The Economy of Iceland

ECONOMY OF ICELAND

2010

Contents

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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	317,630 (1 January 2010)
Capital	Reykjavík, population 118,427 (1 December 2009)
Language	Icelandic; belongs to the Nordic group of Germanic languages
Main religion	Evangelical Lutheran (79.2%)
Life expectancy	Females: 83 years, Males: 79 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	8.7 billion euros (1,500 billion krónur, 11.70 billion US dollars) in 2009
International trade	Exports of goods and services 53% and imports of goods and services 43% of GDP in 2009
Per capita GDP	30 thousand euros in 2009 (4.7 million krónur, 35.1 thousand US dollars 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

Republic of Iceland credit ratings

		Foreign currency		*Domestic currency*		
	Affirmed	*Long-term*	*Short-term*	*Long-term*	*Short-term*	*Outlook*
Moody's	July 2010	Baa3	P-3	Baa3	P-3	Negative
Standard & Poor's	March 2010	BBB-	A-3	BBB	A-3	Negative
Fitch	January 2010	BB+	B	BBB+		Negative
R&I Rating of Japan	January 2010	BBB-				Negative

Central Bank of Iceland publications in English

Annual Report
Monetary Bulletin
Financial Stability
Economy of Iceland
Economic Affairs
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 mainly intended 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 annually.

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 provides a short summary of recent economic and financial developments. Chapter 2 presents basic facts about Icelandic geography, population and society. Chapter 3 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 4 provides an account of the financial system and discusses the various challenges facing the financial system following the financial crisis. Chapter 5 surveys the public sector, including division of tasks, expenditure structure, and the tax system. It also describes the challenges faced by the Government following the collapse of the banking system, the fiscal consolidation plan, and developments in sovereign credit ratings. Chapter 6 describes the frameworks for monetary policy and financial stability. It explains the objective of the monetary policy, its main instruments, 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 7 presents Iceland's external debt position. It elaborates on the accumulation of debt in the years preceding the financial crisis and the increase in foreign direct investment. Chapter 8 describes Government, corporate and household balance sheets. It discusses the pre-crisis build-up of household and corporate debt and the position of the Government, households and businesses 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 increase 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 Recent economic and financial developments

This chapter focuses on economic and financial developments in Iceland over the past decade. It describes the economic upswing and expansion of the banking system and the ensuing financial crisis and recession. Policy responses to the crisis and recent economic developments are also described.

The common and the unique character of the Icelandic saga

Economic and financial developments in Iceland during the last decade reflect a combination of two separate but interrelated stories. On the one hand, there is Iceland's boom-bust cycle and its difficulties with macroeconomic management in a small, open, and financially integrated economy. This is a well-known story that has been played out in Iceland and other countries several times in the past. On the other hand, there is the story of the rise and fall of three cross-border banks operated on the basis of European Union legislation (the European passport), which is more unique than the first.

The boom-bust cycle

While growth was initially spurred by investments in the aluminium and power sectors starting in 2003, amounting to the equivalent of 1/3 of that year's GDP, it became increasingly imbalanced. The origin of the growing imbalances can be traced back to structural changes in the domestic mortgage market in 2004, with new legislation allowing a large Government-owned mortgage lender to offer higher loan-to-value ratios. This triggered a strong response from the newly privatised commercial banks, resulting in increased competition through ever-lower mortgage rates and significantly easier access to credit.

A key element behind the overheating of the domestic economy was a domestic credit boom and asset price bubble driven by capital inflows. This was accompanied by a substantial appreciation of the króna. The imbalances were further exacerbated by Government decisions, including tax cuts and repeated spending overruns. A large consumption boom and escalating external imbalances followed.

Notwithstanding substantial tightening of monetary policy, inflation started to drift above target in late 2004, after having been close to target since late 2002. Inflation eventually moved outside the 4% threshold band and has for the most part remained outside it since September 2005.

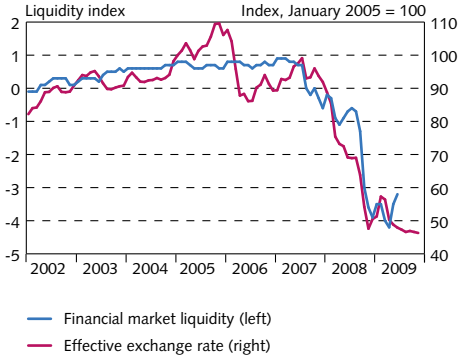
The macroeconomic imbalances were too pronounced for monetary policy alone to contain them. Other aspects of economic policy would have needed tightening, in particular the fiscal stance. Furthermore, the tighter monetary policy attracted carry trade driving the exchange rate even higher in the process.

The rise and fall of the cross-border banks

Following the privatisation of Iceland's State owned banks, the banks grew phenomenally, expanding their balance sheets many times over between 2004 and 2008. They established branches overseas and acquired other financial companies through leveraged buyouts. Because Iceland is a member of the European Economic Area (EEA), an Icelan-

Chart 1.1

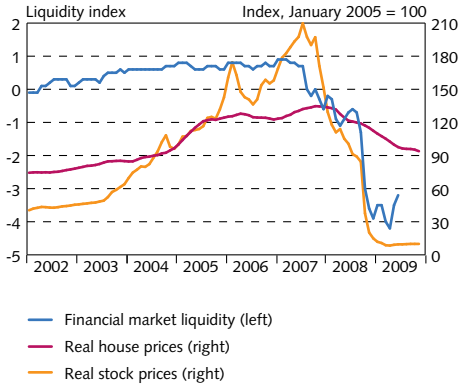
International financial market liquidity and the króna exchange rate[1]



1. The liquidity index shows the number of standard deviations from the mean (exponential moving average) from a simple average of nine liquidity measures, normalised on 1999-2004.
Sources: Bank of England, Central Bank of Iceland.

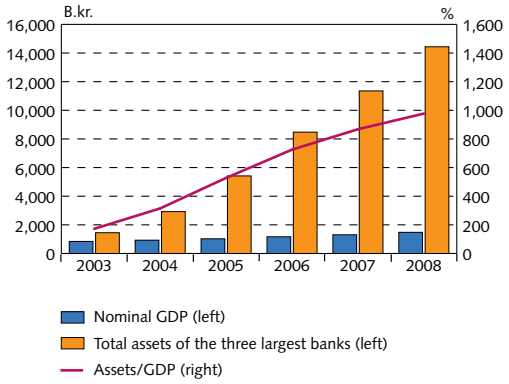
Chart 1.2

International financial market liquidity and Icelandic asset prices[1]



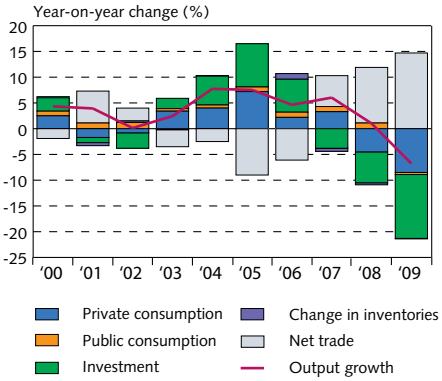
1. The liquidity index shows the number of standard deviations from the mean (exponential moving average) from a simple average of nine liquidity measures, normalised on 1999-2004.
Sources: Bank of England, Central Bank of Iceland.

Chart 1.3
Total assets of the three largest banks/GDP[1]



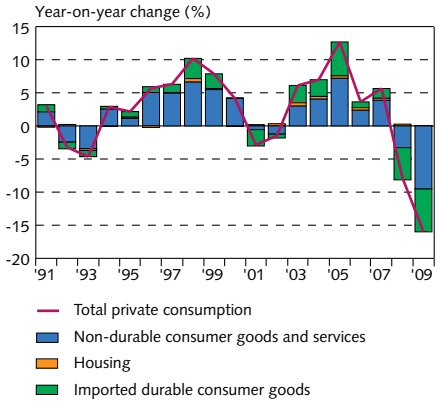
1. Data for 2008 are from mid-year.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 1.4
Output growth and contribution of underlying components



Source: Statistics Iceland.

Chart 1.5
Private consumption and contributions of its main components



Source: Statistics Iceland.

dic operating licence allowed the banks to provide full banking services in the EEA, including operating subsidiaries and branches in other EEA and EU member states.

The banks took advantage of the situation in global finance markets, with ready access to foreign credit at low interest rates, to expand at a fast rate. Furthermore, solid credit ratings from international rating agencies greatly facilitated their access to global bond markets.[1] Right before their collapse, the total assets of the Icelandic banks amounted to around 11 times GDP.

Although the banks had their headquarters in Iceland and were majority-owned by Icelanders, they were only partly Icelandic, in that a large share of their activities took place overseas. Over 40% of total assets were in foreign subsidiaries, 60% of total lending was to non-residents, and 60% of income was from foreign sources. Over two-thirds of lending and over three-quarters of deposits were denominated in foreign currency, notably in pounds sterling. By comparison, the reserves of the Central Bank of Iceland were 21% of GDP and 35% of GDP, including a swap agreement with the Nordic countries and committed credit lines. This meant that the Bank had limited resources for lender of last resort operations in terms of foreign exchange.

Ever-increasing doubts about the viability of the banking system, coupled with deteriorating access to global liquidity, led to a sudden stop of capital inflows in early 2008, as the FX swap market, the main channel of inflows and an important wholesale funding market for the Icelandic banks, broke down. The Icelandic authorities tried to build credible defences by negotiating swap lines with central banks in neighbouring countries but were refused by all but the other Nordic countries. At the same time, Parliament approved a major extension of the Government's borrowing limit in order to expand the foreign exchange reserves.

The two stories converge

The two stories converged in a dramatic way in early October 2008, when nearly nine-tenths of Iceland's banking system collapsed in a single week when its three large cross-border banks – Glitnir, Landsbanki, and Kaupthing – were taken into special resolution regimes on the basis of emergency legislation that had just been passed by Parliament.

At that time, the economy had already entered a phase of inevitable economic adjustment. The stop of capital inflows in late 2007 weakened the króna and pricked the domestic asset price bubble, leading to a sharp adjustment of domestic demand.

The banks' large foreign currency balance sheets and their size relative to their home base were to prove a key vulnerability that contributed to their demise in the conditions that arose in the autumn of 2008. Prior to the banks' collapse, their balance sheets had expanded to almost 11 times GDP, with the foreign currency part amounting to ⅔ of that total, or almost 7½ times GDP.

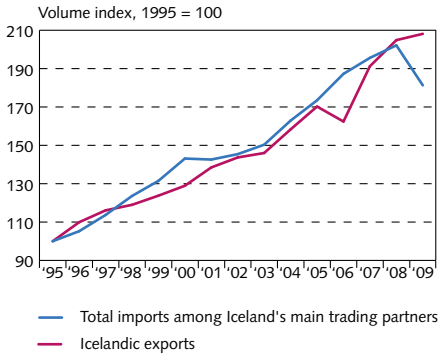
Iceland's cross-border banks collapsed shortly after the failure of Lehman Brothers in the panic of autumn 2008, because of a run on

1. These solid ratings either reflected a serious mispricing of risk or internalised a perceived but unpriced Government guarantee of the banks.

their foreign currency. As is mentioned above, the Icelandic authorities' capacity to substitute private FX funding with public funding was limited and entailed significant risk. Domestic financial markets seized up and entered a new and deeper state of crisis. With the collapse of the banking system, the domestic market became disconnected from the offshore market, where the króna continued to depreciate.

While the dynamics of the build-up and aftermath of the Icelandic banking crisis are similar to many previous crises, the Icelandic crisis stands out in terms of scale. As a share of GDP, the Icelandic banking system is the largest banking system ever to have collapsed; furthermore, the level of indebtedness of Iceland's private sector is unprecedented, and foreign currency debt is excessively high compared to other crisis-stricken countries.

Chart 1.6
World trade and Icelandic exports



Sources: OECD, Central Bank of Iceland.

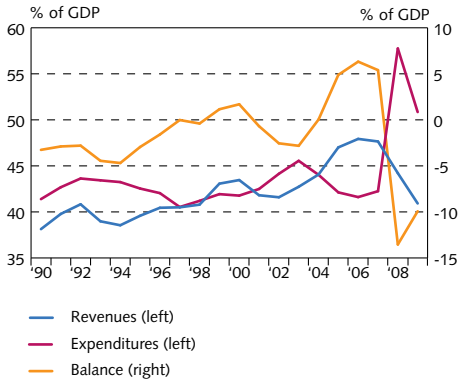
A sharp recession

The Icelandic economy was already on its way into recession when the banks collapsed. This was the consequence of the subsiding of the huge macroeconomic imbalances that had built up in the economy during the upswing. Furthermore, the currency crisis had hit several months before the banks collapsed. However, the collapse of the banks added fuel to the recessionary forces, and so did the international contraction in world trade and economic activity in the last months of 2008 and the first half of 2009. The most recent figures from Statistics Iceland (September 2010) show a 6.8% contraction in output in 2009, followed by a 7.3% contraction in the first half of 2010, as compared to the same period the year before. Yet even this does not fully reflect the large adjustments in domestic expenditure, with private consumption collapsing by 16% in 2009 and close to 22% from mid-2008 to mid-2010. With investment also falling by 60% from mid-2008 to mid-2010, partly due to the completion of large investment projects, domestic demand fell by close to 27% over the same period.

This adjustment of the real economy was also reflected in a sharp drop in employment levels and an unprecedented increase in unemployment, with the jobless rate rising from roughly 1% in Q3/2008 to 8% in Q1/2009. An important factor explaining why unemployment has not risen even further, given the large contraction in domestic demand, is the composition of the adjustment in domestic expenditure. With a significant share of the drop in private consumption directed towards imported durable goods, import penetration fell from a previously high level and led to a large positive contribution to growth from net exports, resulting in a much smaller loss of output and jobs. Also affecting this is the fact that Icelandic export volumes have not been hit by the global demand contraction to the same extent as in many other countries. This transfer of expenditure towards the domestic economy and the relative strength of exports have been further facilitated by the plunge in the exchange rate.

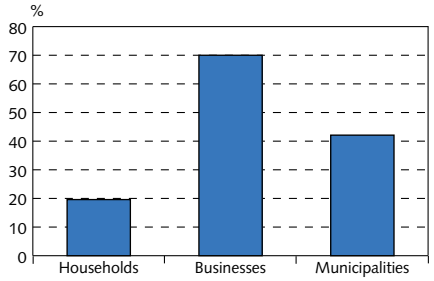
Government finances came under strain as a result of the financial and economic crisis. The general government balance turned from a surplus of 5½% of GDP in 2007 to a deficit of 13½% a year later, as the Government had to recapitalise the banking system and the Central Bank. The Government also faced a steep decline in revenues with

Chart 1.7
General government finances 1990-2009



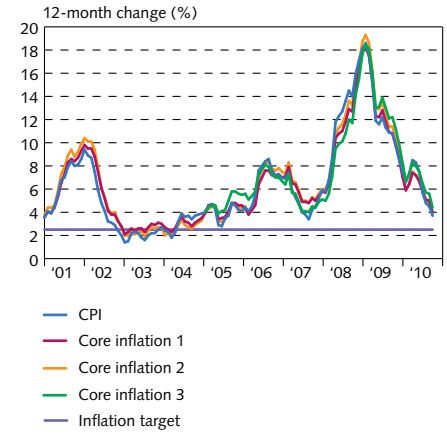
Source: Central Bank of Iceland.

Chart 1.8
Proportion of total foreign-denominated debt



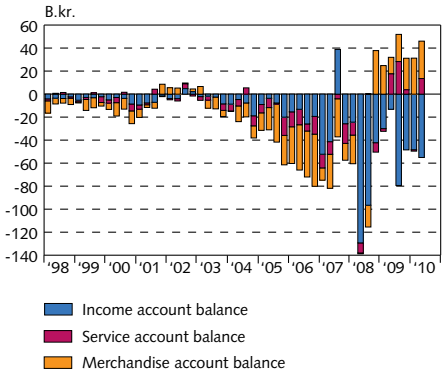
Source: Central Bank of Iceland.

Chart 1.9
Inflation January 2001 - September 2010[1]



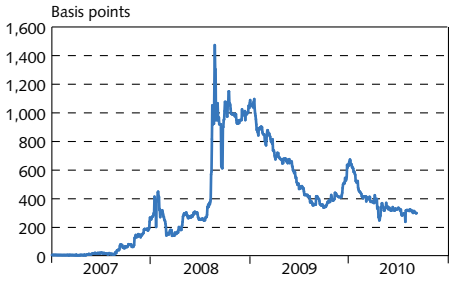
1. The core indices are compiled on the same basis as the CPI, with Core Index 1 excluding prices of agricultural products and petrol, and Core Index 2 excluding prices of public services as well. Core Index 3 also excludes the effect of changes in mortgage rates.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 1.10
Current account balance components[1]
Q1/1998 - Q2/2010



1. Net current transfer is included in balance on income.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 1.11
CDS Iceland
Daily data 29 March 2007 - 17 September 2010



Source: Bloomberg.

the collapse of domestic demand, asset prices and the real exchange rate, concurrent with rising costs associated with higher unemployment.

Policy responses to the crisis

At the end of October 2008, the Icelandic Government reached an agreement with the International Monetary Fund (IMF) on an economic stabilisation programme, under a two-year Stand-By Arrangement supported by a loan of 2.1 billion US dollars (185 b.kr.) (see Box 1.1). This agreement was followed by bilateral loan commitments from European neighbours and other loan commitments and standing facilities. Together, they provide funding amounting to roughly 5 billion US dollars (650 b.kr), or approximately 43% of Iceland's 2009 GDP at mid-year 2010 exchange rates.

