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Comment: Aslı Demirgüç-Kunt

It was a pleasure to read Hyun Shin's chapter on global liquidity and procyclicality. Indeed, any paper that starts with emphasizing the importance of finance for the real economy is music to my ears, as I have spent a large part of my professional life arguing that "finance matters for economic development," rather than merely the other way around. In the beginning of the chapter, Hyun says "the financial tail is wagging the real economy dog." For many of us in the finance and development field, finance is the brain anyway, not the tail, so this is not very surprising from that perspective.[1] Hence I like the emphasis on the role of the financial system in the international economy and how problems in the financial system and the intermediation process might spill over to the rest of the economy. Therefore I am predisposed to agree with the arguments and the main conclusion of the chapter.

However, the job of the discussant is to think of ways to sharpen the arguments and strengthen the chapter, so that is what I will try to do in my comments. My first observation is that although there is a lot to like in this chapter, there are also a lot of moving parts. It pulls together a lot of data and analysis from different pieces of work. Indeed, I would characterize it as a collection of interesting, provocative hypotheses rather than a fully developed argument. So, although the data and evidence presented are compelling, it is not always clear how the links are made, and sometimes possible alternative explanations are not adequately covered to present a

I am grateful to Sergio Schmukler and Ha Nguyen for helpful comments.

1. See, for example, Levine (2005); Demirgüç-Kunt and Levine (2008, 2009); Cull, Demirgüç-Kunt, and Morduch (2011); Ayyagari, Demirgüç-Kunt, and Maksimovic (2013); and Cihak and Demirgüç-Kunt (2014); among others.

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coherent storyline. This approach leaves the reader with more questions than answers. Nevertheless, the ideas presented here are very thought provoking, which no doubt will lead to much more research in these areas.

Identification Issues

The chapter starts by asking two main questions. Why are global financial conditions so attuned to the strength of the US dollar? And why is the economy so sensitive to global financial conditions? These are important yet complicated questions, and drawing from my own area of expertise, they are immediately subject to the identification problem. In other words, when we try to answer these types of questions looking at equilibrium outcomes, it is very difficult to figure out the direction of causality. It could simply be that the global financial conditions are sensitive to the economy, or what we observe could simply be reflecting other factors at play.

It is not that different here. Take, for example, the centrality of the dollar in the global banking system. Although the dollar certainly plays a large part in the world economy, transactions in other currencies are also growing, as the chapter also mentions. Hence the dollar may not be the only driving factor.

Shin observes that when an international currency depreciates, there is a tendency for foreigners to borrow more in that currency. Hence, banks lend more internationally when the dollar is weak. But again, how much of this trend is a mere reflection of other currencies strengthening? For example, as emerging markets boom, capital flows in, their currencies appreciate, and the dollar depreciates vis-à-vis these currencies. This process is not necessarily driven by the dollar; instead, the dollar exchange rate is just a reflection of this process.

Another observation made in the chapter is that during the 2008–2009 global financial crisis, the dollar appreciated strongly with the onset of the crisis, despite the large US current account deficit. But again, we need to remember that these developments coincided with a run toward safe assets (notably, US treasuries), so it is not possible to disentangle how much of this appreciation was due to dollar per se, which was surely attractive for other reasons.

Overall, it is not clear that causality goes from the dollar to other markets; the dollar may not be as central as Shin argues, but may be just a

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reflection of an entirely different set of factors at play. Indeed, Shin also mentions that similar patterns are observed with other currencies, like the yen and Swiss franc.

Limits to Arbitrage, Portfolio and Foreign Direct Investment Flows, Gross versus Net Flows

Other points would also benefit from a more detailed explanation in the chapter. First, an interesting market anomaly that is highlighted is the failure of covered interest parity (CIP). We generally expect market interest rates and the implied interest rates from forward rates embedded in foreign exchange swaps to be more or less consistent. But as Shin reports, this has not been the case in recent years, particularly for periods of a strong dollar. Unfortunately, there is little explanation of why we observe this phenomenon. The chapter mentions in passing issues of risk-taking capacity (or limits to arbitrage) and counterparty risk, which could play important roles in explaining this anomaly. But given that a big part of the story depends on the inability of financial markets to hedge risk, it seems that this should deserve more attention than it gets in the chapter. For example, why does a dollar appreciation lead to a more negative cross-currency basis swap spread?

