reserve System*: *Hearing Before the S. Comm. on Banking and Currency*, 77th Cong. 9 (1942).

288. *To Amend the Federal Reserve Act: Hearings before the H. Comm. on Banking and Currency*, 77th Cong. 15 (1942).

289. *Changes to the Federal Reserve System*, *supra* note 289, at 9.

290. *See generally* Menand & Younger, *supra* note 88, at 224.

291. *Ad Hoc Report*, *supra* note 263, at 2076.

292. EXEC. COMM. OF THE FED. OPEN MKT. COMM., *supra* note 270, at 4.

293. *See generally* EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES (Mar. 5, 1953).

294. *Id.* at 22-23.

295. *Id.* at 32.

296. *Id.* at 42.

functioning of the Treasury market and removing the decision to intervene from the ordinary process of monetary policymaking, the FOMC was set up to avoid the ambiguity and confusion that accompanied its 1939 intervention. Further, by focusing on curing disorderly conditions rather than maintaining orderly markets, the new directive was more achievable and a more natural solution for the inevitable ambiguity of market disruptions. Orderliness might be hard to define, but disorder would be apparent to any observer.[297] And, by setting a high bar for intervention, the Fed would rarely have to explain its actions to the public.

B. The Conflict Persists

The framework in practice was not as simple. Just a few months after finalization, markets tested the System on its resolve. Martin would later describe the episode as the "first and most difficult test" of his decision to free the government securities market.[298] At that time, the incoming Eisenhower Treasury, helmed by a cadre of former Federal Reserve officials, decided to focus their issuance on longer-term securities to incentivize more non-bank ownership of the market. But when the long bond was reintroduced in the spring of 1953, the Treasury market soon showed signs of indigestion. Government securities dealers in particular were revealed to be unprepared to intermediate an increasingly volatile and unpredictable market. The situation soon reached, in the recollection of one market participant, "nearly panic proportions."[299] The Fed's credibility was on the line—and sooner than expected.

As the Ad Hoc Report anticipated, orderly markets and monetary policy mandates were in direct conflict. Unemployment was at its lowest peacetime level in decades[300] and a "confidence boom"[301] led the FOMC to adopt a restrictive stance[302] against inflationary consequences of "excessive bank credit expansion."[303] In January, the Committee raised the discount rate and, in March, it directed the EC to conduct open market operations "with a view towards exercising restraint upon inflationary developments."[304] Not until the second half of that year did growth and inflation support a material expansion of the Fed's balance sheet.[305]

The FOMC wanted to balance the need to stabilize markets with an aversion to

297. To quote a perhaps over-used expression from a very different context, disorderly markets may be hard to define but "I know it when I see it." Jacobellis v. Ohio, 378 U.S. 184, 197 (Stewart, J., concurring).

298. *Flanders Hearing*, *supra* note 276, at 24.

299. S. REP. NO. 88-2500, at 30 (1958).

300. U.S. BUREAU OF LABOR STATS., UNEMPLOYMENT RATE (2026); CHAIRMAN OF THE COUNCIL OF ECON. ADVISERS, ECONOMIC REPORT OF THE PRESIDENT 11 (1954).

301. CHAIRMAN OF THE COUNCIL OF ECON. ADVISERS, *supra* note 300, at 49.

302. *Id.* at 50.

303. BD. OF GOVERNORS OF THE FED. RSRV. SYS., FOURTEENTH ANNUAL REPORT 2 (1954).

304. EXEC. COMM. OF THE FED. OPEN MKT. COMM., *supra* note 293, at 22.

305. The National Bureau of Economic Research dates the start of the 1953-54 recession to August 1953. NAT'L BUREAU OF ECON. RSCH., *Business Cycle Dating*, https://perma.cc/VJB2-RJ6V.

large-scale intervention. Bill purchases added $1.3 billion of liquidity to the system over just a few months starting in May—the largest increase since the recession of 1948-49.[306] Dealers were also offered repo financing at preferential rates to incentivize them to hold inventory and thus act as a fire break against wild price swings. This brought the total size of the Fed's balance sheet to its largest since the end of World War II.[307] Finally, in June, the Board reduced reserve requirements to incentivize banks to buy Treasuries. The market turned abruptly bullish—press reports described it as the "biggest show of strength" for the bond market since the Accord.[308] It was a significant intervention by any measure. But the Committee appears to have been careful to avoid officially labeling conditions as disorderly. Sproul, for his part, thought functioning was severely impaired but avoided using the term.[309] SOMA Manager Robert Rouse, however, was clear: he had "[not] notified the Committee that, in his opinion, we had a disorderly market."[310]

The cognitive dissonance produced by the scale of intervention on the one hand and insistence that things had not become disorderly on the other prompted a rebuke from Edward C. Simmons, a professor of economics at Duke who specialized in government debt markets, at a hearing the following year. "The statements of the Treasury and the Federal Reserve reveal that monetary and debt-management policy is formulated on only vague and indefinite criteria," he argued. "The attempt to expound what is meant by 'preventing disorderly conditions' is hardly successful."[311] Senator Ralph Flanders, Republican of Vermont and Chair of the Subcommittee on Economic Stabilization of the Joint Committee on the Economic Report, ordered those comments read into the record at his own hearing a few days later.

In the meantime, Martin was working diligently to unwind some core elements of the decision-making infrastructure that maintained the separation between monetary policy and market functioning purchases. His conflict with Sproul over a preference for operating in Treasury bills rather than across a range of maturities was reaching a breaking point. By the end of 1954, they were in open conflict during FOMC meetings.[312] As Robert Bremmer, Martin's biographer, describes it, their fundamental disagreement "paralyzed" the FOMC.[313]

The solution, as Martin saw it, was to reduce the influence of New York in favor of the Board. He began by successfully moving to transfer supervision of open market operations from the New York Fed to the full FOMC.[314] A few weeks later, Sproul

306. CTR. FOR FIN. STABILITY, *supra* note 96.

307. CTR. FOR FIN. STABILITY, *supra* note 84.

308. *U.S. Securities Soar in Response to Reserve's Money-Easing Move*, N.Y. TIMES, June 26, 1953.

309. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 14 (June 11, 1953).

310. *Id.* at 13-16 ("Mr. Rouse agreed with the statement that he had not notified the Committee that, in his opinion, we had a disorderly market.").

311. *Flanders Hearing*, *supra* note 276, at 253-54.

312. ROBERT P. BREMMER, CHAIRMAN OF THE FED: WILLIAM MCCHESNEY MARTIN JR., AND THE CREATION OF THE MODERN AMERICAN FINANCIAL SYSTEM 111-112 (2004). *See generally* EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES (Dec. 7, 1954).

313. BREMMER, *supra* note 312, at 111.

314. *Id.* at 112.

abruptly resigned—he had, in fact, been reappointed by the Board for another five-year term only four months prior.[315] Although he was vague in public as to the reason and timing of his departure, the press was quick to speculate that his was a resignation in protest over Martin's victory.[316] His successor, Alfred Hayes, was the Vice President in charge of foreign operations at New York Trust Company.[317] Many thought the "obscure" appointment was an opening for those looking to consolidate power in Washington by "cutting the wings and humbling the pride of the New York Bank."[318]

It was the opening Martin had waited for. Only days after Sproul's resignation was announced, Martin distributed a memorandum to his colleagues calling for the SOMA Manager to be selected by, paid by, and be responsible solely to the FOMC—i.e., not the New York Fed.[319] That effort ultimately failed.[320] But at the June meeting, he moved to disband the EC entirely. That Committee had long been dominated by New York, and Martin wanted to recapture their control over open market operations for Washington.[321] Although the debate was tense, the FOMC ultimately agreed unanimously.[322]

In seeking to consolidate his power, Martin recombined monetary policy and market functioning decisions with the full FOMC. Others on the Committee were less sanguine about this new arrangement. Governor A. L. Mills had concerns about serious risks around policy implementation shortly after the EC was abolished. At the August meeting, he warned colleagues that emergent disorderly conditions in the government securities market could force the FOMC to take actions at odds with its credit policy.[323] To avoid "go[ing] in both directions at the same time," he argued, they should be prepared to sell any purchases related to market functioning "as promptly as possible."[324] Mills' concerns proved somewhat controversial and were generally left unaddressed, but they would prove prescient a couple of years later.[325]

The 'Eisenhower recession' of 1957-58 was sharp but short.[326] By May 1958, growth was on the upswing, prompting a rapid shift in the stance of monetary policy.[327] At the

315. *Pyrrhic Banking Victory?*, THE ECONOMIST, June 2, 1956, at 179.

