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The Implications of Cross-Border Banking and Foreign-Currency Swap Lines for the International Monetary System

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The financial crisis in Iceland that struck with full force in 2008 throws light on one of the more important fault lines at the intersection between the international monetary system and the international financial system.[1] This fault line was the operation of cross-border banks with large foreign-currency balance sheets featuring significant maturity mismatches but without an effective lender of last resort (LOLR) in terms of foreign currency.[2]

In this chapter, I concentrate mostly on this fault line, its implications for the international monetary system, and potential remedies, leaving aside many other important issues regarding the international monetary system.[3] This topic leads to other key issues, such as the reserve currency, a global lender of last resort, and the role of foreign-exchange reserves.

My former colleagues at the Bank for International Settlements (BIS) and others have described in several articles and reports how foreign-exchange risk in cross-border banking (currency mismatches and maturity mismatches in foreign currency) accumulated prior to the crisis, how that risk materialized in a forceful way after the collapse of Lehman Brothers, and how the ensuing dollar shortage was prevented from triggering widespread failure of banks to deliver on their foreign-currency payments by lender-of-last-resort operations in foreign exchange, using countries' reserves and the dollar swap lines that were granted on a large scale.[4] The same episode played out in the case of the Icelandic banks but with a less happy ending, although there was much more to that story that I cannot expand on here, such as hidden vulnerabilities in the capital positions of the banks.

Maturity mismatches are the bread and butter of modern banking, although they make banks vulnerable to runs. In the case of solvent

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institutions, we have known theoretically since Henry Thornton (1802) (and probably over a century, as a practical policy) how to deal with that vulnerability in a domestic setting—with central bank LOLR operations, later complemented by deposit insurance. This process is facilitated by two factors. First, the funds withdrawn from banks during a domestic run flow in one form or another to the central bank, which can then redirect them back to the banks. Second, central banks have a very large short-run capacity to expand their balance sheets.

In the current setting, it is far from guaranteed that this process can be replicated at the international level. In normal times, managing liquidity across currencies from countries with free movement of capital and relatively developed capital markets is not much of an issue. In these conditions, foreign-exchange swap markets can speedily be used to convert liquidity from one currency to another at spreads that closely reflect the differences in domestic money-market rates in the two countries concerned. In other words, the covered-interest parity condition broadly holds. But runs are less likely in normal times. During the peak of the crisis, this process broke down almost completely in many cases, and foreign-exchange swap spreads skyrocketed afterward. It became extremely costly and in some cases almost impossible to convert domestic liquidity into dollar liquidity. The same scenario played out with the euro for several European countries outside the euro area.

In a situation like this, the home central bank's ability to help banks refinance the foreign liquidity that was denied them on the market is limited by the size of its reserves or the willingness of its larger neighbors to help. The Icelandic case brought this into sharp relief. Just before their failure, the three cross-border banks had foreign-currency balance sheets amounting to almost seven and a half times gross domestic product. In comparison, the reserves of the Central Bank of Iceland, including swap lines with Nordic countries and committed credit lines, amounted to around 35 percent of GDP. Even if some of the foreign-currency liabilities were long-term, the reserves were no match for the bleeding balance sheets of the banks.

The issue here is one of the ebb and flow of international liquidity, which is a monetary issue. Although the provision of foreign-currency liquidity through reserves was important during the crisis, most studies

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seem to support the conclusion that the dollar swap lines made the key difference, especially when they were uncapped for some key central banks. It was to a significant degree the domestic LOLR process replicated at the international level.

Does this mean that we have the solution? At the conceptual level, yes, but at the practical level, no. The swap lines are not a permanent and reliable feature of the international monetary system. Will they be resurrected if similar circumstances arise in the future? Excellent central-bank cooperation and strong leadership were involved on this occasion. However, we have seen their existence challenged in political discussion in the United States. Although at this time it was dollar liquidity that was needed around the globe, next time it might be other currencies. And then there is the issue of access criteria. Who gets a swap line and who does not? Should the provision of international liquidity be subject to the decision of one national central bank? It is also possible to turn the question around and ask whether it would ever work for an international process to decide on a major expansion of the balance sheet of a national central bank. After all, the foreign-exchange swaps amounted to over a quarter of the balance sheet of the Federal Reserve at the peak (Moessner and Allen 2010a), and then there was the promise of an uncapped expansion for a few key central banks.

What are the alternatives? One is to change the international financial system as a result of the problems revealed in the international monetary system. This requires the contraction of cross-border banking through market processes, including subsidiarization and local funding. Countries need to adopt measures to deal with risks by restricting the international activities of home banks and placing stricter prudential limits on currency mismatches and foreign-currency maturity mismatches. For example, when Iceland lifts its current capital controls on outflows, it probably will impose restrictions on both the size and composition of the foreign-currency balance sheets of home-headquartered banks. Some might see such restrictions as capital controls in another form, but I see them as prudential rules.

