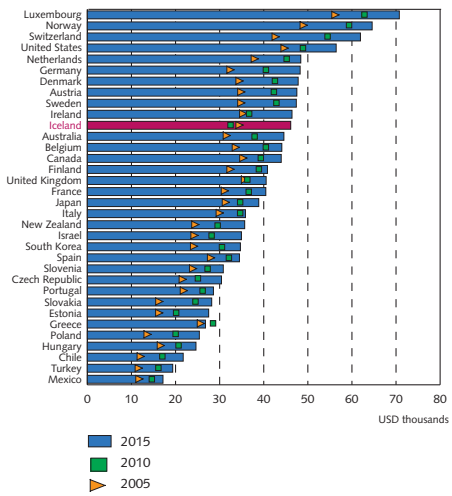
2 Structure of the economy

This chapter focuses on the structure of the Icelandic economy, mainly with regard to 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. Finally, the labour market and pension system in Iceland are discussed. 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 growing tourism sector, and a high labour participation rate.

Size and income level

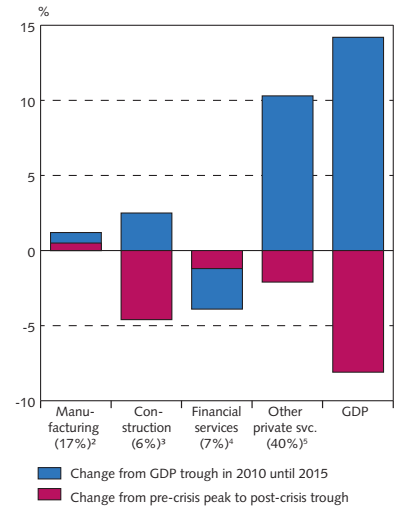
The Icelandic economy is the smallest within the OECD, generating GDP of 16.7 billion US dollars (2,205 b.kr) in 2015. This amounted to around 1/1000 of the US economy, 1/17 of the Danish economy, and a little over ¼ of the economy of Luxembourg, while it is more than 70% larger than the economy of Malta. The small size of the Icelandic economy mainly reflects the country's small population, which was 332.5 thousand on 1 January 2016. According to World Bank data,

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



1. Based on PPP.
Source: Macrobond.

Chart 2.2
Individual sectors' share in economic contraction and recovery[1]



1. Each sector's contraction and recovery, weighted with its share in gross factor income during the relevant period (2015 share in parentheses). 2. Manufacturing, mining, utilities, and waste handling. 3. Building and construction. 4. Financial and insurance activities. 5. Wholesale, retail, transportation and storage, hotels and restaurants, IT and communications, real estate, and miscellaneous specialised services.
Source: Statistics Iceland.

GNI per capita measured in terms of purchasing power parities (PPP) amounted to more than 46 thousand US dollars in 2015, the seventeenth-highest in the world and the eleventh-highest among the OECD countries. Iceland's GNI per capita is lower than that in Denmark, Norway, and Sweden but higher than in Finland and above the EU average.

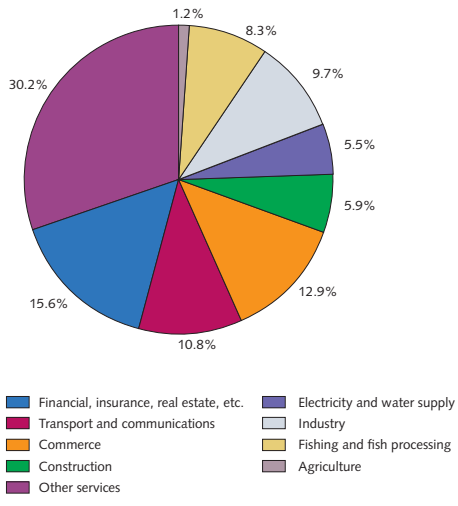
Drivers of growth

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. In the few years prior to the financial crisis of 2008, the financial services and construction sectors were the main drivers of economic growth, and conversely, the contraction following the financial crisis was most pronounced within those sectors. After GDP growth resumed in 2010, however, the contribution from the services sector has been driven by the recovery of domestic demand and growth in tourism-related services, supported by a competitive real exchange rate, particularly in the early phase of the recovery (Chart 2.2). This is also reflected in national accounts expenditure figures, which show that services exports along with private consumption and business investment have contributed the lion's share of GDP growth during the recovery period.