316. Leif H. Olsen, *SPROUL WILL QUIT AT RESERVE BANK; HAYES SUCCESSOR; President 15 Years Will Be Replaced by 45-Year-Old New York Trust Official Credit Policy Split Cited SPROUL TO LEAVE FEDERAL RESERVE Hayes Was Rhodes Scholar; President 15*, N.Y. TIMES, May 1, 1956.

317. *Pyrrhic Banking Victory?*, *supra* note 315.

318. *Id.*

319. Memorandum from J. L. Robertson to Members of the Special Subcomm. on the Fed. Open Mkt. Comm., Management of the System Open Market Account (Oct. 25, 1955).

320. ALLAN H. MELTZER, A HISTORY OF THE FEDERAL RESERVE, VOLUME 2: BOOK 1, 1951-1969, at 74 (2014).

321. *Id.* at 70.

322. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 21 (June 22, 1955).

323. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 42-43 (Aug. 2, 1955).

324. *Id*.

325. *Id*.

326. CHAIRMAN OF THE COUNCIL OF ECON. ADVISERS, ECONOMIC REPORT OF THE PRESIDENT (1959).

327. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 9 (Mar. 25, 1958). (Noting the

June meeting, Ralph Young noted investors' worries that inflation was "either under way or just around the corner,"[328] and Governor Robertson urged the Committee to focus on "catch[ing] the turn before inflationary forces emerge."[329] Mills was concerned that the expansion of the Fed's balance sheet, mostly through bill purchases, could "have the more serious effect of underwriting a new inflation by creating excessive liquidity."[330] Wilbur Fulton, President of the Cleveland Fed, seconded those concerns in early July.[331]

In the background, more idiosyncratic risks were building to the Treasury market. A side effect of liquidity injections to counter the Eisenhower Recession was highly levered speculation in that market.[332] These positions were only profitable if speculators could borrow short-term funds on "advantageous terms."[333] As the Fed shifted its monetary policy, rising yields pressured speculators and, by mid-July, Treasury grew "extremely disturbed" about the risk of a poor upcoming refunding auction.[334] Treasury pushed the Fed to intervene,[335] but Rouse was hesitant to make a formal pronouncement of disorderly conditions (even if he "had the feeling that there was [a disorderly market] in the making").[336] The FOMC overruled Rouse and "reluctantly" approved a small batch of purchases.[337] Less than two hours after pushing back, however, conditions had deteriorated (a "snowballing moment") to the point where Rouse was willing to make such a designation.[338]

The FOMC voted unanimously to authorize Rouse to act, as Martin described it, with "maximum discretion to handle the situation in the way he thought best."[339] This came with a rare public announcement, alerting the market participants to the Fed's sense of urgency.[340] The financial press quickly concluded that the market would "place as much meaning on the public announcement…as upon the contents of the statement." They hoped it would have such a "powerful psychological effect" that

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recession was sharper than that of 1953-54 and showed no signs of "leveling off."). EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 6 (May 6, 1958) (noting economic data show the recession still deepening).

328. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 4 (June 17, 1958).

329. *Id.* at 19.

330. *Id.* at 20.

331. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 34 (July 8, 1958). (noting free reserves were "on the high side" and could "contribute to a basis for inflation").

332. R. Jay Kahn & Vy Nguyen, *Treasury Market Stress: Lessons from 1958 and Today* (Off. of Fin. Rsch. Brief Series, 22-01, June 9, 2022); R.G. ROUSE, SPECULATION IN THE UNITED STATES GOVERNMENT SECURITIES MARKET 1957-1958 (Sept. 15, 1958).

333. ROUSE, *supra* note 332, at 1.

334. *Id.* at 7.

335. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 3 (July 18, 1958, 1:00 PM).

336. *Id.* at 2.

337. *Id.* at 5.

338. EXEC. COMM. OF THE FED. OPEN MARKET COMM., MINUTES at 3, 8 (July 18, 1958, 2:30 PM).

339. *Id.* at 7.

340. *Id.* at 9.

"perhaps no purchases at all will have to be made."[341]

Substantial purchases ultimately were required to stabilize the market. Rouse bought more than $1.2 billion in longer-term government securities in just a few days. As markets stabilized, the FOMC worried that these purchases would fan the inflationary flames that had become apparent a few weeks earlier.[342] Woodlief Thomas, an economist at the Board, warned the FOMC that a confluence of economic recovery and heavy Treasury borrowing could require additional interventions that exacerbated the dynamic.[343] The press seized on this concern, with a Wall Street Journal editorial published in the first week of August warning of an "inflation treadmill":

> Because of inflation the Treasury cannot borrow from the public. Unable to get dollars from the public it must get them from the central bank. The central bank produces them by inflation. Then the new inflation proceeds to erode even more the source of public funds, forcing the Treasury next time to get still more of its dollars from the central bank. And so on ad infinitum.[344]

Along the lines of Mills' prior critique, without a clear commitment to unwinding market functioning purchases over a relatively short horizon, their inconsistency and procyclicality with inflationary environments could produce a damaging signal to markets. Martin, in an attempt to consolidate FOMC power, had sacrificed clear separation of monetary policy and market functioning and, at least in the eyes of the Wall Street Journal, the credibility of the FOMC more generally.

C. The Solution

Between 1953 and 1965, the Martin Fed worked out a solution in fits and starts. Its new framework leveraged a wartime innovation: the "qualified dealer" program run by the FOMC, which replaced the New York Fed's "recognized dealer" program that dated back to 1939.[345] That program recruited securities dealers to assist the Fed in carrying out its fiscal agent responsibilities. Qualified dealers were expected to be knowledgeable, offer broad reach and capacity, make markets "under all conditions" (including by taking positions themselves), and maintain sufficient capital.[346] Board

341. *RESERVE TO PROP U. S. BOND PRICES; Abandons 'Bills Only' Policy on Buying Securities as Long-Term Issues Fall*, N.Y. TIMES, July 19, 1958.

342. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 5, 8, 13 (July 29, 1958, 2:30 PM).

343. *Id.* at 13.

344. *The Treasury's Treadmill*, WALL ST. J., Aug. 4, 1958.

345. The recognized dealer program was informal at first but formally organized in 1939. GARBADE, *supra* note 261, at 7-12. Its requirements were itemized in a 1940 study conducted by the Federal Reserve Bank of New York included (paraphrasing): (1) reputation for integrity, experience, and knowledge (2) good risk management, (3) willingness to make markets in "all ordinary circumstances" including taking "moderate positions, both long and short," and (4) national scope and capacity to intermediate large volumes. Fed. Rsrv. Bank of New York, *Federal Reserve Bank of New York Standards for Recognition of Government Security Dealers*, *in* THE PLACE OF THE DEALER IN THE GOVERNMENT SECURITY MARKET 42 (1940).

346. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 6-7 (Feb. 29, 1943); GARBADE, *supra*

staff and the EC had also insisted on another provision—that "reliance . . . can be placed on such broker or [qualified dealers] to cooperate with the Bank and the Federal Open Market Committee in maintaining an *orderly market* [emphasis added] for Government securities."[347]

By the late 1950s, the Martin Fed had determined that dealers were struggling to carry through on this responsibility because they lacked sufficient financial incentive to do so. The key to making good on the Accord, they decided, was to change the bargain. Rather than merely steer their own purchase and sales activity to the dealers—a source of substantial commissions to the relevant firms—the Fed would subsidize these dealers so that they could profitably intermediate Treasury markets under a wide range of environments.

The Fed's balance sheet would still be involved, but at much further remove. Instead of buying and selling Treasuries directly, the Fed would backstop dealers through lending. For a variety of reasons, these loans would take the shape of repos. Financing the dealers' entire books would be challenging to implement. But officials realized that the Fed's commitment to backstop dealers would enable them to develop repo funding from private market participants. In effect, dealers could almost always finance their portfolios by issuing quasi-monetary instruments implicitly backed by the central bank. Once the Fed had established credibility as a lender of last resort, the dealers would only turn to the Fed under extreme duress. The more firmly corporate treasurers (and later institutional investors) believed the Fed would backstop the market, the more likely they were to continue funding dealers through periods of stress.[348]

As this new configuration took hold, the Fed sought to strengthen its perceived commitment to orderly markets by expanding the SOMA Manager's discretion to intervene in Treasury markets. The 1950s authorization to correct disorderly condition was reactive. It was intended to respond to emergent situations. In early November 1965, however, Alan Holmes asked for more flexibility.[349] Narrowly, he was asking the Committee for authorization to trade in when-issued Treasury securities around auctions if he believed disorderly conditions were likely to develop. That, he thought, would better equip the Open Market Desk to execute the Fed's fiscal agent responsibilities to support Treasury issuance. While a seemingly technical change,[350] Holmes was asking for something much more fundamental: permission to act proactively to prevent disorderly conditions, not merely respond once they had arrived. That was a major shift in philosophy.[351] It also once again raised the risk of market functioning purchases being out of step with the stance of monetary policy—a

note 261, at 35-36.

347. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 5-7 (Feb. 28, 1943); GARBADE, *supra* note 261, at 18-19, 35-36.

348. *See generally* Menand & Younger, *supra* note 88.

349. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 2-3 (Nov. 4, 1965).

350. Holmes noted that he was not aware of any instructions that prohibited his trading in when-issued securities. But, because his request was a "departure from normal practice," he though it prudent to seek explicit authorization. *Id.* at 3.

351. EXEC. COMM. OF THE FED. OPEN MKT. COMM., *supra* note 346, at 5.

"delicate balance" to strike.[352] The Committee debated the issue at some length, and ultimately approved Holmes' request unanimously.[353] Now the SOMA Manager not only had discretion on whether disorderly conditions were in place, but also whether they were simply likely to occur.

But the discretion did not lead to a repeat of the 1950s troubles. Instead, the Fed found itself having to do less and less, as the dealers were able to do more and more. There were two more significant market functioning operations during the post-Accord period. One came after the Sterling devaluation in 1967;[354] the other followed Nixon's invasion of Cambodia in 1970.[355] Both were at odds with the stance of monetary policy at the time, which as with the events of 1939, 1953, and 1958 was focused on applying restraint in the face of resurgent inflation. But, being smaller in the context of the Fed's balance sheet at the time, both interventions required only short-term and targeted purchases.[356]

III. FOUR TESTS OF THE POST-WAR FRAMEWORK

The repo-funded primary dealer system instituted by the FOMC in the 1950s fared quite well for many decades. Despite extremely high volatility in interest rates during the inflation of the 1970s and early 1980s, there were no major interventions to restore orderly market conditions. That was striking in the context of the rapid growth of the Treasury market: between 1970 and 1995, the public debt nearly doubled relative to the overall size of the economy (from 35% to more than 65% of GDP).[357] The Fed's credibility, earned in the early years of the Accord, gave confidence to private market dealers to use their balance sheets to maintain orderly market conditions. The Fed effectively outsourced its fiscal agent responsibilities. Then came a series of shocks that would test the resiliency of the Fed's outsourcing arrangement. Would the primary dealers maintain orderly markets while giving the FOMC space to conduct monetary policy? They passed three but failed the fourth.

A. The Collapse of -Long-Term Capital Management

The first major test of primary dealers came in 1998 with the failure of Long-Term Capital Management (LTCM). LTCM was a massive hedge fund focused primarily on

352. *Id.* at 4-6.

353. *Id.* at 7.

354. *See generally* Memorandum from Alan Holmes to Fed. Open Mkt. Comm., The Planning and Execution of Open Market Operations in the Wake of the Devaluation of Sterling (Dec. 8, 1967).

355. *Bond Markets: Response to $3.6 Billion U.S. Auction is Believed Unusually Poor by Dealers*, WALL ST. J., May 8, 1970.

356. When specifically asked a few days later whether the Fed's actions were responsible for stabilizing bond markets, one "specialist" responded simply "I don't know." *The Bond Markets*, WALL ST. J., Nov. 22, 1967.

357. U.S. OFF. OF MGMT. AND BUDGET, FEDERAL DEBT: TOTAL PUBLIC DEBT AS PERCENT OF GROSS DOMESTIC PRODUCT (2026).

fixed income relative value strategies.[358] Relative value (RV) strategies seek to profit from small discrepancies in the pricing of similar fixed income securities. They were very profitable when combined with very high levels of leverage—at its peak, the fund's more than $100 billion in total assets were twenty-eight times larger than its capital.[359] Most RV exposure was in government securities issued by larger developed market countries, particularly Treasuries.[360]

Around the middle of 1998, RV trades started to go bad. First, Salomon Brother's new owner, Traveler's Group, decided to close their bond arbitrage desk,[361] liquidating $50 billion of government securities and agency mortgage-backed securities into an already somewhat unsteady market.[362] Then, when Russia defaulted on its sovereign debt, traders suddenly put a very high premium on safety and liquidity.[363] LTCM was largely on the wrong side of that trade. As losses consumed what little capital LTCM had to support its massive investment portfolio, the firm was forced into a rapid de-levering.[364] LTCM's counterparties rushed to reduce their exposure, which threatened additional fire sales.[365] The resulting run dynamic was not too dissimilar to the run that felled Lehmann Brothers in 2008. Given the size of LTCM's remaining positions, Fed officials grew concerned a more disorderly collapse could impair the functioning of credit markets.[366] To avoid this "vicious cycle" of collapsing confidence, the New York Fed organized a syndicate of banks to recapitalize LTCM and stem the bleeding.[367]

Despite a clear deterioration in liquidity and significant concerns over contagion in other areas, the FOMC and New York Fed were never particularly concerned about the functioning of the Treasury market. In fact, as recounted by Peter Fisher, head of the Markets Group in New York, at the November FOMC meeting, the desk reduced its purchases of Treasuries on account of illiquid trading conditions.[368] Bill Poole,

358. ROGER LOWENSTEIN, WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT 28 (2000).

359. *Id.* at 78.

360. U.S. GEN. ACCT. OFF., LONG-TERM CAPITAL MANAGEMENT: REGULATORS NEED TO FOCUS GREATER ATTENTION ON SYSTEMIC RISK, B-281371, at 7 (Oct. 29, 1999).