Second, why is the central focus of the chapter on bank flows as opposed to other flows? Shin focuses mostly on the importance of bank flows, which are, of course, highly relevant. However, a significant part of the increasing flows are portfolio and foreign direct investments. And for many countries around the world, these other two components have grown more quickly and might now surpass bank flows. The chapter should at least acknowledge this and discuss the implications.

Third, Shin makes a distinction between net versus gross flows, which is welcome.[2] But a significant part of the story is related to net financing. As home bias diminishes and residents have more wealth to invest, gross flows will expand as individuals diversify their portfolios internationally and hold one another's portfolios. Figure 5.11 illustrates that as countries

2. Shin relies on BIS data for this analysis, but gross flows are also available from balance of payments data by type of flow. Gross investment, issuance, and portfolio positions are available, too. See for example, World Bank (2015).

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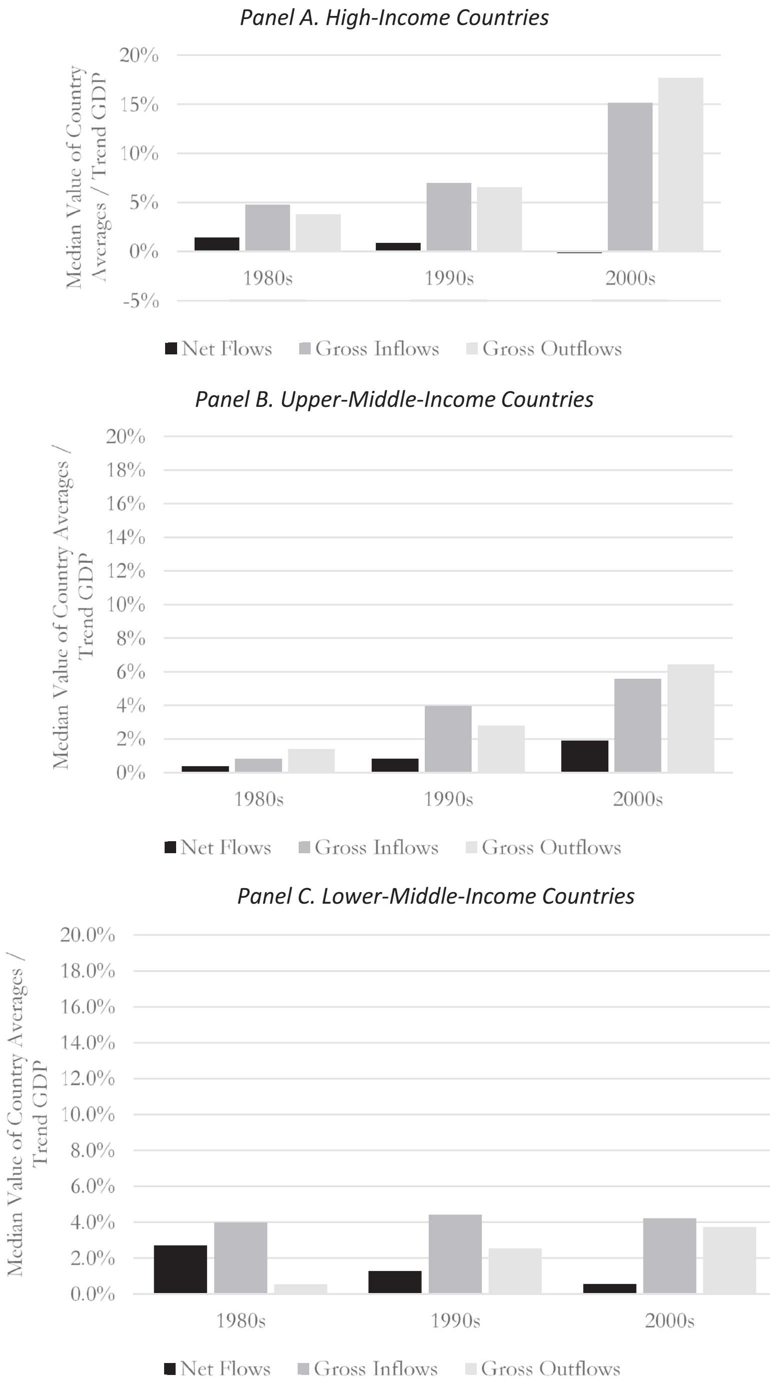