Composition of output and expenditure

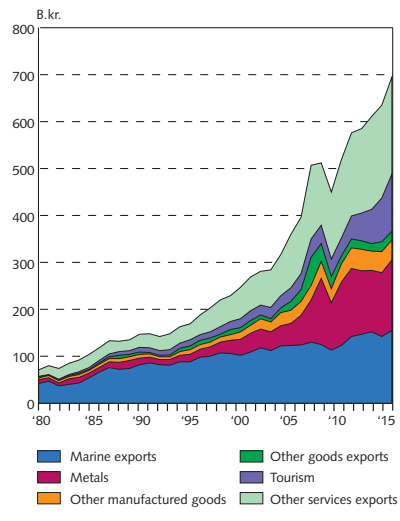
As in other developed economies, services form the bulk of economic activity, accounting for more than 70% of GDP in 2015. The marine sector accounted for 8.3% of GDP in 2015 and remains one of the most important sources of export revenues, although its relative weight in total export revenues has declined in recent years, as energy-intensive exports and tourism-related services have increased more rapidly. Manufacturing (excluding marine products) accounted for

Chart 2.3
Breakdown of GDP by sector 2015



Source: Statistics Iceland.

Chart 2.4
Exports of goods and services
At constant average exchange rates, based on a trade-weighted basket of currencies



Source: Statistics Iceland.

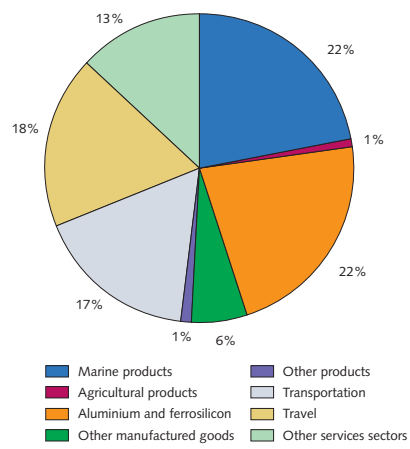
roughly 12% of GDP in 2015, and construction accounted for nearly 6%. Financial services (other than insurance services and pension funds) accounted for an average of 6% of GDP in 2013-2015, considerably below the pre-crisis average of roughly 9%. From 2010, the beginning of the post-crisis economic recovery, until 2016, GDP grew by 14.2%, more than ⅔ of it due to growth in the services sector and another 2½ percentage points due to the recovery of the construction sector.

Private consumption contributed, on average, about 52% of GDP in 2010-2015, and public consumption and gross fixed capital formation contributed 24% and 16%, 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 was just over 19% in 2015. The ratio of public consumption to GDP declined at the height of the pre-crisis boom, as private sector activity outpaced public sector activity. It rose just after the crisis, however, as the private sector contracted more than the public sector. Since 2011, the public consumption ratio has been on a declining path, as the economic recovery has been driven by exports and domestic private sector demand and growth in public final expenditure has been weak.

Foreign trade

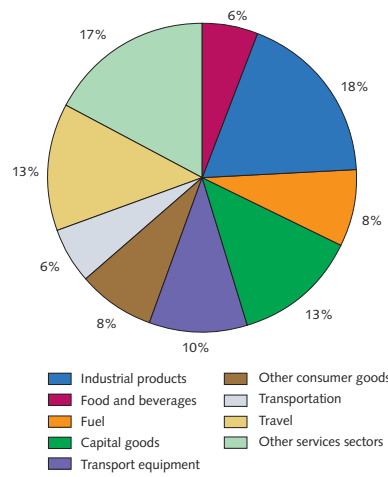
Iceland is a fairly open economy, with imports and exports of goods and services amounting to 46% and 53% of GDP, respectively, in 2015. In the period 2000–2015, trade openness, measured as the ratio of imports and exports of goods and services to GDP, averaged 86%, well above the OECD average. Although trade still involves a relatively large share of primary products and commodities, exports have diversified significantly since the beginning of the century. Certain factors restrict openness, however, such as geographic distance from major population centres, limited intra-industry and transit trade, and protection of domestic agriculture.

Chart 2.5
Exports by type of goods 2015
Percentage of total exports



Source: Statistics Iceland.

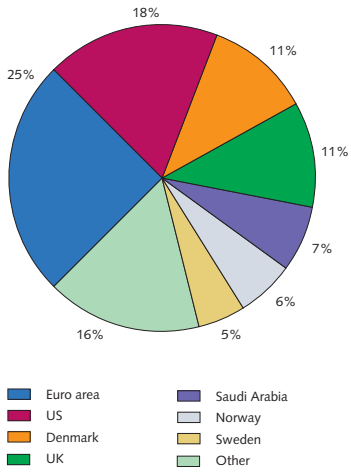
Chart 2.6
Imports by type of goods 2015
Percentage of total imports



Source: Statistics Iceland.