361. Peter Truell, *Salomon Set to End Group On Arbitrage*, N.Y. TIMES, July 7, 1998.

362. The 10-Q filing for the second quarter of 1998 showed $56.6 billion of U.S. government and government agency securities on their balance sheet, all repo financed and the bulk of which was likely held by the Bond Arbitrage Desk. SALOMON BROTHERS, QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE QUARTERLY PERIOD ENDED JUNE 30, 1998 (Aug. 12, 1998).

363. LOWENSTEIN, *supra* note 358, at 146-150, 174-176; EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 5-6 (Oct. 15, 1998); *Hearing Before the H. Comm. on Banking and Fin. Servs.*, 105th Cong. (Oct. 1, 1998) (Statement by William J. McDonough, Pres., Fed. Rsrv. Bank of N.Y.) (hereinafter *McDonough Statement*)

364. By late-September, their total assets were reportedly around $80 billion, a massive decline from the $125 billion as of a few weeks prior. Burton G. Malkiel and J. P. Mei, *Hedge Funds: The New Barbarians at the Gate*, WALL ST. J., Sept. 29, 1998.

365. *Id*.

366. *McDonough Statement*, *supra* note 363.

367. *Id.*

368. EXEC. COMM. OF THE FED. OPEN MKT. COMM., MINUTES 20 (Nov. 17, 1998).

President of the St. Louis Fed, was particularly adamant: "I want to leave [the Treasuries] market alone [to] function on its own . . . . I am opposed to dealing in [Treasuries] at all," he told his colleagues at the November FOMC meeting.[369] Dealers were frustrated by this lack of action.[370] But, in sharp contrast to the immediate post-Accord period, the Committee was determined to let the market heal itself. Fisher agreed: "We cannot make this market liquid all by ourselves. It's up to the market to create the liquidity."[371] This relative lack of urgency allowed the Fed to act as matchmaker rather than fixer—a role it was anxious to highlight. In Congressional testimony, Bill McDonough strained that this was not a bailout: "[N]ot one penny of public money was spent or committed."[372]

In the meantime, the fever broke quickly without any direct Fed involvement,[373] and on-the-run versus off-the-run spreads, for example, were back to normal by early-November.[374] This coincided with a sizeable expansion in primary dealer balance sheets. Some attributed the immaculate recovery to the communications effect of Fed intervention, both in recapitalizing LTCM to prevent further fire sales and the powerful signal provided by a rare, unscheduled cut to policy rates.[375] Perhaps more importantly, however, the price dislocation that sank LTCM also brought longer-term (i.e., non-hedge fund) investors in from the sidelines. Primary dealers were a key component of the new demand, expanding their balance sheets to warehouse supply from LTCM and other bond arbitrage desk unwinds.[376] Dealer balance sheets stabilized Treasury markets without any direct intervention from the Fed.

B. The September 11th Attacks

The second test of primary dealers came only a few years later, after the terrorist attacks of September 11th, 2001. In contrast to LTCM, which represented a failure of risk management exacerbated by leverage, this time the major risk was operational. The World Trade Center was home to numerous major dealers and important systems for trade processing, clearing, and settlement. Trading has always been a paperwork-intensive, high-volume business; even a minor interruption in back-office systems can send shockwaves across the financial system. Although small hiccups had occurred in

369. *Id*.

370. *Id*. at 27-28.

371. *Id*. at 28.

372. *McDonough Statement*, *supra* note 363.

373. COMM. ON THE GLOB. FIN. SYS. AT THE BANK FOR INT'L SETTLEMENTS, A REVIEW OF THE FINANCIAL MARKET EVENTS IN AUTUMN 1998, at 8 (Oct. 1999).

374. J.P. MORGAN GOV'T BOND INDEX, J.P. MORGAN MARKETS (on file with authors).

375. COMM. ON THE GLOB. FIN. SYS. AT THE BANK FOR INT'L SETTLEMENTS, *supra* note 373, at 9.

376. For example, data collected by the New York Fed shows dealers' net exposure to Treasury securities (excluding T-bills) increased by more than $56 billion between mid-July and late-October. Primary Dealer statistics collected by the New York Fed show a net short of $43.4 billion in Treasury securities (excluding T-bills) as of July 15, 1998 to a net long of $13.5 billion as of October 28, 1998. FED. RSRV. BANK OF N.Y., PRIMARY DEALER STATISTICS (2026).

the past,[377] markets had never dealt with anything like the events of September 11th.

The most immediate impact was a severe disruption to key payment systems.[378] Interruptions to back-office operations that ground interbank payments to a halt also threw a wrench into the Treasury market, particularly repo. The Treasury market is an early riser, and though the attacks occurred around 8:45 AM local time, roughly $80 billion of securities and $500 billions of repos had already traded by that point.[379] Cascading disruptions to the orderly transfer of ownership led to a massive increase in failures to deliver securities on time for previously arranged transactions.[380] Such settlement failures were common at the time, typically the result of miscommunication or back-office hiccups, but limited in size.[381] For the first nine months of 2001, Treasury repo settlement failures averaged $7 billion per day. After the attacks, they jumped to more than $190 billion the week of September 19—an unprecedented order of magnitude.[382]

This presented the Fed with a challenge. On one hand, it needed to buy and lend against Treasuries to supplement bank liquidity and avoid further disruption to the payment system; on the other, doing so would exacerbate the acute shortage in Treasury markets. The Fed opted for the former strategy, but only temporarily. Repos outstanding jumped from an average of $27 billion over the prior two months to $61 billion the day after the attacks. They were then quickly unwound—back to $39 billion within a week and $32 billion by early October.[383]

C. The Global Financial Crisis

The next big shock was the Global Financial Crisis (GFC).[384] In April 2007, as the housing market turned and delinquencies piled up, New Century Financial, a large

377. The Treasury had famously incurred a technical default in the spring of 1979 when their back office systems proved insufficient to handle the maturity payments on some Treasury bills. *FACTBOX-The Day the U.S. (Technically) Defaulted*, REUTERS (July 11, 2011), https://www.reuters.com/article/markets/us/factbox-the-day-the-us-technically-defaulted-idUSN1E76A0XA/; Terry L. Zivney & Richard D. Marcus, *The Day the United States Defaulted on Treasury Bills*, 24 FIN. REV. 475 (1989).

378. James J. McAndrews & Simon M. Potter, *Liquidity Effects of the Events of September 11, 2001*, 8 FED. RSRV. BANK OF N.Y. ECON. POLICY REV. 59 (2002).

379. For a detailed narrative and description of operational issues in Treasury markets following September 11, 2001, *see* Michael J. Fleming & Kenneth D. Garbade, *When the Back Office Moved to the Front Burner: Settlement Fails in the Treasury Market after 9/11*, 8 FED. RSRV. BANK OF N.Y. ECON. POLICY REV. 35 (2002).

380. *Id*.

381. *Id*.

382. *Id*.

383. As Christopher Neely put it in a retrospective, "within three weeks [. . .] the available liquidity figures—repos, discount lending, float, and deposits at Federal Reserve Banks—were indistinguishable from pre-attack figures." Christopher J. Neely, *The Federal Reserve Responds to Crises: September 11th Was Not the First*, 86 FED. RSRV. BANK OF ST. LOUIS REV. 27, 39 (2004).

