

# THE FEDERAL RESERVE'S USE OF INTERNATIONAL SWAP LINES

Colleen Baker\*

*This Article focuses on the U.S. Federal Reserve's controversial practice of loaning U.S. dollars to foreign central banks, which the foreign central banks then turn around and loan to institutions in their jurisdictions. The Federal Reserve does not know the identity of these recipient institutions. Nevertheless, these loans—termed “swap lines”—provide foreign financial institutions the type of financial stability that the U.S. Federal Reserve was created to provide for U.S. banks during times of crises. During the financial crisis, the U.S. Federal Reserve arranged swap lines with 14 foreign central banks for a total amount of \$583 billion, making it the de facto international lender of last resort. In December 2012, the U.S. Federal Reserve once again extended the duration of its swap line function.*

*In this Article, I argue that because of U.S. dollar dependencies and stability risks in global financial markets, and because of the global financial markets' dependency on the U.S. dollar, an international dollar lender of last resort is needed. The U.S. Federal Reserve is currently the institution best positioned to fill this role. Yet, I also argue that because of the potential problems, risks, and costs of this role, the U.S. Federal Reserve's swap line function must be rethought. The U.S. Federal Reserve's swap line authority relies upon an interpretation of statutory provisions in the Federal Reserve Act dating back to its origins in 1913. The institutional structure of today's global, interconnected financial markets bears little resemblance to that existing in 1913. This has left the swap line function open to undue problems and risks and allows for the possibility of problematic future overseas expansions.*

---

\* Associate Professor University of Notre Dame Law School. Ph.D. The Wharton School, University of Pennsylvania, JD/MBA University of Virginia. I wish to thank Matthew Barrett, Anthony J. Bellia, Adam Feibelman, Anna Gelpern, Michael Kirsch, Paul Mahoney, Geoffrey Miller, John Nagle, Patricia O'Hara, Katharina Pistor, David Skeel, Julian Velasco, Art Wilmarth, David Zaring and participants in faculty colloquia at Notre Dame Law School and Northwestern Law School in addition to participants in the Joint Program of the Securities Regulation and Financial Institutions/Consumer Financial Services Section at the Annual Meeting of the Association of American Law Schools in January 2013 for their helpful comments.

*Accordingly, my Article proposes a new, distinct framework for the U.S. Federal Reserve's swap lines. The first prong of this framework provides for a new market stability role for the U.S. Federal Reserve and provides for significant flexibility in its emergency lending operations. The second prong of this framework provides boundaries for this new flexibility, including limiting future extensions of the swap lines and bolstering democratic accountability in their use.*

*Rethinking the U.S. Federal Reserve's swap line function is an urgent task. Central bank swap lines are set to become key structural and competitive features of global financial markets. The recent establishment of a bilateral swap line between the People's Bank of China and the Bank of England and discussion of a swap line between the People's Bank of China and the Bank of France to promote London and Paris as offshore renminbi trading centers attest to this fact. In sum, this Article argues that the use of swap lines can be a significant aid in enabling the Federal Reserve to act as the international dollar lender of last resort—and, thereby, foster domestic and international financial market stability—but that this public objective cannot be reached unless the swap lines themselves are grounded in a thoughtful, practical, and forward-looking legal framework.*

#### TABLE OF CONTENTS

TABLE OF CONTENTS .....	604
INTRODUCTION .....	605
I. GLOBAL FINANCIAL MARKETS AND THE U.S. DOLLAR .....	611
A. The Dollar as the International Currency .....	612
1. In General .....	612
2. The Dollar in Global Financial Markets .....	612
3. The Fragility of International Banking .....	614
4. The Federal Reserve's Last Resort Liquidity Provision .....	616
II. THE FEDERAL RESERVE'S SWAP LINES .....	618
A. The Federal Reserve: De Facto International Lender of Last Resort .....	619
B. Swap Line Mechanics .....	622
C. Background of the Swap Lines .....	625
D. The Current Swap Line Authority .....	626
III. PROBLEMS AND RISKS OF THE SWAP LINES .....	628
A. Public Policy Problems .....	629
B. Regulatory and Supervisory Problems .....	633
IV. RETHINKING THE SWAP LINE FRAMEWORK .....	635
A. A New Swap Line Framework .....	636
1. A Distinct Framework .....	636
2. The First Prong of the Framework .....	638
a. The Federal Reserve's Swap Lines as an Explicit, Emergency Authority .....	638
b. The Federal Reserve as the Market Stability Regulator .....	641
3. The Second Prong of the Framework .....	643
a. Increased Accountability Measures .....	643
b. Limitations on the Swap Line Power .....	646

B. Objections to a New Swap Line Framework .....	650
CONCLUSION .....	653

## INTRODUCTION

“Always define every issue as just a technical problem.”<sup>1</sup>

New York and London compete to be the leading center of global finance. The Bank of England (the United Kingdom’s central bank) recently became the first major central bank to enter a currency agreement with the People’s Bank of China.<sup>2</sup> Recent news reports state that the Bank of France (France’s central bank) likewise plans to implement a currency agreement with the People’s Bank of China.<sup>3</sup> Paris is another of London’s financial center competitors. Such currency agreements promote China’s “currency swap diplomacy.”<sup>4</sup> They also promote London and Paris as offshore financial trading centers for renminbi, China’s currency.<sup>5</sup> In a crisis, these agreements would enable the Bank of England or the Bank of France to borrow renminbi directly from the People’s Bank of China, then turn around and lend it to financial institutions in the United Kingdom or France, respectively. Accordingly, these agreements would act as a public insurance<sup>6</sup> mechanism and lower the risks involved for financial

---

1. John Dizard, A “*Squall in the Fall*” over Dollars for Europe, FIN. TIMES, June 24, 2012, at 7 (quoting Wilson Paul Dizard).

2. See Josh Noble, *UK and China Establish Currency Swap Line*, FIN. TIMES (Jun. 23, 2013, 8:14 AM), <http://www.ft.com/intl/cms/s/0/c063da4c-dbcc-11e2-8853-00144feab7de.html#axzz2cp1wfEX1>.

3. See Langi Chiang & Ben Blanchard, *France Plans Currency Swap Line with China: Paper*, REUTERS (Apr. 12, 2013, 11:44 AM), <http://www.reuters.com/article/2013/04/13/us-china-france-currency-idUSBRE93C01S20130413>.

4. See generally Joe Leahy, *Brazil and China Agree Currency Swap*, FIN. TIMES (Mar. 26, 2013, 5:12 PM) <http://www.ft.com/intl/cms/s/0/3e20302e-9632-11e2-9ab2-00144feabdc0.html#axzz2YgfW8tqp> (discussing Brazil and China’s planned currency swap as promoting China’s “currency swap diplomacy”); *UK, China RMB Swap Line Could Be World’s Largest at CNY450 Billion*, ROYAL BANK OF SCOTLAND (Apr. 26, 2013), <http://mib.rbs.com/insight/currency-conundrum/uk-china-rmb-swap-line-could-be-worlds-largest-at-cny450-billion> (recognizing that China has 19 existing bilateral swap lines) [hereinafter *UK, China RMB Swapline*].

5. Such swap lines would promote trade and investment. See Leahy, *supra* note 4. The U.K./China swap line is predicted to be the largest renminbi swap line in the world. See *UK, China RMB Swapline*, *supra* note 4. A new-London based clearinghouse, London Metal Exchange Clear, is planning to clear renminbi-denominated products beginning in 2014. See Phillip Stafford, *LME Sets Date for Clearing House Launch*, FIN. TIMES (Jun. 5, 2013, 1:16 PM), <http://www.ft.com/intl/cms/s/0/4db6d330-cdc-d-11e2-a13e-00144feab7de.html#axzz2YgfW8tqp>. Such financial market infrastructure developments are likely to depend upon the possibility of emergency liquidity assistance from a renminbi swap line.

6. See generally Alice Ross, *BoE Urged to Support Renminbi Trading*, FIN. TIMES (Dec. 4, 2013, 5:41 PM), <http://www.ft.com/intl/cms/s/0/df40d7dc-3d69-11e2-b8b200144feabdc0.html#axzz2YgfW8tqp> (“A swap line would be an insurance policy.”).

institutions in trading renminbi. To compete with London and Paris, financial institutions in New York would undoubtedly lobby for a similar currency agreement between the Federal Reserve, the U.S. central bank, and the People's Bank of China. Such agreements are controversial, and, although unknown by most, the Federal Reserve already has several of these controversial<sup>7</sup> central bank currency agreements in place.<sup>8</sup> Unfortunately, the current statutory framework supporting such agreements is antiquated and inadequate to address the realities of today's global financial marketplace. This Article theorizes a new legal framework for the Federal Reserve's current and future bilateral<sup>9</sup> currency agreements with foreign central banks.

The task of creating and implementing a new bilateral framework is urgent. Central bank currency agreements are becoming key structural and competitive features of global financial markets. The controversy surrounding the Federal Reserve's currency agreements with foreign central banks is vividly illustrated by a July 2009 congressional hearing during which Congressman Alan Grayson asked Federal Reserve Chairman Benjamin Bernanke: "So who got the money?"<sup>10</sup> Congressman Grayson was asking for the identity of the ultimate recipients of over half a trillion dollars in loans<sup>11</sup> from the Federal Reserve to 14 foreign central banks via its currency agreements. The Chairman responded: "I don't know."<sup>12</sup> Chairman Bernanke explained to the Congressman that these dollar loans went to "financial institutions in Europe and other countries"<sup>13</sup> to quiet global financial market instabilities. But as to exactly "which ones," he did not

---

7. For example, these currency agreements have incited accusations of an ongoing bailout of the European Monetary System. See *Federal Reserve Aid to the Eurozone: Its Impact on the U.S. and the Dollar: Hearing Before the Subcomm. on Domestic and Monetary Policy and Tech. of the H. Comm. on Fin. Serv.* H. R., 112th Cong. 112-111 (2012) (statement of Rep. Ron Paul) [hereinafter *Hearing*]; see also Gerald P. O'Driscoll, Jr., *The Federal Reserve's Covert Bailout of Europe*, WALL ST. J. (Dec. 28, 2011), <http://online.wsj.com/article/SB10001424052970204464404577118682763082876.html>. But at the same time, these currency agreements have also engendered demands that the Federal Reserve "must save the world." See MARKETBEAT, *Drumbeat's Getting Louder: The Fed Must Save the World*, WALL ST. J. BLOGS (June 6, 2012, 3:27 PM), <http://blogs.wsj.com/marketbeat/2012/06/06/drumbeats-getting-louder-the-fed-must-save-the-world/>.

8. See generally Kristina Peterson, *Fed Swaps Continue for Foreign Lenders*, WALL ST. J., Dec. 14, 2012, at A11.

9. In theory, a multilateral, multicurrency settlement arrangement among international central banks could replace bilateral currency agreement arrangements.

10. CSPAN, *Alan Grayson: "Which Foreigners Got the Fed's \$5,000,000,000,000?" Bernanke: "I Don't Know,"* YOUTUBE, (Jul. 21, 2009), <http://www.youtube.com/watch?v=n0NYBTkE1yQ/>.

11. Whether the swap lines are properly termed "loans" is subject to dispute. On the Federal Reserve's balance sheet, "central bank liquidity swaps," are listed under "Reserve Bank credit." See *Factors Affecting Reserve Balances*, FED. RESERVE (July 11, 2013), <http://www.federalreserve.gov/releases/h41/current/h41.htm>; see also CSPAN, *supra* note 10 ("The loans go to the central banks.").

12. CSPAN, *supra* note 10.

13. *Id.*

know,<sup>14</sup> because the foreign central banks then turned around and lent the dollars to institutions within their jurisdictions.

These bilateral central bank currency agreements are potentially problematic. In good times, they stand ready as potential public insurance mechanisms and thereby help to promote the growth of financial institution trading activities. In financial crises, they can help stabilize market disruptions to which their very presence could paradoxically contribute. For example, renminbi shortages are not causing market disruptions and threatening to destabilize financial institutions in London or New York. But as offshore renminbi trading centers develop, such shortages and related market instability could occur in the future. Nevertheless, these stability-oriented, yet potentially destabilizing bilateral currency agreements—officially termed “central bank liquidity swaps,” or “swap lines” for short—are becoming critical components of economists’ widespread “rethinking [of] central banking”<sup>15</sup> post financial crisis.

By the late 1990s, the Federal Reserve had largely ceased<sup>16</sup> using its swap lines because of concerns about their potential negative impact on Federal Reserve policy credibility.<sup>17</sup> But during the height of the financial crisis in October 2008, the Federal Reserve resurrected its swap lines with a vengeance. It also used these bilateral agreements in a largely new way. Swap lines became mechanisms to outsource the Federal Reserve’s bedrock power—its lender of last resort role—to foreign central banks. The Federal Reserve’s expansive use of swap lines during the financial crisis constituted “an unprecedented delegation of the Fed’s powers to foreign policy makers.”<sup>18</sup> This significant global delegation aimed to ensure the smooth functioning of international settlement systems, which are part of the

---

14. *Id.*; see also Scott Lanman & Bradley Keoun, *No One Telling Who Took \$586 Billion in Swaps with Fed Condoning Anonymity*, BLOOMBERG (Dec. 11, 2011), <http://www.bloomberg.com/news/2011-12-11/no-one-says-who-took-586-billion-in-fed-swaps-done-in-anonymity.html>.

15. See THE COMM. ON INT’L ECON. POLICY AND REFORM, *Rethinking Central Banking*, BROOKINGS (Sept. 14, 2011), <http://www.brookings.edu/~media/Research/Files/Reports/2011/9/ciepr%20central%20banking/Rethinking%20Central%20Banking.PDF> [Hereinafter *Rethinking*].

16. During this interim period, the Federal Reserve had swap lines in place with the central banks of Canada and Mexico as part of the North American Framework Agreement of 1994. See *Minutes of the Federal Open Market Committee April 30, 2008*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., <http://www.federalreserve.gov/monetarypolicy/fomcminutes20080430.htm>.

17. See Michael D. Bordo, Owen F. Humpage & Anna Schwartz, *U.S. Foreign-Exchange-Market Intervention During the Volcker-Greenspan Era* 41 (Nat’l Bureau of Econ. Research, Working Paper No. 16345, 2010) (“In the late 1980s and early 1990s, the FOMC objected to the frequent and heavy interventions then underway, primarily because they threatened monetary policy credibility, not because they rarely worked. Their decision to abandon foreign-exchange operations was a wise one.”).

18. Maurice Obstfeld, *Lenders of Last Resort and Global Liquidity: Rethinking the System*, DEV. OUTREACH, Dec. 2009, at 44.

background “plumbing” of global financial markets<sup>19</sup> and are an important potential source of systemic risk. These systems facilitate the “money flows”<sup>20</sup> involved in global trade, whether of goods, services, or financial assets.<sup>21</sup> As the international currency, the U.S. dollar plays a critical role in the stability of these global money flows. Thus, the Federal Reserve’s creation of swap lines with 14 foreign central banks during the financial crisis aimed to stabilize disruptions to these essential systems.

Many economists have concluded that the Federal Reserve’s swap lines aided in stabilizing markets during the recent financial crisis.<sup>22</sup> But the swap lines also played a critical role in the expansion of the Federal Reserve’s balance sheet and contribute to its expansion even today. Prior to the financial crisis, the Federal Reserve’s balance sheet assets numbered around \$843 billion,<sup>23</sup> but this number now exceeds \$3 trillion.<sup>24</sup> In 2008, the swap lines peaked at \$583 billion, or about one-fourth<sup>25</sup> of the Federal Reserve’s assets. In February 2012, this amount stood at \$109 billion. With significant swap line amounts still outstanding,<sup>26</sup> it would be reasonable to assume that the Federal Reserve relies upon an emergency legal authority to activate these loans. But it does not. Nor does it seek Congressional

---

19. Payment systems are international financial systems that settle obligations among financial institutions. Risks to the functioning of these systems likely “pose[] the greatest systemic risk.” HEIDI MANDANIS SCHOONER & MICHAEL W. TAYLOR, *GLOBAL BANK REGULATION* xvii (2010).

20. Perry Mehrling, *Essential Hybridity: A Money View of FX*, *J OF COMP. ECON.*, Mar. 20, 2013, at 3.

21. See generally David L. Mungle, *Behind the Money Market: Clearing and Settling Money Market Instruments*, in *ECON. REV.*, Sept.–Oct. 1992, at 3.

22. See generally Darrell Duffie, *Replumbing Our Financial System – Uneven Progress*, *INT’L J. OF CENT. BANKING*, Jan. 2013, at 251–79; EMMANUEL FARHI, PIERRE-OLIVIER GOURINCHAS & HÉLÈNE REY, *REFORMING THE INT’L MONETARY SYS.* 36 (2011); see also Michael D. Bordo, Owen F. Humpage & Anna Schwartz, *Epilogue: Foreign-Exch.-Market Operations in the Twenty-First Century* 3 (Nat’l Bureau of Econ. Research, Working Paper No. 17984, 2012); Patrick McGuire & Götz van Peter, *The US Dollar Shortage in Global Banking and the International Policy Response* (Bank for Int’l Settlements Working Paper No. 291, 2009); Naohiko Baba & Frank Packer, *From Turmoil to Crisis: Dislocations in the FX Swap Market Before and After the Failure of Lehman Bros.* 6–7 (Bank of Int’l Settlements Working Paper, No. 285, 2009); William A. Allen & Richhild Moessner, *Central Bank Co-operation and International Liquidity in the Financial Crisis of 2008-9* 8–22 (Bank for Int’l Settlements Working Paper, No. 310, 2010); Elizabeth A. Duke, Governor, Fed. Reserve Syst., Address at the Center for Latin American Monetary Studies 60th Anniversary Conference (Jul. 20, 2012), in *CENT. BANK COOPERATION IN TIMES OF CRISIS* at 4 (Jul. 20, 2012).

23. See Obstfeld, *supra* note 18, at 43.

24. See *Factors Affecting Reserve Balances*, *supra* note 11, for comments regarding the Federal Reserve’s balance sheet.

25. Michael J. Fleming & Nicholas J. Klagge, *The Fed. Reserve’s Foreign Exch. Swap Lines*, *FED. RESERVE BANK OF N.Y. CURRENT ISSUES ECON. & FIN.*, Apr. 2010, at 1, 5.