Chart 2.7

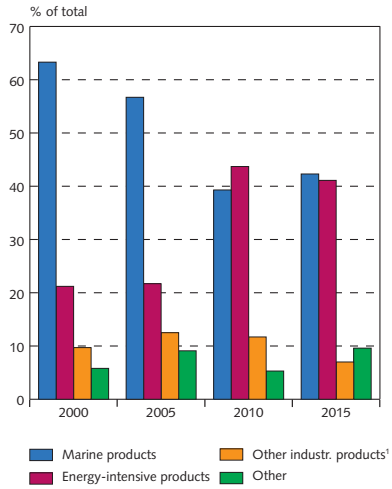
Currency area share in services exports 2015



Source: Statistics Iceland.

Chart 2.8

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.

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. In 2015, fish and other marine products accounted for 42% of goods exports and 22% of total exports, down from 63% and 41%, respectively, in 2000. Exports of manufactured goods have been growing rapidly in importance, led by aluminium smelting and medical and pharmaceutical products, and accounted for 53% of goods exports in 2015 (up from 31% in 2000) and 28% of total exports.

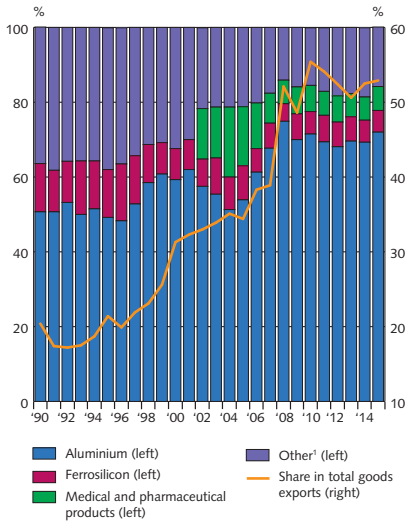
Exports of services have also increased as the economy has grown and become increasingly service-oriented. Tourism has soared over the past few years and has been one of the main drivers of export growth, contributing over 50% of the growth during the post-crisis period. Services now account for 47% of total export revenues, up from 37% in 2000.

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 28% of total goods imports and 18% of total imports in 2015. Capital goods constituted almost 21% of total goods imports and consumer goods 27% (13% and 17%, respectively, of total imports in 2015), while services contributed around 36% of total imports.

Iceland's ratio of services trade to total trade has risen in recent years. In 2015 it was 43%, one of the highest in the OECD, up from 34% at the beginning of the century. The euro is the most common currency used for services exports in Iceland, with 25% of total services exports. Besides the euro, only three currencies have a share of 10% or larger: the US dollar (18%) and the Danish krone and pound sterling, each with 11%.

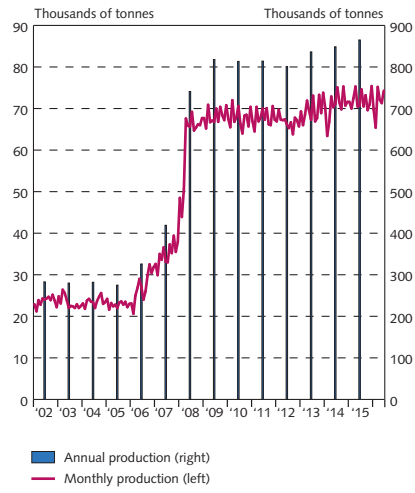
Free trade arrangements with Europe have stimulated Iceland's trade with the region, causing the share of North America to fall. In 2015, 78% of goods exports went to European Economic Area (EEA) member countries, which were also the source of 61% of imports. Currently, Iceland's

Chart 2.9
Composition of manufacturing exports and share in total goods exports



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

Chart 2.10
Aluminium production



Source: Statistics Iceland.

largest trading partner countries are the Netherlands, the UK, Germany, Norway, the US, and Spain. Trade with China has increased dramatically 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 36% of imports and 27% of exports. In recent years, Iceland has generally had a trade surplus with the Netherlands, the UK, Russia, Nigeria, France, Japan, and the Iberian countries, but a deficit with Brazil, China, the US, and its Nordic neighbours.

Manufacturing and energy-intensive industries

The production structure of Iceland's manufacturing sector is unique among industrialised countries in many respects. First, the manufacturing sector is dominated by two sub-sectors, food processing and aluminium production, which together account for roughly ¾ of total manufacturing. Second, production of machinery and other investment goods is relatively limited. Food production is directed partly at the domestic market, but a larger share, or 62% (in 2015), focuses on seafood production for export. Other less important sub-sectors are machinery equipment production (12%), building materials production (3%), and pharmaceuticals/chemical products (3%).

