Special Feature B

International Financial Flows and Domestic Credit Conditions

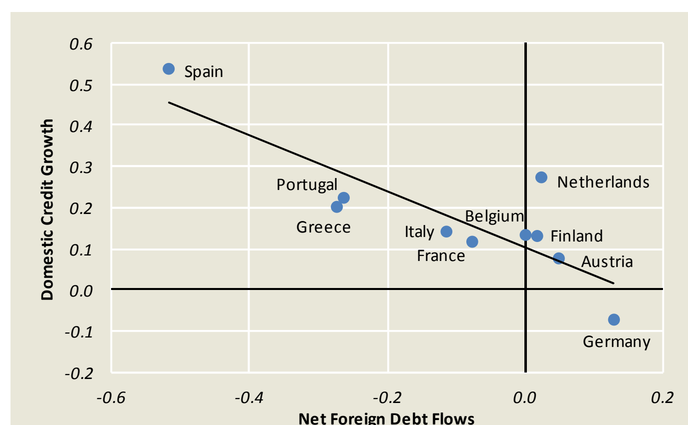
by Philip R. Lane[1]

Introduction and Motivation

Much research has been conducted on the possible risks posed by international financial flows for domestic macro-financial stability; equally, the vulnerabilities associated with rapid expansion in domestic credit conditions have also received considerable attention. A recent wave of research has focused on the intersection between these two fields, emphasising the inter-linkages between international financial flows and domestic credit conditions (see, amongst others, Baeriswyl and Ganarin, 2011; McGuire and von Peter, 2012; Bruno and Shin, 2014a; Lane and McQuade, 2014).[2]

The European experience during 2003–07 provides a powerful illustration of the interplay between international financial flows and domestic credit growth. For instance, as shown in Chart 1, there was a very strong negative covariation pattern across members of the euro area during this pre-crisis period: domestic credit growth was more rapid in those countries that experienced international debt inflows, while domestic credit growth was far milder (or even negative) in those countries that experienced international debt outflows.

Chart 1
Net International Debt Flows and Domestic Credit Growth in the Euro Area: 2003–07



Source: Adapted from Lane (2013b)

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[2] Lane (2013a) provides a more extensive review of the themes laid out in this article.

Channels of Cross-border Financial Flows

Of course, correlation does not provide causation. Still, a standard narrative of this episode explains the size and persistence of the credit booms in countries such as Ireland and Spain as partly fuelled by the ability of banks in these countries to tap international debt markets. This occurred through multiple channels, including the gathering of deposits from foreign investors, international bond issuance and the European interbank wholesale market. In turn, the supply of international debt to these regional banks was enabled by the ability of global banks (especially the largest European banks) to raise short term funding in the highly-liquid US wholesale dollar market, which was partly recycled to fund lending to the European periphery.

It is important to appreciate that the link between international financial flows and domestic credit growth is driven by debt-type inflows. In particular, Lane and McQuade (2014) show that, controlling for the scale of net debt inflows, the scale of net international equity flows has no explanatory power in determining the variation in credit growth. The most natural interpretation is that it is the international debt issued by domestic banks that is the main ingredient in fuelling additional domestic credit expansion. Indeed, this view is reinforced by the finding that it is the international debt flows emanating from the domestic "money-issuing" sector (monetary financial institutions) that is most strongly correlated with domestic credit expansion, whereas there is no strong correlation with the international debt flows emanating from the "money-holding" sectors comprising households, non-financial corporates and the government (Carvalho, 2014).

At the same time, it is also important to maintain a wider perspective on the relation between international financial flows and the overall credit environment in the domestic economy. For instance, Borio *et al.* (2011) emphasise that international credit (direct cross-border lending that bypasses the domestic banking system) can be an important contributor to overall credit dynamics.

International credit can take the form of direct cross-border lending by foreign banks to domestic non-financial corporates and households. In normal times, this is mainly directed at the largest domestic firms. However, as pointed out by Lanau (2011), direct cross-border lending can also expand in scale and scope in response to a tightening of domestic banking regulations.

For instance, a central bank may seek to mitigate a domestic credit boom by restricting the lending decisions of domestically-regulated banks. However, under such circumstances, unfilled demand for credit may persuade foreign banks to enter the market through direct cross-border lending. This can occur in a fairly straightforward manner in relation to foreign banks that have affiliates in the domestic banking system. While the local affiliate may be restricted in extending domestic credit, it can act as a broker for direct cross-border loans from the foreign parent bank (Ranciere *et al*., 2010).

International credit can also take the form of intra-firm loans. A foreign multinational might raise funding through its centralised treasury unit and channel loans to its domestic affiliates. In the other direction, a domestic multinational might borrow offshore through a foreign affiliate (Bruno and Shin, 2014b). Finally, international bond issuance is an important option for larger firms.

In addition to the direct and indirect contributions of international financial flows to aggregate credit conditions in the domestic economy, it is also necessary to recognise the macro-financial risks posed by international financial flows through macroeconomic channels. For instance, Gourinchas and Obstfeld (2012) find that the scale of real exchange rate appreciation is an important indicator of crisis vulnerability, while Catão and Milesi-Ferretti (2013) find that the aggregate stock of net external debt is a robust predictor of international crises.

