



22 June 2016
1606338

Memorandum

Recipient: Minister of Finance and Economic Affairs

Sender: Central Bank of Iceland

Re: Economic impact of the referendum on Britain's European Union membership

On 23 June, the British people will participate in a national referendum on the future of the United Kingdom's membership of the European Union (EU). According to opinion polls, it is a neck-and-neck race and the outcome highly uncertain. If British voters decide to remain in the EU, the short-term impact will probably be that optimism and risk appetite in the financial markets will increase and both the pound sterling and the euro will appreciate. The long-term impact, however, would presumably be little or none. If British voters decide to leave, a long process will ensue, with no end in sight. The Central Bank of Iceland has kept abreast of developments and has assessed the potential impact on Iceland's economy and financial market. It was therefore deemed appropriate to compile a formal memorandum and send it to Government authorities.

In the past week, the global financial markets' attention has been fixed on Brexit, and tension has been rising. There is much speculation about the implications, but in general, it is considered likely that the pound sterling will appreciate somewhat if the Remain campaign wins but depreciate markedly if Brexit wins. The euro is considered likely to develop in a similar manner, although with less pronounced movements. The referendum is not deemed to generate systemic risk, and movements have not been extreme, although volatility has increased. Short-term position taking causes some volatility alongside new opinion polls, and the effects of summer holidays and derivatives markets could magnify movements in coming days.

It is likely that the impact on Iceland will be slightly negative, mainly through a contraction in marine product exports and tourist arrivals. As is discussed below, the impact could total about 0.2% of GDP. The risk facing Iceland's banks and financial system as a whole is limited. Treasury refinancing could be affected by higher interest premia in the short run, but because financing needs are not acute, it is possible to wait with bond issuance until the markets have calmed down and risk appetite has increased again.

Icelandic economy

i) Macroeconomic impact in the United Kingdom

A part of the uncertainty about the potential economic impact of Brexit stems from the fact that it is not known how customs issues vis-à-vis the EU will be conducted afterwards, and arriving at a conclusion will probably take some months, or even years. With the UK's exit from the EU, import duties should take effect unless agreements to the contrary are reached. The options available to the UK are membership of the European Economic Area (EEA)¹ or EFTA, a customs union, or a free trade agreement. Iceland could choose to conclude a free trade agreement with Britain, irrespective of decisions taken within the EU.

The Organisation for Economic Co-operation and Development (OECD) has assessed the potential macroeconomic impact of Britain's exit from the EU. The OECD assumes that the formal exit will take place late in 2018, with negotiations on customs issues beginning thereafter and taking place from 2019-2023. While negotiations are underway, World Trade Organization (WTO) terms will apply, which would entail higher duties on Britain's trade with the EU; furthermore, the EU's free trade agreements with third parties would no longer apply to the UK.

The OECD analysis indicates that GDP in the UK would be just over 3% less in 2020 than if the British remained in the EU and that, in the long run, GDP would be about 5% less.²

ii) Macroeconomic impact on Iceland

Britain's share in Iceland's goods exports has decreased since the early 1990s, when it was just over 20%. Last year, goods were exported to the UK for slightly less than 73 b.kr., or just under 12% of goods exports for the year. The UK market is particularly important for the fishing industry, as marine product exports to Britain totalled about 48½ b.kr. in 2015, or about 18.3% of all marine product exports for the year. The UK's share of services exports is somewhat smaller, or just under 10% in 2014. In comparison, it is worth mentioning that goods exports to EEA countries accounted for over 78% of all of Iceland's goods exports in 2015, and services exports to the EEA accounted for nearly 54% of all services exports in 2014.

The Central Bank of Iceland's quarterly macroeconomic model (QMM) contains an equation for Icelandic marine products, where trading partners' GDP has an impact. The elasticity coefficient in the equation is 0.6, which means that if trading partners' GDP is reduced by 1% because of Brexit, the price of marine products from Iceland will be 0.6% lower.³ Prices of other goods exported to the UK will probably be lower as well. On the other hand, reduced GDP growth in trading partner countries would cause the price of goods imported by Iceland to be lower

¹ It would probably be difficult for the UK authorities to agree to EEA membership in the wake of Brexit because of provisions in the EEA Agreement concerning free movement of persons, which is the aspect of EU membership that prompted most British voters to want to leave the EU.

² Based on the [OECD forecast](#). Other studies give similar results (see Table 5 in the [OECD report](#)).

³ This does not include potential second-round effects stemming from the impact of Brexit on other trading partners' GDP growth.

than they would otherwise be. The overall impact on terms of trade is therefore difficult to predict, but it will most likely be slightly negative.

It can be assumed that the exchange rate of the pound sterling will fall if the British leave the EU, as can be seen in fluctuations in the exchange rate in line with opinion polls. It is more difficult, however, to forecast how much the pound will depreciate and how long it will remain low. The OECD assumes in its analysis that the pound sterling will fall by about 10% versus the US dollar at around mid-year but then appreciate again, to about 6% below the baseline level in 2017 and 4% below the baseline by 2018. The most direct impact that the depreciation of sterling would have on the Icelandic economy would be felt in lower ISK prices for Icelandic exports to the UK. The flip side of the depreciation of sterling against other international currencies is an appreciation of those currencies. This should mean that the ISK price of exports to those currency areas will be higher than it would otherwise. As a result, it is not a given that the depreciation of the pound sterling will have a negative impact on Iceland's terms of trade, although it will presumably have adverse effects on those companies that sell to the UK. Because the formal exit process will take effect with a lag, exporters should have some scope to shift their focus to other markets if they consider it more beneficial.