Iceland's largest manufacturing industry by far is the energy-intensive industry (mainly aluminium), which has increased substantially over the past decade, generating 38% of goods exports in 2015, up from one-fifth in 2000. Iceland's aluminium industry is based primarily on competitive energy costs, strategic location, and a skilled labour force. Production has risen sharply since the turn of the century, from 210 thousand metric tonnes per year (mtpy) in 2000 to an estimated 880 thousand mtpy in 2016. Iceland's share of world aluminium production (excluding China) increased from 1% in 2000 to 3% in 2014.

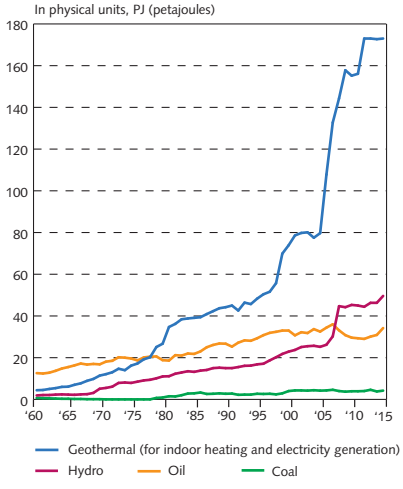
A number of export-oriented manufacturing companies have emerged in the last two decades. Most of these companies are founded on product innovation, R&D, information and communications technology (ICT), and strategic marketing. Three of these companies have grown from being small or medium-sized companies to become key international players in their field, holding a relatively large market share worldwide in medical equipment, pharmaceuticals, and food processing and fishery equipment.

Energy

Iceland is at the forefront in the use of renewable energy resources. Of the total primary energy supply in Iceland, nearly 90% is from renewable resources, up from 72% in 2000, compared to an average of ⅓ in other Nordic countries. Iceland has large potential sources of renewable energy; on the one hand, the country is located on the volcanically active Mid-Atlantic Ridge, a potent source of geothermal energy, and on the other hand, one-tenth of the landmass is covered by glaciers, a major source and reservoir of water power for generating electricity. Iceland's hydropower and geothermal resources have only been partly harnessed, and Iceland is the only country in Europe that still has a considerable amount of large-scale, competitively priced power from these sources.

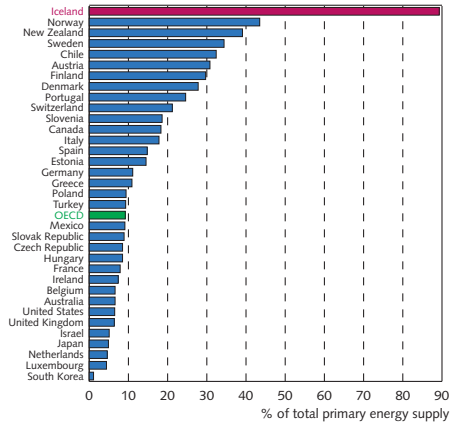
Electricity production per capita is the highest in the world, at 55 megawatt hours (MWh) per capita, more than twice that in Norway (23 MWh), which comes second. In 2015, total installed hydropower was 1,986 MW in 40 power plants with a combined capacity of 13,800 gigawatt hours (GWh), or 70% of generated electricity. At year-end 2015, combined installed geo-power for electricity generation was 665 MW from seven plants and 5,000 GWh capacity.

Chart 2.11
Primary energy consumption by source in Iceland



Source: National Energy Authority.

Chart 2.12
Contribution of renewables to energy supply in OECD countries 2014



Source: OECD.

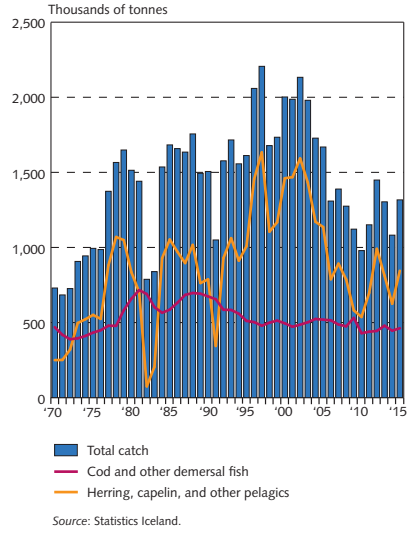
Iceland has been in the lead globally in the use of geothermal energy for purposes other than generating electricity. Geothermal energy accounts for 66% of primary energy used in Iceland, most of it as geothermal heat for space heating (70%) and the rest for swimming pools, greenhouses, aquaculture, and other industrial use. The total primary energy supply per unit of GDP is the highest in the world, nearly four times higher than the OECD average. Well over 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).

