2 Structure of the economy

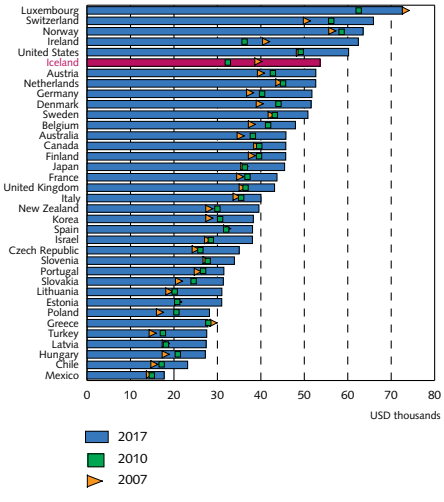
This chapter focuses on the structure of the Icelandic economy, with particular emphasis on size, composition of output and expenditure, and foreign investment. Different sectors of the economy are analysed, particularly to include recent developments and the contribution of each sector to GDP. Furthermore, the labour market and pension system in Iceland are discussed. The chapter also presents a review of Iceland's international investment position, describes changes in foreign direct investment, and provides figures on external debt and asset levels. Finally, it describes corporate and household balance sheets in Iceland. The Icelandic economy displays the characteristics of an advanced economy, with high income levels and a relatively large services sector. Its distinguishing features are its large marine and energy sectors based on ample resources, a large and growing tourism sector, and a high labour participation rate.

Macroeconomic framework

Size and income level

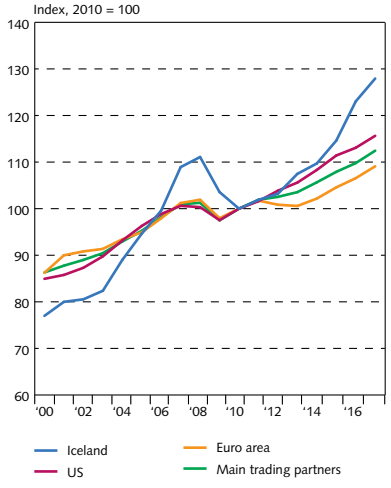
The Icelandic economy is the smallest within the OECD, generating GDP of 24.5 billion US dollars (2,615 b.kr.) in 2017. This amounted to around 1/1000 of the US economy, 1/14 of the Danish economy, and a little over 1/3 of the economy of Luxembourg, while it is more than

Chart 2.1
Gross national income per capita in OECD countries 2017[1]



1. World Bank data on PPP-adjusted national income per capita.
Source: Thomson Reuters.

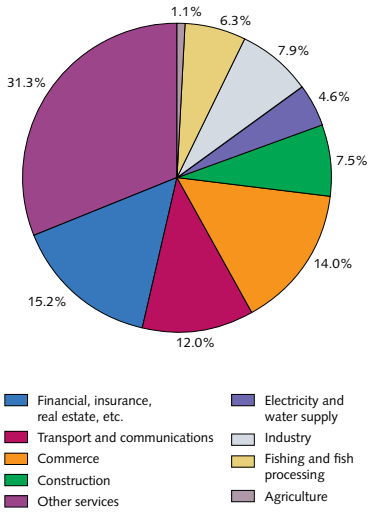
Chart 2.2
GDP in Iceland and its main trading partners 2008-2017



Sources: Statistics Iceland, Thomson Reuters, Central Bank of Iceland.

90% larger than the economy of Malta. The small size of the Icelandic economy mainly reflects the country's small population, which was about 350 thousand on 1 January 2018. According to World Bank data, GNI per capita measured in terms of purchasing power parities (PPP) amounted to roughly 53.5 thousand US dollars in 2017, the fourteenth-highest in the world and the sixth-highest among the OECD countries. Iceland's GNI per capita is lower than that in Norway but higher than in the other Nordic countries and above the EU average.

Chart 2.3
Breakdown of GDP by sector 2017



Source: Statistics Iceland.

Drivers of growth

Historically, Iceland's prosperity has been built largely on its comparative advantages in abundant marine and energy resources, with investment and services the main drivers of growth. Following the financial crisis, the favourable competitive position sparked a growth spurt in tourism and related activity in Iceland. This affected other services and, later on, construction activity. In addition, terms of trade have developed favourably in recent years and, alongside growth in tourism, have boosted national income, which in turn has helped support a substantial increase in household demand and private consumption.

Composition of output and expenditure

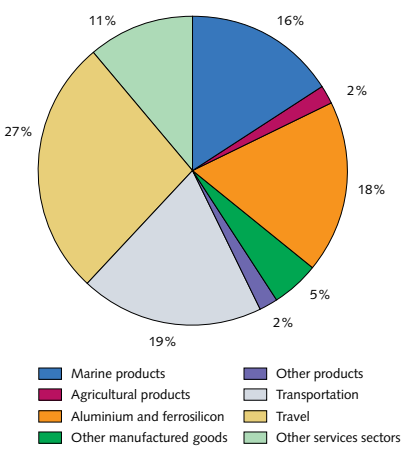
As in other developed economies, services form the bulk of economic activity, accounting for nearly ¾ of GDP in 2017. The marine sector accounted for 7% of GDP in 2017 and remains one of the most important sources of export revenues, although its relative weight in total export revenues has declined in recent years, as energy-intensive exports and tourism-related services have increased more rapidly. Manufacturing (excluding marine products) accounted for roughly 11½% of GDP in 2017, and construction accounted for nearly 8%. Financial services (other than insurance services and pension funds) accounted for an average of 4½% of GDP in 2015-2017, half the share from the years before the financial crisis.

Private consumption contributed, on average, about 50% of GDP in 2015-2017, and public consumption and gross fixed capital formation contributed 23% and 21%, respectively. After the crisis struck in 2008, the investment-to-GDP ratio fell well below the long-term average of 21% of GDP, but it has been rising in recent years and exceeded 22% in 2017. The ratio of public consumption to GDP rose just after the crisis, as private sector activity contracted more than government activity. In recent years, however, it has returned broadly to the pre-crisis level.

Foreign trade

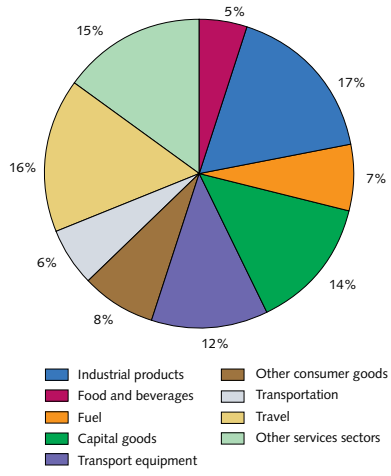
Iceland is a fairly open economy, with imports and exports of goods and services amounting to 42% and 46% of GDP, respectively, in 2017. In the period 2000–2017, trade openness, meas-

Chart 2.4
Exports by type of goods 2017
Percentage of total exports



Source: Statistics Iceland.

Chart 2.5
Imports by type of goods 2017
Percentage of total imports



Source: Statistics Iceland.

ured as the ratio of imports and exports of goods and services to GDP, averaged 86%, well above the OECD average. Although trade still involves a relatively large share of primary products and commodities, exports have diversified significantly since the beginning of the century. However, openness is restricted by factors such as geographic distance from major population centres, limited intra-industry and transit trade, and protection of domestic agriculture.

