



ECONOMY OF ICELAND

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In *Economy of Iceland*, monetary figures are generally presented in euros; however, in certain instances, amounts are expressed in US dollars or Special Drawing Rights (SDR). The amount in Icelandic krónur is included in parentheses, as most figures are originally in krónur. Stocks at the end of the period are calculated using the period-end exchange rate, whereas flows are calculated using the average exchange rate for the period.

Icelandic letters:

ð/Ð (pronounced like *th* in English *this*)

þ/Þ (pronounced like *th* in English *think*)

Symbols:

- * Preliminary or estimated data.
- 0 Less than half of the unit used.
- Nil.
- ... Not available.
- . Not applicable.

Republic of Iceland

People

Population	319,575 (1 January 2012)
Capital	Reykjavík, population 118,785 (1 December 2011)
Language	Icelandic; belongs to the Nordic group of Germanic languages
Main religion	Evangelical Lutheran (76.8%)
Life expectancy	Females: 84 years; Males: 80 years

Governmental system

Government	Constitutional republic
Suffrage	Universal, over 18 years of age; proportional representation
Legislature	Althingi, with 63 members
Election term	Four years; last election 25 April 2009

Economy

Monetary unit	Króna (plural: krónur); currency code: ISK
Gross domestic product	€10.08 billion (1,626.335 billion krónur, USD 13.98 billion) in 2011
International trade	Exports of goods and services 59% and imports of goods and services 51% of GDP in 2011
Per capita GDP	€31,600 in 2011 (5.1 million krónur, USD 43,800 in terms of PPP)

Land

Geographic size	103,000 km ² (39,768 sq.miles)
Highest point	2,110 m (6,923 ft)
Exclusive economic zone	200 nautical miles (758,000 km ² / 292,680 sq.miles)
Climate	Cool temperate oceanic; highly changeable, influenced by the warm Gulf Stream and Arctic currents

	<i>Affirmed</i>	<i>Foreign currency</i>		<i>Domestic currency</i>		<i>Outlook</i>
		<i>Long-term</i>	<i>Short-term</i>	<i>Long-term</i>	<i>Short-term</i>	
Moody's	July 2010	Baa3	P-3	Baa3	P-3	Negative
Standard & Poor's	November 2011	BBB-	A-3	BBB-	A-3	Stable
Fitch	February 2012	BBB-	F3	BBB+		Stable
R&I Rating of Japan	November 2010	BB+				Rating Monitor

Central Bank of Iceland publications in English

Annual Report
Monetary Bulletin
Financial Stability
Economy of Iceland
Economic Affairs
Informational reports
Special Publications
Central Bank of Iceland *Working Papers*

These publications are available on the Central Bank website. Also available on the website are Central Bank statistics (updated weekly) and *Economic Indicators*, a monthly snapshot of the Icelandic economy in charts and tables.

Useful websites

Central Bank of Iceland	www.sedlabanki.is
Parliament of Iceland (Althingi)	www.althingi.is
Government of Iceland	www.government.is
Statistics Iceland	www.statice.is
OMX Nordic Exchange in Iceland	www.nasdaqomx.com
Government Debt Management	www.bonds.is
Trade Council of Iceland	www.icetrade.is
National Association of Pension Funds	www.ll.is
Invest in Iceland Agency	www.invest.is
Financial Supervisory Authority	www.fme.is
The Official Gateway to Iceland	www.iceland.is



Introduction

Economy of Iceland has been published by the Central Bank of Iceland since 1987. It is intended mainly for an international readership. This includes international institutions that deal with Icelandic economic matters on a regular basis, rating agencies, financial institutions, foreign investors, embassies and, more generally, everyone who is interested in the Icelandic economy. We also hope that Icelandic readers will find this survey useful. It is published every other year.

This publication focuses on the structure of the Icelandic economy. It is intended to serve as background material for understanding the evolution of the economy, but it does not provide a detailed account of recent developments. A more up-to-date analysis of recent developments is provided in the Central Bank's *Monetary Bulletin* and *Financial Stability* reports. The Bank's *Annual Report* also gives an overview of economic developments each year.

The outline of this booklet is as follows: Chapter 1 presents basic facts about Icelandic geography, population and society. Chapter 2 deals with the structure of the economy. It discusses size and income levels, the composition of GDP, foreign trade, main economic sectors, the labour market, and the Icelandic pension system. Chapter 3 provides an account of the financial system and discusses the various challenges during the recovery following the financial crisis. Chapter 4 surveys the public sector, including division of tasks, central and local government finances, expenditure structure, the tax system and the developments in sovereign credit ratings. Chapter 5 describes the frameworks for monetary policy and financial stability. It explains the objective of the monetary policy, its main instruments, and the role of the Monetary Policy Committee. It also elaborates on financial stability policy and the Central Bank's role in promoting an efficient and safe financial system. Chapter 6 presents Iceland's external debt position. It elaborates on the accumulation of debt in the years preceding the financial crisis and developments in its aftermath. It discusses changes in foreign direct investment and provides estimates of net foreign debt levels once the failed private banks have been wound up. Chapter 7 describes government, corporate and household balance sheets. It discusses the position of the government, households and businesses, and debt restructuring following the financial crisis. A number of tables are provided in an appendix.

We are constantly making efforts to improve this publication. Hence we would be grateful for any comments and suggestions that might enhance the usefulness of this booklet. If you feel that important information is missing and should be added, or if you see other scope for improving this publication, please e-mail your suggestions to: sedlabanki@sedlabanki.is.

1 Country and people

This chapter focuses on the country of Iceland with regard to its geography and the main characteristics of the Icelandic nation and society, in addition to elaborating on Iceland as a welfare state. Iceland's political structure is also described, as well as its external relations and status in the global context.

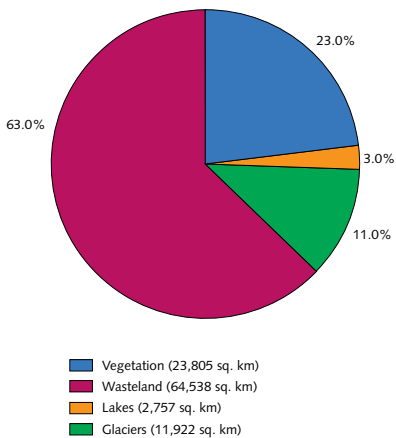
Geography

Iceland is located in the North Atlantic, between Norway, Scotland and Greenland. It is the second-largest island in Europe and the third-largest in the Atlantic Ocean, with a land area of some 103 thousand square kilometres, a coastline of 4,970 kilometres and a 200-nautical-mile exclusive economic zone (EEZ) extending over 758 thousand square kilometres in the surrounding waters.

Iceland enjoys a warmer climate than its northerly location would indicate because a part of the Gulf Stream flows around the southern and western coasts of the country. In the capital, Reykjavík, the average temperature is nearly 13°C in July and just above 2°C in January.

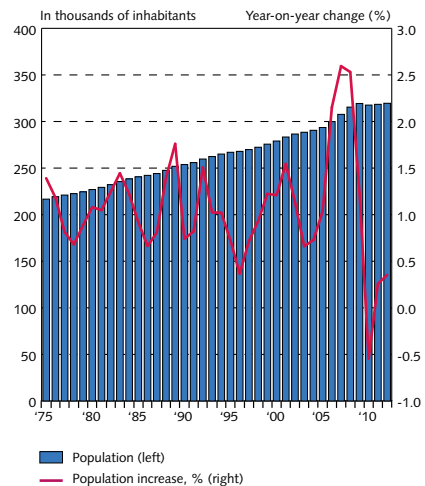
Iceland is mostly mountainous and of volcanic origin, with the highest peak reaching 2,110 metres. Lowlands stretch from the coast towards the interior, mainly in the south and the west. Several glaciers, one of them the largest in Europe, distinguish the landscape. The coasts are

Chart 1.1
Geography of Iceland¹



¹ The size of Iceland is 103,000 square kilometers.
Sources: Icelandic Geodetic Survey, National Energy Authority, Science Institute, University of Iceland.

Chart 1.2
Population of Iceland 1735 - 2012¹



¹ Population 1 January each year. The figures for 1 January 2008 have been revised upwards.
Source: Central Bank of Iceland.

rocky and of irregular outline, with numerous fjords and inlets, except for the south where there are sandy beaches with no natural harbours. Only around 20% of the total land area is classified as arable land, most of it located in the southern and western part of the country and several fertile valleys stretching from the coast.

Iceland is endowed with abundant natural resources. These include the fishing grounds around the island, within and outside the country's 200-mile EEZ. Furthermore, Iceland has abundant hydroelectric and geothermal energy resources.

People

Iceland was settled in the ninth century A.D. The majority of the settlers were of Norse origin, with a smaller Celtic element. A general legislative and judicial assembly, the Althingi, was established in 930, and a uniform code of laws for the country was established at the same time. In 1262, Iceland entered into a union with the Norwegian monarchy. When the Danish and Norwegian monarchies were united in 1380, Iceland came under Danish rule, which lasted for more than five hundred years. Iceland was granted a new constitution in 1874 and obtained home rule in 1904. With the Act of Union in 1918, Iceland became a sovereign state in a monarchical union with Denmark. In 1944, Iceland terminated this union with Denmark and founded a Republic. The native language, Icelandic, belongs to the Nordic group of the Germanic languages.

With only 3 inhabitants per square kilometre, Iceland is one of the least densely populated countries in Europe. On 1 January 2012, Iceland's population was almost 320,000. In 2009, the population decreased for the first time since 1889, by 0.5%, due to negative net migration following a period of large net immigration from 2005. In 2000–2011, annual average population growth was 1.2% and the natural increase (births less deaths) 1.4%. Around 63% of the population (some 200 thousand) live in the capital city of Reykjavik and its surrounding municipalities. The largest town outside the capital area is Akureyri, located in North Iceland, with a population of 17,875. Most of the remaining population live in small towns along the coast.

As in other advanced countries, the population of Iceland is ageing, but at a relatively slower pace than in most OECD countries. In 2010, despite high life expectancy, the ratio of the total population aged over 65 to the population of working age was 18%, eighth-lowest in the OECD.

Society and the welfare state

Iceland is a modern welfare state that guarantees its citizens access to universal health care, education, and a high degree of social security. Spending on health, education, social security, welfare and other social affairs amounted to just over 31% of GDP in 2009.

Life expectancy, which is among the highest in the world, and one of the world's lowest infant mortality rates (0.9 per 1,000 live births in 2011) testify to the advanced status of health care in Iceland, both primary health care and hospitals. The Icelandic health care system is a tax-financed universal system for all persons who have had legal residence in Iceland for more than 6 months. Healthcare services are provided mainly free of charge, although user charges have been on the rise. The main exception is dental health care, where adult patients are charged the full cost of service, while children under 18 years of age have most of the cost refunded.

The standard of education is high, and public education is compulsory between the ages of 6 and 16. Good command of English and the Scandinavian languages is widespread. Education is

offered free of charge or for a nominal fee at three levels. First, there are ten years of compulsory education at the primary level (age 6-16). This is followed by four years at the upper secondary level, which provides general education and vocational training in a wide range of fields. Finally, higher education is offered at several universities.

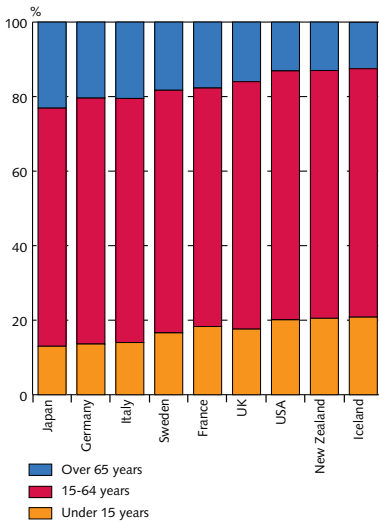
In Iceland, as in most OECD countries, university enrolment of those completing secondary education has increased substantially in recent years. In 2010, 33% of the population held a university degree, up from 23% in 2000. Roughly one out of every five university degrees held by Icelanders is obtained in other countries. The ratio of pre-school enrolment is also one of the highest among OECD countries.

The State

The present Constitution was adopted on 17 June 1944, when the Republic was established. Iceland has a Parliamentary system of government. Legislative power is vested in Parliament (Althingi) and executive power in a cabinet headed by the Prime Minister. The Government must be supported by a majority of Parliament in order to remain in power. The 63 members of Parliament are elected from six constituencies on the basis of proportional representation, for a term of four years. Over the past 30 years, women’s participation in politics has increased significantly. A parliamentary bill becomes law when it is passed by Parliament and signed by the president. The president is the head of state and is elected for a term of four years by a direct vote of the electorate.

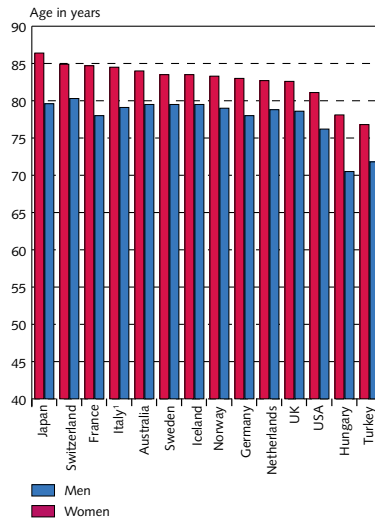
Since gaining autonomy from Denmark in 1918, governments have normally been formed by a coalition of two or more political parties that have held a majority in Parliament. The coali-

Chart 1.3
Age structure of the population in selected countries 2010¹



1. Ranked by share of population older than 65. Data for Iceland are for 2011. Source: Central Bank of Iceland.

Chart 1.4
Life expectancy at birth 2010¹



1. Data are for 2009. Source: OECD.

Chart 1.5
General government expenditure by economic types and functions in 2010¹

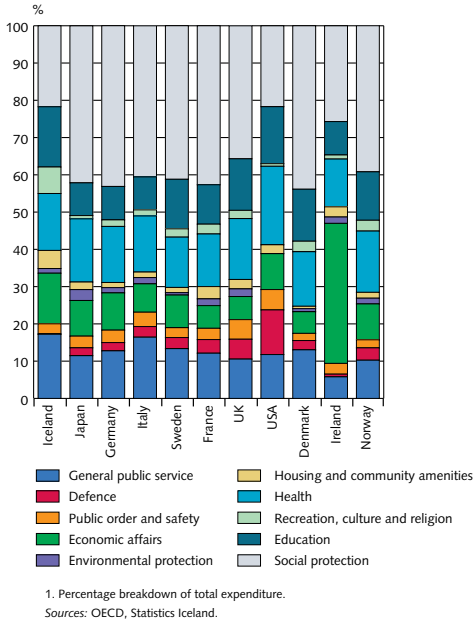
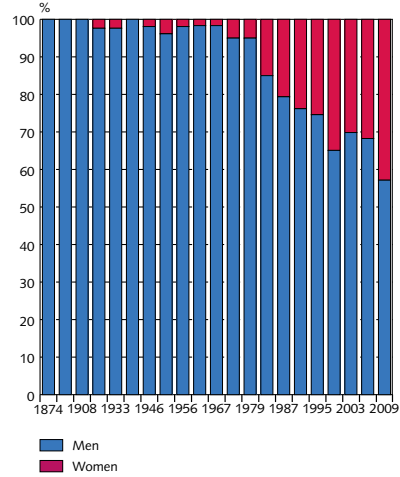


Chart 1.6
Elected congressmen in Althingi by gender 1874 - 2009¹



tion government of the right-wing Independence Party and the Social Democratic Alliance came to an end on 26 January 2009, and an interim government of the Social Democratic Alliance and the Left-Green Movement took office with the Progressive Party defending the Government in the event of motions of no-confidence. Early elections were held on 25 April 2009. The results of the elections were as follows: The Social Democratic Alliance obtained 29.8% of votes and 20 seats, the Independence Party 23.7% and 16 seats, the Left-Green Movement 21.7% and 14 seats, the Progressive Party 14.8% and 9 seats, and finally, the Citizens' Movement, a new party, obtained 4 seats with 7.2% of votes. Others received 2.8% and no seats. A coalition government between the Social Democratic Alliance and the Left-Green Movement (with 34 seats) took office in May 2009. The next general election is to be held in 2013.

Iceland's court system is divided into two levels: district courts, which are the courts of first instance, and the Supreme Court, which holds the highest judicial power in Iceland. The Constitution provides for the courts' independence, according to which judges have the judicial power, they shall only abide by the law in their official duties, and they cannot be discharged from office except by judicial decision.

The Central Bank of Iceland was established by an Act of Parliament in April 1961. According to the Act, the Central Bank is an independent institution owned by the State but under separate administration. The Ministry of Finance and Economic Affairs has issues pertaining to the Central Bank in its portfolio, insofar as they belong to the political sphere. An inflation target and an exchange rate regime are specified by the Central Bank and ratified by the Minister of

Finance and Economic Affairs. The Bank is provided with the necessary means and instruments for achieving the primary objective of price stability, independent of any other authority, by the 2001 Central Bank Act. The Bank is supervised by a seven-member Supervisory Board elected by Parliament. Decisions on the use of monetary policy instruments are taken by a five-member Monetary Policy Committee chaired by the Governor. The Governor takes decisions not allocated to the Monetary Policy Committee, the Supervisory Board or the Minister (e.g., the design of new banknotes), but some of those decisions require endorsement from the Supervisory Board.

The Financial Supervisory Authority (FME) is charged with the task of supervising financial enterprises. Its mission is to safeguard the integrity and sound operation of the financial market. The Act on Official Supervision of Financial Activities states that the FME is an independent institution with the administration entrusted to a board of directors. The FME falls under the auspices of the Ministry of Industries and Innovation, but according to the Act, the Minister does not have the power to affect decision-making within the institution. The board appoints a director general, who is responsible for the day-to-day management of the FME.

External relations

Iceland has participated actively in international cooperation. It belongs to a group of Nordic countries that includes Denmark, Sweden, Norway and Finland, as well as Greenland and the Faeroe Islands. The Nordic countries have established wide-ranging cooperation in a variety of fields, including economic affairs and international representation, in which the Baltic countries have been taking an increasingly active part. Iceland is a member of the Nordic Council and specialised institutions such as the Nordic Investment Bank.

Iceland became a member of the United Nations in 1946 and is an active participant in most of its affiliated agencies. It is a founding member of the Bretton Woods institutions established in 1945, the International Monetary Fund (IMF), and the International Bank for Reconstruction and Development (World Bank).

Iceland is one of the original members of the Organisation for Economic Cooperation and Development (OECD) and of the European Bank for Reconstruction and Development (EBRD). It joined the Council of Europe in 1950 and has participated in the Organisation for Security and Cooperation in Europe since the organisation's inception in 1975.

In 1964, Iceland became a party to the General Agreement on Tariffs and Trade (GATT), the predecessor to the World Trade Organization (WTO). Iceland joined the European Free Trade Association (EFTA) in 1970 and entered into a free trade agreement with the European Economic Community in 1972. In May 1992, the member states of EFTA and the European Union signed an agreement to establish a zone for the free movement of goods, services, capital and persons, the European Economic Area (EEA), which took effect on 1 January 1994. Through its EFTA membership, Iceland participates in numerous Free Trade Agreements (FTAs) with the following countries; Albania, Canada, Chile, Colombia, Croatia, Egypt, the Gulf Cooperation Council (GCC), Hong Kong, Israel, Jordan, Lebanon, Macedonia, Mexico, Montenegro, Morocco, the Palestinian Authority, Peru, Serbia, Singapore, the South African Customs Union (SACU), the Republic of Korea, Tunisia, Turkey, and Ukraine. In addition, ratification of Free Trade Agreements with Colombia is awaited. Work is in progress on FTAs with Algeria, Bosnia and Herzegovina, the Central American States, India, Indonesia, Russia, Belarus and Kazakhstan, Thailand, and

Vietnam. Furthermore, Iceland has enacted bilateral Free Trade Agreements with Greenland and the Faeroe Islands. On 9 June 2010, the People's Bank of China and the Central Bank of Iceland signed a three-year bilateral currency swap agreement, with a possible extension.

Iceland is a founding member of the North Atlantic Treaty Organization (NATO), established in 1949. The United States maintained a permanent military presence at a base in Iceland from 1951 until 2006. However, the bilateral defence agreement between Iceland and the United States continues to remain valid. In July 2009, Iceland submitted a formal application for accession to the European Union after Parliament voted in favour of applying for membership. A year later, in July 2010, Iceland's accession negotiations with the European Union were formally opened. Just over half the chapters to be negotiated had been opened for formal negotiations and a third had been provisionally closed as this publication went to press October 2012.

Table 1.1 Iceland's membership in international organisations

	<i>Year of association</i>
International Monetary Fund (IMF)	1945
International Bank for Reconstruction and Development (World Bank)	1945
United Nations (UN)	1946
North Atlantic Treaty Organization (NATO)	1949
Organisation for Economic Cooperation and Development (OECD)	1949
Council of Europe	1950
Nordic Council	1952
International Finance Corporation (IFC)	1956
International Development Association (IDA)	1961
General Agreement on Tariffs and Trade (GATT)	1964
European Free Trade Association (EFTA)	1970
Organization for Security and Cooperation in Europe (OSCE)	1975
European Bank for Reconstruction and Development (EBRD)	1990
Western European Union (WEU)	1992
European Economic Area (EEA)	1994
World Trade Organization (WTO)	1995

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.¹ 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 service sector. Its distinguishing features are its large marine and energy sectors based on ample resources, and a high labour participation rate.

Size and income level

The Icelandic economy is the smallest within the OECD, generating GDP of 10.1 billion euros (1,626 b.kr.) in 2011. This is equivalent to around 1/1000 of the US economy, 1/23 of the Danish economy, and ¼ of the economy of Luxembourg, while it is almost 50% larger than the economy of Malta. The small size of the Icelandic economy mainly reflects the country's small population, which was just under 320,000 on 1 January 2012.

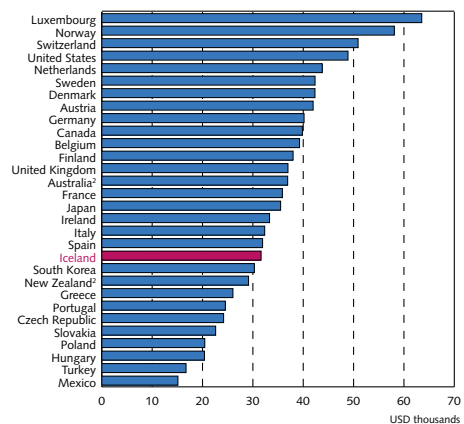
Iceland has all the characteristics of a modern welfare state. GNI per capita measured in terms of purchasing power parity (PPP) amounted to 31,640 US dollars in 2011, the twenty-third highest in the world, and the nineteenth highest among the OECD countries. Iceland's GNI per capita is lower than that in the other Nordic countries and marginally below the EU average. However, Iceland was the sixth highest among the OECD countries in 2004.

Drivers of growth

Historically, prosperity has been built largely on Iceland's comparative advantages in abundant marine and energy resources, with investment and services the main drivers of economic growth.

Following the twin currency and banking crisis of autumn 2008, a significant share of the reduction in private consumption was directed

Chart 2.1
Gross national income per capita in
OECD countries 2011¹



1. Based on PPP. 2. Data are for 2010.
Source: Macrobond.

1. This chapter is based in part on a forthcoming Central Bank of Iceland *Working Paper*: "The Structure of the Icelandic Economy – an international comparison".

towards imported durable goods, leading to a fall in import penetration, as often happens in other crises. Domestic demand contracted by nearly 30% from its peak in 2006 to its trough in 2010. Although imports contracted along with domestic demand, exports held their ground despite challenging external conditions, turning a trade deficit that averaged 6.7% in 2000-2008 into an average surplus of 8.8% in 2009-2011.

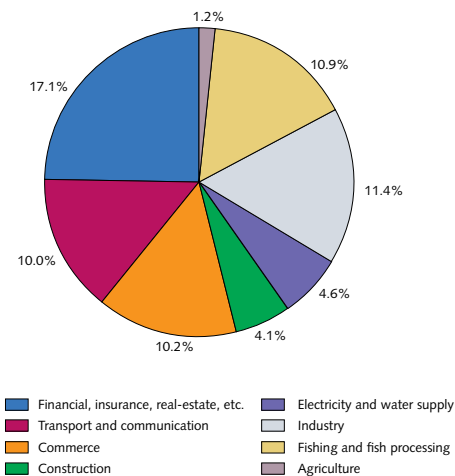
GDP growth resumed in 2011, when output grew by 2.6%, mainly due to a recovery in private consumption and investment, primarily in the marine and aluminium sectors.

Composition of output and expenditure

As in other developed economies, non-tradable services form the bulk of economic activity, accounting for approximately 63% of GDP in 2011. While the marine sector remains one of the most important sources of export revenues, its share of GDP has declined from 16% in 1980 to 11% in 2011. The share of manufacturing, including energy, in GDP has been on the rise, however. After falling to a low of 14% in the period 1999-2005, it has increased again and was 19% in 2011.

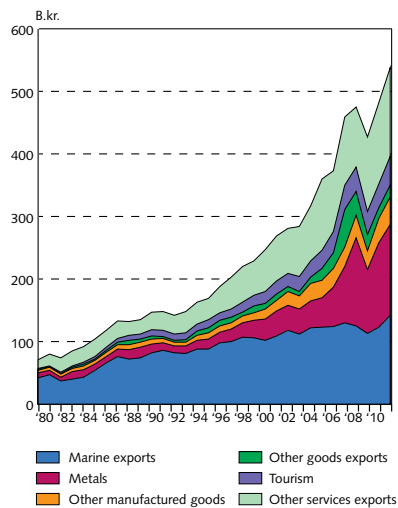
Private consumption contributed, on average, 51% of GDP in 2009-2011, and public consumption and gross fixed investment contributed 26% and 13.5%, respectively. The investment-to-GDP ratio fell significantly as a result of the economic crisis but is on the rise again, measuring 14% in 2011, up from just below 13% in 2009. The ratio of public consumption to GDP, which had been broadly stable since the turn of the century, declined at the height of the boom, as private sector activity outpaced public sector activity. Since the financial crisis, however, the ratio increased again, as the private sector contracted more than the public sector.

Chart 2.2
Breakdown of GDP by sector 2011



Source: Statistics Iceland.

Chart 2.3
Exports of goods and services 1980-2011
At constant average exchange rates, based on a trade-weighted basket of currencies



Source: Statistics Iceland.

Foreign trade

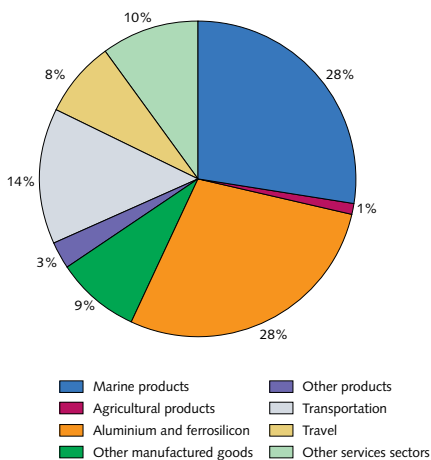
Iceland is a fairly open economy, with imports and exports of goods and services amounting to 51% and 59% of GDP, respectively, in 2011. In the period 2000–2010, trade openness, measured as the ratio of imports and exports of goods and services to GDP, averaged 82%, just above the average for the 34 OECD countries. Although trade still involves a relatively large share of primary products and commodities, exports have diversified significantly in the past 10 years. Certain factors restrict openness, however, 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 been the mainstay of goods exports, although they have been declining as a share of total exports in recent decades. In 2011, fish and other marine products accounted for 41% of goods exports and 26% of total exports, down from 75% and 56%, respectively, in 1990. Exports of manufactured goods have been growing rapidly in importance, led by aluminium smelting and medical and pharmaceutical products, and accounted for 54% of goods exports in 2011 (up from 30% in 2000) and 35% of total exports. Exports of services have also soared as the economy has grown and become increasingly service-oriented. Tourism has increased substantially over the past few years and is becoming one of the main engines of export growth. Services now account for almost 35% of total export revenues, up from 26% in 1990.

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 32% of total goods imports and 22% of total imports in 2011. Capital goods and consumer goods each constituted around 22% of total goods imports and around 14% of total imports in 2011, while services contributed around 37% of total imports.

