



4 December 2024

# Memorandum

## **Re: Background to the decision on the systemic risk buffer**

Volatility of economic variables in Iceland has receded since the global financial crisis of 2008. Furthermore, volatility has diminished proportionally relative to comparison countries. An analysis of concentration in the Icelandic economy suggests that concentration has not been reduced overall, but that the relative importance of individual sectors has changed over time. Other systemic changes that have taken place since the financial crisis, which centre mainly on increased economic resilience, could explain why economic variables are more stable. Among them are Iceland's positive net international investment position (NIIP) and strong international reserves. Also worth considering is the change that has taken place in the financial system with the implementation of the European CRD IV/CRR regulatory framework. The CRD IV/CRR framework is based on the international Basel III standard and the application of macroprudential tools, which are designed to bolster financial system resilience and reduce the likelihood of shocks and their adverse effects. There are strong indications that structural, or built-in, systemic risk in Iceland has diminished since the systemic risk buffer was first activated in 2016.

## **Application of the systemic risk buffer in Iceland**

The systemic risk buffer is imposed in Iceland in order to offset risk that can be attributed to the unique characteristics of the Icelandic economy. Iceland is a small open economy with an independent currency. External trade and a small number of export sectors are an important pillar of the domestic economy. Furthermore, the Icelandic economy is relatively homogeneous, and there is a high level of concentration in a few large sectors. Its small size and homogeneity make the Icelandic economy more vulnerable to economic shocks than it would be otherwise, as is reflected in greater economic volatility than is generally seen in neighbouring countries. This affects credit risk and the probability of loan losses. For these reasons, it is deemed necessary to ensure that deposit institutions are highly resilient against the structural systemic risk in the Icelandic economy.

The systemic risk buffer was first activated in Iceland on 1 April 2016. At that time, a 3% systemic risk buffer was imposed on the entire domestic portion of the deposit institutions' risk-weighted assets, or risk base.<sup>1</sup> The rationale behind the imposition of the systemic risk buffer was published concurrent with the decision to activate it, and

---

<sup>1</sup> Financial Stability Council (2016).

the buffer value has been held unchanged since. According to Article 86 of the Act on Financial Undertakings, no. 161/2002, the buffer is reviewed at least every other year. The rationale is based primarily on analysis of historical data on business and financial cycles, volatility of economic variables, and concentration in economic sectors. Furthermore, volatility of economic variables in Iceland has been reviewed against a sample of comparison countries. The comparison has shown that volatility is generally greater in Iceland than in the other countries, which is consistent with the findings from studies conducted on the Icelandic business and financial cycles.<sup>2</sup>

An updated assessment of the volatility of economic variables in Iceland suggests that volatility has been declining in recent years. The summarised results of the comparison of volatility over two periods can be seen in Table 1. A comparison of developments in Iceland and abroad also indicates that measured volatility in Iceland was closer to that in the comparison countries during the latter part of the period, and that developments were more positive in Iceland than in most of the other countries. The summarised results of the comparison between Iceland and the full sample can be seen in Table 2.

**Table 1: Comparison of economic volatility in Iceland over two periods**

(percentage points)	1996-2023	2011-2023	Difference
<b>Gross domestic product</b>	3,9	3,7	-0,2
<b>Private consumption</b>	5,3	3,4	-1,9
<b>Public consumption</b>	2,6	2,1	-0,6
<b>Investment</b>	17,1	9,2	-7,9
<b>Export</b>	9,4	12,4	3,0
<b>Import</b>	12,7	11,7	-1,0
<b>Consumer price index</b>	3,0	2,3	-0,6
<b>Inflation (Average, %)</b>	4,5	3,9	-0,7
<b>Real exchange rate</b>	8,4	6,3	-2,1
<b>St.dev of unemployment</b>	1,6	1,4	-0,2

Volatility is calculated as the standard deviation of the year-on-year change in each economic variable. The values show standard deviation in percentage points unless otherwise stated.