Fish and other marine products have traditionally been the mainstay of goods exports, although they have been declining as a share of total exports since the early 1990s. Exports of manufactured goods have grown in importance, however, led by aluminium. Furthermore, exports of services have increased as the economy has grown and become increasingly service-oriented. Tourism has soared over the past few years and has been one of the main drivers of export growth.

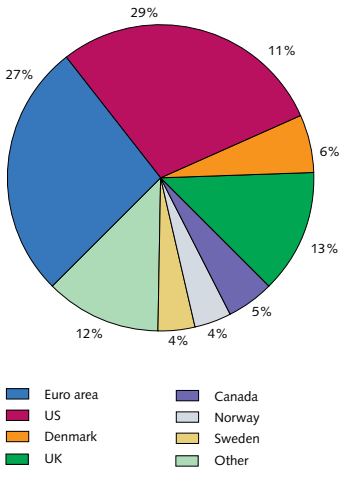
Iceland imports a wide range of manufactured goods and commodities, reflecting both the small size of the economy and the limited range of natural resources. Imports of industrial supplies accounted for 27% of total goods imports and 17% of total imports in 2017. Capital goods constituted 21% of total goods imports and consumer goods 30% (14% and 19%, respectively, of total imports in 2017), while services contributed 36% of total imports.

Iceland's ratio of services trade to total trade has risen in recent years. In 2017 it was 47%, one of the highest in the OECD, up from 34% at the beginning of the century. The US dollar and the euro are the most common currencies used for services exports in Iceland, with 27% and 25% of total services exports, respectively. The pound sterling, at 12%, is the only other currency with a share of 10% or more.

Free trade arrangements with Europe have stimulated Iceland's trade with the region. Most recently, the geography of exports has been influenced by an increased share of tourism in total exports, causing the share of North America to rise, as the largest proportion of visitors to Iceland

Chart 2.6

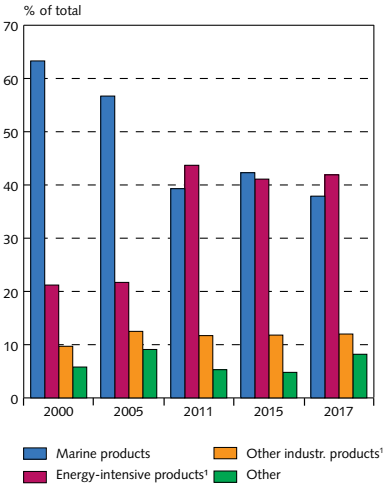
Currency area share in services exports 2017



Source: Statistics Iceland.

Chart 2.7

Composition of goods exports by product categories



1. Manufacturing services are included under energy-intensive industrial goods as in Statistics Iceland's trade figures.
Source: Statistics Iceland.

are from the United States. The geographical composition of service exports differs from goods exports, which are concentrated to a greater extent in European countries. In 2016, 80% of goods exports went to European Economic Area (EEA) member countries, which were also the source of 67% of imports. Currently, Iceland's largest trading partner countries are the US, the UK, the Netherlands, Germany, Denmark, and Norway. Trade with China has increased over the past few years, and China is now Iceland's ninth-largest trading partner. In terms of currency, the euro area constitutes the largest trading area, accounting for 39% of imports and 33% of exports. In recent years, Iceland has generally had a trade surplus with the Netherlands, the Iberian countries, the US, France, the UK, and Saudi Arabia, but a deficit with its Nordic neighbours, Brazil, China, and Ireland.

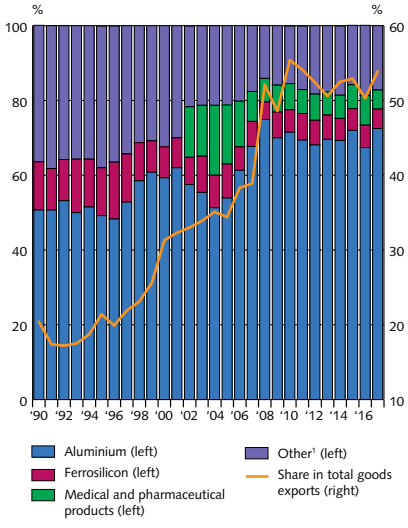
Sector developments

Manufacturing and energy-intensive industries

The production structure of Iceland's manufacturing sector is unique among industrialised countries. First, the manufacturing sector is dominated by two sub-sectors – food processing, mainly seafood production for export, and aluminium production – which together accounted for roughly ¾ of total manufacturing in 2017. Second, production of machinery and other investment goods is relatively limited.

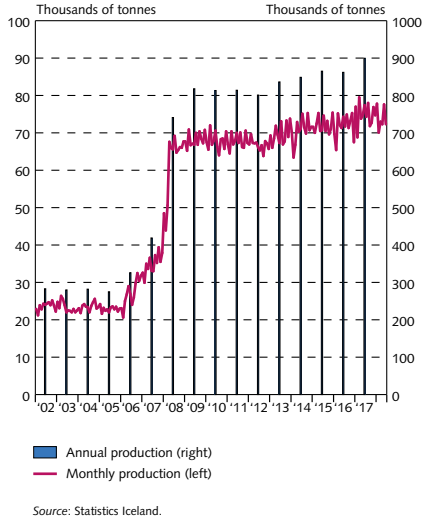
Iceland's aluminium industry is based primarily on competitive energy costs, strategic location, and a skilled labour force. Production rose sharply in 2008 and 2009 but has remained relatively stable in recent years, averaging around 870 thousand mtpy since 2014, or around 1½% of global aluminium production. Production is estimated to remain relatively stable in the coming

Chart 2.8
Composition of manufacturing exports and share in total goods exports



1. Medicinal and pharmaceutical products are included until 2002.
Source: Statistics Iceland.

Chart 2.9
Aluminium production



Source: Statistics Iceland.

term. A number of other export-oriented manufacturing companies have emerged in the last two decades, most of them focusing on product innovation, R&D, information and communications technology (ICT), and strategic marketing.

Marine sector

Throughout most of the twentieth century, the marine sector was of key importance to the Icelandic economy. Fisheries and fish processing are still one of the main pillars of export activities in Iceland: in 2017, 38% of goods exports and roughly 16% of all export earnings from goods and services came from fisheries, down from 26% of total export earnings in 2013, due to growth in services related to tourism. The sector's contribution to GDP has also fallen in recent years.

The marine sector is highly diversified in terms of species, processing methods, and markets. Fishing and processing of groundfish and pelagic species are the principal focus of Iceland's marine sector, and the importance of pelagic species has increased significantly in the last ten years. The introduction of value-added processing techniques and implementation of high-scale automatisation has helped to offset stagnant allowable groundfish catch volumes in recent years. Value has also been boosted by a shift towards fresh seafood products instead of frozen and salted products. Furthermore, fisheries companies have enhanced their efficiency through mergers, acquisitions, and vertical integration of all parts of the value chain in recent decades. The comprehensive fisheries management system (FMS) based on individual transferable quotas (ITQ) was implemented in 1990 to manage the fish stocks and promote sustainability and economic efficiency (see Box 2.1).

