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BOOK REVIEW

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Managing capital flows in the 21st century

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TAMING THE TIDE OF CAPITAL FLOWS: A POLICY GUIDE
Ghosh Atish R., Jonathan D. Ostry, and Mahvash S. Qureshi
Cambridge: MIT Press, 2018, 488 pp., 9780262037167

DANCE OF THE TRILLIONS: DEVELOPING COUNTRIES AND GLOBAL FINANCE
Lubin, David
Washington DC: Brookings Institution Press, 2018, 154 pp., 9780815736745

CRASHED: HOW A DECADE OF FINANCIAL CRISES CHANGED THE WORLD
Tooze Adam
London: Penguin, 2018, 720 pp., 9780670024933

The last 50 years have seen a sustained process of financial globalization, with countries around the world opening their capital accounts and joining international financial markets. Underpinning this process has been the idea that higher financial integration would deliver welfare gains, in the form of a better international allocation of capital and higher risk-sharing across countries. With the passing of time, however, it is clear that international capital flows have displayed important negative side effects. Most notably, volatile capital flows have been associated with turmoil in financial markets and sharp boom-bust cycles in credit and output. It is, then, not surprising that, both in academic and policy circles, an initially benign view towards openness to international capital flows has given way to a more skeptical approach. Should capital flows be regulated? Does international financial integration call for international cooperation in policy design? These questions are now at the forefront of the current debate on the international monetary system. In what follows, I review three recent books that nicely complement each other in giving a bird's-eye view of the facts and debate on capital flows. One of the central themes of *Crashed*, by Adam Tooze, is the connection between capital flows and the 2008 global financial crisis. *Dance of the Trillions*, by David Lubin, provides an historical overview of the integration of developing countries into the international financial markets, from the 1970s to the present. In *Taming the Tide of Capital Flows,* Atish Ghosh, Jonathan Ostry and Mahvash Qureshi consider the policy options available to governments in developing countries seeking to mitigate the negative effects of capital flows. Besides reviewing these books, I will throughout provide suggestions for further reading by referencing the recent academic literature on capital flows.

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1 | CRASHED

Crashed is an impressive effort to analyse the 2008 global financial crisis, from its roots and unfolding to its economic and political consequences. In my review, I will not be able to do justice to the richness of the book. I will instead focus on its connections with the debate on international capital flows.

In Tooze's narrative of the crisis, capital flows play a key role. The first dimension of capital flows tackled in the book is *transatlantic*. Chapter 3 describes how West European banks, mainly from euro-area countries and the United Kingdom, invested heavily in the U.S. mortgage market in the run-up to the crisis. Interestingly, European banks financed these investments in large part by borrowing from U.S. money-market funds. As a result, these capital flows did not translate into a current account imbalance between Europe and the United States. Perhaps because of this, in the precrisis period transatlantic capital flows were not perceived as a threat to global financial stability. What was missing was the recognition that the large gross positions that European banks held against U.S. markets represented a substantial risk.

This risk, as spelled out in Chapter 8, materialized during the global financial crisis—when European banks lost access to dollar funding and experienced a liquidity crisis. The classic solution to liquidity crises is emergency lending from the central bank. Here, however, comes a problem. The European Central Bank and the Bank of England could lend euros and pounds, respectively, not dollars. And dollar funding was what European banks needed to avoid liquidating their assets. The solution came in the form of swap lines, through which the Federal Reserve lent large amounts of dollars to the ECB and the Bank of England, which, in turn, lent them to private banks. As Tooze notes in one of the most interesting passages of the book, through these swap lines central banks "absorbed the currency mismatch of the European bank balance sheets directly onto their own accounts" (p. 214). This intervention averted a euro-dollar and a sterling-dollar currency crisis. And the conversion of these emergency liquidity-swap arrangements into standing arrangements, which occurred in October 2013, is perhaps the most pertinent legacy that the 2008 financial crisis left on the international monetary system. As Tooze puts it, through the creation of an international network of liquidity provision "...the global dollar system was being given a new and unprecedentedly expansive foundation" (p. 483).