These developments might restrict significant cross-border banking to larger countries with international currencies, but this need not be all bad. The structure of cross-border banking would then be adjusting to

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the real risks involved, but I suspect that some smaller countries might not like it. In Europe, smaller countries have the option of joining the European Union and the euro area, which makes it safer to be a home base to cross-border banks. EU-wide (or European Monetary Union-wide) supervision, deposit insurance, and crisis management and resolution were put in place for such banks in the future. This might even entail two types of bank licenses—one for domestic banks and another for those wanting to have substantial operations across borders.

Increased self-insurance by countries building foreign-exchange reserves is also an alternative, and this has happened after the crisis.[5] However, there are well-known drawbacks and limitations to this option.

Another currently discussed alternative is to strengthen the IMF as an international lender of last resort and, in the process, enhance the role of the special drawing rights (SDRs) as a reserve asset. It would involve making the supply of SDRs more elastic and the process more conducive to managing international liquidity. In the grander visions, the SDR would run parallel to the U.S. dollar as a reserve currency and potentially replace it.[6] Such an arrangement would be a move in the direction of John Keynes's (1980) original idea of an international clearing union and its currency, the Bancor. This idea merits further research and full discussion, and I note that the IMF is doing substantial work in this area. At this point, however, I see several obstacles.

First, there is a distinction between lending to sovereigns and lending to banks. The IMF has focused on lending to sovereigns, whereas swap lines were actually a form of lending to banks because, from a liquidity standpoint, the foreign central banks were simply intermediaries of the Federal Reserve's global liquidity operations, although the counterparty risk was borne by the foreign central banks. In the initial stages of a financial crisis, banks can encounter foreign-currency liquidity problems even if the finances of the sovereign are in good shape and there is no balance-of-payments crisis. Even solid Norway struggled on this point for a few days post-Lehman Brothers. The central bank was able to manage with its own reserves, but to be on the safe side and probably to contain the liquidation of U.S. dollar assets, a swap arrangement was swiftly negotiated with the Federal Reserve, at the same time that the Fed made comparable agreements with several other central banks. However, as was seen in several cases during this last episode, a banking

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crisis in a small, open economy will affect the sovereign in due course and may ultimately result in a full-scale fiscal crisis.

Second, the special drawing right itself is not at present a currency in its own right but a claim to use other members' currencies or foreign-exchange reserves. For the SDR to become a truly international currency on a par with the U.S. dollar, it needs robust payment and settlement systems, and the private sector will have to be induced to use it on a large scale. In addition, if alterations in the supply of special drawing rights are going to be an important tool for managing international liquidity, not to mention using it for lender-of-last-resort operations for international banks, then the IMF needs to be able to create liquidity or swiftly tap into those that can. Furthermore, speed and scale are of the essence if such an option is to be a viable alternative to the swap lines.

Third, the governance mechanisms for such a new global reserve currency do not exist. It is hard to envision the current IMF executive board taking decisions that are more akin to what central banks do, such as setting special drawing right interest rates (if and when it gets a life of its own) or acting quickly to decide on lender-of-last-resort operations that are basically directed at banks, although probably through national central banks. What is needed is possibly some kind of International Liquidity Committee composed of central-bank governors and perhaps full-time executive directors. Maybe it should meet at the Bank for International Settlements. The arguments for central-bank independence that apply to monetary policy seem to carry over to affecting global monetary conditions.

In conclusion, the expansion of cross-border banking that was witnessed before the crisis was part of the ongoing and at least partly beneficial process of financial globalization. However, if we do not deal with the risks involved, we face the danger of a major reversal. It is fine to elaborate on grand schemes, and one day they might be realized. In the meantime, we can expect a combination of a partial retreat of cross-border banking, increased self-insurance, expansion of regional arrangements, and partial reforms to the international monetary and financial systems. Speedier and more flexible credit lines at the IMF are certainly a welcome part of the latter. Let us hope that the reforms will dominate the retreat.

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Notes

1. There are many definitions of the terms *international monetary system* and *international financial system* and their relationship to each other. I construe the former to consist of exchange-rate arrangements, payments and settlement systems across borders, and other international factors that would be included in the definition of a domestic monetary system (including liquidity provision by a lender of last resort), and the institutions and the rules that apply to all of these. The international financial system consists of the operations of financial institutions and markets across borders as shaped by market forces and domestic and international regulations. In some sense, capital flows belong to both, as they go through markets and institutions but are conditioned by factors such as exchange-rate regimes and exchange-rate restrictions.

2. See Guðmundsson and Thorgeirsson (2010). On the financial crisis in Iceland more generally, see Guðmundsson (2010) and references therein, and "Report of the Special Investigation Commission (SIC)," http://sic.althingi.is.

3. Bernanke (2011) and Carney (2010) provide interesting recent analysis of one of the important omitted issues—the functioning of the adjustment mechanism.

4. See, for instance, Baba and Shim (2010); CGFS Study Group (2010a, 2010b, 2010c); Fender and McGuire (2010a, 2010b); McGuire and von Peter (2009); Moessner and Allen (2010 a, 2010b); and Obstfeld (2010). For the Korean case, see Park (2010).