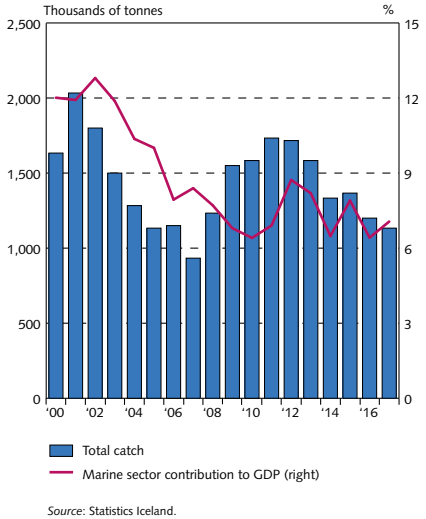
Box 2.1
The individual transferable quota system

Fishing of all commercially important marine species is regulated under the individual transferable quota (ITQ) system. The current quota system is based on the following factors:

- Each year, the total allowable catch (TAC) is set by the Minister of Fisheries, after the Minister has received advice from the Marine Research Institute based on a biological assessment of the stocks and forecasts for their development in the near future.
- The quota shares that determine each year's quotas must be registered to a fishing vessel.
- A vessel's annual quota for a species is equal to its quota share for that species multiplied by the TAC, after adjusting for special allocations; e.g., for regional support and coastal fisheries of small vessels.
- Quota shares and annual quotas are transferable and can be traded on the quota market, subject to certain restrictions.

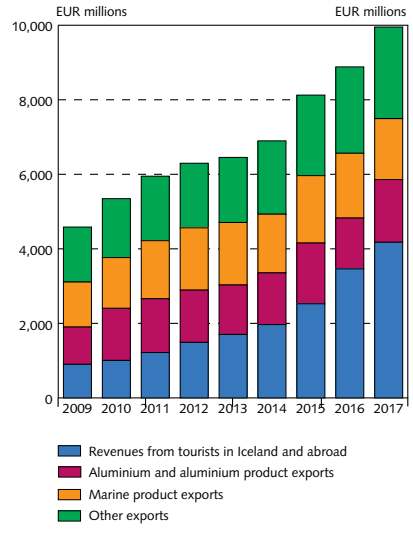
The law prescribes maximum holdings of quotas, or 12% of total quotas, by individual fishing companies. Regulations cover quota holdings both for individual species and in the aggregate. The fee is to be calculated on the basis of earnings before taxes (EBT) in fishing and fish processing in the past three years, using the most recent estimates published by Statistics Iceland. The fishing fee for the quota year 2017-2018 is estimated at approximately 90 million euros (10.8 b.kr.), or 10% of the total 2017 catch value. The fee is part of the State budget.

Chart 2.10
Fish catch by Icelandic vessels and marine sector contribution to GDP



Source: Statistics Iceland.

Chart 2.11
Goods and services exports



1. Revenues from tourists in Iceland and abroad is the sum of "Travel" and Item 1.2.1, "Passenger transport by air". Annual data.
Sources: Statistics Iceland, Central Bank of Iceland.

Box 2.2

Sectoral limitations on foreign direct investment

The only restrictions on investment by non-residents in Iceland apply to foreign direct investment in fisheries and primary processing of fish, energy production and distribution, aviation companies[1] and real estate.[2] Restrictions on investment in the fisheries sector have the purpose of protecting the nation's exclusive rights to the fishing grounds surrounding Iceland. Direct foreign ownership of fisheries companies is prohibited, but domestic companies that are up to 25% foreign-owned (33% in certain circumstances) may own fisheries. Energy harnessing rights and production and distribution of energy are restricted to EEA entities. Entities domiciled outside the EEA may not own more than 49% of shares, either directly or indirectly, in Icelandic aviation companies. No one, save for EEA entities, may acquire the right to own or use real property in Iceland, including fishing and hunting rights, water rights or other real property rights, whether by free assignation or enforcement measures, marriage, inheritance or deed of transfer, unless an exemption is granted by the Minister.

1. Act on Foreign Investment in Enterprises, no. 34/1991.
2. Act on the Right of Ownership and Use of Real Property, no. 19/1966. Exemptions may be granted.

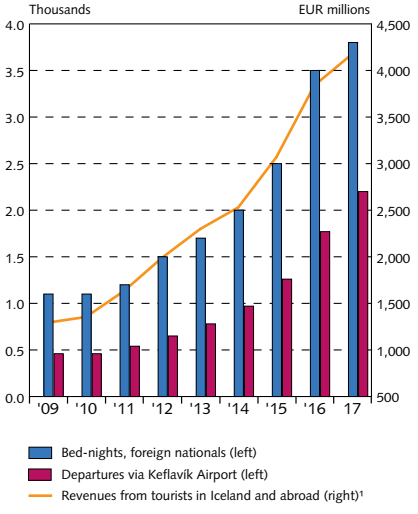
Tourism and transport

Tourism has grown very rapidly in Iceland in recent years and has established itself as the third main pillar of the Icelandic economy. The number of foreign tourists has increased from 470 thousand in 2008 to a projected 2.3 million in 2018. In addition to these figures, the number of cruise ship passengers visiting Iceland in 2017 was around 130 thousand. Of individual countries, the US and the UK accounted for the largest number of tourists, with a combined 41% of the total in 2017. The increase in the number of tourists has had a significant impact on the Icelandic economy. Tourism-generated foreign exchange revenues amounted to 42% of total export revenues in 2017, compared to 26% in 2013. From 2010 to 2016, operating income in tourism-related industries rose by nearly 76% in real terms, and the number of employees on tourism operators' payroll more than doubled over the same period.

The rapid increase in tourism is also reflected in the number of airlines flying to and from Keflavik Airport and the number of flight destinations offered. Three other, much smaller, international airports are operated as well. Three major international aircraft operating certificate (AOC) holders operate in Iceland, offering passenger service, international cargo service, and charter flights. In 2017-2018, a total of 12 airlines offered year-round flight services between Keflavik and 60 destinations, and in summer 2018 the total was 28 airlines and 96 destinations. In 2010, however, three airlines offered scheduled flights from Keflavik. In 2018, 63% of all passenger destinations of the two Icelandic airlines were in Europe, whereas 37% were in North America, up from around 20% in 2010.

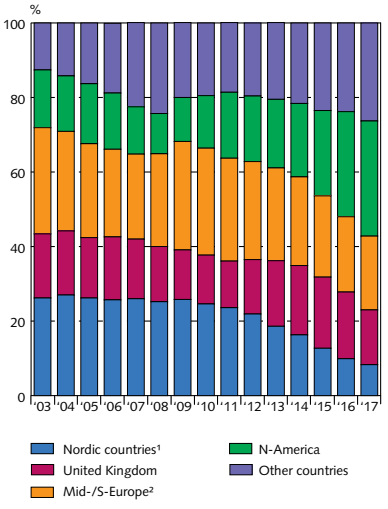
Iceland's two main shipping lines operate scheduled services to major ports in Europe and the east coast of the US. Both of them operate transport networks on land and sea in Iceland, Europe, and North America, as well as offering freight forwarding around the world.

Chart 2.12
Number of foreign tourists, hotel bed-nights, and revenues from tourism
At constant 2017 exchange rates



1. At constant exchange rate 2017.
Sources: Icelandic Tourist Board, Statistics Iceland, Central Bank of Iceland.

Chart 2.13
Nationality of tourists



1. Norway, Denmark, Sweden, Finland. 2. France, Netherlands, Italy, Spain, Switzerland, Germany.
Source: Icelandic Tourist Board.