384. *See generally* FIN. CRISIS INQUIRY COMM'N, THE FINANCIAL CRISIS INQUIRY REPORT (2011).

mortgage lender in the once-hot sub-prime segment, filed for bankruptcy.[385] Contagion quickly spread to the mortgage-backed securities (MBS) market, where years of securitization, tranching and re-securitization of risk had left banks and dealers with an interconnected toxic mess.[386] In July, two hedge funds at Bear Sterns focused on MBS failed, followed quickly by similar funds managed by the French bank BNP Paribas.[387]

Deterioration escalated quickly: after an unscheduled announcement of its intention to provide reserves to "facilitate the orderly functioning of financial markets,"[388] the Committee made a second unscheduled announcement reassuring markets that it was "prepared to act as needed to mitigate the adverse effects on the economy arising from the disruptions in financial markets."[389] By the end of the year the FOMC had reactivated its foreign exchange swap lines and cut policy rates by 75 basis points. A few months later, Bear Sterns was acquired by J.P. Morgan. Six months after that, the crisis arrived in force with the bankruptcy of Lehman Brothers and near-failures of AIG, Fannie Mae, and Freddie Mac.

The functioning and liquidity of the Treasury market was clearly affected. Although the depth of the market was stable for the first three quarters of 2008, it dropped precipitously as the crisis accelerated and volatility spiked in September.[390] Concerns around market functioning primarily arose over a lack of safe assets[391] for investors, who realized their holdings were much riskier than previously thought, and several technical issues that emerge when repo rates move close to zero.[392] That was cured within a few weeks with a surge in Treasury issuance (nearly $800 billion in just a few months)[393] and a reduction in failures to deliver.[394] At no point did the Fed seriously contemplate market functioning operations—in fact, that would have likely only made the problem worse by removing more bonds from a market in which they

385. *Id*.

386. *Id*.

387. *Id*.

388. Bd. of Governors of the Fed. Rsrv. Sys., *FOMC statement: The Federal Reserve is providing liquidity to facilitate the orderly functioning of financial markets* (Aug. 10, 2007), https://perma.cc/P4LF-HBMP.

389. Bd. of Governors of the Fed. Rsrv. Sys., *FOMC statement* (Aug. 17, 2007), https://perma.cc/4857-KL5H.

390. Terry Belton & Srini Ramaswamy, *US Fixed Income Markets 2009 Outlook*, J.P. MORGAN, Nov. 28, 2008, at 56. Many use the average size of committed bids and offers close to traded levels as observed in electronic interdealer markets as a proxy for depth of market.

391. *See* generally Ricardo J. Caballero, Emmanuel Farhi & Pierre-Olivier Gourinchas, *The Safe Assets Shortage Conundrum*, 31 J. OF ECON. PERSP. 29 (2017).

392. Memorandum from Kenneth D. Garbade, Frank Keane, & Jennifer Roush to the Fed. Open Mkt. Comm., Treasury Market Functioning and the Zero Lower Bound 94-95 (Dec. 5, 2008). *See also* FED. OPEN MKT. COMM., TRANSCRIPT 4 (Oct. 28-29, 2008) (Bill Dudley, President of the New York Fed, noting "The fact that there are severe market-functioning problems in the asset class that is in greatest demand—Treasuries—underscores the scope and severity of the markets' broader dysfunction.").

393. FED. RSRV. BANK OF DALL., MARKET VALUE OF MARKETABLE TREASURY DEBT (2026).

394. FED. RSRV. BANK OF N.Y., *supra* note 376.

were already in short supply.

D. The COVID Shock

In each of the three instances described above, primary dealers were able to use their balance sheets to avoid disorderly market conditions against a backdrop of significant uncertainty and volatility. The same cannot be said of the fourth test, which came in the spring of 2020. As briefly discussed earlier in this Article, the market panic associated with the onset of the Covid pandemic functionally broke the primary dealer system.[395] Restoring Treasury markets to a functioning condition would require the Fed to purchase more than a trillion dollars over just a few weeks.[396]

As has been highlighted in other work, the key vulnerability facing the Treasury market heading into the early spring of 2020 was a lack of elasticity. In other words, dealers could not easily expand their balance sheets to accommodate client sales without an immediate, ready buyer. The origins of those frictions remain the subject of debate. Many point to banking regulations, specifically the supplementary leverage ratio (SLR), which penalizes low risk but high leverage activities such as repo and Treasury trading, as having introduced rigidity to bank-affiliated dealer balance sheets.[397] Others question that attribution.[398] Additional factors, like the procyclical nature of risk limits forcing dealer pull-back during increased volatility, reduce market liquidity and exacerbate volatility further.[399] The rigidity itself, however, has been demonstrated empirically.[400]

In calmer times, markets found a way through this lack of elasticity by working around it. Price signals and other forms of inducement[401] offered strong incentives for

395. *Id.*

396. Explaining the set of market vulnerabilities exposed by COVID is a bit of a cottage industry. We do not intend to fully rehash them here. Rather, we offer a very brief overview intended to convey the foundational elements and direct the reader towards prior work for more detail and nuance. See in particularly the discussion in Menand & Younger, *supra* note 88. A shorter version is also available in Adam Tooze, *Chartbook 238: Making & remaking the most important market in the world. Or why everyone should read Menand and Younger on Treasuries*, CHARTBOOK BLOG (Sept. 8, 2023), https://perma.cc/ZRX3-5QP6.

397. *See, e.g.*, Darrell Duffie & Arvind Krishnamurthy, *Pass-Through Efficiency in the Fed's New Monetary Policy Setting, Jackson Hole Symposium*, FED. RSRV. BANK OF KANSAS CITY (Aug. 2016); Nellie Liang & Pat Parkinson, *Enhancing Liquidity of the U.S. Treasury Market Under Stress* (Hutchins Ctr., Working Paper No. 72, Dec. 2020); Zhiguo He, Stefan Nagel, & Zhaogang Song, *Treasury inconvenience yields during the COVID-19 crisis*, 143 J. FIN. ECON. 57 (2022); Daniel K. Tarullo, *Capital Regulation and the Treasury Market* (Hutchins Ctr., Working Paper, March 2023); Menand & Younger, *supra* note 88.

398. *See, e.g.*, Paul Cochran et al., *Dealers' Treasury Market Intermediation and the Supplementary Leverage Ratio*, BD. OF GOVERNORS OF THE FED. RSRV. SYS. (Aug. 2023).

399. Darrell Duffie et al., *Dealer Capacity and U.S. Treasury Market Functionality*, FED. RSRV. BANK OF N.Y. STAFF REP. NO. 1070 (Aug. 2023, revised Oct. 2023).

400. *Id.*; Darrell Duffie, *Resilience Redux in the US Treasury Market*, FED. RSRV. BANK OF KANSAS CITY (Aug. 2023).

401. As noted by Menand & Younger, *supra* note 88, it was quite common for bank-affiliated dealers to allocate balance sheet on a "use it or lose it" basis. Thus hedge funds would

non-banks to take on market making functions when dealers could not. Hedge funds, using leverage provided by repo markets, accumulated very large positions in Treasury basis trades and other fixed income arbitrage strategies (not unlike those pursued by LTCM, albeit opposite in direction[402]). High-frequency trading shops, also known as principal trading firms (PTFs), were increasingly active in Treasury markets, able to more efficiently match buyers and sellers than "human" traders, for some trading activity.[403] The result was a functional increase in Treasury market making and intermediation capacity, driven by the collective efforts of traditional dealers, hedge funds, and PTFs, whose activity was coordinated through mutually reinforced incentives.

This shadow dealer arrangement has, however, proven quite fragile. Hedge funds in relative value positions were much more thinly capitalized than bank-affiliated dealers. This made them very risk averse when positions took losses, since small price changes can quickly erode their capital base (see, again, the LTCM experience above). Moreover, hedge funds are vulnerable to margin calls due to their use of leverage, which are more correlated to outright movements in Treasury prices and more volatile than RV positions.[404] PTF trading strategies performed poorly and were reduced during times of elevated volatility.[405]

Under these conditions, when markets are hit by a sufficiently large shock, the shadow dealer system is at risk of collapse. It is very difficult and disruptive for markets to demand that traditional bank-affiliated dealers rapidly absorb activity that was previously taken over by non-banks. In March 2020, as the world economy shut down, exponentially increasing uncertainty drove numerous actors, from households to corporations to governments and central banks, to stockpile cash.[406] Many opted to

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maintain low risk but nonetheless highly levered positions to maintain their access to balance sheet. These placeholder positions were very vulnerable to runs in the event of stress.