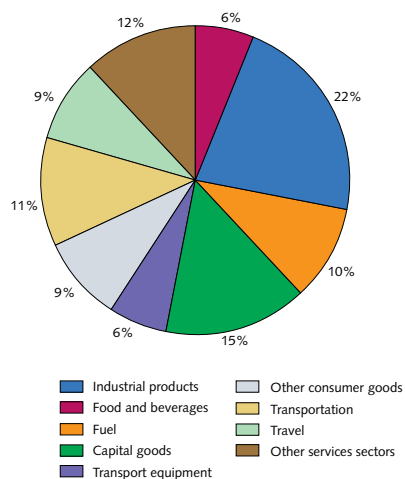
Iceland's ratio of services trade to total trade is one of the highest among OECD countries. Data on the direction of services trade are not as reliable as goods trade data; however, service

Chart 2.4
Exports by sector 2011
Percentage of total exports



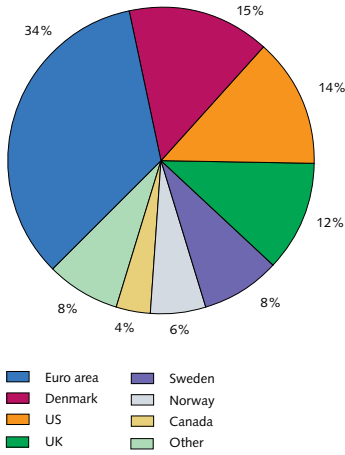
Source: Statistics Iceland.

Chart 2.5
Imports by sector 2011
Percentage of total imports



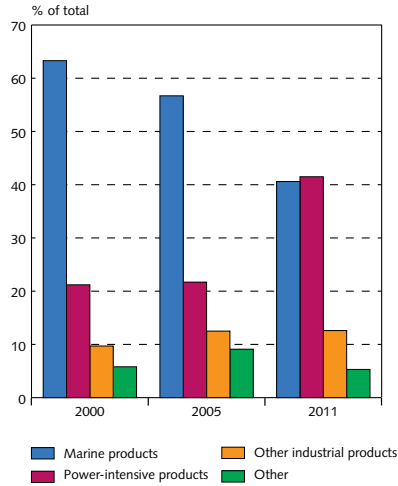
Source: Statistics Iceland.

Chart 2.6
Currency area share in services exports



Source: Statistics Iceland.

Chart 2.7
Composition of export by product categories



Source: Statistics Iceland.

exports accounted for an average of 35% of total exports over the period 2000-2010. The euro is by far the most common currency used for service exports in Iceland, with 34% of total service exports. Besides the euro, there are only three currencies that have a share larger than 10%: the Danish krone (15%), the US dollar (14%), and the pound sterling (12%).

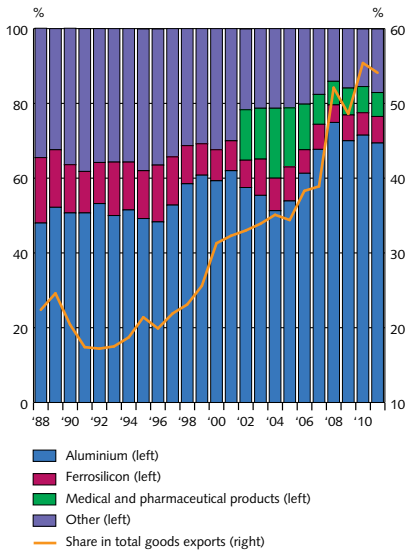
Free trade arrangements with Europe have stimulated Iceland's trade with the region, causing the share of North America to fall. In 2011, 83% of goods exports went to European Economic Area member countries, which were also the source of 62% of imports. Currently, Iceland's largest trading partner countries are the Netherlands, Germany, Norway, the UK, the US, and Denmark. Trade with China has increased dramatically over the past few years, and China is now Iceland's seventh-largest trading partner country. In terms of currency, the euro area constitutes the largest trading area, accounting for 34% of imports and 28% of exports. In recent years, Iceland has generally had a trade surplus with the Netherlands, Germany, the UK, France, Japan, Russia and the Iberian countries, but a deficit with the US, Brazil, China and its Nordic neighbours.

Manufacturing and power-intensive industries

The production structure of Iceland's manufacturing sector is unique in many respects. First, the manufacturing sector is highly specialised towards two sub-sectors, food processing and aluminium production, which together contribute to roughly ½ of total manufacturing production. Second, production of machinery and other investment goods is relatively small. Food production is directed partly at the domestic market, but a larger share, or ¾, is in seafood production for export. Other important sub-sectors are machinery equipment production (10%) and pharmaceuticals/chemical products and building materials production (4% each).

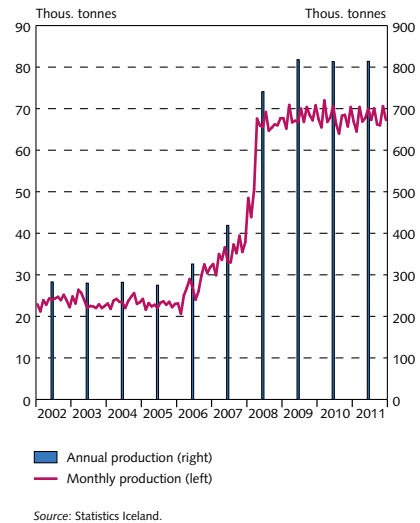
Iceland's largest manufacturing industry is by far the power-intensive industry (mainly aluminium), which has increased substantially over the past decade, generating 42% of goods

Chart 2.8
Composition of manufacturing exports and share in total goods exports 1988-2011



Source: Statistics Iceland.

Chart 2.9
Aluminium production 2002-2011



Source: Statistics Iceland.

exports in 2011, up from 21% in 2000. Iceland's aluminium industry is based primarily on competitive energy costs, strategic location, and a skilled labour force. Production has risen sharply in the last 10 years, from 210,000 metric tonnes per year (mtpy) in 2000 to 820,000 mtpy in 2012.

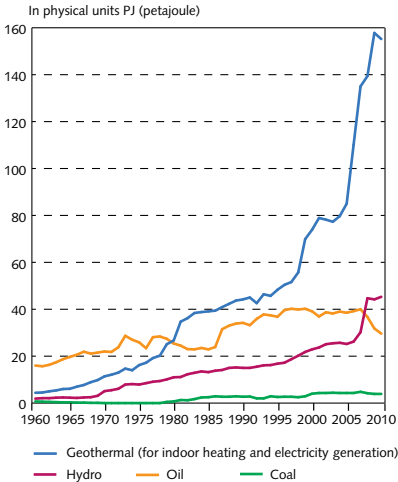
A number of export-oriented manufacturing companies have emerged in the last 15 years. Most of these companies are founded on product innovation, R&D, information and communication technologies (ICT), and strategic marketing. Three of these companies have grown from being small or medium-sized companies 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 and has one of the largest potential sources of renewable energy in the world. 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. 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.

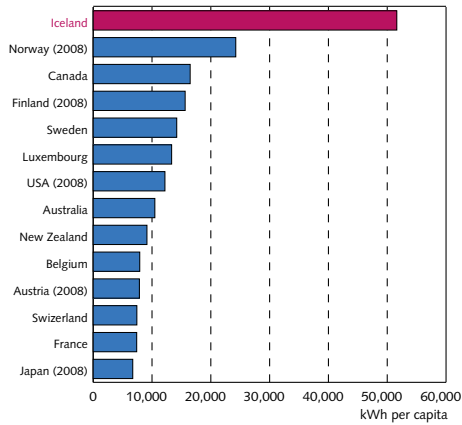
Electricity production per capita is the highest in the world, at 59 megawatt hours (MWh) per capita, more than twice that in Norway (26 MWh), which comes in second. In 2011, total installed hydropower was 1,884 MW in over 50 power plants with a combined capacity of 12,600 gigawatt hours, or 73% of generated electricity.

Chart 2.10
Primary energy consumption by source
in Iceland 1960-2010



Source: Statistics Iceland.

Chart 2.11
Electricity consumption per capita in selected
countries 2009



Sources: CIA, OECD.

Iceland has been in the lead globally in the use of geothermal energy for purposes other than generating electricity. Geothermal energy accounts for $\frac{1}{3}$ of the total amount of energy used in Iceland. Nearly half of that energy is used for space heating, roughly 37% for energy generation, and the rest for commercial use (industry, aquaculture, greenhouses, and public swimming pools). Well over 90% of all homes are heated by geothermal energy in the form of hot water at a cost far below the cost of heating with fossil fuel. For the general public, the price of electricity is one of the lowest in the world, about 45% of the price to consumers in the other Nordic countries and $\frac{1}{3}$ of the price in Germany.

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, as 41% of goods exports in the period 2009-2011, as well as $\frac{1}{4}$ of all export earnings, came from fisheries. However, as exports of manufactured goods have been growing rapidly over the past 20 years, the share of the marine sector in goods exports has fallen from around 75% in the 1990s to 41% in 2011. The sector's contribution to GDP fell likewise, from 14% in the 1990s to 11% in 2011.

The marine sector is highly diversified in terms of species, modes of processing, and markets. Fishing and processing of groundfish – primarily cod, but also haddock, saithe, redfish, and pelagic species (mackerel, herring, and capelin) – are the principal focus of Iceland's marine sector. Value addition in processing has helped to offset lower catch volumes of groundfish species in recent years. Value has also been boosted by a shift towards fresh seafood products, which yield higher prices in the markets. Processing of pelagic species – mainly mackerel, herring, and capelin – has gained in economic importance in recent years.

Chart 2.12
Fish catch by Icelandic vessels 1970-2011

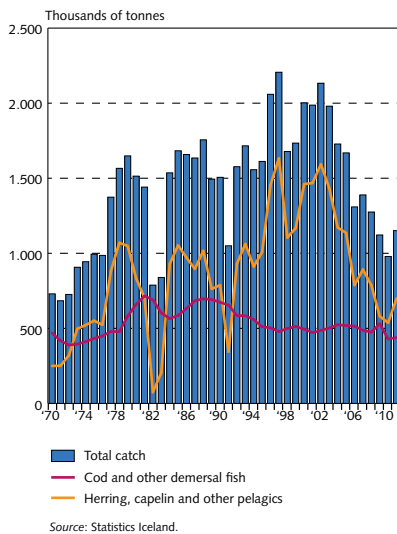
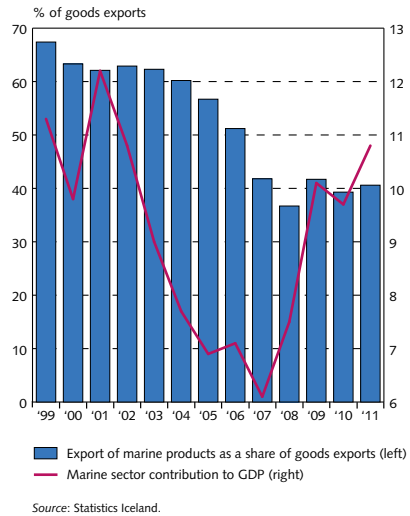


Chart 2.13
Marine exports 1999-2011



The comprehensive fisheries management system (FMS) based on the individual transferable quota (ITQ) system was implemented in 1990 to manage the fish stocks and promote sustainability and economic efficiency (see Box 2.2). 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 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 recent years, fisheries have been actively seeking to enhance efficiency and benefit from economy of scale through mergers and acquisitions. The largest fisheries and processing com-

Box 2.1

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, which are the only restrictions that apply to 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 companies. Combined direct and indirect ownership 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 the 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.

Box 2.2

The ITQ 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, as well as 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.
- Quota shares and annual quotas are transferable and can be traded on the quota market. There are some restrictions on the trade in quota shares and quotas.

The law prescribes maximum holdings of quotas by individual fishing companies. Regulations cover both quota holdings for individual species and aggregate quota holdings.

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. The TAC for capelin has also been regulated by an HCR.

All fisheries are subject to an annual fishing fee that is levied on landed catches valued at fixed prices based on average landing prices during an earlier period. In 2012, Parliament passed legislation according to which the fee is determined as a sum of a fixed amount and a special fee based on estimated resource rent. The resource rent in the pelagic fisheries is estimated separately, and the fee on pelagic catches is determined separately from the fee on catches of other species. The fee is part of the State budget. It is estimated that the fishing fee for this quota year will amount to 95 million euros (15 b.kr.), according to the National Budget proposal for 2013.

1. A small part of the TAC is first allocated to certain regional policy measures.

panies – mainly vertically integrated firms with harvesting, processing, and marketing integrated within the same company – have expanded, and the concentration of quota holdings has risen. The 10 and 15 largest fisheries companies in terms of quota holdings owned 52% and 64%, respectively, of total quota holdings as of June 2012.

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, in particular, the privatisation of two commercial banks, which was completed in 2003. By year-end 2007, Icelandic banks had opened branches abroad and acquired operations in several countries, and the banking system's assets were roughly 10 times GDP. In autumn 2008 and early 2009, roughly 97% of the banking system (measured by assets) collapsed.

The financial system has changed radically since then (see Box 3.1). Three new banks were established and took over the domestic operations of the collapsed banks. Other smaller financial institutions have also lost operating licences or undergone financial restructuring. Four commercial banks and ten savings banks are currently operating in Iceland. The State is the major owner

of one of Iceland's commercial banks and holds a minority stake in two others. At almost two times GDP as of end-June 2012, the banking system is still relatively large (see Chapter 3 for further discussion of the financial system).

Seven other credit institutions currently operate in Iceland: one investment bank; two payment card companies; two investment funds; an asset financing company; and the State-owned mortgage lender, the Housing Financing Fund (HFF).

Total assets in the credit system amounted to roughly five times GDP, or 53 billion euros (8,356 b.kr.), at the end of June 2012.

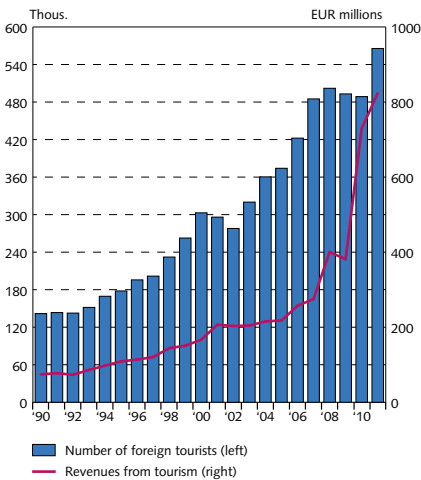
Tourism

Tourism has been among the fastest-growing industries in Iceland in recent years. Over the past decade, the number of foreign tourists has risen by 100%, to 566 thousand in 2011. Tourists from the Nordic countries constitute the largest group, followed by Central and Southern Europeans and British tourists. Foreign exchange revenues generated by foreign tourists amounted to 824 million euros (133 b.kr), or nearly 14% of total export revenues in 2011. The tourism industry's contribution to GDP averaged 3.7% of GDP during the period 2005-2011.

Technology and communications

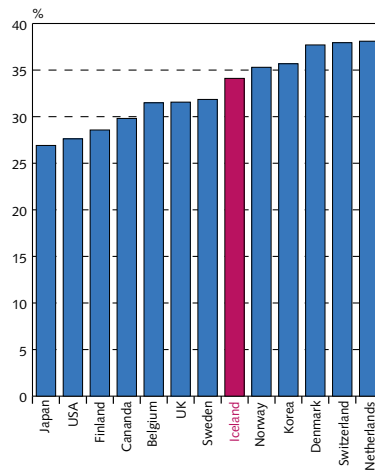
The technological sector of the services industry, the software industry in particular, has diversified and grown significantly in the last five years. The number of companies in the software sector, specialising in medical, ICT, computer games, logistics, and operating management systems has increased by around 50 over the past decade. Most of the businesses in software technology are engaged in export activities.

Chart 2.14
Number of foreign tourists and revenues from tourism 1990-2011
At constant exchange rate 2011



Sources: Icelandic Tourist Board, Central Bank of Iceland.

Chart 2.15
Broadband subscribers per 100 inhabitants in 2010



Source: World Bank.

Exportation of expertise in the development of renewable energy is beginning to grow, and a number of 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.

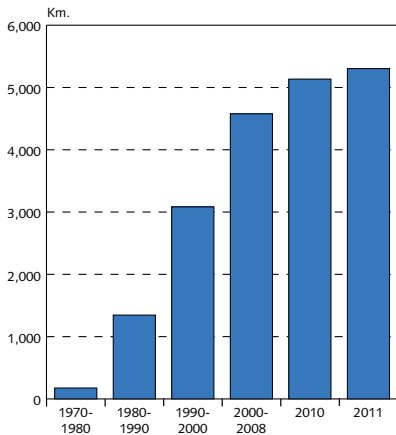
In 2010, 92% of Icelandic households were Internet-connected, as compared with 73% in other European countries (EU27). Nearly all internet connections are high-speed connections, and around 95% of connected households are regular users, compared to 69% in the EU27.

Transport

The domestic transportation network consists of roads and air transportation. The road system totals 13,000 km, 5,300 km of which are primary (paved) roads. Between 2003 and 2010, 22 km of tunnels have been built, bringing the total length of tunnels to 43 km. Private motor vehicle ownership is widespread, with 643 passenger cars per 1,000 inhabitants in 2010. A weekly ferry connection for passengers, private vehicles, and cargo operates between East Iceland and three Nordic countries.

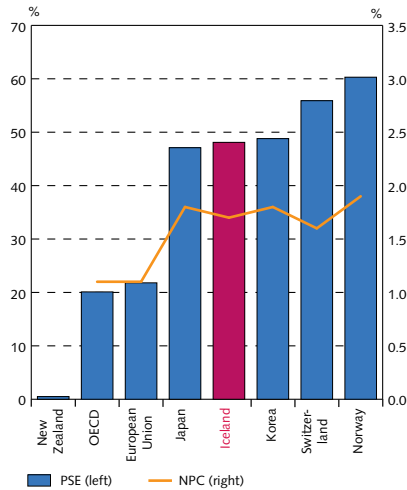
The air traffic infrastructure in Iceland covers all parts of the island. Four international airfields are operated, and four major international AOC (aircraft operating certificate) holders operate

Chart 2.16
Paved roads 1970-2011



Source: The Icelandic Road Administration (ICERA).

Chart 2.17
Support to agriculture 2009-2011¹



1. PSE measures the transfers as a share of gross farm receipts. NPC is the ratio between the average price received by producers and the border price. Average 2009-2011. Source: OECD.

in Iceland, offering passenger service, international cargo service, and charter operation. Direct passenger service between Iceland and Europe and North America is offered by four Icelandic companies and a number of foreign carriers.

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 through affiliated companies. Bulk cargo service is also offered by a specialised Icelandic bulk carrier.

Agriculture and farming

Approximately $\frac{1}{3}$ 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 0.7% of GDP in 2011. In terms of the OECD Producers Support Estimate (PSE), Iceland was fourth-highest in the OECD in 2009-2011, with a PSE of 48.1%.

Environment

Sustainable use of fish stocks and other natural resources is a cornerstone of Iceland's environmental policies. Iceland is relatively unpolluted compared to other developed countries, owing to its sparse population and high reliance on renewable energy. The marine environment around Iceland is relatively unpolluted as well. Although air pollution is generally low, some pollution occurs in the greater Reykjavík area. Acidification is not a problem in Iceland because of its geographic location and the limited emissions of pollutants.

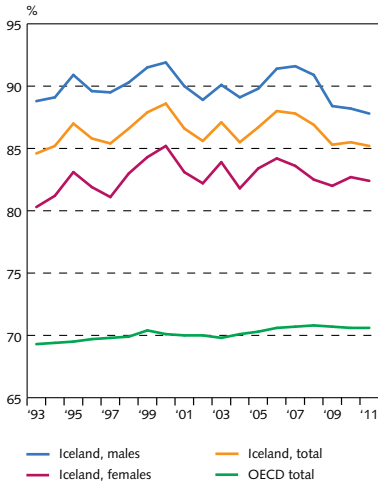
Soil erosion has been a longstanding problem due to the cutting of woodlands and overgrazing on sensitive volcanic soil. The intensity of grazing has fallen since the 1970s, however, and a considerable effort is made to reclaim eroded land.

According to the Kyoto Protocol, Iceland is allowed a 10% increase in greenhouse gas emissions from 1990 levels for the period 2008-2012, and it expects to comply fully with its Kyoto commitments despite emissions growth. Iceland has announced its willingness to take on new commitments under a second period of the Kyoto Protocol. The country has decided to participate fully in the EU Emissions Trading Scheme (ETS) starting in 2013, when industrial emissions, the largest emissions sector, will fall under the ETS. As almost 100% of Iceland's stationary energy comes from renewable sources, actions to reduce emissions focus on transport and fisheries, as well as carbon uptake through reforestation and revegetation.

Labour market

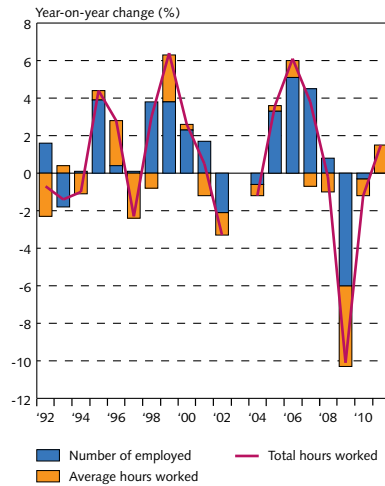
Over the past 10 years, the Icelandic labour market has had a participation rate consistently well above 85%, one of the highest among OECD countries. The participation rate among women has also been very high by international comparison. In 2011, female participation was one of

Chart 2.18
Labour force participation rate in Iceland and OECD countries 1993-2011



Source: OECD.

Chart 2.19
Changes in employment and hours worked 1992-2011



Source: Statistics Iceland.

the highest in the OECD countries, with women accounting for 48% of the labour force. Participation rates among the young and the elderly have also been quite high. Furthermore, Icelanders tend to work long hours.

The Icelandic labour market appears to be quite flexible, with substantial labour mobility, flexible hours, and variable participation and wages. This has been 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 between them prevents large differences in regional unemployment from emerging.

Some 85% of the labour force is unionised, and employers are highly organised as well. This has given rise to wage setting that is characterised by high centralisation and co-ordinated bargaining, most frequently by the national federations. This leads to more or less nationwide settlements that provide for the minimum wage increases. In addition, the tailoring of national framework pay agreements in sectoral and firm-level negotiations makes it possible to take specific local conditions into account. Government has frequently been involved in wage settlements, either through tax concessions and social transfers or through legislative acts aimed

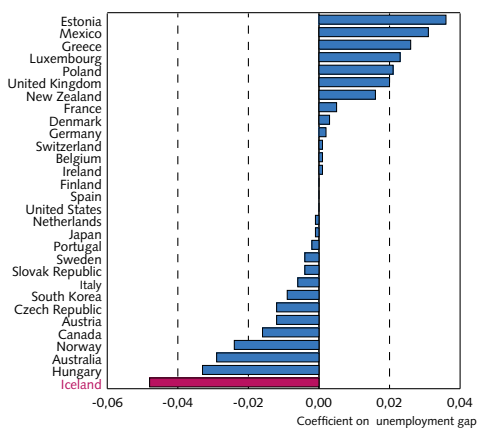
at accomplishing moderate settlements. Notwithstanding the high degree of centralisation, real wages are flexible in comparison with other OECD countries (see Chart 2.20).²

Pension system

In the decades to come, Iceland will face fewer problems due to an ageing population than most other developed nations. 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 ratio – i.e., over-65-year-olds as a ratio of 15- to 64-year-olds – was 18% in 2010, slightly less than in the US (20%) but significantly less than the average in the EU (26%). 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, 28% of 65- to 74-year-olds worked at least one hour a week in 2011. Third, membership of a fully funded occupational pension fund is mandatory for all employees and self-employed persons.

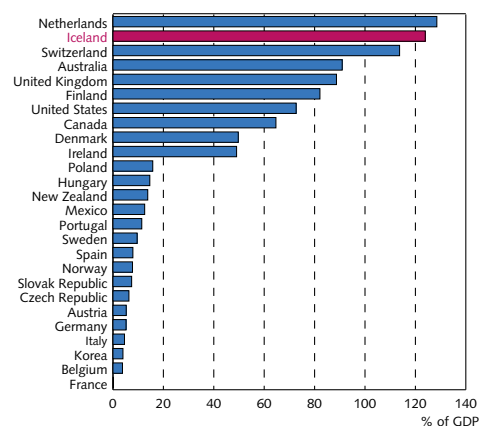
The Icelandic old-age pension system is composed of a tax-financed public pension scheme, mandatory funded occupational pension schemes, and voluntary pension saving with tax incentives. Public pensions are fully financed by taxes. The public pension system provides an old-age pension, disability pension, and survivors' pension. In most cases, the old-age pension is paid from the age of 67. 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 14% of the average earnings of unskilled workers, while the maximum total old-age pension amounts to around 71% of the same earnings.

Chart 2.20
Real wage flexibility 1997-2011¹



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

Chart 2.21
Size of pension funds in selected OECD countries 2010



Source: OECD.

2. Chart 2.20 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.

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 of the pension funds totalled 493 million euros (79.6 b.kr.), or 4.9% of GDP, in 2011, whereas public system payments totalled 202 million euros (32.6 b.kr.), or 2% of GDP.

It is mandatory to pay at least 12% of total wages and salaries to pension funds. Formally, this 12% is split between a 4% contribution from the employee and an 8% contribution from the employer. The funds have grown by leaps and bounds over the past 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 129% of GDP at the end of 2011. By international comparison, pension funds in Iceland are large relative to GDP. They were the second-largest in the OECD (after the Netherlands) in 2010.

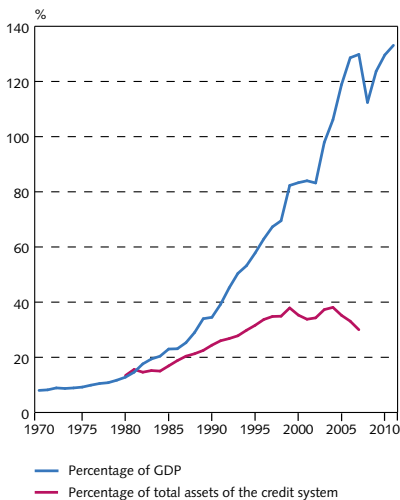
At the end of 2011, there were 33 fully operational pension funds in Iceland, including 12 with employer guarantees from the State government, municipalities, or banks. Under current legislation, funds without an employer guarantee must be fully funded. The ten largest pension funds held about 80% of the net assets of all pension funds in 2011, and the two largest funds accounted for almost 35%. The average fund had net assets of around 400 million euros (64 b.kr.), while the largest had assets of almost 2.4 billion euros (380 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 50-60% 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 of up to 2% 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 not redeemable until the age of 60 and must be paid in equal instalments over a period of at least seven years. Just over 50% of wage earners were paying into such schemes in 2011.

Chart 2.22
Net assets of pension funds 1970-2011¹



1. Due to the financial crisis, data for the credit system are not available.

3 The financial system

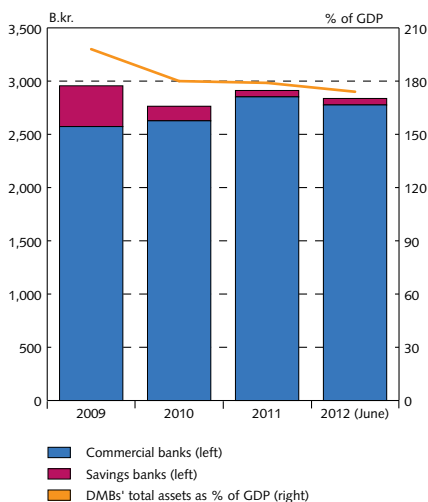
This chapter describes the Icelandic financial system. It covers the credit system and deposit money banks (DMBs), commercial banks' financial position, and the Housing Financing Fund (HFF), along with the bond, equity, and foreign exchange markets in Iceland. The chapter also discusses in boxes the financial crisis in Iceland in 2008, the Supreme Court judgments on exchange rate-linked loans, the capital controls, and the offshore foreign exchange market.