26. See *Federal Exchange Foreign Swap Agreements*, *FED. RESERVE BANK OF N.Y.*, <http://www.newyorkfed.org/markets/fxswap/fxswap.cfm> (last visited Sept. 10, 2013, 4:31 PM).

approval for these loans. The Federal Reserve's autonomy is in stark contrast to the authority of the U.S. Treasury, whose emergency appeal to Congress for \$700 billion was initially rejected, but subsequently accepted, as the financial crisis escalated in October 2008.<sup>27</sup>

Although “not . . . a penny”<sup>28</sup> has been lost on the swap lines,<sup>29</sup> this extensive delegation of the central bank's lender of last resort role creates significant problems and risks. Central banks' authority ultimately rests upon their legal construction. Therefore, this Article argues that because of their potential problems, risks, and public costs, the Federal Reserve's swap line framework must be rethought.<sup>30</sup> The increasingly common use of the swap lines<sup>31</sup> itself is problematic. Swap lines can make central banks significant players in foreign currency markets.<sup>32</sup> As lenders of last resort, central banks could influence exchange rates, replacing otherwise free-market determinations.<sup>33</sup> Central bank determination of exchange rates risks the integrity of the market pricing mechanism in foreign exchange markets—the largest of all financial markets—which would then impact all others.<sup>34</sup> Significant swap line use could possibly

---

27. Congress passed the Emergency Economic Stabilization Act on October 3, 2008, which included \$700 billion to assist financial institutions. LISSA L. BROOME & JERRY W. MARKHAM, *REGULATION OF BANK FINANCIAL SERVICE ACTIVITIES* 64 (4th ed. 2010).

28. See *Hearing, supra* note 7 (statement of Dr. Steven B. Kamin, Director, Div. of Int'l Fin. Bd. of Governors of the Fed. Reserve Sys).

29. A foreign central bank has not defaulted on its swap line obligations to the Federal Reserve. But this cost consideration alone does not include the total potential costs that could result from swap line use. For example, it does not include the potential depreciation of the dollar as a result of the added global supply of dollars by the swap lines or the total social cost of global financial market instability and crises, to which the swap lines could contribute.

30. Some economists have also supported the rethinking of the Federal Reserve's statutory frameworks. See BENN STEIL & MANUEL HINDS, *MONEY, MKTS. & SOVEREIGNTY* 246 (2009) (“The best hope for salvaging financial globalization, then, is a renewed statutory framework for the Fed, one which explicitly acknowledges the global role of the dollar and the dependence of the U.S. economy on foreign confidence in it.”).

31. The Federal Reserve's swap lines have been in place since May 2010. European Central Bank policy makers have called for “considering a framework of permanent stand-by swap lines” among “the world's major central banks to stabilize financial markets.” Eva Kuehnen, *ECB's Coeure Calls for Permanent Currency Swap Lines*, REUTERS (May 11, 2012, 5:29 PM), <http://uk.reuters.com/article/2012/05/11/uk-ecb-coeure-idUKBRE84A0VS20120511>. Economists have also suggested the possibility of institutionalizing swap line networks. See generally Allen & Moessner, *supra* note 22, at 78.

32. See generally Mehrling, *supra* note 20 (explaining the role of central banks as “dealers of last resort” in foreign currency markets).

33. *Id.* (explaining that when central banks act as “dealers of last resort,” the interest rates at which currencies are bought or sold could be policy rather than market rates).

34. JAMES RICKARDS, *CURRENCY WARS* 258 (2011) (“The dollar, for all its faults and weaknesses, is the pivot of the entire global system of currencies, stocks, bonds, derivatives and investments of all kinds.”).

even add to global currency tensions<sup>35</sup> and related talk of “currency wars.”<sup>36</sup> Finally, the use of the swap lines is vulnerable to interest group capture.<sup>37</sup> Foreign currency trading “is increasingly concentrated in the hands of relatively few banks.”<sup>38</sup>

The legal authority for the Federal Reserve’s swap lines is antiquated and woefully inadequate to confront these challenges. It relies largely upon an interpretation of statutory provisions in the Federal Reserve Act dating from the Act’s enactment in 1913. These provisions are primarily focused on market activities with private actors, but the current swap lines are with public actors.<sup>39</sup> In spite of these inadequacies, Congress’s momentous reform of the U.S. financial system with the Dodd–Frank Wall Street Reform and Consumer Protection Act<sup>40</sup> barely addressed the Federal Reserve’s swap line function.<sup>41</sup>

To my knowledge, this is the first law review article to offer a theoretical analysis<sup>42</sup> of the Federal Reserve’s swap lines. Because of the preeminent international role of the U.S. dollar, I argue that the Federal Reserve should act as the international dollar lender of last resort until the advent of a truly global solution. At the same time, I also argue that rethinking the swap lines’ legal framework is urgent. Therefore, informed by Professor Katharina Pistor’s legal

---

35. See generally *id.*; Tatsuo Ito & William Mallard, *Global Currency Tensions Rise*, WALL ST. J. (Dec. 23, 2012), <http://online.wsj.com/article/SB10001424127887324660404578198133815561080.html>; Alice Ross, *Yen Tipped to Underperform This Year*, FIN. TIMES, Jan. 1, 2013, at 18.

36. See generally Nicholas Hastings, *The Dollar Will Lose the Currency War Now, and Appreciate*, WALL ST. J. (Jan. 24, 2013), <http://online.wsj.com/article/SB10001424127887323539804578261371487786486.html>; Michael Steen & Alice Ross, *Warning on New Currency War*, FIN. TIMES, Jan. 22, 2013, at 6; Robin Harding & Alice Ross, *G20 Braced for Currency War Talks*, FIN. TIMES, Feb. 12, 2013, at 7; but see Philipp Hildebrand, *Opinion, No Such Thing as a Global Currency War*, FIN. TIMES, Feb. 11, 2013, at 9.

37. See generally Lingling Wei & Jessica Mead, *U.K. Banks Push for Yuan Swap*, WALL ST. J. (Mar. 16, 2012), <http://online.wsj.com/article/SB10001424052702304459804577284882288529456.html>; *BoE Urged to Support Renminbi Trading*, *supra* note 6.

38. Gabriele Galati, *Settlement Risk in Foreign Exchange Markets and CLS Bank*, BIS Q. REV., Dec. 2002, at 55, 58.

39. In Part V, *infra*, I argue that the swap lines could also be extended to overseas non-governmental third parties.

40. Dodd–Frank Wall Street Reform and Consumer Protection Act [hereinafter, Dodd–Frank], Pub. L. NO. 111-203, 124 Stat. 1376 (2010) (codified in scattered sections within Titles 7, 12, 15, 18, 22, 31, and 42 of the United States Code).

41. Dodd–Frank merely mandates that the swap lines be included both in a required GAO audit of and website publication of Federal Reserve lending during the financial crisis. *See id.* § 1109.

42. Several law review articles mention the Federal Reserve’s swap lines. *See, e.g.*, Douglas W. Arner, *Adaptation and Resilience in Global Financial Regulation*, 89 N.C. L. REV. 1579, 1621 (2011). I am unaware of one that provides a theoretical analysis of this subject.



theory of finance,<sup>43</sup> my Article conceptualizes an innovative, distinct, two-prong legal framework for the Federal Reserve's swap lines.

My proposed framework calls for a distinct statutory setting for the swap lines to acknowledge the unique nature of lending arrangements between the Federal Reserve and foreign central banks. A distinct statutory setting will also begin to create the legal frameworks necessary to support the increasing cooperation between the Federal Reserve and foreign central banks. Within this setting, the first prong of my framework provides both for the swap lines to be an explicit central bank emergency authority and for the Federal Reserve to be designated as the market stability regulator. This first prong ensures significant "elasticity"<sup>44</sup> for the Federal Reserve to act as an international dollar lender of last resort. But the very idea of elasticity implies an outer boundary. And democratic considerations require limits on central banks' power.<sup>45</sup> Therefore, the second prong of my framework creates mechanisms for limiting this flexibility. These include measures to minimize moral hazard, increase central bank accountability, strengthen collateral security, and restrict expansion of the swap lines.

In sum, my framework acknowledges the critical role of the Federal Reserve's swap lines in the global financial marketplace. But it also acknowledges that the Federal Reserve's bilateral swap lines are much more than just a technical banking issue. Part I introduces the problem of international financial market instability and the critical role of the U.S. dollar in global financial markets. Part II analyzes the idea of an international lender of last resort and swap lines, including the recently transformed purpose of their use and the antiquated statutory provisions upon which their legal authority relies. Part III briefly describes well-known problems with the swap lines, but then also identifies even more fundamental problems and risks that scholars and public officials have overlooked. In Part IV, I explore the public policy objectives that the swap lines should promote. These objectives then motivate my rethinking of the swap line's legal framework.

## I. GLOBAL FINANCIAL MARKETS AND THE U.S. DOLLAR

In this Part, I explain the developments in global banking and financial markets that have led to a renewed focus on the need for an international lender of last resort. This Part then examines the idea of an international lender of last resort.

---

43. Katharina Pistor, *A Legal Theory of Finance*, 41 J. COMP. ECON. 2 (2013).

44. *See id.* at 16 ("The elasticity of law can be defined as the probability that *ex-ante* legal commitments will be relaxed or suspended in the future.").

45. Benjamin Bernanke, Chairman of the Federal Reserve, has stated: Central bank independence is essential, but, as I have noted, it cannot be unconditional. Democratic principles demand that, as an agent of the government, a central bank must be accountable in the pursuit of its mandated goals, responsive to the public and its elected representatives, and transparent in its policies.

Benjamin Bernanke, Address at the Institute for Monetary and Economic Studies International Conference (May 25, 2010).

It concludes by arguing that the Federal Reserve is the most suitable candidate for this task until the advent of a truly global liquidity solution.

### A. *The Dollar as the International Currency*

#### 1. *In General*

The U.S. dollar is the international currency and the main international reserve currency.<sup>46</sup> Consequently, the dollar plays a critical role both in the settlement of global trade—whether of goods, services, or financial assets—and in many countries’ exchange rate regimes.<sup>47</sup> Although financial markets are increasingly globalized, “[by] many measures, the US dollar continues to dominate the international monetary system.”<sup>48</sup> The Federal Reserve’s swap lines have likely even increased international demand for the dollar.<sup>49</sup> For now, the dollar remains king.<sup>50</sup>

The United States’ international strength is due in large part to the global role of the dollar, which provides incomparable strategic advantages to the United States. It is an “exorbitant privilege.”<sup>51</sup> For example, the prominence of the dollar “reduces US transaction costs for goods and financial trades, and it also helps absorb some external shocks to the US economy . . . , reduces the currency risk associated with investment decisions[,] . . . [and] helps to finance the external deficits of the United States.”<sup>52</sup> Safeguarding the dollar’s value and promoting its international role should be a critical public policy objective.

#### 2. *The Dollar in Global Financial Markets*

Not surprisingly, as the “de facto international currency,”<sup>53</sup> the dollar and its creator—the Federal Reserve—play a unique role in the international monetary system. When the Federal Reserve creates dollars, it is creating money that acts

---

46. The dollar constituted approximately 60% of world currency reserves in 2010. See FARHI ET AL., *supra* note 22, at 7. Reserve currencies are financial assets international central banks hold in reserve because they are considered to be safe and liquid holdings. See *generally id.* at 28.

47. See *id.* at 9.

48. See *id.* at 7. Hyoung-kyu Chey argues that political motivations involving the U.S.’s influence in the international monetary system were a possible motivation for the Federal Reserve’s extensive use of swap lines during the financial crisis. Hyoung-Kyu Chey, *The Fed Swap Lines and the Global Lender of Last Resort: The Politics of International Monetary Relations* (Aug. 29, 2013) (unpublished paper, Am. Political Sci. Ass’n.) (on file with author).

49. See Allen & Moesser, *supra* note 22, at 75.

50. Francesco Guerrera, *The Dollar Is Still King, for Now*, WALL ST. J., Nov. 6, 2012, at C1.

51. See BARRY EICHENGREEN, *EXORBITANT PRIVILEGE: THE RISE AND FALL OF THE DOLLAR AND THE FUTURE OF THE INTERNATIONAL MONETARY SYSTEM* 4 (2012).

52. FARHI ET AL., *supra* note 22, at 10.

53. STEIL & HINDS, *supra* note 30, at 234.

both as the U.S. domestic currency and the most important international currency.<sup>54</sup>

The dollar “underpins the global banking system as the funding currency for global banks.”<sup>55</sup> Although one of the world’s largest debtors, the United States is actually “a substantial net creditor in the global banking system.”<sup>56</sup> Global banks have increasingly structured their balance sheets to rely heavily upon short-term dollar funding to finance their longer-term, dollar-denominated assets.<sup>57</sup> Arguably, “[t]he funding difficulties which arose during the crisis are directly linked to the remarkable expansion in banks’ global balance sheets over the past decade.”<sup>58</sup> This expansion was in excess of general economic expansion.<sup>59</sup> For example, in 2003, the U.S. dollar assets of European banks stood at approximately \$4 trillion, and this amount doubled by 2007.<sup>60</sup> As the crisis erupted, European banks reportedly depended upon approximately \$1–2.2 trillion in short-term dollar funding.<sup>61</sup>

International financial institutions’ choice to expand their balance sheet holdings of dollar-denominated assets and to rely heavily upon short-term dollar funding to finance these assets has had important consequences for international financial market stability. Unlike U.S. banks, European banks—and other dollar-dependent international financial institutions—do not have large deposit bases that provide stable sources of dollar funding to finance their dollar-denominated assets.<sup>62</sup> Instead, such institutions access dollars by borrowing them, borrowing Euros (or the relevant domestic currency) and converting them to dollars on spot foreign currency markets, or by using foreign currency swaps to change Euros (or the relevant domestic currency) into dollars.<sup>63</sup> These market mechanisms to access dollars generally function seamlessly. In financial crises, however, these avenues of dollar access can experience critical disruptions. Such disruptions are highly problematic for international financial institutions, which rely heavily upon routine access to short-term funding in a foreign currency, such as the dollar. These funding disruptions threaten the stability of international banks and financial

---

54. *See id.* at 225, 239 (suggesting that “[t]here is today, therefore, as in the past, a clear and dangerous conflict between the needs of the international monetary system and the application of monetary sovereignty,” and that “globalization and monetary sovereignty are incompatible”).

55. *Rethinking*, *supra* note 15, at 14.

56. *Id.* at 20.

57. Foreign banks make significant U.S. dollar loans. William Dudley, President of the Federal Reserve Bank of New York, estimates this figure to be approximately \$700 billion. *Hearing*, *supra* note 7 (statement of William C. Dudley, President and Chief Executive Officer, Fed. Reserve Bank of N.Y.).

58. *See* McGuire & von Peter, *supra* note 22, at 1.

59. *See generally id.* The authors also note that “[t]he outstanding stock of banks’ foreign claims grew from \$10 trillion at the beginning of 2000 to \$34 trillion by end-2007.” *Id.* at 9.

60. *See* Obstfeld, *supra* note 18, at 44.

61. *See* GALINA ALEXEENKO, SANDRA KOLLEN & CHARLES DAVIDSON, SWAP LINES UNDERSCORE THE DOLLAR’S GLOBAL ROLE 22–23 (ECONSOUTH eds. 1st Qtr. 2012).

62. *See* Fleming & Klage, *supra* note 25, at 2.

63. *See* McGuire & von Peter, *supra* note 22, at 3.

institutions relying upon short-term funding, which in turn threatens systemic collapses (as happened in the financial crisis) not only in the institutions' own countries, but also overseas—such as in the United States.

### 3. *The Fragility of International Banking*

Why are disruptions to international banks and financial institutions' access to short-term dollar funding so problematic? Traditional banks and similarly structured financial institutions engage in what is known as “maturity transformation,” which is the use of short-term liabilities—such as demand deposits or repurchase agreements (“repos”)<sup>64</sup>—to finance long-term assets such as traditional mortgages and other types of multi-year financial contracts. Maturity transformation is a core concept of banking<sup>65</sup> and creates an inherent fragility at banking's structural core. A bank's creditors—such as its demand account depositors or its repo lenders<sup>66</sup>—by contract can demand the return of their funds on very short notice. Such creditor withdrawals often occur because creditors begin to lose confidence in the bank's financial robustness.<sup>67</sup> Creditors could be concerned about the quality of the bank's assets or even its management. When a bank's creditors en masse demand the return of their funds, a bank run occurs and liquidity problems, which could quickly become solvency problems, ensue.

Banks invest the vast majority of the funds they borrow and keep only a fraction of these funds on hand at the bank. An important source of bank profits is the difference between the price a bank has to pay for the use of funds—the interest rate of the money it borrows—and the price it charges on the longer-term investment of those funds—the interest rate it charges borrowers. Yet a bank's borrowing and investment practices create a time (or “maturity”) mismatch between its short-term liabilities and longer-term assets. Therefore, widespread short-term creditor demands for the return of their funds create at least two problems. First, a bank could need external assistance to comply with such demands because the majority of these funds are likely invested in longer-term assets. But other financial institutions—who could also be among the bank's withdrawing creditors—might be unwilling to help. They, too, could lack confidence in the bank's solvency. Second, a bank will be unable to access the

---

64. Repurchase agreements are essentially short-term secured lending agreements.

65. Professor Gary Gorton defines banking as “creating short term trading or transaction securities [such as demand deposits] backed by longer term assets.” Gary B. Gorton, Questions and Answers About the Financial Crisis: Prepared for the U.S. Financial Crisis Inquiry Commission (Feb. 20, 2010) (unpublished report) (on file with U.S. Fin. Crisis Inquiry Comm.).

66. The proximate trigger of Lehman Brothers and Bear Stearns's collapses resulted from lost access to large amounts of short-term funding. *See generally* Gary B. Gorton & Andrew Metrick, *Securitized Banking and the Run on Repo* 4–5 (Yale ICF, Working Paper No. 09-14, 2010).

67. In the case of a demand deposit, the account holder can demand the immediate return of her funds. Most repo loans last only for an overnight period. The repo lender has no obligation to renew or “rollover” the loan.

short-term funding it depends upon to operate and could become insolvent. In such circumstances, the bank's only hope might be to borrow from the central bank, the lender of last resort. Bank runs and panics threaten not only the collapse of an individual institution, but also systemic collapses. Creditors' concerns about one institution's solvency can quickly spread via contagion to other banks and financial institutions. The purpose of a lender of last resort is to stabilize financial markets through emergency lending before widespread contagion and collapses occur.

International banks and financial institutions are similarly vulnerable to international runs and panics. However, international bank runs are potentially more devastating than domestic ones. International funding fleeing banks or financial institutions is a foreign currency. The banks' and financial institutions' home country central bank cannot create this currency and then lend it to them in its traditional role as the lender of last resort.<sup>68</sup> International banks and financial institutions are increasingly relying upon short-term funding denominated in a foreign currency such as the dollar. For this reason, many problems once thought relevant only for economically emerging markets—such as “runs” by short term international lenders<sup>69</sup>—are now confronting financial institutions in industrialized countries.

