

Box 1 in *Monetary Bulletin* 2016/4 discusses the Central Bank's new capital flow management measure (CFM), which was introduced in June 2016. The CFM entails a special reserve requirement on a portion of new inflows of foreign currency to Iceland. The implementation of the special reserve requirement is based on the Foreign Exchange Act, no. 87/1992, and the statutory authorisation can be found in Temporary Provision III of that Act. With the Rules on Special Reserve Requirements for New Foreign Currency Inflows, no. 490/2016, which took effect on 4 June 2016, the Central Bank's authorisation to impose the special reserve requirement was exercised, but not to the full extent provided for in the Act.¹ According to the current Rules, 40% of new foreign currency inflows for investment in registered bonds and bills issued in krónur, as well as inflows into high-yielding deposits, must be held in a non-interest-bearing account with the Central Bank for one year.

Objectives

The objectives of introducing the special reserve requirement were to mitigate the risk that can accompany large-scale capital inflows and to promote more effective monetary policy transmission by attempting to temper cross-border inflows and affect their composition. The CFM is designed to mitigate the risk potentially associated with inflows related to carry trade; i.e., transactions undertaken in order to profit on the interest rate differential between Iceland and other countries. Inflows of this type can impede normal monetary policy transmission along the interest rate channel and have a detrimental impact on the exchange rate of the króna, thereby undermining monetary and financial stability. Tying up a portion of inflows for one year in a non-interest-bearing account cuts into the profit on such carry trade – the shorter the investment horizon, the stronger the effect. At the time the special reserve requirement was introduced, there was a wide interest rate differential between Iceland and other countries and therefore a strong incentive for carry trade. Trading of this type surged following the authorities' June 2015 announcement of their capital account liberalisation strategy (Chart 1 and Table 1). The associated capital inflows led, among other things, to a decline in long-term interest rates in spite of increased GDP growth and expectations of rising Central Bank interest rates at the time.

Impact

In the main, the special reserve requirement delivered the intended results. Inflows of capital for new investments in the domestic Treasury bond market virtually halted, and total inflows diminished. Inflows into assets not affected by the special reserve requirement increased after mid-2016, however, particularly foreign direct investment (FDI). The reserve requirement has probably had a negligible effect on FDI, however, as the lion's share of the increase stemmed from large long-term projects that had been decided upon before the CFM was introduced. It may have had some effect on inflows into the domestic stock market, which have increased this year, although this is not a given, as investment in stocks is different in nature than investment in Treasury bonds.

Furthermore, the transmission of monetary policy along the interest rate channel normalised after the measure was introduced, and changes in Central Bank interest rates are transmitted to the domestic Treasury bond market once again, unlike the situation in

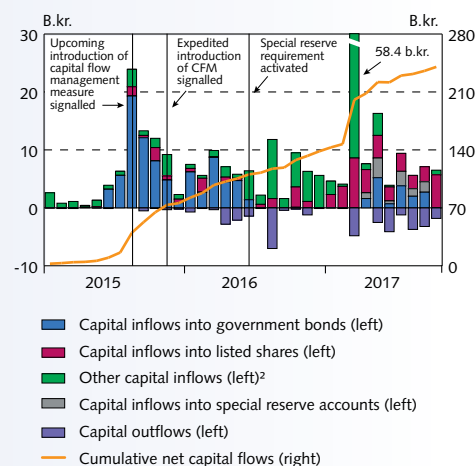
1. Rules no. 490/2016 were amended on 16 June 2016, 1 November 2016, and 13 March 2017.

Box 2

Special reserve requirement on capital inflows

Chart 1

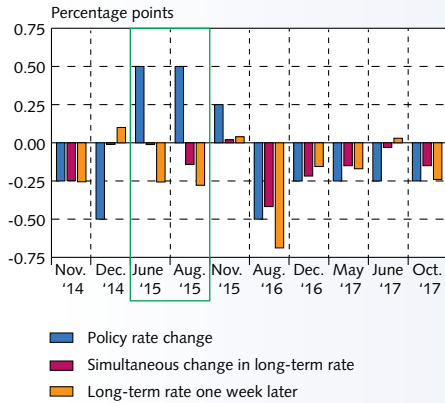
Capital flows due to registered new investments¹
January 2015 - October 2017



1. Investment commencing after 31 October 2009 and based on new inflows of foreign currency that is converted to domestic currency at a financial institution in Iceland. For further information, see the Foreign Exchange Act, no. 87/1992. 2. Other inflows in March 2017 derive almost entirely from non-residents' acquisition of a holding in a domestic commercial bank.

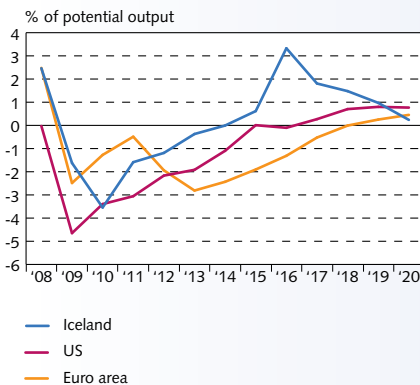
Source: Central Bank of Iceland.