Overview of the credit system

Credit system activities have shrunk in scope since the failure of Iceland's three large cross-border banks in autumn 2008. Three new commercial banks, much smaller than their predecessors, were carved out of the failed banks, with domestic assets and liabilities transferred from the old banks to the new ones. The Icelandic Government and foreign claim holders are the majority stakeholders in the new banks, while the other assets of the old banks reside in the failed banks' estates and are not considered part of the credit system. Furthermore, the credit system has shrunk in size in the last few years, as the number of financial undertakings has declined, due mostly to mergers and acquisitions of savings banks, primarily by the three new commercial banks. Total assets in the credit system amounted to roughly five times Iceland's year-2011 GDP

Chart 3.1

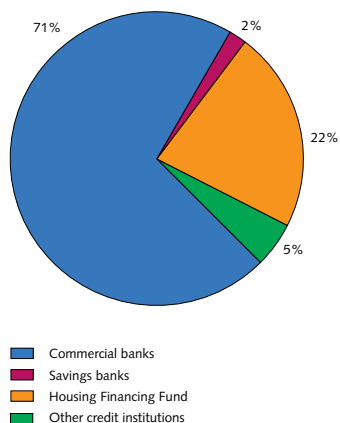
DMBs' total assets¹



1. Parent companies.
Source: Central Bank of Iceland.

Chart 3.2

Credit institutions' total assets¹



1. Parent companies. June 2012.
Source: Central Bank of Iceland.

at end-June 2012, or 53 billion euros (8,356 b.kr.). Credit system assets grew year-on-year in 2011, owing primarily to the expansion of the Central Bank of Iceland's balance sheet and an increase in pension fund assets.¹

Banks and savings banks, collectively referred to as deposit money banks (DMBs), are the largest entity in the credit system. The combined assets of DMBs were just under 18 billion euros (2,800 b.kr.) at the end of June 2012, or almost twice GDP, down from about 10 times GDP in September 2008. Assets owned by credit institutions other than DMBs totalled 7 billion euros (1,100 b.kr.). The vast majority of these are Housing Financing Fund (HFF) assets, which amounted to 5.5 billion euros (878 b.kr.) at the end of June 2012 and consisted mostly of real estate-backed loans. DMBs and the HFF combined account for 95% of all credit institution assets, a figure that has remained relatively stable in recent years.

Table 3.1 Credit system assets¹

Assets, EUR billions (b.kr.).	31.12.2009	31.12.2010	31.12.2011	30.6.2012
Banking system ²	22.1 bn. euros (3,967 b.kr.)	25.9 bn. euros (3,878 b.kr.)	27.6 bn. euros (4,381 b.kr.)	25.9 bn. euros (4,105 b.kr.)
portion due to commercial banks	14.3 bn. euros (2,573 b.kr.)	17.1 bn. euros (2,627 b.kr.)	18.0 bn. euros (2,852 b.kr.)	17.5 bn. euros (2,776 b.kr.)
portion due to savings banks	2.1 bn. euros (383 b.kr.)	0.9 bn. euros (137 b.kr.)	0.4 bn. euros (60 b.kr.)	0.4 bn. euros (61 b.kr.)
Other credit institutions	6.6 bn. euros (1,194 b.kr.)	7.3 bn. euros (1,129 b.kr.)	6.9 bn. euros (1,097 b.kr.)	6.8 bn. euros (1,072 b.kr.)
portion due to the HFF	4.4 bn. euros (795 b.kr.)	5.4 bn. euros (836 b.kr.)	5.4 bn. euros (864 b.kr.)	5.5 bn. euros (878 b.kr.)
Pension funds	10.3 bn. euros (1,849 b.kr.)	12.9 bn. euros (1,989 b.kr.)	13.6 bn. euros (2,168 b.kr.)	14.6 bn. euros (2,307 b.kr.)
Insurance companies	0.7 bn. euros (131 b.kr.)	0.9 bn. euros (138 b.kr.)	0.9 bn. euros (145 b.kr.)	1.0 bn. euros (157 b.kr.)
Mutual, investment and institutional funds	146.8 bn. euros	1.8 bn. euros	3.2 bn. euros	3.5 bn. euros
Government credit funds ³	0.8 bn. euros (146 b.kr.)	1.1 bn. euros (161 b.kr.)	1.0 bn. euros (166 b.kr.)	1.0 bn. euros (166 b.kr.)
Total assets	41.6 bn. euros (7,493 b.kr.)	49.3 bn. euros (7,579 b.kr.)	53.3 bn. euros (8,474 b.kr.)	52.8 bn. euros (8,356 b.kr.)

1. June 2012 figures are preliminary. 2. The banking system consists of commercial banks, savings banks, and the Central Bank of Iceland. 3. June 2012 figures for government credit funds are not available. Figures presented for June 2012 are December 2011 figures.

Source: Central Bank of Iceland.

At the end of June 2012, there were four commercial banks and 10 savings banks operating in Iceland. Two of the commercial banks, Arion Bank and Íslandsbanki, are majority-owned by the resolution committees of the old commercial banks (Kaupthing and Glitnir). Icelandic State Financial Investments (ISFI) has a minority stake in them, 13% in Arion Bank and 5% in Íslandsbanki. ISFI administers the Treasury's 81% holding in Landsbankinn hf., while the other owner is the Landsbanki Íslands resolution committee, which holds a stake of just under 19%. The activities of the commercial banks are directed primarily towards serving the domestic economy.

1. The submittal of information on year-2011 assets by institutional investment funds explains the steep increase in assets held by mutual funds, investment funds, and institutional investment funds between year-end 2010 and year-end 2011.

Iceland's savings banks are small compared to the commercial banks; their total assets amount to only 2% of DMBs' assets, having declined rapidly in recent years as their number has fallen. The Government has been the single largest shareholder of the savings banks since 2010, when most of them were restructured. The declining number of savings banks is due to mergers and acquisitions, the largest of which took place in March 2011 when the largest savings bank, SpKef, merged with Landsbankinn.

Other financial companies have also declined in number since the onset of the financial crisis, as the Financial Supervisory Authority (FME) revoked the operating licences of a large number of financial companies following rulings dissolving their activities.

Box 3.1

The financial crisis in Iceland

Early in October 2008, Iceland's three large cross-border banks failed, bringing down over nine-tenths of the country's banking system.

In the run-up to the international financial crisis that began in August 2007, the Icelandic commercial banks had very easy access to cheap foreign credit. They exploited this to the fullest, and the banking system grew in size to roughly 10 times Iceland's GDP. After the financial crisis intensified, it became almost impossible for the Icelandic banks to issue bonds, and foreign financing was soon limited to short-term collateralised debt obtained through international financial institutions and the European Central Bank (ECB), on the one hand, and collection of foreign deposits, on the other. As the turbulence in international financial markets escalated, the Icelandic banks' liquidity problems became increasingly severe. The depreciation of the króna in 2008 further intensified the situation. One of the large banks, Glitnir, with a balance sheet about 2.5 times Iceland's GDP, attempted to sell assets in summer 2008. The sales, intended to facilitate repayment of a large bond falling due in October, fell through in early August. As a result, financing had not been secured by the time the US investment bank Lehman Brothers collapsed. After Lehman fell, many international bank funding markets nearly seized up, and even the short-term collateralised funding market was completely frozen. Lack of trust escalated and liquidity dried up. Glitnir turned to the Central Bank for liquidity support to fund the bond payment due in October.

On 29 September, following consultation with the Central Bank and the Financial Supervisory Authority (FME), the Government announced an agreement with the owners of Glitnir, according to which the Treasury would contribute 600 million euros in new share capital to the bank and become the owner of a 75% stake in Glitnir. Rating agencies downgraded the ratings for both the banks and the Republic of Iceland following the announcement. This triggered acceleration clauses in a number of funding contracts, putting increased pressure on both Landsbankinn and Kaupthing, as well as Glitnir. The share capital transaction by the Treasury was never materialised. Distrust of the banking system escalated further in early October, and firms and individuals alike feared for their deposits. A full-fledged run on foreign-denominated deposits at the Icelandic banks ensued. Margin calls from foreign banks and central banks and a halt in the rollover of foreign short-term collateralised debt exacerbated the already severe situation.

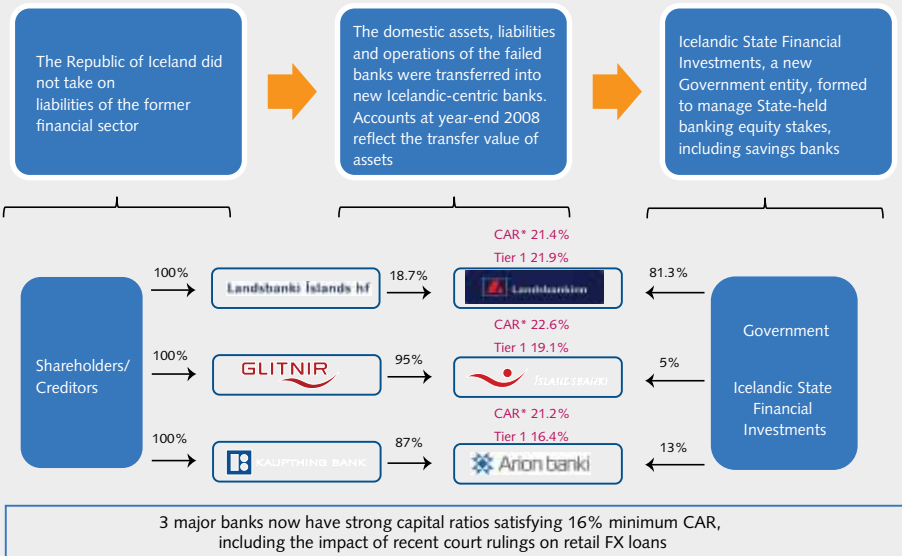
On 6 October, the Parliament of Iceland passed Act no. 125/2008, the so-called Emergency Act, authorising the FME to take control of financial undertakings in extraordinary financial and/or operational difficulties. On the basis of the Emergency Act, the FME intervened in the operations of Landsbanki and Glitnir on 7 October, and of Kaupthing two days later. On 8 October, the UK authorities closed Kaupthing's British subsidiary, Singer & Friedlander Ltd., and subjected it to insolvency proceedings.

Crisis management emphasised maintaining uninterrupted domestic banking operations. Three new State-owned banks were established, and these banks took over the domestic activities of the three old banks. Resolution committees were appointed to assume the duties of the boards of directors of the old banks, and moratoria on payments were imposed. The Government also announced that all deposits in Iceland were guaranteed in full.

In 2009, upon request from the banks' resolution committees, the District Court of Reykjavik appointed winding-up boards for Landsbanki, Glitnir and Kaupthing, in accordance with amendments to the Act on Financial Undertakings. The winding-up boards were authorised to administer the formal claims filing process. The appointment of the winding-up boards allowed the formal filing process to begin, while the banks' resolution committees continued to perform their role of safeguarding the banks' assets in order to maximise recovery.

Domestic payment intermediation withstood the pressure of the financial crisis. The same cannot be said of cross-border payment intermediation. In an effort to minimise the damage, the Central Bank secured smooth payment intermediation to foreign banks when problems arose and contacted other central banks when foreign banks refused to transfer payments to Iceland. Many of the problems related to cross-border payment intermediation stemmed from the actions of the UK authorities, who, on 8 October, announced their intention to invoke the Anti-Terrorism, Crime and Security Act against Landsbanki. Their original statement also mentioned the Icelandic Government, the Central Bank, and the FME.

Chart 1
Financial sector reconstruction



Note: New Landsbanki issued a bond to old Landsbanki, the face value of which will be the net difference between the assets and liabilities transferred into New Landsbanki from old Landsbanki to reflect a fair value asset adjustment verified by an independent third party.
* Year-end 2011.

On 28 November 2008, following a drastic depreciation of the króna, new Rules on Foreign Exchange were adopted and capital account restrictions imposed (see Box 3.3). The capital controls were the precondition for the reopening of the interbank foreign exchange market on 4

December 2008, allowing the Central Bank to discontinue the foreign currency auctions that had been used to ration foreign currency since October of that year.

The collapse of the three commercial banks in October 2008 dealt a heavy blow to the Icelandic equity market, as the three banks' combined market value constituted more than 60% of the total value of exchange-listed companies. The Main List index (OMX15), which measured changes in the value of the 15 largest and most-traded companies on the exchange, had soared to a peak of 9,016 points in July 2007. By year-end 2007, the market value of listed shares on the exchange stood at 28 billion euros (2,570 b.kr.), or 196% of GDP. By the end of June 2009, when calculation of the OMX15 was discontinued, the index had fallen to 263.7, some 97% below its peak.¹

The financial system has undergone radical changes since 2008, and its activities have shrunk in scope since reaching their pre-crisis peak in autumn 2008. At the end of June 2012, banking system assets were roughly twice GDP, down from 10 times GDP in 2008. In 2009 and 2010, several smaller financial undertakings collapsed, and the State became a majority owner in others after restructuring measures were carried out. In addition, the State is a majority owner of one of the large commercial banks and a minority owner of the other two.² It injected share capital into the three banks and several smaller financial institutions. Its capital contributions to the three new large banks amounted to 909 million euros (138 b.kr.), and loans to the banks totalled 375 million euros (57 b.kr.). The State and the Central Bank have taken on losses due to collateralised lending to the financial system, amounting to an estimated 1,936 million euros (294 b.kr.).³ These costs combined are equivalent to roughly a third of year-2008 GDP. Gross Government debt has risen considerably more, however, due to the depreciation of the króna and the need to expand the Central Bank's foreign exchange reserves and finance the deficit (see Chapter 7).

1. The current Main List is the OMX16.

2. The three large commercial banks were erected based on domestic assets that were transferred to the new banks along with domestic deposits. The assets were then evaluated by an independent international firm that determined the book value of the assets in the new banks. Negotiations with the resolution committees and creditors of the old banks were concluded, with the result that the creditors hold majority stakes in two of the new banks.

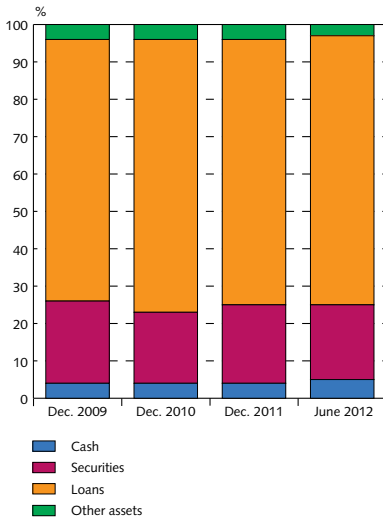
3. Bonds deemed eligible for collateralised lending from the Central Bank, such as bonds issued by the three failed banks, account for most of the loss. The Emergency Act passed by Parliament in October 2008 made deposits priority claims and thereby reduced the value of these bonds.

Commercial banks' financial position

The commercial banks' assets consist largely of lending. At end-June 2012, total lending and receivables amounted to roughly 12.5 billion euros (2,000 b.kr.). The vast majority of lending was to domestic parties, with 41% indexed to the CPI, 34% non-indexed, and around 26% foreign-denominated or exchange rate-linked. Foreign-denominated loans have contracted substantially in recent years, in response to the Supreme Court judgments declaring them illegal (see Box 3.2). Loans to domestic firms comprised about half of total lending, while household lending amounted to $\frac{1}{3}$. Only about 7% of lending was to non-residents, underscoring how domestic-oriented the financial system now is.

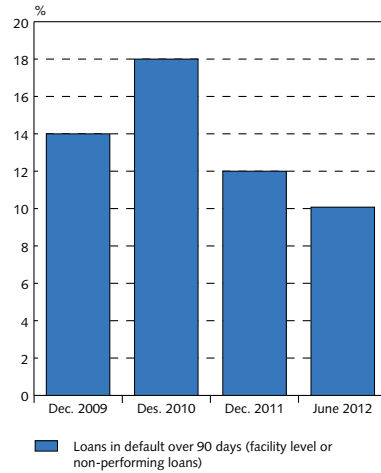
In recent years, strong emphasis has been placed on restructuring private sector debt, and demand for new credit has been negligible. Private sector debt restructuring has been proceeding apace despite delays resulting from Supreme Court judgments on exchange rate-linked loans and uncertainties about how these loans should be re-evaluated. The objective has been to enable the largest possible number of borrowers to service their debt without sacrificing lenders'

Chart 3.3
Commercial banks' assets¹



1. Parent companies.
Source: Central Bank of Iceland.

Chart 3.4
Default ratios of the three largest commercial banks¹



1. Parent companies, book value.
Source: Central Bank of Iceland.

interests. The Icelandic banks have made significant progress in reducing their non-performing loan ratios, although much remains to be done. At the end of June 2012, just under 10% of the three large commercial banks' loans were non-performing, down from the end-2010 peak of 18%. It should be noted that some of the defaults are strategic, due to disputes about the legality of loan agreements (see Box 3.2), and are therefore expected to be resolved in the next several months. This will further reduce non-performing loans. Future developments in loan values will be determined by general economic developments, which are expected to be positive, and by firms' operating conditions. Economic developments in Iceland's main trading partners, including Europe, will also have an effect.

The Icelandic commercial banks are funded mainly by customers' deposits. At the end of June 2012, deposits comprised 58% of their total funding, a marginal decrease since end-2009, and their deposit-to-lending ratio was 80%. The vast majority of deposits are denominated in Icelandic krónur and held by Icelandic residents; however, a sizable portion of the Icelandic króna deposits are foreign-owned. These deposits are a part of liquid króna positions held by non-residents and cannot be expatriated at present because of the capital controls. The first phase of the Central Bank's liberalisation strategy for removing the capital controls aims to unwind these positions by directing this capital into the hands of long-term investors (see Box 3.3).

As is mentioned above, the banks are funded largely with deposits, over 75% of which are payable on demand. Financial system liquidity could be placed under increased strain as the capital controls are lifted because non-residents can be expected to expatriate a large share of their deposits. In addition, there is the risk that resident-owned deposits will follow, as these, too, are restricted by the capital controls. This risk was taken into account when the new banks were

Box 3.2

Supreme Court judgments on exchange rate-linked loans

The financial institutions concluded a large number of loan agreements containing exchange rate linkage clauses in 2004-2008, using a variety of contract forms. The legality of these loan agreements has been a source of great uncertainty in recent years and has slowed down the debt restructuring process. According to the Act on Interest and Price Indexation, it is permissible to grant loans in foreign currency but not to link obligations denominated in Icelandic krónur to foreign currency exchange rates.¹

On 16 June 2010, the Supreme Court of Iceland handed down judgments in two court cases between financial institutions and individuals, declaring that two asset leasing agreements were actually loan agreements containing illegal exchange rate linkage clauses.² The judgment set a precedent for a number of exchange rate-linked loans, while the precedent for many other loans remained uncertain. For the loans that were considered unequivocally illegal, it proved difficult to reach an agreement on how to recalculate the outstanding balance and determine which interest rates they should carry.

A Supreme Court judgment handed down on 16 September 2010 stated that the interest rates specified in the foreign currency-denominated loan agreements concerned should be set aside in favour of the lowest rates on new ISK-denominated bank loans at any given time, as collected and published by the Central Bank of Iceland.³

At the end of December 2010, Parliament passed Act no. 151/2010, which stipulated how individuals' exchange rate-linked mortgages and motor vehicle loans should be recalculated. The aim was to ensure non-discrimination among individuals, irrespective of whether a given form of contract had been deemed illegal or not. In the following months, financial institutions converted foreign-denominated motor vehicle loans in accordance with the interest rates published by the Central Bank of Iceland, as well as giving households with residential mortgages the option of converting loans into CPI-indexed or non-indexed loans. Uncertainty concerning the scope of exchange rate-linked loans to legal entities still remained.

On 9 June 2011, the Supreme Court handed down a decision in the so-called Motormax case.⁴ In that decision, an exchange rate-linked loan agreement between a legal entity and a financial institution was declared illegal for the first time, setting a precedent and reducing uncertainty to some extent.

In 2011, discussion began of the validity of so-called full-payment receipts. The Supreme Court judgment of 15 February 2012 focused on this point.⁵ The Court concluded that it was prohibited to demand that an individual with an illegal exchange rate-linked loan remit additional payment for previously paid interest rate due dates if a receipt for full payment existed. This ruling is likely to lead to further write-offs, although the extent of such write-offs is uncertain. Analysis has shown, however, that the impact on the financial system would be manageable even under the most adverse scenario, and the three large commercial banks' capital adequacy ratios would remain above the 16% minimum required by the Financial Supervisory Authority. A number of questions remain unanswered about the legality of individual contract forms, the effect of debt relief measures on the validity of full-payment receipts, and the methodology to be used for recalculation. It will therefore be necessary to conclude several court cases related to these issues in order to eliminate the legal uncertainty that still exists.

1. Act no. 38/2011.

2. Cases no. 92/2010 and 153/2010.

3. Case no. 471/2010.

4. Case no. 155/2011.

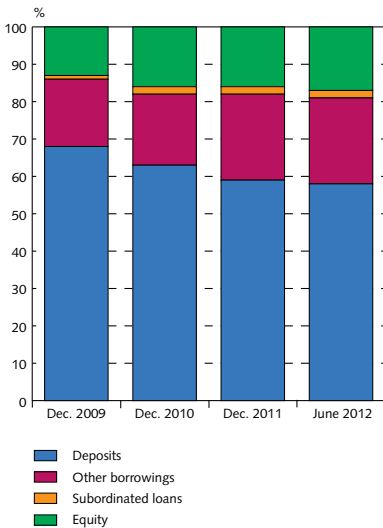
5. Case no. 600/2011.

set up with strong equity and liquidity ratios, and also when the capital account liberalisation strategy was designed.

Market funding remains limited for the Icelandic banks; however, the situation has eased somewhat recently, with domestic issuance of covered bonds to fund mortgage lending. Other funding has been associated largely with the resolution process, such as Landsbankinn's issuance of a foreign-denominated bond to the old bank in order to settle the difference in the value of transferred assets and liabilities from the old bank to the new. In order for the banks to increase their share of domestic and foreign market funding, they must complete loan restructuring and reduce non-performing loans. The Treasury has begun to pave the way for the banks' international capital market access by issuing US dollar bonds globally. If the banks are successful in obtaining foreign funding in the near future, it can be assumed that the Treasury's terms will be used as a basis for the terms offered to them. At present, however, the lending rates offered are still quite high and are only supported by a borderline investment grade rating for the sovereign.

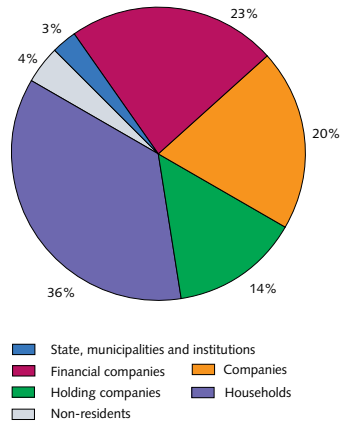
In accordance with the Act on the Central Bank of Iceland, the Bank sets rules on financial institutions' liquidity ratios and foreign exchange balance. The liquidity rules stipulate that credit institutions must have liquid assets in excess of liabilities for certain time periods. In addition to the Central Bank rules, the Financial Supervisory Authority (FME) requires that the commercial banks hold liquid assets equal to at least 20% of all deposits, plus cash equalling at least 5% of sight deposits. As of June 2012, all of the commercial banks met the liquidity requirements set by the Central Bank and the FME with comfortable margins. New liquidity rules are in preparation. They will be based on the work of the Basel Committee on Banking Supervision and the European Commission but will also take into account the specific risks in foreign currency assets and liabilities of Icelandic banks, in particular the extent of maturity mismatches not backed by

Chart 3.5
Commercial banks' funding¹



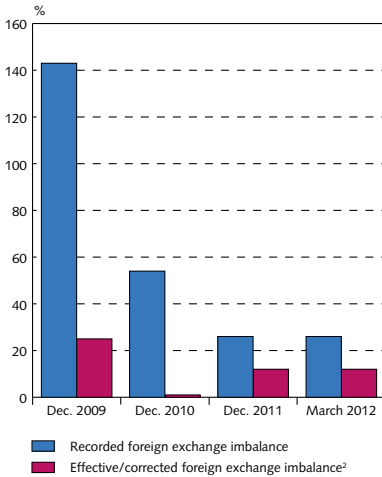
1. Parent companies.
Source: Central Bank of Iceland.

Chart 3.6
Deposit owners¹



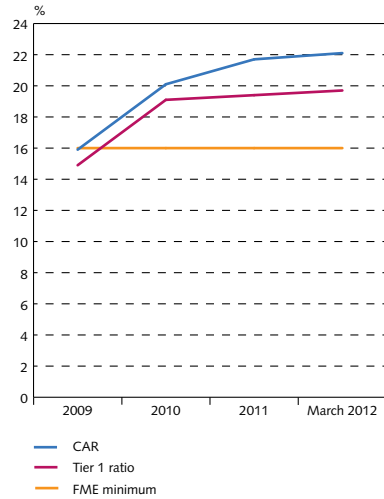
1. Commercial banks, parent companies. June 2012.
Source: Central Bank of Iceland.

Chart 3.7
Foreign exchange imbalances¹



1. The largest commercial banks, consolidated figures. Imbalance as a percentage of capital base. 2. Method used to calculate foreign exchange balance, which takes account of whether value and recovery are dependent on exchange rate movements.
Sources: Financial Supervisory Authority, financial institutions' annual and interim accounts.

Chart 3.8
Commercial banks' capital adequacy ratios¹



1. The largest commercial banks, consolidated figures.
Source: Commercial banks' annual reports.

a liquidity provider and a lender of last resort.² Collection of data based on the new rules, which are expected to take effect no later than at the end of 2013, will begin early next year.

When the assets and liabilities of the failed banks were transferred to the new banks, significant foreign exchange imbalances resulted. A large portion of the assets were in foreign currency, while the liabilities, which were mostly deposits, were predominantly in domestic currency. Since then, the commercial banks' foreign exchange imbalances have declined considerably, mainly because of Supreme Court judgments declaring exchange rate-linked loans illegal. Pursuant to the temporary provision in the Rules on Foreign Exchange Balance, the Central Bank has a special authorisation to grant credit institutions a temporary exemption from the Rules. At the end of March 2012, just under half of all supervised credit institutions had received such an exemption. According to the temporary provision, these exemptions will not be granted beyond 1 January 2013.

The new commercial banks have been profitable since they were established in autumn 2008. The assessed increase in loan values and accounting entries resulting from the Supreme Court judgments on exchange rate-linked loans and various irregular items have made a sizable impact on the large banks' financial statements. There remains some uncertainty about loan values, due partly to the still large number of non-performing loans. As a result, operating results, key financial ratios, and equity are also subject to uncertainty.

2. Further information on these rules can be found in "Prudential rules following capital controls", published by the Central Bank of Iceland in *Special Publication* no. 6, September 2012.

The large commercial banks have strengthened their capital position in recent years. In June 2012, their capital ratios were just over 23%, including 20.8% in Tier I capital. The banks' capital ratios are therefore well above the FME's 16% required minimum, which is important in view of the uncertainty that still lingers.

The Housing Financing Fund

The largest single entity among the group classified as "other credit institutions" is the Housing Financing Fund (HFF), whose assets constituted nearly 80% of the total assets of other credit institutions. The HFF is an independent Government institution granting mortgage loans to individuals, municipalities, companies, and organisations to finance house purchases and construction work. The HFF finances mortgage lending by issuing indexed HFF bonds. The Fund issues bonds in four series (HFF14, HFF24, HFF34 and HFF44). All of its issued securities are backed by a Government guarantee. In recent years, the number of borrowers in default has risen, and uncertainty about loan quality has adversely affected the Fund's equity. In June 2012, a bill of legislation amending the Act on Housing Affairs was approved by Parliament. The new bill proposes increased supervision of HFF activities, sets clearer conditions for lending for rental property development, and narrows the Fund's authorisation to extend loans for the purchase of high-priced residential housing. The amendments were proposed in response to comments made on the HFF's activities by the EFTA Surveillance Authority (ESA) in 2011.

Payment intermediation

Currently there are three systemically important payment systems operated in Iceland: the Central Bank Real Time Gross Settlement (RTGS) system, the retail payment system (netting system) of

Greiðsluveitan ehf., and the securities settlement system of the Icelandic Securities Depository (ISD). The RTGS system is most important systemically because of its primary function of settling interbank payments. It settles individual payment instructions amounting to at least 63,000 euros (10 m.kr., 80,000 US dollars) between participants, with immediate finalisation. The RTGS system is also used by the other two systemically important systems to settle their net interbank positions at pre-defined intervals: the retail payment system twice a day (at 8:30 hrs. and 16:30 hrs.) and the securities settlement system once a day (at 12:05 hrs.), with delivery of securities versus cash payment (DvP). All three systems use Central Bank money during the settlement process. A graphic representation of system turnover relative to annual GDP and the number of transactions in all three systems can be seen in Chart 3.9.