Without access to funding liquidity<sup>70</sup> in the requisite currency, banking and financial institutions risk having to conduct fire sales of their assets to

---

68. Economists explain that:  
 “when foreign funding of the banking sector evaporates abruptly, the consequences are more damaging. If the local bank is leveraged and debt is denominated in dollars, then outflows can set off the well-known cycle of distress in which belated attempts by banks to hedge their dollar exposure drives down the value of the local currency, making the dollar-denominated debt even larger.”

*Rethinking*, *supra* note 15, at 11.

69. See generally Frederic S. Mishkin, *Lessons from the Asian Crisis*, 18 J. INT'L MONEY AND FIN. 709–723 (1999); JEFFREY A. FRANKEL, INTERNATIONAL LENDER OF LAST RESORT (June 25, 1999) (report prepared for Rethinking the Int'l Monetary Sys.) (on file with Fed. Reserve Bank of Boston) (citing JEFFREY A. FRANKEL, THE ASIAN MODEL, THE MIRACLE, THE CRISIS AND THE FUND, in GLOBAL FINANCIAL CRISES AND REFORMS: CASES AND CAVEATS 319, 326 (B. N. Ghosh ed., 2001) (“Statistical tests show that the percentage of capital inflows that are bank loans, especially short-term or floating rate loans denominated in foreign currency, has a statistically significant effect on the probability of a currency crisis . . . .”); see also NOURIEL ROUBINI & STEPHEN MIHM, CRISIS ECONOMICS: A CRASH COURSE IN THE FUTURE OF FINANCE 150 (2010) (noting that in the financial crisis, industrialized countries faced liquidity challenges similar to those that have confronted economically emerging markets in past financial crises).

70. Funding liquidity is the ability “to attract external finance at short notice, subject to low transaction costs and at a financial cost that reflects the [institution's] fundamental solvency.” WILLEM H. BUTTER, CENTRAL BANKS AND FINANCIAL CRISIS 16 (Aug. 16, 2008) (report prepared for Fed. Reserve Bank of Kansas City's symposium on “Maintaining Stability in a Changing Financial System”) (on file with Fed. Reserve Bank of Kansas City).

maintain their balance sheet equilibrium. Such fire sales risk turning a financial institution's liquidity problem into a solvency problem if these assets can be sold only at heavily discounted prices. These fire sales in turn risk the collapse of other financial institutions, which then have to write down the value of similar assets on their balance sheets. To prevent such instability and potential systemic collapse, governments around the world put public safety mechanisms into place. In the United States, a "federal safety net" consisting of federal deposit insurance, FedWire,<sup>71</sup> and the Federal Reserve's credit and liquidity facilities, which includes its traditional lender of last resort role, exists for precisely such circumstances. As an overseas extension of the Federal Reserve's lender of last resort function, the swap lines expand the coverage of the federal safety net.

#### 4. *The Federal Reserve's Last Resort Liquidity Provision*

Central banks' lender of last resort role is designed to provide emergency funding liquidity to manage any systemic instability created by the inherently fragile financial structure of banking activity. The Federal Reserve can act as a lender of last resort either through its open market operations or through its discount window lending facility.<sup>72</sup> A lender of last resort provides stability to banks and to the financial system in two ways. First, if a solvent bank is experiencing a liquidity problem, the central bank's emergency funds should prevent a temporary illiquidity issue from becoming a solvency issue if a bank is forced to conduct asset fire sales. Second, a lender of last resort tries to prevent the potential systemic contagion that a bank run on a single institution could trigger. Lenders of last resort are focused on preventing macro instability.<sup>73</sup>

To perform the lender of last resort role, a central bank must be able to create currency reserves, take quick action, and effectively communicate its objectives and procedures to financial markets.<sup>74</sup> Therefore, lenders of last resort should have defined lending protocols.<sup>75</sup> They should provide only short-term intervention<sup>76</sup> in order to aid temporarily illiquid, not insolvent, institutions. The provision of financial stability to insolvent banks risks propping up insolvent

---

71. FedWire is a settlement mechanism providing transaction finality, meaning once payments are made, they are final. *See* FED. RESERVE BANK OF N.Y., SETTLEMENT LIQUIDITY AND MONETARY POLICY IMPLEMENTATION—LESSONS FROM THE FINANCIAL CRISIS 7 (March 2012).

72. *See* Thomas M. Humphrey, *Arresting Financial Crises: The Fed Versus the Classics* 4 (Levy Econ. Inst., Working Paper No. 751, 2013).

73. *See* J. ECON. COMM., 106TH CONG., AN INTERNATIONAL LENDER OF LAST RESORT, THE IMF, AND THE FEDERAL RESERVE 1-2 (1999) (Report by Jim Saxton).

74. *See id.*

75. Some economists have criticized the Federal Reserve for not having a clear last resort lending protocol, arguing that financial market uncertainty, incentives for political solutions, and greater risk taking from past bailouts are potential consequences of such shortfall. *See* 2 ALLAN H. MELTZER, A HISTORY OF THE FEDERAL RESERVE, BK. 2: 1970–1986 1248–49 (2009).

76. *See* J. ECON. COMM., *supra* note 73, at 2.

institutions, the assumption of fiscal roles by central banks,<sup>77</sup> heavy public clean-up costs,<sup>78</sup> and a distortion of market discipline and pricing.

The presence of a lender or market-maker of last resort<sup>79</sup>—indeed of the federal safety net for banks, financial institutions, and markets—creates a significant moral hazard problem. The problem of moral hazard refers to the economic incentive created for individuals and institutions to increase the risk of their activities when a third-party insurer is present. The individuals or institutions privately benefit from the upside or profits of such activity, but can share the downside or costs of this activity with the insurer.

Central banks can act as the “market-maker of last resort” in foreign currency markets when severe disruptions or breakdowns occur.<sup>80</sup> In normal market conditions, dealer banks act as market-makers in foreign currency markets, exchanging one international currency for another. But if such market-making activity becomes unprofitable because of unusual market conditions, dealer banks will decrease their market-making activity.<sup>81</sup> Nevertheless, the smooth functioning of foreign currency markets depends upon the presence of market-makers to exchange international currencies. In these circumstances, a central bank can use swap lines to act as a last resort lender of its currency, thereby increasing international supply.

---

77. See generally BANK FOR INT’L SETTLEMENTS, 82ND ANNUAL REPORT 48 (2012) (noting that “[c]entral banks’ balance sheet policies have blurred the line between monetary and fiscal policy”); see also Todd Buell & David Wessel, *BIS Official Warns of Central Bank Overreach*, WALL ST. J. (June 24, 2012), <http://online.wsj.com/article/SB10001424052702304782404577486522409217152.html>.

78. An example of this would be the losses from the U.S. Savings and Loan Crisis in the 1980s. See generally Broome & Markham, *supra* note, 27 at 95–113.

79. Central banks can act as market-makers of last resort by providing a safety net for financial markets. This role is distinct from central banks’ traditional role of providing a safety net to the traditional banking system as lenders of last resort. Similar to the lender of last resort role, the market-maker of last resort role creates important problems and risks because it too acts as a public insurance mechanism. But the market-maker of last resort role is arguably more worrisome. Opponents of this role argue that the moral hazard introduced by a market-maker of last resort is particularly problematic because it impacts market discipline surrounding credit creation activity and ushers central banks into a fiscal role. Provision of funding liquidity—as opposed to market liquidity—still requires banks and financial institutions to make market decisions about asset pricing and selection. If central banks are responsible for pricing a wide variety of private securities in financial crises, then asset-pricing risks becoming a policy matter rather than one of market determination. Financial institution solvency itself then risks becoming a matter of government policy. During the financial crisis, the Federal Reserve acted as the de facto market-maker of last resort. Dodd–Frank’s Title VIII has permanently implemented this last resort role. See Colleen Baker, *The Federal Reserve As Last Resort*, 46 U. MICH. J. L. REFORM 69, 77 (2012).

80. See generally Mehrling, *supra* note 20, at 1.

81. *Id.*

Bankers<sup>82</sup> and economists<sup>83</sup> view central bank swap lines as “insurance.” Consequently, the moral hazard concerns associated with a domestic lender of last resort are exacerbated when applied to international lenders of last resort.<sup>84</sup> Both domestically and internationally, the presence of a public safety net incentivizes banks and financial institutions to take excessive risk because they do not have to fully internalize the cost of their risk-taking activities. To minimize the moral hazard created by government safety nets, proper supervision and regulation of the institutions benefiting from this government assistance is essential.<sup>85</sup> The components of a “well-functioning prudential regulatory and supervisory system are adequate disclosure and capital requirements, limits on currency mismatch and connected lending, prompt corrective action, careful monitoring of an institution’s risk-management procedures, close supervision of financial institutions to enforce compliance with regulations, and sufficient resources and accountability for supervisors.”<sup>86</sup> Unfortunately, however, both industrialized and emerging market countries frequently confront “strong political forces” opposed to taking necessary prudential and regulatory measures.<sup>87</sup> And the presence of an international lender of last resort decreases the incentive for sovereigns benefiting from this international assistance to apply more stringent prudential and regulatory standards to their banks and financial institutions.<sup>88</sup>

## II. THE FEDERAL RESERVE’S SWAP LINES

Through the use of its swap lines, the Federal Reserve became the de facto global lender of last resort during the financial crisis. Increasingly, swap lines are becoming competitive mechanisms<sup>89</sup> and critical “connectors”<sup>90</sup> within the broader structure of international settlement systems, the “plumbing”<sup>91</sup> of global financial markets. In Part IV, I argue that use of these swap-line-central-bank

---

82. *BoE Urged to Support*, *supra* note 6 (quoting an unnamed banker who stated that “[a renminbi] swap line would be an insurance policy. It’s more important now than it was a year ago”).

83. *See FARHI ET AL.*, *supra* note 22, at 36 (arguing that “[s]wap agreements are a more efficient insurance mechanism” than central bank reserves).

84. In Part III, *infra*, I discuss potential problems and risks associated with the swap lines.

85. *See generally FARHI ET AL.*, *supra* note 22, at 31.

86. Frederic S. Mishkin, Governor Fed. Reserve Sys., Address at the Tenth Annual International Conference Federal Reserve Bank of Chicago: Systemic Risk and the International Lender of Last Resort (Sept. 28, 2007).

87. *See* Frederic S. Mishkin, *The International Lender of Last Resort: What Are the Issues?*, in *THE WORLD’S NEW FINANCIAL LANDSCAPE: CHALLENGES FOR ECONOMIC POLICY* 291, 304 (Horst Siebert, ed., 2001).

88. *See generally id.* at 301.

89. *See supra* note 3 and accompanying text (stating that competition with London is one incentive behind the Bank of France’s plan to enter a currency agreement with the People’s Bank of China).

90. Duffie, *supra* note 22, at 2.

91. “Plumbing,” as Professor Darrell Duffie explains, “is a common metaphor for institutional elements of the financial system that are fixed in the short run and enable flows of credit, capital, and financial risk.” *Supra* note 22, at 252



“connectors” is only in the early stages. Accordingly, this Part discusses the idea of an international lender of last resort and the Federal Reserve’s de facto assumption of that role through its use of swap lines, explores the mechanics of the swap lines, and analyzes their legal authority.

**A. The Federal Reserve: De Facto International Lender of Last Resort**

The purpose of an international lender of last resort is to provide funding assistance in a global liquidity crisis.<sup>92</sup> Although academic literature has occasionally discussed the idea,<sup>93</sup> currently no such institution exists. Nevertheless, economists argue that “an essential function that the international monetary system must satisfy in times of crisis . . . [is] the provision of liquidity”<sup>94</sup> and that “the need to have institutions devoted to international monetary and financial stability on a global level has perhaps never been greater.”<sup>95</sup> Among legal academics,

---

92. Individual countries can take preventative measures to confront international bank runs. For example, one option is to “self-insure” against currency liquidity shortages by the foreign central bank accumulating significant foreign reserves. The path of sovereign self-insurance is not without potential downsides. Reserve currency accumulations can also be used to manipulate the value of a domestic currency and to provide a competitive advantage to a country’s exports through “beggar-thy-neighbor” policies. *See generally* Steil & Hinds, *supra* note 30, at 218; *see also* Samuel Brittan, *The Eternal Folly of Beggar-My-Neighbour Policies*, FIN. TIMES, Feb. 1, 2013, at 9. While it might be optimal for an individual central bank to accumulate vast foreign currency reserves, some suggest it could be collectively inefficient and detrimental to the international monetary system. Such policies create significant international demand for safe haven assets, which in turn lowers interest rates, possibly leading to the next financial bubble and then crisis. *See* FARHI ET AL., *supra* note 22, at 22–29. Many emerging-market countries in Asia selected the self-insurance path after experiencing severe financial crises in the late 1990s. Steil & Hinds, *supra* note 30, at 218 (“[T]he Asian currency crisis of 1997–1998 taught governments that they needed huge war chests of dollars to ward off potential runs on their domestic currencies. The alternative, going begging to the IMF and U.S. Treasury in times of crisis, is now considered politically and economically unacceptable.”); *see also* Obstfeld, *supra* note 18, at 445; FARHI ET AL., *supra* note 22, at 17. Instead of self-insuring in the years preceding the financial crisis, however, several major foreign central banks—with whom the Federal Reserve set up swap lines—had low, and in some cases insufficient, foreign exchange reserves to address financial emergencies. *See* Allen & Moesser, *supra* note 22, at 60. Without self-insurance, the heavy dependence upon short-term dollar funding by international financial institutions risks critical funding disruptions and instability that could have devastating economic impacts. With globally interdependent economies, this instability risk extends beyond an individual country’s borders. The European debt problems offer an important example of continuing stability risks to the U.S. economy. The European debt problems have been called “one of the biggest risks to continued expansion” of the U.S. economy. It is a combination of sovereign debt problems and banking issues. European banks hold significant amounts of sovereign debt. ALEXEENKO ET AL., *supra* note 61, at 21.

93. *See, e.g.*, Frankel, *supra* note 69, at 7144; Mishkin, *supra* note 86; Olivier Jeanne & Charles Wyplosz, *The International Lender of Last Resort: How Large is Large Enough?* 22–23 (IMF, Working Paper No. 01/76, 2001).

94. FARHI ET AL., *supra* note 22, at 3.

95. Mishkin, *supra* note 86.

Professor Steven Schwarcz has also discussed the idea of an international liquidity provider of last resort.<sup>96</sup>

Potential candidates suggested for such a role have included the International Monetary Fund,<sup>97</sup> major central banks, or a combination of institutions.<sup>98</sup> The Federal Reserve is responsible for the world's most important reserve currency, the dollar. The dollar is also the main international currency relied upon by banks, financial institutions, and businesses to conduct their activities. Therefore, the Federal Reserve is often viewed as the strongest contender for the role of international lender of last resort until the advent of a global solution. Indeed, a 1999 Joint Economic Committee Report entitled, *An International Lender of Last Resort, The IMF, and The Federal Reserve*<sup>99</sup> ("Report"), stated that the Federal Reserve "does meet essential requirements of an international LOLR [lender of last resort]"<sup>100</sup> and that it should "explicitly recognize this function."<sup>101</sup>

Similar to a domestic lender of last resort, an international lender of last resort would need to be able to act rapidly and supply unlimited amounts of the necessary currency<sup>102</sup> to restore global financial market liquidity, stability, and confidence.<sup>103</sup> But an international lender of last resort would also need to address the moral hazard problems created by its role, ensure appropriate supervision and regulation,<sup>104</sup> and "appropriate conditionality" for this assistance.<sup>105</sup> As former Federal Reserve Governor Frederic Mishkin stated: "[A]n international lender of

96. See generally Steven Schwarcz, *Systemic Risk*, 97 GEO. L. J. 193, 225 (2008) [hereinafter *Systemic Risk*]; see also Steven Schwarcz, Keynote Address, *Ex Ante Versus Ex Post Approaches to Financial Regulation*, 15 CHAP. L. REV. 257, 263 (2011); Steven Schwarcz, Keynote Address, *The Case for a Market Liquidity Provider of Last Resort*, 5 N.Y.U. J.L. & BUS. 339, 348 (2009).

97. The International Monetary Fund ("IMF") is a multilateral organization composed of 188 countries. Established in 1944 as part of the Bretton Woods Agreement, its mission is to "foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world." *About the IMF*, INT'L MONETARY FUND, [www.imf.org/external/about.htm](http://www.imf.org/external/about.htm) (last visited Sept. 10, 2013, 5:38 PM). When the IMF was created, the idea of being an international lender of last resort was "deliberately rejected." This rejection was due to concerns about excessive currency creation. Keleher, *supra* note 73, at 5. For a detailed discussion about the law of the IMF, see generally ROSA M. LASTRA, LEGAL FOUNDATIONS OF INT'L MONETARY STABILITY 371-447 (2006).

98. See *Systemic Risk*, *supra* note 96, at 247.

99. J. ECON. COMM, *supra* note 73, at 178.

100. *Id.*

101. *Id.* at 8.

102. See *id.* at 4-5.

103. See generally Mishkin, *supra* note 87, at 300-01.

104. See generally Mishkin, *supra* note 86 (referring to a generalized international lender of last resort). Some economists, however, suggest that although moral hazard is a concern, overstating this worry should be avoided. See Frankel, *supra* note 69.

105. Mishkin, *supra* note 69, at 714 (referring to a generalized international lender of last resort); see also Frankel, *supra* note 69 (arguing that moral hazard problems will increase without necessary conditionality).

last resort which does not sufficiently limit these moral hazard problems can actually make the situation worse.”<sup>106</sup> It could lead to increased international financial market crisis. The potential hazards of this role must be acknowledged and proactively addressed. But as I discuss below, although the Federal Reserve’s use of its swap lines has undergone a “metamorphosis,” the legal framework behind its use has not similarly evolved to confront its potential problems, risks, and costs.

In the face of global dollar shortages and potentially devastating international economic contagion, the Federal Reserve would undoubtedly be under intense pressure to “do something,”<sup>107</sup> as it did during the financial crisis.<sup>108</sup> This “something” primarily consisted of the Federal Reserve’s extensive use of swap lines with foreign central banks. At their height, the Federal Reserve’s outstanding swap line amounts accounted for one-fourth of its balance sheet assets, approximately \$583 billion.<sup>109</sup> Whether a consensus ultimately exists on which institution should fulfill the role of international lender of last resort, the reality is—as a Federal Reserve publication states—that “the Federal Reserve effectively became the international dollar lender of last resort”<sup>110</sup> during the financial crisis through its use of swap lines.