Figure 5.11
Net and gross capital flows
A. High-income countries
B. Upper-middle-income countries
C. Lower-middle-income countries

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become richer, we expect gross flows to grow, although the trends in net flows are much less clear (Broner et al. 2013).

The effects of a shock may play out very differently depending on the reallocation between foreign and domestic investors as they retrench from the expansion period. To the extent that gross flows expand, what is important is how the asset and liability positions expand. As many emerging market economies have accumulated reserves, reduced sovereign borrowing, and received foreign direct investment and equity inflows, dollar appreciations and market collapses have been accompanied by a strengthening of their net foreign positions.

Overborrowing by Emerging Market Corporates?

Looking ahead, the chapter also tries to identify sources of fragility. One interesting conjecture is whether emerging market corporates will cause the next crisis. Shin asks whether we are going to see another East Asian crisis, where corporates were at the heart of the problem. Though the chapter does not devote much space to this discussion, it is nevertheless worth commenting on. Excessive borrowing to finance risky investments can be exacerbated by global liquidity conditions and may be a valid source of concern. However, there are mitigating factors, and some questions need to be answered to ascertain whether this concern is serious.

First, measuring risk taking in financial markets is difficult, because positions can be hedged. So an important question is: What proportion of these positions are open or unhedged? It is also difficult to decide what should be the benchmark level of indebtedness when discussing whether corporations are overborrowing.[3]

Second, as discussed at length in *Global Financial Development Report 2015/2016 on Long-Term Finance* (World Bank 2015), the emerging market corporates that borrow abroad do so through bond issuance in foreign currency, but this means they also extend their maturity at the same time, as foreign corporate bond markets are longer than domestic ones. Indeed, as figure 5.12 shows, in developing countries, maturity of international bond issues tends to be longer than that of domestic issues, although the reverse

3. See, for example, Alfaro et al. (2016) for a discussion of different benchmarks and the sensitivity of conclusions to the choice of these benchmarks.

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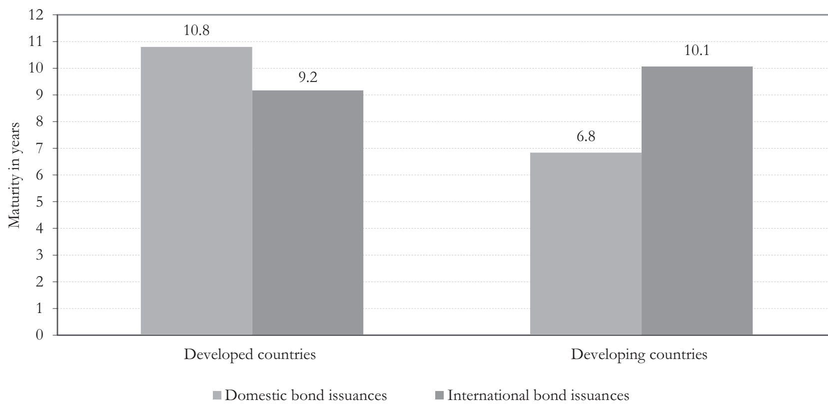

Figure 5.12
Maturity of domestic and international issuances, corporate-bond market
Notes: This figure reports the weighted average maturity of domestic and international corporate bonds issued by firms from developed and developing countries. The sample period is 1991–2014.
Source: Cortina, Didier, and Schmukler (2016).

is true for developed countries (Cortina, Didier, and Schmukler 2016). This is only briefly mentioned in the chapter.