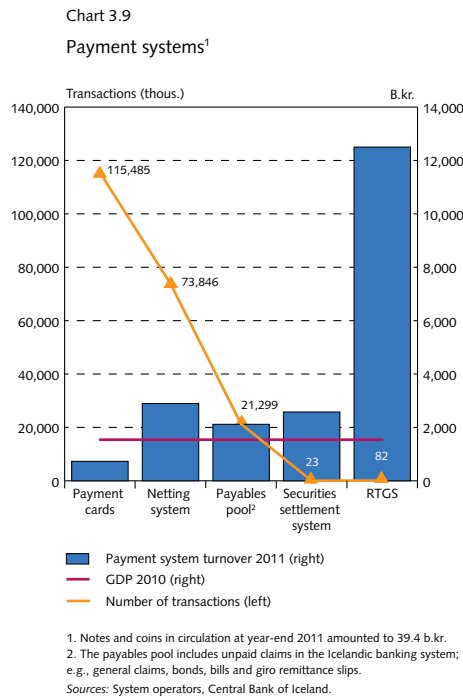
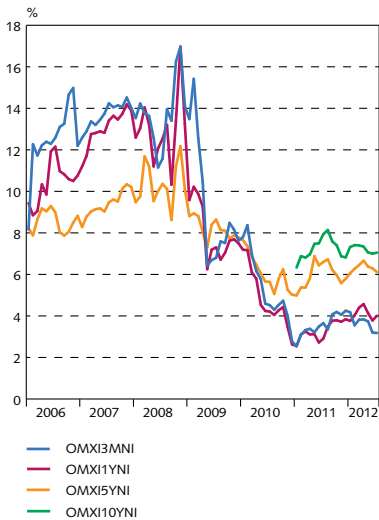


Chart 3.10

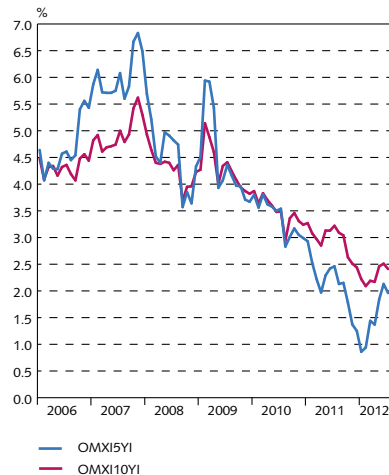
Yield on non-indexed bond indices
At month-end January 2006 - July 2012



Source: OMX Nordic Exchange in Iceland (OMX ICE).

Chart 3.11

Yield on indexed bond indices
At month-end January 2006 - July 2012



Source: OMX Nordic Exchange in Iceland (OMX ICE).

The Central Bank is responsible for systemic oversight and operational soundness of systemically important payment and settlement systems. Its work in this area is based on the Bank for International Settlements' (BIS) principles for financial infrastructures and related regulatory instruments. The Icelandic FME is responsible for supervision of individual payment service providers and their infrastructure.

OMX Nordic Exchange Iceland and the Icelandic Securities Depository

Iceland currently has one authorised stock exchange in operation, the NASDAQ OMX Iceland exchange, where public securities listing and securities trading are carried out. NASDAQ OMX Iceland is a part of NASDAQ OMX Group Inc. and is licensed to operate a regulated over-the-counter (OTC) market.

Electronic issuance of securities and registration of title to electronic securities can only be carried out by a licensed securities depository. The Icelandic Securities Depository Ltd. (ISD) is a registry, depository, and clearing house for securities in dematerialised (electronic) form. Settlement of bonds takes place on a T+1 basis (one day after the trade date), while equity transactions are settled on a T+3 basis (three days after the trade date). The ISD is owned by NASDAQ OMX Group, Inc.

Bond market

The Icelandic bond market consists of a primary market and a secondary market that is operated primarily on the NASDAQ OMX Iceland exchange. Icelandic bond issues can be divided into three broad categories:

1. Nominal and inflation-indexed Treasury bonds. These are the largest bond series in the Icelandic market, amounting to 47% of market value at end-June 2012 (5.4 billion euros, 852 b.kr.).
2. Housing Financing Fund (HFF) bonds, which are inflation-indexed, interest-bearing bonds with an annuity format. Their market share was roughly one-third at the end of June 2012, and their market value was 3.9 billion euros (612 b.kr.).
3. Bonds issued by Government agencies, private corporations, or institutions such as banks. Their share of the market was one-fifth at the end of June 2012 (2.3 billion euros, 357 b.kr.).

The Icelandic bond market has several features that set it apart from bond markets in other countries. First of all, public entities are the largest issuers of listed bonds, as many financial institutions and other corporations were delisted from the stock exchange as a result of the 2008 financial crisis. By mid-2012, the market value of bonds issued by public entities or firms owned by them amounted to 87% of total issuance, as opposed to 45% in mid-2008. Second, indexed issues are prominent in Iceland's domestic market (57%), as all HFF bonds are indexed to the CPI. However, indexed bond issuance has diminished over the last years. Third, secondary market turnover is concentrated in bonds carrying a State guarantee. Fourth, yields on the Icelandic bond market have been high in international comparison. Over the past year, real yields on HFF and Government bonds have fluctuated between 2.1% and 3.3%, while nominal bond yields have ranged between 6.3% and 8.1%.

Bond market turnover amounted to 16.1 billion euros (2,602 b.kr.) in 2011, which was broadly in line with recent years, apart from 2008, when turnover in krónur more than doubled from the previous year. The share of Treasury bond trading rose from 34% in 2007 to 73% in 2011. Offsetting this, HFF bond trading has diminished, in line with reduced issuance. Trading in other bonds is insignificant.

Table 3.2 Bond market — market value 30.6.2012

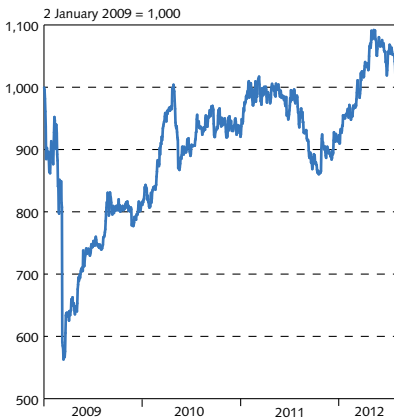
	<i>Value in EUR millions</i>	<i>Ratio %</i>
Treasury securities	5,370	47
Treasury bills (3m and 6m)	284	
Treasury bonds (2, 5 and 10 years)	4,028	
Treasury bonds – CPI-indexed	1,058	
Housing Financing Fund	3,854	34
Municipal bonds	637	6
Financial institution securities	133	1
Corporate bonds	819	7
Foreign bonds	659	6
Total value	11,472	

Equity market

In response to changed market circumstances after the collapse of the banks, major restructuring took place in the Icelandic equity market. A new Main List index, the OMXI6, took effect in January 2009. As the name implies, the new index includes the six most-traded companies

Chart 3.12

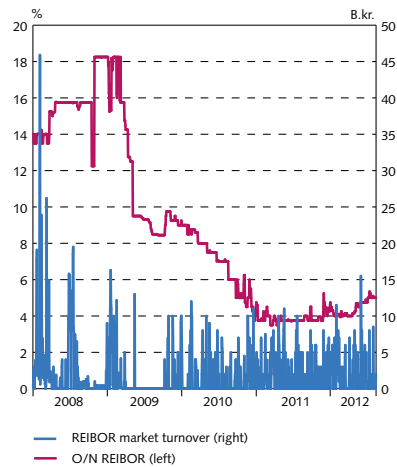
Equity market, OMXI6 price index
Daily data 2 January 2009 - 31 July 2012



Source: OMX Nordic Exchange in Iceland (OMX ICE).

Chart 3.13

REIBOR interest rate (O/N) and
REIBOR market turnover
Daily data 3 January 2008 - 31 July 2012



Source: Central Bank of Iceland.

on the exchange. The list is selected every six months, with the new composition taking effect on 1 January and 1 July each year. At the end of August 2012, nine companies were listed on the OMX ICE Main List and four were on the First North small cap market. Listed companies increased by two from year-end of 2010 until August 2012.

The OMXI6 Main List index was set at 1,000 points at the start, but it has fluctuated widely since, dropping to 563 in March 2009 and then rising to 1009 by end-July 2012. From the beginning of 2012 until August 2012, however, it rose 10.4%. The market value of listed companies rose from 1.4 billion euros (208 b.kr.) to 2.2 billion euros (321 b.kr.), just under 20% of year-2011 GDP.

Money market

The money market consists of the interbank loan market and a secondary market. Secondary market trading is concentrated largely in very short-term Treasury bonds, Treasury-guaranteed bonds, and Treasury bills. Treasury bill turnover in the secondary market totalled 226 million euros (36.5 b.kr.) in 2011.

The Central Bank of Iceland oversees the interbank market for krónur, where trading consists of unsecured loans between market makers. Members must submit indicative bid and ask quotes on various maturities, ranging from overnight to 12-month loans. The vast majority of the trading is done on an overnight basis, as has been the case since the market was established. Once a day, the Central Bank fixes REIBID and REIBOR rates for the market. There are three participants in the market: Arion Bank, Landsbanki and Íslandsbanki. Market turnover totalled 2.9 billion euros (461.3 b.kr.) in 2011.

Box 3.3

Capital controls

In Iceland, restrictions on capital movements and related foreign exchange transactions, commonly referred to as the capital controls, affect cross-border movement of capital, which is largely prohibited. General current account transactions related to external trade are permitted without restriction, however.

Reasons for introducing capital controls

In October 2008, Iceland suffered a banking crisis of extraordinary proportions. By then, the exchange rate of the króna had already fallen by 40% since the beginning of the year, after Iceland lost access to foreign liquidity early in 2008 and the global financial crisis escalated. By the end of November 2008, the króna had fallen by 50% since the beginning of the year.

Iceland experienced significant capital inflows in the period 2005-2008. International capital was attracted by an appreciating currency and the large interest rate differential between Iceland and other developed economies. To some extent, this capital inflow was due to “normal” financial investments and domestic borrowing — by financial institutions, in particular. But carry trade also motivated a large share of the inflows, increasing the risk of a swift reversal if conditions worsened. This carry trade was facilitated by large and diverse issuance of bond instruments allowing foreign investors to receive Icelandic returns and simultaneously be exposed to the króna. The term “glacier bonds” has been coined for these instruments. In late 2008, non-residents’ ISK positions totalled roughly 3.5 billion euros or 40% of GDP.

At the onset of the financial crisis, the loss of confidence threatened to trigger large capital outflows, with severe effects on the exchange rate, inflation, and indebted households and firms. Because private sector balance sheets were highly leveraged, with a large proportion of foreign-denominated and inflation-indexed debt, this could have set off a wave of default, with escalating macroeconomic repercussions.

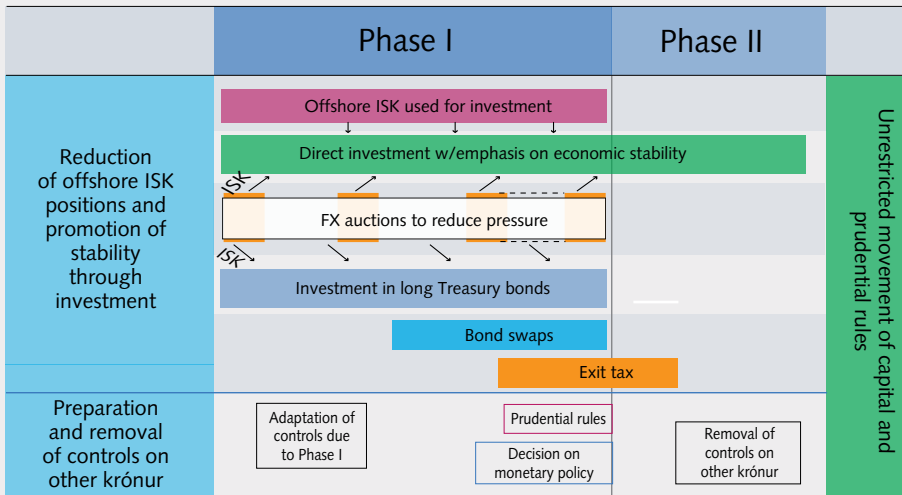
Supporting the currency through conventional measures – interest rates and foreign exchange market intervention – would have required steep interest rate hikes, as the Central Bank did not have sufficient foreign exchange reserves to support the currency. Because of the negative side effects of such actions and the persistent doubt that they alone would suffice, it was deemed necessary to impose temporary restrictions on movement of capital to and from Iceland. Such capital controls would provide private entities the shelter to restructure their finances while giving the authorities the scope to revive the financial system and regain control over public sector finances. The capital controls gave monetary policy the scope to lower interest rates significantly in 2009-2011 without undermining exchange rate stability. Given the substantial macroeconomic risks, they were an unfortunate but indispensable ingredient in the policy mix that was adopted to stabilise the króna. Without capital controls, the króna would have fallen significantly more.

The current capital controls regime

The capital controls were adopted on 28 November 2008. Parliament extended a provision in the Foreign Exchange Act (the Act) authorising the Central Bank of Iceland to set rules limiting international capital transactions, the Rules on Foreign Exchange (the Rules). The Act was to remain in force for the duration of the Stand-By Arrangement with the IMF, or until December 2010. In 2010 it was extended, alongside the IMF programme, until September 2011. In spring 2011, Parliament revoked the Central Bank’s authorisation to specify the details of the capital controls in a regulation and incorporated the Rules into the Act.

In general, since the capital controls were imposed, capital transactions have been blocked and current transactions have been permissible. Residents of Iceland have been permitted to

Chart 1
Capital account liberalisation: Phases and steps



carry out international trading in goods and services. This includes using credit cards while travelling abroad in order to buy goods and services. Furthermore, cross-border movement of capital and foreign exchange transactions related to contractual instalment payments and dividend and interest payments are exempted from the controls, with a few exceptions to limit circumvention. The controls place broad-based restrictions on foreign exchange transactions and movement of capital between countries. This includes investment in any type of foreign asset, such as transferable financial instruments issued in foreign currency and real estate or other assets in foreign currency, irrespective of whether these assets are sold by residents or non-residents. For instance, investment in bonds issued by a domestic party but denominated in foreign currency is restricted under the Foreign Exchange Act.

With effective controls in place, exchange rate developments have been determined largely by current account flows (i.e., exports, imports, interest payments, and dividends) and debt repayments instead of predominantly by capital flows, as was the case for the three to five years before the controls were imposed.

Lifting the capital controls

In late October 2009, the Central Bank took the first step in the sequenced removal of the capital controls by permitting potential outflows of capital that may derive from the sale of new investments. Thus investors were authorised to convert into foreign currency the sales proceeds from assets in which they invested after 1 November 2009.

The primary objective of the subsequent steps in the capital account liberalisation strategy has been to unwind non-residents' offshore króna holdings, currently held in local banks' deposit accounts and short-term Treasury or HFF bonds, and channel them into long-term investment in Icelandic businesses, real estate, Treasury bonds, or other long-term assets. Second, the strategy focuses on increasing investments in long-term assets. Investors have therefore been given the option of participating in foreign currency auctions in connection with long-term investment in Iceland. They can purchase krónur at the Central Bank of Iceland's auction exchange rate for 50% of the intended investment amount, provided that the other 50% is exchanged in the onshore foreign exchange market. In the auctions taking place between June

2011 and June 2012, the EURISK auction exchange rate ranged from 210-246 kr. per euro. Under this programme, referred to as the Central Bank of Iceland Investment Programme, participating investors pledge to hold their investment for at least five years. Investors participating in Central Bank of Iceland auctions are also offered the option of purchasing Icelandic Treasury bonds in exchange for euros. Under this option, investors can sell foreign currency to the Central Bank in exchange for the bonds, which they pledge to hold for five years.

Concurrent with these auctions under the Investment Programme, parties wishing to scale down or close out their króna positions are invited to participate in auctions in which they offer to sell krónur in exchange for foreign currency. This foreign currency is not bound by the provisions of the Foreign Exchange Act. In this process, the Central Bank's role is to pair parties interested in long-term investment in Iceland together with impatient investors wishing to unwind their króna positions, but without affecting exchange rate stability.

As a part of the capital account liberalisation strategy, the Central Bank has published a set of prudential rules designed to protect the financial system against the risk that could accompany unrestricted capital flows. The pertinent ministries, the Central Bank, and the Financial Supervisory Authority have begun finalising such rules and proposals for legislative amendments where appropriate.

Foreign exchange market

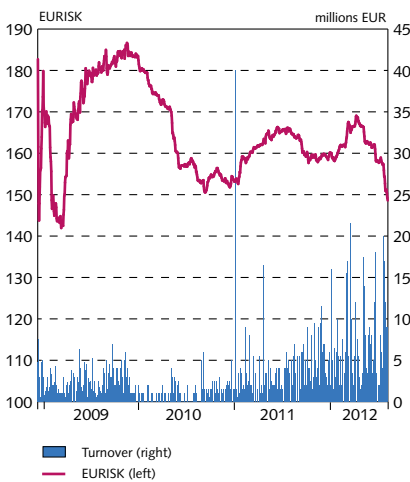
At present, there are three market makers in the foreign exchange market for the Icelandic krónur: Íslandsbanki hf., Landsbankinn hf., and Arion Bank hf. They conduct foreign exchange transactions among themselves during market hours and pledge to maintain continuous bids and offers in euros, the functional currency in the market. Prices are quoted in krónur per euro. The Central Bank oversees the interbank foreign exchange market, can trade with market makers, and publishes the daily exchange rate of the króna based on the market price from the market makers. It is not a

market maker, however, and is therefore not obliged to conduct transactions with other market makers, even if requested to do so. The Bank has remained more or less on the sidelines in the market, apart from its regular weekly purchases and some isolated transactions taking place during the first months after the banks' collapse.

On 28 November 2008, new Rules on Foreign Exchange were adopted and capital account restrictions imposed (see Box 3.3). Foreign exchange market turnover, which collapsed after the banks failed in October 2008, has recovered somewhat in 2010-2012. After the banks failed, quotes were lowered to 100 thousand euros, but they quickly began rising again and had reached 1 million euros (159 m.kr.) by February 2011.

After the foreign exchange market reopened, the Central Bank intervened from time to time, but it stopped doing so between November 2009 and

Chart 3.14
Foreign exchange market
Daily data December 2008 - 31 July 2012



Source: Central Bank of Iceland.

August 2010. On 31 August 2010, the Central Bank began preannounced modest foreign currency purchases with the aim of replacing its borrowed foreign exchange reserves with non-borrowed reserves. It was originally decided to purchase 500 thousand euros weekly from each market maker. This amount was raised to 1 million euros in July 2012. In addition, the Central Bank has occasionally been active on both side of the market in order to counteract large transactions.

Box 3.4

The offshore foreign exchange market

In October 2008, when the banks collapsed and the British authorities froze the assets of Landsbanki and the Central Bank, foreign exchange transmission channels ceased to function properly. Cross-border payment intermediation was seriously affected, and the exchange rate of the króna plummeted. In order to prevent a shortage of foreign currency for importation of goods and services, the Central Bank instructed the commercial banks to give priority to foreign exchange transactions in those categories. On 15 October, the Bank established a daily foreign exchange auction market, where the exchange rate was determined by supply and demand for currency. By that time, capital controls were imposed and the interbank foreign exchange market resumed operation for foreign exchange transactions relating to current transactions. When conventional foreign exchange transmission channels became non-functional in early October 2008, an offshore exchange rate market developed alongside the official onshore market, and with a far lower exchange rate. The Bank instructed the commercial banks to temporarily modify currency outflows to give priority to importation of goods and services. The separation of these two markets became entrenched with the imposition of the capital controls. In 2009-2010, trading was sparse, and transactions were usually executed in the range of 270-290 kr. per euro. In June 2011, the Central Bank announced its first foreign currency auction in connection with the capital account liberalisation strategy. Since then, offshore market trading has diminished sharply, as foreign holders of Icelandic krónur appear to have shifted their sights from the offshore market to the auctions. According to the Central Bank's information, offshore transactions were carried out at exchange rates ranging from 240-270 kr. per euro during this period.

Chart 1
The ISK exchange rate markets against the euro
Daily data 1 January 2008 - 31 July 2012



1. The onshore rate is the daily closing rate.
Sources: Reuters, Central Bank of Iceland.

4 Public sector

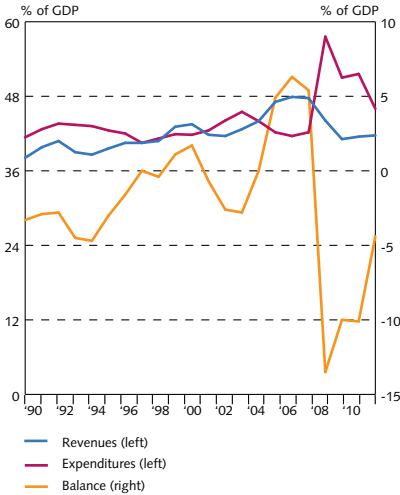
This chapter describes the public sector in Iceland, focusing on the division of responsibilities, central and local government finances, and the structure of the tax system. Recent developments in Iceland's sovereign credit ratings are discussed as well.

The financial crisis and the national budget

Public sector finances were in relatively good order between 2000 and 2007, after large deficits during the 1990s. Growth in tax revenues led to an average surplus of 5.5% on the general government budget in 2005-2007. Gross general government debt as a share of GDP, as defined by the Maastricht criteria, fell from 44% in 2001 to 29% in 2007. Growth in revenues was driven equally by indirect taxes and rising revenues from taxes on the financial system, whose contribution to GDP rose from 13% in 2000 to 19% in 2007.

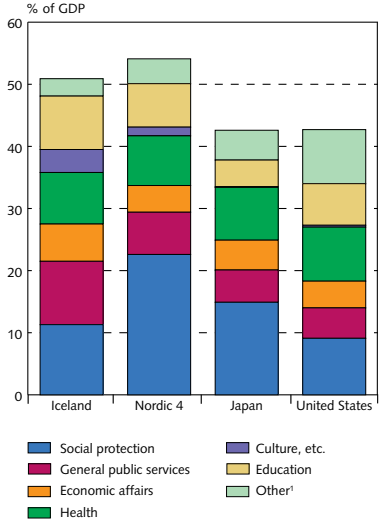
When the financial crisis culminated in autumn 2008, the Government assumed large liabilities and was forced to tighten its fiscal stance substantially. As is indicated by the increase in gross debt, the gross cost of the collapse during the first year amounted to 50% of GDP, while tax revenues declined and unemployment rose. The general government balance plummeted to -13% of GDP.

Chart 4.1
General government finances



Source: Statistics Iceland.

Chart 4.2
General government expenditures 2009



1. Public order and safety, defence, environment production and housing.
Source: OECD National accounts.

According to the fiscal consolidation plan in the three-year Government-IMF Stand-By Arrangement (SBA) negotiated in autumn 2008, the main fiscal policy goals were to balance the general government primary budget (i.e., without interest paid or received) by 2012 and balance the overall budget a year later. Reviews of the SBA in April 2010, and again in June 2011, showed that all relevant performance criteria had been met and a better outlook for public sector debt allowed for more gradual fiscal consolidation than was envisioned in the programme.

Table 4.1 Some metrics of the financial crisis

	<i>Peak date</i>	<i>Peak to trough (%)</i>	<i>Trough date</i>
GDP	Q3/2007	-13.3	Q2/2011
Unemployment	March 2010	9.3	July 2012
Inflation	January 2009	18.6	January 2011
		<i>% of GDP</i>	
<i>General government accounts</i>	<i>2007</i>	<i>2009</i>	<i>2011</i>
Total revenue	47.7	41.0	41.9
Total expenditure	42.3	51.0	47.3
- Recapitalisation of all financial institutions		14.6	
- Recapitalisation of the Central Bank ¹		13.0	
Net lending / net borrowing	5.4	-10.0	-5.4
Gross debt	28.5	87.9	101.0
Net debt			
Pension liabilities	20.5	25.3	25.6
Interest cost	2.6	6.6	5.1
Social benefits	5.8	8.1	8.5
Taxes on income and profits	18.4	16.0	16.4
Taxes on goods and services	16.0	11.7	12.1

1. The Central Bank was recapitalised in 2008.

International comparison

Icelandic public expenditure averaged 43% of GDP during the five years before the financial crisis, which is similar to the share in Norway but lower than in the other Nordic countries. By comparison, the average was 47% in the euro area,¹ 43½% in the UK, and 36½% in Japan and the US. Iceland's expenditure ratio remained fairly stable from 1988 through 2007, at around 43% of GDP, but rose to an average of 52% of GDP in 2008-2011 because of one-off expenses for financial system reconstruction, higher costs associated with unemployment, and a heavier interest burden (see Table 4.1).

Several factors should allow Icelanders to function efficiently with a relatively small government sector when the present difficulties peter out: historically low unemployment; comparatively low spending on social affairs, in part due to a relatively young population; and the historical absence of defence expenditure. Furthermore, fully funded pension funds, organised by

1. The 11 original EMU participants, plus Greece, Slovenia, Cyprus, Malta and Slovakia.

occupation, are being accumulated and by now have overtaken the public pay-as-you-go system in terms of benefit payouts, the dominant pillar in many other OECD countries (see Chapter 2). The relatively young population and high retirement age also help to lower overall pension expenditures. On the revenues side, there was rapid growth during the upswing, bringing the revenue ratio up to the euro area average of around 45% of GDP. Since the crisis, the ratio has receded back to 2000 levels, or 42% of GDP, in spite of tax rate hikes and new tax sources.

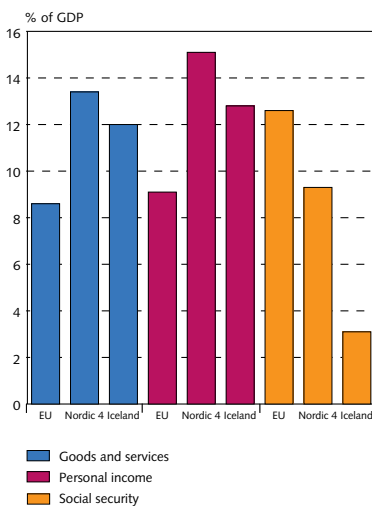
The composition of government revenues in Iceland differs noticeably from that in the Nordic countries or the euro area. Social security contributions are low by international standards, to some extent because of the strength of the second-pillar pension system. Taxes on goods and services have been higher in Iceland than in the comparison groups, with value-added tax carrying most of the weight. Taxes on individual income rose throughout the 1990s, however, and are now approaching the rates in the Nordic countries.

Division of responsibilities

The government sector in Iceland is organised on two levels, the central government and local governments. Separate sets of social security accounts are maintained, but social security expenditures and revenues are authorised through the central government budget. From the early 1990s through 2011, local government expenditures and revenues rose from below 10% to 13% of GDP, with a commensurate decline in central government expenditures and revenues, in large part because of the transfer of school expenditures and the care of disabled persons from the central government to the local governments.

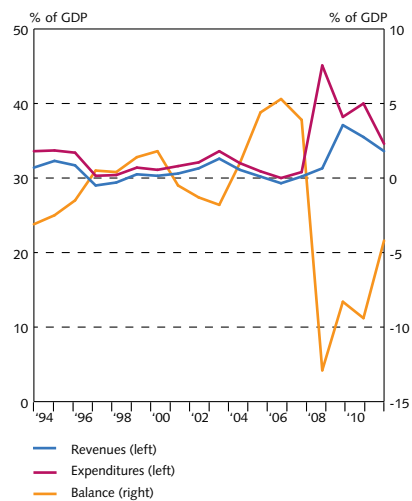
The central government regulates local governments and their authority to collect revenues, and actually collects around two-thirds of local government revenues for municipalities, mostly through income taxes. It also administers and finances the social security sector of government.

Chart 4.3
Importance of tax categories 2009



Sources: OECD, Central Bank of Iceland.

Chart 4.4
Central government finances



Source: Statistics Iceland.