The second dimension of capital flows covered by Tooze is intra-euro area. As described in Chapter 4, the first 10 years of the euro were marked by the emergence of large current-account imbalances among member countries, with capital flowing from core countries, mainly Germany and France, to peripheral countries—Greece, Ireland, Portugal and Spain. In turn, capital inflows fuelled private credit booms in recipient countries.[1] At the time, these flows were interpreted as a natural consequence of the introduction of the euro and the associated disappearance of currency risk among member countries (Lane, 2006). Indeed, an old line of thought suggests that the most important benefit a country could obtain from joining a currency union was greater financial integration with other members (Ingram, 1973).[2]

But these flows reversed with the start of the global financial crisis, when peripheral euro-area countries experienced a massive sudden stop in capital inflows. These events mark the beginning of the euro-area crisis, which is the object of Part III of the book. There are two elements of Tooze's vivid account of the crisis that I would like to highlight. The first is the detailed description of the process through which private capital flows (bank-to-bank) were transformed into public capital flows (sovereign-to-sovereign). Inevitably, this process put politics at the forefront of the resolution of the crisis. The second is the observation that the reduction in current-account deficits by peripheral countries was not associated, as one might have expected, with a drop in the current-

account surpluses of core countries. Instead, countries such as Germany and the Netherlands posted large trade—as well as fiscal—surpluses during the recovery from the crisis.

Some commentators have argued that the joint current-account and fiscal surpluses posted by core euro-area countries produced strong contractionary spillovers towards the rest of the world (Krugman, 2013; Setser, 2019). In recent work joint with Federica Romei, we provide a framework to think formally about this debate (Fornaro & Romei, 2019). We consider a multicountry world, in which global demand is scarce. Weak global demand means that many, but not all, countries operate below full employment. Against this background, we show that governments in countries that are in good economic shape have an incentive to tighten fiscal policy, to create fiscal space to fight future recessions. But this policy stance further depresses global demand, hurting countries that are currently experiencing a recession. If this effect is sufficiently strong, the world can fall prey to a *paradox of global thrift*. That is, governments' efforts to boost national savings to insure against the risk of future recessions generate a drop in global output in the present. Our analysis implies—in line with Keynes' 1941 thinking—that in periods in which global demand is scarce, international cooperation is needed to ensure that booming countries' fiscal interventions do not impart excessive negative spillovers on the rest of the world.[3]

The third dimension concerns capital flows between advanced economies and developing countries. Tooze highlights how most developing countries did not suffer deep financial crises in 2008, largely due to the fact that they entered the crisis with low stocks of net foreign debt. There are, of course, exceptions. Chapter 9 is devoted to the case of Eastern Europe, which went through a classic boom and bust cycle driven by capital flows. Eastern European countries, in fact, borrowed heavily from West European banks in the run up to the global financial crisis. As the crisis started, these countries were subject to massive sudden stops in capital inflows, followed by deep recessions. Moreover, there are examples of financial turmoil happening in countries running trade surpluses. Emblematic is the case of South Korea, whose banks were affected by a shortage of dollar funding analogous to the one experienced by West European banks. The solution, once again, was the opening of swap lines between the Federal Reserve and the Bank of Korea.

But, if anything, the weight of developing countries in the global economy increased following the global financial crisis. This is especially true for China. In Chapter 10, Tooze describes how the Chinese fiscal stimulus played a fundamental role in sustaining global demand in the aftermath of the global financial crisis. And throughout the book there are frequent mentions of how the large Chinese holdings of U.S. public debt might give rise to political tensions. The conclusion is that we are entering a multipolar world, characterized by the rising importance of developing countries. This fact, as argued in the conclusion of the book, opens up new challenges to international cooperation.

Summing up, *Crashed* is an excellent source for readers interested in learning about the origins, unfolding and consequences of the global financial crisis, and how this episode was shaped by international capital flows.

2 | DANCE OF THE TRILLIONS

In *Dance of the Trillions*, David Lubin provides an overview of how developing countries have been integrated into the international financial markets from the 1970s to today. The book is centred around the boom-bust cycles induced by capital flows, characteristic of many

developing countries' crises. The typical episode starts with large inflows of foreign capital. These feed a domestic credit boom, which sustains aggregate demand and fosters growth. As the country accumulates foreign debt, however, its financial system becomes inherently more fragile. The country is then hit by a sharp reversal of capital flows—a sudden stop—which can be triggered by a domestic or an external shock, such as a rise in the U.S. federal funds rate, or even by a change in investors' mood.[4] The sudden stop, in turn, gives rise to a financial crisis and a deep recession. In Chapter 2, Lubin highlights how this pattern has characterized the Latin American countries' crises of the early 1980s, the Asian crises of 1997, and the Argentinian crisis of 2001. He also notes how these episodes correlate with the U.S. monetary cycle, with capital flowing towards developing countries during periods of loose monetary policy, and flowing out following monetary tightenings.

Chapter 3 is an account of how these crisis episodes led to a rethinking of the notion that all countries could benefit from free movement of capital. Following the 1997 crisis, the use of capital controls to limit the inflows of foreign capital during booms became standard practice among developing countries, especially in East Asia and part of Latin America. Capital controls were complemented with substantial accumulation of foreign reserves, which could then be used to tame the impact of sudden stops in private capital inflows on the economy.[5] It is in part because of these measures that developing countries, with the exception of East European countries, did not experience deep financial stress during the global financial crisis.