Financial sector

Iceland's financial services sector is perhaps the sector of the economy that has undergone the greatest changes over the past few years. Four commercial banks and four savings banks are currently operating in Iceland, and the State is the majority owner of two of the commercial banks. In 2017, the financial sector (including insurance companies and pension funds) accounted for 5½% of GDP and 3½% of total employment (see Chapter 3 for further discussion of the financial system).

Technology and communications

The technological sector of the services industry has diversified and grown significantly in the last 10-15 years. Between 2010 and 2016, operating income in the ICT industry increased by about 50% in real terms, although its share of total operating income in the business economy remained relatively stable during this period.[1] Around 100 companies of varying size are active in the software sector, specialising in medical, ICT, computer games, logistics, and operating management systems. Most of the businesses in software technology are engaged in export activities, owing to the small size of the home market. Exports of ICT services have increased by over 90% in the past five years, to 245 million euros (29.5 b.kr.) in 2017.

Iceland's telecommunications infrastructure is extensive and reaches all parts of the country, and the mobile phone system reaches nearly 100% of the population. In 2017, 98% of Icelandic

1. The term *business economy* refers to all companies excluding pharmaceuticals, financial, and insurance firms.

households were internet-connected, and 98% of the population are regular users, the highest percentage in Europe.

Exportation of expertise in the development of renewable energy is growing, and several Icelandic companies are engaged in exporting geothermal and hydropower expertise and consultancy to a number of areas, including the US, China, Germany, Central America, and Southeast Asia. Also, a number of engineering companies specialised in advanced high-tech processing systems provide services to the global fishing industry. These companies offer a range of state-of-the-art equipment and processing systems for fish processing plants.

Agriculture and farming

Approximately a fifth of the total land area of Iceland is vegetated land or pasture. Less than 5% of this area is cultivated, with the remainder used for grazing or left undeveloped. Meat and dairy products are mainly for domestic consumption, and the principal crops are hay, cereals for animal feed, root vegetables, and green vegetables, which are cultivated primarily in greenhouses heated with geothermal water. Imports of meat, dairy products, and some vegetables that compete with domestic production are subject to tariffs, import quotas, and non-tariff import restrictions.

Icelandic agriculture is heavily subsidised, with total on-budget transfers to agriculture amounting to 1.2% of GDP in 2016. In terms of the OECD producers support estimate (PSE), Iceland was third-highest in the OECD in 2016, with a PSE of 60%, compared to the EU15 average of 21%.

Various other characteristics of the Icelandic economy

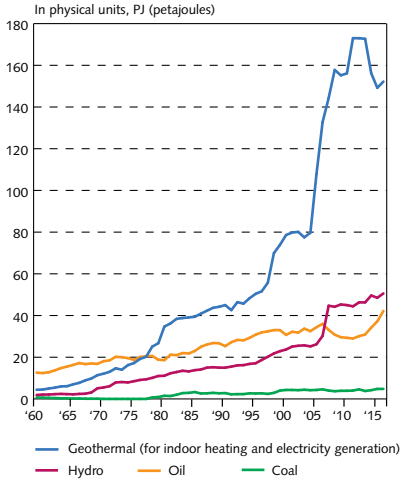
Energy and the environment

Iceland is at the forefront globally in the use of renewable energy resources. Of the total primary energy supply in Iceland, nearly 90% is from renewable resources, up from 77% in 2000, compared to an average of 1/3 in other Nordic countries. Iceland has large potential sources of renewable energy, and its hydropower and geothermal resources have only been partly harnessed. Iceland is the only country in Europe that still has a considerable amount of large-scale, competitively priced power from these sources. Electricity production per capita is the highest in the world, at 57 megawatt hours (MWh) per capita in 2017. At year-end 2017, total installed hydropower was 1,984 MW in 67 power plants with a combined capacity of 14,100 gigawatt hours (GWh), or over 70% of generated electricity. Combined installed geo-power for electricity generation was over 700 MW from seven plants with a total capacity of 5,200 GWh.

Iceland has been in the lead globally in the use of geothermal energy for purposes other than generating electricity. Geothermal energy accounts for 61% of primary energy used in Iceland. The total primary energy supply per unit of GDP is the highest in the world, nearly four times above the OECD average. Around 90% of all homes are heated by geothermal energy in the form of hot water at only a fraction of the heating cost in other Nordic countries. For the general public, the price of electricity is one of the lowest in the world, about half of the price to consumers in the European Union (EU27).

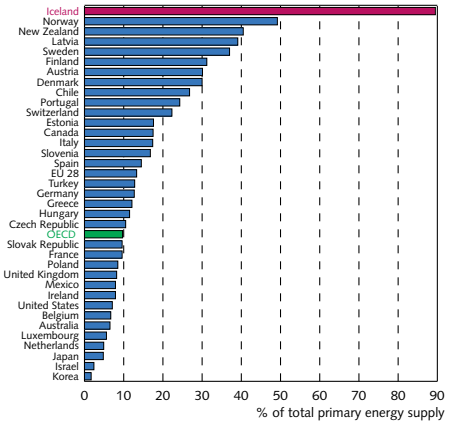
Sustainable use of fish stocks and other natural resources is an important part of Iceland's environmental policies. Iceland is relatively unpolluted compared to other developed countries, owing to its sparse population and heavy reliance on renewable energy. The marine environment surrounding Iceland is relatively unpolluted as well.

Chart 2.14
Primary energy consumption by source in Iceland



Source: National Energy Authority.

Chart 2.15
Contribution of renewables to energy supply in OECD countries 2016



Source: OECD.

Although air pollution is generally low, some pollution – i.e., particulate matter – occurs in the greater Reykjavík area. Soil erosion has been a longstanding problem due to the cutting of woodlands and overgrazing on sensitive volcanic soil. The intensity of grazing has been falling, however, and a concerted effort is made to reclaim eroded land and plant trees. Iceland complied with its Kyoto commitments for 2008-2012. For the second commitment period, 2013-2020, Iceland is part of a joint fulfilment goal, together with the EU and its Member States, of a 20% reduction in emissions. Over 40% of Iceland's greenhouse gas emissions are regulated under the EU Emissions Trading Scheme (ETS) due to the EEA Agreement. Joint fulfilment of Kyoto targets with the EU implies that greenhouse gas emissions from Icelandic industry are regulated in a manner comparable to that applying to EU Member States. Iceland ratified the Paris Agreement in September 2016 and aims, in joint fulfilment with EU Member States and Norway, to reduce emissions by 40% relative to 1990 levels by 2030.

Because almost 100% of Iceland's stationary energy comes from renewable sources, climate mitigation actions focus on reducing emissions from transport and fisheries and increasing carbon uptake through afforestation and revegetation. The Icelandic government announced in 2017 that Iceland aims to be carbon-neutral before 2040.

Nature-based tourism has grown markedly in recent years, and funding for tourism infrastructure and nature conservation has increased. A new Master Plan on hydro and geothermal energy has been put in place in an attempt to strike a balance between new renewable energy projects and nature conservation concerns. Iceland's wilderness areas and unique natural environment, characterised by glaciers, rivers, and volcanic activity, is increasingly recognised as an important economic asset as well as a part of natural heritage needing conservation.

