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Financial integration and central bank policies in small, open economies: what are the key lessons from the crisis?

Remarks by Már Guðmundsson, Governor of the Central Bank of Iceland, in a plenary session on monetary policy and policies of central banks at the Singapore Economic Review Conference, Singapore, 5 August 2015¹

Chairman and participants,

I would like to thank the organisers for inviting me to speak at your conference here in Singapore, a country that I have long respected for its economic management.

My remarks today bear the title *Financial integration and central bank policies in small, open economies: what are the key lessons from the crisis?* They are motivated by my experience as a policy-maker from a very small, open, and what used to be financially integrated economy, and my tenure at the Bank for International Settlements.²

There is a widespread sense that global financial integration can be problematic for the conduct of monetary policy in small, open economies. Why is that?

It is well known that the transmission mechanism of domestic monetary policy evolves as domestic financial markets develop, and that this in turn affects the relative effectiveness of different monetary instruments. The same applies to external liberalisation of domestic financial systems and the cross-border financial integration it gives rise to. Initially, it can give a boost to domestic financial market development. But as it progresses and we at the global level get closer to the limiting case of free and frictionless capital movements, then

¹ A revised and extended version of this talk will be published in a forthcoming *Singapore Economic Review*.

² This talk is thus based partly on my paper entitled “Financial globalisation: key trends and implications for the transmission mechanism of monetary policy”. *BIS Papers No. 39*, April 2008. <http://www.bis.org/publ/bppdf/bispap39c.pdf>

real risk adjusted asset returns increasingly become equalised across countries. As that happens, less and less of the transmission of monetary policy goes through what I call the interest rate channel. There would still be an interest rate channel at the global level, but that would be determined by the big countries. The small, open economies that have adopted a floating exchange rate could still achieve their inflation targets through the exchange rate channel. The scope for short run output stabilisation would be more limited, however.

Is this necessarily a problem? If the exchange rate channel were relatively well behaved - i.e., if it provided smooth adjustment based on fundamentals and uncovered interest rate parity broadly held over relevant horizons - then the answer might be no. The problem is, however, that experience has shown that uncovered interest parity does not hold except perhaps over long horizons. Interest rate differentials give rise to widespread carry trading, which is by nature a bet against UIP. Exchange rates therefore diverge from fundamentals for protracted periods, followed by sharp corrections. So the exchange rate often seems to be as much a source of shocks and instability as a tool for adjustment and stabilisation.

In what I have said so far, there is no presumption that small, open, and financially integrated inflation-targeting countries with floating exchange rates cannot reach whatever inflation target they choose and determine short-term domestic interest rates. You might then ask: how is it that their capacity to affect long-term domestic rates is undermined, and how is this consistent with the theory that long-term rates are determined by expected short-term interest rates (with the addition of risk premia)? The answer is that, insofar as the theory holds, it is global short-term rates that increasingly drive domestic long-term rates in small, open economies as global financial integration comes closer to the limiting case.

Enough of theory. To what degree does the evidence support that this was indeed relevant for monetary policy in small, open, and financially integrated economies during the build-up to the GFC? There is significant literature on this, including one or two pieces of my own. Overall, the data are consistent with the suggestion that a significant progress of financial globalisation took place during the decade and a half before the GFC. This could be seen by quantity measures such as gross external positions and saving-investment correlations. The correlation of asset returns also reached high levels. In some advanced IT countries, the correlation of changes in domestic long-term interest rates with US rates was very strong (over 90%), at the same time as the correlation of domestic short-term rates with long rates was weak - and even non-existent, if lags were taken into account. The GFC reversed

this process somewhat, as risk premia skyrocketed, cross-border banking retreated back to home base, and restrictions on capital movements were in some cases reintroduced. But it has come back to a significant degree.

There is an important caveat here, which is that the observed patterns could have other explanations. Thus co-movements in asset returns could be due to common shocks and the low level of correlation between short and long rates due to monetary policy credibility. Looking at the totality of the evidence and case studies, however, it seems difficult to escape the conclusion that global financial integration was a big underlying driver, although there were also other factors at play. New Zealand appears to be a relevant example here. During significant parts of the 2000s – before the GFC – the policy rate in New Zealand was raised to counteract demand pressures at the same time as the US maintained an easy stance. New Zealand's long rates were flat or falling for most of this period. I could tell a similar but slightly more complicated story from my own country.

The tendencies that I have described can be problematic in their own right but in no way fatal, as the experience of New Zealand and others attests to. It is when they interact badly with other economic and financial risks that can face small, open and financially integrated economies – such as the global credit cycle, domestic financial vulnerabilities, policy conflicts, and asymmetric shocks – that we can have a lethal cocktail. This was the case in Iceland.

To demonstrate this, let me take a stylised example which is, I admit, heavily influenced by the experience of my own country. A small, open, and financially integrated economy develops a positive output gap that is larger than in the rest of the world. The economy is booming and is seen as a good investment by outside investors. This occurs in a situation where the global credit cycle is in a strong upswing. The result is capital inflows and upward pressures on the exchange rate. The country has a floating exchange rate and has adopted a flexible inflation targeting regime. Monetary policy therefore reacts by raising interest rates due to the risks that the booming economy poses for future inflation. This, however, widens the interest rate differential vis-à-vis the rest of the world and sucks in even more capital through carry trade and other channels. The currency therefore appreciates further. This helps to limit inflation, both directly, through lower imported inflation in terms of domestic currency, and indirectly, by directing demand abroad. But the effect of monetary tightening on domestic demand is limited through the processes I have described, where long rates react weakly to the increase in the policy rate. In addition, firms and households

increasingly borrow in foreign currency in order to avoid even those limited increases in domestic borrowing costs that take place. This foreign currency borrowing is intermediated by the domestic banking system, where the financing is more short-term than the lending. Thus the banking system has a growing balance sheet in FX, with a maturity mismatch but limited LOLR facilities to backstop it. In short, financial risks are accumulating, both in the financial sector and among firms and households. At the same time, the economy is increasingly in an unsustainable position, with an overvalued currency and big current account deficit. The whole thing then comes crashing down when foreign financing comes to a sudden stop, heralding a currency crisis and even a banking crisis as well.