In Chapter 4, one of the most interesting parts of the book, Lubin advances a complementary hypothesis to explain the good economic performance characterizing developing countries during the 2000s. In his view, the emergence of China positively affected other developing countries by sustaining global demand for commodities. Through this channel, business cycles in China exert strong spillover effects on other developing countries. In the final part of the book, Lubin suggests that China might influence other developing countries not only through trade linkages, but also by providing a role model. As Lubin calls it, the "Beijing consensus" rests on tight control of capital flows, coupled with reserve accumulation and sizable state intervention in the economy, in particular through infrastructure building. Though this is an intriguing perspective, one cannot help but note that these are far from being new recipes. Just to cite an example, similar policies were put in place by Western European countries in the three decades following the end of WWII (Eichengreen, 2008b).

To conclude, *Dance of the Trillions* is a nice, concise introduction to the history of the tumultous relationship between developing countries and international financial markets. It is especially recommended for readers with little prior knowledge of the subject.

3 | TAMING THE TIDE OF CAPITAL FLOWS

The global financial crisis triggered a change in the International Monetary Fund's approach towards capital flows. The fund, in fact, moved from advocating free capital movements to recognizing that controls on capital flows constitute a legitimate policy instrument. The authors of *Taming the Tide of Capital Flows*, all IMF experts, played a pivotal role in shaping this change of views—and the book summarizes their thinking on capital-flows management.

The book mixes empirical evidence and theoretical analyses. Besides summarizing the existing literature, it presents a wealth of new results. After providing some historical background, in Chapters 3 and 4, the authors document the behaviour of macroeconomic aggregates during episodes of large capital inflows—"surges" in their terminology—

experienced by developing countries. They find that surges are associated with increases in domestic credit and economic booms, as well as with exchange-rate appreciations.[6] Moreover, they document that receiving large capital inflows increases substantially the probability of a financial crisis happening once capital flows reverse. Indeed, they find that 20% of their surge episodes end in a banking crisis.

The book then devotes three chapters to theoretical models. These are useful to fix ideas about the channels through which capital inflows affect macroeconomic variables, as well as to consider the impact of different policy responses. Of particular interest is the framework presented in Chapter 5, which builds upon the Mundell–Fleming tradition. While the framework is quite complex, it helps clarify the differences between various policy instruments, such as traditional monetary policy, foreign exchange interventions, macroprudential policies and capital controls—a subject on which substantial confusion in the literature persists. The material in this chapter complements the recent academic literature on capital flows and business cycles. For instance, Farhi and Werning (2016) and Schmitt-Grohé and Uribe (2016), for instance, provide elegant models in which episodes of large capital inflows are followed by financial crises and recessions. These frameworks are extremely useful to derive lessons about the optimal conduct of monetary and macroprudential policies.

An intriguing feature of the model presented in Chapter 5 is the fact that avoiding an excessive appreciation of the exchange rate lists among the policy objectives. The informal story provided to justify this feature of the model is that an exchange-rate appreciation hurts profitability of firms in the tradable sector. Since innovation activities and productivity growth tend to concentrate in sectors producing tradable goods, overvaluation of the exchange rate is then associated with low productivity growth. In joint work with Gianluca Benigno (Benigno & Fornaro, 2014), we provide a simple framework that captures these concerns. In our model, capital inflows give rise to a boom in domestic aggregate demand. Higher domestic demand leads to an appreciation of the exchange rate and a rise in wages, reducing profits for firms producing tradable goods. In turn, lower profits induce firms in the tradable sector to cut back their investment in innovation. Since innovation in the tradable sector is the engine of growth in the economy, the result is a drop in productivity growth. I refer to this effect as the *financial resource curse,* due to its similarity with the standard natural resource curse. In ongoing work with Martin Wolf (Benigno, Fornaro, & Wolf, 2019), I suggest that advanced economies, and not just developing ones,experience episodes of the financial resource curse. Indeed, I argue that the large capital inflows that the United States has received from developing countries (China in particular) since the early 2000s may be connected with the contemporaneous slowdown in U.S. productivity growth.

Chapters 8 and 9 are perhaps the most interesting parts of the book. Chapter 8 presents an empirical analysis of the policy responses that governments in emerging markets implement during surges. Consistent with the theoretical framework of Chapter 5, governments, besides using standard monetary policy, react to surges by intervening on the foreign-exchange market and using both macroprudential policies and capital controls. Chapter 9 focuses on the effectiveness of these policy interventions. While these results are preliminary and tentative, owing to the usual endogeneity issues,[7] they are intriguing. The authors conclude that, if implemented during a surge, foreign-exchange interventions are effective in containing the appreciation of the exchange rate, that macroprudential policies limit credit growth, and that capital controls can be used to alter the composition of capital inflows (for instance, by discouraging short-term flows in favour of long-term ones). Taking stock, these results show that governments, far from taking a laissez-faire approach, use a variety of policy measures to

shape the impact of capital flows on the economy, and that these interventions can be effective. These observations will surely motivate further work on this topic.