Labour market

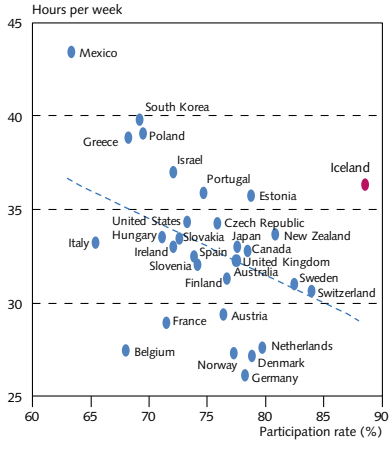
Over the past ten years, the Icelandic labour market has had a participation rate consistently well above 85%, the highest among OECD countries. The participation rate among women has also been very high by international comparison. In 2017, female participation was one of the highest in the OECD countries, with women accounting for 47% of the labour force and supplying 41% of total hours. Participation rates among the young (aged 15-24) and the elderly (aged 65 and over) are also the highest by far in the OECD. Furthermore, Icelanders tend to work long hours. In 2017, 42% of the adult population held a university degree, up from 28% in 2003.

The Icelandic labour market is quite flexible, with substantial labour mobility, flexible hours, and variable participation and wages. This was clearly manifested during the last cycle. A comparison with other OECD countries shows that Icelandic companies have considerable flexibility to lay off workers. Companies can easily adjust to changed demand by expanding or reducing staffing levels or by raising or lowering the number of hours worked by those already employed; furthermore, the number of part-time and full-time employed varies with the business cycle.

There is also some flexibility in labour force supply. In particular, there is a strong connection between net emigration of Icelandic nationals and output growth; moreover, migration of foreign nationals in tandem with the business cycle has increased substantially with the expansion of the pan-European labour market. Moreover, even in the case of significant shifts in sectoral or regional employment, a high degree of labour mobility prevents large differences in regional unemployment from emerging.

Some 90% of the labour force is unionised, and employers are highly organised as well. This has given rise to wage-setting that is characterised by significant centralisation and coordinated bargaining, most frequently by national federations, and it leads to more or less nationwide set-

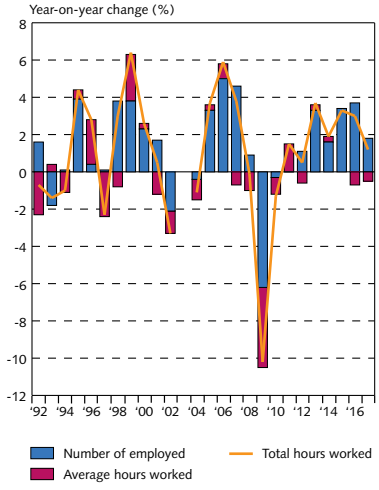
Chart 2.16
Participation rate and hours per week in OECD countries 2017[1]



1. The chart shows labour participation among the population aged 15-64 in all countries except Iceland, which shows participation for the group aged 16-64. Hours per week are annual hours actually worked per worker for the total economy divided by 52 calendar weeks. 2017 figures or latest.

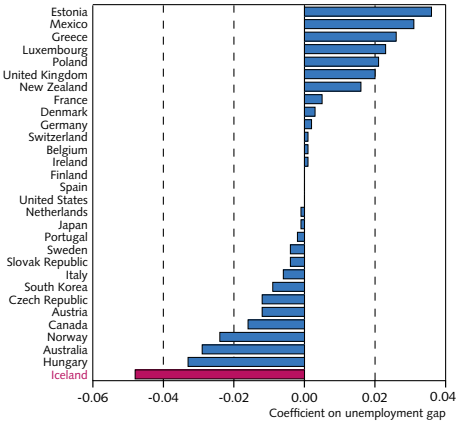
Sources: OECD, Thomson Reuters.

Chart 2.17
Changes in employment and hours worked



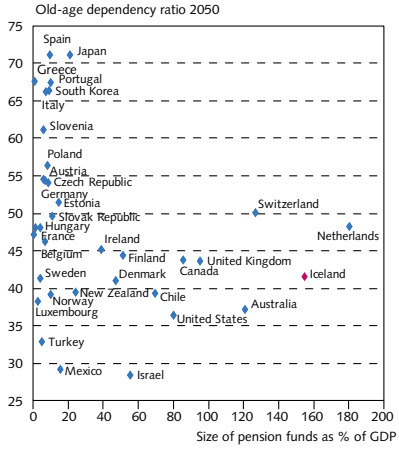
Source: Statistics Iceland.

Chart 2.18
Real wage flexibility 1997-2011[1]



1. Quarterly data.
Sources: OECD, Statistics Iceland, Central Bank of Iceland.

Chart 2.19
Size of pension funds in 2016 and old-age dependency ratio in OECD countries 2050[1]



1. Population aged 65 years and over per 100 persons aged 15-64 years 2050. Value for the size of pension funds in Iceland is for 2017.
Sources: OECD, United Nations.

tlements that provide for the minimum wage increases. In addition, the tailoring of the national framework of wage agreements in sectoral and firm-level negotiations makes it possible to take specific local conditions into account. The Government has frequently been involved in wage settlements, either through tax concessions and social transfers or through legislative acts aimed at accomplishing moderate settlements. Notwithstanding the high degree of centralisation, real wages are flexible in comparison with other OECD countries (see Chart 2.18).[2]

Pension system

In the decades to come, Iceland will face fewer problems due to an ageing population than most other developed countries. There are three main reasons for this. First, the population is younger and will continue to be so during coming decades. The old-age dependency rate – i.e., over-65-year-olds as a ratio of 20- to 64-year-olds – was 23% in 2016, the ninth-lowest in the OECD and somewhat less than in the US (25%), but significantly below the average in the EU (30%). Second, labour participation rates among the elderly are high, and the pension system does not give special incentives for early retirement. While the official retirement age is 67, 38% of 65- to 74-year-olds worked at least one hour a week in 2017. Third, membership of a fully funded occupational pension fund is mandatory for all employees and self-employed persons.

The Icelandic old-age pension system is composed of a tax-financed public pension scheme, mandatory funded occupational pension funds, and voluntary pension saving with tax incentives and an extra contribution from the employer. Public pensions are fully financed by taxes and social

2. Chart 2.18 reports the coefficient on the unemployment gap; i.e., the deviation of unemployment from the non-accelerating inflation rate of unemployment (NAIRU), in a regression of a change in real wages on a constant, the unemployment gap, a change in productivity, and a lagged change in real wages.

security contributions. The public pension system provides an old-age pension, disability pension, and survivors' pension. In most cases, the old-age pension is paid from the age of 67, although the recipient may choose to delay applying for it until age 72 at the latest, and receive a larger amount. It is divided into a basic pension and a supplementary pension. Both are means-tested, but pensions received from other sources are treated differently from other income, as the level at which they begin to reduce the supplementary pension is higher than for other income. The maximum total old-age pension amounts to around 78% of the average earnings of unskilled workers.

Many of the occupational funds were established through a collective labour agreement in the late 1960s, and most are managed jointly by representatives from trade unions and employers. Occupational pension funds have been increasing their share in pensions relative to the public system as they approach maturity and means-testing reduces the public pension. Payments from the pension funds totalled 5.3% of GDP, or 1.1 billion euros (134 b.kr.), in 2017, whereas public system payments totalled 2.6% of GDP, or 543 million euros (65.5 b.kr.).