Third, the important role of reserve accumulation by emerging markets is also mentioned in passing in the chapter, but it deserves more elaboration. To the extent that governments hold foreign reserves, they benefit from an appreciation of the US dollar, compensating for the potential losses that the corporates might suffer. The dollar appreciation may have fiscal costs (due to a potential bailout), but the government will have additional resources. Whether this is enough will depend on the size of government assets versus unhedged corporate liabilities. Otherwise on net, it is not clear whether the result would be gains or losses from an appreciation of the US dollar due to funding abroad. At any rate, only a very few of the largest corporates in emerging markets are able to access international markets.

Fourth, the main concern expressed in the chapter is that firms engage in carry trade (i.e., they issue bonds at low rates to accumulate cash and undertake risky financial intermediation activities in their home countries). But according to Bruno and Shin (2015), at most firms accumulate 23 percent of each dollar raised through bond issues (the estimates vary substantially and can be as low as 4 percent). This does not seem to be a

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large enough figure to be concerned about this effect. Clearly, the majority of the finance raised is used to finance growth opportunities through capital investment, growth in employment, mergers and acquisitions, and the like, as expected.

Fifth, large firms could indeed be using some of the cash to finance other firms, such as their suppliers. This intermediation process might channel funds from large companies to small and medium enterprises that cannot access capital markets directly because of information asymmetries; as a result, it could relax their financing constraints. If large companies have better information and are able to overcome information asymmetries that these smaller firms often face, this activity may be beneficial.

Finally, the fact that the Bruno and Shin (2015) results are driven by emerging markets makes the reader wonder what is special about these countries. Another important question is what the role of financial firms is. One would think they would be in a better position to engage in carry trade.

Trade-Offs and Parallels

One implication of the chapter is that although it is potentially an important source of economic benefits, financial globalization also has potential downsides. It worsens the trade-offs that monetary policy faces in navigating among multiple domestic objectives. There is the basic one between inflation and unemployment. But financial stability considerations are also important. So, for example, optimal monetary policy may have to be pulled away from the traditional macroeconomic goals of price stability and full employment to restrain debt buildups, particularly in the absence of effective macro-prudential tools.

These problems only become worse in an open economy, because openness to global financial markets will inevitably reduce the effectiveness of the macro-prudential tools that are available. So the trade-off between macro stabilization and financial stability becomes even more difficult. If a bigger interest rate change is required to bring about a given demand response in an open economy, this may worsen the macro-prudential problem by increasing the fragility of banks and encouraging gross financial flows.

This discussion has important parallels to banking globalization, which is the topic of the *Global Financial Development Report 2017/18* (World Bank 2018). It, too, describes an inherent tension between risk diversification

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and sharing as capital flows from low- to high-return countries and the implied necessity for exposing oneself to shocks and trends from abroad.

The benefits are many: In addition to resource mobilization and risk sharing, importantly, the entry of international banks can increase competition in the domestic banking industry, improving the efficiency of resource allocation, which is key to promoting economic development. When entry happens through brick and mortar, foreign banks often bring new technical knowledge, improve human capital in the industry, generate demand for improving regulation and supervision, and are generally less subject to political manipulation. These findings are quite well established in the literature.

But there are also potential costs. As in the global financial crisis, host countries might be exposed to external shocks transmitted by international banks, endangering their stability. It is also true that international banks might fuel excessive credit booms in host countries that end up in busts, because domestic financial systems are not capable of handling such flows. Such behavior—amplified by global liquidity conditions—might be harmful for the financial stability of home and host countries, ending up in costly boom and bust cycles and cross-border contagion risks.

For example, in a recent paper, we use bank-level data from more than 100 countries during 1999–2010 to study bank lending behavior over the business cycle (Bertay, Demirgüç-Kunt, and Huizinga 2015). Of all the banks in the sample, lending by foreign banks is the most procyclical, increasing their lending much more during upswings compared to domestic banks (figure 5.13). This is potentially because they can access funding from their international parent firms to take advantage of local lending opportunities during economic growth periods.