---

106. Mishkin, *supra* note 69, at 714.

107. One option would be for the Federal Reserve to do nothing in such circumstances. Nonintervention risks potentially undesirable domestic outcomes. First, because of the increased demand for U.S. dollars, the value of the dollar would appreciate with respect to other currencies. A stronger U.S. dollar makes U.S. exports less competitive. It also makes it more expensive for U.S. financial institutions to obtain dollar funding. Second, banks and financial institutions—in the United States and abroad—dependent upon dollar funding could engage in asset fire sales to reduce their dollar funding needs. For these reasons, it seems unlikely that the Federal Reserve would “do nothing” as its recent actions in the financial crisis suggest.

108. The Federal Reserve can essentially take two paths to provide dollar funding to overseas institutions. First, it can provide lender of last resort dollar liquidity to the U.S. branches of foreign banks. Over 160 foreign banks have U.S. branches. One primary motivation behind these branches is “to raise wholesale dollar funding in capital markets” to be forwarded to international bank offices. *Rethinking*, *supra* note 15, at 20. Some international, dollar-dependent financial institutions, however, are not banks with access to Federal Reserve facilities. Or they might be foreign banks without U.S. offices, or their U.S. offices might have insufficient collateral to secure emergency funds. Note that collateral requirements generally mandate that such collateral be held in the United States or an International Central Securities Depository. Examples of the latter are the Euroclear Bank in Belgium and Clearstream Banking Luxembourg. See Linda S. Goldberg et al., *Central Bank Dollar Swap Lines and Overseas Dollar Funding Costs*, *ECON. POL’Y REV.*, May 2011, at 15.

109. ALEXEENKO ET AL., *supra* note 61, at 24.

110. See *id.* at 23–24. The parallels between the Federal Reserve’s swap lines and one of its domestic financial crisis “last resort” programs, the Term Auction Facility (“TAF”), also illustrates how the Federal Reserve has become an international dollar lender of last resort through its swap lines. For example, “[t]he structure and functioning of the reciprocal currency arrangements are intertwined with the TAF in the sense that they would

### *B. Swap Line Mechanics*

Central bank swap lines<sup>111</sup> are contracts or coordination mechanisms among central banks around the world. Central banks, as is true of the currency they create, are state–market hybrids.<sup>112</sup> Swap lines also arguably contain this dual characteristic. As currently used by the Federal Reserve, swap lines have two related purposes: first, to relieve global shortages in short-term funding markets for U.S. dollars, and second, to promote international financial market stability.<sup>113</sup> In a “dollar liquidity swap line,” the Federal Reserve agrees with a foreign central bank, such as the European Central Bank (“ECB”), to “swap” a certain amount of dollars for the foreign central bank’s national currency, in this case, U.S. dollars swapped for Euros. The Federal Open Market Committee (“FOMC”) authorizes the swap lines. Acting as the FOMC’s agent, the Federal Reserve Bank of New York is responsible for swap line implementation.

The Federal Reserve’s swap lines are contracts.<sup>114</sup> For example, the U.S. Dollar–Euro Swap Agreement Dated As of May 10, 2010, is a seven-page contract, and, to date, the parties have amended it four times.<sup>115</sup> Although termed a “swap,” the two-part swap line transaction is, in economic substance, a secured loan.<sup>116</sup> The respective currencies are exchanged at a set price. Swap lines can use

---

facilitate the extension of term dollar liquidity—but this time to banks in overseas jurisdictions.” Goldberg et al., *supra* note 108, at 13.

111. Note that the Federal Reserve has entered into both “dollar liquidity swap line” and “foreign-currency liquidity swap line” arrangements. This Article focuses on the former because the latter has not been used in practice. A “foreign-currency liquidity swap line” is a parallel arrangement with foreign central banks that would enable the Federal Reserve to quickly provide foreign currency liquidity to financial institutions in the United States.

112. *See generally* Mehrling, *supra* note 20 (noting that central banks are both banks of the state and banker’s banks and that foreign exchange markets, therefore, consist of interactions of both states and their banking systems).

113. *See* Goldberg et al., *supra* note 108.

114. The contracts include a commitment by the parties to purchase and repurchase currency via a swap transaction; notice and duration provisions, which may be waived or modified by the parties; creation of accounts for the counterparties at each central bank; limitations on use of the accounts; setting of the exchange rate (the same for the spot and forward legs) and interest payable; the transaction procedures; provisions for setoff and rollover in the event of a party’s default (no penalty rate is charged) warranties; and provisions for termination and communications. *See also* Pistor, *supra* note 43, at 19 (noting the exceptionally brief nature of the swap line contracts compared to the length of similar contracts entered into by market participants, and explaining this discrepancy as reflecting the identity of the counterparties and their position in the financial system).

115. *See* U.S. Dollar–Euro Swap Agreement Dated as of May 10, 2010, FED. RESERVE BANK OF N.Y. (May 10, 2010), [http://www.newyorkfed.org/markets/FRBNY\\_EC\\_B\\_Swap\\_Agreement.pdf](http://www.newyorkfed.org/markets/FRBNY_EC_B_Swap_Agreement.pdf) [hereinafter U.S. Swap Agreement].

116. All of the material features of a secured loan are present: the principal (the amount of dollars swapped), interest (the interest-based fee payment), and collateral (the foreign currency held in the Federal Reserve’s account at the foreign central bank). Of course, the counterparty to this loan will generally have an excellent credit rating and the unique ability to print money. The latter capability should ensure that the central bank never

“policy rate(s)”<sup>117</sup> rather than market rates. Swap lines are of course not necessary to access foreign exchange at market rates. The Federal Reserve then deposits dollars in the foreign central bank’s account at the Federal Reserve Bank of New York. This credit becomes a balance sheet liability for the Federal Reserve. This creates money.<sup>118</sup> Similarly, the foreign central bank deposits its currency in the Federal Reserve’s account at the foreign central bank. This too creates money. From its account at the Federal Reserve Bank of New York, the foreign central bank then distributes these dollars to borrowers through a selection process of its choosing,<sup>119</sup> possibly at non-market rates.<sup>120</sup> The Federal Reserve does not participate in these distribution decisions<sup>121</sup> or know the identity of the recipient institutions.<sup>122</sup>

The second part of the “swap” transaction—the forward leg—consists of the foreign central bank agreeing to repurchase its currency at a set future date for a set price.<sup>123</sup> The Federal Reserve has set this repurchase price at the same exchange rate as in the first part of the transaction—the spot leg—to ensure that the Federal Reserve receives back the exact nominal amount of dollars that it

---

defaults on its obligations. Additionally, the U.S. Treasury’s Exchange Stabilization loans to foreign countries are generally structured as currency swaps. *See* Russell Munk, *A Modern Legal History of Sovereign Debt: Exchange Stabilization Fund Loans to Sovereign Borrowers: 1982–2010*, 73 *LAW & CONTEMP. PROB.* 215, 224 (2010).

117. *See generally* Mehrling, *supra* note 20 (noting that when two central banks engage in currency transactions with each other, the interest rates involved in such transactions will not necessarily be market rates; such rates could instead be policy rates that reflect the noncommercial relationship of the central banks).

118. For example, the U.S. Dollar–Euro Swap Agreement Dated as of May 10, 2010 states that: “On the Value Date [the date the first part of the swap transaction will take place], the USD amount shall be credited to an account on the books of the FRBNY designated in the name of the ECB (the “ECB Account”), and the EUR amount shall be credited to the FRBNY Account.” U.S. Swap Agreement, *supra* note 115, § 4(c).

119. Though not required, an auction process is typically used.

120. *See generally* Mehrling, *supra* note 20 (noting that the rate at which central banks lend foreign currency to its “needy private citizen[s]” might not be a market rate. Instead it reflects the noncommercial relationship between the central bank and financial institutions in its jurisdiction).

121. The Federal Reserve explains that “[t]he foreign central bank receiving dollars determines the terms on which it will lend dollars onward to institutions in its jurisdiction, including how the foreign central bank will allocate dollar funds to financial institutions, which institutions are eligible to borrow, and what types of collateral they may borrow against.” *Credit and Liquidity Programs and the Balance Sheet: Frequently Asked Questions*, FED. RESERVE BANK OF N.Y., [http://www.federalreserve.gov/monetarypolicy/bst\\_liquidityswaps.htm](http://www.federalreserve.gov/monetarypolicy/bst_liquidityswaps.htm) [hereinafter *Credit and Liquidity Programs*].

122. *See* Scott Lanman & Bradley Keoun, *No One Says Who Took \$586 Billion in Fed Swaps Done in Anonymity*, BLOOMBERG (Dec. 11, 2011, 4:01 PM), <http://www.bloomberg.com/news/2011-12-11/no-one-says-who-took-586-billion-in-fed-swaps-done-in-anonymity.html>.

123. The time span ranges from overnight to 90 days, but can be even longer. *See Credit and Liquidity Programs, supra* note 121.

originally swapped.<sup>124</sup> The market value of this nominal amount will likely reflect a gain or a loss to the Federal Reserve in real terms. The foreign central bank also pays an additional fee based on a preset interest rate.<sup>125</sup> Once the second part of the transaction is completed, the money created by the central banks is removed from the financial system. The swap lines are intended to be temporary measures, but their use is becoming increasingly common. The Federal Reserve has now extended the swap lines authorized in May of 2010 to last for at least four years.<sup>126</sup> International policy makers are also increasingly advocating for a permanent system of central bank swap lines.<sup>127</sup>

The foreign central bank repurchases its currency at the same exchange rate with the dollars it borrowed. Therefore, the foreign central bank returns the same nominal amount of dollars to the Federal Reserve. The Federal Reserve is not exposed to fluctuations in foreign exchange rates in terms of receiving back the same nominal amount of dollars sold; the nominal amount of dollars sold will be the nominal amount resold. The swap line contracts also insulate the Federal Reserve from interest rate fluctuations.<sup>128</sup> The Federal Reserve is, however, exposed to the credit risk of the foreign central bank. This risk is known as “counterparty credit risk,” the risk that one’s counterparty could default on its transaction obligations or become insolvent. Although the default risk of a major central bank is generally viewed as minimal, it does exist.<sup>129</sup> The swap line contracts contain no penalty for default.<sup>130</sup> If a sovereign were to default, seizing the loan collateral would be difficult if not impossible because it is kept in an account at the foreign central bank. Additionally, this collateral, which consists of

---

124. There is a risk that significant swap lines transactions could contribute to depreciation of the dollar, which in turn would reduce the value of the predetermined nominal amount to be returned by the foreign central bank.

125. See, e.g., U.S. Swap Agreement, *supra* note 115, § 3(b) (implementing an interest rate that consists of the Overnight USC Indexed Swap Rate (“OIS”) in addition to a 100 basis point spread).

126. See Peterson, *supra* note 8.

127. See Eva Kuehnen, *ECB’s Coeure Calls for Permanent Currency Swap Lines*, REUTERS (May 11, 2012, 5:29 PM), <http://uk.reuters.com/article/2012/05/11/uk-ecb-coeure-idUKBRE84A0VS20120511>.

128. Kamin, *supra* note 7, at 47–48.

129. Some scholars argue that the Federal Reserve is actually “taking a very substantial credit risk. There is really not much backing [of the loan]; even we cannot go and sue the central banks. And even if we did, there is nothing much to grab even if we could win a judgment[,]” and that such practices, even if minimally risky, represent a “dramatic change” in policy for the Federal Reserve. Bruce E. Aronson, *The Financial Crisis One Year Later: Proceedings of a Panel Discussion on Lessons of the Financial Crisis and Implications for Regulatory Program*, 43 CREIGHTON L. REV. 275, 311–12 (2010). For example, some central banks would not extend swap lines to Iceland’s central bank because of its counterparty credit risk. See Allen & Moessner, *supra* note 22, at 41. For general background on central bank credit risk, see Willem Buiter, *Can Central Banks Go Broke?* (CEPR Pol’y Insight No. 24, 2008), available at [http://www.cepr.org/pubs/policyinsights/CEPR\\_Policy\\_Insight\\_024.asp](http://www.cepr.org/pubs/policyinsights/CEPR_Policy_Insight_024.asp).

130. See, e.g., U.S. Swap Agreement, *supra* note 115, § 5(b) (addressing the event of default by either party to the transaction).

foreign currency, could greatly decrease in value and be difficult to sell quickly.<sup>131</sup> Only the foreign central bank is *directly* exposed to the credit risk of the institutions receiving its dollar distributions.<sup>132</sup> The foreign central bank is obligated to return the loaned dollars to the Federal Reserve regardless of whether the recipient institutions actually repay their loans.<sup>133</sup>

### *C. Background of the Swap Lines*

In 1962, the Federal Reserve Bank of New York spearheaded an international effort among major central banks to establish a swap line network.<sup>134</sup> The Bretton Woods international currency system<sup>135</sup> reigned over foreign exchange markets. The heart of this system consisted of an exchange rate pegging the U.S. dollar to gold. The swap line network established “standby arrangements”<sup>136</sup> that enabled the Federal Reserve to intervene in currency markets to maintain the pegged exchange rate. In the early 1970s, the Bretton Woods system collapsed. Although the swap lines remained in place,<sup>137</sup> their use had largely ceased until recently.<sup>138</sup>

The original primary purpose of the swap lines was to manage the dollar’s exchange rate. During the financial crisis, the Federal Reserve used swap lines to act as the international dollar lender of last resort. The outsourcing of its bedrock domestic lender of last resort role to 14 foreign central banks<sup>139</sup> constituted a

131. See generally FARHET AL., *supra* note 22, at 36.

132. See Kamin, *supra* note 28, at 8.

133. The Federal Reserve is, of course, indirectly exposed to the credit risk of these institutions via its direct exposure to the credit risk of the foreign central bank.

134. MARJORIE DEANE & ROBERT PRINGLE, *THE CENTRAL BANKS* 226 (1994).

135. The Bretton Woods International Currency System was a post-WWII arrangement among international countries that were IMF members in which the U.S. dollar was pegged at \$35 to an ounce of gold. Other countries managed their exchange rates based upon this peg. For additional background, see Michael D. Bordo, Owen F. Humage & Anna J. Schwartz, *U.S. Intervention During the Bretton Wood Era: 1962–1973* (Nat’l Bureau Econ. Research, Working Paper No. 16946, 2011).

136. DEANE & PRINGLE, *supra* note 134, at 279.

137. See *id.* at 279.

138. After the terrorist attacks of September 11, 2001, the Federal Reserve proactively used short-term swap lines to bolster liquidity in U.S. dollar funding markets. See ALEXEENKO ET AL., *supra* note 61, at 22.

139. In 2007, the Federal Reserve established swap lines with the ECB and Swiss National Bank. In 2008, it established swap lines with the following foreign central banks: “Reserve Bank of Australia, the Banco Central do Brasil, the Bank of Canada, Danmarks Nationalbank, the Bank of England, the European Central Bank, the Bank of Japan, the Bank of Korea, the Banco de Mexico, the Reserve Bank of New Zealand, Norges Bank, the Monetary Authority of Singapore, Sveriges Riksbank, and the Swiss National Bank.” *Credit and Liquidity Programs*, *supra* note 121. In May 2010, the Federal Reserve reestablished swap lines with “the Bank of Canada, the Bank of England, the European Central Bank, the Bank of Japan, and the Swiss National Bank.” *Id.* And in November 2011, swap lines were established with “the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank, and the Swiss National Bank.” *Id.*

critical “metamorphosis”<sup>140</sup> in the use of swap lines. There were “three broad structural phases”<sup>141</sup> in the use of the swap lines during the financial crisis. These phases increasingly progressed in “the scope and potential size of the program.”<sup>142</sup> During the height of the crisis, four foreign central banks had access to unlimited amounts of U.S. dollar liquidity via their swap lines with the Federal Reserve.<sup>143</sup> The swap line amounts peaked in December of 2008 at approximately \$583 billion—one-fourth of the Federal Reserve’s assets.<sup>144</sup>

During the financial crisis, the swap lines served to “address money market dysfunction and achieve broader financial stability.”<sup>145</sup> And “[u]nlike most previous swap agreements, the post-2007 lines were not reciprocal. The [Federal Reserve] System did not use (or invest) the foreign exchange that it acquired through the swaps.”<sup>146</sup> Therefore, the swap lines now “work asymmetrically in practice”<sup>147</sup> and are essentially secured loans.

In February 2010, the swap lines expired. After a mere two months, in May 2010, the Federal Reserve reestablished swap lines with five foreign central banks because of global financial market instabilities rooted in the European debt crisis.<sup>148</sup> Swap line amounts peaked at \$109 billion in February 2012.<sup>149</sup> In December 2012, the Federal Reserve again extended the duration of its swap lines.<sup>150</sup>

#### *D. The Current Swap Line Authority*

A 1961 memorandum by Howard Hackley, then General Counsel of the Board of Governors of the Federal Reserve, written to the FOMC,<sup>151</sup> analyzes the

140. Bordo et al., *supra* note 22, at 2–3.

141. Fleming & Klagge, *supra* note 25, at 3.

142. *Id.*

143. These were the ECB, the Swiss National Bank, the Bank of Japan, and Bank of England. *See* Goldberg et al., *supra* note 108, at 8.

144. *See* Alexeenko et al., *supra* note 61, at 24.

145. Goldberg et al., *supra* note 108, at 7.

146. Bordo et al., *supra* note 22, at 10.

147. FARHI ET AL., *supra* note 22, at 37; *see also* Allen & Moessner, *supra* note 22, at 10 (noting that “in practice, only one party normally uses the swap proceeds; the other party simply holds them on deposit as collateral for the loan”).

148. These were the central banks of the EU, Canada, Japan, Switzerland, and the U.K.

149. *Europe’s Sovereign Debt Crisis: Causes, Consequences for the United States and Lessons Learned: Hearing Before the H. Comm. on Oversight & Government Reform*, 112th Cong. 16 (2012) (statement of Benjamin Bernanke, Chairman of the Federal Reserve).

150. *See* Peterson, *supra* note 8.

151. *Bretton Woods Agreement Act Amendment: Hearing on H.R. 10162 Before the Comm. on Banking & Currency*, 87th Cong. (1962) [hereinafter *Hackley Memorandum*] (including Memorandum of Howard Hackley, General Counsel, Bd. Of Govenors of the Fed. Reserve); *see also* 2 ALLAN H. MELTZER, A HISTORY OF THE FED. RESERVE, BK. 1: 1951–1969 350 n.138 (2009) (noting that “Hackley’s memo remains as the legal basis of the Federal Reserve’s holding of foreign exchange by purchase or ‘warehousing’ . . .”).



legal authority for the Federal Reserve's swap lines. It argues that the legal authority for the swap lines rests primarily in three parts of Section 14 of the Federal Reserve Act ("FRA"): Section 14's first paragraph, section 14(a), and section 14(e).<sup>152</sup> The substance of all three parts dates back to 1913.<sup>153</sup> The swap lines are not an emergency authority.

