Box 1

The current account balance and national saving

Iceland had a large current account deficit before the 2008 financial crisis, and national saving was at a historical low. The situation reversed during the aftermath of the crisis, and since 2009 there has been a large underlying current account surplus, about 6% of GDP, on average. Not only is this a major turnaround from the immediate prelude to the crisis; it is also unusual in the context of Iceland's longer economic history. The large current account surplus is based on a surge in national saving, which rose to a rarely seen high in 2016. The high level of saving and the current account surplus enhance the economy's ability to withstand unexpected economic shocks. If national saving has increased permanently, this should also contribute to a reduction in long-term real interest rates, other things being equal. This Box discusses developments in national saving in Iceland and its relationship to the current account surplus in recent years.

Current account, financial account and national saving

The current account balance shows the difference between the value of goods and services produced in Iceland and exported to other countries and the value of goods and services imported to Iceland. In addition, it shows residents' income from wages, interest, and dividends paid by foreign entities, as well as residents' expenses from these same items. The current account balance can also be thought of as the difference between domestic investment and saving.[1] A current account deficit reflects more domestic investment than domestic saving can support; therefore, the remaining investment must be financed with inflows of saving from other countries. When there is a surplus, the opposite applies: domestic saving is greater than is needed to support domestic investment, and a portion of the saving is used to invest abroad; for instance, to purchase foreign assets or pay down foreign debt. How this excess saving is disposed of can be seen in the financial account balance, which shows changes in the balance of various asset and debt classes in the country's balance sheet.

The current account surplus has never been as large over such a long period as it has since 2009

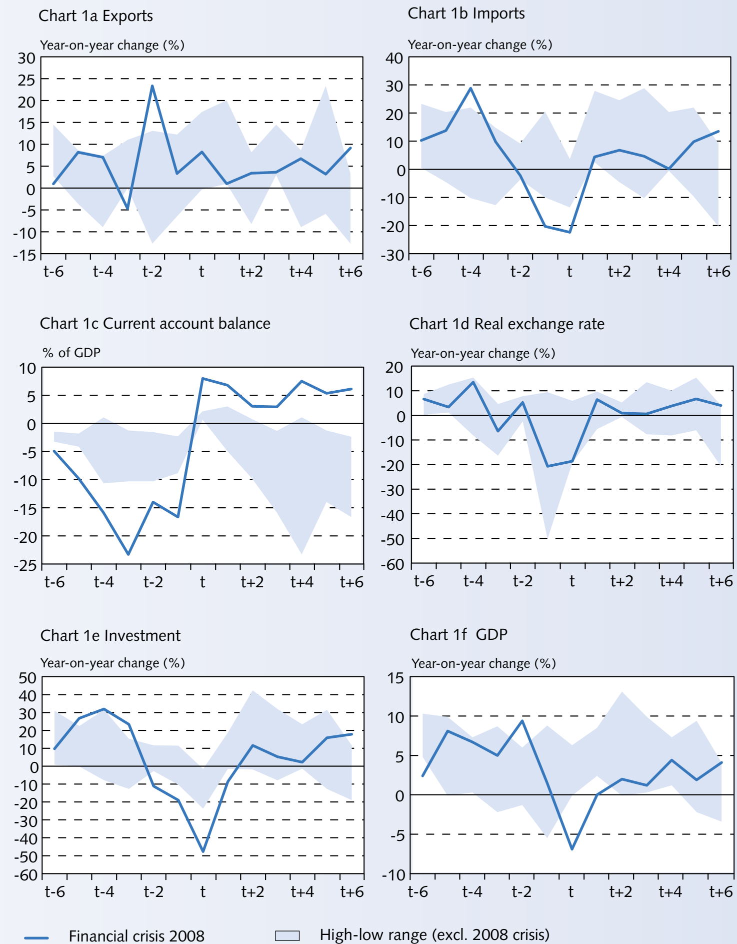
The post-crisis turnaround in the Icelandic economy can be seen in Chart 1, which shows developments in various macroeconomic variables before and after the crisis struck in 2008, in comparison with six periods after 1960 when Iceland has had a current account surplus. When it became impossible to finance a large current account deficit, a steep drop in the real exchange rate resulted, with a corresponding contraction in imports. As the chart indicates, the current account balance went from a deficit of 16.7% of GDP in 2008 to an 8% surplus in 2009 (based on the underlying balance in 2008-2015).[2] This turnaround in the current account balance is much more pronounced than has previously occurred in Iceland. There has been a continuous surplus on the current account since 2009, and the outlook is for a large surplus again in 2017, for the ninth year in a row. The surplus has ranged between 3% and 8% of

1. According to the national account identity (all variables at current prices), $Y = C + G + I + X - M$, where Y is gross domestic product, C is private consumption, G is public consumption, I investment, X is exports, and M is imports. Gross national income is defined as $GNI = Y + PI$, where PI is primary income. Gross domestic saving is defined as the difference between GNI and consumption (private and public) $S = GNI - C - G = I + X - M + PI = I + CA$, where $CA = X - M + PI$ is the current account balance.