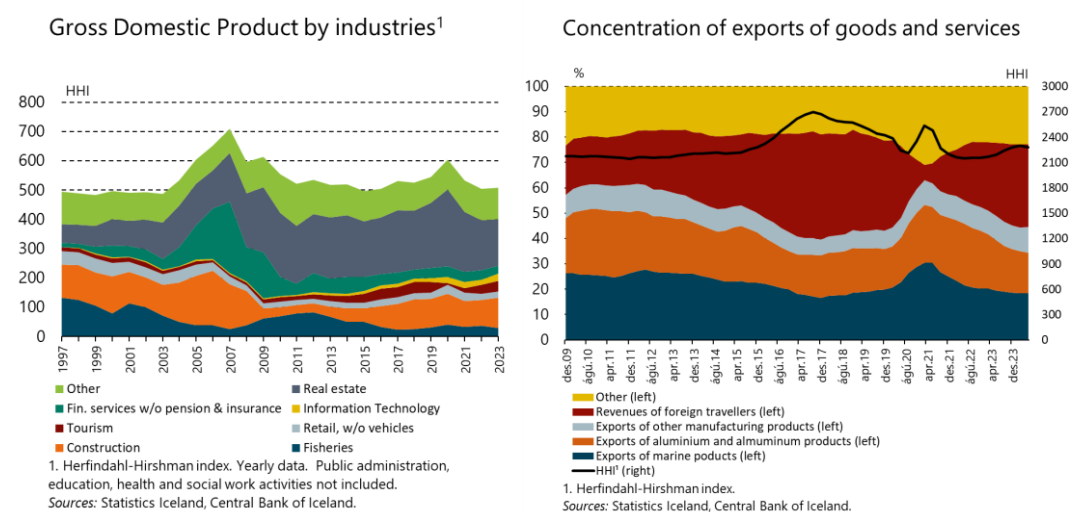
**Table 2: Country comparison of economic volatility**

(rank)	1996-2023	2011-2023	Difference
<b>Gross domestic product</b>	18	17	-1
<b>Private consumption</b>	20	15	-5
<b>Public consumption</b>	18	15	-3
<b>Investment</b>	20	15	-5
<b>Export</b>	20	23	3
<b>Import</b>	23	22	-1
<b>Consumer price index</b>	18	10	-8
<b>Inflation (Average, %)</b>	19	20	1
<b>Real exchange rate</b>	20	20	0
<b>St.dev of unemployment</b>	11	12	1

The values show the rank of Iceland in a country comparison of economic volatility. The sample includes 23 countries. An increase in the value corresponds to a relative increase in volatility compared to other countries in the sample. \*Data on real exchange rate only covers 20 states.

<sup>2</sup> See Central Bank of Iceland (2012), Einarsson *et al.* (2013), and Einarsson *et al.* (2015).

The rationale for imposing a systemic risk buffer in Iceland has included a discussion of the country's homogeneous economy and high level of concentration, particularly in export sectors. The Herfindahl-Hirschman index (HHI) is commonly used to measure market concentration. Statistics Iceland publishes a range of descriptive statistics on the importance of individual sectors in the economy, including their share in GDP, their production value, their employee compensation costs, and the number of workers they employ. Taken together, developments in the HHI for these variables do not indicate that concentration has diminished in the Icelandic economy in recent decades, but they do suggest that the relative importance of sectors has changed over time. In terms of contribution to GDP, the fishing industry has receded in in the past ten years, as have the financial services and real estate sectors, while tourism and IT services have gained in importance. Furthermore, the construction sector has gained considerable ground, although its weight in GDP generally fluctuates with the business cycle. In the labour market, developments have been broadly comparable, but also with an increase in the weight of public sector jobs such as in healthcare and education. Iceland's export revenues are highly concentrated, with around  $\frac{2}{3}$  of revenues coming from only three sectors: tourism (32%), fishing (18%), and aluminium manufacture (16%). The HHI for concentration in goods and services exports shows little change overall since 2009, apart from temporary spikes in connection with the tourism boom (2015-2017) and the pandemic (2020-2021).