A Research Agenda for Developing Countries

It is useful to frame this discussion in the context of recent trends in bank internationalization (namely, the dramatic growth of foreign banking in the 1990s), followed by the retrenchment as a result of the crisis and the increase in south-south flows to at least partially compensate this retrenchment. Thus viewed, this discussion raises important policy questions for developing countries and lays out a research agenda. Several questions are in the minds of policy makers.

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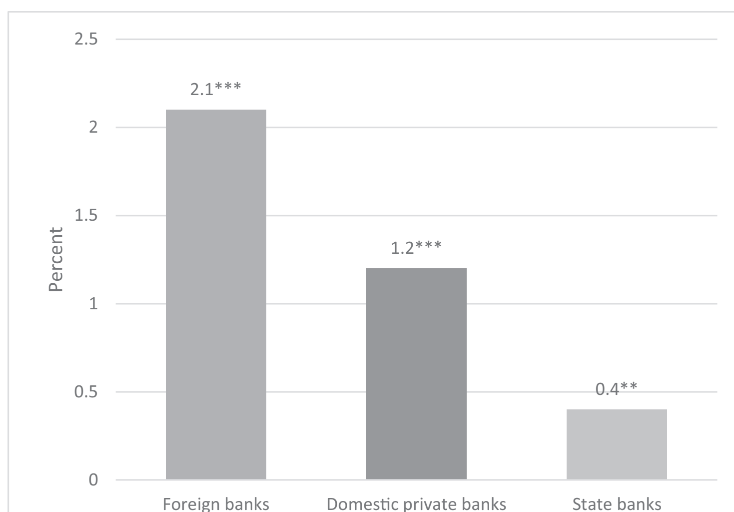

Figure 5.13
Change in bank lending associated with 1 percent growth in GDP per capita, 1999–2010
Note: The figure shows marginal effects from a regression of bank lending on GDP per capita growth and number of control variables, estimated using a sample of 1,633 banks from 111 countries. Significance level: ** 5 percent, *** 1 percent.
Source: Bertay, Demirgüç-Kunt, and Huizinga (2015).

First: Are international banks too fickle to be heavily relied on by developing countries? Especially if they enter through acquisition, is there a risk that they will hollow out existing banks by substituting for local provision key functions from foreign headquarters? If so, information technology, certain aspects of payments capability, and even risk management skills could be lost or substantially eroded locally if the bank decides to exit the country. Although this question is age old, it has been receiving increased policy attention since the global financial crisis, as capital regulations on many European and US international banks induce them to retrench from international business (for example, the recent retreat of Barclays from Africa). So with the retrenchment after the crisis, has our policy advice to developing countries on foreign banking changed?

Second: Given the rise of south-south entry, should developing country authorities be especially cautious in their approach to admitting south-south international banking activities? For example, Chinese banks may be beginning to expand into Africa, Southeast Asia, and Latin America.

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Should one worry about the lack of experience and perhaps insufficient home country prudential and AML-CFT supervision in some south-south cases? Or does the cost base and region-specific knowledge give these banks a better potential to provide banking services on a solid basis in the host countries?

Third: What is the development impact of international banking, particularly when it comes to access and inclusion? Does allowing foreign banks a larger share risk reducing the access and increasing the price of banking services to small and medium enterprises (SMEs) and lower income households? This is an old question, but not as much work has been devoted to it as has been to analyzing efficiency and stability concerns. Yet it is still one of the big policy questions.

And finally: What is the future going to look like? How do we expect technological advances and fin-tech to modify global banking? How would potential blurring of cross-border and brick and mortar banking change our answers to the questions above? What should financial regulation and supervision look like in a world in which international banking is much larger?

Overall financial globalization, including banking globalization, can lead to important trade-offs. The challenge of policy will be to maximize the benefits of bank internationalization while minimizing the costs. It is an exciting agenda, which we will be working on over the coming years.

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Edited by: Kaushik Basu, David Rosenblatt, Claudia Sepúlveda

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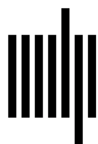

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