Marine sector

Throughout most of the 20th century, the marine sector was of key importance to the Icelandic economy. To a large extent, economic growth was generated by the marine sector. Fisheries and fish processing are still one of the main pillars of export activities in Iceland: in 2015, 42% of goods exports and roughly 22% of all export earnings from goods and services came from fisheries. However, as exports of manufactured goods have been growing rapidly, the share of the marine sector in goods exports has fallen, from around 63% in 2000 to 42% in 2015. Despite this, the sector's contribution to GDP has remained relatively constant in the past five years at 8-10%, down from 12% in 2000.

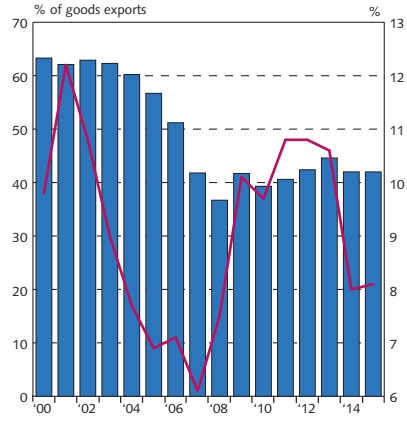
The marine sector is highly diversified in terms of species, processing methods, and markets. Fishing and processing of groundfish (primarily cod, but also haddock, saithe, and redfish) and pelagic species (mackerel, herring, and capelin) are the principal focus of Iceland's marine sector. The introduction of value-added processing techniques has helped to offset stagnant or 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, as fresh products yield considerably

Chart 2.13
Fish catch by Icelandic vessels



Source: Statistics Iceland.

Chart 2.14
Marine exports



Source: Statistics Iceland.

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 by individual fishing companies. Regulations cover quota holdings both for individual species and in the aggregate.

In 1995, a harvest control rule (HCR) for cod was introduced, setting the TAC for the next consecutive quota year (September through the following August) at 25% of the mean of the fishable biomass in the assessment year and the following year. This share was lowered to 20% in 2007. HCRs have been used for capelin and herring for many years. More recently, HCRs have been introduced for haddock, saithe, and golden redfish, and the aim is to introduce HCRs for all important species.

All fisheries are subject to an annual fishing fee. In July 2015 the fee was fixed for a period of three (quota) years. The fee is to be calculated on the basis of earnings before taxes (EBT) in fishing and fish processing, using the most recent estimates published by Statistics Iceland. The fishing fee for the quota year 2016-2017 is estimated at approximately 60 million euros (4,780 b.kr.), or 3% of the total 2015 catch value. The fee is part of the State budget.

higher prices in the markets. The importance of pelagic species has increased significantly in the last ten years, from one-sixth of the total export value of fish and seafood products in 2006 to 25-30% in the last three years. Cod products are still the mainstay of exported fish and seafood products, at around 40% of total marine exports.

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). The FMS adopted in Iceland is science-based and market-driven. A key role has been assigned to marine research, as the use of available scientific knowledge is fundamental. Another pillar of the FMS is the commitment to take into account the effects of various measures or policies on the ecosystem.

In the last two decades, fisheries companies have been actively seeking to enhance efficiency and benefit from economies of scale through mergers, acquisitions, and vertical integration of all parts of the value chain. The largest fisheries and processing companies – mainly vertically integrated firms with harvesting, processing, and marketing within the same company – have expanded, and the concentration of quota holdings has risen. The 10 and 15 largest fisheries

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, the only restrictions applying to European Economic Area (EEA) residents, 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 companies that are up to 25% foreign-owned (33% in certain circumstances) may own fisheries. Combined direct and indirect ownership of up to 49% is possible, however. 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 in Icelandic aviation companies.

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.

companies in terms of quota holdings owned 50% and 63%, respectively, of total quota holdings as of July 2016.