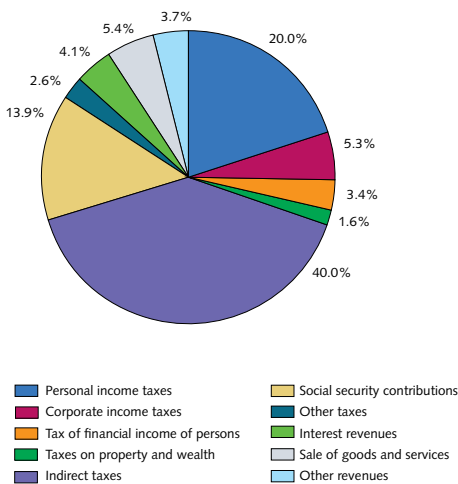
The central government is responsible for police, courts, foreign affairs, upper secondary and higher education, health services, institutional care for the elderly, general support and services for industry, and most infrastructure construction and maintenance not obviously specific to particular municipalities. It administers benefit programmes for elderly and disabled persons, unemployment benefits, mortgage interest subsidy payments for owner-occupied housing, child benefits, and parental leave at childbirth. The programmes are generally means-tested, although to varying degrees.

Local governments are responsible for local planning, most local infrastructure, day care and education from pre-school through the lower secondary level, care of disabled persons, and welfare services of various kinds, in particular services for the elderly apart from health care. They are also responsible for meeting the housing needs of low-income households. Local governments provide supplementary assistance to general programmes of pensions and income support run by the central government, notably by paying benefits to people whose unemployment benefits have run out or who for other reasons are ineligible for unemployment benefits.

Central government finances

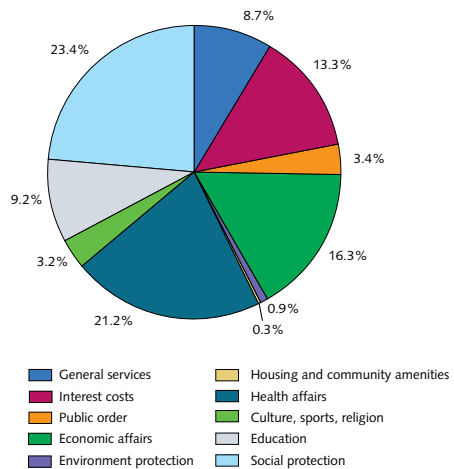
Central government revenues averaged 35% of GDP in 2005-2007 but fell to an average of 30½% in 2009-2011, in the aftermath of the crisis. The composition of central government revenues in 2011 is shown in Chart 4.5. The large share of taxes on goods and services reflects the fact that the collection of such taxes takes place primarily at the central government level. Discretionary expenditures of the central government are quite low; they had been on the decline in the years leading up to the crisis and have been cut further since. In particular, expenditure on fixed capital and capital transfers fell from around 4½% to 2% of GDP from 1990 to 2005-2007. After a brief increase in 2008 and 2009 because of pre-crisis projects already underway, the 2012 budget cut such expenditures to below 1% of GDP.

Chart 4.5
Composition of central government revenues in 2011



Sources: Statistics Iceland, Central Bank of Iceland.

Chart 4.6
Composition of central government expenditures in 2011



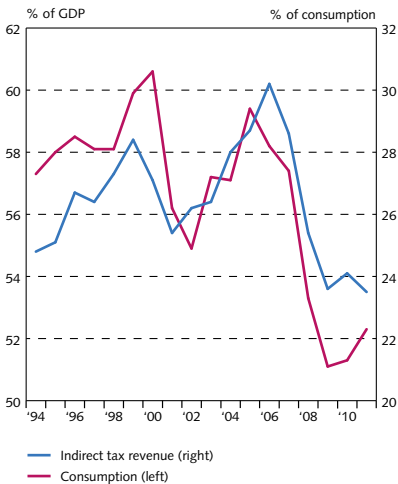
Sources: Statistics Iceland, Central Bank of Iceland.

By design, Iceland's central government revenues are strongly cyclical for three main reasons. First, the state personal income tax, which accounts for some 20% of central government revenue, has a predetermined bracket structure, including a sizable personal exemption or zero bracket. This implies that greater-than-expected income growth translates into a higher-than-expected ratio of taxes to total income. Second, 40% of central government revenues come from taxes targeting consumption goods and services. These taxes fall most heavily on durables, most of which are imported. Such consumption has proven very sensitive to the business cycle as well as to the cyclical real exchange rate. Third, revenues from taxes on corporate profits, financial income of households, and certain financial transactions, as well as the net wealth tax, are by nature sensitive to the business cycle. They grew from just under 4% of GDP in the pre-crisis years to almost 7% at the height of the upswing, but were back below 5% of GDP in 2009-2011, despite significant increases in tax rates. The combined central government revenue from taxes on consumption fell from 20½% in 2005-2007 to around 15% of GDP in 2009-2011. The payroll tax, or security contributions, is far more stable, except for the implicit understanding that it needed to rise to cover unemployment costs. It contributed around 1% of GDP in 2011.

The composition of central government expenditures is shown in Chart 4.6. Health and social protection accounts for almost half of expenditures. The financial crisis has increased expenses on social protection, chiefly through unemployment costs, which rose from 0.4% of GDP in 2008 to 1.7% of GDP in 2009 before starting to taper off again.

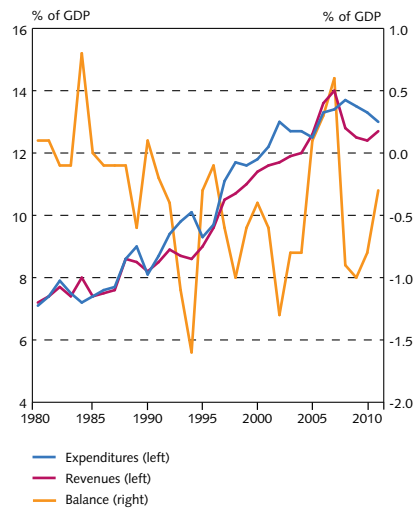
Central government interest expense fell from 3½% of GDP in the mid-1990s to around 2% in 2005-2007, in spite of steep increases in interest rates beginning in 2004. As a result of the debt burden imposed by the banking crisis, central government interest expense rose to 6% of GDP in 2009, but fell back to 4% in 2011.

Chart 4.7
Procyclicality of indirect taxes



Source: Statistics Iceland.

Chart 4.8
Local government finances 1980-2011



Source: Statistics Iceland.

Privatisation revenues along with central government surpluses reduced Treasury lending activity, and strong economic growth contributed to a decline in gross central government debt from 50% of GDP in 1995 to around 23% in 2007, while net debt was reduced from 33% of GDP to an estimated positive net of 4% at the end of 2007 (see Chapter 7).²

Furthermore, beginning in 1997, the central government made an effort to pre-fund civil service pension liabilities, which are not classified as debt under the Maastricht definition. These liabilities fell from 22% in 2000 to 18% of GDP by the end of 2007, in spite of rising individual benefits and upward revisions of lifespan predictions, but were back up to 21% of GDP in 2011.

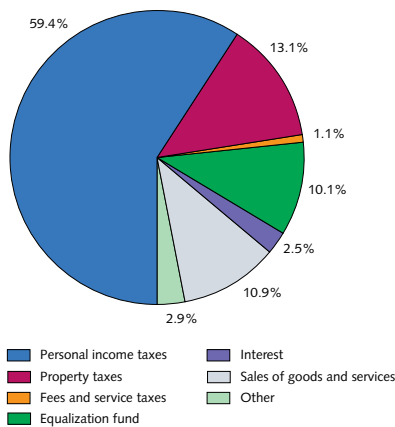
With the financial crisis and the associated deficits since 2008, central government gross debt rose to 90% of GDP in 2009. This figure does not include pension liabilities or short-term payable accounts, however. Total liabilities amounted to 118% of GDP at year-end 2011.

Local government finances

Expanded responsibilities for education, increased services at the pre-school level, and expanded support for sports and youth recreation have led to a rise in local government expenditures from 8% of GDP in 1990 to 13% in 2011. Education, from preschool to age 16, accounts for more than one-third of expenditures, with culture and recreation and welfare expenditures accounting for about 20% each (see Chart 4.10).

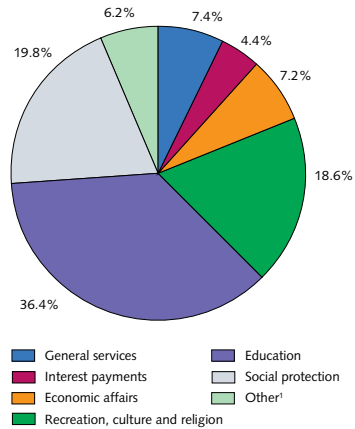
After spending cuts in the 2001-2002 contraction, the local government sector broke a 14-year string of deficits in 2005 and remained in surplus in 2006 and 2007. With the 2008 crisis, local government revenue fell by a percentage point (6% of revenues), mostly because tax income from construction activities dried up after mushrooming from 0.3% of GDP in 2003 to 1.3% in 2006. The two largest local government revenue sources, the flat municipal income tax that contributed 59% of local government revenues (7.7% of GDP) in 2011 and a property

Chart 4.9
Local government revenues in 2011



Sources: Statistics Iceland, Central Bank of Iceland.

Chart 4.10
Local government expenditures in 2011



1. Health, housing, environment, public order.
Sources: Statistics Iceland, Central Bank of Iceland.

2. Debt as defined by the Maastricht criteria. Central government deposits with the Central Bank are included as assets.

Chart 4.11
Central government debt 1998-2011

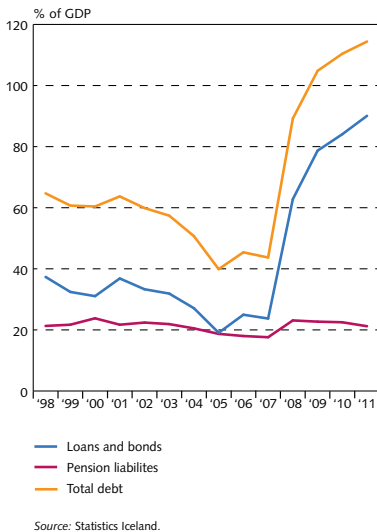
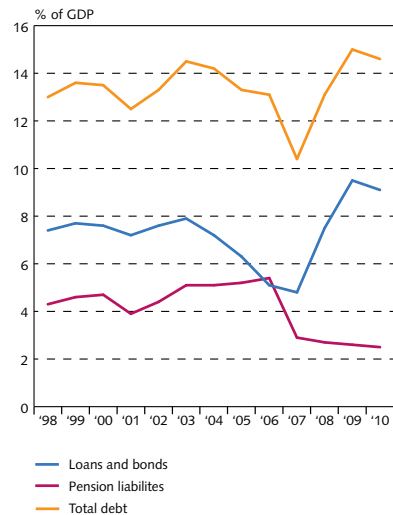


Chart 4.12
Local government debt 1998-2010¹



tax contributing 22% of revenues (1.7% of GDP), remained stable, however. Nevertheless, the financial balance of local governments deteriorated from a surplus of ½% of GDP in 2008 to a ⅓% deficit in 2011.

The financial crisis and the collapse of the króna in 2008 led to an increase in local government debt from 7½% of GDP in 2007 to 12½% of GDP in 2011³. Adding pension liabilities and short-term payable accounts raises the debt figure to 14½% of GDP.

In addition to the direct effects of the crisis on local government balance sheets, several local governments operate utilities or other necessary infrastructure through separate corporations. Some of these had significant foreign-denominated debt before the crisis, while their revenue base was domestic. In the most important cases, including Orkuveita Reykjavíkur (Reykjavik Energy), the shortfall has been covered through user fees and tariffs.

Parliament passed a new Local Government Act in September 2011. The new Act tightened budget procedures considerably, introduced the annual publication of budgets, and required formal board passage of any deviation from a year's budget. In addition, it introduced two fiscal rules: first, a budget balance fiscal rule stipulating that the combined expenditures of a local government and its direct subsidiaries may not exceed regular revenues in any three-year period; and a debt rule stating that combined debt and liabilities may not exceed 150% of regular revenues. A ten-year adaptation period was provided for.

At the end of 2011, local governments took over care for the disabled, along with an equivalent hike in the municipal income tax, which translated into an increase of around 1.3 per cent of the tax base, with a commensurate reduction in the state income tax.

3. Debt as defined by the Maastricht criteria.

Box 4.1

The tax system

The central government derived around 87% of its revenues from taxes and social security contributions in 2011, up from 82% in 2009, at the trough of the crisis. The comparable ratio at the local government level has normally been around 74%. Central government revenues equalled 31% of GDP in 2011, of which 9½% of GDP came from taxes on income and wealth, 4% of GDP from social security contributions and other payroll taxes, and around 13% of GDP from taxes on goods, services and imports.

The personal income tax is levied jointly by the central and local governments. The local government tax is a flat percentage of total taxable income, slightly variable by municipality but averaging 14.44% in 2012. The central government tax is 22.9% of individual income up to 15,200 euros (2.4 m.kr.) per year, then 25.8% up to 49,300 euros (7.8 m.kr.) per year and 31.8% on higher income. Against this, the central government pays an individual refund of 3,540 euros (0.56 m.kr.) per year towards the combined state and local tax. The result is a four-rate overall tax structure with a zero tax bracket for individual incomes up to 9,300 euros (1.5 m.kr.) per year, with the State effectively paying the local tax for low-income individuals. Residual refunds are not paid out but can to some extent be transferred to the individual's spouse or applied towards several other tax liabilities. Similarly, an individual in the top 31.8% bracket can, for tax purposes,

Table 1 Main features of the Icelandic tax system in 2012

Central government income tax ¹	
Bottom rate/starts at	22.9%/9,300 euros (1.5 m.kr.)
Intermediate rate/starts at	25.8%/15,200 euros (2.4 m.kr.)
Top rate/starts at	31.8%/49,300 euros (7.8 m.kr.)
Local government income tax, min/ average/max ²	
	12.44%/14.44%/14.48%
Tax on financial income ³	20.0%
Corporate income tax	20.0%
Net wealth tax	1.5%/2.0%
Lower rate starts at (singles/couples)	474,000/632,000 euros (75 m.kr./100 m.kr.)
Higher rate starts at (singles/couples)	948,000/1,264,000 euros (150 m.kr./200 m.kr.)
Payroll tax	7.79%
Value-added tax	
General rate	25.5%
Low rate ⁴	7.0%
Property taxes	
Residential property average/max	0.296%/0.625%
Hospitals, schools and related	1.32%
Commercial property average/max	1.637%/1.650%

1. Incomes up to 9,300 euros (1.5 m.kr.) per person are exempt from income taxes. A person in the top bracket may allocate a limited amount to a spouse in a lower bracket. 2. Municipalities under financial duress may raise their rate by 10% over the maximum 14.48%. 3. Interest, dividends, realised capital gains, and rental income of persons. The first 630 euros (100,000 kr.) of individual interest income are exempt, as is 30% of individual rental income. 4. Most food, except sugary food and soft drinks. Hotel rooms, heating, books, printed newspapers, CDs, and television and radio subscriptions.

Sources: Association of Local Authorities, Internal Revenue Directorate, the website of the Parliament of Iceland, www.althingi.is.

transfer income to a spouse in a lower bracket, in an amount up to either 15,800 euros (2.5 m.kr.) or half of the amount not utilised by the spouse in the 25.8% bracket, whichever is lower. Pension fund contributions and certain public income support payments are exempt from state and local income taxes.

The central government taxes the financial incomes of persons (dividends, rents, interest and capital gains). The tax rate is 20% in 2012, and an interest income exemption or zero bracket of 630 euros per person per year (100 thousand kr.) has been added. The corporate income tax is 20% in 2012, and the payroll tax is 7.79% of the applicable wage bill.

Taxation of property and financial transactions consists of four main parts. Local governments charge property taxes averaging around 0.3% of the assessed value of residential structures and 1.6% of commercial structures. The central government collects a stamp tax; an inheritance tax on estates, with a main rate of 10%; and a tax on the net wealth of individuals. The net wealth tax applies to individuals, with a tax-free limit of 474 thousand euros (75 m.kr.) for singles and 632 thousand euros (100 m.kr.) for couples, with a 1.5% rate up to 948 thousand euros (150 m.kr.) for singles and 1,264 thousand euros (200 m.kr.) for couples. Above these limits, the rate is 2% and only applies at the very top of the wealth distribution. In 2011, tax payers paying the net wealth tax were around 2% of those being assessed the flat local government income tax (before rebate).

The largest source of central government revenue is the value-added tax, yielding 8% of GDP in 2011. A rate of 25.5% is charged on most goods and services, while food, indoor heating, books, newspapers, magazines, and some services are taxed at 7%. A few specific categories of goods and services are exempt, notably financial services, education, health services, and passenger transportation. A general excise tax is levied on a range of goods at three rates of 15%, 20% and 25%, while unit fees are charged on some goods. Customs duties range from 0% to 30% of the cif value, although most imports from the EU as well as Iceland's EFTA partners (Norway, Liechtenstein, and Switzerland) are exempt. For protection purposes, however, much higher excises are charged on various agricultural products. Taxes are levied on the use of motor vehicles and on access to State radio/television broadcasts, as well as various other activities. Excise taxes, tariffs, and user taxes account for around 13% of central government revenues. Some taxes have been raised since the crisis and new taxes have been introduced, notably a new tax on carbon fuel along with a resource tax on geothermal energy and the use of electricity.

In total, the central and local government taxes and social security contributions described above accounted for 84% of general government revenues and 97% of tax revenues in 2011. Other taxes accounted for 2% of revenues and non-tax revenue accounted for 16%, mostly in the form of service charges, dividends, and interest income.

Government holdings in the business sector

In the period 1997-2007, the central government pursued an extensive programme of privatisation. After the privatisation process came to an end, the State's most important business holdings were in Landsvirkjun, the Housing Financing Fund (HFF), and a few smaller financial institutions, which were responsible for a combined 10% of credit in the economy at the end of 2007.

After the financial collapse in October 2008, the State recapitalised the banking system by establishing new banks (see Chapter 3). The original plan was that the new banks would initially be Government-owned, but according to agreements reached with the estates of the old banks, the estates took a significant equity stake in the new banks. Currently, the State holds 81% in Landsbankinn, 13% in Arion Bank, and 5% in Íslandsbanki, at a cost of 1.3 billion euros (196 b.kr.), or 12% of GDP (see Box 3.1). The State also owns shares in several savings banks.

Local government holdings are mainly in geothermal production of heating and electricity, as the municipalities own almost all of the geothermal power companies, which supply heating to most homes in Iceland and, on an increasing scale, electricity to the aluminium industry. Several local governments also own operating companies for harbours.

Government guarantees

State guarantees must be authorised explicitly in legislation and are generally confined to government enterprises and institutions related to government. Local governments, on the other hand, are prohibited by law from granting loan guarantees except to their own subsidiary institutions.

In October 2008, however, the Government made a declaration that all deposits in banks located in Iceland were fully guaranteed. This declaration has not yet been revoked. "Deposit" refers to all bank balances of general customers and companies that are covered by the Deposit Division of the Depositors' and Investors' Guarantee Fund. At the end of 2011, these deposits amounted to 96% of GDP.

Central government accounts for 2011 show that the Government has outstanding guarantees equivalent to 75% of GDP, excluding the State guarantee of all deposits in domestic banks. Some 78% of this represents Government backing of residential mortgages through the HFF, a State-owned investment fund with a considerable share of household mortgage lending in Iceland. Another 19% of the guarantees are for the debt of Landsvirkjun, the national power company.

Treasury foreign debt

The Republic of Iceland was a modest borrower in international markets before the financial crisis of 2008. Fiscal surpluses and proceeds from privatisation had contributed to a gradual reduction in Treasury foreign debt relative to GDP in the years prior to the crisis. Since the banks failed, the Treasury has worked systematically towards rebuilding confidence in foreign credit markets and has held two successful bond issues. The first, held in 2011, was the issue of a five-year USD 1 billion (126 b.kr.) bond maturing in 2016. Participation in the auction was strong, with demand twice the amount on offer. The bond was used to refinance other foreign debt. The latter bond, also in the amount of USD 1 billion (126 b.kr.), matures in 2022. Participation was excellent, with demand exceeding supply by a factor of four. The Treasury aims to hold regular foreign bond issues to refinance its foreign debt.

Table 4.2 Republic of Iceland foreign bond issues¹

<i>Amount in millions</i>	<i>Issue date</i>	<i>Maturity</i>	<i>Currency</i>	<i>Loan amount</i>	<i>Outstanding amount</i>
Eurobond (MTN)	2004	2014	USD	200	200
Bond ("children's loan")	1981/1983	2016	GBP	30	28
Eurobond (MTN)	2011	2016	USD	1,000	1,000
Eurobond (MTN)	2012	2022	USD	1,000	1,000
Eurobond (MTN)	2010	2025	EUR	401	282

1. Figures are as of 30 June 2012.

At the end of the first half of 2012, the Treasury's foreign debt amounted to 2,692 million euros (426 b.kr.). Foreign borrowing falls into two categories: bilateral loans and marketable bonds. Marketable bonds amounted to 2,073 million euros (328 b.kr.).

Table 4.3 Treasury, bilateral loans¹

<i>Amount in millions</i>	<i>Maturity</i>	<i>Currency</i>	<i>Loan facility amount</i>	<i>Prepayments</i>	<i>Outstanding loans</i>	<i>Unutilised credit line</i>
Denmark	2021	EUR	480	281	199	0
Finland	2021	EUR	320	188	132	0
Sweden	2021	EUR	495	290	205	0
Poland	2022	PLN	630	0	210	420
Faeroe Islands	2015	DKK	300	0	300	0

1. Figures are as of 30 June 2012.

In 2008, the Government of Iceland negotiated a Stand-By Arrangement with the IMF. The programme, which concluded in 2011, provided Iceland with access to loan facilities from the IMF, the Nordic countries, and Poland. Bilateral loans from the treasuries of Denmark, the Faeroe Islands, Finland, Poland, and Sweden were granted to the Treasury. The loans from the IMF and Norway were granted to the Central Bank of Iceland.⁴ The total amount pledged was 3,659 million euros (579 b.kr.). The Treasury's share was 1,485 million euros (235 b.kr.) and the Central Bank's share was 2,174 million euros (344 b.kr.).

Table 4.4 Central Bank of Iceland, IMF loan and bilateral loans¹

<i>Amount in millions</i>	<i>Maturity</i>	<i>Currency</i>	<i>Loan facility amount</i>	<i>Prepayments</i>	<i>Outstanding amount</i>
IMF	2017	XDR	1,400	608	792
Norway	2021	EUR	480	281	199

1. Figures are as of 30 June 2012.

In the spring of 2012, the Treasury and the Central Bank prepaid around 55% or 1,760 million euros (287 b.kr.), of the IMF loan and the bilateral loans from the Nordic countries. The Treasury's share of the outstanding amount is roughly 35%. The Treasury also has a credit line with the Polish government in the amount of 630 million zlotys, of which 210 million zlotys have been drawn.

Under a special agreement with the Minister of Finance and Economic Affairs, the Central Bank is responsible for the implementation of foreign borrowing for the Treasury. The Republic of Iceland has never failed to honour its financial obligations and has always paid when due the full amount of principal, interest, and sinking fund instalments for all internal and external obligations.

4. These facilities are not included in official Treasury debt statistics but are accounted for on the Central Bank of Iceland balance sheet.

Credit ratings

The first formal long-term ratings for Iceland were issued in 1994, in the single-A category. Over the following decades, Iceland's credit ratings steadily improved, and until 2008 they were in the AA-AAA category. In the run-up to the banking crisis in 2008, the ratings were lowered, and in the wake of the crisis they suffered significantly.

Table 4.5 Republic of Iceland credit ratings

	<i>Affirmed</i>	<i>Foreign currency</i>		<i>Domestic currency</i>		
		<i>Long-term</i>	<i>Short-term</i>	<i>Long-term</i>	<i>Short-term</i>	<i>Outlook</i>
Moody's	July 2010	Baa3	P-3	Baa3	P-3	Negative
Standard & Poor's	November 2011	BBB-	A-3	BBB-	A-3	Stable
Fitch	February 2012	BBB-	F3	BBB+		Stable
R&I Rating of Japan	November 2010	BB+				Rating Monitor

Iceland lost its AAA rating status with Moody's in May 2008, and its Aa1 Government bond ratings were downgraded in October 2008 to A1, with a review for possible downgrade. Two months later, in December, the ratings were downgraded to what was then the lowest rating in the sovereign's rating history, or Baa1 with a negative outlook. In November 2009, Moody's downgraded the government bond ratings once again to Baa3, with a stable outlook. In July 2010, Moody's affirmed Iceland's Baa3 local and foreign currency government bond ratings, but with a negative outlook. Moody's also changed the outlook on Iceland's country ceiling for foreign-currency bonds and its deposit ceiling of Baa2 and Baa3, respectively, from stable to negative. In the latest rating report from July 2012, the rating is still unchanged. In the rating rationale, Moody's stated that "[t]he post-crisis recovery is now under way and Iceland's short-term growth outlook is favourable. However, a further escalation of the euro area crisis poses a risk to Iceland given that the EU is its main trading partner. The Icesave dispute is less of a risk to public finances than previously thought, but remains to be solved."

In September 2008, Standard & Poor's (S&P) lowered the long-term foreign currency rating on the Republic of Iceland to A- from A, the sovereign's lowest rating thus far, and lowered its long-term local currency rating to A+ from AA-. The A-1 short-term foreign currency and A-1+ short-term local currency ratings were also lowered to A-2 and A-1, respectively. Subsequently, the ratings were put on CreditWatch negative. In October 2008, the ratings were lowered once again, to BBB for long-term foreign currency and BBB+ for long-term local currency. The short-term ratings were lowered to A-3 and A-2 for short-term foreign and short-term local currency, respectively, with a negative outlook for all ratings. S&P downgraded Iceland's long-term foreign currency ratings for the fourth time in 2008, assigning it a BBB- rating with a negative outlook in November. In March 2010, S&P affirmed Iceland's foreign currency ratings of BBB-/A-3, but downgraded local currency ratings to BBB/A-3 from BBB+/A-2, with a negative outlook. In May 2011, S&P once again affirmed Iceland's foreign currency ratings of BBB-/A-3, but downgraded local currency ratings to BBB-/A-3 from BBB/A-3, again with a negative outlook. In November 2011, the outlook on Iceland was revised to stable from negative, with previous ratings affirmed. The rationale was that "the economy is recovering from the systemic failure of its three largest

banks, and has returned to positive economic growth after two years of severe contraction. Significant headway has been made in restructuring the private-sector balance sheet and we expect the process to be mostly completed by mid-2012.” This was the latest credit rating action as of September 2012.

In September 2008, Fitch Ratings revised its ratings for all the currencies it rated for the Republic of Iceland, lowering the long-term foreign and local currency Issuer Default ratings to A- and AA respectively, from A+ and AA+. The short-term foreign currency rating was also lowered to F2 from F1. Iceland’s ratings were subsequently put on Ratings Watch Negative. A month later, the Republic’s ratings were lowered again to BBB- for long-term foreign currency, A- for long-term local currency, and F3 for short-term foreign currency. In December 2009, the ratings were taken off Ratings Watch and the outlook changed to negative. In January 2010, the Republic’s long-term foreign currency ratings were rated BB+, a notch below investment grade. Long-term local currency ratings were also lowered to BBB+, as were short-term foreign currency ratings, which received a B rating. The outlook status was negative. Fitch simultaneously downgraded Iceland’s Country Ceiling to BB+ from BBB+. That said, Fitch had stated previously that “in qualitative terms – measures of governance, human development, ease of doing business – Iceland is more akin to a high-grade sovereign ...” In addition, “Iceland’s superior income per head is indicative of a greater level of ‘debt tolerance’ than poorer ratings peers ...”. In May 2011, Fitch affirmed the rating but changed the outlook to stable from negative. This reflected Fitch’s reassessment of the impact on sovereign creditworthiness of the rejection of the Icesave agreement on 9 April 2011. Finally, in the latest rating from February 2012, Fitch upgraded Iceland’s rating to investment grade. The long-term foreign issuer default rating is now BBB- but was BB+. Long-term local currency rating was affirmed at BBB+. The short-term foreign currency was upgraded to F3 from B and the country ceiling to BBB- from BB+. In addition, the outlook was rated stable.

Box 4.2

Icesave

Icesave was an online retail savings account operated by branches of Landsbanki in the UK and Netherlands under EU/EEA regulations, subject to surveillance by the Icelandic Financial Supervisory Authority.