Because Government debt was low prior to the crisis, automatic stabilisers were allowed to work fully in 2009. However, the Government's deteriorating debt position provides limited scope for further fiscal stimulus, with broad-based fiscal consolidation measures taking effect from 2010 to ensure a sustainable debt path. The limited scope for fiscal stimulus has been partly compensated by permitting withdrawals from third-pillar private pension savings, which has benefited many liquidity-constrained households. In terms of GDP, the size of the pension withdrawal scheme is broadly similar to fiscal stimulus packages that many other countries adopted in response to the crisis.

With the króna depreciating by roughly 50% in 2008, both in trade-weighted terms and against the euro, domestic balance sheets sustained a heavy blow, as households and businesses were not only heavily indebted but also had a large share of their debt denominated in foreign currency. The currency depreciation therefore came on the heels of a drastic reduction in credit supply, enormous losses of private sector wealth, and a steep drop in disposable income. This was further aggravated by a surge in inflation, which peaked at 18½% in January 2009, dealing another blow to household balance sheets because of widespread inflation-indexed debt.

To support the króna in the wake of the currency crisis, the Central Bank's policy rate was initially raised to 18%. Furthermore, temporary but comprehensive capital controls were introduced to curb the threat of massive capital flight from non-residents and residents alike. These measures have provided support for the currency, as have gradually declining risk premia and a decisive current account reversal.

The road to recovery

The collapse of the banking system has been costly, but progress is being made towards stabilising the economy and returning it to sustainable growth. Macroeconomic developments have been more positive than expected at first, and the contraction in 2009 turned out to be smaller than initially feared. The low real exchange rate and favourable developments in terms of trade have contained the contraction in GDP and generated a surplus to finance the economy's sizeable external debt. Immediately after the banks collapsed, a surplus developed in the merchandise account, and in the services account somewhat later.

The current account balance was negative by 2% of GDP in 2009, but excluding accrued interest due to credit institutions in winding-up proceedings it turned positive by 1.8% of GDP in the first quarter of 2010. Furthermore, the flexibility of the Icelandic labour market has facilitated the economy's adjustment. Labour market participation has declined, hours worked have fallen, and emigration from Iceland has been more pronounced than in earlier recessions. The adjustment has been accompanied by an increase in productivity.

Inflation declined significantly beginning in the latter half of 2009 and, had moved inside the 4% threshold band by early autumn 2010. The króna remained broadly stable in trade-weighted terms in the latter half of 2009 and appreciated by over 9% in the first half of 2010, without any Central Bank intervention in the foreign exchange market since November 2009. Risk premia on Icelandic financial obligations, as measured by the sovereign CDS spread, have also declined and remained fairly stable since early summer, albeit at quite high levels.

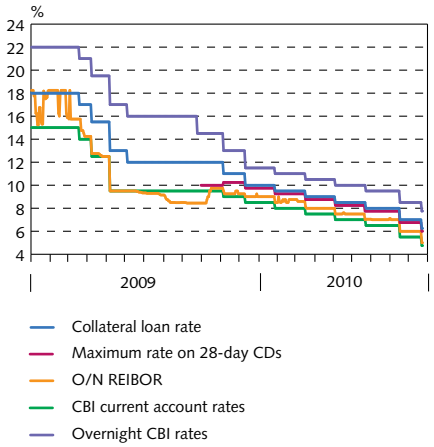
The appreciation of the króna, the reduction in external risk premia, and falling inflation have enabled the Central Bank to cut interest rates significantly from their peak in early 2009. The first step towards lifting capital controls was taken in October 2009, with the abolition of restrictions on inflows. Further plans to remove restrictions on outflows in sequenced steps have been made public. However, the timing of the removal of capital controls will depend on progress in building a sound financial system and solving external financial issues.

By mid-2010, the Government had implemented most of its medium-term fiscal consolidation measures, in line with the goals of the IMF programme, and the general government deficit fell from 13½% in 2008 to 9% in 2009. The restructuring of the financial system has progressed, with the three new banks in full operation and two of them majority-owned by the foreign creditors of their predecessors. The savings banks are also undergoing financial restructuring. Furthermore, two reviews have been completed under the IMF programme, with the third review scheduled in late September 2010.

Chart 1.12

Central Bank of Iceland interest rates and short-term market interest rates

Daily data 1 January 2009 - 23 September 2010



Source: Central Bank of Iceland.

Box 1.1

The IMF programme

On 28 October 2008, Iceland requested a two-year Stand-By Arrangement with the International Monetary Fund (IMF). The programme which was approved by the Executive Board of the Fund on 19 November 2008, involves a 2.1 billion US dollar (264 b.kr.) Stand-By Arrangement (SBA) to support the country's programme to restore economic stability. The SBA confers exceptional access to IMF resources, amounting to 1,190% of Iceland's quota with the IMF, and was approved under the Fund's fast-track Emergency Financing Mechanism procedures. The programme consists of three main objectives:

(i) To contain the negative impact of the crisis on the economy by restoring confidence and stabilising the exchange rate in the near term;

(ii) To promote a viable domestic banking sector and safeguard international financial relations by implementing a sound banking system strategy that is non-discriminatory and collaborative;
(iii) To safeguard medium-term fiscal viability by limiting the socialisation of losses in the collapsed banks and implementing an ambitious multi-year fiscal consolidation programme.

The funding from the IMF was followed by bilateral loan commitments amounting to 2.4 billion US dollars (302 b.kr.) from Denmark, the Faroe Islands, Finland, Norway, Sweden, and Poland. An agreement concluded between the Central Bank of Iceland and the Banque centrale du Luxembourg in May 2010 contributed an additional 0.6 billion US dollars (78.4 b.kr.) to the funding needs of the programme. The total amount of avaliable funding is therefore 5 billion US dollars (638 b.kr.), or approximately 43% of Iceland's 2009 GDP at mid-2010 exchange rates.

The approval of the SBA in November 2008 made SDR 560 million (115 b.kr) available immediately, with the remainder to be disbursed in seven equal instalments, subject to IMF Executive Board reviews. The agreements with the Nordic countries, including the Faroe Iceland, and Poland allow the Icelandic Government to draw on the aforementioned loans as needed, after each of the first four IMF reviews. The SBA has been extended until end-August 2011 to compensate for delays in programme reviews. As of this writing, three of seven programme reviews have been completed.

2 Country and people

This chapter sheds light 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

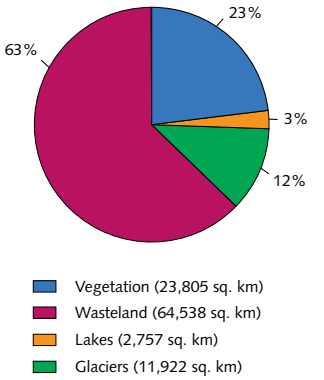
Iceland is located in the North Atlantic, between Norway, Scotland and Greenland. It is the second-largest island in Europe and the third-largest in the Atlantic Ocean, with a land area of some 103 thousand square kilometres, a coastline of 4,970 kilometres and a 200-nautical-mile exclusive economic 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 below zero 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 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.

Chart 2.1
Geography of Iceland[1]



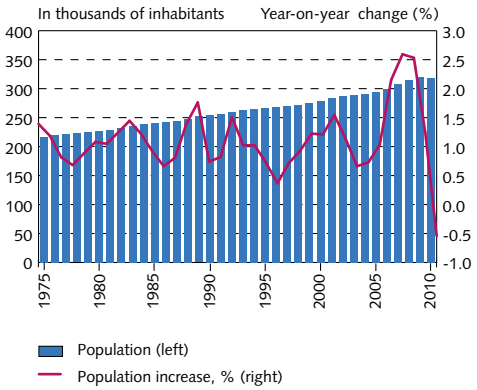
1. The size of Iceland is 103,000 square kilometres.
Source: Statistics Iceland.

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.

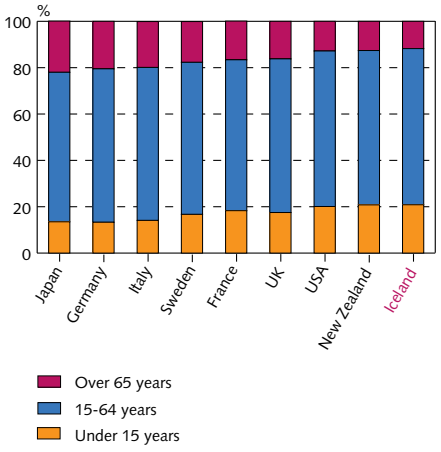
With only 3 inhabitants per square kilometre, Iceland is one of the least densely populated countries in Europe. On 1 January 2010, Iceland's population was almost 318 thousand. In 2009, the

Chart 2.2
Population of Iceland 1975-2010[1]



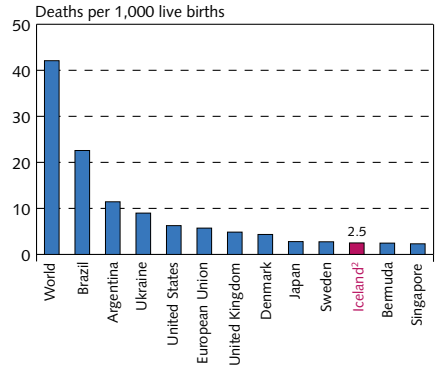
1. Population 1 January each year. The figures for 1 January 2008 have been revised upwards.
Source: Statistics Iceland.

Chart 2.3
Age structure of the population in selected countries 2008[1]



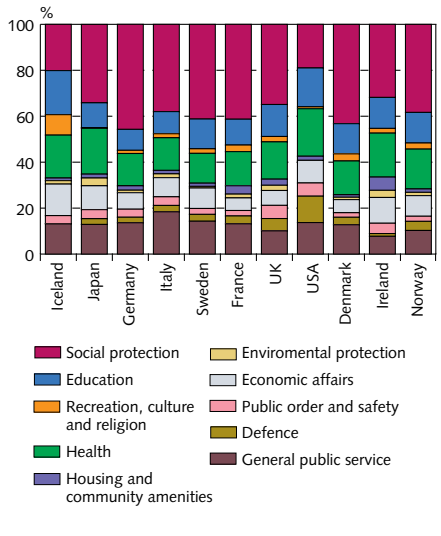
1. Ranked by share of population 65 and over.
Data for Iceland are for 2009.
Sources: OECD, Statistics Iceland.

Chart 2.4
Infant mortality in 2009[1]



1. Estimated figures.
2. Data for 2008.
Source: CIA World Factbook.

Chart 2.5
General government expenditure by economic types and functions in 2007[1]



1. Percentage breakdown of total expenditure.
Sources: OECD, Statistics Iceland.

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 2000–2009, annual average population growth was 1.5% and the natural increase (births less deaths) 0.9%. Around 63% of the population (some 200 thousand) live in the capital city of Reykjavík and its surrounding municipalities. The largest town outside the capital area is Akureyri, located in North Iceland, with a population of 17,295. 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 2009, despite high life expectancy, the ratio of the total population aged over 65 to the population of working age was 17%, sixth-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 28% of GDP in 2009.

Life expectancy, which is among the highest in the world, and one of the world's lowest infant mortality rates (2.5 per 1,000 live births in 2008) 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 2007, 30% of the population held a university degree, up from 21% in 1997. 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.

Political structure

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 Gov-

ernment 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 coalition 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.

External relations

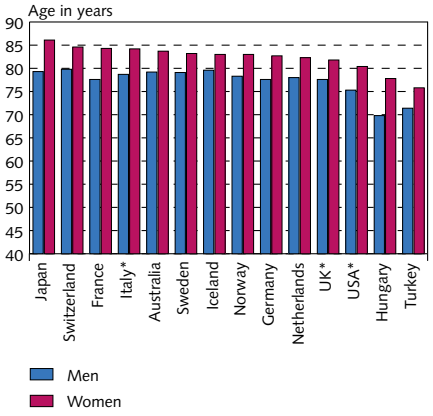
Iceland has participated actively in international cooperation. It belongs to a group of Nordic countries that includes Denmark, Sweden, Norway and Finland, as well as Greenland and the Faroe Islands. The Nordic countries have established wide-ranging cooperation in a variety of fields, including economic affairs and international representation, in which the Baltic States 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.

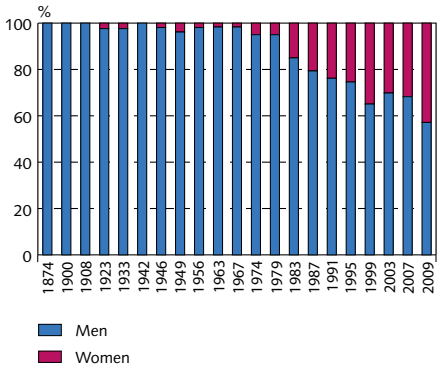
In 1964, Iceland became a party to the General Agreement on Tariffs and Trade (GATT), the predecessor to the World Trade Organization (WTO). Iceland joined the European Free Trade Association (EFTA) in 1970 and entered into a free trade agreement with the European Economic Community in 1972. In May 1992, the member states

Chart 2.6
Life expectancy at birth 2008



1. Data for 2007.
Source: OECD.

Chart 2.7
Elected members of Parliament in Althingi by gender[1]



1. Percentages of total number of members of Parliament in Althingi. In 1874, the number of congressmen was 36 (all men), but from 1987 and onwards the number of members of Parliament had risen up to 63.
Source: Statistics Iceland.

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 countries such as Canada, Chile, Croatia, Egypt, Israel, Jordan, Lebanon, Macedonia, Mexico, Morocco, the Palestinian Authority, Singapore, the South African Customs Union (SACU), the Republic of Korea, Tunisia, and Turkey. In addition, ratification of Free Trade Agreements with Columbia, the Gulf Co-operation Council, Albania, and Serbia are still awaited. Also, free trade discussions with Peru were completed last year, and it is proposed that the Free Trade Agreement be signed this year. Work is in progress on FTAs with Hong Kong, India, Ukraine, Thailand, and Algeria. Iceland has enacted bilateral Free Trade Agreements with Greenland and the Faroe 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 US maintained a permanent military presence at a base in Iceland from 1951 until 2006. Peacetime defence is now the responsibility of the Icelandic Government, but arrangements have been made for the return of US forces in times of crisis or war, and there is broad cooperation with Denmark, Norway, and France regarding security and defence.

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.

Table 2.1 Iceland's membership in international organisations

	Year of association
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

3 Structure of the economy

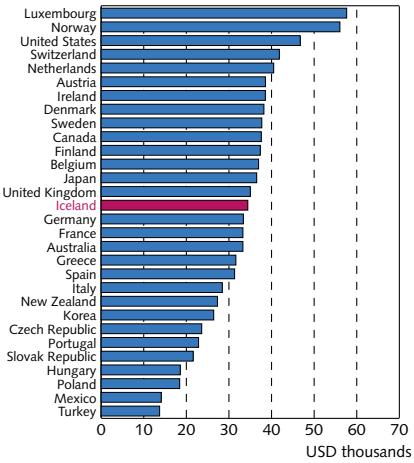
This chapter discusses the structure of the Icelandic economy, mainly with regard to size composition of output and expenditure, and foreign investment. Different sectors of the economy are analysed focusing on recent developments and the contribution of each sector to GDP. Finally, the labour market 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 the big 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 8.7 billion euros (1,500 b.kr) in 2009. This amounted to around 1/1000 of the US economy, $^{1}/_{25}$ of the Danish economy, and ¼ of the economy of Luxembourg, while it is 50% larger than the economy of Malta. The small size of the Icelandic economy mainly reflects the small size of the population, which was just under 318 thousand on 1 January 2010.

Iceland has all the characteristics of a modern welfare state. GNI per capita measured in terms of Purchasing Power Parities (PPP) amounted to 33 thousand US dollars in 2009, the twenty-second highest in the world, and the sixteenth highest among the OECD countries. Iceland's GNI per capita is lower than that in Denmark, Norway, Finland, and Sweden, and marginally below the EU average.

Chart 3.1
Gross national income per capita in OECD countries 2009[1]



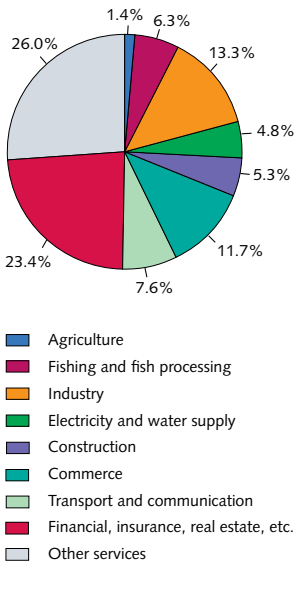
1. Based on PPP.
Source: World Bank.

Drivers of growth

Historically, prosperity has been built largely on Iceland's comparative advantages in abundant marine and energy resources. In the few years leading up to the financial collapse of 2008, the main drivers of economic growth were investment and services, particularly the financial services sector.

During the recent crisis, as in other crises, a significant share of the reduction in private consumption has been directed towards imported durable goods, leading to a fall in import penetration. Furthermore, Icelandic export volumes have not been hit by the global demand contraction to the same extent as in many other countries, which has been partly facilitated by the sizeable depreciation of the real exchange rate.