A post-Brexit contraction in GDP among Iceland's main trading partners and reduced world trade would probably have some negative impact on GDP in Iceland. Based on the OECD analysis of the impact in Britain, studies done using the QMM indicate that GDP in Iceland's main trading partners could decline temporarily by about 1%, in terms of the total effect of Brexit on GDP in the UK, the eurozone, and the US. According to the analysis, Iceland's GDP could turn out about 0.2% lower than it would be otherwise. On the other hand, it is important to note the uncertainty about such an analysis, not least because it is difficult to assess the potential impact of Brexit on financial markets and financial stability, which could prove more pronounced and more difficult to handle than is currently assumed.⁴

The Icelandic financial system

i) the banks' balance sheets

At the end of 2015, the book value of deposit money banks' (DMB) corporate loans to fisheries and fish processing firms was about 270 b.kr., or roughly 25% of total corporate loans; however, only 15 b.kr. of the total was in pounds sterling. The fishing industry has been relatively strong. The default ratio among fishing companies (using the cross-default method) was about 7.9% at the end of April 2016. It has declined markedly in recent years, concurrent with a considerable rise in the real exchange rate of the króna. According to this, the fishing industry should be able to respond to changed conditions and withstand a shock of this

⁴ The financial markets have been highly volatile during the run-up to the referendum. The pound sterling depreciated markedly when opinion polls showed growing support for Brexit, and there was strong demand for Treasury bonds in global markets and corresponding flight from equities. These effects have reversed to an extent in recent days, as polls have shown growing support for the Remain campaign.

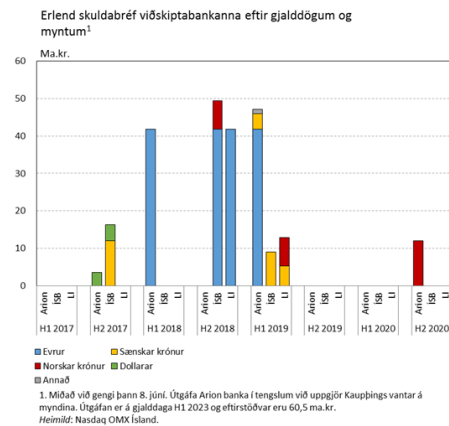
type. It is unlikely that default within the sector will increase to any marked degree.

In 2015, some 19% of tourists who visited Iceland came from the United Kingdom. Even if their number declines, however, the financial system is unlikely to be faced with risks due to reduced activity by British tourists in Iceland.

The banks' gross position in pounds sterling is about 7% of their total capital, and their foreign exchange balance in sterling is very slightly positive, or about 0.2% of capital. Changes in the exchange rate of the pound sterling will therefore have no impact on domestic banks. The large commercial banks' combined capital position is also very strong, with a capital base of 670 b.kr. as of end-2015 and a capital ratio of 28.2%. The banks therefore have considerable scope to respond to shocks in the future.

ii) the banks' funding

The three large commercial banks have all issued bonds in foreign markets since 2008. Íslandsbanki and Landsbankinn have listed their issues on the exchange in Ireland, and Arion Bank has listed its issues in Luxembourg. Íslandsbanki and Landsbankinn account for about 44% of the three commercial banks' foreign issuance. About 57% of the issues are in euros, 23% in US dollars, 10% in Swedish kronor, and 9% in Norwegian kroner. Other currencies weigh less, and there are no outstanding issues in pounds sterling. For the most part, the bonds are sold to a broad group of investors; therefore, the impact on the commercial banks' current foreign funding should be limited.



Just over 125 b.kr. in euros will mature in 2018, and the banks must consider refinancing in a timely manner.

The foreign exchange reserves and foreign debt management

i) Central Bank foreign exchange reserves

The Central Bank's foreign exchange reserves consist mainly of US dollars, euros, pounds sterling, and Japanese yen. Sterling accounts for an average of 15% of the Bank's foreign exchange risk, as opposed to about 40% each for the dollar and the euro. The proportion of highly liquid assets is large at present, concurrent with preparation for the settlement of the Central Bank's final foreign currency auction. Due to its diversified currency holdings and strong liquidity position, the Central Bank is well prepared for potential negative side effects of Brexit on financial markets or payment intermediation.

ii) foreign debt management

Debt management plans assume the refinancing of a loan maturing on 16 June. It is possible that Brexit will cause a general rise in risk premia in the short run. Because there is no pressing need for refinancing in the near future, Brexit is not expected to have a negative impact on Treasury refinancing, and it will be possible to wait to refinance if Britain's exit from the EU affects Iceland's borrowing terms abroad.

cc:

Prime Minister

Minister for Foreign Affairs

Director General of the Financial Supervisory Authority