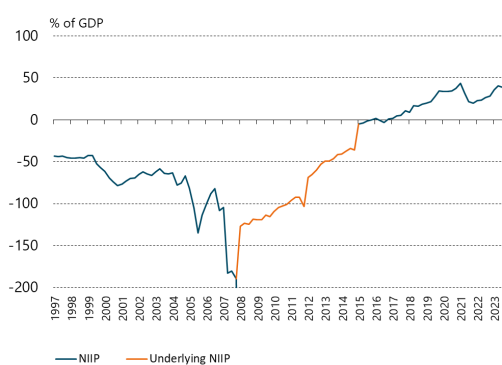
## Resilience has grown

In the wake of the financial crisis of 2008, supervision of the Icelandic financial system was tightened significantly, including the implementation of the European CRD IV/CRR regulatory framework, which is based on the international Basel III standard. Furthermore, the macroprudential requirements made of the banks have been increased materially. In Iceland, financial crises have often occurred in the wake of shocks to the real economy and have had an amplifying effect on economic crises.<sup>3</sup> The application of macroprudential tools such as capital buffers, liquidity rules, and restrictions on

<sup>3</sup> Einarsson *et al.* (2015).

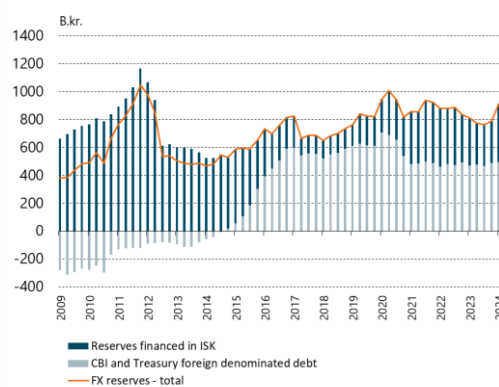
mortgage lending are intended to bolster financial system resilience, reduce the likelihood of financial crises and the associated repercussions, and thereby support financial and economic stability. Increased national saving can be seen, for instance, in the fact that Iceland's net international investment position (NIIP) has improved vastly since 2008 and has been positive since 2016. A sustained current account surplus was used to build up the Central Bank's international reserves, which grew substantially over this period and have been above key reserve adequacy benchmarks ever since. A strong NIIP and ample international reserves have shored up Iceland's economic resilience and fostered increased stability.

Net international investment position<sup>1</sup>



1. Based on underlying position from 2008 through end-2015; i.e., adjusted for the effects of settling the failed banks' estates and assuming equal distribution of assets to general creditors. Ársfjórðungslegar tölur.  
Sources: Statistics Iceland, Central Bank of Iceland.

Central Bank of Iceland foreign exchange reserves



1. Reserves financed in ISK are foreign exchange reserves net of Central Bank and Treasury foreign-denominated debt.  
Sources: Hagstofa Íslands, Seðlabanki Íslands.

## References

- Bjarni G. Einarsson, Guðjón Emilsson, Svava J. Haraldsdóttir, Thórarinn G. Pétursson, and Rósa B. Sveinsdóttir (2013). "On our own? The Icelandic business cycle in an international context." Central Bank of Iceland *Working Paper* no. 63.
- Bjarni G. Einarsson, Kristófer Gunnlaugsson, Thorvardur Tjörvi Ólafsson, and Thórarinn G. Pétursson (2015). The long history of financial boom-bust cycles in Iceland. Central Bank of Iceland *Working Paper* no. 68.
- Central Bank of Iceland (2012). Iceland's currency and exchange rate policy options. *Special Publication* no. 7.
- Financial Stability Council (2016). Recommendations to the Financial Supervisory Authority to introduce a capital buffer for systemically important financial undertakings, a systemic risk buffer, and a countercyclical capital buffer, 22 January.
- Statistics Iceland (2015). Reykjavík-Rotterdam, a study of goods exports to the Netherlands (Holland). A report.