Chart 3.2
Breakdown of GDP by sector 2009



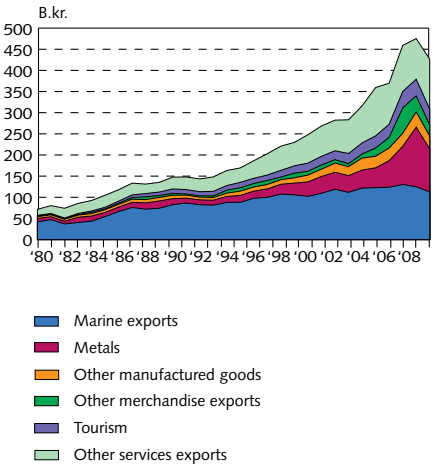
Source: Statistics Iceland.

Composition of output and expenditure

As in other developed economies, non-tradable services form the bulk of economic activity, accounting for approximately 66% of GDP in 2009. While the marine sector remains one of the most important sources of export revenues, its share of GDP has declined considerably in recent years, from 16% in 1980 to just under 8% in 2008. The most rapid growth in recent years took place in the finance, insurance and real estate sector, whose share of GDP rose from 18% in 1999 to 24% in 2009. The share of industries, including energy, in GDP has also been on the rise. It fell somewhat in the period 1999-2005, to a low of 14%, but has increased again and was 19% in 2009, similar to the level 10 years ago.

Chart 3.3
Exports of goods and services 1980-2009

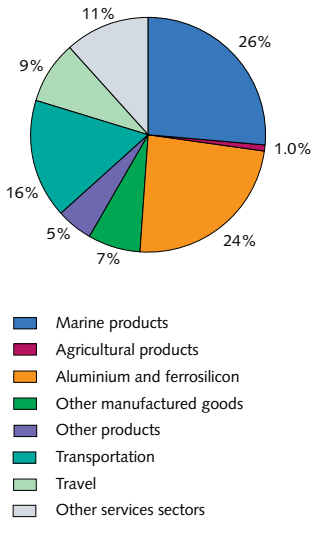
At constant average exchange rates, based on a trade-weighted basket of currencies



Source: Statistics Iceland.

Chart 3.4
Exports by sector 2009

Percentage of total exports



Source: Statistics Iceland.

Private consumption contributed, on average, about 56% of GDP in 2005-2009, and public consumption and gross fixed investment contributed 25% and 26%, respectively. The investment-to-GDP ratio has fallen significantly in the past few years, first due to the completion of large investment projects and then as a result of the economic crisis. It measured 14% in 2009, down from 24% in 2008. Despite the recent decline, the average ratio for the past five years remains 7 percentage points above the 1990s average. Since the turn of the century, the ratio of public consumption to GDP has been broadly stable, except that during the height of the boom, private sector activity outpaced public sector activity, and since the financial collapse, public consumption has contracted slower than the economy as a whole.

Foreign trade

Iceland is a fairly open economy, with imports and exports of goods and services amounting to 44% and 53% of GDP, respectively, in 2009. Trade involves a relatively large share of primary products and commodities, but exports have diversified significantly over the past 10 years. Certain factors restrict its 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 merchandise exports, although they have been declining as a share of total exports in recent decades. In 2009, fish and other marine products accounted for 42% of merchandise 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 49% of merchandise exports in 2009 and 31% of total exports. Exports of services have also soared as the economy has grown becomes 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 37% of total export revenues, up from 26% in 1990.

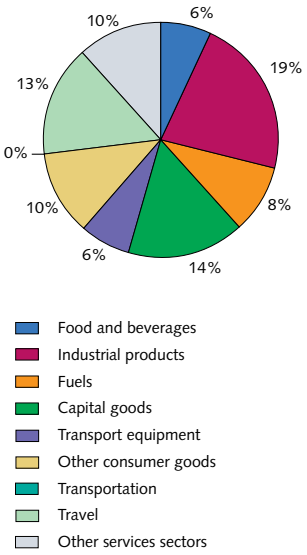
Iceland imports a wide range of manufactured goods and commodities, reflecting both the small size of the economy and the limited range of natural resources. However, after the financial crisis in the autumn of 2008, imports plummeted in all major categories. Imports of industrial supplies accounted for 31% of total merchandise imports in 2009. Capital goods and consumer goods constitute around 21% and 27% of total imports, respectively.

Free trade arrangements with Europe have stimulated Iceland's trade with the region, causing the share of North America to fall. In 2009, 84% of merchandise exports went to EEA member countries, which were also the source of 65% of imports. Currently, Iceland's largest trading partner countries are the Netherlands, Germany, the US, the UK, and the Nordic countries Norway, Denmark and Sweden. Trade with China has increased dramatically over the past few years, and China has now become Iceland's eighth-largest trading partner country. In terms of currency, the euro area constitutes the largest

trading area, accounting for 30% of imports and 60% of exports. In recent years, Iceland has generally had a trade surplus with the UK, the Netherlands, and the Iberian countries, but a deficit with the US, Germany, and its Nordic neighbours. Trade with Japan has generally been in deficit but turned to surplus in 2008, due to growing exports to Japan.

Iceland's ratio of services to total trade is one of the highest among OECD countries. Data on the direction of services trade are not as reliable as merchandise trade data; however, around half of Iceland's services exports in 2008 used the euro, just under 1/6 used the GBP, and only just under 1/12 used the USD as the vehicle currency.

Chart 3.5
Imports by sector 2009
Percentage of total imports



Source: Statistics Iceland.

Foreign investment

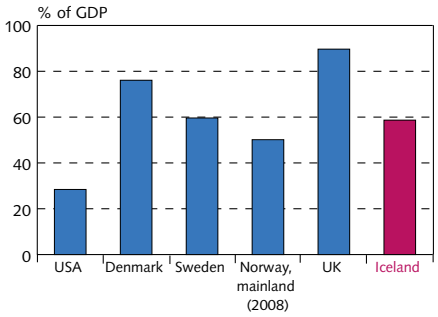
In the years leading up to the 2008 financial collapse, foreign expansion of Icelandic companies gained pace rapidly, due in large part to acquisition of companies abroad. The total stock of foreign direct investment (FDI) by Icelandic residents skyrocketed during the economic upswing but then fell by 72% (44% in krónur) from 2007, to just around 4.8 billion euros (873 b.kr.) in 2009 (see Chapter 7).

Financial sector

Iceland's financial services sector grew considerably in the first decade of the 21st century, catalysed by deregulation in the 1990s and, in particular, the privatisation of two commercial banks, completed in 2003. By year-end 2007, Icelandic banks had opened branches abroad and acquired operations in several countries. The banking system's assets were roughly 10 times GDP at year-end 2007. When the financial crisis hit, roughly 97% of the banking system, measured by assets, collapsed in autumn 2008 and early 2009.

The financial system has changed radically since 2008. When Iceland's three largest commercial banks collapsed in October 2008, three new banks were established and took over the domestic operations of the collapsed banks. Other smaller financial institutions have also gone bankrupt or undergone financial restructuring.[1]

Chart 3.6
Foreign direct investment 2009: outward position



Sources: Reuters EcoWin, Central Bank of Iceland.

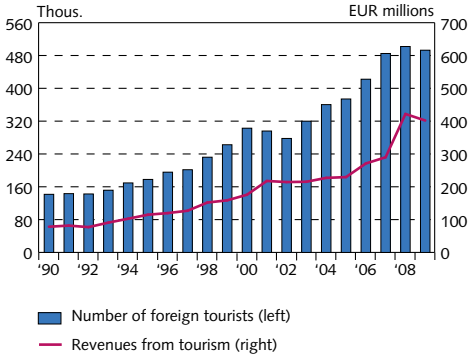
1. See Box 4.1.

Box 3.1

Sectoral limitations on foreign direct investment

The only restrictions on investment by non-residents in Iceland apply to foreign direct investments in fisheries and fish processing, energy production and distribution, and aviation companies. Restrictions on investment in the fisheries sector, the only ones that apply to EEA residents, and have the purpose of protecting the nation's exclusive rights to the fishing grounds around Iceland. Direct foreign ownership in 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.

Chart 3.7
Number of incoming tourists and revenues from tourism 1990-2009
At current euro exchange rates



Sources: Statistics Iceland, Central Bank of Iceland.

Considerable efforts have been devoted to restructuring in the financial sector. Five commercial banks are currently operating in Iceland. The State is the major owner of two of these banks and holds a minority stake in two of the others. Twelve savings banks are operating in Iceland. At two times GDP, in the end of 2009, the banking system is still relatively large.

Ten other credit institutions currently operate in Iceland: one investment bank, three payment card companies, two investment funds, and three asset financing companies, as well as the Housing Financing Fund (HFF), a State-owned mortgage credit fund.[2]

Total assets in the credit system amounted to roughly five times GDP, or 43 billion euros (7,650 b.kr.), at year-end 2009.

Other service industries

The share of non-public services in the total turnover[3] of the economy has risen from 7% in the late 1990s to a maximum of 12% in the last five years. Exportation of expertise in the development of renewable energy is beginning to grow, and a number of Icelandic companies are engaged in the exportation of geothermal and hydropower expertise and consultancy to a number of areas, including the US, China, Germany, Central America, and Southeast Asia.

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. The sector's export products amounted to 67 million euros (5.9 b.kr.) in 2007 and are estimated to have reached 95 million euros (16.5 b.kr.) in 2009.

Tourism has been among the fastest-growing industries in Iceland in recent years. Over the past 10 years, the number of foreign tourists has risen by 60% to 495 thousand in 2009. Tourists from Central and Southern Europe constitute the most numerous group, followed by Nordic and UK tourists. Foreign exchange revenues generated by foreign tourists amounted to 402 million euros (69 b.kr), or nearly one-tenth of total export revenues for 2009. The tourism industry's contribution to GDP averaged 4.5% of GDP during the period 2005-2009.

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 40% of merchandise exports in the period 2007-2009, and ¼ 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

2. See Chapter 4 for further discussion of the credit system.
3. According to VAT returns.

the marine sector in merchandise exports has fallen from around 75% in the 1990s to 42% in 2009. Likewise, the sector's contribution to GDP fell from 14% in the 1990s to 9% in 2009.

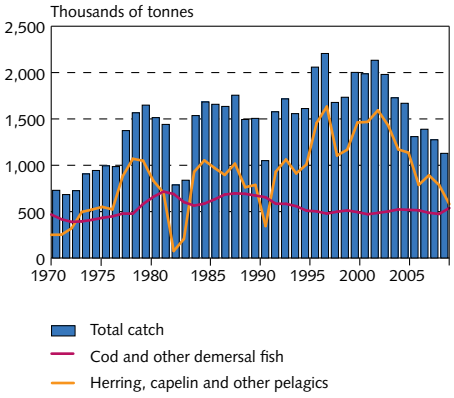
The marine sector is highly diversified in terms of species, modes of processing, and markets. Fishing and processing of groundfish – primarily cod, but also haddock, saithe and redfish – are the principal focus of Iceland's marine sector. Value added in processing has helped to offset lower total catch volumes in recent years, backed by gains in efficiency through individual transferable quotas (the ITQ system), automation, and modern management techniques. Value has also been boosted by a shift towards fresh groundfish products – which yield higher prices in markets in Europe and the US – instead of the more traditional frozen or salted products. Other aspects of the value-added processing strategy are the steadily increasing yield of raw material in processing and the significant increase in utilisation of by-products and waste in the processing of seafood products.

A comprehensive fisheries management system (FMS) based on the ITQ system has been developed to manage fish stocks and promote conservation, sustainability, and efficient utilisation of marine resources (see Box 3.2). 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.

Other direct measures support the aims of the FMS and reinforce conservation measures, including rules on permissible fishing gear, closure of areas for bottom trawling, obligatory small fish grids to prevent juvenile fish catches, and temporary closure of fishing grounds to protect spawning fish and limit by-catch of undersized fish.

In recent years, fisheries have been actively seeking to enhance efficiency and benefit from economies of scale through mergers and acquisitions. Consequently, the largest companies have expanded, and the concentration of quota holdings has risen. The 10 and 15 largest fisheries companies in terms of quota holdings owned 54% and 66%, respectively, of the total quota holdings in June 2010.

Chart 3.8
Fish catch by Icelandic vessels 1970-2009



Source: Statistics Iceland.

Box 3.2

The ITQ system

All commercially important species of fish are regulated under the individual transferable quota (ITQ) system. Quotas represent shares in the annual total allowable catch (TAC) and are allocated to individual fishing vessels. The present quota system is based on the following factors:

- Each year, the TAC is set by the Minister of Fisheries on the basis of a biological assessment of the fish stocks and forecasts for their development in the near future.
- Fishing vessels are allocated a share of the total TAC for the relevant species.
- The individual quota share is multiplied by the TAC to give the quantity that each vessel is authorised to catch during the quota year.
- Permanent quotas and annual quotas are transferable and can be traded on the quota market.

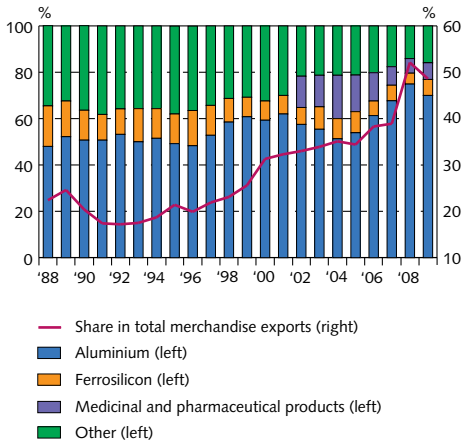
The law prescribes maximum holdings of quotas by individual fishing companies. Regulations cover both quota holdings for individual species and aggregate quota holdings.

In 1995, a refinement to the management system introduced a harvest control rule (HCR) 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 year after. This share was lowered to 20% in 2009, effective as of the 2009-2010 quota year.

Annual fishing quotas are allocated against an annual fee for fisheries inspection and enforcement. Owners of fishing vessels holding harvesting rights now also pay a fishing fee to the State. The fee is calculated as a percentage of the aggregate value of the total catch of the fishing fleet less operating expenses, divided by the catch quantity. The fee has increased from 6.5% in 2004 to 9.5% in 2009.

Chart 3.9

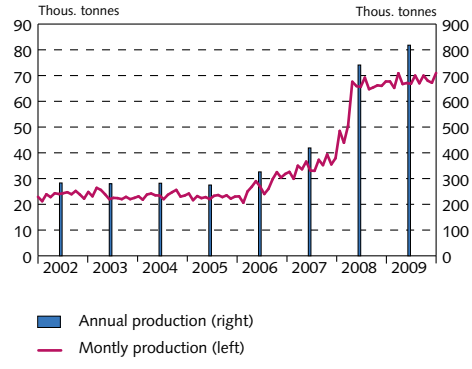
Composition of manufacturing exports and share in total merchandise exports 1988-2009



Source: Statistics Iceland.

Chart 3.10

Aluminium production



Source: Statistics Iceland.

Manufacturing and power-intensive industries

In 2009, manufactured products accounted for 50% of total merchandise exports, up from 30% in 2000. Iceland's largest manufacturing industry by far is aluminium smelters, which produce exclusively for export. Power-intensive products (mainly aluminium) have increased substantially over the past 10 years, generating 37% of merchandise exports in 2009, as opposed to 21% in 2000. Other manufacturing exports have increased from 10% of exports in 2000 to 13% in 2009. A large number of export-oriented manufacturing companies have emerged in the last 10-15 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 fields, holding a relatively large market share worldwide. These companies are in the medical equipment, pharmaceuticals, food processing, and fishery equipment sectors. A new energy-intensive plant (jointly owned by Icelandic and Italian entities) producing aluminium foils for electrolytic capacitors has been built in North Iceland. Production will commence in 2010 and will reach full capacity in 2011.

Iceland's aluminium industry is mainly based on competitive energy costs and a skilled labour force. Production has risen sharply in the last 10 years, from 210 thousand metric tonnes per year (mtpy) in 2000 to 830 thousand mtpy in 2010. The largest smelter, owned by Alcoa, started production in 2007 and is now producing at full capacity, or 350 thousand mtpy. Century Aluminium's Norðurál smelter in West Iceland is at full capacity, at 275 thousand mtpy. The RioTinto-Alcan smelter near Reykjavik has a capacity of 190 thousand mtpy, with a planned expansion of up to 230 thousand mtpy by 2011-2012. Elkem Iceland is a ferrosilicon plant with an annual production capacity of some 120 thousand mtpy.

Energy

Iceland is a pioneer in the use of renewable energy resources and 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. Using hydro and geothermal energy transformed the energy system in Iceland from fossil fuels to clean energy in the latter half of the 20th century. In the 1960s, nearly ⅔ of the primary energy in Iceland came from fossil fuel, but by 2008 this proportion had fallen below ⅕, with the fishing fleet and the air transport fleet the main users. In this context, it is worth mentioning that CO_2 emissions from hydropower plants are only 0.5%, and emissions from geothermal plants only 12%, of the emissions from plants generating electricity with fossil fuels.

Iceland's hydropower and geothermal resources have only been partly harnessed, and Iceland is the only country in Europe that still has large-scale, competitively priced power from these sources. Electricity production per capita is the highest in the world, at 53.6 megawatt hours (MWh) per capita, more than twice that in Norway, which comes in second. Until now, electric power potential from hydro- and geothermal sources has been estimated at 50,000 gigawatt hours (GWh), but this volume has been debated from the viewpoints of feasibility and environmental considerations. Commonly quoted estimates are 30,000 GWh in hydropower potential and 20,000 GWh in geothermal power potential. By 2009, half of hydropower potential and one-fifth of geothermal power potential had been harnessed.