More generally, international financial flows can alter the macro-financial environment through their impact on domestic spending levels (a current account deficit financing expenditure growth in excess of income growth) and hence on domestic inflation and, in related fashion, through their impact on domestic asset prices (real estate prices, stock market values). By generating fluctuations in these key domestic macro-financial variables, international financial flows pose risks for the domestic banking system even if local banks are not direct intermediaries for these flows.

Finally, in the other direction, foreign asset purchases by domestic residents can also generate risks for the domestic financial system. Most directly, international expansion by domestic banks can have feedback effects on the local system if the local banks incur losses on foreign operations (whether through write-downs of the value of foreign equity assets or losses on the foreign loan book). For instance, Broadbent (2012) reports that 75 per cent of the losses of the UK banking system during the global crisis were accrued in their overseas operations. Similarly, Acharya and Schnabl (2010) document that European banks absorbed a large proportion of the total losses incurred in the asset-backed commercial paper market in the United States during the 2007–09 crisis. It is also the case that it was the foreign operations of the Icelandic banks that were a major part of their ultimate downfall.

Policy Implications

These various interconnections between international financial flows and domestic financial stability pose important challenges for policymakers. In terms of risk monitoring, a key task for domestic policymakers is to understand global liquidity conditions, since global factors are a primary driver of international financial flows to emerging economies (Forbes and Warnock, 2012, Rey, 2013, Bruno and Shin, 2014a). To this end, the newly-created *Global Liquidity Indicators* dataset maintained by the Bank of International Settlements (BIS) can be a helpful input into the surveillance of external financial conditions, in combination with other global risk metrics such as the VIX index.

However, since international financial flows can take many forms, it is necessary to adopt a flexible and wide-angled approach, in order not to omit important possible drivers of international financial flows. It is also the case that the nature of international financial flows will vary across countries and across time periods. For instance, Goldberg (2013) shows that there is a tighter relation between external financial conditions and domestic financial conditions in those economies where foreign banks have a large market share, since the operation of the intra-bank internal capital market provides a powerful mechanism that links home and foreign financial systems.

In terms of the set of policies that can mitigate the risks posed by volatile international financial flows, much can be done at both domestic and international levels. For instance, in terms of policy instruments, there is considerable interest in the potential of macro-prudential regulation of the financial system. An important benefit from an effective macro-prudential policy framework is that it would allow conventional monetary policy to remain focused on its traditional price stability target. By providing an additional policy instrument, it also allows a country to combine macro-financial stability with the pursuit of an exchange rate target (or even membership of a currency union).

The primary motivation to focus on macro-prudential regulation is the recognition that the most damaging effects from volatility in international financial flows occur if these generate costly distortions in the domestic banking system. By this logic, macro-financial stability can be maintained if regulators ensure that local banks do not take excessive risks in their lending or funding patterns.

While the principles of macro-prudential regulation are straightforward, there are many possible implementation problems. For instance, it is important to ensure that regulations do not

simply shift activity from the regulated banking system to various shadow banking activities. Given these implementation difficulties, there has also been renewed interest in the potential for "capital flow management" tools that might be cruder than optimal macro-prudential policies but easier to operate (Ostry *et al.*, 2011). Still, poorly-executed capital controls also carry their own risk factors, such that this debate remains far from settled.

International coordination is necessary if a macro-prudential policy framework is to be effective. In particular, if the domestic regulator determines that banks should adopt tighter lending standards, this can be largely undone if domestic borrowers can simply bypass the local banking system and raise funds externally. Accordingly, it is important the foreign regulators follow the lead of the domestic regulator and ensure that foreign lending into an economy adheres to the principles laid out by the domestic regulator: in principle, this type of international coordination should be more effective under the Basel III set of international rules. At the European level, the new Single Supervisory Mechanism (SSM)[3] should directly ensure that all euro area banks follow the same rule book, including any prescribed restrictions on geographical patterns in lending.

In addition to improved coordination between domestic and foreign policy makers, the design of the international financial system can also do much to assist the pursuit of macro-financial stability. For instance, the operation of currency swap lines among major central banks during the crisis underlined the value of foreign-currency liquidity provision, while the operation of the TARGET2[4] system among national central banks in the Eurosystem was an important stabilising mechanism for the euro area. The design of international liquidity systems that can be applied to more countries and on a greater scale is a high priority for the leadership of the global financial system and the main multilateral institutions (especially the International Monetary Fund).

Sum-up

It is important to accept that there will be international crises in the future, even if the frequency and the scale of such crises can be mitigated by an improved preventive policy framework. Even a low-probability future crisis is best managed in advance by ensuring that the domestic financial system is resilient and that there is a comprehensive, well-tested crisis management playbook.

To this end, the case for maintaining a strong public balance sheet (low public debt, a pool of liquid foreign assets) is reinforced, since the recent crisis has underlined once again the fiscal costs of financial crises. Accordingly, ensuring that fiscal policy is run in a disciplined, countercyclical manner remains a high priority for policymakers and political systems.

[3] The SSM is the system of financial supervision composed of the ECB and the national competent authorities (NCAs) of participating Member States. Under the SSM, the ECB will directly supervise Credit Institutions (CIs) deemed 'significant', with the aim of safeguarding the soundness of the European banking system.

[4] TARGET2 is the real-time gross settlement (RTGS) system owned and operated by the Eurosystem.

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