2. The underlying current account balance excludes both the effects of the failed financial institutions in 2008-2015 and the effects of pharmaceuticals company Actavis in 2009-2012 on the primary income balance. Adjustments have also been made for the failed financial institutions' financial intermediation services indirectly measured (FISIM).

Chart 1

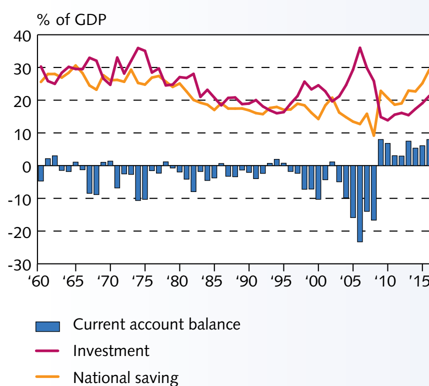
Selected macroeconomic variables in the 2008 financial crisis and comparison with other current account surplus periods[1]



1. Underlying current account balance 2008-2015. Year t is the first year of the current account surplus. There have been seven current account surplus periods since 1960, beginning in: 1961, 1969, 1978, 1986, 1993, 2002 and 2009.
Sources: National Economics Institute, Statistics Iceland, Central Bank of Iceland.

Chart 2

Current account balance, investment, and national saving 1960-2016[1]



1. The underlying current account balance excludes both the effects of the failed financial institutions in 2008-2015 and the effects of pharmaceuticals company Actavis in 2009-2012 on the primary income balance. Adjustments have also been made for financial intermediation services indirectly measured (FISIM).
Sources: Statistics Iceland, Central Bank of Iceland.

GDP over this period, averaging 6% per year. In comparison, over the six comparison periods since 1960, the longest duration of a continuous current account surplus was a period of three years, in 1993-1995, and the previous single-year peak was 3%, in 1962 (Charts 1 and 2).

National saving in 2016 the second-highest ever recorded

During the pre-crisis upswing, increased investment went hand-in-hand with steadily declining national saving. Saving measured just under 21% of GDP in 2002 but had fallen to just above 9% of GDP by 2008 (Chart 2). At the same time, the domestic spending level was high, and investment peaked at 36% of GDP in 2006. Once the crisis struck, domestic households and businesses no longer had ready access to foreign credit to maintain this high level of spending. As a result, they had to reduce their spending. Gross national saving rose to nearly 23% of GDP in 2009 and has been close to that level, on average, since then. With the past few years' rising export revenues, saving has increased still further, measuring 29.3% of GDP in 2016, some 11 percentage points above the historical average. Only once has it exceeded this level – in 1965, when it measured 30.6% of GDP. Such a high level of saving has led to a sizeable current ac-

count surplus even though investment has grown in recent years, reaching its historical average of just over 21% of GDP in 2016.

Saving rate high in international context

Iceland's national saving rate has historically been relatively low compared with that in most other OECD countries (Chart 3). In other OECD countries, saving commonly ranges between 20% and 25% of GDP, although there are certainly lower rates as well, such as in the UK and the US, which have secure access to foreign credit markets as global financial centres. Developments in domestic saving in recent years have therefore brought Iceland closer to its OECD counterparts, and the past few years' increase in saving places Iceland among the advanced economies with the highest saving ratios.

Saving grew more in Iceland than elsewhere in the wake of the crisis

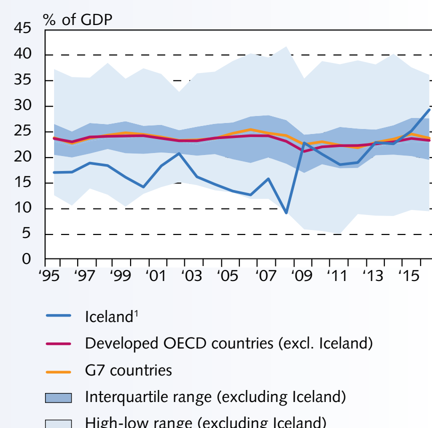
As is discussed above, the financial crisis catalysed a turnaround in domestic saving. As Chart 4 shows, the post-crisis change was much more pronounced in Iceland than it was, on average, in other countries.[3] The saving ratio has a general tendency to fall immediately after a financial crisis and then rise again, reaching its historical average about four years after the onset of the crisis. In Iceland, however, saving increased immediately after the crisis, as is mentioned above. The increase has also grown much larger and more rapid as time has passed. This reflects the 38% contraction in imports over a two-year period after the crisis – a reduction almost twice as large as the average in other countries. Although the turnaround in saving has been stronger in Iceland than the average in other countries, there are examples of similar developments in countries suffering severe financial crises, such as Russia and Indonesia during the 1990s. Ireland is the only country in the comparison group whose saving rate has risen more than Iceland's as time passes following the crisis, and both countries have seen a surge in exports in recent years.