In 2009, total installed hydropower was 1,883 MW in over 50 power plants with a combined capacity of 12,300 GWh, or 73% of generated electricity. The combined electricity from eight steam turbine plants amounted to 575 MW or 4,500 GWh. The largest single hydropower plant has a power capacity of 690 MW, and the largest geothermal plant is 300 MW.

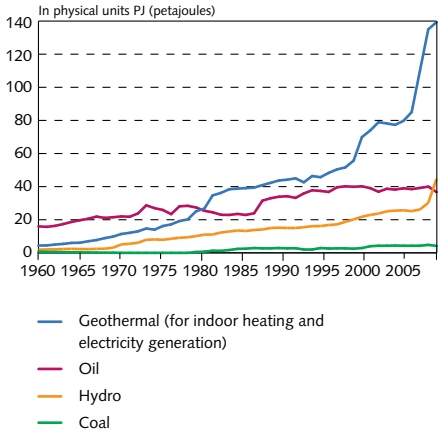
Iceland has been at the forefront in the use of geothermal energy for other purposes than generating electricity. The total use of geothermal energy was 40 petajoules (PJ) in 2009, with nearly half of that energy used for space heating and 37% for energy generation. The rest is used for commercial use (in industry, aquaculture, and greenhouses, and for swimming pools). Well over 90% of all homes are heated by geothermal energy in the form of hot water at a cost that is one-tenth of the cost of heating with fossil fuel. For the general public, the price of electricity is one of the lowest in the world, about one-third of the price to consumers in the other Nordic countries and one-fourth of the price in Germany.

In the last 10 years, electricity generation has more than doubled, from 7,700 GWh in 2000 to nearly 17,000 GWh in 2009. Further projects with a combined capacity of 700-800 MW are planned or under consideration.

Of the main producers, Landsvirkjun (the National Power Company) is wholly owned by the Icelandic state, while Orkuveita Reykjavíkur (Reykjavik Energy) is owned by City of Reykjavík, and HS Orka

Chart 3.11

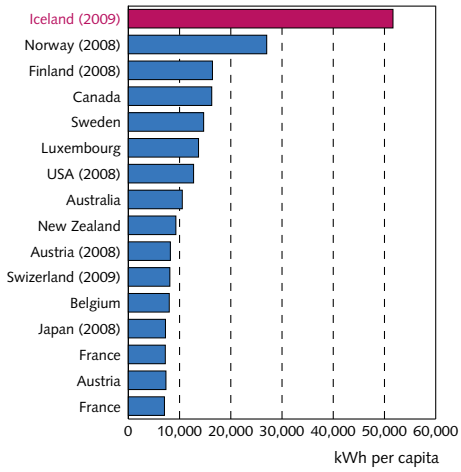
Primary energy consumption by source in Iceland 1960-2008



Source: National Energy Authority.

Chart 3.12

Electricity consumption per capita in selected countries 2007



Sources: CIA, OECD.

(Suðurnes Regional Heating) is owned jointly by a private investment company and municipalities in Southwest Iceland. Iceland has implemented deregulation under an EU directive relating to the separation of transmission, generation, distribution, and sales of electricity. New legislation does not call for incorporation of the power companies, nor does it stipulate any changes in the State and/or municipal guarantees they currently enjoy.

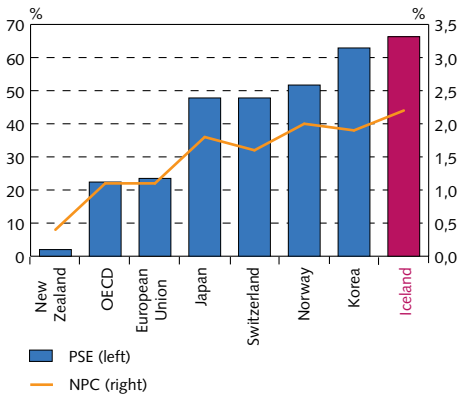
Agriculture and farming

Approximately one-fifth 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, potatoes, and green vegetables, which are mainly cultivated in greenhouses (around 200 thousand square metres) heated with geothermal water.

Icelandic agriculture is one of the most heavily subsidised in the world, with total on-budget transfers to farmers amounting to 1% of GDP in 2009. In terms of the OECD Producers Support Estimate (PSE), Iceland was third-highest in the OECD in 2007-2009, with a PSE of 53%, surpassed only by Norway and Switzerland. In comparison, the PSE was 22% on average in the OECD countries and 23% in the EU27.

Imports of meat, dairy products, and some vegetables that compete with domestic production are subject to high tariffs, import quotas, and strict non-tariff import restrictions.

Chart 3.13
Support to agriculture 2009[1]



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.
Source: OECD.

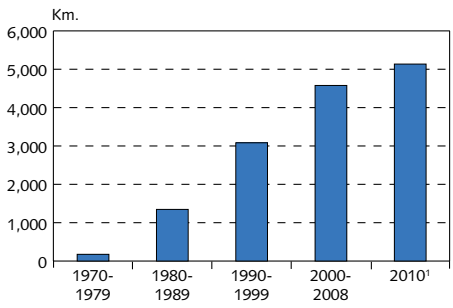
Transport

The domestic transportation network consists of roads and air transportation. The road system totals 13 thousand km, of which 5 thousand km are primary roads. Between 2003 and 2010, 44 km of tunnels have been built, and plans include the construction of a further 21 km in the next five years. Private motor vehicle ownership is widespread, with 657 passenger cars per 1,000 inhabitants in 2008.

The air traffic infrastructure in Iceland is widespread, covering all parts of the island. Four international airfields are operated, and four international airlines companies operate in Iceland, two of them offering passenger service, one offering international cargo service only, and one offering cargo and charter operations. Together, they operate 56 passenger and cargo airplanes. Direct passenger service between Iceland and Europe and North America is offered by three Icelandic companies: Icelandair, Flugfelag Islands, and Iceland Express. Transportation of foreign tourists to and from Iceland and transatlantic air traffic is of great importance for these companies.

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. A weekly ferry connection for passengers, private vehicles, and cargo operates between East Iceland and three Nordic countries.

Chart 3.14
Paved roads 1970-2010



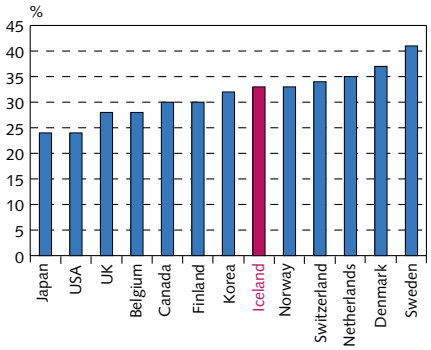
1. Data for 2010 are from mid-year.
Source: The Icelandic Road Administration (ICERA).

Communications

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.

The telecom market in Iceland is characterised by one of the highest penetrations of internet, mobile phone, and broadband and fibre optic connections in the world. In 2009, 90% of Icelandic households were internet-connected, as compared with 67% in other European countries (EU25). Nearly all internet connections are high-speed connections, and around 90% of connected households are regular users, compared to 62% in the EU25. According to a survey conducted by the European Information Society, 68% of internet users in Iceland were considered to have a medium to high level of computer and internet knowledge and literacy in 2009, compared to 52% in the EU25.

Chart 3.15
Broadband subscribers per 100 inhabitants in 2008



Source: World Bank.

Environment

Iceland is relatively unpolluted compared to other industrial countries, owing to its sparse population and high reliance on renewable energy sources. Soil erosion has been a longstanding problem due to the cutting of woodlands and overgrazing on sensitive volcanic soil that is susceptible to wind and water erosion. The intensity of grazing has fallen since the 1970s, and a considerable effort is made to reclaim eroded land.

Electricity production and space heating are provided with renewable energy-hydropower and geothermal energy in particular. Utilisation of hydroelectric power, however, requires the construction of dams and other structures that affect nature and the landscape.

Acidification is not a problem in Iceland because of its geographic location and limited emissions of pollutants. Air pollution is low, although some local problems occur in the greater Reykjavík area. The marine environment around Iceland is relatively unpolluted.

According to the Kyoto Protocol for the period 2008-2012, the emission limit for greenhouse gases in Iceland allows for a 10% increase from 1990 levels. In addition, emissions from single, relatively large projects can be reported separately and are not included in the above limit, provided that they utilise renewable energy and adhere to certain criteria. Projections imply that Iceland will be within its Kyoto limits despite emissions growth. The largest share of emissions stems from industrial processes, followed by the transport sector and the fishing industry.

Labour market

The Icelandic labour market has one of the highest participation rates among OECD countries, consistently well above 80% during the past 10 years. The participation rate of women has also been very high by international comparison. In 2009, female participation was one of the highest in the OECD countries, with women accounting for 47% of

Chart 3.16
Labour force participation rate
in Iceland and OECD countries 1993-2009

Source: OECD.

the labour force. Participation rates among the young and the elderly have also been quite high. Furthermore, Icelanders tend to work long hours.

The wage negotiation process in Iceland is highly centralised and usually leads to more or less nationwide settlements. Some 85% of the labour force is unionised, and employers are highly organised as well. The Government has frequently been involved in wage settlements, either through tax concessions and social transfers or through legislative acts aimed at accomplishing moderate settlements. 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.

Notwithstanding its high degree of centralisation, 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 current crisis. The Icelandic labour market tends to attract both foreign and Icelandic nationals during upswings, and the opposite applies during downswings. Iceland's EEA membership has facilitated movement of labour within the area, and migrant labour has enhanced the resilience and flexibility of the Icelandic labour market in recent years. Foreign nationals as a share of the labour force are estimated to have increased from 3% in 2003 to 12% in 2008, but dropped to 9% in 2009. Participation increased by 2.6 percentage points during the 2004-2007 upswing, but fell again by almost the same amount (2.3 percentage points) between 2007 and 2009. Furthermore, studies indicate that both real and nominal wages respond quickly to external shocks, reducing their employment effect. 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.

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 the coming decades. The old-age dependency ratio – i.e., over-65-year-olds as a ratio of 15- to 64-year-olds – was 17% in 2008, slightly less than in the US (18%) 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, 34% of 65- to 74-year-olds worked at least one hour a week in 2009. Third, membership of a fully funded occupational pension fund is mandatory for all employees and self-employed.

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 13% of the average earnings of unskilled workers, but the maximum total old-age pension amounts to around 65% of the same earnings.

Many of the occupational funds were established through a collective labour agreement in the late 1960s, and most are managed jointly by representatives from trade unions and employers. Occupational pension funds have been increasing their share in pensions relative to the public system as they approach maturity, and means-testing reduces the public pension. Payments totalled 403 million euros (72.5 b.kr.), or 4.8% of GDP, in 2009.

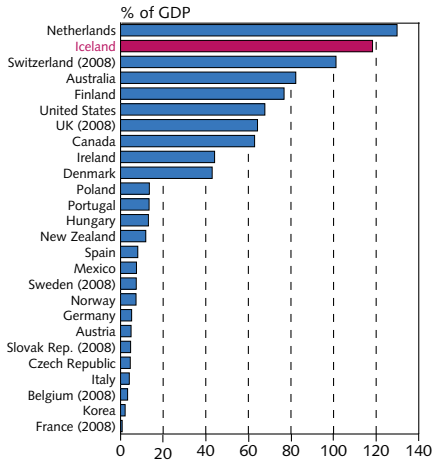
It is mandatory to pay at least 12% of total wages and salaries to pension funds. Formally, this 12% is split between a 4% contribution from the employee and an 8% contribution from the employer. The funds have grown by leaps and bounds over the past decades, as their coverage has become almost total and the return on their assets has been strong, although fluctuating with the economic cycle. Assets were equivalent to over 134% of GDP at the end of 2009. By international comparison, pension funds in Iceland are large relative to GDP. They were the second-largest among OECD countries (after the Netherlands) in 2009.

At the end of 2009, there were 31 fully operational pension funds in Iceland, including 13 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 2009, and the two largest funds accounted for 34%. The average fund had net assets of around 260 million euros (47 b.kr.), while the largest had assets of a little over 1.8 billion euros (324 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.

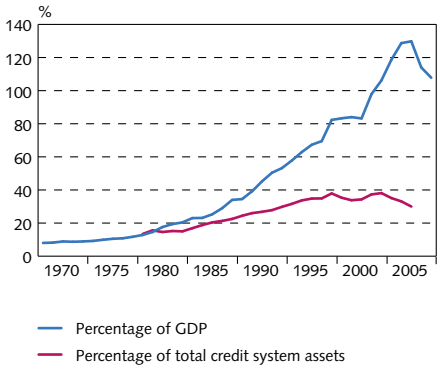
In the third pillar of pension savings, employees are allowed to deduct from their taxable income a contribution to authorised individual pension schemes of up to 4% of wages. Employers must match the supplementary contribution up to a limit of 2%. The pension schemes must be authorised by the Ministry of Finance. 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. An estimated 57% of wage earners were paying into such schemes in 2009. However, as part of the authorities' measures to assist households in financial difficulties, individuals were authorised to withdraw third pillar pension savings of

Chart 3.17
Size of pension funds in selected OECD countries 2009



Source: OECD.

Chart 3.18
Net assets of pension funds 1970-2009[1]



1. Due to the financial crisis, data for the credit system are not available.
Source: Central Bank of Iceland.

up to 14.5 thousand euros (2.5 m.kr.), with the payout disbursed in stages. At the end of August 2010, around 49 thousand individuals had received a total of almost 190 thousand euros in total (34 m.kr.).

4 The financial system

This chapter describes the Icelandic financial system. It covers the operations of commercial banks, savings banks, and other credit institutions, along with the bond, equity, and foreign exchange markets in Iceland. The chapter also discusses the various challenges facing the financial system following the financial crisis. More time will have to elapse before the final shape of the post-crisis financial system emerges.

Credit system

The financial system has undergone radical changes since 2008. In the autumn of 2008, the country's three largest banks failed, followed by smaller financial institutions over the ensuing months. The banking system was roughly 10 times GDP at year-end 2007, but the new restructured banking system is much smaller.

Total assets in the credit system amounted to roughly five times GDP or 43 billion euros (7,650 b.kr.), at year-end 2009. The system's activities have shrunk in scope since reaching their pre-crisis peak in the fall of 2008. The commercial banks' assets have shrunk most decisively since the crash. Banks and savings banks, collectively referred to as deposit money banks (DMBs), are the largest entity in the credit system. As of year-end 2009, their assets totalled some 16 billion euros (2,958 b.kr.) which is around twice the size of GDP, or 38% of the credit system.

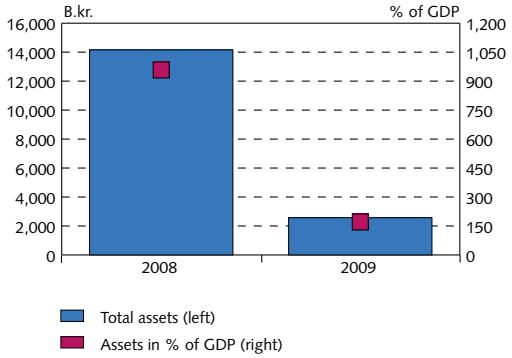
Table 4.1 Credit system assets[1]

Assets, EUR billions (b.kr.).	*30.9.2008*	*31.12.2009*	*31.12.2009 – in moratorium and winding-up proceedings*
Banking system	126 bn. euros (15,771 b.kr.)	23 bn. euros (4,135 b.kr.)	22.4 bn. euros (4,029 b.kr.)
– Commercial banks	113 bn. euros (14,153 b.kr.)	14.3 bn. euros (2,571 b.kr.)	21.5 bn. euros (3,860 b.kr.)
– Savings banks	5.9 bn. euros (741 b.kr.)	2.2 bn. euros (387 b.kr.)	0.9 bn. euros (169 b.kr.)
Other credit institutions	10.5 bn. euros (1,321 b.kr.)	6.7 bn. euros (1,198 b.kr.)	
– Housing Financing Fund	5.6 bn. euros (699 b.kr.)	4.4 bn. euros (799 b.kr.)	
Pension funds	14.9 bn. euros (1,871 b.kr.)	10.3 bn. euros (1,859 b.kr.)	
Insurance companies	1.3 bn. euros (157 b.kr.)	0.8 bn. euros (136 b.kr.)	
Securities funds	1.7 bn. euros (218 b.kr.)	1 bn. euros (174 b.kr.)	
Government credit funds	1 bn. euros (124 b.kr.)	0.8 bn. euros (148 b.kr.)	
Total assets	*155.3 bn. euros (19,462 b.kr.)*	*42.5 bn. euros (7,650 b.kr.)*	*22.4 bn. euros (4,029 b.kr.)*

1. Internal trade not included. Foreign parties not included. Definition of Government credit funds according to new international standards on financial accounts.

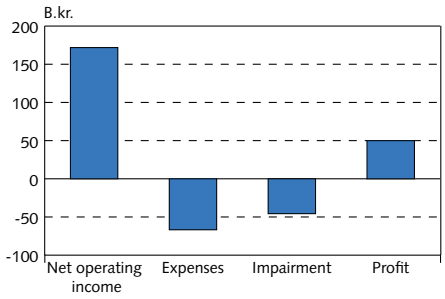
Source: Central Bank of Iceland.