The first paragraph of section 14 states:

Any Federal reserve bank may, under rules and regulations prescribed by the Board of Governors of the Federal Reserve System, 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 . . . .<sup>154</sup>

Historically, cable transfers "were claims to foreign currency."<sup>155</sup> When Congress passed the FRA, foreign exchange was bought and sold by "cable transfers."<sup>156</sup> Section 14(a) provides Federal Reserve banks the "power to deal in gold coin and bullion at home or abroad, to make loans thereon."<sup>157</sup> Finally, section 14(e) states that "[e]very Federal reserve bank shall have power to establish accounts . . . and, with the consent or upon the order and direction of the Board of Governors of the Federal Reserve System and under regulations to be prescribed by said Board, to open and maintain accounts in foreign countries, appoint correspondents, and establish agencies in such countries wheresoever . . . ."<sup>158</sup>

Hackley argued for the legality of the swap lines based upon the FRA's authorization for Federal Reserve banks to open accounts in foreign countries and upon the ability of Federal Reserve banks to hold foreign currency in these accounts as a result of "open market purchases of cable transfers, and bills of exchange, through sales of gold to foreign banks, and through the establishment of cross-credits or reciprocal balances between a Federal Reserve bank and a foreign bank."<sup>159</sup> Section 14 of the FRA is entitled "Open Market Operations." The swap lines are deemed<sup>160</sup> "like" or "a type of open market operation."<sup>161</sup> Section 12 of

152. *Hackley Memorandum, supra* note 151.

153. *Id.* at 156 (stating that "[a]ll of these provisions were contained in substantially their present form in section 14 of the original Federal Reserve Act.")

154. 12 U.S.C. § 353 (2012).

155. MELTZER, *supra* note 151, at 349.

156. See David H. Small & James A. Clouse, *The Scope of Monetary Policy Acts Authorized Under the Federal Reserve Act* 26 n.55 (FEDS, Working Paper No. 2001-40, 2004). The FOMC's *Authorization for Foreign Currency Operations* specifically directs that the purchase/sale of foreign currencies must be "in the form of cable transfers." FEDERAL OPEN MKT. COMM., *Authorization for Foreign Currency Operations* § 1(A) (Jan. 29, 2013), [http://www.federalreserve.gov/monetarypolicy/files/FOMC\\_ForeignAuthorization.pdf](http://www.federalreserve.gov/monetarypolicy/files/FOMC_ForeignAuthorization.pdf).

157. 12 U.S.C. § 354 (2012).

158. 12 U.S.C. § 358 (2012).

159. *Hackley Memorandum, supra* note 151, at 156.

160. As I argue in Part IV, *infra*, the swap lines more nearly resemble discount window operations than open market operations.

the FRA gives the FOMC authority over open market operations. The FOMC, therefore, has traditionally had authority for swap line operations. The Federal Reserve Board has traditionally had authority over the opening and the maintenance of accounts with foreign banks based upon the language of section 14(e). Hackley noted that the swap lines involved a “complicated” jurisdictional question between the Board and the FOMC and that “the exact boundaries” of the respective jurisdictions “are difficult to determine.”<sup>162</sup>

A more fundamental difficulty, as Hackley noted, was that “no provision of present law . . . specifically refers to foreign currency or foreign exchange operations by the Federal Reserve System; accordingly, it cannot be said that there is explicit and clear authority for such operations.”<sup>163</sup> Hackley viewed a legal challenge as unlikely, but he anticipated possible criticism of the swap lines “on legal grounds.”<sup>164</sup> Not surprisingly, policy makers and academics have raised questions about the Federal Reserve’s swap line legal authority.<sup>165</sup>

Finally, Hackley’s memorandum noted that the foreign accounts could not “be invested in foreign Treasury bills or other obligations of foreign governments or central banks” without additional legislation.<sup>166</sup> Because of the 1980 amendments to the FRA,<sup>167</sup> section 14 now states:

Every Federal Reserve Bank shall have power: (1) To buy and sell, at home or abroad . . . obligations of, or fully guaranteed as to principal and interest by, a foreign government or agency thereof, such purchases to be made in accordance with rules and regulations prescribed by the Board of Governors of the Federal Reserve System.<sup>168</sup>

Therefore, the Federal Reserve now has the legal authority to buy or sell foreign government securities. Such transactions need not occur on the open market.<sup>169</sup>

### III. PROBLEMS AND RISKS OF THE SWAP LINES

“Of course, you’d rather not use [swap lines],”<sup>170</sup> Federal Reserve Governor Jeremy Stein commented. Similarly, concerning the use of swap lines,

161. See MELTZER, *supra* note 151, at 353 for details about the historical discussions as to whether the Federal Reserve Board or the FOMC should have authority for the swap lines.

162. *Hackley Memorandum*, *supra* note 151, at 150–51.

163. *Id.* at 156.

164. *Id.* at 144.

165. See generally MELTZER, *supra* note 151, at 348–58; see also *Audit the Fed: Dodd–Frank, QE3, and Federal Reserve Transparency: Hearing Before the Subcomm. on Domestic Monetary Policy and Tech. of the H. Comm. on Fin. Servs.*, 112th Cong. 14 (2011) (testimony of Robert Auerbach, stating that “since 1962, [the Fed] makes loans to foreign countries without congressional authorization”).

166. *Hackley Memorandum*, *supra* note 151, at 144.

167. See Small & Clouse, *supra* note 156, at 33 n.72.

168. 12 U.S.C. § 355 (2012).

169. See Small & Clouse, *supra* note 156, at 33.

Chairman Bernanke stated: “We don’t necessarily want to be providing a permanent service for financial markets . . . . There’s a good case that we should put pressure, or at least try to influence, banks to better manage these currency mismatches.”<sup>171</sup>

Implicit in both statements is that the swap lines are potentially problematic. Nevertheless, swap lines are set to become pivotal—and competitive<sup>172</sup>—connectors within the international monetary system and the plumbing of global financial markets. Therefore, in this Part, I briefly describe well-known potential problems with the Federal Reserve’s swap lines, but then also identify even more fundamental problems and risks that scholars and public officials have overlooked. I argue that these potential problems and risks can be broadly divided into two interrelated categories: “public policy” problems and “supervisory and regulatory” problems.

#### ***A. Public Policy Problems***

The Federal Reserve’s swap lines have several potential public policy problems. These include: expansion of the federal safety net and potential taxpayer cost, distorting market pricing mechanisms, potential negative reputational effects for the central bank, and the potential for interest group capture. I will explore each in turn.

The Federal Reserve’s swap lines, as currently used, are an expansion of the federal safety net. As explained in Part I, both the Federal Reserve’s traditional lender of last resort power and its new market-maker of last resort function are critical components of the federal safety net. The taxpayer ultimately backstops this federal insurance system. When it outsources its dollar lender of last resort function, the Federal Reserve is essentially acting as the dollar-market-maker of last resort in foreign exchange markets.<sup>173</sup> The percentage of the U.S. financial sector already covered by the federal safety net is significant. The Federal Reserve Bank of Richmond estimates this number to have been approximately 57.1% at the

---

170. Governor Stein also commented that “[n]othing in life is a sure thing [but] these are pretty riskless.” Chris Cermak, *Fed’s Stein: Dollar Swap Lines with Cbanks “Pretty Riskless,”* MKT. NEWS INT’L. (Dec. 17, 2012, 1:19 PM), <https://mminews.marketnews.com/content/feds-stein-dollar-swap-lines-cbanks-pretty-riskless>.

171. Luca Di Leo, *Bernanke Continues Fight Against More Fed Scrutiny*, WALL ST. J., May 26, 2010, at A6 (internal quotation marks and citation omitted).

172. See Mishkin *supra* note 86. The use of central bank swap lines is expanding. Central banks can form swap line networks in addition to bilateral arrangements. Associated central banks could lend their currency to their trading partners at preferred rates. Such preferences could potentially provide an economic advantage to institutions able to access currencies at preferred, nonmarket rates. If such practices became widespread, this activity could then impact the integrity of the market pricing mechanism in foreign currency markets.

173. See generally Mehrling, *supra* note 20 (explaining that central banks can step in to help prevent a collapse of the payment system or significant pricing distortions when private dealers stop market-making activities).

end of 2011.<sup>174</sup> While the federal safety net provides stability to financial markets, this stability also has important costs due to both the moral hazard and the incentives it creates for financial institutions to assume excessive risk taking in their investments. By internationally outsourcing its lender of last resort role through the use of its swap lines, the Federal Reserve is also increasing these costs.

The federal safety net could also be extended in practice—though perhaps unintentionally—to sovereign entities via the Federal Reserve’s swap lines. As noted in Part II, the Federal Reserve has the statutory authority to purchase sovereign debt.<sup>175</sup> This authority is intended to enable the Federal Reserve to invest excess foreign currency holdings, not to bail out insolvent sovereigns.<sup>176</sup> Although such a bailout is highly unlikely, the outsourcing of the Federal Reserve’s lender of last resort role can arguably accomplish a similar purpose. The provision of swap line dollars by foreign central banks to foreign banks and financial institutions holding distressed sovereign debt assets could help to prevent sales of these assets, which could decrease their price. A fire sale of assets would make it more expensive for the sovereign to borrow.

Relying on market mechanisms to meet dollar funding needs disciplines banks, financial institutions, and sovereigns.<sup>177</sup> The swap lines decrease this discipline because they can provide dollars at policy rates. They can also decrease, *ex ante*, market participants’ incentives to manage and price correctly liquidity risk and to manage better their foreign currency funding mismatches. Financial market instability occurs when uncertainty meets institutional liquidity constraints.<sup>178</sup> Although uncertainty is unknowable, potential liquidity constraints are largely the result of financial institutions’ balance sheet decisions, which are driven by profit considerations.

Safety nets for banks and financial institutions are expensive, and “financial safety nets for nations . . . are terribly expensive.”<sup>179</sup> Although the Federal Reserve has made a profit on its swap lines, this consideration alone does not reflect their true potential cost to the public. The dangers present here operate in a loop. Financial stability is a positive good, but financial stability measures create moral hazard, which can then lead to excessive risk taking. Excessive risk taking can then lead to additional financial crises. Financial crises have devastating

---

174. Fed. Reserve Bank of Richmond, *Our Perspective: Too Big to Fail*, RICHMONDFED.ORG, [http://www.richmondfed.org/research/our\\_perspective/toobigtofail/index.cfm#tabview=tab0](http://www.richmondfed.org/research/our_perspective/toobigtofail/index.cfm#tabview=tab0) (last updated Feb. 20, 2013) (arguing that the combined, expansive extent of both the explicit and implicit federal safety net for the financial sector decreases market discipline).

175. 12 U.S.C. § 355 (2012).

176. Small & Clouse, *supra* note 156, at 33 n.72.

177. *See generally* Mehrling, *supra* note 20.

178. *See generally* Pistor, *supra* note 43, at 6.

179. *Systemic Risk*, *supra* note 96, at 266 (“[A] nation that anticipates being bailed out is likely to engage in morally hazardous behavior. Nations are much more likely than financial institutions to engage in this behavior because nations, unlike firms, cannot be liquidated, and also because governments have strong political incentives . . . to avoid reducing services or raising taxes.”).

impacts on the economy. Such impacts include widespread job loss, loss of trust, taxpayer subsidies and losses, and extended periods of low—perhaps near zero—interest rates. Extended periods of abnormally low interest rates shift the costs of financial crises to savers, such as retirees. They could also sow seeds of instability that trigger the next financial crises as market participants make riskier investments seeking higher investment returns. The emergence of a new financial crisis leads once more to government assistance—such as use of the swap lines—to restore financial stability. At this point, the loop begins again. While swap lines have value in creating market stability, additional study is needed to evaluate the costs associated with using swap lines to maintain global stability through successive financial crises.

In discussing financial crises in economically emerging markets, Professor Charles Calomiris argued that “[t]he explanation for the new epidemic of worldwide banking instability is the roller coaster of risk produced by the choices of banks in developing economies—choices that are the byproduct of government subsidies for risk-taking”<sup>180</sup> According to Professor Calomiris, this assistance ends up being “a threat to the stability of the world financial system.”<sup>181</sup> As noted in Part I, bank “runs” caused by the widespread withdrawal of short-term, international creditors that have frequently precipitated financial crises in economically emerging markets are now occurring in industrialized countries. Therefore, the swap lines—government insurance mechanisms—risk a transfer of this “roller coaster” of risk taking and its attendant instabilities to industrialized countries.

As discussed in Part I, the credit risk of most foreign central bank counterparties is negligible. But it is not zero. An extreme, but nevertheless possible, example could be the collapse or breakup of a currency.<sup>182</sup> If a sovereign defaulted on its debt, the value of its currency—the Federal Reserve’s swap line collateral—would likely collapse. This collateral arrangement also has additional problems. In the swap line contracts, the Federal Reserve’s collateral is held in an account at another foreign central bank. Therefore, it could ultimately be inaccessible. Accounts at a foreign central bank are located in a jurisdiction beyond the Federal Reserve’s reach. In the event of default, the foreign central bank could freeze this account, or other domestic insolvency proceedings might also prevent seizure. Even if the collateral could be seized, it would likely be difficult to sell without also causing further declines in the currency’s value.

Importantly, the presence of an international dollar lender of last resort distorts market functioning, particularly the market pricing mechanism for liquidity, credit, and foreign exchange risk. The foreign exchange market is the largest financial market in the world. As noted in Part II, central banks potentially

---

180. Charles W. Calomiris, *The IMF’s Imprudent Role as Lender of Last Resort*, 17 CATO J. 275, 281 (1998).

181. *Id.* at 276.

182. Tom Braithwaite, Dan McCrum & Patrick Jenkins, *Wall St Banks Prepare for Euro Breakup* (FIN. TIMES Aug. 5, 2012), <http://www.ft.com/intl/cms/s/0/e53c2c6a-df20-11e1-97ea-00144feab49a.html#axzz2ZWmWS4xw>.

transact not only with each other at policy rates, but also with the institutions in their jurisdictions at policy rates.<sup>183</sup> Therefore, the possibility of sustained, significant swap line use and dependency ultimately risks the unmaking of markets. In the absence of the Federal Reserve's swap lines, foreign central banks would have to provide dollars to home institutions either from the foreign central bank's own currency reserves (if sufficient reserves are even available)<sup>184</sup> or by first buying dollars in currency markets before reselling them to institutions.<sup>185</sup> If a foreign central bank entered the market to buy dollars, this significant, increased demand would also increase the exchange value of the dollar. This would also decrease the exchange value of the foreign central bank's own currency. Indeed, some argue that the swap lines have been used to support the value of foreign currencies.<sup>186</sup>

Swap lines also carry potential negative reputational risk for the Federal Reserve for several reasons. The Federal Reserve's swap lines could be seen as performing a foreign policy role, a task outside of the central bank's proper sphere.<sup>187</sup> Use of the swap lines also raises concerns about the central bank performing a fiscal role, another task arguably outside of its proper sphere.<sup>188</sup> And questions concerning the statutory authority for the Federal Reserve's swap lines continue.<sup>189</sup> Finally, the relationship between the Federal Reserve and the Treasury "about the division of responsibility for foreign currency operations"<sup>190</sup> is highly discretionary and risks questions about the central bank's independence.

Finally, swap lines are set to become critical, competitive components of global financial market infrastructure. Such developments also increase the risk of swap lines becoming a significant public choice problem.<sup>191</sup> Without question, a

---

183. See U.S. Swap Agreement, *supra* note 115.

184. Fleming & Klagge, *supra* note 25, at 2.

185. Two additional, but less likely, possibilities are that the foreign central bank could try to arrange to buy dollars from another foreign central bank with excess dollar reserves, or it could try to arrange a dollar purchase or loan from a multilateral institution.

186. See RICKARDS, *supra* note 34, at 118 ("The consequences of a European sovereign debt default for U.S. exporters to Europe would be too great; here was an entire continent that was too big to fail. The U.S. bailouts, swap lines and support for issuers like Fannie Mae were all part of a multifaceted, multiyear effort to prop up the value of the euro.").

187. See, e.g., 140 Cong. Rec. H3348-49 (Daily Ed. May 16, 1994) (statement of Rep. Henry B. Gonzalez, Chairman, H. Comm. on Banking, Finance and Urban Affairs, stating that "[t]he Federal Reserve's periodic forays into foreign policy by way of its swap fund is certainly an issue that should be of immense concern to the Congress").

188. See the dissent of Jeffrey Lacker, President of the Federal Reserve Bank of Richmond, to swap line arrangements because of their "amounting to fiscal policy." *Minutes of the Federal Open Market Committee December 13, 2008*, BD. OF GOVERNORS OF THE FED. RESERVE SYS, <http://www.federalreserve.gov/monetarypolicy/fomcminutes20111213.htm>

189. See generally *supra* note 165.

190. See Fed. Open Mkt. Comm. Minutes 4-6 (Jan. 24-25, 2012).

191. See generally J. Lawrence Broz, *The Federal Reserve as Global Lender of Last Resort, 2007-2010* 21 (Nov. 14, 2012) (unpublished manuscript) (on file with author)

large segment of the public is unhappy about the tremendous government assistance to financial institutions during the recent crisis. Although an abundance of information about the Federal Reserve's swap lines is available on the Internet, much of the population arguably remains uninformed about these complex global stability mechanisms and their potential problems, risks, and costs. Furthermore, the potential cost of the swap lines is widely dispersed among the public. Therefore, little incentive exists for individuals to become well informed about this issue.

On the other hand, a small, resource-rich, concentrated interest group—international banks and financial institutions—are very interested in the swap lines because of the potential benefit and support they can provide to the group's risk-taking activities. This circumstance is clear from reported discussions surrounding the swap line between the Bank of England and the People's Bank of China.<sup>192</sup> A small group of international banks dominate trading in the foreign currency markets.<sup>193</sup> And the level of trading activity in these markets has "grown very rapidly and is very large compared to activity in other financial markets."<sup>194</sup> Because the swap lines are government insurance, their use risks a potential wealth transfer to international banks and financial institutions. Not only is it unclear whether this is a potentially productive redistribution of social wealth, but also whether this redistribution will increase the possibility of future market instability, financial crises, and the subsequent need for additional swap line use.