Before I go further, let me warn you, though, that this is only part of the explanation of the financial crisis in Iceland. The offshore activities of the banks and old-fashioned macroeconomic mismanagement were equally important, if not more so. On this topic, I refer you to other speeches and publications by myself and others.³

What can and should be done about the problems I have laid out? In answering that question, we should take into account that the biggest problems occur when global factors – cross-border financial integration and associated capital flows – and domestic vulnerabilities interact negatively. In principle, solutions could be directed at any or all of these. Some are obvious in their design and relatively easy to implement, especially if they can be implemented unilaterally by individual countries. Others are more complex in their design or require global, regional, or big-country action that is not necessarily forthcoming.

One potential solution is to enter a monetary union, thus eliminating the small country monetary policy problem. It would also reduce the financial risks emanating from currency mismatches and foreign currency maturity mismatches in the balance sheets of domestic banks. But as this is currently not on the agenda in my own country and recent developments have demonstrated that it is no panacea – with pros and cons that extend far beyond my topic here – I will not dwell on it further.

³ See for instance Már Guðmundsson and Thorsteinn Thorgeirsson, “The Fault Lines in Cross-Border Banking: Lessons from the Icelandic Case” SUERF Studies 05/2010, European Money and Finance Forum (2010); Már Guðmundsson, Keynote address at the Eighth High-Level Meeting for the Middle East & North Africa Region: Recent Policy Developments for Strengthening the Resilience of the Financial Sector, Abu Dhabi, 28 November 2012. www.cb.is; and Már Guðmundsson’s speech at the IIEA conference in Dublin, Ireland, „Iceland’s crisis and recovery: facts, comparisons, and the lessons learned“, 27 April 2015. www.cb.is

There is no doubt that flaws in the international monetary and financial systems exacerbate the problems that I have mentioned. Reforms that would reduce the current asymmetries in the adjustment burdens of surplus and deficit countries, or would to a greater degree internalise the global externalities of the monetary policies of central banks issuing major reserve currencies, could reduce the volatility of capital flows. However, in spite of widespread unease about the current state of affairs, such reforms do not seem likely anytime soon. Furthermore, there are complex unsolved issues involved regarding potential conflicts between domestic and global objectives.

That leaves us with what individual countries can do. In principle, they have three avenues to mitigate the problem. The first is to adjust macroeconomic policy frameworks. The second is to use prudential regulation and supervision aimed at reducing vulnerabilities and increasing resilience in face of volatile capital flows. The third is to introduce tools aimed directly at the financial integration part in order to regain greater monetary independence and shift the effect of monetary policy more to the interest rate channel and towards the non-traded goods sector. This could, for instance, be some form of a variable tax or reserve requirement that would make the relevant capital inflows more expensive and thus limit the increase in the effective interest rate differential vis-à-vis abroad when domestic interest rates are raised. There are complex design, governance, and international issues involved that I do not have time to expand on here. What should be stressed, however, is that it is not optimal that countries are increasingly forced to take unilateral action in this domain. Credible and reliable co-insurance is better than self-insurance. At least, the IMF should monitor the process, and further ahead, some rules of the game regarding capital flows would be welcome so that we are not faced with excessively sub-optimal outcomes and unintended consequences for the global system.

Let me conclude by telling you what we are contemplating in Iceland in this regard, as this issue is very much on the agenda as we prepare to lift the comprehensive controls on capital outflows that were introduced at the peak of the crisis.

We will work through all of the avenues that I have just mentioned, and many of the reforms have already been implemented. What I call IT-plus – or plus-plus – will replace IT of the pre-crisis type. A managed float has already taken the place of the free float. Foreign exchange intervention is thus used to reduce excess volatility in the FX market and lean against capital flow cycles. The financial stability framework has been strengthened, and macroprudential tools are being developed that should mitigate adverse interactions between capital

flows, on the one hand, and domestic credit growth and asset prices, on the other. Foreign currency borrowing by unhedged domestic agents will be very much restricted. Prudential limits on banks' FX balance sheets, in the form of specific LCR and NSFR in FX, have been imposed. In practice, this will greatly limit the size of their FX balance sheets and the associated maturity mismatch that was the proximate cause of the demise of the old banks that failed during the crisis. Finally, a tax or other equivalent measure of the type I just mentioned is being contemplated.⁴

Taken together, this will amount to a very different paradigm for economic management than the one prevailing before the crisis. History will tell whether it is sufficient to preserve monetary and financial stability in the rougher seas of freer capital movements that we intend to embark upon. In any case, we need to strike a balance between dynamism and freedoms, on the one hand, and stability, on the other.

Thank you very much.

⁴ Further details on these proposals can be found in Central Bank of Iceland Special Publication no. 5: Monetary policy in Iceland after capital controls, December 2010, and no. 6: Prudential rules following capital controls, report of the Central Bank of Iceland to the Minister of Economic Affairs, August 2012. www.cb.is