Chart 4.1
Commercial banks' total assets[1]



1. Commercial banks' parent companies, September 2008 and December 2009.
Source: Central Bank of Iceland.

Chart 4.2
Income, expenses, impairment and profit[1]



1. Largest commercial banks' consolidated accounts 2009.
Sources: Commercial banks' annual reports.

Commercial banks

In the autumn of 2010, there are five commercial banks and 12 savings banks (DMBs) operating in Iceland.[1] Together, commercial banks' assets constitute some 87% of total DMB assets.

Two of the new commercial banks, Arion Bank and Íslandsbanki, are now majority-owned by holding companies of the old commercial banks. ISB Holding ehf., which is owned by Glitnir, holds a 95% stake in Íslandsbanki, and Kaupskil ehf., a holding company owned by Kaupthing Bank, holds an 87% stake in Arion Bank. Icelandic State Financial Investments (ISFI) has a minority holding in Arion Bank (13%) and Íslandsbanki (5%). The ISFI administers the Treasury's 81% holding in NBI hf. The other owner of NBI is Landsskil ehf., a subsidiary of Landsbanki Íslands, with a stake of just under 19%. Because banks in winding-up proceedings are owned by creditors – mainly non-residents in the case of the old commercial banks – the majority of the Icelandic banking system is now foreign-owned.

The activities of the new commercial banks extend mostly to domestic operations. As a result, total assets of currently operating commercial banks have shrunk markedly from previous levels. Total assets amounted to 14.3 billion euros (2,571 b.kr.) as of year-end 2009, a decline of over 80% since September 2008. As a share of GDP, total assets of operating commercial banks were just over 170% at year-end 2009.

The year 2009 was the first full operational year for the new commercial banks. The banks' operating results for that year were strongly influenced by the recession of the Icelandic economy and reflected the uncertainty characterising the crisis environment. In spite of this, their combined return on equity measured 17%. Net interest income is the banks' largest income item. Other major income items are service income net of service expense and exchange rate and trading gains on financial operations. In 2009, there was considerable income from the rise in the appraised value of the loan portfolios the banks took over from their predecessors.

The bulk of the commercial banks' assets are in the form of lending. At end-2009, total lending amounted to over 9.5 billion euros (1,700 b.kr.), with the majority (56%) of it in foreign currency or exchange rate-linked, around 21% indexed to the CPI and 23% non-indexed. The commercial banks' loans to companies represented about 63% of total lending, while 23% of the loans were to individuals. About 6% of total lending was to non-residents. Strong emphasis was placed on restructuring customers' debt in 2009, and demand for new credit was negligible.

Uncertainty about the quality of the loan book is probably the most important risk currently facing Icelandic banks. In the current economic climate, it is exceptionally difficult to determine both borrowers' actual capacity to pay and the value of loan collateral. As a result, loan recovery is unusually uncertain, in terms of both amounts and time. Developments of loans values and write-off needs will be determined by general economic developments and by firms' operating conditions.

1. The five commercial banks are NBI hf., Arion Bank hf., Íslandsbanki hf., MP Bank hf., and Byr hf.

Economic developments in Iceland's main trading partner countries will also have an effect. While the most distressed borrowers are real estate companies, companies in the construction sector, and holding companies (often as a result of shareholdings), a number of retailers and service companies are in serious difficulty as well.

In most instances, companies and individuals obtained their exchange rate-linked loans when the Icelandic króna was strong. In many cases, these parties were highly indebted before the crisis, and the subsequent collapse of the króna raised their foreign loan balances sharply (see Chapter 8). The currency depreciation and the resulting changes in operating conditions have caused the banks' customers difficulties with balance sheets and operations; they have changed the composition of balance sheets, and in many instances equity has been eroded and even turned negative. A large proportion of borrowers has negotiated deferred payments or had their loans frozen temporarily, and defaults have escalated. The problem is most severe among those without foreign-denominated income or foreign assets.

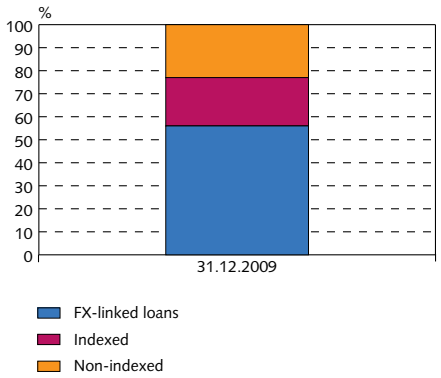
In June 2010, the Supreme Court of Iceland handed down decisions in two cases centring on the legality of indexing motor vehicle lease-purchase payments in krónur to foreign currency exchange rates. The Court decided that it was illegal to index payments denominated in krónur in this manner. These judgments may set a precedent for the handling of other loan agreements containing similar provisions. A further ruling by the Supreme Court in September 2010 clarified that the applicable interest rates in such instances should be the minimum interest rates published by the Central Bank of Iceland. In view of this outcome, the Minister of Economic Affairs announced that he will introduce legislation aimed at ensuring a fair resolution for borrowers and taxpayers. Legal uncertainty has abated and financial companies can better assess their risks and equity. This outcome should expedite financial restructuring for companies and households.

Transferring assets from the old banks to the new ones without a corresponding transfer of liabilities resulted in foreign exchange imbalances. Foreign funding and exchange rate hedging are not available to the same degree as before; therefore, the banks have more difficulty protecting the value of their portfolios, the vast majority of which are foreign-denominated. The Supreme Court judgments of June and September 2010 have reduced the banks' foreign exchange imbalances.

The vast majority of the commercial banks' funding comes from deposits. Their borrowings remain limited, with the exception of NBI, which issued a foreign-denominated 10-year bond to Landsbanki Íslands hf. in connection with remuneration for the difference between transferred assets and liabilities. About half of the banks' deposits are owned by households. Because of increased risk aversion and a lack of other investment options, customers (including large institutional investors such as pension funds) sought out deposits after the banks fell in 2008. Once investment options increase in number and risk aversion diminishes, the banks can expect a share of their deposits to shift to other investment forms. The possible future withdrawal of the Government guarantee of deposits in banks in Iceland may affect investors' choices as well.

Chart 4.3

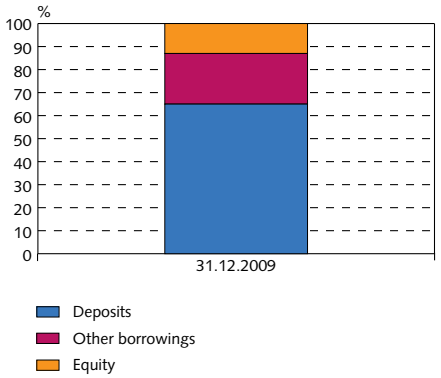
Loan categories at year-end 2009[1]



1. Commercial banks, parent companies 2009.
Sources: Central Bank of Iceland.

Chart 4.4

Funding at year-end 2009[1]



1. Commercial banks' consolidated accounts 2009.
Source: Central Bank of Iceland.

The current economic environment calls for a strong capital position. The banks must have ample own funds due to risks and operational uncertainties. At year-end 2009, the banks' combined capital adequacy ratios amounted to 15.9%, virtually all of it made up of common equity, which is favourable in view of the forthcoming Basel III capital reforms.

Box 4.1

The financial crisis in Iceland

Early in October 2008, Iceland's three large cross-border banks failed, bringing down nearly nine-tenths of the country's banking system. Iceland was already in a currency crisis but was plunged into a full scale financial crisis. Below is a brief description of the main events when the Icelandic banking system collapsed.

In September 2008, the US investment bank Lehman Brothers collapsed. International financial markets ceased to function properly, lack of trust escalated, and liquidity dried up. Even though these events were by no means the sole cause of the Icelandic collapse, they triggered it, Glitnir Bank was by this time facing serious foreign currency liquidity problems. The bank had not been able to sell assets to cover a large foreign bond payment due on 15 October. On 25 September it requested a loan of 600 million euros (87 b.kr.) from the Central Bank.

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 (87 b.kr.) in new share capital to the bank, thereby becoming 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. Distrust of the banking system escalated further during the first days of October, and both firms and individuals feared for their deposits. Margin calls from foreign banks and central banks, acceleration of loan repayments, run of foreign deposits, and increased liquidity requirements further exacerbated the already severe situation.

On 6 October, the Parliament of Iceland passed Act no. 125/2008, the so-called Emergency Act, which authorised 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. In Iceland, emphasis was placed on 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, which were granted moratoria on payment. The Government also announced that all deposits in Iceland were guaranteed in full.

Domestic payment intermediation withstood the pressure of the financial crisis, due in part to preventive actions taken by the Central Bank. The same cannot be said of cross-border payment intermediation. The Bank managed to minimise the damage, however, with external support and assistance. It guaranteed payments 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.

The spring of 2009 saw the collapse of several smaller financial undertakings that had also been struggling with liquidity problems for some time. On 9 March, based on the authority in the Emergency Act, the FME took over Straumur-Burðarás Investment Bank, which was also a commercial bank with a considerable amount of deposits. These were transferred to Íslandsbanki, which received a debt instrument secured by Straumur assets.

Smaller savings banks were also in severe distress. On 21 March, the FME took control of SPRON savings bank and Sparisjóðabankinn (SPB). SPB had provided payment intermediation and finance management services to the savings banks and had held a large portfolio of the three failed banks' bonds, which it had pledged as collateral against loans from the Central Bank. Discussions with creditors had proven fruitless, and the two banks were unable to correct their negative capital position through negotiations. SPRON deposits were transferred to New Kaupthing (now Arion Bank), and Byr savings bank took over payment intermediation for the savings banks previously served by SPB.

In April 2010, the FME took over the operations of Byr Savings Bank and Keflavík Savings Bank, following unsuccessful negotiations with the two banks' creditors. Byr's deposits and assets were transferred to a new commercial bank, Byr hf., and those of Keflavík Savings Bank were transferred to a new savings bank, SpKef Savings Bank. Both institutions are now wholly owned by the State.

Savings banks

The total assets of the functioning savings bank system amounted to 2 billion euros (387 b.kr.) at year-end 2009, after contracting by 50% year-on-year. Weighing most heavily in that figure was the collapse of SPRON, the largest of the savings banks. Furthermore, the savings banks have written off substantial assets due to falling securities prices and anticipated loan losses. At year-end 2009, many savings banks did not meet minimum statutory requirements, as their combined capital position was negative.

Sparisjóðabanki Íslands hf. (SPB) provided payment intermediation services to the savings banks. When it became insolvent in March 2009, the Central Bank took over the savings banks' deposits with SPB. In order for the Central Bank to be able to meet those obligations, claims against the savings banks were transferred to the Central Bank with an FME decision on the disposal of SPB's assets and liabilities. The position of the savings banks varied greatly and, in the majority of cases, was extremely difficult. As a result, the Central Bank formulated proposals aimed at maximising the value of its claims while guaranteeing the savings banks' continued operability. The proposals required that, after restructuring, the savings banks withdraw their requests for capital injections from the Treasury where applicable. With this restruc-

Box 4.2

Resolution committees and winding-up boards

In October 2008, the Icelandic Financial Supervisory Authority (FME) appointed resolution committees for Landsbanki Íslands hf., Glitnir banki hf. and Kaupthing banki hf. (the banks), in accordance with Article 5 of Act no. 125/2008, generally referred to as the Emergency Act. The members of the resolution committees were selected by the FME, and the committees initially operated in consultation and co-operation with the FME. After the banks were granted moratoria on payment, the resolution committees directed the banks in co-operation with their moratorium assistants. As Icelandic entities with banking licences, the banks are still subject to supervision by the FME. The role of the resolution committees is to safeguard the value of the banks' assets and maximise the recovery of claims on behalf of the banks' creditors. While this work is underway, the banks have been granted moratoria on payment, which enables them to concentrate on the tasks at hand so that they can protect creditors' interests and ensure equal treatment of creditors.

In 2009, in accordance with a 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 are authorised to administer the formal process of filing claims. The appointment of the winding-up boards allowed the formal process of filing claims to begin, while the banks' resolution committees continue to perform their role of safeguarding the banks' assets in order to maximise recovery.

turing, the Icelandic Government will acquire a large stake in many of the savings banks. When restructuring is complete, the Government's stake will be transferred to Icelandic State Financial Investments (ISFI), which will enforce the Government's ownership policy and formulate a new vision for the savings bank system.

DMBs in moratorium and winding-up proceedings

The authorities responded to the financial crisis of 2008 by passing Act no. 125/2008, commonly referred to as the Emergency Act. Based on the authority contained in the Emergency Act, the Financial Supervisory Authority (FME) took over the operations of commercial and savings banks. In the case of the largest commercial banks, foreign operations were assigned to resolution committees, which were to handle settlement vis-à-vis creditors. Considerable assets lie within the DMBs in moratorium and winding-up proceedings, whose total assets amounted to 22.4 billion euros (4,029 b.kr.) as of end-December 2009. The bulk of their assets are foreign-denominated loans and marketable securities, but they also have a substantial amount of deposit with currently operating commercial banks.

Other credit institutions

The largest single entity among the group classified as other credit institutions is the Housing Financing Fund (HFF), whose assets constituted nearly $^{2}/_{3}$ of the total assets of other credit institutions.[2] At year-end 2009, the HFF's equity amounted to 55.6 million euros (10

2. Other credit institutions are the Housing Financing Fund (HFF), investment banks, asset financing companies, payment card companies, and investment credit funds.

b.kr.), and its equity ratio was 3.0%. Further impairment of loans can be expected; therefore, the Fund is likely to need a capital injection in the near future.

Asset financing companies are facing considerable uncertainty about their future. A large proportion of asset financing agreements are exchange rate-linked, and their equity position is precarious because of the recent Supreme Court judgments on the illegality of exchange rate-linked loan agreements.

Payment intermediation

Three systemically important payment systems operate in Iceland and they operate (BIS). Two are also settlement systems, one of which handles settlement of securities transactions.

The Central Bank's real-time gross settlement (RTGS) system is the largest and most important payment system in Iceland. It handles final settlement of individual payment orders between participants in amounts of 64 thousand euros (10 m.kr.) or above, as soon as the deposit in the payer's account allows the transfer to be executed. Smaller payments are handled by the netting system operated by Fjölgreiðslumiðlun (FGM). This system calculates net credit or debit positions between all participants and then, through the RTGS system, settles them at a scheduled time in the participants' accounts in the Central Bank. The third system, the securities settlement system, uses a comparable method to settle securities transactions: payment orders are netted, the resulting settlement is carried out in the RTGS system, and settlement is made on a delivery versus payment (DvP) basis.

The Central Bank oversees systemically important payment systems in accordance with principles set by BIS. The Central Bank cooperates closely with operators of other payment systems and oversees the safety, efficiency, and cost-effectiveness of payment and settlement systems. In doing so, the Bank focuses in particular on system structure, operational risk, and the main operational inputs such as software, hardware, human resources, and telecommunications. Furthermore, the Bank monitors compliance with legal and regulatory provisions on payment system operations.

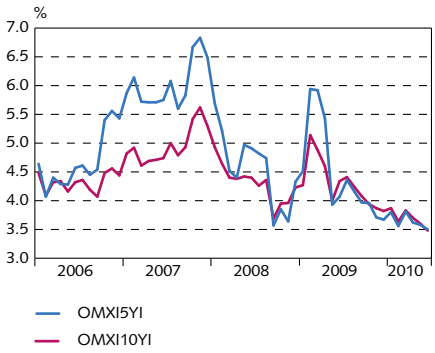
Central Bank oversight extends to the payment systems themselves, but not to the infrastructure or organisation of individual participants. This is the responsibility of the Financial Supervisory Authority (FME), which supervises individual participants' implementation of the rules applying to those systems. The Central Bank and FME have signed a collaboration agreement that specifies the division of tasks between them and provides for exchange of information between the two institutions.

OMX Nordic Exchange Iceland and the Icelandic Securities Depository

Iceland currently has one authorised stock exchange in operation, the OMX Nordic Exchange Iceland (OMX ICE), where public listing of securities and securities trading are carried out. OMX ICE is a part of NASDAQ OMX Group Inc. and is licensed to operate a regulated over-the-counter (OTC) market. In 2006, the Iceland Stock Exchange

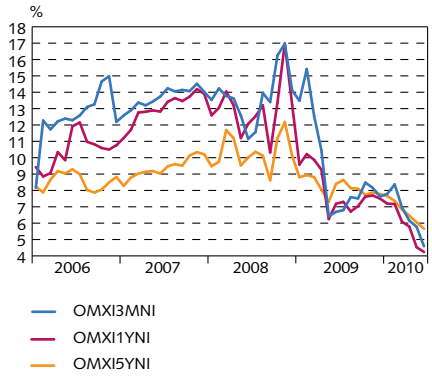
(ICEX), founded in 1985, merged into OMX, which owned exchanges in all the Nordic and Baltic countries except Norway. In 2007, it merged into NASDAQ OMX Group, Inc. the world's largest exchange company, which provides trading, exchange technology, and public company services on six continents. Electronic issuance of securities and registration of title to electronic securities can only be carried out by a licensed securities depository. The Icelandic Securities Depository (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 Icelandic Securities Depository is also owned by NASDAQ OMX Group, Inc.