It is mandatory to pay at least 15.5% of total wages and salaries to pension funds. Employees contribute 4% of this share, and the rest is contributed by the employer. The funds have grown rapidly in recent decades, as their coverage has become almost total and the return on their assets has been strong, although fluctuating with the economic cycle. Assets were equivalent to about 150% of GDP at the end of 2017. By international comparison, pension funds in Iceland are large relative to GDP. In 2017, they were the second-largest in the OECD (after the Netherlands).

At the end of 2017, there were 24 fully operational pension funds in Iceland, including eight with employer guarantees from the State government and the municipalities; however, these eight funds are not accepting new members and will gradually wind down their operations.

The ten largest pension funds held about 87% of the net assets of all pension funds in 2017, and the two largest funds accounted for 37%. The average fund had net assets of around 1.31 billion euros (163.9 b.kr.), while the largest had assets of almost 6.4 billion euros (800 b.kr.).

The benefits paid by occupational pension funds without an employer guarantee will ultimately depend on their net returns and will therefore vary from one fund to another. However, the investment risk is borne collectively by the members of each fund, and there are no individual accounts, as in pure defined-contribution plans (DC plans). It has been estimated that, at full maturity, a typical general occupational pension fund will be able to pay a pension amounting to 56% of full-time earnings, giving a total replacement ratio of 60-70% when the basic public pension is added.

In the third pillar of pension savings, employees are allowed to deduct from their taxable income a contribution to authorised individual pension schemes ranging up to 4% of wages. Employers must match the supplementary contribution up to a limit of 2%. The pension schemes must be authorised by the Ministry of Finance and Economic Affairs. In most cases, they are defined-contribution individual accounts. The pension savings are redeemable at age 60. Around 66% of wage earners were paying into such schemes in 2017.

External position

Net international investment position

Iceland's net international investment position (NIIP) has improved radically in the post-crisis period, through debt repayment facilitated by the current account surplus, debt write-offs due

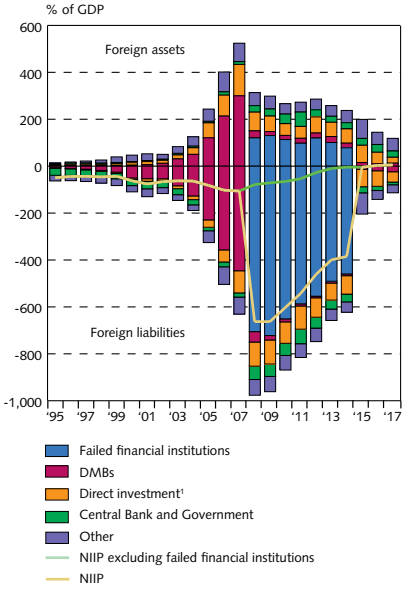
to bankruptcies of private sector entities and other factors, and the composition agreements of the failed financial institutions' estates in late 2015 (see Chapter 6).

Iceland's international balance sheet expanded rapidly after the capital account liberalisation of the 1990s and grew even further following the privatisation of the banks in 2002-2003. In 2008, before the financial crisis, gross external liabilities amounted to 870½% of GDP and gross external assets 686% of GDP, resulting in a negative NIIP in the amount of about 184½% of GDP. The NIIP continued to worsen as a result of the financial crisis. With the settlements of the failed financial institutions at year-end 2015, the NIIP improved to -4½% of GDP, the country's most favourable position in about half a century. Since then, the NIIP has continued to improve and, in 2017, it turned positive for the first time since measurements began. It was positive by almost 10% of GDP at the end of June 2018. Iceland's NIIP is rather favourable in comparison with other OECD countries and is now somewhat better than in the euro area as a whole.

Foreign assets and liabilities

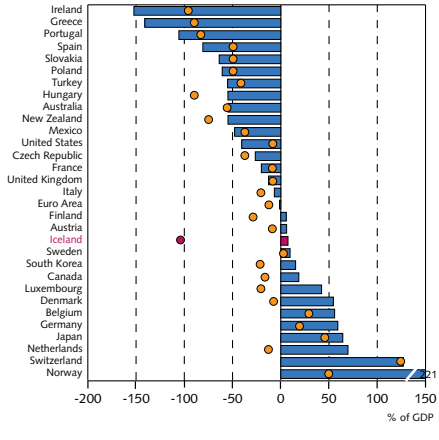
Iceland's gross external assets have declined over the past few years and are now at a level similar to that in 2004, although they consist of international reserves to a larger extent than before. At year-end 2017, gross external assets totalled 119% of GDP. This includes FDI assets and international reserves amounting to 21% and 23% of total assets, respectively, and portfolio assets (held to a large extent by pension funds) amounting to 39%. Other investment accounted for 17% of total assets, half of it in the form of deposits. Gross external liabilities have declined more

Chart 2.20
Net international investment position (NIIP)
1995-2017



1. Excluding failed financial institutions from 2008-2014 and special purpose entities from 2013.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 2.21
Net international investment position of OECD countries 2017[1]



1. The dots show the NIIP for Q4/2009.
Sources: Thomson Reuters, Central Bank of Iceland.

rapidly than external assets in recent years, due to debt write-offs and deleveraging by private entities, and amounted to 113% of GDP at year-end 2017, broadly the same as in 2000. The share of FDI liabilities was greater than in the pre-crisis era, however, at 39% of total liabilities. External portfolio debt amounted to 39% of total liabilities as well, and other investments (mostly loans) accounted for 21% of total liabilities at year-end 2017. In the past three years, the decline in external liabilities has gone hand-in-hand with the decline in external assets, as the process of winding up the failed financial institutions' holding companies progresses.

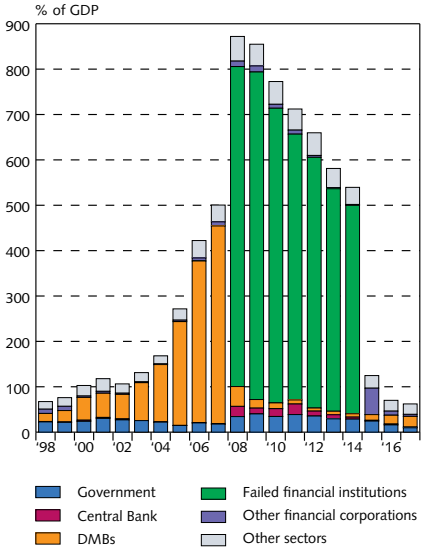
In recent years, currency depreciation has influenced the NIIP differently than it did in the pre-crisis period. At year-end 2017, 98% of external assets were denominated in foreign currency, as opposed to only 69% of external liabilities. As a result, a depreciation of the króna increases the value of external assets relative to liabilities, leading to a material improvement in Iceland's NIIP. This mitigates the risk associated with currency depreciation.