402. LTCM was seeking to profit from exacerbated liquidity premia in some Treasury securities, which was largely a result of negative net supply amidst the fiscal surpluses of the 1990s. After the GFC, the situation was largely the opposite. Treasury securities tended to trade at discounted levels relative to derivative instruments, reflecting in large part increased supply and dealer balance sheet constraints. *See, e.g.*, Wenxin Du, Benjamin Hébert & Wenhao Li, *Intermediary Balance Sheets and the Treasury Yield Curve*, 150 J. FIN. ECON. 103722 (Dec. 2023); Samuel G. Hanson, Aytek Malkhozov & Gyuri Venter, *Demand-and-Supply Imbalance Risk and Long-Term Swap Spreads*, 154 J. FIN. ECON. 103814 (Apr. 2024); Anil Kashyap et al., *Treasury Market Dysfunction and the Role of the Central Bank*, BROOKINGS PAPERS ON ECON. ACTIVITY (Mar. 26, 2025).

403. James C. Harkrader & Michael Puglia, *Principal Trading Firm Activity in Treasury Cash Markets*, BD. OF GOVERNORS OF THE FED. RSRV. SYS. (Aug. 4, 2020).

404. Andreas Schrimpf, Hyun Song Shin & Vladyslav Sushko, *Leverage and Margin Spirals in Fixed Income Markets During the Covid-19 Crisis*, BIS BULL., no. 2, 2020; Joshua Younger, *Cross Margining and Financial Stability*, YALE FIN. STABILITY BLOG (June 22, 2021), https://perma.cc/M7XB-7RFR.

405. U.S. DEP'T OF THE TREASURY ET AL., JOINT STAFF REPORT: THE U.S. TREASURY MARKET ON OCT. 15, 2014 (July 15, 2015); Joshua Younger, *Revisiting the Ides of March, Part I: A Thousand Year Flood*, CTR. FOR FOREIGN RELS. (June 20, 2020), https://perma.cc/L6KH-ZWN5.

406. *See, e.g.*, *Holistic Review of the March Market Turmoil*, FIN. STABILITY BD. (Nov. 17, 2020); Jordan Barone et al., *The Global Dash for Cash: Why Sovereign Bond Market Functioning*

sell their most liquid assets—Treasury bonds. Hedge funds exacerbated the sell-off by unwinding RV positions, which were stressed by extreme levels of volatility and operational risk, and a rapid pullback by PTFs.[407] As the shadow dealer system collapsed, the lack of elasticity among bank-affiliated dealers showed up in sharply higher transaction costs, which increased more than ten-fold on average in a matter of days.[408]

The Fed quickly recognized the gravity of the situation. Initially, the New York Desk focused on financing markets, supersizing its repo offerings to fund Treasuries and agency MBS held in inventory by primary dealers.[409] This was immediately followed by a major large-scale asset purchase (LSAP) program, approved during a rare unscheduled FOMC meeting, which authorized "at least" $500 billion of outright purchases in Treasuries as well as $200 billion of the same in agency MBS to "support the smooth functioning" of those markets.[410] A few days after that, the Desk directive was generalized to "the amounts needed to support smooth market functioning and effective transmission of monetary policy to broader financial conditions."[411] During this period, the Desk regularly purchased more than $100 billion of securities *each day*—considerably more than prior QE programs had purchased in a month. This mechanically increased banks' holdings of high-powered money, which grew more than $2 trillion in just two weeks.[412] Finally, to further aid in "eas[ing] strains in the Treasury market resulting from the coronavirus,"[413] the Board Governors adopted temporary, emergency capital rules that exempted reserves and Treasury securities from leverage ratio calculations for bank holding companies housing key dealers.[414]

Varied across Jurisdictions in March 2020, FED. RSRV. BANK OF N.Y., no. 1010 (Mar. 2022).

407. Joshua Younger, Munier Salem, and Henry St. John, *When Market Risk Meets Operational Risk*, J.P. MORGAN FIXED INCOME STRATEGY REPORT (Mar. 10, 2020) (on file with author); Joshua Younger, Munier Salem, and Henry St. John, *Why We Should All Care About the Treasury Futures Basis*, J.P. MORGAN FIXED INCOME STRATEGY REP. (Mar. 12, 2020) (on file with author); Joshua Younger, *supra* note 405; Joshua Younger, *Revisiting the Ides of March, Part II: The Going Gets Weird*, CTR. FOR FOREIGN RELS. (June 22, 2020), https://perma.cc/P3WY-8Z88.

408. Lorie K. Logan, Remarks Before the Foreign Exch. Comm., Fed. Rsrv. Bank of N.Y.: The Federal Reserve's Recent Actions to Support the Flow of Credit to Households and Businesses (April 14, 2020).

409. *See* STATEMENT REGARDING TREASURY RESERVE MANAGEMENT PURCHASES AND REPURCHASE OPERATIONS, FED. RSRV. BANK OF N.Y. (Mar. 12, 2020).

410. Bd. of Governors of the Fed. Rsrv. Sys., *Federal Reserve Issues FOMC Statement* (Mar. 15, 2020), https://perma.cc/JP3Z-6Y2T.

411. Bd. of Governors of the Fed. Rsrv. Sys., *Federal Reserve Issues FOMC Statement* (Mar. 23, 2020), https://perma.cc/7NL5-PUCK.

412. BD. OF GOVERNORS OF THE FED. RSRV. SYS., FEDERAL RESERVE STATISTICAL RELEASE, H.4.1, FACTORS AFFECTING RSRV. BALANCES (Mar. 12, 2020), https://perma.cc/WL9B-9VZ6; BD. OF GOVERNORS OF THE FED. RSRV. SYS., FEDERAL RESERVE STATISTICAL RELEASE, H.4.1, FACTORS AFFECTING RSRV. BALANCES (Mar. 26, 2020), https://perma.cc/X7RG-83GX.

413. Bd. of Governors of the Fed. Rsrv. Sys., *Federal Reserve Board Announces Temporary Change to its Supplementary Leverage Ratio Rule to Ease Strains in the Treasury Market Resulting from the Coronavirus and Increase Banking Organizations' Ability to Provide Credit to Households and Businesses* (Apr. 1, 2020), https://perma.cc/MN96-WFME.

414. Temporary Exclusion of U.S. Treasury Securities and Deposits at Federal Reserve Banks

Throughout its intervention, the object of the FOMC was market functioning rather than price fixing. As Lorie Logan, SOMA Manager at the time, described it, "smooth market functioning" could be decomposed into two key characteristics: "liquidity" and "efficient pricing."[415] In the Desk's terminology, liquidity referred to the speed and cost with which transaction in Treasuries could be consummated, while efficient pricing referred to the maintenance of reasonable relationships among substantially similar securities (e.g., the on-the-run versus off-the-run spreads we met earlier). It was, in substance and in phrasing, strikingly similar to the Ad Hoc Committee's 1950s-vintage description of a market with "depth, breadth, and resiliency."[416]

The Fed's efforts were largely successful. Within a few weeks, all key metrics Logan mentioned in her July speech were either at or near normal levels.[417] In June, the description changed from "amounts needed to support" smooth market functioning,[418] to maintaining "at least the current pace" in order to "sustain" it.[419] The following month, purchases had slowed to the steady-state associated with monetary policy as opposed to financial stability considerations.[420] That pace remained stable for months. Then, in December, the Committee switched the stated goal of LSAPs from ensuring "smooth market functioning" to supporting "more accommodative financial conditions."[421]

Reflecting on the COVID crisis in 2023, Logan, now the President of the Federal Reserve Bank of Dallas, reiterated the importance of market functioning purchases to maintaining financial stability: "Breakdowns of trading and price discovery in core markets thus put a vast array of economic activity at risk."[422] In her view, these risks were tied to the lack of sufficient elasticity among intermediaries. She argued that central bankers should "continue to develop the toolkit for mitigating dysfunction." Per Andrew Hauser, her counterpart at the Bank of England, incidents of severe

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from the Supplementary Leverage Ratio, 85 Fed. Reg. 20578 (Apr. 14, 2020) (to be codified at 12 C.F.R. pt. 217).