Following the October 2008 collapse of Iceland’s three largest banks, Landsbanki went into receivership and Icesave depositors were unable to access their accounts. Subsequently, UK authorities reimbursed Icesave retail depositors in full, while Dutch authorities paid up to 100 thousand euros per depositor. Iceland’s Depositors’ and Investors’ Guarantee Fund (DIGF), established under EU legislation, could only cover a fraction of the deposit losses incurred by Icesave depositors. Talks therefore commenced on the Icelandic Government’s possible guarantee of the amount of the EU minimum deposit guarantee, 20,887 euros per depositor. Under the agreement reached in June 2009, the DIGF would take a State-guaranteed loan from the UK and the Netherlands to reimburse 2.35 billion pounds (496 b.kr.) and 1.33 billion euros (239 b.kr.), respectively, which was the total amount covered by the minimum deposit guarantee. This amounted to 48% of Iceland’s year-2009 GDP. The loan, which bore 5.55% interest, was to be

spread over 15 years, with a grace period of seven years, during which repayment would come only out of recovered assets. Thereafter, the OECD CIRR¹ rate would apply.

To provide the necessary statutory authority for the loan guarantee, it must be approved by Parliament, which passed the so-called Icesave Act into law in August 2009, adding preconditions to the agreement aimed at securing Iceland's debt sustainability and allowing the country to restore its economy and financial system. A supplemental agreement with the Dutch and the British, accommodating some of the preconditions, was signed in October 2009, and a new Authorisation Act was passed in Parliament on 30 December 2009.

On 5 January 2010, the president of Iceland decided not to sign the new law, mainly citing an anti-Icesave internet petition signed by up to 25% of the electorate and the need to establish a national consensus on the Icesave issue. According to the Icelandic Constitution, a bill that Parliament has passed shall be submitted to the president for confirmation. If the president does not sign the bill, it shall nevertheless become valid but shall, as soon as circumstances permit, be submitted to a referendum and shall become void if rejected but otherwise retain its force. In accordance with the president's decision, a national referendum on the validity of the Icesave Act was held on 6 March. Voter turnout was 62.7%, and 93.2% of participants voted against the Act.

In January 2010, negotiations with the UK and the Netherlands were reopened. The Dutch and the British were willing to continue negotiations conditional upon broad support in Iceland for negotiations, full payment of the minimum deposit guarantee, and payment of Dutch and UK financing costs. A new agreement, signed in December 2010, stipulated that the Icelandic DIGF would reimburse the British and Dutch governments for compensation to Icesave deposit holders, using recovered funds until mid-2016, by which time Landsbanki's asset recovery should be complete, and with recourse to Treasury funding thereafter. The interest rate on the liability would be zero through September 2009 and then 3.3% and 3%, respectively, for the British and Dutch shares, reflecting financing costs in late 2010. In November 2010, estimates of eventual recovery stood at 86% of all priority claims.

The guarantee of the new agreement was passed by Parliament on 16 February 2011. On 20 February, the president of Iceland refused again to sign the law, citing an internet petition signed by 20% of the electorate and the absence of a new Parliamentary mandate, and asserting that a referendum seemed a natural venue for the issue. The loan guarantee was rejected again in a referendum held on 9 April 2011, this time by 60% of the vote, with 75% voter turnout.

Meanwhile, in May 2010, the EFTA Surveillance Authority (ESA) issued a Letter of Formal Notice claiming that Iceland had failed to comply with obligations resulting from the EU Deposit Guarantee Directive (DGD) and/or the principle of non-discrimination in the EEA Agreement. These proceedings were later stayed while efforts to reach a negotiated solution were being carried out.

It is relevant to mention that, in December 2010, ESA confirmed an earlier preliminary opinion that the Icelandic Emergency Act, no. 125/2008, was not in breach of the EEA Agreement in i) granting depositors priority ranking in insolvency proceedings, over other unsecured creditors, and ii) empowering the Icelandic Financial Supervisory Authority to transfer assets and liabilities from the collapsed banks to new banks. This effectively meant that the most important features of the emergency measures of the Icelandic Government would not be challenged under EU law, thus securing better prospect for full payment of depositor claims from the estates of the failed banks.

With the last Icesave agreement having been turned down, the Icelandic Government responded in May 2011 to ESA's Letter of Formal Notice, claiming that Iceland had fully implemented the DGD, that the DIGF's set-up was similar to that in other EU/EEA countries, and that the DGD must be viewed as an obligation to set up the required insurance scheme rather than an obligation to guarantee its results under any circumstances. Also, *force majeure* considerations were cited; i.e., the Icelandic Government's utter inability to guarantee the intended results given the magnitude of the crisis.

1. CIRR stands for *commercial interest reference rate*.

On 10 June 2011, ESA decided to proceed with its infringement case by delivering a Reasoned Opinion, restating its position that Iceland must ensure the compensation of all depositors without discrimination under the DGD. It emphasised that transferring deposits in Icelandic bank branches to new banks while depositors in overseas branches had to wait for the resolution of the failed banks constituted discrimination. On 30 September, Iceland replied to the Reasoned Opinion, emphasising its position and pointing out that the preference given by the 2008 Emergency Act to deposits over other assets would ensure that all deposit holders would be compensated.

In October 2011, the Icelandic Supreme Court ruled that the Emergency Act, no. 125/2008, did not violate Iceland's Constitution with respect to property rights and equality under the law.

In December 2011, ESA decided to refer its infringement case to the EFTA Court, seeking a declaration that Iceland had failed to fulfil its obligations under the DGD as annexed to the EEA Agreement, and/or Article 4 of the EEA Agreement, which prohibits discrimination on the basis of nationality except as provided for in EU legislation.

At the end of 2011, the Landsbanki winding-up-committee estimated that asset recovery would amount to more than 8.6 billion euros (1,370 b.kr.), whereas retail deposits and other priority claims were valued at 8.3 billion euros (1,319 b.kr.) As of April 2012, recovery amount was estimated at 9.1 billion euros (1,440 b.kr.), or 109% of priority claims. In December 2011, the first partial payments were made by the estate of Landsbanki to priority claimants. These payments have continued in 2012, settling 43% of all priority claims to date, which are held primarily by British and Dutch authorities.

On 8 March 2012, Iceland presented its defence in the Icesave case to the EFTA Court, based mainly on the arguments described above. On 18 April, ESA responded to the Icelandic defence, leading to a further response by Iceland on 11 May, with both parties mainly reiterating previous positions. Norway and Liechtenstein submitted written observations supporting Iceland's claim that the Deposit Guarantee Directive did not constitute an obligation for the state to guarantee performance of the Deposit Guarantee Schemes established in accordance with the Directive. The UK and the Netherlands submitted opposing observations. None of the written observations referred to discrimination of depositors on the basis of nationality. In a Statement in Intervention, the European Commission supported ESA, including on the discrimination charge. The oral hearing of the Icesave case before the EFTA Court was held on 18 September 2012, and based on experience a ruling could be expected before the end of the year. Whatever the outcome, the resolution procedure for Landsbanki will not be affected by this case and will continue along the current lines, most likely covering all priority claims, including retail deposits. Should the case be decided against Iceland, the EFTA Court does not rule on damages; therefore, separate cases would have to be tried in Icelandic courts, which could nonetheless be obliged to seek the advisory opinion of the EFTA Court.

5 Monetary and financial stability policies

This chapter describes the frameworks for monetary policy and financial stability in Iceland. For monetary policy, it explains the objectives and the role of the Monetary Policy Committee and describes the main monetary policy instruments. It also elaborates on financial stability policies and the Central Bank's role in promoting an efficient and safe financial system.

The objective of monetary policy

The Central Bank of Iceland was established as a separate institution in 1961. The current Act on the Central Bank of Iceland entered into force in May 2001 and included substantial changes from the previous Act. In the new Act, maintaining price stability was defined as the Bank's single main objective. The Bank was also granted policy instruments and financial independence, and any direct access by the Government to Central Bank financing was prohibited.

In a joint declaration issued by the Government and the Central Bank of Iceland on 27 March 2001, the price stability goal was further defined as an inflation target of 2½%, measured in terms of the twelve-month rate of change in the consumer price index (CPI). The declaration requires the Central Bank to keep inflation as close to the target as possible, on average. If inflation deviates from the target by more than 1½% in either direction, the Bank is obliged to submit a report to the Government, explaining the causes for the deviation, how the Bank intends to respond, and when it expects the inflation target to be reached again. The report must be made public.

Iceland has a long history of using the exchange rate as a monetary anchor, although with a varying degree of commitment (see Table 5.1). The inflation targeting regime therefore represented a significant departure from previous monetary policy regimes.

The Monetary Policy Committee

Amendments made to the Central Bank Act in 2009 provided for the establishment of a five-member Monetary Policy Committee (MPC) that takes decisions on the application of monetary policy instruments, whereas a three-member Board of Governors previously decided the policy interest rate. The amended Act also provided for one Governor and one Deputy Governor within the Central Bank instead of the previous three-member Board of Governors. The MPC must comprise the Governor of the Central Bank, the Deputy Governor, one Bank executive responsible for formulating monetary policy, and two outside experts in the field of economic and monetary policy appointed by the Minister of Economic Affairs.

According to the amended Act, decisions by the MPC must be based on the Bank's objectives and a thorough assessment of the current situation and the outlook for the economy, monetary issues, and financial stability. In implementing monetary policy, the MPC bases its decisions in

part on an appraisal of economic affairs and the outlook for the national economy as presented in the Bank's quarterly *Monetary Bulletin*.

In order to enhance openness, the 2009 amendment to the Central Bank Act also stipulated that the minutes of meetings of the MPC shall be made public and an account given of the Committee's decisions and the premises upon which they are based. Furthermore, the MPC is required to submit a written report on its activities to Parliament twice a year. The contents of the report shall be discussed in the Parliamentary Committee of the Speaker's choosing.

Table 5.1 Monetary policy arrangements in Iceland since 1970

1970-1973	After the collapse of the Bretton-Woods system, the Icelandic króna followed an adjustable peg against the US dollar.
1974-1983	Implementation of exchange rate policy became increasingly flexible and can be described as a managed float. The króna was first pegged against the US dollar and then against various baskets of trading partner countries' currencies.
1984-1989	Exchange rate policy became more restrictive, with increasing emphasis on exchange rate stability. In 1989, however, the króna was devalued ten times in small increments.
1990-1995	More emphasis was placed on exchange rate stability as the anchor of monetary policy. Until 1992, the currency peg was specified against a basket of 17 currencies, weighted according to merchandise trading shares, with $\pm 2\frac{1}{4}\%$ fluctuation bands. The basket was redefined in 1992, with the ECU given a weight of 76%, the US dollar 18% and the Japanese yen 6%. The króna was devalued twice in this period, by 6% in November 1992 and by $7\frac{1}{2}\%$ in June 1993. In September 1995, the fluctuation band was widened to $\pm 6\%$, in response to the abolition of capital controls. The currency basket was also changed. The new basket contained 16 currencies, weighted by their share in Iceland's trade in goods and non-factor services.
1996-2000	Fluctuation of the króna within the bands increased as the foreign exchange market deepened and the emphasis on price stability relative to exchange rate stability increased. Reflecting this, the exchange rate band was widened to $\pm 9\%$ in February 2000.
2001-	The exchange rate target was abolished in March 2001 and an inflation target adopted. The target requires approval by the Prime Minister, but the Central Bank has full independence in setting monetary policy to attain this target without interference by the Government. ¹

1. The current framework for monetary policy has been described in detail in the Central Bank's *Monetary Bulletin* 2001/2, available on its website (www.seclabanki.is).

Monetary policy instruments

The Bank's monetary policy instruments are its interest rates on transactions with credit institutions, open market operations, decisions on minimum reserve requirements, and intervention in the foreign exchange market. Financial institutions subject to reserve requirements – commercial banks, savings banks, and credit institutions – are eligible for Central Bank facilities. Icelandic branches of foreign financial institutions are eligible as well. According to the Rules on Central Bank Facilities for Financial Undertakings, securities issued in Icelandic krónur by the Republic of Iceland are the primary instruments eligible as collateral for Central Bank facilities.

Financial institutions' regular transactions with the Central Bank can be divided into two categories: standing facilities and open market operations. Financial institutions may avail themselves of standing facilities at any time and on their own initiative. The facilities offered by the Central Bank are deposits to a current account with the Bank and overnight loans against acceptable collateral. Interest on overnight loans forms the ceiling of the Central Bank's interest rate corridor, while current account interest determines the floor. The Bank's open market operations generally take place once a week on Wednesdays. The Central Bank offers seven-day collateralised loans

at a fixed interest rate in the centre of the interest rate corridor. In addition, the Central Bank offers certificates of deposit (CDs) for sale when it considers this necessary. Since autumn 2009, the Bank's principal liquidity management tool has been its weekly issuance of 28-day CDs. The financial institutions have had considerable excess liquidity since autumn 2008. Maximum rates on Central Bank CDs are 25 basis points below the collateralised lending rate, and CD issuance is subject to a maximum total amount.

The Central Bank interest rate that is most important in determining short-term market rates may vary from time to time. For a long while, the Bank's seven-day collateral lending rate was the key determinant of market rates, but since summer 2009, the interest rate on deposit institutions' current accounts with the Bank and the interest on CDs have been most important in interest rate formation. The effective nominal policy rate can therefore be estimated to lie close to the simple average of the Central Bank's current account rate and the maximum CD rate.

Foreign exchange reserves

One of the Central Bank's legally mandated functions is to manage Iceland's foreign exchange reserves. The Central Bank's foreign exchange reserves enable it to achieve its goals and fulfil its duties according to the Central Bank Act. The reserves limit risk and mitigate the effects of external risks related to changes in access to foreign credit and fluctuations in capital flows to and from Iceland. They enable the Bank to help the Treasury meet its need for foreign currency and fulfil its foreign debt obligations. The reserves create in the market the confidence that Iceland is able to service its foreign debt. They can also be used to support monetary policy.

Chart 5.1
Central Bank of Iceland interest rates and short-term market interest rates
Daily data 2 January 2009 - 31 August 2012

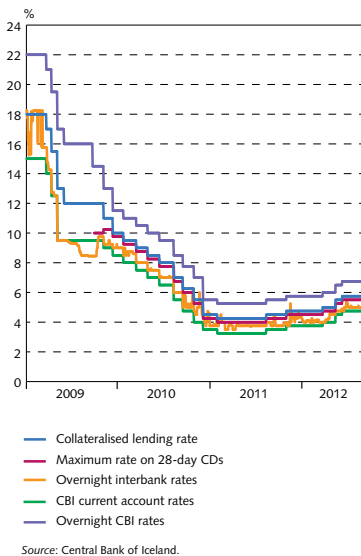
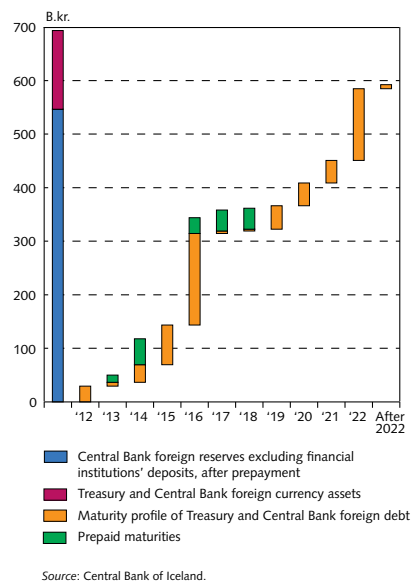


Chart 5.2
Maturity profile: Treasury and Central Bank foreign debt at end of June 2012



The size of the reserves is determined with reference to the scope of external trade, the exchange rate and monetary regime, rules on capital movements and foreign exchange transactions, and Iceland's foreign liabilities. Since 2008, the Central Bank has emphasised fortifying its foreign exchange reserves. Through loans from the International Monetary Fund (IMF), bilateral loans from neighbouring countries, and market issuance, the Bank's foreign exchange reserves have roughly tripled since mid-2008. In 2011, the Bank drew the full amount of its IMF loan facilities, bringing the total amount borrowed to SDR 1,400. In addition, the Central Bank and the Treasury received the last tranche of loan facilities from Denmark, Sweden, Finland, and Norges Bank, in connection with the Stand-By Arrangement with the IMF. The Nordic loans amounted to 1,775 million euros as of year-end 2011.

In order to expand the Bank's reserves, confirm Iceland's access to foreign capital markets, increase long-term funding, and pay down short-term debt, thereby reducing the cost of maintaining the reserves, the Treasury issued a five-year bond in June 2011 and a ten-year bond in May 2012. The nominal amount of each of the two bonds was 1 billion US dollars. Following the Treasury's international issuance, it was decided to prepay roughly 55% of the loans originally extended to Iceland by the IMF and the Nordic countries under the IMF Stand-By Arrangement. Accordingly, two payments were made, in March and June 2012, totalling SDR 608.12 million (720 million euros, 116 b.kr.) to the IMF and 1,040 million euros (165 b.kr.) to the Nordic countries. The decision to make the payments was taken in view of the Treasury and the Central Bank's relatively strong near-term foreign currency liquidity position, with the aim of reducing upcoming instalments.

At the end of July 2012, the Central Bank's foreign exchange reserves amounted to 5,582 million euros (830 b.kr.), or 51% of Iceland's year-2011 GDP. A part of the reserves is funded with short-term liabilities. Net foreign exchange reserves — i.e., foreign exchange reserves net of predetermined short-term net drains on foreign currency assets — are therefore lower, even though they are at a historical high. The Central Bank's net foreign exchange reserves amounted to 27% of Iceland's year-2011 GDP on 31 July 2012.

Financial stability and the Central Bank

In performing its role of promoting an efficient and safe financial system, as is stipulated in the Central Bank Act, the Central Bank of Iceland focuses on assessing risks among systemically important financial institutions and problems in payment and securities settlement systems. The Bank regularly analyses the risks and threats to the stability of the Icelandic financial system in order to detect changes and vulnerabilities that could lead to a serious crisis, and it communicates its overall assessment of risks and threats to the financial system to markets and decision-makers through the publication of its *Financial Stability* report.

To promote financial stability, the Central Bank sets prudential rules on credit institutions' liquidity and foreign exchange balance. In its work on financial stability, the Central Bank takes into account international agreements and other standards for best practise.

Supervision, cooperation, and deposit insurance

Since 1999, the Financial Supervisory Authority (Fjármálaeftirlitið, FME) has handled the supervisory tasks formerly assigned to the now-disbanded Bank Inspectorate of the Central Bank and

Insurance Supervisory Authority. The FME supervises financial undertakings and parties operating in the financial and insurance sectors, while the Central Bank's role centres on oversight and prudential regulation. A Cooperation Agreement between the FME and Central Bank of Iceland is in place. Its main aim is to clarify the responsibility of each party and the division of tasks between them. By law, the Central Bank of Iceland sets rules for credit institutions' liquidity ratio (the ratio of liquid claims to liquid liabilities) and foreign exchange balance. Other prudential regulations on financial markets are either provided for by law or adopted by the FME.

The Central Bank works with other central banks and international institutions, including sharing information and knowledge. The Nordic and Baltic countries signed a new agreement on cross-border financial stability and crisis management and resolution in 2010.

6 Foreign debt position

This chapter presents Iceland's foreign debt position, both gross and net. It discusses pre-crisis debt accumulation and post-crisis developments, describes changes in foreign direct investment, and provides estimates of net foreign debt levels once the failed private banks have been wound up.¹

International investment position

Iceland's external indebtedness has risen sharply since the mid-1990s and is high by international comparison. From 2003 until the banks collapsed in October 2008, the foreign assets of the Icelandic economy grew swiftly, far outpacing annual output growth, yet foreign debt grew still more rapidly. The net international investment position (IIP) therefore became extremely negative, rising from 65% of GDP in 2003 to 112% of GDP by the end of 2007 (16 billion euros, 1,461 b.kr.). The IIP continued to worsen as a result of the depreciation of the króna and the collapse of the banks in 2008, and was negative by 568% of GDP (58 billion euros, 9,245 b.kr.) by year-end 2011.

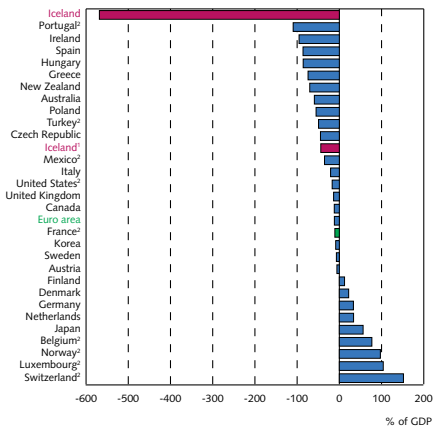
Official accounting figures give a misleading view of the country's underlying debt position, as the majority of the liabilities still recognised officially as Icelandic liabilities are related to the estates of the failed banks. According to the Central Bank's estimate of the IIP that will result when the estates' domestic and foreign assets have been sold and the proceeds distributed among domestic and foreign creditors, it will be much lower than before the financial crisis. The

Table 6.1 Iceland's debt position (% of GDP)

	2007	2010	2011
Total liabilities	-625	-906	-842
- excl. DMBs in winding-up proceedings	.	-218	-226
- based on calculated settlement of DMBs in winding-up proceedings	.	-285	-275
- underlying debt based on calculated settlement of DMBs in winding-up proceedings, and excl. Actavis	.	-234	-211
International investment position	-112	-639	-568
- excl. DMBs in winding-up proceedings	.	-70	-55
- based on calculated settlement of DMBs in winding-up proceedings	.	-124	-90
- underlying position based on calculated settlement of DMBs in winding-up proceedings, and excl. Actavis	.	-67	-45

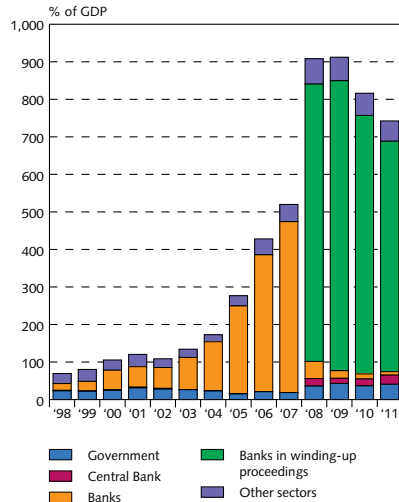
1. This Chapter is based on the report "What does Iceland owe?", published by the Central Bank of Iceland in *Economic Affairs* no. 4, February 2011, and Box VII-1 in *Monetary Bulletin* 2012/2.

Chart 6.1
International investment position
of OECD countries 2011



1. IIP based on calculated settlement of DMBs undergoing winding-up proceedings, and excluding Actavis. 2. Figures are for 2010.
Sources: IMF and various central bank and statistics office websites.

Chart 6.2
Estimated foreign debt by sector 1998-2009



Source: Central Bank of Iceland.

IIP position based on calculated settlement of financial institutions in winding-up proceedings was negative by 90% of GDP at the end of 2011, or about 1/5 of the official figure. Furthermore, if the assets and liabilities of the pharmaceuticals company Actavis, which owes its owner the equivalent of 64% of Iceland's GDP, are set aside, the IIP at year-end 2011 was negative by 44% of GDP, which is just under 1/12 of the official IIP.²

Foreign assets and liabilities

Iceland's total foreign debt soared prior to the collapse of the banks, to 625% of GDP by the end of 2007. The debt level peaked at 1020% in September 2009 but tapered off in 2010 and 2011 due to the appreciation of the króna and repayment of the claims from the UK and Dutch governments from the estate of the old Landsbanki (see Box 4.2). According to official statistics, it measured 840% of GDP at year-end 2011.

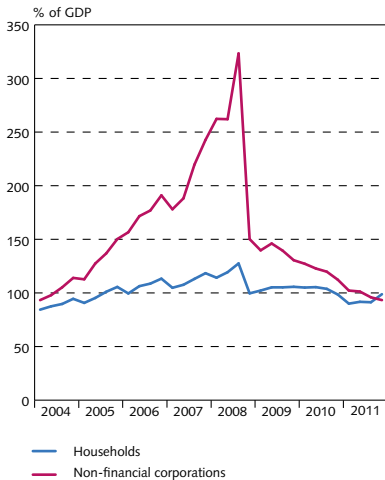
Although Iceland's external assets grew rapidly during the pre-crisis period, they did not grow as fast as external liabilities. Furthermore, their value deteriorated more abruptly than foreign debt, owing to the collapse of the banks and the króna, and amounted to 272% of GDP in 2011, down from 514% of GDP in 2007.

Foreign debt burden of deposit money banks (DMBs) in winding-up proceedings

The country's increased debt burden during the pre-crisis years stemmed from two main sources. The first was a large increase in investment in foreign assets financed with foreign loans, mainly

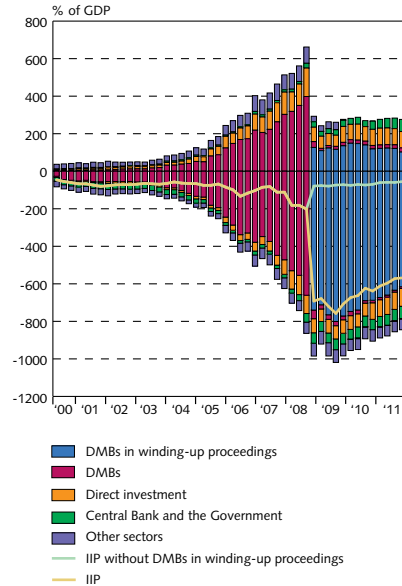
2. The rationale behind excluding Actavis is that nearly all of its revenues are in foreign currency, and the company should be able to cover the interest payments on its loans, which are bullet loans where accrued interest is added to the principal, with the returns on its foreign operations. As a result, the company does not use the Icelandic foreign exchange market unless its domestic operating expenses exceed its revenues from domestic sales.

Chart 6.3
Households and corporate sector debt
Q1/2004 - Q4/2011¹



1. In these figures, the loans of Arion Bank hf., Islandsbanki hf., and NBI hf. are assessed at purchase value; that is, the price at which these parties purchased the loan portfolio from Kaupthing Bank hf., Giltinir Bank hf., and Landsbanki Islands hf. The purchase value is the amount that is expected to be collected on the loans. The value of the loan portfolio therefore does not reflect customers' debt position.
Source: Central Bank of Iceland.

Chart 6.4
International Investment Position (IIP)
Q1/2000 - Q4/2011



Source: Central Bank of Iceland.

through the Icelandic banks. A large part of this investment centred on the banks' acquisition of foreign financial institutions. Furthermore, the banks also became important mediators of foreign loans in the domestic market, both to the Icelandic corporate sector and to households (see Chapter 7). Therefore, a large share of the Icelandic economy's external debt is that of the failed banks.

In 2011, banks accounted for 74% of total foreign debt (625% of GDP), with DMBS in winding-up proceedings accounting for 98% of that total. Offsetting this debt are substantial assets, even though their value deteriorated sharply after the financial collapse. DMBS in winding-up proceedings accounted for 37% of total foreign assets at year-end 2011 (just over 100% of GDP), down from 43% at the end of September 2008.

The liabilities of the DMBS in winding-up proceedings will remain unchanged in official statistics and will accumulate interest that will not be paid because asset values will hardly support more than a portion of the claims against the estates.

It is estimated that when the banks have been wound up, the assets have been sold, and the liabilities in excess of asset values have been written off, this could lead to an improvement in Iceland's net position from being negative by 567% of GDP to being negative by 90% of GDP.

The sale of Actavis

The pharmaceuticals company Actavis owes its owner the equivalent of 64% of Iceland's GDP, as is mentioned above. The US pharmaceutical company Watson has made an offer to buy Actavis, pending approval from the relevant competition authorities. The process is expected to be

finalised in Q4/2012. As a result, the impact of Actavis' assets and liabilities on Iceland's external balance will change substantially. At this writing, however, it is not yet clear exactly what the effect on the external position will be. It will depend in part on what position the Actavis companies in Iceland occupy in the Watson organisational structure. It will also depend on whether foreign companies owned by Actavis Iceland are placed under Watson or continue to be owned in Iceland. Moreover, the impact on the external position will depend on whether the domestic holding companies are wound up. In any case, the impact is likely to be substantial; therefore, Actavis' net debt will be only a small proportion of its present level.