Chart 4.5
Yield on indexed bond indices
At month end January 2006 - June 2010



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

Chart 4.6
Yield on non-indexed bond indices
At month end January 2006 - June 2010



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

Bond market

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

1. Treasury nominal and inflation linked bonds.
2. Housing Financing Fund (HFF) bonds, which are CPI indexed, interest-bearing bonds in an annuity format.
3. Bonds that are issued by Government agencies, private corporations, or institutions such as banks.

The Icelandic bond market has several features that set it apart from bond markets in other countries. First of all, many financial institutions and other corporations were delisted from the stock exchange as a result of the 2008 financial crisis, and public entities are now the largest issuers of listed bonds. By mid-2010, the market value of bonds issued by public entities or firms owned by them amounted to 90% of total issuance, as opposed to 45% in mid-2008. Second, indexed issues are prominent in Iceland's domestic market. Most issues with a maturity exceeding five years are linked to the CPI, but issuance of long nominal bonds has been on the rise since 2008. Third, the turnover on the secondary market is mainly with bonds carrying a State guarantee. Fourth, yields on the Icelandic bond market have been high in international comparison.

Over the past five years, real yields on indexed housing and indexed Government bonds have fluctuated in the range of 3.5% to 7%, while the yield on nominal bonds have fluctuated in the range of 4% to 17%.

At the end of June 2010, yield on ten-year indexed bonds was around 3.54%, and around 6.04% on nominal bonds. At that time, market value in the NASDAQ OMX Exchange was 13.2 billion euros (2,100 b.kr.). Listed bonds on the exchange had a total market value of 10.2 billion euros (1,600 b.kr.) in mid-2010, as opposed to 13.6 billion euros (1,700 b.kr.) in mid-2008. Turnover on the bond market was 7.6 billion euros (1,191 b.kr.) in the first half of 2010, compared with 31.1 billion euros (3,900 b.kr.) in the first half of 2008. Turnover velocity in the bond market – i.e., the ratio between turnover of bonds and their market capitalisation – was 2 during the first half of 2010.

Equity market

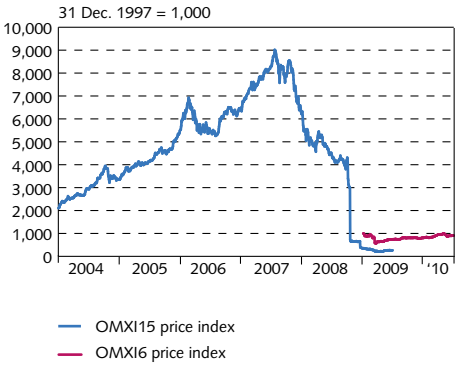
The Icelandic equity market had its heyday in 2004-2007. During those years, the Main List index (OMXI 15), which measured changes in the value of the 15 largest and most-traded companies on the exchange at any given time, soared to a peak of 9,016 points in July 2007. By year-end 2007, the market value of listed shares on the exchange stood at 28 billion euros (2,570 b.kr.), or 196% of GDP. By end-2009, however, the market value of listed shares had fallen to 1.2 billion euros (208 b.kr.), just under 14% of GDP, and total trading volume for the year was only 4% of the prior year's volume.

The collapse of Iceland's three commercial banks – Landsbanki, Glitnir, and Kaupthing – in October 2008 dealt a heavy blow to the Icelandic equity market, as the three banks' combined market value was more than 60% of the total value of exchange-listed companies. The number of companies listed on the exchange plummeted after the crash.

At year-end 2009, only nine companies were listed on the OMX ICE Main List, one company on the alternative market (an organised but not officially recognised market), and three companies on the First North (small cap) securities market, where securities are officially listed and traded. The market value of listed companies on the main market was 1.3 billion euros (234.5 b.kr.), and trading volume for the first half of 2010 was 73 million euros (11.4 b.kr.)

In response to changed market circumstances, a new Main List, the OMXI6, took effect in January 2009. As the name implies, the new index includes the six most-traded companies on the exchange instead of the previous 15. The list is selected every six months, with the new composition taking effect on 1 January and 1 July each year. The OMXI6 Main List index was set at 1,000 points at its inception, but it has fluctuated widely since, dropping to 563 in March 2009 and then rising to 902 by end-June 2010.

Chart 4.7
Equity market
Daily data 5 January 2004 - 30 June 2010



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

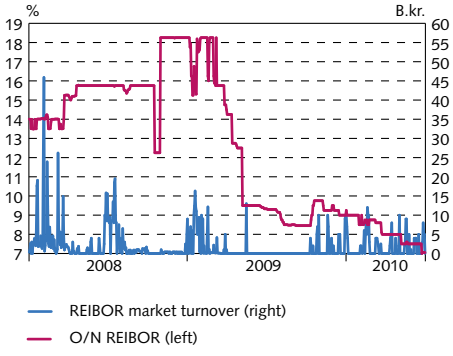
Money market

The money market consists of the interbank loan market and a secondary market for debt instruments with an initial maturity of less than a year. Since the onset of the financial crisis, the secondary market has consisted almost entirely of Treasury bills, as both supply and demand for Government-guaranteed bills has increased significantly.

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, but since the fall of 2008, transactions have been limited to overnight loans. Once a day, the Central Bank fixes REIBID and REIBOR rates for the market.

Participants in the market have declined in number from six to three. Market makers are Arion Bank, NBI hf., and Íslandsbanki. Turnover in the interbank market for krónur dropped sharply during the period after the crisis, from 2.8 billion euros in January-July 2008 (359 b.kr.) to 1.3 billion euros (199 b.kr.) in January-July 2010.

Chart 4.8
REIBOR interest rate (O/N) and REIBOR market turnover
Daily data 3 January 2008 - 27 September 2010



Source: Central Bank of Iceland.

Box 4.3

Capital controls

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

Reasons for introducing capital controls

Significant capital flowed into Iceland in 2005-2008. The combination of wide interest rate differentials and an appreciating currency attracted international capital, some through "normal" financial investments and some through instruments constructed to benefit from this combination (such as glacier bonds). Some inflow was also linked to the Icelandic financial system and international borrowing by Icelandic companies. In late 2008, non-residents' ISK positions totalled 5.3 billion euros (680 b.kr.) and short-term positions totalled approximately 2.6 billion euros (330 b.kr.).

At the onset of the financial crisis, the loss of confidence threatened to trigger large capital outflows, with highly adverse effects on the exchange rate, inflation and indebted households and corporations. Because private sector balance sheets were highly leveraged, with a large proportion of foreign-denominated and inflation-indexed debt, this could have triggered a wave of defaults, with adverse macroeconomic implications.

Supporting the currency through conventional measures – interest rates and foreign exchange market intervention – would have required steep interest rate hikes and a large expansion of the Central Bank's foreign exchange reserves. 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 have given monetary policy the scope to lower interest rates significantly 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 still further.

Current capital controls regime

The current capital controls were adopted on 28 November 2008, according to the Rules on Foreign Exchange (the Rules), which were authorised by a provision in the Act on Foreign Exchange. The Rules were reissued on 15 December 2008, and in March 2009 the Foreign Exchange Act was amended so as to tighten the controls. In addition, clarifications of the Rules have been issued on numerous occasions. Payments linked to current account transactions were released after a short period of time, but certain companies, including major exporters and firms with large international operations, were granted full or partial exemption from the Rules upon fulfilment of certain criteria. Non-residents were also authorised to transfer foreign currency deriving from interest and dividends on investments in Iceland. With effective controls in place, exchange rate developments have been determined largely by current account flows (i.e., exports, imports, interest payments, and debt repayment) but not, as has been for the last 5 to 8 years, predominantly by capital flows.

Liberalisation of capital controls

The Central Bank took the first step in the removal of the capital controls at the end of October 2009, by permitting inflows of foreign currency for new investments and potential outflows of foreign currency that may derive from such investments in the future. Thus investors were authorised to convert into foreign currency the sales proceeds from assets in which they invested after 1 November 2009. At the same time, the Rules were revised with the aim of enhancing consistency and closing loopholes that had been used to circumvent the capital controls.

There is still uncertainty present regarding further liberalisation of the capital controls. Even though gradual removal of the controls is a priority, the sequence of the policy mix is designed in a way that allows each step to be taken while preserving the stability of the króna. When the third review of the Government-IMF economic programme is complete, the preconditions for capital account liberalisation will be in place as regards the foreign exchange reserves and macroeconomic stability. Any further steps must depend on the soundness of the financial sector in the wake of the recent Supreme Court judgements.

Foreign exchange market

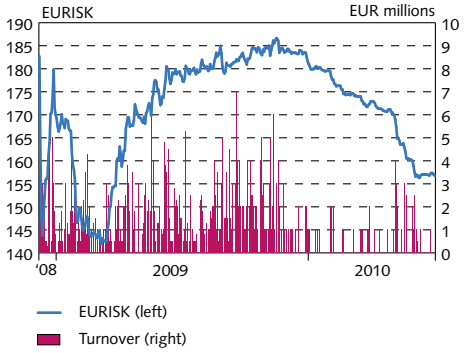
The interbank foreign exchange market has been in operation since 1993. The Central Bank oversees the market and can trade with market makers. The Bank publishes the daily exchange rate of the króna based on the market price.

The foreign exchange market changed dramatically with the collapse of the banking system and the króna in autumn 2008. Because the interbank foreign exchange market closed with the collapse of the market makers, on 15 October 2008, the Central Bank established a temporary auction market where financial institutions had the option of buying or selling foreign currency. This market ensured that the flow of foreign exchange for trading in goods and services remained in line with the Central Bank guidelines on modification of foreign exchange flows.

On 28 November 2008, new Rules on Foreign Exchange were adopted and capital account restrictions imposed (see Box 4.3). The capital controls were the precondition for the reopening of the interbank foreign exchange market on 4 December 2008, and the Central Bank discontinued foreign currency auctions. Market participants are three in number: Arion Bank, NBI hf., and Íslandsbanki.

Foreign exchange market trading has decreased sharply since the crisis struck. At first, quotes were lowered to 100,000 euros (12.5 m.kr.), but they quickly began rising again and had reached 500,000 euros (78.4 m.kr.) by June 2010. Because of the limited supply of foreign currency in the market, financial institutions make every effort to net out their foreign exchange flows internally rather than buying and selling currency in the market. As a result, the market is very shallow, and relatively little trading is needed to affect the exchange rate of the króna.

Chart 4.9
Interbank foreign exchange market
Daily data 4 December 2008 - 30 June 2010



Source: Central Bank of Iceland.

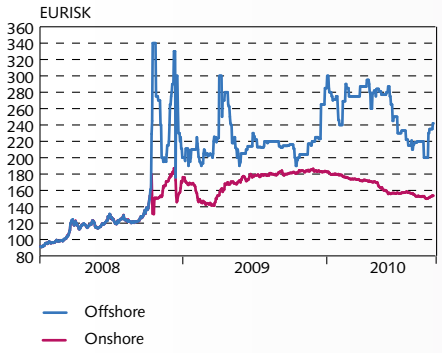
The Central Bank intervened in the foreign exchange market from time to time after it reopened, but stopped doing so in November 2009. Total intervention in support of the króna amounted to 88.5 million euros (13.9 b.kr.) during that period. On 31 August 2010, the Central Bank began preannounced modest foreign currency purchases with the aim of replacing the Central Bank's borrowed foreign exchange reserves with non-borrowed reserves. Foreign exchange market turnover totalled 357 million euros (61.6 b.kr.) in 2009 and 45.5 million euros (7.1 b.kr.) in the first half of 2010.

When conventional foreign exchange transmission channels became non-functional and the Bank instructed the commercial banks to modify currency outflows, an offshore exchange rate market developed alongside the official onshore market, with a far lower exchange rate than in the onshore market (see Box 4.4).

Box 4.4

The offshore foreign exchange market

Chart 1
The EURISK foreign exchange markets
Daily data 1 January 2008 - 27 September 2010



Source: Central Bank of Iceland.

In October 2008, when the nation's largest 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. At first, the Central Bank conducted limited currency transactions with the banks at an exchange rate that implied considerable excess demand for foreign currency. On 15 October, the Bank established a daily foreign exchange auction market, where the exchange rate was determined by supply and demand for currency. The auction market remained in operation until 4 December 2008. By that time, restrictions on foreign exchange transactions for trade in goods and services had been lifted and stringent capital account restrictions imposed instead (see Box 4.3), and the interbank foreign exchange market resumed operation.

When conventional foreign exchange transmission channels became non-functional and the Bank instructed the commercial banks to modify currency outflows, an offshore exchange rate market developed alongside the official onshore market, with a far lower exchange rate than in the onshore market. The separation of these two markets became entrenched with the imposition of the capital controls.

Trading with krónur in the offshore market was brisk during the week the Emergency Act was passed. According to the Central Bank's information, transactions with krónur took place at exchange rates ranging from 140 to 350 krónur per euro. Since then, offshore market trading volumes have varied, and the exchange rate has usually been quite changeable, yet it has often been difficult to determine what causes this volatility. News reports probably have some effect, as do changes in the implementation of the capital controls and increased surveillance of them. When the Rules on Foreign Exchange were amended in late October 2009, opportunities to circumvent the controls were drastically reduced. From then until May 2010, the króna weakened against the euro

in the offshore market. Trading was sparse, and transactions were usually executed in the range of 270-290 krónur per euro. Following the announcement that the pension funds had purchased Housing Financing Fund bonds from the Government on 31 May 2010 and the announcement of a bilateral currency swap agreement between the People's Bank of China and the Central Bank of Iceland on 9 June 2010, the króna appreciated in the offshore market. Since then, the exchange rate has fluctuated in the range of 210-240 against the euro.

5 Public sector

This chapter describes the public sector in Iceland, elaborating mainly on the division of responsibilities, central and local government finances, and the structure of the tax system. The challenges faced by the Government following the collapse of the banking system and the fiscal consolidation plan are also described. Finally, recent developments in Iceland's sovereign credit ratings are touched upon.

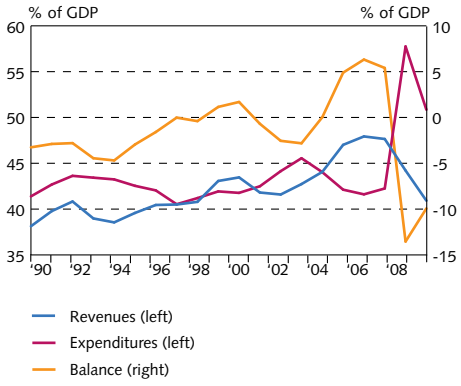
The financial crisis and the national budget

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. The growth in the financial system and its activities contributed significantly to revenue growth, as the contribution of the financial system rose from 13% in 2000 to 19% in 2007.

When the financial crisis struck in the autumn of 2008, the Government assumed large liabilities and was forced to tighten its fiscal stance substantially. The first year's gross cost of the collapse amounted to an estimated 67% of GDP, while tax revenues declined and unemployment rose (see Box 5.1). The general government balance plummeted to -13½% of GDP. In 2009, the balance improved somewhat to approximately -9% of GDP.

The fiscal consolidation plan in the Government-IMF economic programme stipulated that automatic stabilisers should be allowed to work in full in 2009 and the consolidation plan should be implemented in 2010. According to the medium-term fiscal programme, the budget deficit should turn from 13½% of GDP in 2008 to a surplus of 2% in 2013. A review of the agreement in April 2010 showed that all relevant performance criteria had been met and a better outlook for public sector debt would allow slightly more gradual fiscal consolidation in 2010 than was envisioned in the programme, partly due to early implementation of tax increases in 2009.

Chart 5.1
General government finances 1990-2009



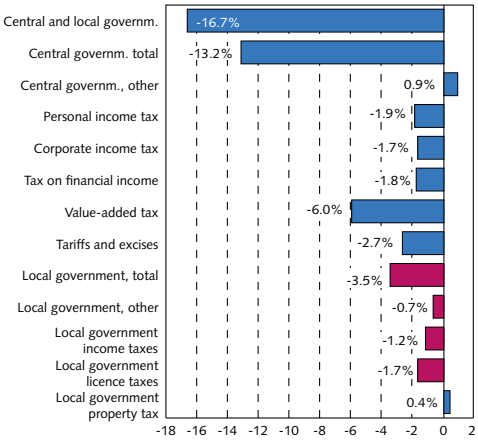
Source: Statistics Iceland.

International comparison

Compared to its Scandinavian neighbours, the Icelandic governmental sector has been relatively small, with revenues around 47½% and expenditures around 42% of GDP in 2007. The expenditure ratio remained fairly stable from 1988 through 2007. It is lower than the averages for the four Nordic countries (48%) and for the euro area[1] (46%), but higher than the averages for the US (37%) and Japan (36%). Government sector expenditures in Iceland temporarily shot upwards to 58% of GDP in 2008 because of the first round of financial system reconstruction. In 2009, as one-off costs were addressed, the expenditure ratio fell to a still-high 51% of GDP in 2009, because of higher costs of unemployment and a heavier interest burden.