Current account surplus used to pay down foreign debt and build up the foreign exchange reserves

As is stated above, a current account surplus reflects that national saving is in excess of domestic investment. The excess saving shows up as net outward financial flows from the financial account (Chart 5).[4] It can also be seen what type of foreign investments have been made and to what extent the surplus has been used to pay down foreign debt. As the chart shows, the past three years' current account surplus has shown up mainly as net portfolio investment outflows and the build-up of the Central Bank's foreign exchange reserves. To a large extent, these net portfolio investment outflows reflect the retirement of foreign debt, most of it securities debt owed by the failed financial institutions' estates following the composition agreements approved at the end of 2015. The debts were paid with the estates' foreign liquid assets, which shows up

Chart 3

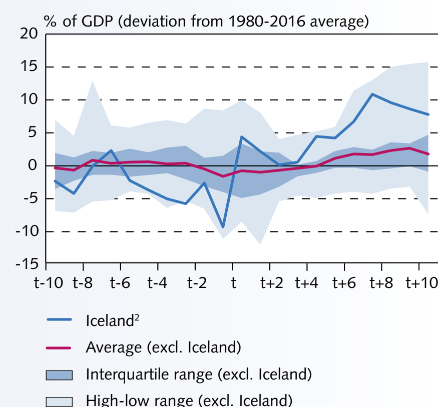
National saving in 33 OECD countries 1995-2016



1. Underlying national saving 2008-2015, based on the estimated underlying current account balance.
Sources: IMF, Statistics Iceland, Central Bank of Iceland.

Chart 4

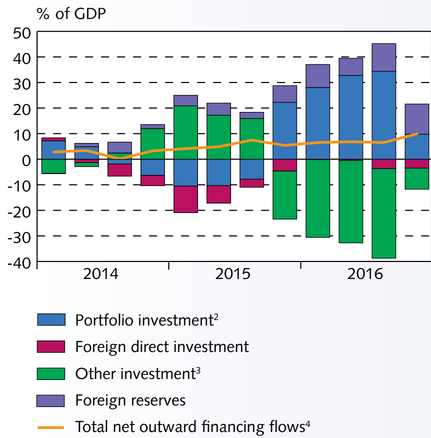
Post-crisis national saving[1]



1. National saving as a percentage of GDP in the wake of a severe financial crisis (year t is the first calendar year after the onset of the crisis) in Iceland and 18 other countries. IMF and Central Bank of Iceland forecasts where applicable. 2. Underlying national saving in Iceland in 2008-2015, based on the estimated underlying current account balance.
Sources: IMF, Statistics Iceland, Central Bank of Iceland.

3. The chart illustrates developments in national saving in 19 countries during the aftermath of financial crises since 1970. See Laeven and Valencia (2012), "Systemic banking crises database: An update", International Monetary Fund, *Working Papers* WP/12/163, for a definition of countries that have suffered a systemic banking crisis. The 19 countries are (the first calendar year after the onset of the crisis is in parentheses): Argentina (2002), Brazil (1999), Ecuador (1999), Finland (1992), Iceland (2009), Indonesia (1998), Ireland (2009), Latvia (2009), Malaysia (1998), Mexico (1995), Philippines (1998), Russia (1999), South Korea (1998), Sweden (1992), Thailand (1998), Turkey (2001), United Kingdom (2009), United States (2009), and Uruguay (2003).
4. The text that follows discusses only the unadjusted current account balance, as data on the financial account balance adjusted for the effects of the failed financial institutions are not available.

Chart 5
Net outward financing flows[1]



1. The change in Iceland's foreign liabilities, less the change in Iceland's foreign assets due to net transactions, for each category of investment. Four-quarter moving average. 2. Net portfolio investment and derivatives. 3. Other investment consists mostly of cash and deposits, as well as loans. 4. The total net outward financing flow is equal in magnitude to the current account surplus (not adjusted for failed financial institutions and Actavis), capital account and net errors and omissions.
Sources: Statistics Iceland, Central Bank of Iceland.

as net inflows of other investments in addition to inflows relating to deposit money banks' foreign borrowing. The chart shows as well that outflows relating to foreign deleveraging and expansion of the foreign reserves have been offset by net foreign direct investment (FDI) inflows. Prominent among these are sales of the failed financial institutions' foreign assets, although there have also been inflows relating to the auctions held in connection with the Central Bank's Investment Programme.

These net capital outflows in connection with the current account surplus, together with the settlement of the failed financial institutions' estates and their stability contributions, have caused Iceland's net international investment position (NIIP) to go from being negative in the amount 122% of GDP at the end of 2009 to being positive by 1% at year-end 2016. This is the first time since measurements began that Iceland has had a positive NIIP (see Box 4 in *Monetary Bulletin* 2016/2).