Public sector foreign assets and liabilities

Iceland's positive current account balance has resulted in financial outflows. Since year-end 2014 these flows have been used, among other things, to build up the international reserves and reduce public sector debt. At year-end 2017, the reserves amounted to 27% of GDP, up from 12% at the end of 2007. The public sector retired a substantial amount of its debt during the pre-crisis period. The depreciation of the króna in 2008 and the need to strengthen the Central Bank's international reserves increased the external liabilities of the general government and the Central Bank from 18% of GDP at year-end 2007 to the post-crisis peak of 62% of GDP at year-end 2011 (see Chapters 4 and 5). Only a portion of the increase in public sector foreign debt had a

Chart 2.22

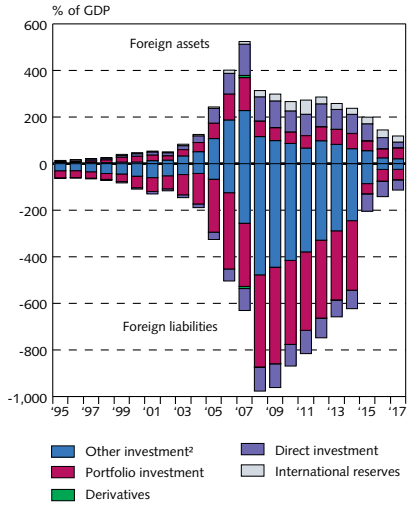
Estimated foreign debt by sector[1]



1. External liabilities, excluding FDI, derivatives, equity and unit shares.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 2.23

Foreign assets and liabilities
1995-2017[1]



1. Excluding special purpose entities from FDI since 2013. 2. Other investments are mostly deposits and loans.
Sources: Statistics Iceland, Central Bank of Iceland.

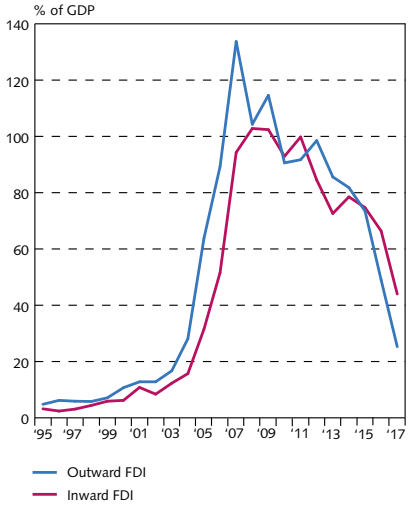
direct effect on the NIIP, however, as loans taken to expand the reserves were mostly offset by assets. By year-end 2017, public sector external liabilities had fallen to 11% of GDP.

Private sector foreign assets and liabilities

By end-2015, the private sector NIIP was at its most favourable in decades. After worsening slightly as the króna appreciated, it has improved in recent quarters to 1.3% of GDP at year-end 2017, with total foreign assets amounting to 90% of GDP and liabilities totalling 89% of GDP. The private sector NIIP has seen some major changes in the past fifteen years or so. In the years before the financial crisis, the deterioration in the NIIP was due mainly to a surge in private sector debt intermediated by the domestic banking sector. The NIIP worsened further as a result of the financial crisis but has recovered quickly since then, especially following the composition agreements reached with the failed financial institutions at year-end 2015.

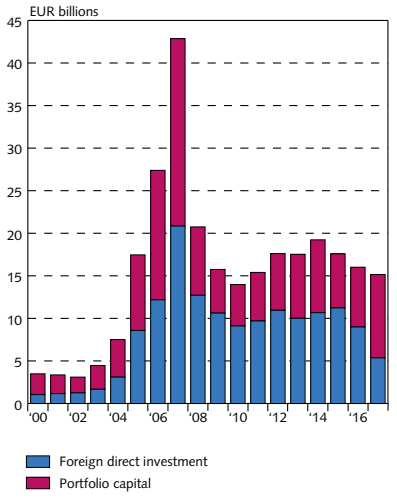
The capital controls introduced in 2008 were lifted almost entirely in March 2017 (see Box 5.1). Since then, there has been a sizeable improvement in the private sector NIIP, mainly as a result of asset accumulation by pension funds, which hold a large share of Iceland's private sector external assets. By year-end 2017, the pension funds' external asset holdings had reached a peak of 7.7 billion euros (960 b.kr.), or 38% of Iceland's GDP, after rising by 5% of GDP from year-end 2015 despite the appreciation of the króna in the interim. In 2017, the pension funds owned nearly a third of Icelandic residents' total external assets and 78% of total external portfolio holdings. Pension funds' external debt amounted to 5% of GDP at year-end 2017, reflecting their obligations to residents abroad. Private sector NIIP excluding the pension funds was negative by

Chart 2.24
FDI assets and liabilities[1]



1. Excluding special purpose entities (SPEs) from 2013.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 2.25
Foreign direct investment and portfolio capital owned abroad by residents
At year-end



Source: Central Bank of Iceland.

31% of GDP at year-end 2017, a slight deterioration from year-end 2015 but a large improvement from the pre-crisis trough of -102% of GDP in 2008.

Inward and outward foreign direct investment

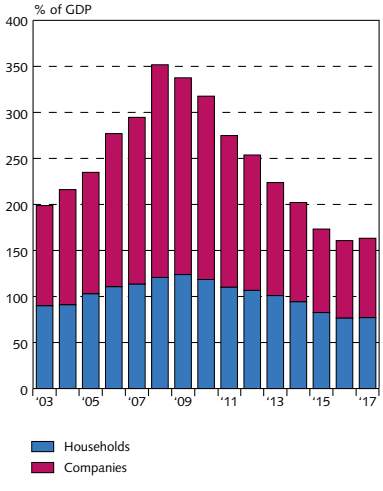
At the end of 2017, the outward stock of FDI assets was 25% of GDP and the inward stock 44% of GDP.[3] Capital flows during the post-crisis period have been influenced by the capital controls, which restricted capital outflows and therefore most likely influenced FDI inflows as well. Furthermore, certain types of investment by non-residents are restricted in Iceland; i.e., investment

Table 2.1 Breakdown of external liabilities, loans, and debt securities

% of GDP	*1999*	*2003*	*2007*	*2009*	*2013*	*2015*	*2017*
Loans	42	43	158	311	223	15	11
Short-term lending	6	13	83	194	140	0	0
Long-term lending	36	30	75	117	83	15	11
Debt securities	32	85	245	410	293	93	39
Short-term bonds	4	14	8	4	0	1	0
Long-term bonds	28	70	237	407	293	38	39
Bonds denominated in krónur[1]			12	23	11	11	6

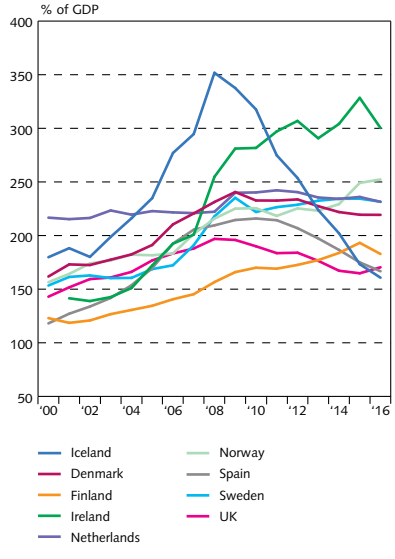
1. Data are not available before 2006.
Source: Central Bank of Iceland.

Chart 2.26
Private sector debt[1]



1. Debt owed to financial undertakings and market bonds issued. Excluding debt owed by holding companies.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 2.27
Private sector debt in selected European countries[1, 2]



1. Non-financial corporations, households, and non-profit institutions serving households. 2. Loans and debt securities.
Sources: Eurostat, Statistics Iceland, Central Bank of Iceland.