Public sector foreign assets and liabilities

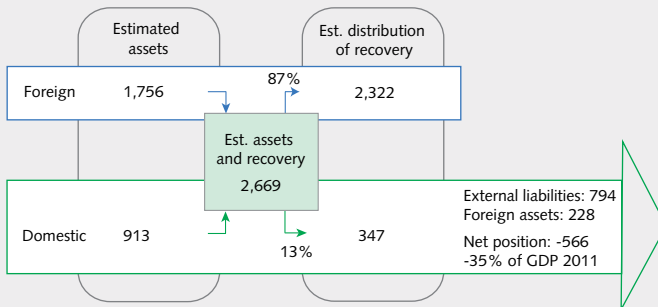
While the now-defunct DMBs' operations were the main reason for the rise in the net debt position of the economy, the public sector retired a substantial amount of its debt in the years

Box 6.1

Settlement of the failed banks' estates

In order to estimate Iceland's net foreign debt position after the failed banks' bankruptcy proceedings are completed, it is necessary to consider the settlement of their estates. At the end of 2011, expected recovery from the three failed banks' estates was estimated at 16.8 billion euros (2,669 b.kr.), including 11 billion euros (1,756 b.kr.) in foreign assets and 5.7 billion euros (913 b.kr.) in domestic assets. Furthermore, it is estimated that 13% of creditors are residents and 87% non-residents. Based on the above estimate of the estates' assets and the division between creditor groups, it can be expected that 14.2 billion euros (2,322 b.kr.) will revert to non-residents and 2.2 billion euros (347 b.kr.) to residents when the estates are settled. If current domestic and foreign assets are divided among domestic and foreign creditors according to the percentages listed above, 5 billion euros (794 b.kr.) of domestic assets will revert to non-residents and create external debt. In addition, 1.4 billion euros (228 b.kr.) of foreign assets will revert to residents and create an external asset. The result is net external debt in the amount of 3.6 billion euros (566 b.kr.), or 35% of year-2011 GDP (see Chart 1).

Chart 6.1
Estimated impact of DMBs in winding-up proceedings on the IIP



Amounts in ISK billions. Based on portfolio balances as of end-2011. Deposits with Central Bank and domestic assets that have foreign collateral are considered as foreign assets.
Source: Central Bank of Iceland.

before the crisis. At the onset of the crisis, general government gross debt as a share of GDP was among the lowest in the OECD. The financial crisis reversed this as the surplus turned into a major deficit and the Government took on debt as part of the process of rebuilding the domestic banking system. The depreciation of the króna in 2008 and the need to strengthen the Central Bank's foreign exchange reserves (see Chapters 5 and 7) increased the external liabilities of the general government and the Central Bank from 19% of GDP at year-end 2007 to 65% of GDP at year-end 2011.

Only a small portion of the increase in foreign debt has a direct effect on the IIP, however, as loans taken to expand the reserves are offset by assets in corresponding amounts. At the end of July 2012, the foreign exchange reserves amounted to 51% of year-2011 GDP.

Private sector excluding DMBs in winding-up proceedings

At year-end 2011, total foreign assets of the private sector, excluding the assets of the DMBs in winding-up proceedings, amounted to 107% of GDP, while the debt of the same group was 161% of GDP. Their net position was therefore negative by almost 54% of GDP.

The largest subgroup in this category is the pension funds, which own substantial assets abroad but whose foreign liabilities are negligible. The pension funds' foreign portfolios stood at 35% of GDP (5 billion euros, 458 b.kr.) at year-end 2007. In 2010 and 2011, however, the value of their portfolios fell in krónur terms because of the appreciation of the króna and foreign asset sales and stood at 3 billion euros (469 b.kr.), or 29% of GDP, at year-end 2011. In 2011, the pension funds owned almost 11% of Icelandic residents' total foreign assets and 51% of foreign portfolio holdings. The rest of the private sector, excluding financial institutions in winding-up

Table 6.2 Foreign assets and liabilities

<i>EUR billions (ISK billions)</i>	2007	2009	2011	2004-2007 (average change per year in ISK)	2009 (change from prev. year in ISK)	2011 (change from prev. year in ISK)
FDI by Icelandic residents	17 bn. euros (1,554 b.kr.)	7.1 bn. euros (1,272 b.kr.)	8.9 bn. euros (1,419 b.kr.)	93%	12%	8%
Foreign capital equities	14 bn. euros (1,278 b.kr.)	4.1 bn. euros (739 b.kr.)	3.6 bn. euros (574 b.kr.)	55%	-9%	3%
Foreign debt securities	7.2 bn. euros (652 b.kr.)	0.8 bn. euros (149 b.kr.)	2.2 bn. euros (348 b.kr.)	170%	-31%	49%
Foreign lending	23.1 bn. euros (2,104 b.kr.)	6.2 bn. euros (1,112 b.kr.)	4.1 bn. euros (658 b.kr.)	98%	-20%	-18%
Total assets	73.7 bn. euros (6,720 b.kr.)	23 bn. euros (4,140 b.kr.)	28 bn. euros (4,441 b.kr.)	79%	-5%	8%
Total assets (% of GDP)	514%	277%	272%			
FDI in Iceland	11.1 bn. euros (1,015 b.kr.)	6 bn. euros (1,078 b.kr.)	9.7 bn. euros (1,543 b.kr.)	88%	-3%	14%
Total liabilities	89.7 bn. euros (8,181 b.kr.)	81.9 bn. euros (14,736 b.kr.)	87 bn. euros (13,825 b.kr.)	62%	1%	-2%
Total liabilities (% of GDP)	625%	985%	842%			

proceedings and the pension funds, had a negative net debt position of 83% of GDP at year-end 2011, down from 85% of GDP at the end of 2009.³

Lending by domestic credit institutions to foreign borrowers

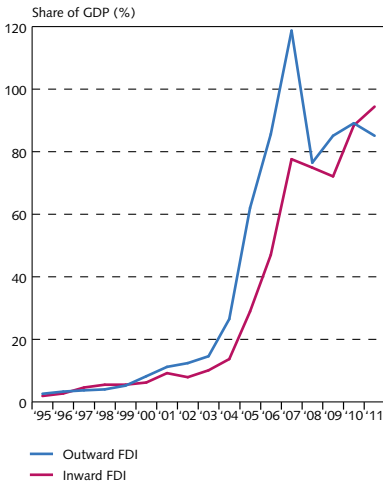
Lending by domestic credit institutions to foreign borrowers was one of the largest single contributors to the rise in foreign assets in 2003-2007. The stock of foreign lending, which amounted to 19% of GDP in 2003, had risen to 161% of GDP end-2007, growing by slightly over 100% per year on average during this period. Due in part to valuation effects of the depreciation of the króna, the stock of foreign lending skyrocketed in the months leading up to the crash, rising by 46% from Q4/2007 to Q3/2008 and measuring 235% of GDP by end-September 2008.

By the end of 2008, the failed banks owned 77% of total foreign loans. This share increased to 90% at year-end 2009 but had fallen to 84% at the end of 2011. From 2009 to 2011, the stock of foreign lending of the DMBs in winding-up proceedings dropped from 67% of GDP to 34% of GDP. The main reason for this decrease is that some parts of the loans were reclassified as foreign direct investment (FDI) at the end of 2009 because of financial difficulties among the banks' debtors, prompting a takeover of the companies concerned.

Investment in equities and debt securities

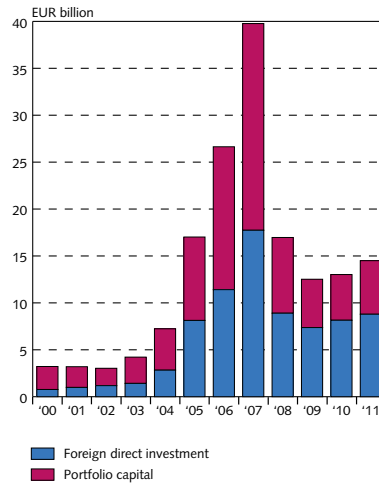
Investment in foreign equities and debt securities also grew substantially between 2003 and 2007. The total stock of foreign equities and debt securities rose sharply until Q3/2008, when

Chart 6.5
Outward and inward FDI 2005-2011



Sources: Statistics Iceland, Central Bank of Iceland.

Chart 6.6
Foreign direct investment and portfolio capital owned abroad by residents (at year-end) 2000-2011



Source: Central Bank of Iceland.

3. This group also includes holding companies, which increased their foreign debt substantially in 2005-2006 but financed themselves more and more on the domestic market when access to foreign credit became tighter. Holding companies were quite prominent in the books of the Icelandic banks at the time they collapsed.

foreign equities peaked at 104% of GDP and debt securities peaked at 52% of GDP, up from 27% and 2%, respectively, in 2003. They plunged during the financial crisis and, by year-end 2011, residents' foreign equities amounted to 37% of GDP and debt securities totalled 21% of GDP.

Outward foreign direct investment

As has been mentioned, the Icelandic banks played a major role in brokering foreign capital for domestic investors, as well as investing extensively abroad on their own account. In addition, a sizeable share of foreign debt was used to fund domestic lending, some of which was then used to invest abroad. Outward foreign direct investment (FDI) grew by an average of 78% per year in 2003-2007. The stock of outward FDI amounted to 151% of GDP at the end of Q3/2008, up from 15% of GDP in 2003. As a result of the financial crisis, it decreased dramatically, falling to a new low of 60% of GDP in Q3/2009, but by year-end 2011 it had risen to 87% of GDP. The composition of the capital has changed during the post-crisis period, however; lending to subsidiaries has increased while the share of foreign equity has declined.

Inward foreign direct investment

Inward FDI also grew during the years prior to the collapse, with the stock peaking at 103% of GDP in mid-2008. It declined steadily, to a low of 69% of GDP in September 2010, but has increased since, and totalled 95% of GDP at year-end 2011. Non-residents' equity has remained stable as a share of GDP while loan claims have increased, mainly due to the fact that many of them are listed in foreign currency and are thus vulnerable to exchange rate movements.

Outward FDI exceeded inward FDI by a substantial margin in the period from 2000 until the financial collapse in 2008; however, by the end of 2011, inward FDI exceeded outward FDI by 780 million euros (124 b.kr.), as it increased by over 7% from Q3/2008 to Q4/2011, while outward FDI decreased by 37% over the same period.

Table 6.3 Foreign assets

<i>% of total foreign assets</i>	1999	2003	2007	2009	2011
Reserves	15	8	2	12	24
Trade credit	5	1.3	0.2	0.6	0.6
Foreign lending	4	24	31	27	15
Foreign equity	51	33	19	18	13

Table 6.4 Foreign liabilities

<i>% of total foreign liabilities</i>	1999	2003	2007	2009	2011
Icelandic equity investment	0.7	1.7	4	0.1	0.3
Short-term lending	10	11	30	32	27
Long-term lending	42	21	13	12	11
Icelandic bonds	34	50	40	33	18

7 Government, corporate, and household balance sheets

This chapter describes Government, corporate, and household balance sheets in Iceland; the position of the Government, households and businesses; and debt restructuring following the financial crisis.

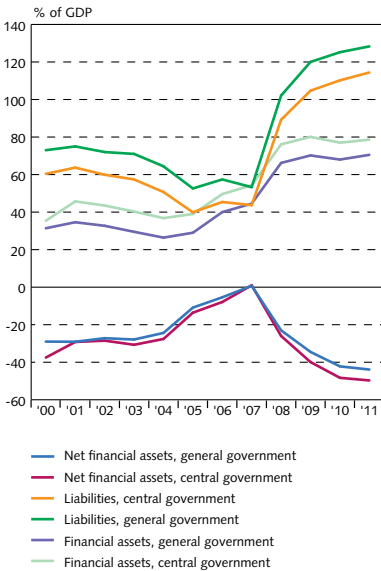
Government balance sheets

The public sector's balance sheet and budgets suffered a severe shock with the collapse of the financial system and the króna in 2008, as a substantial amount of debt was shifted from the private to the public sector. Therefore, although the net debt burden of the economy will continue to diminish over the next few years as banks and large holding companies continue to be wound up, the opposite will be true for the public sector.

Central government

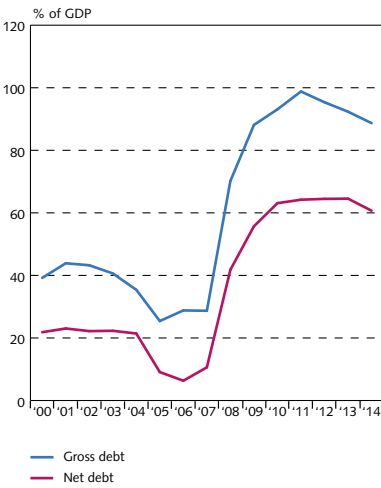
Iceland's fiscal position was strong when the financial crisis struck. Record surpluses in 2004-2007 had enabled the central government to retire a large portion of its debt while simultaneous-

Chart 7.1
Financial assets and liabilities 2000-2011



Source: Statistics Iceland.

Chart 7.2
General Government debt 2000-2014¹



1. Central Bank baseline forecast 2012 - 2014.
Sources: Ministry of Finance, Statistics Iceland, Central Bank of Iceland.

Table 7.1 Central government financial assets and liabilities 2003-2011

<i>Percentage of gross domestic product</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011
Financial assets	29.5	26.4	29.0	40.0	44.5	66.2	70.2	68.0	70.2
Currency and deposits	2.0	2.6	5.0	7.9	8.0	12.4	15.1	20.7	32.8
Loans	9.1	5.6	7.0	14.5	13.3	31.9	24.1	16.1	9.1
Shares and other equity	10.8	10.2	8.5	8.8	14.7	13.4	22.3	22.3	20.4
Other accounts receivable	7.7	8.0	8.6	8.8	8.5	8.6	8.6	8.9	7.8
Liabilities	57.4	50.7	39.9	45.4	43.7	89.3	104.7	110.2	118.1
Securities other than shares	11.9	11.5	10.4	9.7	9.6	20.8	41.7	47.0	48.5
Loans	20.0	15.6	8.7	15.3	14.1	42.0	36.8	36.9	42.0
Domestic loans	0.5	0.4	0.4	0.3	2.4	20.6	13.0	14.5	14.4
Foreign loans	19.5	15.2	8.3	15.0	11.8	21.4	23.8	22.4	27.6
Insurance technical reserves	21.9	20.5	18.7	18.0	17.6	23.2	22.7	22.5	22.9
Other accounts payable	3.6	3.1	2.2	2.5	2.4	3.3	3.4	3.9	4.6
Net financial assets	-27.9	-24.4	-10.9	-5.4	0.7	-23.1	-34.5	-42.2	-47.9

Source: Statistics Iceland.

ly accumulating cash deposits in the Central Bank. The central government's net financial assets even turned marginally positive in 2007. As a result of the financial crisis, net financial assets became negative by 34% of GDP in 2009 and deteriorated further, to 48% of GDP, in 2011.

The depreciation of the króna in 2008 led to a rapid weakening of the gross debt position, as 33% of central government debt was denominated in foreign currency. The need to strengthen the Central Bank's foreign exchange reserves led to a further increase in the gross debt position. Consequently, central government gross foreign debt rose from 12% of GDP in 2007 to 28% in 2011.

Fiscal deficits in the wake of the financial crisis were financed mostly in domestic financial markets, however, resulting in an increase in króna-denominated debt during the period 2009-2011. Domestic government bonds were also issued in connection with the recapitalisation of the banking system and the Central Bank, which amounted to 14% and 10% of GDP, respectively. At year-end 2011, króna-denominated liabilities, including pension liabilities, amounted to 90.4% of GDP, compared to 32% of GDP in 2007. Overall, total central government liabilities amounted to 118% of GDP in 2011, as opposed to 44% in 2007.

As borrowing has been used to acquire assets, net debt has increased less as a result of the financial crisis than has gross debt. For example, the Government took equity stakes in the new banks. It currently holds an 81% stake in Landsbanki, 13% in Arion Bank, and 5% in Íslandsbanki. In addition, the Treasury extended subordinated loans to the latter two banks. The total contribution of the Treasury to the new banks' recapitalisation was 1.3 billion euros (196 b.kr.), or about 12% of GDP. An additional 145 million euros (22 b.kr.) were injected into the savings banks, both in the form of debt forgiveness and in exchange for equity share. This, plus the fact that the Treasury now needs to keep more cash on hand to finance the deficit, explains why financial assets rose from 45% of GDP in 2007 to 70% in 2011 (see Table 7.1).

All foreign loans taken by the central government since 2006 have been used to increase Iceland's foreign exchange reserves. The reserves themselves constituted 64% of GDP at the end

Table 7.2 General government financial assets and liabilities 2003-2011

<i>Percentage of gross domestic product</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011
Financial assets	40.3	36.8	39.0	49.6	54.3	76.2	79.9	76.9	78.9
Currency and deposits	2.8	3.4	6.0	9.1	10.2	14.8	17.6	23.7	34.7
Securities other than shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans	11.5	7.8	8.9	15.8	15.0	33.6	26.5	17.7	10.9
Shares and other equity	15.7	14.7	12.8	12.8	17.3	15.6	24.6	24.6	22.6
Other accounts receivable	10.4	10.9	11.3	11.9	11.8	12.2	11.2	10.8	10.7
Liabilities	71.0	64.4	52.6	57.4	53.3	102.2	119.8	125.0	134.2
Securities other than shares	11.9	11.5	10.4	9.7	9.6	20.8	41.7	47.0	48.5
Loans	27.7	22.7	14.9	20.3	18.9	49.5	46.2	45.9	52.5
Domestic loans	4.8	4.8	4.5	3.6	5.6	24.9	19.2	21.2	23.1
Foreign loans	22.9	17.9	10.4	16.8	13.3	24.6	27.0	24.8	29.4
Insurance technical reserves	27.0	25.6	23.9	23.4	20.5	25.8	25.3	24.9	25.6
Other accounts payable	4.4	4.6	3.5	4.1	4.3	6.0	6.6	7.2	7.5
Net financial assets	-30.7	-27.6	-13.6	-7.9	1.0	-26.0	-39.9	-48.2	-55.3

Source: Statistics Iceland.

of 2011, and the net reserves (the foreign exchange reserves less predetermined short-term outflows) were positive by 35% of GDP at that time. Following the Treasury's international issuance of five- and ten-year bonds in 2011 and 2012, respectively, and given the Treasury and Central Bank's relatively strong near-term foreign liquidity position, roughly 55% of the loans originally extended to Iceland by the IMF and the Nordic countries under the IMF Stand-By Arrangement (SBA) have been prepaid. Accordingly, two payments were made, totalling 1,760 million euros (287 b.kr) in March and June 2012. The Treasury's share of these payments, 759 million euros (120 b.kr.), was used to reduce loan principal amounting to 1,295 million euros (205 b.kr.). The repayments reduce central government's gross debt by 7.2% of GDP, whereas the bond issues raised it by 7.5% of GDP; therefore, the net effect is a slight increase in central government gross debt (0.3%), but there is no effect on net debt.

Local government

The balance sheet of local government was quite strong in 2007. Gross debt fell to a low of 4.8% of GDP, and the net debt position fell to 1.4% of GDP. Although local governments' foreign debt had declined considerably in the years before the crisis, from 3.4% of GDP in 2002 to 1.5% in 2007, local governments still had to realise a loss equivalent to 1% of GDP on their foreign debt in 2008 because of the depreciation of the króna.

Local governments' gross and net debt increased after the onset of the financial crisis. Gross debt as a share of GDP rose by 4.25 percentage points between 2007 and 2011, to 10.6% of GDP, while net liabilities rose from 1.4% of GDP to 8% of GDP.

As is the case with the central government, local governments have financed their deficit spending primarily in the domestic credit market, raising their króna-denominated debt from 3.3% of GDP in 2007 to 8.7% in 2011. However, local governments' financial assets have been stable for the past six years, at approximately 8-9% of GDP.

General government

Central government assets and liabilities constitute 81% of the general government balance sheet, while the local government share is about 18%. Social security accounts thus constitute only a marginal share of general government accounts in comparison with central and local government. General government financial assets and liabilities are thus largely those of the central and local government.

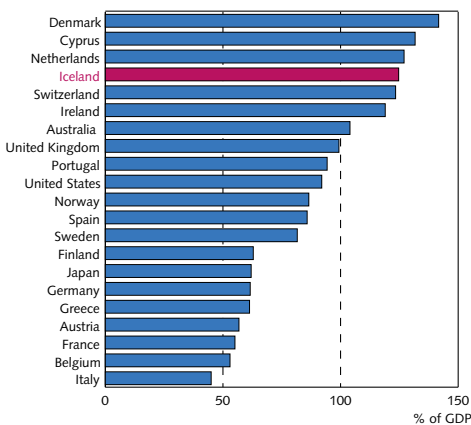
General government financial assets have been around 80% of GDP since the financial collapse, up from 54% of GDP in 2007, as cash and currency deposits have been accumulated, both to create a buffer to finance nearly a year's worth of deficit spending and to build up the Central Bank's foreign currency reserves. Furthermore, shares and equity held by the Government have increased by 5 percentage points, due mainly to capital injected into the three new banks. Financial liabilities, which bottomed out at 53% of GDP in 2005, soared after the financial collapse, to a high of 134% of GDP in 2011.

Private sector debt

In 2000-2004, Iceland's private sector debt as a share of GDP was similar to that in the Nordic countries, the euro area, the UK, and the US. After 2004, the debt burden of Icelandic corporations and households increased rapidly, outpacing that in neighbouring countries. In terms of private sector debt, Iceland stood out in comparison with other countries that were badly hit by the financial crisis. The proportion of foreign-denominated corporate debt was considerably higher in Iceland than it was elsewhere, both in comparison with exports and as a share of GDP. It should be noted, however, that a few large holding companies explain a large share of the increase in private sector debt.

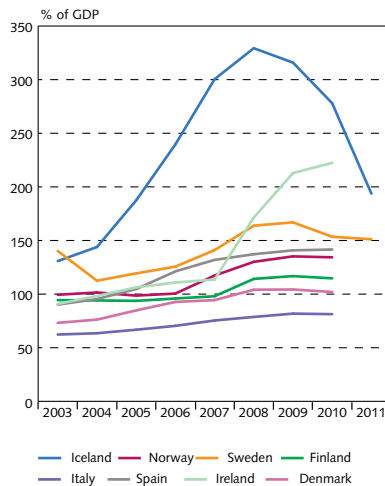
Both household and corporate balance sheets weakened substantially as a result of the collapse of the banking system in autumn 2008. The substantial depreciation of the króna and

Chart 7.3
Household debt in 2010



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

Chart 7.4
Corporate debt 2003-2011



Sources: Eurostat, Central Bank of Iceland.

the resulting increase in inflation caused a surge in the value of both foreign-denominated and CPI-indexed loans. Since then, extensive private debt restructuring has been completed, although leverage remains high in international comparison. Due to restructuring, bankruptcy and deleveraging, corporate debt relative to GDP had in 2011 declined by almost half from the collapse of the banking system, to 194%. For households, deleveraging has been achieved through debt write-offs, Government-sponsored restructuring programmes, and the court system, leading household debt as a share of GDP to fall from 125% in 2008 to 110% in 2011. The three large commercial banks' share of non-performing loans (both corporate and household loans) was 10% at the end of June 2012, down from 18% at year-end 2010.

Corporate balance sheets

Corporate balance sheets grew considerably during the pre-crisis years, as companies stepped up acquisitions and accumulated debt. A large part of that growth was explained by an increase in foreign-denominated lending, in many cases to firms without foreign-denominated revenues or assets. By 2008, the balance sheets of Iceland's 100 largest non-financial firms were roughly six times GDP, after having more than doubled since 2004. At the end of September 2008, before the banks collapsed, corporate lending from deposit money banks (DMBs) amounted to 240% of GDP. Nearly half of the DMBs' stock of loans to corporations was to holding companies. The total debt of Icelandic corporations – from both DMBs and other credit institutions – was 375% of GDP in the autumn of 2008.

The position of many corporations deteriorated severely during the financial crisis. The debt position and debt service burden of overleveraged firms increased considerably, due especially to the depreciation of the króna. Many firms have undergone extensive financial restructuring since then. Firms' balance sheets have therefore shrunk. In addition, a number of companies have been dissolved or become insolvent. Corporate bankruptcy and unsuccessful distraint actions against firms rose substantially year-on-year in 2011. The bankruptcy rate was the highest in several decades, with 4.6% of firms declared insolvent, as opposed to 2.8% in 2010.

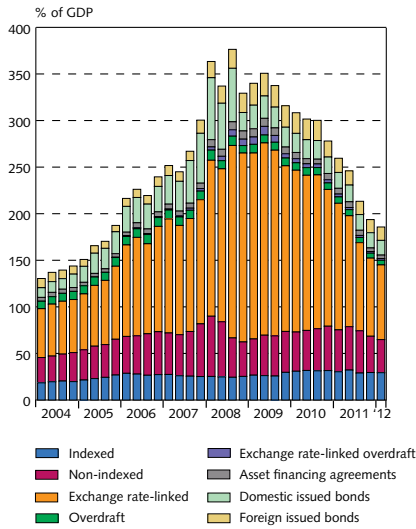
In spite of restructuring and write-offs, Iceland's ratio of corporate debt to GDP remains high in international comparison. It was estimated at about 185% at the end of March 2012. Loans denominated in Icelandic krónur (indexed, non-indexed, and overdraft loans) are broadly unchanged at about 70% of GDP, while the share of foreign-denominated loans has declined from 207% in September 2008 to 80% in March 2012. Following Supreme Court rulings in 2010 declaring exchange rate-linked debt illegal, and due to overall financial restructuring, foreign-denominated loans taken by firms without foreign-denominated revenues have been systematically converted into domestic currency. However, there is still considerable uncertainty regarding the settlement of exchange rate-linked loan agreements as a result of the Supreme Court's 15 February 2012 judgment (see Box 3.2).¹ Cases centring on this issue will be heard by the courts in coming months.

Household balance sheets

Household debt as a share of GDP grew rapidly between 2004 and 2007, as real disposable income rose sharply, real lending rates dropped, credit became more accessible, unemployment

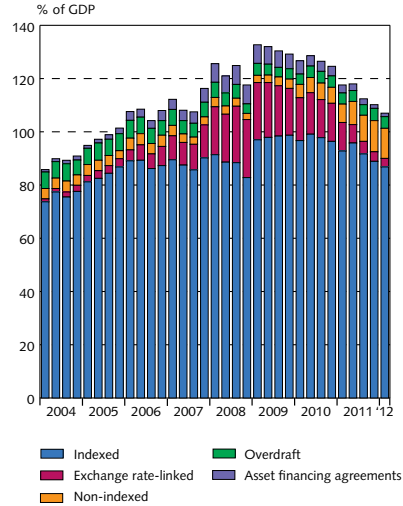
1. The Court concluded that it was prohibited to demand that an individual with an illegal exchange rate-linked loan remit additional payment for previously paid interest rate due dates if a receipt for full payment existed.

Chart 7.5
Composition of corporate debt¹
Q1/2004 - Q1/2012



1. Debt to domestic and foreign financial institutions and issued marketable bonds.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 7.6
Composition of household debt
Q1/2004 - Q1/2012



Source: Central Bank of Iceland.

declined, asset prices increased, and debt service fell as loan duration increased. By autumn 2008, Icelandic households ranked among the most indebted in the world, with debt measuring 125% of GDP. In many cases, households and financial institutions did not take sufficiently into consideration important risk factors as seen by the sharp rise in exchange rate-linked debt. Research on households' position in the financial crisis in Iceland showed that foreign-denominated loans were increasingly granted to low- and middle-income households in 2007-2008, many of which were already in financial distress at the time of loan issuance.²

In the wake of such large-scale debt accumulation, household balance sheets sustained severe damage from the collapse of the banking system and the króna in autumn 2008 and the resulting surge in inflation. The aforementioned analysis of households' position suggested that the share of indebted households in financial distress grew from 12½% in early 2007 to 23½% on the eve of the banks' collapse. This share is estimated to have peaked at 27½% in autumn 2009, before declining to 20% at year-end 2010 due to policy interventions and legal outcomes.

In 2010, Iceland had the highest ratio of household debt to disposable income in Europe, slightly above that in Denmark and the Netherlands. As a result of debt restructuring, write-offs due to Supreme Court judgments on the illegality of exchange rate linkage, and the rise in disposable income in 2011 and 2012, Iceland's ratio of household debt to disposable income has declined and is expected to be below that in Denmark and the Netherlands in 2012. It is still high in international comparison, however.