415. Lorie K. Logan, Remarks at the Fed. Rsrv. Bank of N.Y. SIFMA Webinar: The Federal Reserve's Market Functioning Purchases: From Supporting to Sustaining (July 15, 2020).

416. *Ad Hoc Report*, *supra* note 263, at 2013.

417. Logan, *supra* note 415.

418. Bd. of Governors of the Fed. Rsrv. Sys., *Federal Reserve Issues FOMC Statement* (Apr. 29, 2020), https://perma.cc/8MPF-CVTR; Bd. of Governors of the Fed. Rsrv. Sys., *supra* note 413.

419. Bd. of Governors of the Fed. Rsrv. Sys., *Federal Reserve Issues FOMC Statement* (Dec. 16, 2020), https://perma.cc/ZKX3-TB2N.

420. BD. OF GOVERNORS OF THE FED. RSRV. SYS., ASSETS: SECURITIES HELD OUTRIGHT: SECURITIES HELD OUTRIGHT: WEDNESDAY LEVEL (2026).

421. Bd. of Governors of the Fed. Rsrv. Sys., *supra* note 419. The FOMC only dropped that language entirely after surging inflation forced a rapid shift in the stance of policy, including a 50 bp hike to policy rates and a clear pivot towards reducing the balance sheet in March of 2022; Bd. of Governors of the Fed. Rsrv. Sys., *Federal Reserve Issues FOMC Statement* (Mar. 16, 2023), https://perma.cc/8TUW-YARM.

422. Lorie K. Logan, Remarks at Fed. Rsrv. Bank of Dall. SIFMA Webinar: The Federal Reserve's Market Functioning Purchases: From Supporting to Sustaining (Mar. 3, 2023), https://perma.cc/J2EH-WMDH.

dysfunction would likely recur—under those circumstances, "central banks needed to be ready to play their part."[423] In other words, as Treasury markets continued to grow against the backdrop of dealer balance sheet constraints, central bankers needed to anticipate the risk of needed to intervene more frequently going forward.[424]

IV. TOWARDS A NEW ORDERLY MARKETS ARCHITECTURE

Where to go from here? The Fed's evolution appears to have landed the System in a state of episodic cognitive dissonance. On one hand, Section 2A clearly articulates a mandate for monetary policy, designed to achieve full capacity utilization in the economy over the long term with maximum employment and price stability. On the other hand, the System's role as fiscal agent to the federal government leads to occasional interventions in government debt markets to ensure their proper functioning. This second role is not only separate and distinct, but it has often been in tension with monetary policy. Neither takes legal or practical precedence and both are as old as the System itself, deeply ingrained in its operational and institutional design.

Tension arises from the likelihood of misalignment between market functioning operations and monetary policy. The events of March 2020 were an exception that proves that rule. Set against the backdrop of cascading lockdowns and a sudden stop in global economic activity, any measure of monetary or fiscal support was welcome. That alignment of objectives gave policy makers implicit flexibility to blur the lines between market functioning and monetary stimulus (i.e., quantitative easing, or QE). In the years to come, we may not be so lucky. History shows that dysfunction tends to threaten otherwise orderly markets when central banks are tightening monetary policy.

A. The Problem Today

To complement historical examples of market functioning episodes during periods of monetary tightening, a more recent case study is in order: the "Truss shock." One day before the government was due to present its "mini-budget," the Bank of England (BoE) reiterated its commitment to monetary restraint. Restraint entailed not only rate hikes and QT, but also outright sales of Gilts from the BoE's open market portfolio—the first time a major central bank had actively reduced its holdings instead of a passive run off. Against that backdrop, as conditions in the government securities market deteriorated, the BoE announced purchases of long-dated Gilts. It stressed that these purchases were undertaken "in line with its financial stability objective," were to be "strictly time limited," and were intended narrowly to "restore orderly market conditions," after which they would be unwound in "an orderly fashion."[425] They were

423. Andrew Hauser, *Looking Through a Glass Onion: Lessons from the 2022 LDI Intervention*, BANK OF ENG. (Mar. 3, 2023), https://perma.cc/8DBS-Z9FJ.

424. *See also* Darrell Duffie & Frank Keane, *Market-Function Asset Purchases*, FED. RSRV. BANK OF N.Y. STAFF REPS. NO. 1054 (2023); Kashyap et al., *supra* note 402.

425. Bank of Eng., *Bank of England Announces Gilt Market Operation*, (Sept. 28, 2022), https://perma.cc/S368-7DZ2.

also priced at a penalty to prevailing market prices ("backstop pricing"), a clear contrast to QE-related purchases "priced to deliver" on target quantities.[426]

Unless there is a turn in fiscal policy, however, the Treasury market is set to continue growing at a rapid pace for the indefinite future. The latest projections from the Congressional Budget Office suggest deficits will rise steadily over the next ten years, with the public debt expected to exceed $50 trillion, or 119% of projected nominal GDP, by 2035.[427] This is higher than the peak of 113% debt to GDP reached during World War II.[428] Empirical studies suggest that, if anything, such estimates tend to understate the future trajectory of the debt by underestimating the probability and fiscal impact of recessions.[429] Although the market has thus far managed to find buyers for Treasury securities without significant price adjustments, the reliance on shadow dealers is only increasing. Highly levered positions among relative value hedge funds, which were a key driver of Treasury market dysfunction during the COVID-19 shock, have only grown since 2020.[430] To the extent this position grows along with the overall Treasury market, it can exacerbate fragility and increase the probability of central bank intervention.

Policymakers have deployed a number of techniques to mitigate, if not fully alleviate the two mandates problem historically. As we have discussed, since the 1970s, the Fed has relied on repo-funded primary dealers to maintain orderly trading conditions on their behalf. This arrangement was appealing because it relegated the central bank to the role of lender, rather than buyer, of last resort. It worked because the regulatory architecture governing dealer balance sheets allowed for substantial elasticity. But that elasticity had serious side effects revealed by the GFC. In response, regulators took a series of steps to integrate securities dealing into the banking system and limit its leverage. But that treatment had side effects—it redirected intermediation to shadow dealers which proved brittle, even when it came to risk-free government securities. To the extent the current constraints on dealers stay in place, the Fed can arguably no longer franchise out the maintenance of orderly markets to the private sector. That suggested increased reliance on more direct forms of Fed intervention, including market function purchases.