Several factors should allow Icelanders to function efficiently with a relatively small government sector: historically low unemployment, comparatively low spending on social affairs, and the historical absence of defence expenditure. Furthermore, fully funded pension

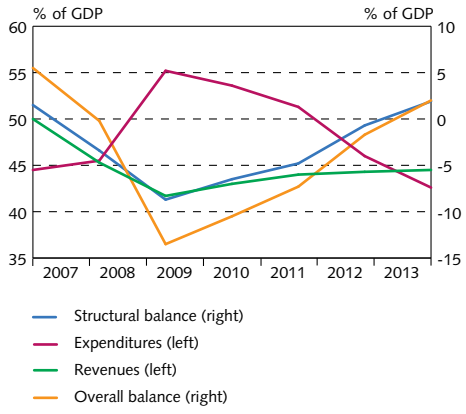
Chart 5.2
Revenue loss 2007-2009
% of 2007 general government revenue at fixed prices



Sources: Statistics Iceland, Central Bank of Iceland.

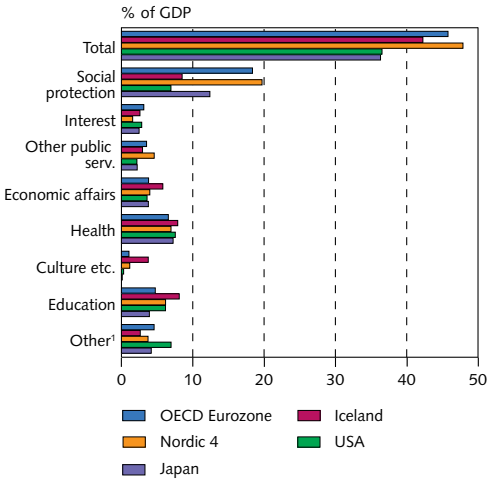
1. The 11 original EMU participants, plus Greece, Slovenia, Cyprus, Malta and Slovakia.

Chart 5.3
Fiscal requirements of IMF arrangement 2007-2013



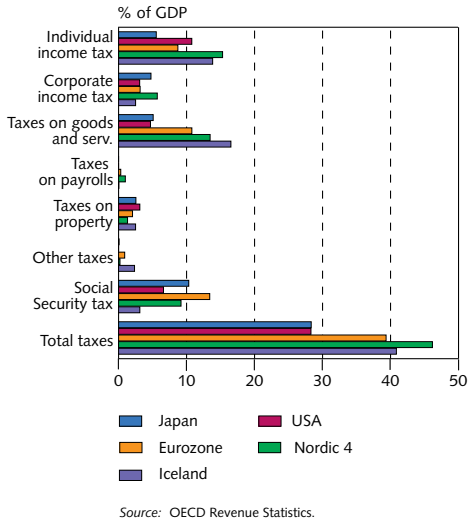
Source: IMF.

Chart 5.4
General government expenditures 2007



1. Public order and safety, housing and community affairs, environmental affairs.
Source: OECD National accounts.

Chart 5.5
General government taxes 2007



Source: OECD Revenue Statistics.

funds, organised by occupation, are gaining importance and have become more significant in terms of old-age benefit payouts than the public pay-as-you-go system, which is the dominant pillar in many other OECD countries (see Chapter 3). The relatively young population and high retirement age also help to lower overall pension expenditures. Compared to either the EU or the Nordic countries, the latest available figures from 2007 on government expenditures by function show that low outlays on social affairs and defence are counterbalanced to some degree by greater spending on other categories, notably health care, recreation, education, and economic affairs.

On the revenues side, there was rapid growth during the upswing, bringing the revenue ratio up to the euro area average. There are significant differences in the composition of revenues, however. In Iceland, taxes on individual income rose throughout the 1990s and are now approaching the rates seen in the Nordic countries. 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 are higher in Iceland than in the comparison groups, with value-added tax carrying most of the weight. Revenues from these three categories yielded around 73% of general government revenues in 2007 and 71% in 2009.

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 their expenditures and revenues are authorised through the central government budget. From the early 1990s through 2007, local government expenditures rose from around 10% to 13½% of GDP, while central government expenditures shrank from 35% to 31% of GDP, in large part because of the transfer of school expenditures and commensurate revenues from the central government to the local authorities.

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

The central government is responsible for police, courts, foreign affairs, upper secondary and higher education, health services, institutional care for the disabled and 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. Shortly before the onset of the 2008 crisis, income replacement for the unemployed was changed from a single rate close to the minimum wage to a system linking the first three months of compensation to previous income, albeit with a cap.

Local governments are responsible for local planning, most local infrastructure, day care and education from pre-school through

the lower secondary level, and welfare services of various kinds, especially services for the elderly, except for 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. At the end of 2010, local governments are scheduled to take over care for the disabled from the central government, along with commensurate revenues.

Central government finances

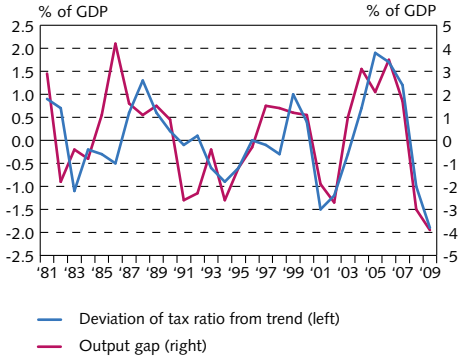
Central government revenues amounted to 35% of GDP in 2007 but fell to 30% in 2009, in the aftermath of the crisis. The composition of central government revenues in 2009 is shown in Chart 5.7. The large share of taxes on goods and services reflects the fact that the collection of such taxes is mostly 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 further cut since then. In particular, expenditures on fixed capital and capital transfers fell from around 4½% to 2% of GDP from 1990 to 2006. After a brief boost in 2008 and 2009 because of pre-crisis projects underway, the 2010 budget cut such capital expenditures to around 1½% of GDP.

Iceland's central government revenues have been strongly procyclical for three main reasons. First, the state personal income tax, which accounts for 1/5 of central government revenue, has a predetermined and sizable personal exemption, or zero tax bracket. This implies that higher-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. These taxes fall most heavily on luxury durables, most of which are imported. Such consumption has proven very sensitive to the business cycle, as well as to (procyclical) exchange rates. Third, taxes on corporate profits and the financial income of households grew from 5% of central government revenues in 1997 to 13½% in 2007, driven by capital gains, but they fell to 10½% in 2009. The combined revenue of taxes on consumption and capital fell from around 19% of GDP in 2007 to 14% in 2009, even though some rate increases were already in place by mid-2009, as is discussed in the section below on the tax system. The remaining large source of tax income, the payroll tax categorised as social security contributions, is far more stable. It has contributed a large chunk of post-crisis revenue enhancements, roughly 1.6% of GDP when fully implemented.

The composition of central government expenditures is shown in Chart 5.8. Health and social protection accounts for almost half of expenditures. The financial crisis has raised social costs, chiefly through unemployment costs, which rose from 0.4% of GDP in 2008 to 1.7% of GDP in 2009.

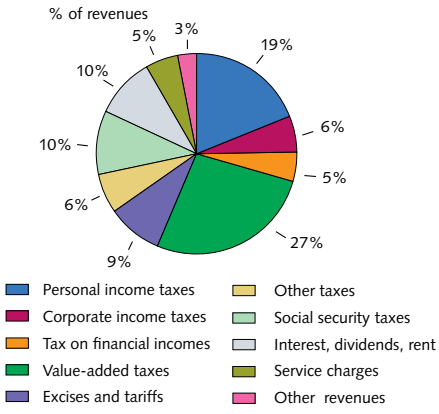
Central government interest expense had fallen from 3½% of GDP in the mid-1990s to around 2% in 2005-2007, in spite of steep increases in interest rates beginning in 2004. However, with the debt burden imposed by the banking crisis, central government interest expense rose to 6% of GDP in 2009.

Chart 5.6
Cyclicality of central government indirect taxes 1981-2009



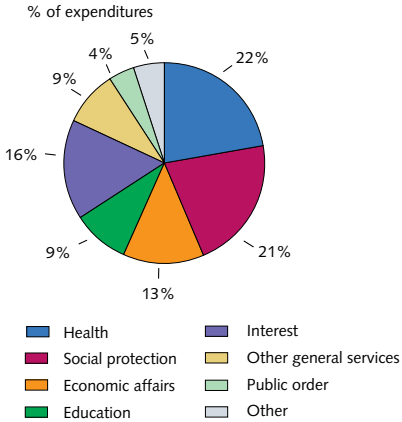
Source: Central Bank of Iceland.

Chart 5.7
Composition of central government revenue in 2009



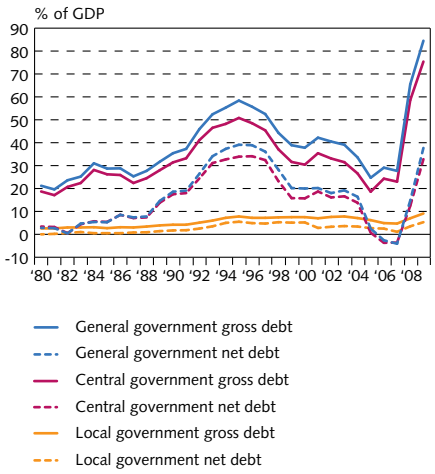
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 5.8
Composition of central government expenditures in 2009



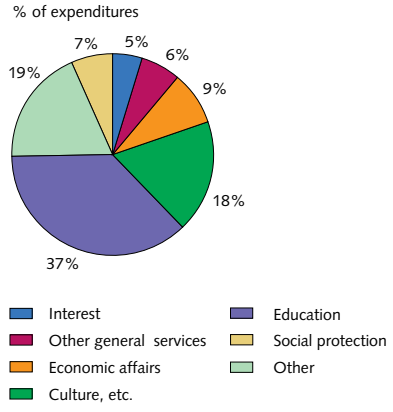
Source: Statistics Iceland.

Chart 5.9
Government debt 1980-2009[1]



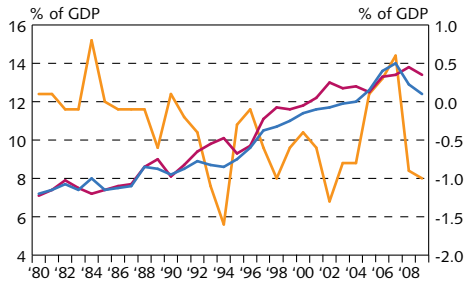
1. Without corporate equity or civil pension liabilities.
Sources: Statistics Iceland, Treasury account.

Chart 5.10
Local government expenditures in 2008



Source: Statistics Iceland.

Chart 5.11
Local government finances 1980-2009



Source: Statistics Iceland.

Privatisation revenues along with central government surpluses, reduced 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[2] (see Chapter 8).

Furthermore, beginning in 1997, the central government made an effort to pre-fund civil service pension liabilities, which are not generally classified as debt under national accounting standards. These liabilities rose from 13% of GDP in 1989 to 22% in 2000, but had been fallen to to 17% of GDP by the end of 2007, in spite of rising individual benefits and upward revisions of lifespan prediction.

With the financial crisis and the associated deficits in 2008 and 2009, central government gross debt rose to 78% of GDP at year-end 2009. This figure does not, however, include pension liabilities, undetermined liabilities due to international deposit insurance, or crisis-related debt of the Central Bank of Iceland.

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 the expenditures of the local government sector from 8% of GDP in 1990 to nearly 14% in 2009. Education, from pre-school to age 16, accounts for more than one-third of expenditures, with culture and recreation and welfare expenditures each accounting for about 15%.

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. The 2008 crisis has not hit the local government sector as severely as the central government. The main reason is the stability of the two largest local government revenue sources: a flat tax on personal incomes that contributed 58% of local government revenues (7.2% of GDP) in 2009, and a property tax contributing 14% (1.8% of GDP) of revenues. Nevertheless, the financial balance of local governments deteriorated from a surplus of ½% of GDP in 2008 to a 1% deficit in 2009.

The collapse of the króna in 2008 doubled local government debt relative to GDP from the end of 2007 to 9½% of GDP at the end of 2009, when foreign denominated debt reached 34% of total debt. Civil service pension obligations are not included in these figures. If they are included, local government liabilities total around 15% of GDP, slightly higher than their annual budget. Several municipalities have been hit hard by the collapse of the Icelandic króna, especially those that overextended their infrastructure investment in recent years and took foreign currency debt on their books.

The tax system

The central government derived around 82% of its revenues from taxes in 2009, down from a pre-crisis share of 87½%. The comparable ratio at the local government level was 74% in 2009. Central govern-

2. Central government deposits with the Central bank are included as assets.

Box 5.1

The fiscal impact of the financial crisis[1]

Iceland's fiscal position was relatively strong when the financial crisis struck. Since then, the Government has had to tighten its fiscal stance significantly in order to restore sustainability of public finances and regain the confidence of international creditors while in the midst of a recession. Given the imbalances in the economy in the years leading up to the crisis, it is not easy to distinguish the fiscal costs that may be attributed to the collapse of the banking system from the cost of inevitable macroeconomic adjustments. The first year's gross cost (direct and indirect) to taxpayers is estimated at 67% of GDP and the recurring gross cost at 12% of GDP. After adjusting for benefits that accrued to taxpayers from banking activities during the upswing, tax cuts that have been partly reversed, and the likely recovery of bank recapitalisation outlays through reprivatisation, the first year's net cost is estimated at 41% of GDP and the recurring net cost at 5% of GDP.

- **Collateralised lending** is probably the single most costly element of the banks' collapse. When global access to FX liquidity dried up in early 2008, the banks tried to gain access to foreign liquidity, both through the domestic interbank market (and ultimately the Central Bank of Iceland) and, through their subsidiaries in Luxembourg, the European Central Bank (ECB). The banks' sudden demand for short-term Central Bank credit led to a sharp deterioration of the quality of collateral they provided. The total loss due to this factor is estimated at 1.9 billion euros (330 b.kr.), or more than a fifth of GDP.
- The **cost of recapitalising the banks** depends on the size of the new banks and their ownership structure. When the banking system collapsed, domestic deposits and assets were transferred to the new banks, while foreign assets and liabilities were left in the old (failed) banks. The Government involved creditors in its efforts to recapitalise the banking system, with the result that two of the new banks were primarily recapitalised by the old banks' creditors. The Treasury's capital contribution to the new banks amounted to 781 million euros (135 b.kr.), or 9% of GDP. The Treasury holds 81% of shares in Landsbanki, but only 13% in Arion Bank and 5% in Íslandsbanki. In addition, the Treasury provided subordinated loans to the latter two banks. Furthermore, an additional 130 million euros (22.5 b.kr.) will be injected into the savings banks. Overall, the recapitalisation of the banking system was equivalent to 14% of GDP.
- The **cost of compensating depositors** in foreign branches is still subject to considerable uncertainty. The gross claim on the Depositors' and Investors' Guarantee Fund (DIGF) amounts to 2.35 billion pounds (496 b.kr.) from the UK, plus 1.33 billion euros (208 b.kr.) from the Netherlands, which is roughly half of Iceland's GDP. Landsbanki assets are estimated to cover about 90% of deposit claims, but this is subject to much uncertainty. The reimbursement will begin next year, at the earliest, and could continue beyond 2020, generating enormous interest expense during this period. No agreement has been reached with the British and Dutch governments, but the estimated net present value of the latest offer is approximately 12% of GDP.

1. Based on Sighvatsson, Arnor and Gunnar Gunnarsson (2010). "*Iceland's financial disaster and its fiscal impact*". Forthcoming in compendium of proceedings from "*Managing Systemic Risk*," a symposium held at the University of Warwick, Coventry, England, 7-9 April 2010.

- Before the financial crisis, banking had become the largest sector of Iceland's economy, with a direct contribution of 9% of GDP. **Corporate tax revenues from financial enterprises** plus capital gains tax on dividends and profits from the sale of banking shares amounted to 2.8% of GDP in 2007, at the height of financial activities, whereas total tax revenues amounted to 34.9% of GDP in 2007. The vast majority of these tax revenues have disappeared, and the revenue loss is largely permanent. However, a large part of pre-crisis revenues was not permanent but was linked to the upswing. The net loss is estimated at 1% of GDP.
- Loss of confidence adds substantially to the cost of financing the fiscal deficit resulting from the crisis. Iceland's access to global credit markets at reasonable interest rates is very constrained at the time of writing. The extra **interest expense** stems from two sources: the interest expense on all new interest-bearing debt, excluding new debt to expand reserves; and interest differentials from holding excess reserves to stabilise the currency. In all, it is estimated at 5.3% of GDP, including interest premia due to loss of confidence, which probably amount to 2-3 percentage points, depending on the outcome of the Icesave dispute.
- The **balance sheet effects** on automatic fiscal stabilisers contributed substantially to boosting income during the upswing. The private sector balance sheet effects are therefore an indirect cost of the crisis. The gross fiscal impact of going from positive to negative balance sheet effects during the recession is estimated at 3% of GDP. The net cost is assumed to be slightly negative, as the positive and negative balance sheet effects will cancel each other out in the long run.
- At year-end 2007, the Government had outstanding foreign-denominated debt amounting to 13.4% of GDP, mainly in euros. The sudden stop of capital inflows and loss of confidence caused a sharp **depreciation of the króna**, increasing outstanding foreign debt by 6% of GDP in krónur terms, which is the gross fiscal impact. In time, the overshooting of the exchange rate will correct itself to some extent. The net fiscal impact is therefore assumed to be marginal.
- The financial crisis may trigger a lasting increase in **social contributions**. The deterioration of household balance sheets and the rise in unemployment has led to a sharp increase in the need for social transfers. The net fiscal impact is estimated at 1% of GDP.
- As a result of the financial collapse, **pension funds** incurred losses that, to some extent, will be carried by the State. The pension funds operated by the State and municipalities are rights-based. The respective governments provide a *de facto* guarantee of these pension rights. Adjusting for wage developments, net assets have depreciated by 3.8%, which amounts to 4.4% of GDP for the pension system as a whole, while the Government's share is 1.3% of GDP.