2. See Thorvardur Tjörvi Ólafsson and Karen Áslaug Vignisdóttir (2012), "Households' position in the financial crisis in Iceland". *Working Paper*, no. 59.

At the end of Q1/2012, household debt was estimated at 110% of GDP and approximately 220% of disposable income. The vast majority of household debt is indexed to the CPI, although the share of non-indexed debt has steadily increased in recent years. From the beginning of 2010 through the first quarter of 2012, non-indexed household debt excluding overdraft loans rose from 3.5% of GDP to 12.4%. The rise is due primarily to mortgage financing and conversion of illegal exchange rate-linked loans to non-indexed króna-denominated loans.

Debt restructuring efforts have led to a decline in default over the past two years, and the share of loans that were performing following restructuring rose from 40% to 53% over the same period. However, there is still some uncertainty about further household debt restructuring because of the above-mentioned Supreme Court judgment on the settlement of exchange rate-linked loans.

Household debt relative to net assets, including real estate, motor vehicles, bank deposits, and various securities holdings (but excluding pension assets) declined by a full 17% between 2010 and 2011, the first year-on-year drop since the collapse of the banking system. This positive trend is projected to continue in 2012, although less decisively than in 2011.

Households' financial conditions have therefore improved slowly in the recent term. Household debt has declined and households' equity position improved noticeably. Debt restructuring, debt mitigation and various decentralised debt restructuring measures have contributed to the decrease in many households' debt overhang. The real estate market is recovering, with turnover up by 17% and housing prices up by 7.6% year-on-year in Q2/2012. Financial conditions remain challenging for many, however, and research shows that middle-income families with children and low-income singles are especially vulnerable.

Chart 7.7
Household assets excluding pension reserves
2000-2011¹



1. Value for disposable income in 2011 is a forecast.
Sources: Statistics Iceland, Central Bank of Iceland.

8 Appendix

Table A1 Economic development¹

	2011		2011
Population size at year-end (thousands)	319.6	Labour force participation rate, males (%) ²	88
		Labour force participation rate, females (%) ²	82
<i>Average annual population growth (%)</i>		Rate of unemployment (% of labour force)	7.1
Last 10 yrs.	1.1	Infant mortality (% of 1,000 live births)	0.9
Last 20 yrs.	1.1	Life expectancy (males)	79.9
Last 30 yrs.	1.1	Life expectancy (females)	83.6
GDP in ISK billions	1,626	Live births per 1,000 inhabitants (2010)	15.4
GDP in EUR billions	10,1	Energy consumption per 100,000 inhabitants (PJ) (2010)	73.6
GDP in USD billions	14,0	Physicians per 1,000 inhabitants	3.6
GDP/capita in thousands EUR	29,1	Passenger cars per 1,000 inhabitants	644
GDP/capita in USD thous. in terms of PPP	38,5	Access to Internet (% of population)	95
Rank among OECD countries	10	Exports as a share of GDP	59.3
<i>Average annual growth rate of GDP (%)</i>		International investment position at year-end as a share of GDP	-569
Last 10 yrs.	2.0	Government revenues as a share of GDP	41.7
Last 20 yrs.	2.5	Government expenditures as a share of GDP	46.1
Last 30 yrs.	2.4	General government gross debt as a share of GDP	98.8
<i>Average annual inflation rate (%)</i>			
Last 10 yrs.	5.9		
Last 20 yrs.	4.5		
Last 30 yrs.	12.1		

1. Data refer to 2011 unless otherwise indicated.

2. Age 16-64.

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

Table A2 Structure of the economy

<i>A Components of GDP</i>	<i>At current prices (EUR millions)</i>			<i>% of GDP</i>			<i>Average volume change (%)</i>	
	1990	2000	2001	1990	2000	2001	1971-2011	1991-2011
Private consumption	2,990	5,708	5,232	59.8	60.6	51.9	2.8	1.8
Public consumption	996	2,206	2,548	19.9	23.4	25.3	4.2	2.6
Gross capital formation	973	2,154	1,406	19.5	22.9	14.0	1.2	0.2
National expenditure	4,934	10,102	9,215	98.7	107.3	91.5	2.6	1.7
Exports of goods and services	1,682	3,162	5,976	33.6	33.6	59.3	4.4	4.6
Imports of goods and services	1,617	3,847	5,116	32.3	40.9	50.8	2.9	2.5
GDP	5,000	9,416	10,075	100.0	100.0	100.0	3.2	2.6
Current account balance	-104	-956	-701	-2.1	-10.2	-7.0	.	.

<i>B GDP by sector</i>	<i>% of GDP</i>				
	1997	2000	2007	2009	2011
Agriculture, forestry and fishing	9.6	8.4	5.3	7.1	8.3
Mining and quarrying	0.2	0.1	0.1	0.1	0.1
Manufacturing	15.8	13.0	10.3	12.8	14.7
Electricity, gas, steam and air conditioning supply	3.6	3.2	3.2	4.2	3.5
Water supply; sewerage, waste management and remediation activities	0.6	0.6	0.9	1.0	0.9
Construction	8.8	9.3	11.6	4.9	4.2
Wholesale and retail trade; repair of motor vehicles and motorcycles	11.6	11.2	10.5	9.2	8.4
Transportation and storage	6.1	5.9	5.5	5.5	5.9
Accommodation and food service activities	1.6	1.9	1.8	1.9	1.9
Information and communication	5.1	5.6	4.5	4.0	4.1
Financial and insurance activities	4.6	6.0	6.4	6.6	6.4
Real estate activities	7.1	7.4	10.3	10.9	10.7
Professional, scientific and technical activities	3.2	3.8	4.3	4.2	4.3
Administrative and support service activities	1.8	2.1	2.4	2.4	2.8
Public administration and defence; compulsory social security	4.9	5.8	5.3	5.8	5.7
Education	5.1	5.2	5.5	5.6	5.5
Human health and social work activities	7.9	8.3	9.3	10.2	9.5
Arts, entertainment and recreation	0.9	0.9	1.2	1.5	1.4
Other service activities	1.3	1.3	1.5	1.7	1.6
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	0.1	0.1	0.1	0.1	0.1
Activities of extra-territorial organisations and bodies	0	0	0.1	0	0
Total	100	100	100	100	100

<i>C Breakdown of employment by industry</i>	<i>Thous.</i>	<i>Percentage breakdown¹</i>						
	<i>man-years</i>	1963	1970	1980	1990	1997	2000 ¹	2011 ¹
	1997							
Agriculture	5,207	13.4	12.4	7.9	4.9	4.0	2.8	2.9
Fisheries	6,115	6.6	6.4	5.3	5.7	4.7	4.0	2.7
Fish processing	7,598	9.7	7.8	9.1	6.1	5.9	4.3	2.6
Manufacturing industry	15,282	15.6	15.2	15.2	12.5	11.9	12.1	9.2
Construction, electricity and water	11,638	11.1	11.4	11.0	10.8	9.0	8.0	6.9
Wholesale & retail trade, restaurants & hotels	20,118	13.7	13.5	13.4	14.5	15.6	17.8	18.4
Transport, storage and communication	8,817	9.6	8.5	7.3	6.7	6.8	7.3	6.8
Finance, insurance, real estate, business services	11,537	2.7	4.0	5.4	8.1	9.0	11.3	15.7
Producers of government services	25,300	9.5	12.4	15.7	18.2	19.6	6.8	4.3
Other services	9,202	7.0	6.9	7.2	7.4	7.1	5.9	2.7
Other	8,018	1.0	1.4	2.4	4.9	6.2	19.6	27.9
Total employment ²	128,832	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1. Figures for the period 1963-1997 show number of man-years by industry. Since 2000, data have been compiled from PAYE returns and show number of employed persons by industry. 2. Unemployed are not included.

Sources: Statistics Iceland, Central Bank of Iceland.

Table A3 Structure of foreign trade

A Exports and imports by basic category 1990-2011

	At current prices (EUR millions)				% of total exports or imports			
	1990	1995	2000	2011	1990	1995	2000	2011
Exports of goods and services	1,684	1,925	3,161	5,974	100.0	100.0	100.0	100.0
Imports of goods and services	1,615	1,728	3,837	5,115	100.0	100.0	100.0	100.0
Goods exports (fob value)	1,247	1,392	2,056	3,842	74.0	72.3	65.0	64.3
Marine products	941	1,001	1,301	1,558	55.9	52.0	41.2	26.1
Manufacturing goods	255	298	643	2,078	15.1	15.5	20.3	34.8
Other goods	51	92	112	205	3.0	4.8	3.5	3.4
Goods imports (fob value)	1,180	1,233	2,572	3,240	73.1	71.3	67.0	63.3
Consumption goods	.	418	817	425	.	24.2	21.3	8.3
Capital goods	.	321	795	314	.	18.6	20.7	6.1
Industrial supplies	.	493	960	2,501	.	28.6	25.0	48.9
Services exports	437	533	1,105	2,133	26.0	27.7	35.0	35.7
Transportation	174	207	533	981	10.3	10.8	16.9	16.4
Travel	119	143	247	537	7.0	7.4	7.8	9.0
Other services	145	183	324	614	8.6	9.5	10.3	10.3
Services imports	435	495	1,265	1,875	26.9	28.7	33.0	36.7
Transportation	132	160	450	564	8.2	9.2	11.7	11.0
Travel	224	217	511	532	13.9	12.6	13.3	10.4
Other services	79	118	304	779	4.9	6.8	7.9	15.2

Sources: Statistics Iceland, Central Bank of Iceland.

B Merchandise exports by commodity group (fob value) 1990-2011

	At current prices (EUR millions)				% of total exports or imports			
	1990	1995	2000	2011	1990	1995	2000	2011
Total goods exports	1,247	1,392	2,056	3,842	100.0	100.0	100.0	100.0
Marine products	941	1,001	1,301	1,558	75.5	71.9	63.3	40.6
Salted and/or dried fish	177	161	280	204	14.2	11.6	13.6	5.3
Fresh fish	161	81	151	156	12.9	5.9	7.3	4.1
Whole-frozen fish	70	149	130	300	5.6	10.7	6.3	7.8
Frozen fish fillets	349	278	376	379	28.0	20.0	18.3	9.9
Frozen shrimp	60	184	137	70	4.8	13.2	6.7	1.8
Fish meal	42	56	128	106	3.4	4.0	6.2	2.8
Fish oil	14	29	26	75	1.1	2.1	1.3	1.9
Other marine products	67	63	73	269	5.4	4.6	3.5	7.0
Agricultural products	24	25	35	61	1.9	1.8	1.7	1.6
Manufacturing products	255	298	643	2,078	20.4	21.4	31.3	54.1
Aluminium	129	147	381	1,443	10.4	10.6	18.6	37.6
Ferrosilicon	33	38	53	149	2.6	2.8	2.6	3.9
Other manufacturing products	93	113	0	487	7.4	8.1	0.0	12.7
Other products	27	68	76	144	2.2	4.9	3.7	3.7
Ships and aircraft	16	49	43	50	1.3	3.5	2.1	1.3
Other products	11	19	33	93	0.9	1.3	1.6	2.4

Sources: Statistics Iceland, Central Bank of Iceland.

Table A3 (continued) Structure of foreign trade

D Geographic distribution of foreign trade (fob value) 1970-2011¹

	<i>Share of total</i>					<i>EUR millions</i>
	1970	1980	1990	2000	2011	2011
<i>Goods exports</i>						
European Union	52.8	52.3	70.7	67.4	78.2	3,030.9
Euro area	25.4	30.2	37.6	42.3	63.1	2,442.0
Other EU countries	27.4	22.0	33.1	25.1	15.1	588.9
United Kingdom	13.2	16.5	25.3	19.3	9.0	346.2
Other Western European countries	2.8	2.3	3.4	7.8	5.1	194.8
Eastern Europe and former Soviet Union	9.6	8.8	2.9	1.4	7.5	289.4
Russia	6.8	5.4	2.5	0.4	3.1	120.2
United States	30.0	21.6	9.9	12.2	3.7	142.2
Japan	0.1	1.5	6.0	5.2	2.5	95.7
Other OECD countries	0.5	0.6	0.5	2.0	1.3	51.5
Developing countries ²	4.2	12.9	5.5	3.0	10.2	392.3
Other countries	0.0	0.0	1.1	1.0	1.4	55.2
Total	100.0	100.0	100.0	100.0	100.0	3,841.7
<i>Goods imports</i>						
European Union	64.9	58.0	59.9	57.0	46.0	1,599.4
Euro area	32.0	33.2	35.5	33.5	26.9	913.3
Other EU countries	33.0	24.8	24.4	23.6	19.1	686.0
United Kingdom	14.3	9.5	8.1	9.0	5.2	179.8
Other Western European countries	5.4	8.1	5.2	9.7	16.3	624.4
Eastern Europe and former Soviet Union	10.4	10.9	6.5	5.7	5.1	195.0
Russia	7.2	9.7	5.0	1.8	0.8	30.1
United States	8.2	9.4	14.4	11.0	10.9	378.1
Japan	2.9	4.0	5.6	4.9	1.6	54.3
Other OECD countries	0.4	5.8	3.7	4.5	2.3	88.0
Developing countries ²	7.2	2.7	3.1	5.6	18.7	720.3
Other countries	0.6	1.1	1.4	1.5	1.6	62.2
Total	100	100	100	100	100.0	3,479.3

1. In data prior to 2000, country groups are based on the year 2000.

Sources: Statistics Iceland, Central Bank of Iceland.

Table A4 National accounts overview

	<i>At current prices (EUR millions)</i>				<i>Volume change on previous year (%)</i>			
	2008	2009	2010	2011	2008	2009	2010	2011
Private consumption	6,201	4,426	4,881	5,232	-7.9	-15.0	0.0	2.7
Public consumption	2,882	2,299	2,462	2,548	4.6	-1.8	-3.4	-0.8
Gross fixed capital formation	2,828	1,199	1,211	1,406	-20.4	-51.4	-8.5	13.0
Industries	1,716	679	739	947	-23.3	-55.8	-0.3	24.9
Housing	635	232	220	248	-21.9	-55.6	-16.8	8.7
Public works and buildings	477	288	253	211	-6.0	-29.9	-21.8	-19.2
Changes in inventories ¹	26	4	-21	29	-0.4	10.0	-0.2	0.6
National expenditure	11,936	7,928	8,534	9,215	0.0	-27.3	-2.6	3.8
Exports of goods and services	5,157	4,583	5,347	5,976	7.0	7.0	0.5	4.1
Exports of goods	3,663	2,901	3,466	3,842	11.5	2.4	-2.0	1.3
Exports of services	1,494	1,683	1,881	2,134	-2.2	18.2	5.1	9.3
Imports of goods and services	5,479	3,837	4,389	5,116	-18.3	-24.0	4.6	6.8
Imports of goods	3,715	2,378	2,723	3,240	-18.1	-27.3	1.8	5.6
Imports of services	1,764	1,460	1,666	1,876	-18.8	-17.0	8.7	8.8
Gross domestic production (GDP)	11,615	8,674	9,491	10,075	1.2	-6.6	-4.0	2.6
Current account balance	-1,632	-996	-760	-701	.	.	.	.
Current account balance, % of GDP	.	.	.	.	-24.6	-11.5	-11.5	-11.5

1. The figures express the increase or reduction in inventories as a percentage of GDP from previous year.

Source: Statistics Iceland.

Table A5 Financial sector indicators

<i>Financial institutions (number of, unless otherwise indicated)</i>	2000	2005	2009	2011
Commercial banks	4	4	4	4
Savings banks	25	24	12	10
Number of employees in commercial banks and savings banks, year end ¹	3,046	3,884	3,653	...
Total assets of commercial and savings banks (EUR billions) ¹	9.6	51.6	16.4	18
Credit undertakings	12	11	11	6
Undertakings engaged in securities	11	11	14	11
Pension funds	56	45	35	32
Insurance companies	12	12	13	13
<i>Financial Markets</i>				
Listed companies on Iceland Stock Exchange (ICEX), now OMXI	75	24	10	9
Market capitalisation of listed companies at end of period (EUR billions)	5	24.3	1.2	1.7
Market capitalisation of listed companies at end of period (% of GDP)	59	182.3	14	17
Annual turnover in listed equities (EUR billions)	2.7	15.2	0.3	0.4
Annual turnover in listed bonds (EUR billions)	4.6	16.7	15.1	16.1
Annual turnover on the Icelandic interbank market for foreign exchange (EUR billions)	10.6	26.3	0.4	3.5
Annual turnover on the interbank currency swap market (EUR billions)	.	0.6	0	0
Annual turnover on the interbank market for krónur (EUR billions)	7.2	20.0	1.6	2.9

1. Parent company basis.

Sources: Financial Supervisory Authority, OMX Nordic Exchange Iceland, Central Bank of Iceland.

Table A6 Government sector indicators

General government revenues and expenditures

<i>% of GDP</i>	2005	2006	2007	2008	2009	2010	2011
Revenue	47.1	47.9	47.7	44.1	41.0	41.4	41.8
Taxes	40.6	41.4	40.5	36.6	33.8	35.0	35.9
on income and wealth	21.0	21.6	21.6	20.6	19.1	20.0	20.9
on production/imports/consumption	19.6	19.8	19.0	16.0	14.7	15.0	15.1
Interest	1.0	1.7	2.3	3.3	3.1	2.1	1.5
Sales of goods and services	3.5	3.2	3.1	3.2	3.1	3.2	3.1
Other income	2.0	1.6	1.7	0.9	1.0	1.2	1.4
Expenditure	42.2	41.6	42.3	57.7	51.0	51.5	47.3
Wages	15.6	15.3	14.8	14.6	15.0	14.8	14.5
Purchases of goods and services	10.7	10.6	10.8	11.6	12.5	12.2	11.7
Interest	2.2	2.2	2.6	3.3	6.6	5.5	5.1
Subsidies	2.0	1.7	1.8	1.8	1.9	1.8	1.7
Current transfers	6.7	6.3	6.3	6.7	8.9	8.6	9.2
Fixed investment	3.1	3.9	4.2	4.5	3.5	2.9	1.8
Capital transfers	0.8	0.7	0.6	13.7	1.2	4.6	1.8
Other	1.1	1.0	1.2	1.4	1.4	1.2	1.4
Memorandum item: Public consumption	4.9	6.3	5.4	-13.5	-10.0	-10.1	-5.4

*Government expenditure by function**General government, % of GDP*

Administration, safety, defence ¹	4.3	4.1	4.3	4.6	4.8	4.7	4.7
Education	8.3	8.3	8.1	8.4	8.6	8.3	7.9
Health services	8.1	7.9	7.9	7.9	8.3	7.9	7.6
Social security	9.1	8.3	8.5	8.9	11.3	11.2	11.7
Other social affairs ²	4.4	4.9	4.9	5.0	4.9	6.8	4.4
Economic services	5.8	5.9	5.8	19.5	6.3	7.0	5.7
Interest expenditure	2.3	2.3	2.7	3.5	6.8	5.6	5.2

Central government, % of GDP

Expenditure	31.0	30.0	30.8	45.2	38.1	40.0	36.2
Administration, safety, defence ¹	4.1	4.0	4.3	4.5	4.7	4.6	4.7
Education	3.4	3.3	3.3	3.4	3.5	3.5	3.2
Health services	8.0	7.8	7.7	7.7	8.5	8.0	7.7
Social protection	7.3	7.0	7.3	7.1	8.2	8.9	9.2
Other social affairs ²	1.7	1.7	1.8	1.7	1.8	3.8	1.6
Economic services	4.7	4.4	4.3	18.0	5.2	6.2	5.0
Interest expenditure	1.8	1.7	2.1	2.8	6.1	5.0	4.6

Local government, % of GDP

Expenditure	12.6	13.5	13.5	13.9	13.6	13.4	13.3
Administration and safety	1.0	0.9	1.0	1.1	1.0	1.1	1.1
Education	5.0	5.0	4.9	4.9	5.0	4.9	4.7
Health services	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Social protection	2.1	2.0	2.1	2.2	2.5	2.6	3.2
Other social affairs ²	2.8	3.3	3.2	3.3	3.1	3.1	2.9
Economic services	1.2	1.6	1.6	1.6	1.2	1.0	0.8
Interest expenditure	0.5	0.6	0.6	0.7	0.7	0.6	0.6

1. Excluding interest expense. 2. Culture, religion, recreation, housing and community affairs, environment protection.

Source: Statistics Iceland.

Table A7 Balance of payments

<i>EUR millions</i>	1990	2000	2005	2007	2011 ¹
Current account	-104	-956	-2,121	-2,351	-701
Balance on goods, services and income	-101	-946	-2,099	-2,307	-649
Exports	1,749	3,318	5,299	8,401	6,781
Imports	-1,851	-4,264	-7,399	-10,707	-7,430
Balance on goods and services	67	-676	-1,604	-1,507	859
Exports	1,684	3,161	4,133	5,149	5,974
Imports	-1,617	-3,837	-5,737	-6,656	-5,115
Balance on goods	65	-516	-1,191	-1,004	602
Merchandise exports f.o.b.	1,246	2,056	2,495	3,493	3,842
Marine products	942	1,301	1,409	1,457	1,558
Aluminium and ferro-silicon	162	435	538	1,007	1,592
Ships and aircrafts	16	43	123	544	50
Other goods	126	276	423	485	641
Merchandise imports f.o.b.	-1,182	-2,572	-3,686	-4,497	-3,240
Investment goods	-219	-611	-860	-1,022	-708
Transport equipments	-218	-440	-745	-968	-280
Fuels and lubricants	-117	-238	-346	-401	-472
Industrial supplies	-311	-597	-884	-1,161	-1,024
Consumer goods	-315	-687	-851	-944	-756
Balance on services	2	-160	-412	-502	258
Exports of services, total	438	1,105	1,638	1,656	2,133
Transportation	174	533	867	734	981
Air transport	94	416	717	592	0
Sea transport	81	117	150	142	0
Travel	119	247	333	436	537
Other services	145	324	438	486	614
Communications services	12	11	7	10	0
Insurance services	5	6	7	9	0
Government services	95	116	69	9	0
Other not elsewhere specified	33	191	355	458	0
Imports of services, total	-435	-1,265	-2,050	-2,158	-1,875
Transportation	-132	-450	-711	-643	-564
Travel	-224	-511	-788	-963	-532
Other services	-79	-304	-552	-553	-779
Communications services	-9	-2	-35	-33	0
Insurance services	-12	-6	-33	-27	0
Government services	-7	-17	-18	-18	0
Other not elsewhere specified	-51	-280	-467	-475	0
Balance on income	-168	-269	-496	-800	-1,508
Receipts	65	157	1,166	3,252	807
Compensation of employees	36	76	59	18	15
Investment income	29	81	1,107	3,233	792
Dividends and reinvested earnings	5	28	811	1,473	342
Interest payments	24	53	296	1,761	450
Expenditures	-234	-427	-1,662	-4,051	-2,315
Compensation of employees	-9	-12	-20	-39	-4
Investment income	-224	-415	-1,642	-4,012	-2,311
Dividends and reinvested earnings	-6	-9	-847	-742	-96
Interest payments	-219	-406	-796	-3,270	-2,214
Current transfer, net	-3	-10	-22	-44	-53
Public transfer, net	-5	-11	-20	-41	-31
Private transfer, net	2	1	-2	-3	-22

1. Preliminary figures. 2. Positive number represents inflow of capital due to foreign borrowing or decrease in assets. Negative number accounts for outflow of capital, debt repayment, or increase in assets.

Source: Central Bank of Iceland.

Table A7 (continued) Balance of payments

<i>EUR millions</i>	1990	2000	2005	2007	2011 ¹
Capital and Financial Account	126	1,137	1,777	2,863	185
Capital transfer, net	2	-3	-22	-22	0
Financial account ²	124	1,141	1,798	2,885	185
Financial account excl. reserves	181	1,061	1,859	2,961	2,237
Direct investment, net	8	-241	-3,232	-2,458	850
Abroad	-9	-427	-5,715	-7,448	56
Equity capital	-4	-437	-4,154	-7,342	-154
Reinvested earnings	-5	-6	-695	-366	-82
Other capital	0	16	-865	260	292
In Iceland	17	185	2,483	4,990	794
Equity capital	1	228	1,316	1,876	19
Reinvested earnings	-10	-21	803	445	85
Other capital	27	-21	364	2,669	690
Portfolio investment, net	20	689	9,824	-6,559	-6,338
Assets	0	-599	-3,775	-6,924	-647
Equities	0	-670	-2,631	-3,303	64
Debt securities	0	71	-1,144	-3,621	-711
Bonds and notes	0	67	-1,146	-3,619	-330
Money-market instruments	0	4	1	-2	-381
Liabilities	20	1,288	13,599	366	-5,690
Equities	0	-17	67	143	-8
Debt securities	20	1,305	13,532	223	-5,683
Bonds and notes	-1	1,247	13,433	-151	-5,623
Money-market instruments	21	58	99	373	-60
Financial derivatives, net	-1	-1	0	0	0
Assets	-1	17	0	0	0
Liabilities	0	-18	0	0	0
Other investment, net	153	614	-4,734	11,978	7,724
Assets	-41	-98	-8,788	-12,301	3,054
Loan	0	-43	-7,452	-6,157	1,852
Deposits	-21	-35	-1,350	-6,204	1,190
Trade credits	0	0	3	22	3
Other capital	-20	-20	11	38	8
Liabilities	194	712	4,054	24,278	4,670
Loans	180	713	3,680	12,709	-22
Long-term borrowing	200	383	2,073	4,213	-8
Short-term borrowing	-20	330	1,607	8,496	-13
Deposits	0	-14	314	11,538	-2,661
Trade credits	14	1	56	32	53
Other capital	-1	12	3	0	7,301
Reserve assets	-57	80	-60	-76	-2,052
Net errors and omissions	-22	-181	345	-513	517
<i>Memorandum items:</i>					
Debt securities, loan etc., net	214	2,017	17,586	24,501	-1,012
Long-term borrowing, net	199	1,630	15,505	4,062	-5,631
Monetary authorities	-1	0	0	0	835
General government	14	67	-279	86	206
Deposit banks	-12	1,048	14,485	2,289	5
Other sectors	198	515	1,299	1,687	-6,677
Short-term borrowing, net	15	387	2,080	20,439	4,619
Monetary authorities	-1	148	0	-1	-188
General government	21	158	-162	0	-60
Deposit banks	-8	-29	2,183	20,552	-343
Other sectors	2	110	59	-112	5,210
Conversion rate: ISK per EUR	74,18	72,61	78,14	87,60	161,42

Table A8 Projected external debt service¹

<i>EUR millions</i>	2012	2013	2014	2015	2016	2017	<i>Principal thereafter</i>	<i>Total</i>
Government								
Principal	214	112	233	673	1,268	278	1,947	4,725
Interest ²	99	193	179	169	120	89		
Total	313	305	412	842	1,388	367		
MA & Treasury								
Principal	176	36	192	633	1,268	278	1,947	4,529
Interest ²	96	188	177	168	120	89		
Total	272	224	369	800	1,388	367		
Local government								
Principal	38	76	41	41	0	0	0	195
Interest ²	3	5	3	1	0	0		
Total	41	81	43	42	0	0		
Banks								
Principal	0	0	0	0	0	0	0	0
Interest ²	0	0	0	0	0	0		
Total	0	0	0	0	0	0		
Other credit institutions								
Principal	21	54	54	54	69	11	38	303
Interest ²	2	4	3	2	1	1		
Total	24	58	57	57	70	12		
Other sectors								
Principal	201	459	844	396	327	354	1,698	4,278
Interest ²	43	78	65	53	41	34		
Total	244	537	908	449	368	388		
Total payments								
Principal	436	625	1,131	1,124	1,664	643	3,683	9,306
Interest ²	144	275	247	224	162	124		
Total	580	900	1,378	1,348	1,826	767		
Old banks³								
Principal	4,804	1,466	389	2,477	2,433	2,067	504	14,140
Interest ²	249	363	320	232	125	50		
Total	5,054	1,830	708	2,709	2,558	2,117		
Grand total								
Principal	5,241	2,092	1,519	3,601	4,097	2,710	4,186	23,446
Interest ²	393	638	567	456	287	174		
Total	5,634	2,730	2,086	4,056	4,384	2,883		

1. Based on debt outstanding at end of June 2012. 2. Floating interest rate is assumed according to latest market rates available. 3. Former DMBs in winding-up process.

Source: Central Bank of Iceland.