### ***B. Regulatory and Supervisory Problems***

In addition to public policy problems, the swap lines create potential supervisory and regulatory problems. These problems include the Federal Reserve's inability to perform critical supervision and regulation required by the traditional lender of last resort role, hold-up issues related to the dollar's international position, and the problem of future uncertainty in global financial markets.

A lender of last resort should be able to supervise and regulate the financial institutions that potentially benefit from its assistance. Indeed, "the main mechanism to reduce the moral hazard created by the financial safety net is the regulation and supervision of institutions that benefit from it."<sup>195</sup> In the absence of this ability, the central bank must work in close connection with the supervisory authority.<sup>196</sup> For example, when the U.S. Treasury proposed an expansion of

---

(discussing empirical findings which – the author argues – suggest that the Federal Reserve's swap lines during the financial crisis supported the interests of large U.S. banks).

192. See Lingling Wei & Jessica Mead, *supra* note 37.

193. See Galati, *supra* note 38, at 58.

194. *Id.*

195. SCHOONER & TAYLOR, *supra* note 19, at 66. See also Calomiris, *supra* note 180, at 290 ("lender[s] of last resort (whether private or public) must be in the position to observe and control the uses of the funds it provides.").

196. See SCHOONER & TAYLOR, *supra* note 19, at 271, 275 (noting disagreement among academics as to whether the "central bank should have the formal responsibility for banking supervision, over and above the functions required to perform its lender of last

discount window lending for market stability purposes, it noted that such liquidity issuance “would have to be supported by Federal Reserve authority to collect information from and conduct examinations of borrowing firms in order to protect the Federal Reserve (and thereby the taxpayer).”<sup>197</sup> The Federal Reserve’s swap lines resemble discount window lending. Nevertheless, the Federal Reserve does not have any supervisory or regulatory authority connected to its swap line use with regard to either its foreign central bank counterparty or to the ultimate beneficiaries of this liquidity assistance. As noted, the Federal Reserve does not even know the identity of the ultimate beneficiary institutions. This is problematic.

A potential counterargument to this concern is that the ultimate beneficiary institutions are likely to be overseen by the counterparty foreign central banks. But this is not necessarily the case. For example, the European Central Bank (“ECB”), currently the Federal Reserve’s most significant swap line counterparty, has limited supervisory authority over the European institutions that most likely benefit from the ECB’s swap line activities.<sup>198</sup> The foreign central banks make no commitment in their swap line contracts with the Federal Reserve that recipient institutions will be limited to those they supervise and regulate.<sup>199</sup>

Most importantly, however, the supervision and regulatory authority of the Federal Reserve in its role as lender of last resort is not fungible with that of foreign central banks. A foreign central bank is the agent of a foreign sovereign to whom the Federal Reserve has outsourced its lender of last resort power. With the swap line transactions, the foreign central bank is also acting as a quasi-agent or intermediary for the Federal Reserve. Principal and agent relationships are frequently characterized by incentive misalignments. Such potential misalignments could create inefficiencies and additional moral hazard problems. For example, in the case of the Federal Reserve and the ECB, both central banks desire global and domestic financial market stability. But their incentives are misaligned in at least three important ways. First, the ECB—or any foreign central bank—could have decreased incentives to pressure its own institutions to pursue more prudent, less-profitable balance sheet structures or other paths to reduce excessive risk-taking activities. Second, as noted above, the swap lines could reduce a foreign sovereign’s incentives to undertake necessary fiscal reforms if foreign emergency liquidity assistance is available to its domestic banks and financial institutions. Third, the swap line relationship creates potential conflicts of interest and political opportunism.

---

resort role,” and noting that “if the bank regulator is not the central bank, the relationship between the two institutions must be a close one”).

197. U.S. TREASURY DEPT., BLUEPRINT FOR A MODERNIZED FINANCIAL REGULATORY STRUCTURE [hereinafter BLUEPRINT], 17 (2008).

198. See Jim Brunsten & Rebecca Christie, *EU Seeks to Prevent ECB Dominance of European Bank Authority*, BLOOMBERG (Aug. 16, 2012, 8:54 AM), <http://www.bloomber.com/news/2012-08-16/eu-seeks-to-prevent-euro-dominance-of-european-banking-authority.html>.

199. See, e.g., U.S. Swap Agreement, *supra* note 115.



The dollar's international position creates contracting problems. The Federal Reserve is the only institution that can "print" dollars. A ready substitute to the dollar is not available and might not be in the near future. Consequently, the uniqueness of the dollar creates symmetric "hold-up"-like problems between the Federal Reserve and its foreign central bank counterparties. On the one hand, the Federal Reserve could withhold emergency dollar liquidity from foreign central banks, and this could risk a collapse of their banking system in a financial crisis. On the other hand, the foreign central bank knows that the Federal Reserve is unlikely to take such measures in a crisis precisely because there would likely be possible negative impacts on the U.S. financial system. Therefore, the incentive of the foreign central bank to hold sufficient reserve assets or to pressure its financial institutions to reduce excessive risk-taking activities is decreased by this knowledge.

Finally, future uncertainty is an extremely important problem, not only for financial markets, but also for the Federal Reserve's swap lines. As in many areas of financial regulation, uncertainty about future states of the world and the interdependencies of international financial institutions could make it highly difficult for central banks that create reserve currencies to commit to future nonintervention if swap line contracts are violated or important financial supervision, regulation, or reforms are neglected. If reserve currency central banks cannot credibly commit to future nonintervention in the event of such shortfalls, the availability of the swap lines risks becoming an anticipated certainty or the new normal.

In order to address the public policy problems and regulatory and supervisory problems discussed in this Part, I propose a much-needed, new swap line framework in the next Part.

#### IV. RETHINKING THE SWAP LINE FRAMEWORK

Central bank swap lines are set to become pivotal—and competitive—connectors within the international monetary system and the plumbing of global financial markets. The Federal Reserve's swap lines will likely continue to play a critical role in such developments for several reasons. First, systemic financial crises are a feature of financial markets<sup>200</sup> and have only increased in frequency.<sup>201</sup> As the international currency, the dollar's global availability will likely continue to be critical in stabilizing financial crises. Second, financial market developments and innovations will continue to increase the possibility of systemic financial

---

200. See CHARLES P. KINDLEBERGER & ROBERT Z. ALIBER, *MANIAS, PANICS, AND CRASHES: A HISTORY OF FINANCIAL CRISES* 1–25 (2011); see generally Jeffrey N. Gordon & Christopher Muller, *Confronting Financial Crisis: Dodd–Frank's Dangers and the Case for a Systemic Emergency Insurance Fund* 9–28 (Columbia Law and Econ., Working Paper No. 374, 2010).

201. See RICHARD BOOKSTABER, *A DEMON OF OUR OWN DESIGN: MARKETS, HEDGE FUNDS, AND THE PERILS OF FINANCIAL INNOVATION* 5 (2007).

emergencies that require massive amounts of dollar liquidity for resolution.<sup>202</sup> Finally, central bank swap line networks are becoming increasingly prevalent.<sup>203</sup>

Central bank swap lines are likely only beginning their global ascent. And as the preceding Part argues, the Federal Reserve's swap lines have potentially significant problems and risks. The Federal Reserve's swap lines are essentially public insurance mechanisms. Therefore, their legal framework should not only minimize the potential problems and risks associated with their use, but should also be designed to ensure that overall use of the swap lines promotes important public policy objectives. These objectives include: maintaining domestic financial stability, increasing institutional accountability, minimizing moral hazard and increased systemic risk, and limiting the growth of the Federal Reserve's role in global financial markets. Rethinking and implementing a more robust swap line legal framework can also assist in minimizing potential public choice concerns. Importantly, a new framework would provide an important counterbalance to the risk of potential financial industry pressures. For all of these reasons, the time is right to rethink the legal framework for the Federal Reserve's use of swap lines.

#### *A. A New Swap Line Framework*

My proposed swap line framework is designed to be distinct from the Federal Reserve's lending operations with private market actors and predicated upon two prongs. The first prong of this framework provides for a new market stability role for the U.S. Federal Reserve and for significant flexibility in its emergency lending operations. The second prong of this framework provides boundaries for this new flexibility, including limiting future extensions of the swap lines and bolstering democratic accountability in their use.

##### *1. A Distinct Framework*

The statutory framework upon which the current swap line authority relies largely addresses open market operations with private market actors. The swap lines, however, more closely resemble discount window lending to select foreign public actors. Therefore, a distinct statutory setting is necessary for the Federal Reserve's swap line authority for at least two reasons.

---

202. For example, as I discuss in Part V, international regulatory reforms increasingly mandate the use of central clearing parties ("CCP"), a financial market utility endemic to financial markets, for certain types of derivatives in the \$600 trillion-plus, over-the-counter derivatives markets. Regulators have discussed the potential of setting up swap lines between CCPs and central banks in a financial crisis. See Michael Watt, *How the CCP Location Debate Helped Split the EU*, RISK.NET (Jan. 10, 2012), <http://www.risk.net/risk-magazine/feature/2134744/ccp-location-debate-helped-split-eu>.

203. For example, several economically emerging market countries recently agreed "to build a financial safety net," including pooling of financial reserves and the use of central bank swap lines. See Chris Giles, *BRICS to Create Financial Safety Net*, FIN. TIMES (June 19, 2012), <http://www.ft.com/intl/cms/s/0/bfd6adfe-b9bb-11e1-a470-00144feabdc0.html#axzz2cwTG6sZh>.

First, a distinct setting recognizes the unique nature of lending arrangements between the Federal Reserve and foreign central banks. The swap line contracts between these parties are distinct from traditional contracts and formal treaties. They are arguably more akin to informal regulatory arrangements within an international central banking network. For example, as Katharina Pistor notes, swap contracts between private actors are generally hundreds of pages long.<sup>204</sup> But the Federal Reserve's swap line contracts, which underlie potentially hundreds of billions of dollars in loans, are only seven pages.<sup>205</sup> As discussed, the collateral arrangements securing these loans to foreign central banks are also unique and potentially problematic.

When the Federal Reserve extends loans to private market actors through its traditional discount window lending operations, the collateral for these loans is located in jurisdictionally accessible accounts. Similarly, the Federal Reserve has significant supervisory and regulatory powers to address any breaches of these lending arrangements. On the other hand, the Federal Reserve has no supervisory or regulatory powers over a foreign central bank in the event of a contract breach. This consideration could explain the absence of an explicit penalty in the event of a default in swap line contracts.<sup>206</sup> It seems highly unlikely that the Federal Reserve would pursue judicial remedies against a foreign central bank.

Second, a distinct setting establishes a legal framework necessary to support increasing cooperation between the Federal Reserve and foreign central banks. A long history of informal central bank cooperation exists.<sup>207</sup> For example, the Bank for International Settlements ("BIS") was established in 1930. It is the oldest international financial organization, and its members consist of central banks or monetary authorities around the world.<sup>208</sup> Its mission is "to serve central banks in their pursuit of monetary and financial stability, to foster international cooperation in those areas and to act as a bank for central banks."<sup>209</sup>

But central bank cooperation can take a variety of forms, from basic information sharing to "commonly agreed actions,"<sup>210</sup> such as a coordinated reduction in interest rates.<sup>211</sup> A swap line or currency agreement between the Federal Reserve and a foreign central bank in which the Federal Reserve's counterparty is a foreign central bank, rather than a private actor, arguably is a

---

204. See Pistor, *supra* note 43, at 18.

205. See, e.g., *U.S. Swap Agreement*, *supra* note 115.

206. *Id.*

207. See, e.g., Richard N Cooper, *Almost a Century of Central Bank Cooperation* (Bank for Int'l Settlements, Working Paper No. 198, 2006).

208. For a list of the members of the BIS, see *Organization and Governance*, BANK FOR INT'L SETTLEMENTS, <http://www.bis.org/about/orggov.htm> (last modified Dec. 19, 2011).

209. See *About BIS*, BANK FOR INT'L SETTLEMENTS, <http://www.bis.org/about/index.htm?l=2> (last visited July 22, 2013).

210. See Cooper, *supra* note 207, at 2.

211. See Carter Dougherty & Edmund L. Andrews, *Central Banks Coordinate Global Cut in Interest Rates*, N.Y. TIMES (Oct. 8, 2008), <http://www.nytimes.com/2008/10/09/business/09fed.html?pagewanted=1&r=2>.

development that extends beyond informal cooperation among central banks. Therefore, formal legal frameworks designed for the unique context of central bank contracting relationships are necessary.

## 2. *The First Prong of the Framework*

Congress should give the Federal Reserve explicit emergency authority to execute swap lines and designate the Federal Reserve as the market stability regulator. Accordingly, the swap line legal framework should explicitly authorize central bank liquidity swaps. Multiple reasons exist in support of this recommendation. First, the current statutory language using “cable transfers” is antiquated. Second, the use of “cable transfers” is in a statutory paragraph primarily centered on the purchasing and the selling of private sector debt on the open market.<sup>212</sup> Finally, the suggested language would be clear and explicit. This should remove any central bank reputational concerns surrounding use of the swap lines.

This first prong provides significant “elasticity”<sup>213</sup> for the Federal Reserve to act as an international dollar lender of last resort. Yet limiting the designation of the Federal Reserve’s authority to use swap lines to emergencies should also ensure the minimization of their future use. This limitation would further minimize the potential coverage of the federal safety net and potential cost to taxpayers, market-pricing distortions, counterproductive impacts on other regulatory reforms, and the potential for interest group capture. Designation of the Federal Reserve as the market stability regulator supports the important public policy objective of maintaining financial market stability.

### **a. The Federal Reserve’s Swap Lines as an Explicit, Emergency Authority**

The Federal Reserve’s swap lines should be designated an explicit, emergency authority. That is, the use of swap lines should be solely conditioned on “unusual and exigent circumstances.” The Federal Reserve currently has at least three explicit emergency authorities: its 13(3) emergency authority,<sup>214</sup> its Dodd–Frank Title VIII emergency authority,<sup>215</sup> and its authority in “extraordinary circumstances” to waive “ratio limits” related to statutory reserve requirements.<sup>216</sup> All provide for significant flexibility in their use. The existing emergency circumstances during the financial crisis justified the “metamorphosis” in the Federal Reserve’s use of swap lines to outsource its role as lender of last resort. The Federal Reserve has continued to use the swap lines to ameliorate European

---

212. See generally Small & Clouse, *supra* note 156, at 25–32.

213. Pistor, *supra* note 43, at 170 (suggesting that certain law can be “elastic” in times of financial crises and arguing that “[t]he elasticity of law can be defined as the probability that legal commitments will be upheld in the future irrespective of changes in circumstances; the lower that probability the more elastic the law”).

214. 12 U.S.C. § 343 (2012).

215. 12 U.S.C. § 5465 (2012).

216. 12 U.S.C. § 461 (2012).

instabilities whose contagion risks U.S. stability. Economists also refer to swap line dollar liquidity as an “emergency provision.”<sup>217</sup> A legal framework governing the Federal Reserve’s use of swap lines should restrict their use to “unusual and exigent” circumstances. Therefore, this authority will only be used in those types of circumstances that provide the common justification for its use.

The Federal Reserve’s 13(3) emergency power<sup>218</sup> is designed to provide emergency liquidity to a broad range of nondepository, domestic financial institutions. These institutions do not routinely benefit from access to Federal Reserve facilities, services, or its last resort liquidity provision. The identities of the institutions that will be helped by the 13(3) emergency power in a financial crisis are not generally known in advance of a crisis. Unlike depository institutions, these institutions are not subject to the Federal Reserve’s *ex ante* supervision and regulation (or perhaps that of another domestic financial regulator). And even though potential liquidity recipients of the Federal Reserve’s new Dodd–Frank Title VIII last resort lending authority<sup>219</sup> will generally<sup>220</sup> be subject to limited *ex ante* supervision and regulation by the Federal Reserve, this lending authority is nevertheless reserved for “unusual or exigent” circumstances.

The Federal Reserve’s foreign central bank swap line counterparties act as intermediaries. The ultimate beneficiaries of the dollar loans provided by the swap lines are foreign institutions. The Federal Reserve does not know the identity of these institutions, nor does it supervise or regulate them. Indeed, minutes from the FOMC note “the importance of ensuring that these temporary swap lines . . . be used only for the purposes intended.”<sup>221</sup> But ensuring the swap lines’ intended use is currently beyond the Federal Reserve’s supervisory or regulatory capacities. If domestic, nondepository financial institutions, whose identity is known to the Federal Reserve, receives its credit and liquidity assistance only in emergencies, this limitation on assistance should also apply to unknown overseas institutions. Otherwise, overseas financial institutions could receive an advantage over domestic ones. This concern is not hypothetical. For example, minutes from an

---

217. See Allen & Moessner, *supra* note 22, at 1.

218. See 12 U.S.C. § 343.

219. See 12 U.S.C. § 5465.

220. Note that Title VIII provides for emergency designations of systemically significant financial market utilities. If an emergency designation were made, it could be the case that the designated institution would not previously have been under the Federal Reserve’s supervision. *See id.*

221. FOMC notes indicate that in considering whether swap lines should be extended to the central banks of Mexico, Brazil, Korea, and Singapore, “[s]everal participants pointed to the international reserves held by the countries and the importance of ensuring that these temporary swap lines, like the others that had been established during this period, be used only for the purposes intended.” *Minutes of the Federal Open Market Committee Oct. 28–29, 2008*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., <http://www.federalreserve.gov/monetarypolicy/fomcminutes20081029.htm> (last visited Sept., 10, 2013, 6:18 PM).

FOMC meeting on December 13, 2011 indicate a concern that a reduction in the interest rates on the swap lines could potentially advantage non-U.S. banks.<sup>222</sup>

Designating the Federal Reserve's swap lines as an "emergency power" would also have an important regulatory policy role and an important educational role. Limiting the use of swap lines to emergency situations would signal to international financial institutions that such liquidity assistance should not be expected or considered routine. Financial institutions should not depend on the swap lines in managing and pricing their balance sheet risks.<sup>223</sup> Ideally, this knowledge should encourage financial institutions to improve their risk management practices. It would make the federal safety net or insurance provided by the swap lines uncertain at best. It should also promote better pricing of liquidity risk and foreign currency funding risk by financial markets.

The "emergency" designation would play an important public education role. Public awareness and accountability is essential to maintaining the credibility and independence of a central bank in a democracy. The Federal Reserve has posted a significant amount of information about the swap lines on its website.<sup>224</sup> But a notification that the Federal Reserve is using an "emergency authority" is much more newsworthy and more likely to focus public attention on the existing political and economic exigencies justifying their use.