As Lorie Logan observed in March 2023, in the event government bond markets become dysfunctional, effective intervention should, in principle, be straightforward: "Central banks have powerful tools and, in principle, need only deploy them in sufficient size."[431] When designing purchase programs, she argues, policy makers should prioritize three elements: (1) transparency, (2) backstop pricing, and (3) a clear separation between market functioning and monetary policy. Here we focus on her

426. Andrew Hauser, *supra* note 241.

427. CONG. BUDGET OFF., THE BUDGET AND ECONOMIC OUTLOOK: 2025 TO 2035 (Jan. 17, 2025).

428. CONG. BUDGET OFF., *supra* note 56.

429. CONG. BUDGET OFF., AN EVALUATION OF CBO'S PAST DEFICIT AND DEBT PROJECTIONS (Sept. 11, 2019).

430. Jonathan Glicoes et al., *Quantifying Treasury Cash-Futures Basis Trades*, FEDS NOTES (Mar. 8, 2024), https://perma.cc/K2MD-57R7; Kashyap et al., *supra* note 402.

431. Lorie K. Logan, Speech at the Fed. Rsrv. Bank of Dall.: Preventing and Responding to Dysfunction in Core Markets (Mar. 3, 2020), https://perma.cc/BMU9-CMCW.

third "guidepost."

The U.K. is an instructive case study.[432] The BoE took pains to clearly delineate its market functioning operations from monetary policy. Its efforts were largely successful; the market ultimately saw this separation as credible and prices reacted accordingly. This was likely due in large part to the Bank's specific decision-making structure. Unlike the Fed, open market operations are the responsibility of the Bank's Executive, and ultimately that of the Governor.[433] That responsibility has been onward delegated to two bodies created by the Bank of England Act of 1998: a Monetary Policy Committee (MPC) and a Financial Policy Committee (FPC). The MPC is tasked with "maintain[ing] price stability" (including the 2% inflation target)[434] while the FPC is tasked with contributing to the "protect[ion] and enhance[ment] [of] the stability of the financial system of the United Kingdom" (both subject to "the economic policy of His Majesty's Government").[435] The former includes balance sheet operations such as QE purchases, while the latter includes market functioning purchases. Because the 2022 recommendation to intervene in Gilt markets came from the FPC, it was conceptually distinct from the MPC's stance on monetary policy.[436] This lent a degree of credibility that likely contributed to the power of the 'announcement effect' associated with those purchases. In the end, the BoE facility bought only a small fraction of its authorized capacity, and those holdings were mostly sold back into the market after roughly two months.[437] Importantly, that avoided the negative externalities associated with a persistently oversized central bank balance sheet, about which A. L. Mills was so concerned in the mid-1950s.

B. Potential Paths Forward

Looking at both the BoE experience and longer-run history of the Fed itself leads us to several conclusions regarding the Fed's optimal future relationship to the Treasury market. First, a commitment to using its balance sheet to maintain the stability of the Treasury market goes back essentially to the founding of the System and is at the core of its institutional design. Second, as noted in our description of Fed interventions prior to 2020, market functioning purchases have frequently been orthogonal to the stance of monetary policy, requiring the central bank to expand its balance sheet, supplying additional high-powered money, at the same time as it is

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432. Senior U.S. officials have drawn rather explicit parallels between the "Truss shock" and potential instability in the U.S. Treasury market. *See* Claire Jones, *US faces Liz Truss-style Market Shock as Debt Soars, Warns Watchdog*, FIN. TIMES, Mar. 25, 2024.

433. *Governance of the Bank of England's Balance Sheet: Principles of Engagement*, BANK OF ENG. (Nov. 3, 2023), https://perma.cc/5PAA-8WFR.

434. Letter from Jeremy Hunt, Chancellor of the Exchequer, to Andrew Bailey, Governor of the Bank of Eng.: Remit and Recommendation for the Monetary Policy Committee (Nov. 22, 2023), https://perma.cc/EHF9-SB2J.

435. *Id.*

436. Anil K. Kashyap, Speech at the Jackson Hole Econ. Symp.: Monetary Policy Implications of Market Marker of Last Resort Operations (2024).

437. *See generally* Paul Alexander et al., *Financial Stability Buy/Sell Tools: A Gilt Market Case Study*, BANK OF ENG. Q. BULL. (Nov. 20, 2023).

attempting to use its various other tools to impose restraint. Third, a clear institutional separation between monetary policy and financial stability decision-making can improve the efficacy of market functioning purchase by enhancing credibility and empowering announcement effects.

History also provides a guide for doing this in the specific context of the Federal Reserve. The FOMC is authorized to set up subcommittees, like the Executive Committee, with delegated authority, including independent authority over open market operations. This authority can, in turn, be delegated to the SOMA Manager, at least on an 'emergency' basis. The current FOMC has ample statutory and regulatory flexibility to adopt a decision-making framework inspired by the successful example of the Bank of England without major statutory or regulatory changes.

One potential arrangement would be a variation on the EC—a Treasury Market Stability Committee (TMSC). Like the EC, the TMSC could be made responsible for identifying, evaluating, and monitoring potential risks, and for recommending actions to the full FOMC. It could be chaired by a Governor at the Board and populated by a subset of the FOMC. Importantly, its membership could also include senior staffers with expertise on Treasury markets, including the SOMA Manager and the Director of the Division of Financial Stability. The TMSC could then be pre-authorized to execute open market operations to restore smooth functioning in government securities markets, up to a limit set by the FOMC and subject to a joint determination of disorderly market conditions by its member staffers. To maintain ultimate control over monetary policy, the full FOMC would have the right to veto that determination, but only with a formal vote. In all asset classes other than Treasuries, the TMSC would make recommendations to the full FOMC—e.g., emergency lending facilities of the type used during the GFC and COVID-19—but their authorization would follow the usual Committee process.

This would represent a significant shift in the way market functioning purchase programs are designed, authorized and implemented. It would clearly separate purchases from monetary policy. Based on the example of the Bank of England in 2022, this could improve the efficacy of purchase programs by leaning more heavily on announcement effects and credibility than on the transactions themselves. All else equal, the reforms could contribute to fewer and less severe crises.

CONCLUSION

There is a tension at the heart of the legal architecture of the Federal Reserve System. The System's enabling act requires Fed policymakers to sustain monetary expansion over time while also serving as fiscal agents of the United States. The latter responsibility, which the System has had since inception and which played an important role in the initial creation of the Federal Open Market Committee, also drove the Fed-Treasury Accord of 1951 and the construction of the primary dealer system in the years that followed.

The tension between this fiscal responsibility and monetary policy—the "one system, two mandates" problem—has never been truly solved, only managed. The primary dealer system worked for decades precisely because it pushed the management of orderly markets off the Fed's balance sheet and onto the books of

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private intermediaries, freeing the FOMC to focus on monetary expansion without the confounding signal of market functioning purchases. That arrangement depended on dealer balance sheets that were elastic enough to absorb large-scale selling in moments of stress. After 2008, that elasticity was curtailed—partly by regulation, partly by the structural transformation of financial markets—and the arrangement broke down. Shadow dealers stepped in, but proved brittle. The result was March 2020: a dash for cash that overwhelmed the primary dealer system and forced the Fed into the most extensive market functioning operation in its history.

This Article considers a simple, initial institutional reform. The Fed need not continue to manage the tension between its two mandates through ad hoc improvisation. If the next shock arrives in the context of resurging inflation or a restrictive monetary policy stance, the absence of a clear institutional separation between market functioning operations and monetary policy could impose real costs: on the credibility of the Fed's commitment to appropriate rates of monetary expansion and on the efficiency of its interventions in Treasury markets. A Treasury Market Stability Committee, pre-authorized to act within defined limits and clearly separated from the FOMC's monetary policy deliberations, could help ease the conflict.

The stakes extend beyond the Treasury market. The Treasury market is, in many respects, the foundation of the global financial system. Its orderly functioning is a precondition not only for the federal government's ability to finance itself at reasonable cost, but for the stability of many other financial markets. The work of building a durable orderly markets architecture is not merely a technical challenge for central bankers and market microstructure economists. It is a question of institutional design and political economy that merits further study and consideration in the years ahead.