Financial sector

Iceland's financial services sector grew substantially in the first decade of the 21st century, catalysed by financial globalisation and deregulation in the 1990s and the privatisation of two commercial banks, which was completed in 2003. By year-end 2007, the banking system's assets were nearly 10 times GDP. In autumn 2008 and early 2009, roughly 97% of the banking system (measured in terms of assets) collapsed.[1]

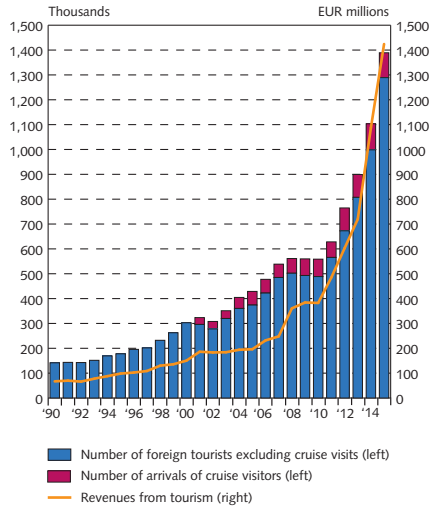
The financial system has changed radically since then. Three new banks were established and took over the domestic operations of the collapsed banks, and other smaller financial institutions have also undergone financial restructuring or lost their operating licences. Four commercial banks and four savings banks are currently operating in Iceland. The State is the major owner of two of Iceland's commercial banks and holds a minority stake in another one. The assets of the banking system are about one-and-a-half times GDP. Six other credit institutions currently operate in Iceland: two payment card companies; two investment credit funds; an asset financing company; and the State-owned mortgage lender, the Housing Financing Fund (HFF) (see Chapter 3 for further discussion of the financial system).

Tourism

Tourism has been among the fastest-growing industries in Iceland in recent years and has established itself as the third main pillar of the Icelandic economy. Over the past decade, the number of foreign tourists has increased from 320 thousand in 2005 to 1.3 million in 2015. The vast majority of tourists travelled through Keflavik Airport, or roughly 1,260 thousand, while oth-

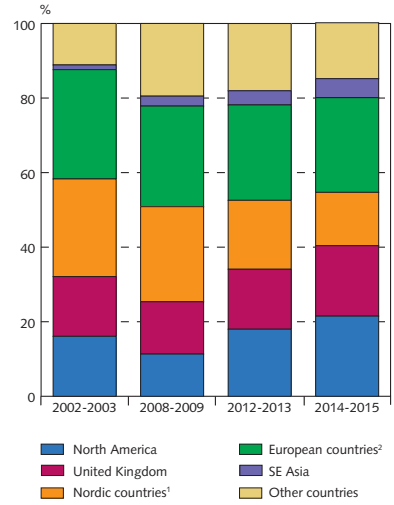
1. See Box 3.2 in the 2014 edition of *Economy of Iceland*.

Chart 2.15
Number of foreign tourists and revenues from tourism
At constant exchange rate 2015



Sources: Icelandic Tourist Board, Central Bank of Iceland.

Chart 2.16
Nationality of tourists



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

ers travelled through other airports and the Smyril Line ferry at Seyðisfjörður. The number of incoming tourists by air and ferries is projected to exceed 1.6 million in 2016. In addition to these figures, the number of cruise ship passengers in 2015 was around 103 thousand, up from 72 thousand in 2010. The rapid increase in tourism is also reflected in the number of airlines flying to Keflavík and destinations available from Keflavík Airport. In the winter of 2015-2016, a total of 14 airlines offered flights from Keflavík to 57 destinations. In comparison, three airlines offered scheduled flights from Keflavik in 2010.

The ratio of tourism-generated foreign exchange revenues to total export revenues averaged 31% in 2015, compared to just under 19% in 2010. Of single countries, the US and the UK accounted for the largest number of tourists, with a combined 38% of the total, followed by tourists from Germany, at roughly 8%. Until 2015, Central and Southern Europe had been the largest market, but that year, following a sharp rise in the number of tourists, Northern America emerged as the largest market area.

This increase in the number of tourists has had a significant impact on Icelandic businesses. From 2010 to 2015, the increase in turnover in businesses related to the tourist sector was nearly 49% in real terms, and the number of employees on their payroll rose by 65% over the same period.

Technology and communications

The technological sector of the services industry, the software industry in particular, has diversified and grown significantly in the last 10-15 years. Between 70 and 80 companies of all sizes are active in the software sector, specialising in medical, ICT, computer games, logistics, and operat-

ing management systems. Most of the businesses in software technology are engaged in export activities, owing to the small size of the home market.

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.

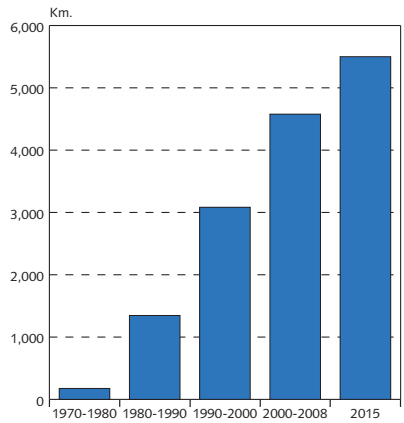
Iceland's telecommunications infrastructure is extensive and reaches all parts of the country, with fibre optic cables, broadband networks, and an extensive mobile phone system with widespread geographical coverage reaching nearly 100% of the population. International connections are based on satellite earth stations and three intercontinental cables enabling and facilitating efficient high-speed international connections.