Chart 2
Impact of changes in Central Bank interest rates on long-term Treasury bond yields



Source: Central Bank of Iceland.

Chart 3
Output gap 2008-2020¹

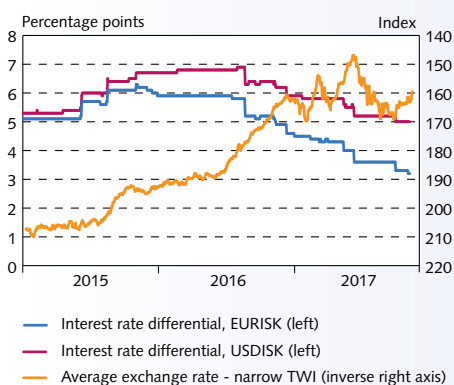


1. Based on Central Bank's *Monetary Bulletin* 2017/4 estimate for Iceland, International Monetary Fund's estimate (*World Economic Outlook*, October 2017) for the US and the euro area.

Sources: International Monetary Fund, Central Bank of Iceland.

Chart 4
Short-term interest rate differential and ISK exchange rate¹

2 January 2015 - 10 November 2017



1. The difference between 3-month interbank rates.
Sources: Thomson Reuters, Central Bank of Iceland.

2015 (Chart 2).² Inflows into the domestic Treasury bond market began to increase again in April 2017, after most of the capital controls were lifted, but have been less than they were before the CFM was introduced in June 2016. At the same time, there was an increase in outflows of capital previously invested in the domestic bond market, and net inflows into domestic Treasury bonds therefore totalled only 7.4 b.kr. over the first ten months of 2017. As of yet, the increase in inflows does not appear to have weakened the transmission of monetary policy along the interest rate channel.

Future arrangements

The special reserve requirement has now been in effect for over a year, and it is necessary to maintain it for a while to come. The liberalisation of most of the capital controls took place only a short time ago, and it is important not to jeopardise the success of the process. There is still a need for higher interest rates in Iceland than in trading partner countries, owing to differences in the business cycle position. There is an output gap in Iceland but a slack in most other advanced economies (Chart 3), and it looks as though interest rates in key currency areas worldwide will remain unusually low for some time to come (see also Chapters II and III). As a consequence, it is likely that there will be a significant interest rate differential between Iceland and its trading partners in the coming term. Added to the impact of the interest rate differential are the recent upgrades in Iceland's sovereign credit ratings from all three of the large international rating agencies, which make Icelandic Treasury bonds an even more attractive option for foreign investors.

There is strong world-wide demand for assets that combine high yields and relatively moderate risk. Iceland's bond and foreign exchange markets are tiny in comparison with this demand. As a result, the investment of even a minuscule portion of global asset portfolios in low-risk Icelandic bonds could severely shake Iceland's thin bond and foreign exchange markets, disturb the monetary policy transmission mechanism, and cause wide fluctuations in the exchange rate of the króna, as was the case during the prelude to the 2008 financial crisis. The probability of large and volatile inflows of this type is therefore non-negligible. In addition to potentially derailing monetary and financial stability, such inflows could impede the transmission of monetary policy via the interest rate channel. Iceland's experience from the years prior to the collapse of the financial system and the introduction of the capital controls shows that this risk is genuine.

The spread between short- and long-term interest rates in Iceland and its trading partners has diminished since the CFM was adopted (Charts 4 and 5). This is due to rate cuts in Iceland, rising rates abroad, and a decline in risk premia on Iceland. If forecasts of a narrowing output gap in Iceland in the near term and the closure of the output slack in trading partner countries materialise (Chart 3), this trend should continue, thereby strengthening the conditions for scaling back the special reserve requirement.

It is important to reduce the special reserve requirement in conditions-based increments. Scaling it back too quickly could erode stability and undermine the effectiveness of monetary policy. Another important factor is that it is unclear what benefit investments affected by the CFM would have for Iceland at present. The

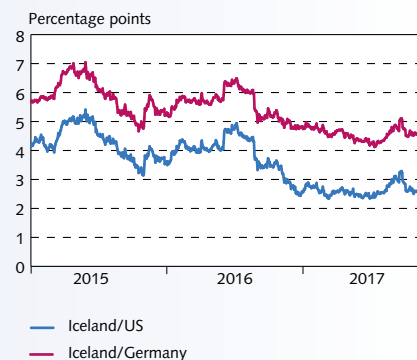
2. This is also consistent with information from the Central Bank's market expectations survey. According to the November 2015 survey, most respondents were of the opinion that the decline at the long end of the yield curve was related to capital inflows into the bond market. A year later, however, in the November 2016 survey, most participants considered the decline in bond rates in August 2016 related to reduced inflation expectations and expectations of lower Central Bank interest rates.