In addition to designating the swap lines as an explicit emergency authority, the Federal Reserve's emergency powers should be harmonized. The first harmonization measure that should be implemented is that all of the Federal Reserve's unusual lending authorities should be reserved for emergencies only, that is, "unusual and exigent" circumstances. This sets a clear public policy standard for the use of such lending authorities. Different standards suggest gradients of emergency, which seems nonsensical. A second consolidation and rationalization that should occur is that the possibility of exceptional Federal Reserve credit and liquidity assistance should require appropriately designed, parallel governance and accountability measures. For example, Dodd-Frank mandated significant accountability, transparency, and collateral requirements in

---

222. The minutes state: "It was also noted that the proposed reduction in pricing of the existing swap arrangements could put the cost of dollar borrowing from foreign central banks below the Federal Reserve's primary credit rate and that non-U.S. banks might be perceived to have an advantage in meeting their short-term funding needs as a result." *Minutes of the Federal Open Market Committee Dec. 13, 2011*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., <http://www.federalreserve.gov/monetarypolicy/fomcminutes20111213.htm> (last visited Sept., 10, 2013, 6:20 PM).

223. For example, international banks whose activities are dependent upon foreign currency funding could opt to ensure that their reserve liquidity resources include such currency. *See generally* RICARDO CORREA, HORACIO SAPRIZA & ANDREI ZLATE, LIQUIDITY SHOCKS, DOLLAR FUNDING COSTS, AND THE BANK LENDING CHANNEL DURING THE EUROPEAN SOVEREIGN CRISIS 5 (2013).

224. *See Credit and Liquidity Programs*, *supra* note 121.

the use of the Federal Reserve's 13(3) emergency power.<sup>225</sup> Similar mandates should be applicable to all of the Federal Reserve's emergency authorities.

#### **b. The Federal Reserve as the Market Stability Regulator**

The first prong of my framework also includes expanding the Federal Reserve's mandate to explicitly include the role of market stability regulator. This proposal harmonizes with designating the swap lines as an emergency authority. The Federal Reserve's current emergency authorities implicitly act as financial stability mechanisms. And these powers should remain emergency authorities even once the Federal Reserve is designated as the market stability regulator.

The Federal Reserve's explicit statutory mandate is price stability and full employment.<sup>226</sup> While these longstanding objectives implicitly require attention to financial stability,<sup>227</sup> financial stability itself—domestic or international—is not an independent mandate of the Federal Reserve. Central bankers are increasingly focused on central banks having “the explicit goal of financial stability.”<sup>228</sup> A legal framework, however, should ultimately determine the parameter of the central banks' stability role. In practice, Congress has all but provided the Federal Reserve with the authority necessary to be the market stability regulator.<sup>229</sup>

In 2008, the U.S. Treasury Department issued a report entitled *Blueprint for a Modernized Financial Regulatory Structure*.<sup>230</sup> One of its recommendations was to designate the Federal Reserve as the “market stability regulator.”<sup>231</sup> Accordingly, the Federal Reserve would be responsible “for overall issues of financial market stability.”<sup>232</sup> It would also receive increased powers of regulation and supervision over institutions that could potentially receive assistance from its stability measures.<sup>233</sup> The Federal Reserve would also have authority “to undertake market stability discount window lending.”<sup>234</sup> Some economists, however, argued that the Federal Reserve's history did not support this designation.<sup>235</sup> Additionally, as the *Blueprint* notes, market discipline is thought to be the most effective method of limiting systemic risk.<sup>236</sup> Minimizing systemic risk promotes financial market

---

225. See Dodd–Frank § 1101.

226. 12 U.S.C. § 225a.

227. See Duke, *supra* note 22, at 1.

228. *Rethinking*, *supra* note 15, at iii.

229. See generally Baker, *supra* note 79, at 71.

230. BLUEPRINT, *supra* note 197.

231. *Id.* at 137.

232. *Id.* at 15.

233. See *id.*

234. *Id.* at 17. Note that the Federal Reserve's new credit and liquidity authority in Dodd–Frank's Title VIII makes expansive provision for such lending. See Baker, *supra* note 79, at 126–27.

235. MELTZER, *supra* note 75, at 1250. See generally RICKARDS, *supra* note 34, 170–76.

236. BLUEPRINT, *supra* note 197, at 15 n.2 (“[T]he [President's Working Group] PWG, the Federal Reserve Bank of New York, and the [Office of Comptroller of Currency]

stability. Dodd–Frank did not implement the *Blueprint’s* recommendation or designate the Federal Reserve as the “market stability regulator.” Nevertheless, implementation of the *Blueprint’s* recommendation is largely the practical effect of at least two of Dodd–Frank’s reforms. The first is Dodd–Frank’s creation of the Financial Stability Oversight Council (“FSOC”), a new supervisory council of financial regulators.<sup>237</sup> In practice, the FSOC lacks the supervisory and enforcement authority necessary to itself respond to the emerging threats to financial stability it is tasked with overseeing.<sup>238</sup> Consequently, the Federal Reserve will likely undertake, in practice, any necessary stability action because it is the only institution with the requisite legal authority. The second reform is the Federal Reserve’s new, last-resort lending authority in Title VIII.<sup>239</sup> It is designed to stabilize disruptions in the payment, clearing, and settlement systems—or financial market plumbing—that lie at the heart of smoothly functioning, stable financial markets. Significant disruptions to these systems could have a devastating impact on financial market stability, as illustrated in the recent financial crisis.<sup>240</sup>

In sum, Congress should explicitly designate the Federal Reserve as the market stability regulator for at least three reasons. First, the composition of the FSOC includes ten voting members,<sup>241</sup> but its powers fall short of including the measures necessary to stabilize financial markets. Therefore, no individual domestic financial regulator will necessarily have ownership of, or responsibility for, the FSOC’s decisions about financial market stability. This risks potential ineffectiveness and dilution of regulatory accountability. The Federal Reserve has several advisory councils. The FSOC could become an additional advisory committee of the Federal Reserve that is tasked with advising the central bank about market stability.

Second, financial stability and monetary policy have become increasingly intertwined. The *Blueprint* recognizes this reality: “As is the case today, important elements of the Federal Reserve’s market stability role would be conducted through the implementation of monetary policy and the provision of liquidity to the financial system.”<sup>242</sup> In other words, the Federal Reserve already implicitly performs important aspects of a market stability regulator role. Financial stability

---

OCC have previously stated that market discipline is the most effective tool to limit systemic risk.”). See also MELTZER, *supra* note 75, at 1250.

237. See 12 U.S.C. § 5321 (2012).

238. This is clear from reviewing the FSOC’s duties in § 112(a)(2), none of which include actual supervision, regulation, or enforcement. 12 U.S.C. § 5322(a)(2) (2012).

239. See generally Baker, *supra* note 79, at 109–112.

240. See generally PERRY MEHLING, *THE NEW LOMBARD STREET: HOW THE FED BECAME THE DEALER OF LAST RESORT* 96, 124 (2011) (“[T]he crisis was, at least in part, about unprecedented stress on the payments infrastructure” and “what immediately draws attention is the utter breakdown of the underlying system of funding liquidity. This is the plumbing behind the walls, and it failed very dramatically.”).

241. See 12 U.S.C. § 5321(j)(1).

242. BLUEPRINT, *supra* note 197, at 15.



measures, however, can become fiscal measures<sup>243</sup> because such measures often amount to targeted credit allocations. Explicit recognition of the Federal Reserve's market stability regulator role would encourage Congress to address the increasingly complex relationship between monetary policy and financial market stability measures of a fiscal character.

Third, the provision of financial stability creates moral hazard; these considerations are always in tension. Explicit statutory recognition of the Federal Reserve's market stability regulator role should also be accompanied by regulatory reforms designed to minimize the moral hazard this role creates. It should also incentivize reforms to reinforce market discipline for increased effectiveness of the regulation of systemic risk.<sup>244</sup> The solution to "fundamental sources of financial strains,"<sup>245</sup> such as international dollar liquidity shortages, should not be *ex post* government insurance provided by swap lines. *Ex ante* reforms should play a more critical role in minimizing the root causes—such as excessively risky balance sheet structures—of the need for an international lender of last resort.

Finally, an explicit designation would have reputational benefits for the Federal Reserve and would decrease risks to its independence.

### 3. *The Second Prong of the Framework*

The second prong of this framework provides boundaries for this new flexibility, including limiting future extensions of the swap lines and bolstering democratic accountability in their use. It is designed to limit the significant flexibility that the first prong of the framework provides and to promote increased democratic accountability. This promotes the public policy objectives of increased institutional accountability, minimization of moral hazard and increased systemic risk, and limiting the Federal Reserve's role in financial markets.

#### a. **Increased Accountability Measures**

To increase democratic accountability, the use of the Federal Reserve's swap lines should be authorized by the Board of Governors (Board) rather than the Federal Open Markets Committee ("FOMC"). The text of Section 14 of the Federal Reserve Act ("FRA") suggests that the Board of Governors is the appropriate body for approval because "cable transfers" are to be bought and sold "under rules and regulations prescribed by the Board of Governors."<sup>246</sup> Above, I argued that the swap lines should be designated as an explicit emergency authority.<sup>247</sup> The Federal Reserve's emergency discount window lending authorities all require approval by the Board of Governors, not the FOMC. Of necessity, the Federal Reserve's emergency authorities are highly discretionary.

---

243. See BANK FOR INT'L SETTLEMENTS, *supra* note 77, at 48.

244. See BLUEPRINT, *supra* note 197, at 15 n.2.

245. Di Leo, *supra* note 171.

246. The statutory text reads: "Any Federal reserve bank may, under rules and regulations prescribed by the Board of Governors of the Federal Reserve System, purchase and sell in the open market . . . cable transfers . . ." 12 U.S.C. § 353 (2012).

247. See *supra* Part IV.A.1.

Therefore, it is critical that this discretion be accompanied by explicit, strong political accountability in the use of such authority.

The actions of the Board carry significantly more political accountability than those of the FOMC. With advice and consent of the Senate, the President appoints the Board's members.<sup>248</sup> This is not true in the case of the FOMC. The presidents of the regional Federal Reserve Banks—5 of the FOMC's 12 members—are appointed by the Boards of Directors of each Reserve Bank and are subject to the Board's approval.<sup>249</sup> Historically, the FOMC has been controversial because of the selection process for each Reserve Bank president.<sup>250</sup>

Congress somewhat addressed this longstanding concern in Dodd–Frank. Now the presidents of each Reserve Bank are chosen only by their Class B and Class C directors.<sup>251</sup> Private banks that are members of the regional Federal Reserve Banks elect the Class A and Class B directors (who are to represent the public interest)<sup>252</sup> of their regional Reserve Bank. The Board of Governors appoints the Class C directors. In the swap lines' early days, these types of considerations led some members of the Board to argue that the Board should be responsible for swap line decisions.<sup>253</sup> Nevertheless, the FOMC became responsible for swap line authorization because of its related responsibility for open market operations.<sup>254</sup>

In September of 2008, the FOMC “voted unanimously to authorize its Foreign Currency Subcommittee to direct the Federal Reserve Bank of New York to expand existing swap arrangements as needed and to enter into new arrangements with foreign central banks to address strains in money markets.”<sup>255</sup> One rationale behind this decision was the increased flexibility and speed this delegation would provide the Federal Reserve in responding to possible requests

248. 12 U.S.C. § 241 (2012).

249. See 12 U.S.C. § 341 (2012).

250. See generally MICHAEL MALLOY, PRINCIPLES OF BANK REGULATION, § 1.11(b) (3d ed. 2011) (noting that “[t]he legitimacy of the FOMC has been subjected to repeated, unsuccessful constitutional attacks, because of the selection of the five reserve bank representatives without appointment by the president and advice and consent of the Senate as provided in the Constitution’s appointments clause”).

251. 12 U.S.C. § 341.

252. 12 U.S.C. § 302 (2012).

253. See MELTZER, *supra* note 151, at 348 (particularly the section on Exchange Market Intervention).

254. *Id.* at 354.

255. *Minutes of the Federal Open Market Committee, September 16, 2008*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., <http://www.federalreserve.gov/monetarypolicy/fomcminutes20080916.htm>. “The Foreign Currency Subcommittee consists of the Chairman and Vice Chairman of the Committee, the Vice Chairman of the Board of Governors, and such other member of the Board as the Chairman may designate (or in the absence of members of the Board serving on the Subcommittee, other Board members designated by the Chairman as alternates, and in the absence of the Vice Chairman of the Committee, the Vice Chairman’s alternate).” *Minutes of the Federal Open Market Committee January 24–25, 2012*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., <http://www.federalreserve.gov/monetarypolicy/fomcminutes20120125.htm>.

from foreign central banks for swap line assistance in a time of “severe stresses in dollar funding markets.”<sup>256</sup> This same rationale also supports my argument that the Board of Governors, rather than the FOMC, should approve the swap lines. Similarly, the Board’s smaller size enables more rapid and flexible decision making in comparison to the FOMC. Swap line decisions should be delegated up, that is, assigned to the Board, to increase the political accountability of these decisions.

The strongest argument against requiring that the Board be tasked with approving swap line transactions is that the FOMC is responsible for open market operations. Traditionally, the swap lines have been viewed as a “type of or open market operation.”<sup>257</sup> Indeed, as noted, Section 14 of the Federal Reserve Act is entitled “Open Market Operations.” But the Board composes at least half of the members of the FOMC, so a critical mass of the FOMC will not be uninvolved in decisions about the swap lines. More importantly, “cable transfers” are arguably more similar to open market operations when used to buy or sell foreign exchange “in the open market”<sup>258</sup> than when used to buy or sell currency from or to the issuer of the currency itself. Therefore, it is unclear how closely the swap lines resemble typical open market operations. Instead, swap lines with select foreign central banks, potentially at nonmarket policy rates, seem to more closely resemble targeted discount window lending. And the Board is responsible for approving discount window lending, which is authorized by its emergency legal authorities.<sup>259</sup>

My framework also conceptualizes several additional accountability measures in the use of the swap lines. The vast administrative law literature examining the increasingly prevalent practice of outsourcing or “privatization” of government functions to private actors provides helpful guidance.<sup>260</sup> The practice of government outsourcing has been referred to as “government by contract.”<sup>261</sup> A common focus in this literature is maintaining robust democratic accountability in this outsourcing.<sup>262</sup> Constitutional concerns can be particularly acute if the

---

256. *Minutes of the Federal Open Market Committee, September 16, 2008*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., <http://www.federalreserve.gov/monetarypolicy/fomcminutes20080916.htm>.

257. See MELTZER, *supra* note 151, at 354.

258. See 12 U.S.C. § 353 (2012).

259. MEHLING, *supra* note 240, at 121 (noting that the swap lines “amounted to an extension of discount window borrowing to foreign banks, but with foreign central banks as intermediary taking all the credit risk”).

260. See, e.g., Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543 (2000); Jody Freeman, *Private Parties, Public Functions and the New Administrative Law*, 52 ADMIN. L. REV. 813 (2000); Daniel Guttman, *Public Purpose and Private Service: The Twentieth Century Culture of Contracting Out and the Evolving Law of Diffused Sovereignty*, 52 ADMIN. L. REV. 859 (2000); Gillian Metzger, *Privatization as Delegation*, 103 COLUM. L. REV. 1367 (2003).

261. See Jody Freeman & Martha Minow, *Reframing the Outsourcing Debates*, in GOVERNMENT BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY 1 (Jody Freeman & Martha Minow eds., 2009).

262. See, e.g., Alfred C. Aman Jr., *Privitization and Democracy*, in GOVERNMENT

governmental outsourcing involves “control over third parties’ access to government resources and benefits.”<sup>263</sup> Similar concerns are also applicable when the government outsources its resources to foreign public actors. Such is the case when the Federal Reserve outsources its role as lender of last resort to foreign central banks.

Finally, the Federal Reserve should insist, through its swap line contracts, on increased transparency of the ultimate recipients of its emergency dollar funding. The swap lines outsource the Federal Reserve’s bedrock power as the central bank—its lender of last resort function—to foreign central banks. Yet the Federal Reserve does not know the identity of the ultimate recipients of its global emergency liquidity assistance. This is problematic for many reasons, including a lack of democratic accountability. By including provisions for increased transparency in its swap line contracts, the Federal Reserve could seek to limit by contract the types of eligible recipient institutions. Such measures would promote democratic accountability. Another option would be to seek a contractual commitment of the disclosure of the identities of the ultimate recipient institutions after a time lapse similar to that in the case of its lending to domestic institutions,<sup>264</sup> although this suggestion could conflict with other related laws. Another possible alternative would be for the foreign central bank to generate, *ex ante*, a potential list of recipients of the dollar liquidity assistance even if actual recipients are not disclosed. Any of these possibilities would be a helpful improvement. Such measures would also generally harmonize with the Federal Reserve’s usual practice of open market operations (which the swap lines are commonly thought to resemble). For example, only certain designated financial institutions, known as “primary dealers,” generally participate in open market operations with the Federal Reserve.<sup>265</sup>

#### **b. Limitations on the Swap Line Power**

My proposed framework would limit the Federal Reserve’s swap line authority in several important ways. These limitations serve the purpose of minimizing the moral hazard and the resultant increase in systemic risk, and limiting the growth of the Federal Reserve’s role in financial markets. Congress could limit the Federal Reserve’s authority to use swap lines in the following ways: selecting the foreign central banks eligible for swap line arrangements, placing caps on the amounts of these arrangements, mandating additional collateral and security measures, and prohibiting extensions of the swap lines to nongovernmental overseas third parties. Such limitations do not interfere with the Federal Reserve’s independence or necessary flexibility. In fact, most of these

---

BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY, *supra* note 261, at 276–85.

263. See MELTZER, *supra* note 75, at 1371.

264. For example, the Federal Reserve must disclose discount window lending to domestic institutions after a period of 24 months. 12 U.S.C. § 248(s) (2012).

265. See *Primary Dealers List*, FED. RESERVE BANK N.Y. (June 12, 2003), <http://www.newyorkfed.org/newsevents/news/markets/2003/an030612.html>.

measures are comparable to ones already in place in the use of its other emergency authorities.

First, Congress should select the foreign central banks eligible to be swap line counterparties and consider placing quotas on these arrangements. Designating eligible central banks is a limitation similar to those placed on potential recipients of the Federal Reserve's domestic emergency authorities. The foreign central banks selected by Congress would likely be the very same ones as those with which the Federal Reserve has or has had swap line arrangements. Nevertheless, it is important that Congress designate these potential counterparties for at least two reasons. First, such designation shields the Federal Reserve from having to select among potential counterparties and the related political questions that could arise based upon its selection.<sup>266</sup> Such questions could have a negative reputational impact. Second, the swap lines can take on a fiscal role by allocating credit. It is therefore arguably appropriate that Congress create such restrictions.