5. Moessner and Allen (2010a) report sizable increases in reserves in the case of Denmark, Sweden, Hungary, and Brazil.

6. On a much-discussed proposal, see Zhou (2009). The International Monetary Fund (2011) provides an interesting analysis of the issues involved.

References

Baba, Naohiko, and Ilhyock Shim. 2010. "Policy Responses to Dislocations in the FX Swap Market: The Experience of Korea." *BIS Quarterly Review* (June), http://www.bis.org.

Bernanke, Ben S. 2011. "Global Imbalances: Links to Economic and Financial Stability." Paper presented at the Banque de France Financial Stability Review Launch Event, Paris, France, February 18, http://www.bis.org.

Carney, Mark. 2010. "Restoring Faith in the International Monetary System." Paper presented at the Spruce Meadows Changing Fortunes Round Table, Calgary, Alberta, September 10, http://www.bis.org.

Committee on the Global Financial System (CGFS) Study Group. 2010a. "The Functioning and Resilience of Cross-border Funding Markets." CGFS Paper No. 37 (March), http://www.bis.org.

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This is a portion of the eBook at doi:10.7551/mitpress/9451.001.0001

Committee on the Global Financial System (CGFS) Study Group. 2010b. "Funding Patterns and Liquidity Management of Internationally Active Banks." CGFS Paper No. 39 (May), http://www.bis.org.

Committee on the Global Financial System (CGFS) Study Group. 2010c. "Long-term Issues in International Banking." CGFS Paper No. 41 (July), http://www.bis.org.

Fender, Ingo, and Patrick McGuire. 2010a. "Bank Structure, Funding Risk and the Transmission of Shocks across Countries: Concepts and Measurement." *BIS Quarterly Review* (September), http://www.bis.org.

Fender, Ingo, and Patrick McGuire. 2010b. "European Banks' U.S. Dollar Funding Pressures." *BIS Quarterly Review* (June), http://www.bis.org.

Guðmundsson, Már. 2010. "The Financial Crisis in Iceland and the Fault Lines in Cross-Border Banking." Paper presented at the FIBE (Fagkonferanse I Bedriftsøkonomiske Emner) conference, Bergen, Norway, January 7, http://www.sedlabanki.is/?PageID=287&NewsID=2362.

Guðmundsson, Már, and Thorsteinn Thorgeirsson. 2010. "The Fault Lines in Cross-Border Banking: Lessons from the Icelandic Case." SUERF Studies 05/2010, European Money and Finance Forum, http://www.suerf.org/download/studies/study20105.pdf.

International Monetary Fund (IMF). 2011. "Enhancing International Monetary Stability: A Role for the SDR?" International Monetary Fund Paper, International Monetary Fund, Washington, DC, January 7.

Keynes, John Maynard. 1980. *The Collected Writings of John Maynard Keynes*. Vol. 25, *Activities 1940–1944. Shaping the Post-War World: The Clearing Union*. Edited by Donald Moggridge. London: Macmillan Cambridge University Press.

McGuire, Patrick, and Götz von Peter. 2009. "The U.S. Dollar Shortage in Global Banking and the International Policy Response." Bank of International Settlements Working Paper No. 291 (October), http://www.bis.org.

Moessner, Richhild, and William A. Allen. 2010a. "Banking Crises and the International Monetary System in the Great Depression and Now." Bank of International Settlements Working Paper No. 333 (December), http://www.bis.org.

Moessner, Richhild, and William A. Allen. 2010b. "Options for Meeting the Demand for International Liquidity during Financial Crises." *BIS Quarterly Review* (September), http://www.bis.org.

Obstfeld, Maurice. 2010. "Expanding Gross Asset Positions and the International Monetary System." Paper presented at the Federal Reserve Bank of Kansas City symposium, Macroeconomic Challenges: The Decade Ahead, Jackson Hole, Wyoming, August 26–28.

Park, Yung Chul. 2010. "The Role of Macroprudential Policy for Financial Stability in East Asia's Emerging Economies." Korea University, September.

Thornton, Henry. 1802. *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain*. London: George Allen & Unwin.

Zhou, Xiaochuan. 2009. "Reform the International Monetary System." *BIS Review* 41/2009 (March 23), http://www.bis.org.

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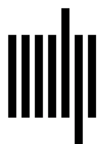
Citation:

In the Wake of the Crisis: Leading Economists Reassess Economic Policy
Edited by: Olivier Blanchard, David Romer, Michael Spence, Joseph E. Stiglitz
DOI: 10.7551/mitpress/9451.001.0001
ISBN (electronic): 9780262301831
Publisher: The MIT Press
Published: 2014



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This book was set in Sabon by Toppan Best-set Premedia Limited. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

In the wake of the crisis : leading economists reassess economic policy / edited by Olivier Blanchard . . . [et al.].
p. cm.
Conference proceedings.
Includes bibliographical references and index.
ISBN 978-0-262-01761-9 (hardcover : alk. paper)
1. Global Financial Crisis, 2008–2009—Congresses. 2. Fiscal policy—Congresses. 3. Monetary policy—Congresses. 4. Economic development—Congresses. I. Blanchard, Olivier.
HB37172008.I6 2012
339.5—dc23

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