Chapter 10 turns to multilateral considerations. First, the authors tackle the issue of cooperation among countries that are recipients of capital inflows. The key observation is that when a country imposes a policy to limit capital inflows, say through capital controls, it deflects these flows to other countries. Naturally, other countries that receive capital flows will react by implementing capital controls themselves. As argued by the authors, these policy spillovers can result in an inefficient capital-control war.[8] To avoid this outcome, recipient countries should design their response to capital inflows jointly. Second, the authors consider cooperation between surplus and deficit countries. As mentioned above, recent academic research suggests that this dimension of cooperation is particularly important when, as in the current situation, global demand is weak. In this case, in fact, current-account surpluses might give rise to strong contractionary spillovers towards the rest of the world (Fornaro & Romei, 2019).[9] If this is the case, it is crucial to coordinate policy interventions among surplus and deficit countries. This idea dates back at least to Keynes, but so far little effort has been devoted to implementing it in practice. As the authors suggest in the conclusion of the book, however, substantial welfare gains might be delivered by reforms of the international monetary system aiming at fostering international cooperation.

Put simply, *Taming the Tide of Capital Flows* is a key reference to understand the current debate on capital flows management. It is thus highly recommended to any reader interested in the topic, both from an academic and policymaking perspective.

ENDNOTES

[1] In the case of Greece and Portugal, capital flows also contributed to an increase in public debt.

[2] There has been surprisingly little work trying to understand these effects through the lens of a formal model. In a recent paper, Fornaro (2019), I propose a framework in which forming a currency union fosters financial integration. In a nutshell, under flexible exchange rates, national governments can expropriate foreign investors by depreciating the exchange rate to reduce the value of collateral that creditors can repossess. Anticipating this risk, under flexible exchange rates, foreign creditors impose tight limits on the stock of external debt that a country can hold. Once a monetary union is formed, the risk of expropriation-by-depreciation disappears, enabling countries to sustain higher stocks of foreign debt.

[3] Chapter 4 of Eichengreen (2008a) and Chapter 7 of Temin and Vines (2014) are two excellent sources on Keynes' Plan of 1941. In a nutshell: Keynes saw that excessive current account surpluses by booming countries would depress global demand, and so there was a need for international rules to contain them.

[4] Fornaro (2018), Gertler, Gilchrist, and Natalucci (2007) and Mendoza (2010) provide frameworks, in which a sudden stop occurs due to changes in fundamentals. Aghion, Bacchetta, and Banerjee (2001), Chang and Velasco (2001) and Krugman (1999) show that a sudden stop can be purely the outcome of a change in investors' expectations.

[5] These policy interventions have sparked a large academic literature trying to rationalize their use. Capital controls have been showed to be useful in presence of frictions in the financial markets (Bianchi, 2011; Korinek, 2018), aggregate demand externalities (Farhi & Werning, 2016) and sectoral misallocation of factors of production (Benigno & Fornaro, 2014). Examples of papers studying reserve accumulation as a protection against sudden stops are Jeanne and Ranciere (2011), Benigno and Fornaro (2012) and Bianchi, Hatchondo, and Martinez (2018).

[6] In joint work with Gianluca Benigno and Nathan Converse, we perform a similar analysis and obtain consistent results (Benigno, Converse, & Fornaro, 2015). We also find that large capital inflows are associated

with an expansion of non-tradable sectors at the expenses of sectors producing tradable goods. This is in line with the idea that large capital inflows generate a loss of competitiveness.

[7] Imagine that we want to understand whether the imposition of capital controls reduces capital inflows. Answering this question empirically is challenging, because governments typically do not implement policies randomly, but rather do so in response to economic events. For instance, capital controls are usually put in place during periods of unusually large capital inflows. Hence, naively looking at correlations one would conclude that capital controls are ineffective at reducing inflows, because when they are imposed capital inflows are larger than usual. The solution would be to look at episodes in which capital controls are implemented for reasons that have nothing to do with capital flows. But finding examples of such episodes is of course extremely challenging.

[8] This point is also present in Korinek (2011).

[9] See also Acharya and Bengui (2018), Caballero, Farhi, and Gourinchas (2015) and Eggertsson, Mehrotra, Singh, and Summers (2016).

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