In 2015, 96% of Icelandic households were Internet-connected, the highest percentage in Europe, compared with 81% in the EU27 and 92% in the other Nordic countries. Nearly all internet connections are high-speed connections, and around 97% of connected households are regular users, compared to 92% in other Scandinavian countries and 75% in the EU27.

Transport

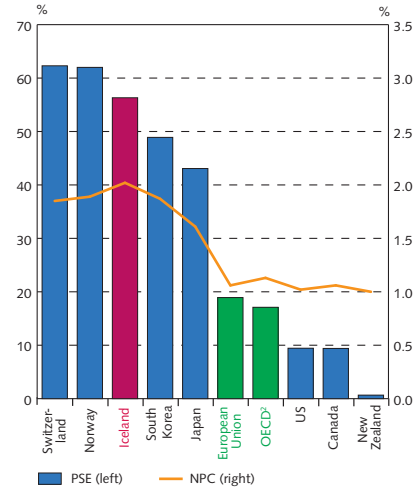
The domestic transportation network consists of roads and air transportation. The road system totals 13 thousand kilometres, some 5.5 thousand kilometres of which are primary (paved) roads. Between 2003 and 2010, 22 kilometres of tunnels were built, bringing the total length of tunnels to 43 kilometres, and four tunnels with a combined length of 24 kilometres are under construction. Private motor vehicle ownership is widespread and among the highest in the world, with 670 passenger cars per 1,000 inhabitants, compared to 455 cars per 1,000 inhabitants in

Chart 2.17
Paved roads



Source: The Icelandic Road Administration (ICERA).

Chart 2.18
Support to agriculture 2015[1]



1. PSE measures transfers as a share of gross farm receipts. NPC is the ratio between the average price received by producers and the border price. 2. Provisional figures.

Source: OECD.

the other Nordic countries. A weekly ferry connection for passengers, private vehicles, and cargo operates between East Iceland, Denmark, and the Faroe Islands.

The air traffic infrastructure in Iceland covers all parts of the country. Four international airfields are operated, and three major international AOC (aircraft operating certificate) holders operate in Iceland, offering passenger service, international cargo service, and charter flights. During summer 2016, a total of 25 airlines offered direct passenger service between Iceland and 84 destinations in Europe and North America, and in the winter of 2016-2017, 17 companies will offer service to 55 destinations. Roughly 80% of all passenger destinations are in Europe. As of 2016, 11 airlines offer year-round service.

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.

Agriculture and farming

Approximately 1/5 of the total land area of Iceland is arable 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 farmers amounting to 0.8% of GDP in 2015. In terms of the OECD producers support estimate (PSE), Iceland was third-highest in the OECD in 2015, with a PSE of 56%, compared to the EU15 average of 19% and the OECD average of 18%.

Environment

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.

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 will fulfil its commitments jointly with the EU and its Member States, in accordance with Article 4 of the Kyoto Protocol. 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 has stated its intention to take part in joint fulfilment of targets with the EU under the 2015 Paris Agreement.

Because almost 100% of Iceland's stationary energy comes from renewable sources, actions taken to reduce net emissions focus on decreasing emissions from transport and fisheries and

increasing carbon uptake through afforestation and revegetation. The government launched a new climate action plan in 2015, in connection with Conference of the Parties (COP21) in Paris.

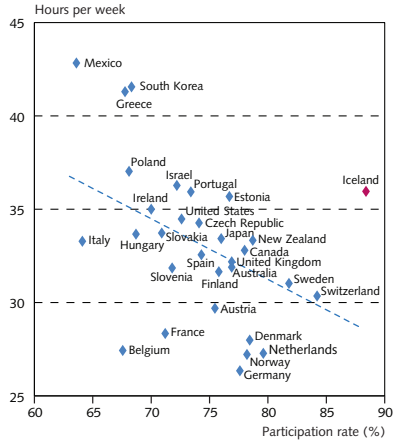
Nature-based tourism has grown markedly in recent years, and funding for tourism infrastructure and nature conservation has increased. A new Master Plan on hydro and geothermal energy has been put in place in an attempt to strike a balance between new renewable energy projects and nature conservation 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 2015, female participation was one of the highest in the OECD countries, with women accounting for 48% of the labour force and supplying over 42% of total hours. Participation rates among the young (aged 15-24) and the elderly (aged 65 and over) are also the highest in the OECD. Furthermore, Icelanders tend to work long hours. In 2015, 39% of the adult population held a university degree, up from 29% in 2005.