Second, Congress should mandate increased collateral security requirements in swap line contracts, similar to those mandated in Dodd–Frank for the Federal Reserve's 13(3) emergency authority.<sup>267</sup> As discussed, the credit risk of a foreign central bank is negligible, but it does exist. The current collateral arrangements for swap lines, as discussed in Part II, should be strengthened. For example, swap line collateral arrangements could consist of a mixture of foreign currency and of high-quality, dollar-denominated assets.<sup>268</sup> And at least some of this collateral should be more readily accessible to the Federal Reserve to seize if necessary. Accordingly, some amount of collateral should be placed either in an account at the Federal Reserve or in a neutral international location. If swap lines become a permanent feature of international financial markets—as is likely to be the case—the international community should create truly international collateral repositories.<sup>269</sup>

Third, a crucial aspect of my framework is its limitation on highly foreseeable future expansions in the use of the swap lines. I argue that the lack of limitations to the use of the Federal Reserve's swap lines, based upon the current legal interpretation of the statutory framework, could lead to significant expansions in their use. For example, swap line arrangements could be made with

---

266. For example, during a 2009 congressional hearing, Chairman Bernanke was specifically questioned about outstanding swap line amounts to the central bank of New Zealand. See CSPAN, *supra* note 10.

267. See 12 U.S.C. § 343 (2012).

268. See Allen & Moensser, *supra* note 22, at 4 (noting that swap line collateral could consist of assets other than foreign currency).

269. A relevant recent development surrounding the use of collateral in international financial markets is the announcement by the Depository Trust and Clearing Corporation, based in the United States, and Euroclear, based in Belgium, of plans to create a shared collateral pool. See Phillip Stafford, *DTCC and Euroclear to Share Collateral Pool*, FIN. TIMES, May 13, 2013, at 20.

third-party, nongovernmental overseas institutions.<sup>270</sup> This possibility would significantly expand the Federal Reserve's international lender of last resort role. It would also directly expose the Federal Reserve to the credit risk of the nongovernmental institution. This also would, in turn, greatly expand the potential problems and risks discussed in Part III, which are already associated with the swap lines' use. For example, although a major central bank's credit risk is likely negligible, this is not necessarily true of a third-party, nongovernmental overseas counterparty. Therefore, the Federal Reserve should at most only be directly exposed to the credit risk of the foreign central bank. Thus, to minimize this risk, my framework limits swap line counterparties to congressionally selected central banks.

One example of a potential extension of the Federal Reserve's swap lines could be to an overseas central clearing party ("CCP"). CCPs are back office trade processing utilities prevalent in financial markets.<sup>271</sup> They are also among the most important sources of systemic risk in financial markets because they concentrate vast amounts of credit risk. An overseas domiciled CCP could potentially need emergency dollar liquidity assistance.<sup>272</sup> The reality of this possibility is clear from the European Union "location policy" controversy.<sup>273</sup> European Union regulators anticipate that foreign domiciled CCPs, which settle Euro-denominated contracts, could need emergency euro liquidity assistance in a crisis situation.<sup>274</sup> Therefore, the European Union wants to be able to supervise and regulate these CCPs and is insisting that such CCPs be physically located in the European Union. CCPs that settle dollar-denominated contracts could also need emergency dollar liquidity assistance.

Section 14 of the Federal Reserve Act ("FRA") states that "cable transfers" can be purchased or sold "from or to domestic or foreign banks, firms, corporations, or individuals."<sup>275</sup> Therefore, the Federal Reserve's swap line counterparties are not limited by the statute to foreign central banks. A CCP is a corporation. Although it is unlikely that a swap line arrangement would be put into place between the Federal Reserve and an overseas CCP, it is possible. In practice, the Federal Reserve's counterparties are likely to remain foreign central banks. My proposed swap line framework argues for this limitation. This restriction should aid in limiting moral hazard. Otherwise, incentives could be created for CCPs to

---

270. Section 1103(b) of Dodd-Frank suggests this possibility because it requires that information about swap line transactions with a nongovernmental third party be publicly disclosed after two years. *See* 12 U.S.C. § 248(s) (2012).

271. *See generally* PETER NORMAN, *THE RISK CONTROLLERS: CENTRAL COUNTERPARTY CLEARING IN GLOBALISED FINANCIAL MARKETS* (1st ed. 2011).

272. News reports relay that regulators have proposed setting up swap lines between central banks to assist CCPs in a crisis. Watt, *supra* note 202.

273. *See generally id.* Recent E.U. political developments could facilitate a resolution to the location policy controversy. *See A Good Day for Britain in Europe*, *FIN. TIMES* (June 18, 2013), <http://www.ft.com/intl/cms/s/0/aa65c53a-d810-11e2-9495-00144feab7de.html#axzz2cwTG6sZh>.

274. *See generally* Watt, *supra* note 202.

275. 12 U.S.C. § 353 (2012).

relocate their business to more relaxed overseas regulatory jurisdictions. A CCP or other potential third party nongovernmental counterparty would most likely have an account at the foreign central bank in its jurisdiction. To minimize counterparty credit risk, the Federal Reserve should be at most only directly exposed to the foreign central bank's credit risk.

A distressed overseas CCP confronting a dollar liquidity shortage could present a much more significant risk to domestic U.S. financial stability than that presented by individual overseas financial institutions facing short-term dollar funding shortages. CCPs are some of the most critical components of international financial market settlement systems. A distressed CCP could create significant international “bottlenecks” in financial markets. The legal possibility of a swap line between the Federal Reserve and an overseas CCP<sup>276</sup> would be significant for at least four reasons. First, as noted, the potential problems and risks discussed in Part III would be equally applicable, if not exacerbated, in this context. In particular, the Federal Reserve would not have supervisory or regulatory authority over such an entity. International bank regulators are discussing “co-operative arrangement[s]”<sup>277</sup> for CCP oversight. But it remains unclear whether such oversight is a sufficient substitute for traditional supervision and regulation. Second, the amount of emergency dollar liquidity a financially distressed CCP could potentially need would likely be many times that of current swap line amounts. For example, when Lehman Brothers defaulted, its open positions with LCH.Clearnet Group's CCPs were a notional \$10 trillion.<sup>278</sup> Third, the CCP collateral available to secure emergency dollars—likely in the form of a repurchase agreement—could consist of a very broad range of private market securities of uncertain market value.

Finally, a swap line extension to overseas CCPs would, in important respects, be the international equivalent of the Federal Reserve's new Dodd–Frank Title VIII credit and liquidity authority, which is itself controversial.<sup>279</sup> The current swap line statutory framework could support swap line arrangements with an overseas CCP similar to the authority in Title VIII to support emergency central bank assistance to certain domestic CCPs.<sup>280</sup> Issues related to the domestic controversy would be applicable to, if not more important in, the case of swap lines with an overseas CCP.

The swap lines and the Title VIII authority are likely to be interrelated in practice. The Financial Stability Oversight Council designated eight financial

---

276. Section 1103 of Dodd–Frank requires that open market transactions “with a nongovernmental third party” pursuant to its swap line authority in 12 U.S.C. § 353 be disclosed after a two-year period. 12 U.S.C. § 248(s) (2012).

277. See Watt, *supra* note 202.

278. NORMAN, *supra* note 271, at 26. Note that dollar-denominated contracts likely only constitute part of this total amount. This example is merely used to show how large such portfolios could be in practice.

279. See generally Baker, *supra* note 79.

280. See 12 U.S.C. § 5465 (2012).

market utilities as “systemically significant.”<sup>281</sup> One important implication of this designation is that Federal Reserve lending in “unusual or exigent” circumstances can assist these institutions.<sup>282</sup> CLS Bank International (“CLS”) is one of the institutions that received this designation.<sup>283</sup> CLS describes itself as playing “a fundamental role in the FX [foreign exchange] market—it operates the largest multicurrency cash settlement system . . . . Owned by 73 of the world’s leading financial institutions, CLS settles payment instructions related to underlying FX transactions in 17 currencies.”<sup>284</sup>

International financial regulatory reforms—such as those of the G20—are increasingly mandating the use of CCPs for clearing “standardized” derivatives in the \$639 trillion notional-amount,<sup>285</sup> over-the-counter derivatives market. Consequently, CCPs should only increase in size and global systemic importance. Such developments are likely also to increase the possibility that a distressed, overseas CCP might need last resort emergency dollar assistance. In advance of such emergencies, the swap line framework should be clearly restricted to central bank counterparties so that relevant overseas CCPs arrange potential emergency liquidity provision prior to a crisis.

### *C. Objections to a New Swap Line Framework*

Opponents of a new legal framework for the Federal Reserve’s swap lines may object to my proposal for at least four reasons: first, a desire to forbear in favor of a truly global solution; second, a concern about preserving central bank independence; third, a belief that the swap lines should be completely abolished; and fourth, a belief that the status quo is not problematic and should continue.

First, opponents could argue that global financial market liquidity problems require a truly international solution. To date, the Federal Reserve’s swap line counterparties have been foreign central banks—that is, sovereign actors. Opponents could argue that the status quo should remain until the advent of a truly international solution. It is unclear, however, when a truly global solution to continuing, significant international liquidity issues will be found. And when economists do posit potential international solutions to global liquidity shortages, the institutions at the center of such proposed infrastructures frequently have

---

281. See *Financial Stability Oversight Council Makes First Designations in Effort to Protect Against Future Financial Crises*, U.S. DEP’T TREASURY (July 18, 2012), <http://www.treasury.gov/press-center/press-releases/Pages/tg1645.aspx> [hereinafter *Financial Stability Oversight Council*].

282. See 12 U.S.C. § 5465.

283. See *Financial Stability Oversight Council*, *supra* note 281. For additional information about CLS Bank’s role in financial markets, see Galati, *supra* note 38.

284. *CLS Designated a Systemically Important FMU*, CLS-GROUP (July 18, 2012), <http://www.cls-group.com/MC/Pages/NewsArticle.aspx?nid=99>.

285. See *Table 19: Amounts Outstanding of Over-the-Counter (OTC) Derivatives*, BANKS FOR INT’L SETTLEMENTS QUARTERLY REVIEW, May 8, 2013, at A141.



significant monitoring, restrictive, and pricing capabilities.<sup>286</sup> These measures are currently largely unavailable to the Federal Reserve.

For example, in *Reforming the International Monetary System*,<sup>287</sup> economists suggest that a partial solution to global liquidity issues could be to “systematize swap agreements between central banks,”<sup>288</sup> with the IMF as a hub institution. Their solution would also include *ex ante* codified agreements and contracts for this potential *ex post* liquidity provision.<sup>289</sup> The IMF would act as a global liquidity supplier by “simultaneously entering into swap agreements with a liquidity-issuing country and with a country in need of liquidity.”<sup>290</sup> These swap arrangements would act as an “insurance mechanism,”<sup>291</sup> and sovereign liquidity “insurers” would be compensated *ex ante* by insurance-like premiums. The IMF would have the capability to select, monitor, and sanction individual sovereign actors.<sup>292</sup>

Even if implemented, such multilateral solutions could ultimately be untenable. Central banks providing high-demand reserve currencies—the liquidity issuers—could breach their agreements *ex post* if their own country’s interests sufficiently incentivized such a decision. This risk is similar to that faced by a CCP in the event that an individual clearinghouse member were to strategically breach a contractual obligation—such as an *ex ante* agreement to make additional contributions to the CCP default fund—during a financial crisis because such action is in the institution’s best interest.<sup>293</sup>

Another way of thinking about the Federal Reserve’s swap line hub position or central role with its swap lines is to compare it to that of a CCP.<sup>294</sup> Similar to a CCP, the Federal Reserve is in the hub position within a network of foreign central banks connected by swap lines. While truly global solutions might be unlikely in the near future, they are helpful to inform expectations about the responsibilities and capabilities of the “hub” institution. As noted, a foreseeable future extension of the Federal Reserve’s swap lines is to overseas CCPs.

286. See generally FARHI ET AL., *supra* note 22, at 36.

287. See *id.*

288. *Id.* § 4.4.

289. *Id.*

290. *Id.* at 39.

291. See *id.* at 36.

292. See *id.* at 37. It is unclear whether in practice the IMF would be in a position to accomplish this.

293. See generally Ed Nosal, *Clearing Over-the-Counter Derivatives*, 35 ECON. PERS., 4th Qtr., 2011, at 137 (discussing the possibility of strategic breach by a counterparty in a bilateral relationship).

294. A CCP is a hub, and its clearing members—individual financial institutions—are “connected” by spokes. The primary purpose of the CCP hub is to concentrate, mutualize, and robustly manage the credit risk of the clearing members’ financial transactions. Accordingly, CCPs require that clearing members meet stringent financial standards, maintain margin accounts, make contributions to a common default fund, and follow demanding risk-management procedures. For additional background on CCPs, see NORMAN, *supra* note 278.

Elsewhere, I have argued that the Federal Reserve has potentially become, in some important respects, the central clearing party of last resort.<sup>295</sup> If the Federal Reserve were to establish swap lines with overseas CCPs, it could also become, in some important respects, the international CCP of last resort. This is one reason why a new legal framework incorporating such considerations is urgent.

To minimize moral hazard, international loan program facilities have long conditioned the disbursement of funds on monitoring and financial restrictions. For example, the IMF has a history of placing conditions on its loans.<sup>296</sup> In fact, some economically emerging countries are thought to have built up excess foreign reserves to self-insure so as to avoid the potential strictures of such conditionality.<sup>297</sup> Many of the Federal Reserve's swap line counterparties are also members of the IMF. Some are among its largest shareholders. Additionally, the U.S. Treasury has placed conditions on its Exchange Stabilization Fund loans to sovereigns.<sup>298</sup> Therefore, conditionality or parallel measures in the use of the swap lines as proposed by my framework should be unsurprising.

Current foreign central bank controversies also suggest the need for a new swap line legal framework. Before some foreign central banks will act as international lenders of last resort, they expect to have supervision and regulatory authority over beneficiary institutions. This expectation is unsurprising given traditional understandings of the lender of last resort role.<sup>299</sup> A current example illustrates this point: the ECB's "location policy" discussed above. This physical "location policy" is designed to give European regulators the ability to oversee risks to the euro.<sup>300</sup> Proponents of the policy argue that data access and cooperative regulatory oversight fall short of the "direct supervision" that is necessary.<sup>301</sup> Of course, the ECB could instead use the central banks in the foreign CCP jurisdictions as supervision intermediaries. This is currently the practice in the case of the Federal Reserve's swap lines.

A second possible objection to my proposed framework is that it would jeopardize central bank independence. A central bank's independence is widely

---

295. See Baker, *supra* note 79.

296. See INT'L MONETARY FUND, FACTSHEET: IMF CONDITIONALITY 1–3, (Apr. 2, 2013).

297. See Mishkin, *supra* note 86.

298. Munk, *supra* note 116, at 229–233. Note that the Treasury's Exchange Stabilization Fund, like the swap lines, was originally established to manage the value of the dollar. Its continued existence has been controversial. See generally Calomiris, *supra* note 180.

299. See generally *supra* Part II(A)–(D).

300. Watt, *supra* note 202.

301. See *id.* (quoting Philippe Troussard at the Banque de France, who stated that “[g]iven the growing systemic importance of CCPs, if a CCP clears a significant volume of euro-denominated contracts, we feel it is vital for it to have access to eurozone central bank liquidity in times of crisis. If eurozone central banks are going to provide liquidity to CCPs, they will require direct oversight of these institutions, hence the request for such infrastructures to be located within the eurozone. There will be no change from our side on this matter.”).

acknowledged to be critical to its institutional effectiveness. As economist and Federal Reserve historian Allan Meltzer explains: “Independence is not just important. It is a critical part of the institutionalization of a low-inflation policy. It prevents Congress and the administration from financing deficits by printing money. And it avoids pressures for credit allocation to politically favored groups.”<sup>302</sup> As noted, the current swap line framework already creates questions about central bank independence. My proposals arguably strengthen and reinforce central bank independence.

Third, some opponents of my proposed framework could argue that the Federal Reserve’s swap lines should be completely abolished. One possible argument for this is that the swap lines potentially conflict with the Constitution’s congressional appropriations process. The potential fiscal character of the swap lines is problematic, but increased international financial market instability and its possible domestic economic ramifications in their absence—at least in the short-term—could also be highly problematic. In balancing these concerns, the current use of the swap lines—and their likely future extension—is likely to be necessary and to continue for the foreseeable future.

Finally, many economists and others view the Federal Reserve’s swap lines as having successfully provided critical international stability during the financial crisis. Therefore, it could be argued that the status quo is unproblematic. And furthermore, that if a new swap line framework were necessary, it would have already been put into place, or at a minimum, a greater public demand would exist for its creation. But a public choice explanation<sup>303</sup> could also explain why this might not necessarily be the case. The Federal Reserve’s swap lines are unfamiliar to most, but it is eminently reasonable to suggest that much of the general public would support the creation of legal frameworks designed to minimize or eliminate provision of government insurance to international financial institutions. At the same time, the potential benefits of the swap lines to international financial institutions create strong incentives for powerful, well-organized financial market interest groups to support the status quo, to strongly resist any additional regulation or legal frameworks that could reduce or eliminate these benefits, and even to argue for the future expansion of the swap lines’ use.

### CONCLUSION

This Article argues that the Federal Reserve’s use of swap lines provided important stability in international financial markets during the financial crisis. It also argues that they will increasingly be critical international stability mechanisms and that their use will likely expand. Although the use of swap lines among central banks is relatively new, there are significant potential problems and risks

---

302. MELTZER, *supra* note 75, at 1252. See also Geoffrey Miller, *An Interest-Group Theory of Central Bank Independence*, 27 J. LEGAL STUD. 433, 445–57 (1998) (“Extensive research over the past decade tends to support the theory that central bank independence is associated with lower inflation, at least in the developed world”).

303. For a general primer on public choice theory, see MAXWELL L. STEARNS & TODD J. ZYWICKI, *PUBLIC CHOICE CONCEPTS AND APPLICATIONS IN LAW* (1st ed. 2009).

associated with the Federal Reserve's swap lines. The current statutory framework is woefully inadequate to confront these challenges. Therefore, a new legal framework for the Federal Reserve's swap lines is urgently needed. My Article argues for a balanced approach. In sum, swap lines can be a significant aid in fostering domestic and international financial market stability during financial crises, but this objective cannot be reached unless and until the swap lines themselves are grounded in a new, thoughtful, practical, and forward-looking legal framework. Importantly, this new framework should be informed by future developments surrounding central bank swap lines and their impending transformational role in global financial markets.