3. Excluding special purpose entities (SPEs).

in fisheries and energy companies (see Box 2.2). Most of the post-crisis FDI flows have been related to either the winding-up of the failed financial institutions or the restructuring of international pharmaceutical companies' position. Since year-end 2015, the pharmaceutical companies have made one major change to their balance sheet, when FDI assets and liabilities worth about 15% of GDP were moved to foreign identities within the same conglomerate. After the capital controls were lifted in March 2017, FDI inflows have averaged 1% of GDP per quarter, while outflows have averaged 0% of GDP.[4]

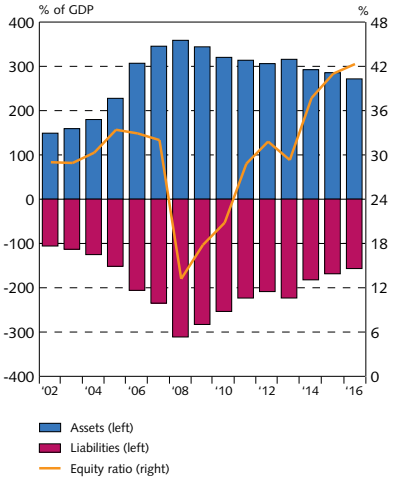
Corporate and household balance sheets

Iceland's private sector has seen dramatic improvements in its balance sheet in recent years, in line with improved economic activity, rising asset prices, reduced debt, and financial restructuring. The private sector debt-to-GDP ratio is now low compared to neighbouring countries, at around 163% in 2017, after having peaked at roughly 350% during the financial crisis in 2008. Non-performing loan ratios have hovered around 1.5-2.5% since year-end 2014, after having peaked at 20% in 2010.

Corporate balance sheets

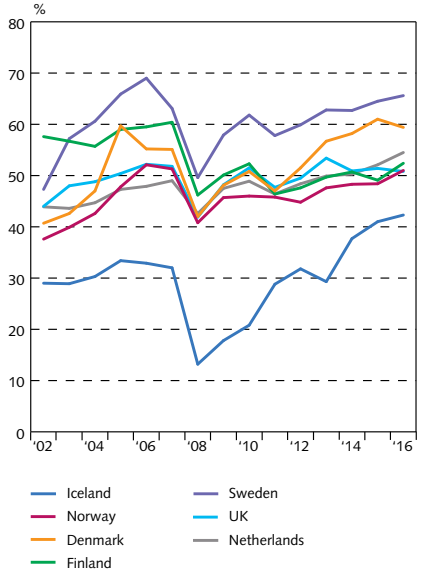
Strong economic growth in recent years, along with financial restructuring, has helped to strengthen and solidify the position of many firms. The equity ratio of Icelandic companies was

Chart 2.28
Corporate assets and liabilities and equity ratio[1]



1. Commercial economy excluding pharmaceuticals, financial, and insurance companies (ISAT no. 03-20, 20-63, 68-82, 95-96).
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 2.29
Non-financial corporates' equity ratios in selected European countries



Sources: Eurostat, Statistics Iceland, Central Bank of Iceland.

4. Excluding flows related to pharmaceutical companies, holding companies of failed financial institutions, and SPEs.

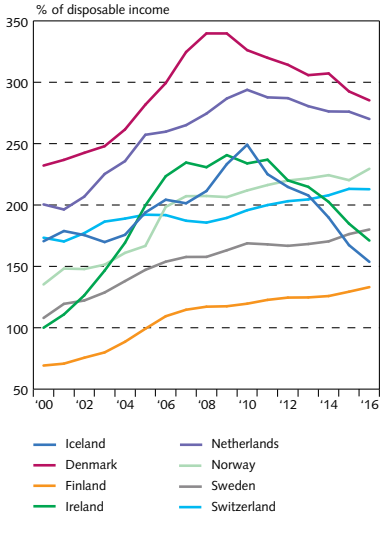
42.3% at year-end 2016, more favourable than it has been for decades, and is estimated at almost 44% in 2017. High corporate equity ratios are mainly the result of deleveraging and declining debt, although rising asset prices, mainly commercial real estate prices, have played an increasing role since late 2014.

At year-end 2017, total corporate debt[5] – i.e., loans from both domestic and foreign financial institutions and outstanding marketable bonds – totalled about 86% of GDP. The ratio has been stable around that level for the last two years and is similar to that in neighbouring countries. The proportion of foreign-denominated debt has declined markedly in recent years, in part due to the appreciation of the Icelandic króna. At the end of 2017, foreign debt accounted for 34% of total corporate debt, compared to 70% at year-end 2008.

Household balance sheets

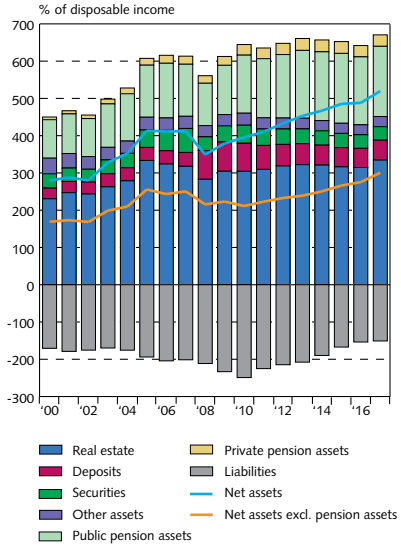
The ratio of household debt to GDP was 77% at the end of 2017, after falling by 48 percentage points from its peak of 125% in 2009. This is a dramatic change in comparison with other countries with high household debt levels. Debt restructuring, write-offs due to Supreme Court decisions on the legality of exchange rate-linked loans, and Government debt relief measures have been influential factors in reducing Iceland's household indebtedness. Furthermore, until recently, households have been more hesitant to take on debt than before, and many households have made extra payments on their outstanding loans. In 2017, the household debt-to-GDP ratio remained relatively stable, after a constant decrease each quarter since 2009.

Chart 2.30
Household debt in selected European countries



Sources: OECD, Central Bank of Iceland.

Chart 2.31
Household assets and liabilities[1]



1. Pension fund assets are based on payouts after deduction of 30% income tax.

Sources: Statistics Iceland, Central Bank of Iceland.

5. Excluding holding companies.

In 2014, the Government elected in 2013 enacted a general debt relief programme entailing a direct Treasury-financed reduction of households' indexed mortgages and authorising borrowers to allocate third-pillar pension savings tax-free towards mortgage debt. From then until year-end 2017, direct write-downs and the allocation of private pension assets to mortgage loans lowered household debt by 932 million euros (116.6 b.kr). Household debt is expected to fall by an additional 168 million euros (21 b.kr.) by the time the programme concludes in mid-2019, bringing the total reduction to 5.4% of year-2017 GDP. Since mid-2017, it has also been possible for first-time buyers to allocate third-pillar pensions savings tax-free towards a down payment for a new home and then channel their private pension payments directly to their mortgage loans over a period of 10 years. As of March 2018, 0.4 million euros (53.6 m.kr) of private pension savings have been used as down payments by first-time home buyers.

Households' financial position has improved considerably in recent years. Supported by strong GDP growth since 2011, employment growth has been robust, and real disposable income rose by an average of almost 5.5% per year from 2011 to 2017. Since 2014, growth in disposable income has outpaced growth in private consumption, owing to an increase in household saving. Higher asset prices have also strengthened households' equity position. Households' net wealth relative to disposable income has therefore increased markedly, or by 170 percentage points between 2008 and year-end 2017, when it stood at 520%. Excluding pension assets, households' net wealth amounted to 300% of disposable income at the end of 2017. Because of reduced debt and increased income, the debt-to-income ratio has fallen by 98 percentage points from its 2010 peak, to 151% by year-end 2017.