Treasury's borrowing need is limited in historical context, and strictly speaking, the Treasury does not need the funds generated by the bonds in question. If the special reserve requirement were not in effect, the Central Bank would probably have to hold larger foreign exchange reserves so as to mitigate the risk associated with carry trade-related inflows and the potential for sudden outflows. This would be quite costly, as the global market returns on the reserves are unusually low at present. At the same time, foreign investors can expect attractive returns on Icelandic Treasury bonds – the more stable the króna is, the more attractive the returns will be. In order to reduce the risk-adjusted interest rate differential, the Central Bank would therefore need to allow increased exchange rate fluctuations, which would also exacerbate the risk faced by residents. Under current conditions, it can even be argued that for the Icelandic economy, the net benefit of such inflows is negative.

Nevertheless, the aim is to lower the special reserve requirement to zero as soon as conditions warrant it and generally not apply it. However, the Central Bank considers it important to be able to activate it if the need arises. The special reserve requirement would then be a third line of defence, supplementing conventional macroeconomic policy and micro- and macroprudential tools.

In view of the above, it is necessary that the Central Bank retain the statutory authority to apply a special reserve requirement that could be activated at short notice to support monetary and macroprudential policies when there is elevated risk of excess carry trade-related capital inflows, with the associated risk to the domestic economy. In order for this to be possible after the capital controls have been lifted in full, a new statutory foundation (other than the Foreign Exchange Act) must be found for the special reserve requirement, which is primarily a monetary and macroprudential policy instrument. Furthermore, the efficacy of the special reserve requirement must be ensured once speculative derivatives trading in krónur has been re-authorised, as full liberalisation implies. The Central Bank is currently reviewing the technical foundations for the special reserve requirement and preparing proposals for statutory amendments pertaining to its application.

Chart 5
Long-term interest rate differential¹
2 January 2015 - 10 November 2017



1. The difference between 10-year government bond yields.
Sources: Thomson Reuters, Central Bank of Iceland.

Table 1 Capital inflows (outflows) due to registered (sold) new investments (b.kr.)¹

Quarter	Treasury bonds	Special reserve accounts ²	Listed shares	Un-registered equity ³	Other ⁴	Total
2015:1	0.0 (0.0)		0.0 (0.1)	3.5 (0.0)	1.1 (0.0)	4.6 (0.1)
2015:2	3.2 (0.0)		0.2 (0.0)	1.7 (0.0)	0.4 (0.1)	5.6 (0.1)
2015:3	37.0 (0.3)		2.0 (0.0)	3.9 (0.0)	0.5 (0.1)	43.4 (0.5)
2015:4	13.8 (0.3)		3.6 (0.0)	4.2 (0.0)	1.9 (0.1)	23.5 (0.4)
2016:1	18.5 (0.7)		3.1 (0.0)	1.1 (0.0)	1.1 (0.1)	23.9 (0.9)
2016:2	10.3 (3.8)	0.0 (0.0)	1.5 (0.0)	5.4 (2.1)	2.1 (0.1)	19.3 (6.0)
2016:3	0.1 (7.0)	0.0 (0.0)	3.3 (0.0)	10.6 (0.0)	2.2 (0.0)	16.2 (7.1)
2016:4	0.0 (1.5)	0.1 (0.0)	4.7 (0.0)	12.5 (0.0)	4.1 (0.0)	21.3 (1.6)
2017:1	0.0 (2.4)	0.0 (0.0)	14.6 (2.4)	51.5 (0.0)	1.0 (0.0)	67.2 (4.9)
2017:2	7.4 (4.7)	4.9 (0.0)	10.2 (1.5)	4.6 (0.0)	0.4 (0.5)	22.7 (6.7)
2017:3	8.4 (3.7)	5.6 (0.0)	7.9 (3.5)	0.0 (0.8)	0.0 (0.0)	16.3 (8.1)
Total	98.8 (24.5)	10.7 (0.0)	51.2 (7.6)	98.9 (3.0)	15.0 (1.2)	264.0 (36.3)

1. New investment is investment undertaken in Iceland after 31 October 2009 and based on new inflows of foreign currency that is converted to domestic currency at a financial undertaking in Iceland. New investments and sales of such investments must be reported to the Central Bank of Iceland pursuant to the Foreign Exchange Act, no. 87/1992, and the Rules on Foreign Exchange, no. 200/2017. 2. According to Central Bank of Iceland Rules no. 490/2016, with subsequent amendments. 3. The majority of new investment in unlisted equity is foreign direct investment, apart from Q1/2017, when it was due almost entirely to non-residents' purchase of holdings in a domestic commercial bank. 4. Capital flows due to new investment in real estate, deposits, loans, funds, and other securities.

Source: Central Bank of Iceland.