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.

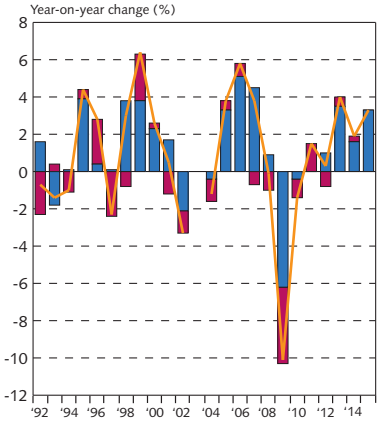
Chart 2.19
Participation rate and hours per week in OECD countries 2015[1]



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. The average number of hours worked is for the labour force as a whole.

Source: Macrobond.

Chart 2.20
Changes in employment and hours worked



Source: Statistics Iceland.

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 86% 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 settlements 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 2.21).[2]

Pension system

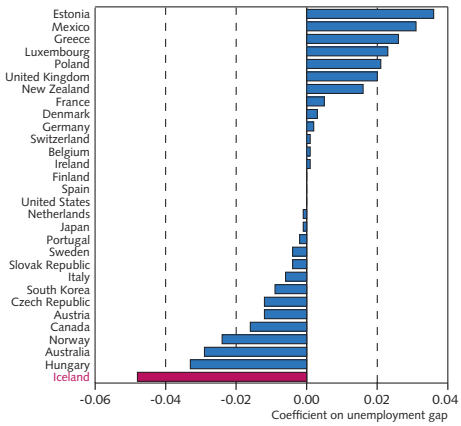
In the decades to come, Iceland will face fewer problems due to an ageing population than most other developed countries. There are three main reasons for this. First, the population is younger and will continue to be so during coming decades. The elderly dependency rate – i.e., over-65-year-olds as a ratio of 20- to 64-year-olds – was 22% in 2014, the eighth-lowest in the OECD and somewhat less than in the US (24%) but significantly below the average in the EU (29%). 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, 39% of 65- to 74-year-olds worked at least one hour a week in 2015. 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 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 basic pension amounts to approximately 12% of the average earnings of unskilled workers, while the maximum total old-age pension amounts to around 74% of the same earnings.

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

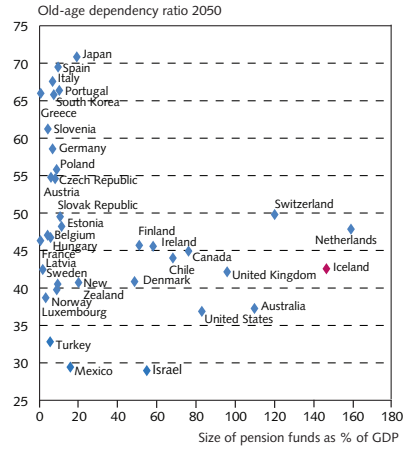
2. Chart 2.21 reports the coefficient on the unemployment gap; i.e., the deviation of unemployment from the non-accelerating inflation rate of unemployment (NAIRU), in a regression of a change in real wages on a constant, the unemployment gap, a change in productivity, and a lagged change in real wages.

Chart 2.21
Real wage flexibility 1997-2011[1]



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

Chart 2.22
Size of pension funds in 2014 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.
Sources: OECD, United Nations.

public system as they approach maturity and means-testing reduces the public pension. Payments from the pension funds totalled or 5% of GDP, or 756 million euros (110.6 b.kr.), in 2015, whereas public system payments totalled 1.9% of GDP, or 294 million euros (43 b.kr.).

From mid-2016 onwards, it is mandatory to pay at least 12.5% of total wages and salaries to pension funds.[3] 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 148% of GDP at the end of 2015. By international comparison, pension funds in Iceland are large relative to GDP. In 2014, they were the second-largest in the OECD (after the Netherlands).

At the end of 2015, there were 26 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 83% of the net assets of all pension funds in 2015, and the two largest funds accounted for 35%. The average fund had net assets of around 877 million euros (123.9 b.kr.), while the largest had assets of almost 4 billion euros (584 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

3. According to a January 2016 agreement in the private labour market, the employer's contribution to employee pensions will be increased gradually by 3 percentage points from 2017-2018. Furthermore, from 2017 onwards, employees may decide whether this increase is to be paid partly or fully to their occupational funds or to their third-pillar pension saving scheme.

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%.[4] 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 2015.

4. See Footnote 3 in this chapter.