Table 1 The fiscal impact itemised

% of GDP	*Gross*	*Net*
Collateralised lending	22	22
Bank recapitalisation	14	0
Compensation to depositors	12	12
Permanent tax revenue loss from banking	2	1
Interest expense	5	4
Balance sheet effects	3	1
Loss on outstanding FX debt	6	0
Increase in social contributions	2	1
Pension fund losses	1	0
Total	67	41

ment revenues equalled 30% of GDP in 2009, of which 9% of GDP came from taxes on income and wealth, 3% of GDP from social security contributions and other payroll taxes, and around 12% of GDP from value-added tax and other 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 13.12% in 2010. The central government tax is 24.1% of individual income up to 14,300 euros (2.2 m.kr.) per year, then 27% up to 50,000 euros (7.8 m.kr.) per year, and 33% on higher income. Against this, the central government pays an individual refund of 3,400 euros (0.53 m.kr.) per year towards the combined state and local tax. The result is a three-rate overall tax, structure with a zero tax bracket for individual incomes up to 9,100 euros (1.4 m.kr.) per year and the State effectively paying the local tax for low-income individuals. The unused refund is not paid out but can be transferred to the individual's spouse. Similarly, an individual in the top bracket can, for tax purposes, transfer income to a spouse in a lower-bracket up to either 17,000 euros (2.7 m.kr.) or half of the amount "unused" by the spouse in the 27% state tax bracket, whichever is lower. Pension fund contributions and certain public income support payments are exempt from state and local income taxes.

Until mid-2009, the combined state and local personal income tax effectively formed a single rate system with a marginal tax of 37% and a zero bracket that exempted some 17% of tax returns completely and others to a lesser extent. The central government part of the tax was raised in mid-2009 by adding an extra 8% tax on annual incomes above 53,500 euros (8.4 m.kr.) at mid-2010 exchange rates. The present system was introduced in 2010 to boost central government revenues and adjust the system to suit the income distribution objectives of the Government.

The central government taxes financial incomes of persons (dividends, rents, interest and capital gains). Until mid-2009, the tax was flat at 10%, but it has now been raised to 18%, while an interest income exemption of 640 euros per person per year (100 thousand krónur) (a zero bracket) has been added. Again, the rationale for the

increase was a mix of revenue enhancement and political emphasis. For the same reasons, the corporate income tax was raised from 15% in 2008 to 18% in 2010. The revenue increase is estimated at around 0.15% of GDP per year. Furthermore, the payroll tax was raised from 5.34% in 2008 to 8.65% in 2009, and is estimated to increase tax revenues by around 1.6% of GDP per year.

Table 5.1 Main features of the tax system in Iceland

Central government income tax[1]	
Bottom rate/starts at	24.1%/9,100 euros (1.4 m.kr.)
Intermediate rate/starts at	27.0%/15,300 euros (2.4 m.kr.)
Top rate/starts at	33.0%/49,700 euros (7.8 m.kr.)
Local governm. income tax, lowest/average/max[2]	11.24%/13.12%/13.28%
Tax on financial income[3]	18.0%
Corporate income tax	18.0%
Net wealth tax	1.25%
Starts at (singles/couples)	574,000/765,000 euros (90 m.kr./120 m.kr.)
Payroll tax	8.65%
Value-added tax	
General rate	25.5%
Low rate[4]	7.0%
Property taxes	
Residential property average/max	0.272%/0.625%
Commercial and public property average/max	1.606% /1.605%

1. Incomes up to 9,100 euros (1.4 m.kr.) per person are exempt from income taxes. A person in the top bracket may attribute a limited amount to a spouse in a lower bracket.
2. Municipalities in financial distress may raise their rate by 10% over the maximum 13.28%. So far in 2010, two municipalities have done so.
3. Interest, dividends, realised capital gains and rental income of persons. The first 640 euros (100 thousand krónur) of individual interest income are exempt.
4. Most food except sugary food and soft drinks. Hotel rooms, heating, books, newspapers, CDs, and television and radio subscriptions.

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

Taxation on property and financial transactions has consisted of four main parts. Local governments charge property taxes that have grown from 0.8% to 1.8% of GDP since 1980. The central government collects a stamp tax, a 5% inheritance tax, and a tax on net wealth of individuals. A net wealth tax used to apply to corporations as well as individuals. It was abolished in 2006 but was reinstated in 2010, with a 1.25% rate and a tax-free level of 574,000 euros (90 m.kr.) for individuals and 765,000 euros (120 m.kr.) for couples; therefore it only applies at the very top of the wealth distribution.

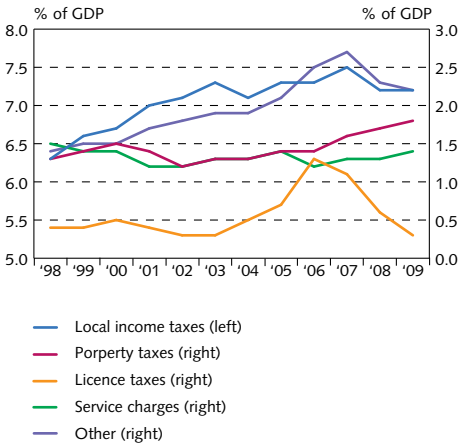
The largest source of central government revenue is the value-added tax, yielding 8% of GDP in 2009. A rate of 25.5% is charged on most goods and services. The value-added tax was raised from 24.5% in January 2010. Food, indoor heating, books, newspapers, magazines, and some services are taxed at 7%. 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 cif value, although most imports from the EU, as well as Iceland's EFTA partners (Norway, Switzerland and Liechtenstein) are exempt. However, much higher excises are charged on various agricultural products for protection purposes. 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, import fees, and user fees account for around 4% of central government revenues in 2009. Some have been raised since the crisis and are expected to yield an extra ½% of GDP. However, shrinking tax bases, imports, and consumption have held revenues down.

In total, the central and local government taxes described above accounted for 80% of general government revenues and 98% of tax revenues in 2009. Non-tax revenue accounted for 17% of general government revenues, mostly in the form of service charges, dividends, and interest income.

Chart 5.12
Local government taxes 1998-2009



Source: Statistics Iceland.

Government holdings in the business sector

In Iceland, both central and local government were traditionally heavily involved in the business sector, notably in the operation of utilities and banking institutions. In the period 1997-2007, however, the central government pursued an extensive programme of privatisation. The most recent privatisation, in early 2007, was the central government's share in a geothermal water and electricity utility, owned mainly by local governments in Southwest Iceland. After the privatisation process came to an end, the State's most important business holdings are in the production and distribution of electricity and postal services, as well as in the Housing Financing Fund (HFF), the Student Loan Fund, and a few smaller financial institutions, which were responsible for a combined 10% of credit in the economy at the end of 2007. 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 own operating companies for harbours, in addition to owning their local electricity distributors.

Table 5.2 Highlights of central government privatisation

Years	*Company sold*	*EUR millions*	*% of total*
2007	Sudurnes Regional Heating	88	5
2005	Iceland Telecom	860	50
2005	Agricultural investment fund	37	2
1999-2003	Búnaðarbanki	199	12
1998 and 2003	Landsbanki	251	15
1998 and 2003	Iceland Prime Contractor	28	2
2002	Icelandic Alloys (ferrosilicon)	14	1
1998-1999	FBA investment bank	184	11
1991-2007	Other	59	3
1991-2007	Total	1,720	.

Sources: Executive Committee on Privatisation, Central Bank of Iceland.

After the collapse of the major banks in October 2008, the State needed to reinstate the banking system by establishing new banks (see Chapter 4). The Government's policy has been to encourage as much creditor ownership in the new banks as possible. When the ownership policy was fully implemented, the State held 81% in New Landsbanki, 13% in Arion Bank,[3] and 5% in Íslandsbanki, at a cost of 1.4 billion euros (184 b.kr.), or 13% of GDP. The creditors owned the remaining shares. Furthermore, the State had to rescue one insurance company, which resulted in its owning 73% of Sjóvá.

Government guarantees

Besides debt on the books of government entities, the Central and local governments guarantee certain debts of various enterprises. State guarantees must be authorised explicitly in budget legislation and, in the years before the financial crisis in 2008, had been confined to government enterprises and institutions related to government. Local governments are legally prohibited from granting loan guarantees except to their own subsidiary institutions.

Table 5.3 Treasury guarantees at the end of 2009[1]

	EUR millions (b.kr.)	*% of total*
Housing Financing Fund	4,884 (879)	73
Regional Development Institute	126 (23)	2
National Power Company	1,396 (251)	21
Guaranteed assets sold to old banks	157 (28)	2
Total	6,736 (1,212)	
Percentage of 2009 GDP		81

1. Civil service pension liabilites (1,889 million euros (340 b.kr.)) and government guarantees of deposits in domestic banks (9,228 million euros (1,660 b.kr.)) not included.

Source: Treasury Accounts 2009.

Central government accounts for 2009 show that the Government has outstanding guarantees equivalent to 81% of GDP, excluding the State guarantee of all deposits in domestic banks. Some 73% 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 21% of the guarantees are for the debt of Landsvirkjun, the national power company. Until mid-2004, the HFF operated a housing bond system, which was not a traditional mortgage loan system but a bond swap system. In mid-2004, the HFF discontinued the housing bond system and issued HFF bonds to finance its new cash loans to households. The new HFF bonds are indexed to the CPI, have no call option, and mature in 2014, 2024, 2034 and 2044, respectively. HFF bonds are listed on OMX ICE and registered with Euroclear.

The State guarantee from October 2008, which covers all deposits in domestic commercial and savings banks and their branches in Iceland, is still in effect. "Deposit" refers to all deposits by general customers and companies that are covered by the Deposit Division of the Depositors' and Investors' Guarantee Fund (DIGF). At the end of 2009, those deposits amounted to 105% of GDP.

3. Arion Bank is derived from Kaupthing and Íslandsbanki from Glitnir.

Treasury foreign debt

From 2001 until November 2006, the Republic of Iceland was a modest borrower in international markets. The balance on Government finances and the retirement of debt with surpluses and proceeds from privatisation had contributed to a gradual reduction in the ratio of Treasury foreign debt to GDP in the past years. In November 2006, however, the Treasury engaged in a Eurobond (EMTN) issue of 1 billion euros (88 b.kr.), the entire proceeds from which were used to strengthen the foreign reserves of the Central Bank of Iceland. The fixed-rate notes mature on 1 December 2011. To strengthen the Central Bank's foreign reserves still further, the Treasury borrowed 300 million euros (38 b.kr.) in September 2008.

At the end of June 2010, the Treasury's total foreign currency debt amounted to 2.5 billion euros (388 b.kr.), 0.9 billion euros (145 b.kr.) of which will mature before the end of 2011. Around 89.3% of the Treasury's foreign obligations were denominated in euros, 6.1% in US dollars, 1.6% in Danish kroner, 1.6% in Polish złotys, and 1.4% in pounds sterling.

Table 5.4 Republic of Iceland foreign bond issues

Currency	*Amount*	*Outstanding amount*	*Issue date*	*Maturity*
EUR	*300,000,000*	*300,000,000*	*30.9.2008*	*22.9.2011*
EUR	*1,000,000,000*	*663,199,000*	*1.12.2006*	*1.12.2011*
EUR	*250,000,000*	*207,909,000*	*10.4.2002*	*10.4.2012*
USD	*200,000,000*	*200,000,000*	*10.3.2004*	*10.3.2014*
EUR	*401,500,000*	*401,500,000*	*4.6.2010*	*15.3.2025*

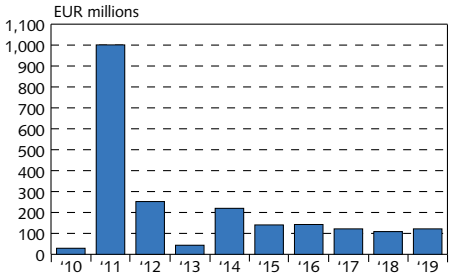
Source: Central Bank of Iceland.

As of the end of June 2010, 44.5% of the Treasury's total foreign debt carried fixed interest rates. The average maturity of foreign currency debt was approximately 4.27 years and the average duration 4.25 years.

In accordance with the joint programme of the Icelandic authorities and the International Monetary Fund (IMF), the IMF will lend Iceland 2.1 billion US dollars (264 b.kr.), and the Nordic countries and Poland will lend 2.5 billion US dollars (302 b.kr.). The IMF loan is granted to the Central Bank in order to strengthen the foreign exchange reserves, as are 0.6 million US dollars (78.4 b.kr.) of the Nordic loans.[4] The IMF loan will be paid out following the successful completion of each of the seven reviews of the IMF Stand-by Arrangement. The Nordic loans will be disbursed upon successful completion of the first four reviews. By mid-2010, the IMF had paid out 1.1 billion US dollars (140 b.kr.) and the Nordic countries 1.2 billion US dollars (153 b.kr.).

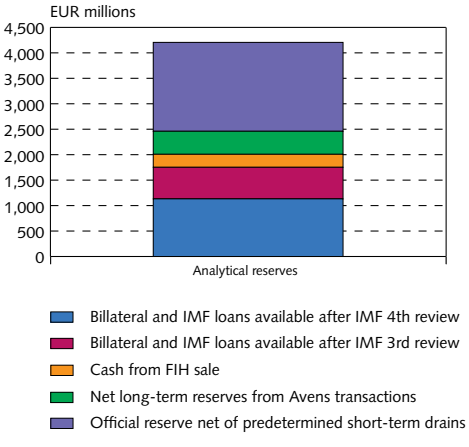
Under a special agreement with the Minister of Finance, the Central Bank is responsible for the implementation of foreign borrowing for the Treasury. Since October 2007, the Central Bank has handled the borrowing and debt management functions previously assigned to the former National Debt Management Agency (NDMA).

Chart 5.13
Maturity profile of Treasury external long-term debt
June 2010



Source: Central Bank of Iceland.

Chart 5.14
Central Bank of Iceland reserves



Source: Central Bank of Iceland.

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

The Republic of Iceland has never defaulted on its debt and has always paid when due the full amount of principal, interest, and sinking fund instalments for all internal and external obligations.

Credit ratings

The Republic of Iceland's credit ratings have been lowered significantly since the banking crisis in October 2008 and are currently the lowest in the country's rating history.

Iceland's Aa1 Government bond ratings with Moody's were downgraded to A1 in October 2008, with a review for a downgrade. Two months later, in December, the ratings were downgraded to 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 from Baa1, 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. In its analysis, Moody's said that the "rating action was triggered by the Supreme Court ruling in June on the illegality of foreign exchange-linked loans and the Government's continuing difficulties in achieving a resolution to its 'Icesave' dispute with the UK and Dutch governments." In addition, the analysis mentioned that "positive pressure on Iceland's rating could develop if there are signs of a sustained economic recovery and a successful solution to the current uncertainties." 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 wake of the September Supreme Court judgment on applicable interest rates, Moody's made an Issuer Comment stating that „The ruling and the expected further clarification are an important and positive step in reducing the substantial uncertainty over the banking sector's ability to deal with the currency redenomination of loans." In spite of this comment, however, there was no change in the ratings assigned by Moody's at the time.

In September 2008, Standard & Poor's 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. Standard & Poor's downgraded Iceland's long-term foreign currency ratings for the fourth time in 2008, assigning it a BBB- rating for the aforementioned currency in November. The outlook was negative. Recently, Standard & Poor's 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 its most recent report, S&P stated that the negative outlook expressed their opinion "that downside risks to Iceland's creditworthiness remain. If the Icesave negotiations with the UK and the Netherlands

were to break down, this would undermine Iceland's prospects for external financing, exacerbating external liquidity pressures and limiting growth opportunities because the capital account will remain closed." On a more positive note, the agency pointed out that, despite strong financing pressures and a high Government debt ratio, "Iceland's prosperous and very flexible economy supports an investment-grade rating" in S&P's view, and that "Iceland's GDP per capita remains almost four times higher than the 'BBB' median and its institutions facilitate swift and decisive policy action to prevent default."

In September 2008, Fitch Ratings revised its ratings for all the currencies they 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 when Fitch affirmed its ratings of 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. In September 2010, as of this writing, Fitch's most recent rating on Iceland's Government bonds was in January 2010, when 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 is now negative. A press release from Fitch Ratings regarding the most recent downgrade states that the "decision by Iceland's President to refer the 'Icesave' agreement to a referendum creates a renewed wave of domestic political, economic and financial uncertainty. It also represents a significant setback to Iceland's efforts to restore normal financial relations with the rest of the world." Fitch simultaneously downgraded Iceland's Country Ceiling to BB+ from BBB+. With that said, Fitch has 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 …"

The most recent ratings from Japan's R&I Rating – BBB- for the Republic's long-term foreign currency rating – were affirmed in January 2010. The rating was placed on the Rating Monitor with a view to a possible downgrade.

Table 5.5 Republic of iceland credit ratings

		Foreign currency		*Domestic currency*		
	Affirmed	*Long-term*	*Short-term*	*Long-term*	*Short-term*	*Outlook*
Moody's	July 2010	Baa3	P-3	Baa3	P-3	Negative
Standard & Poor's	Mar. 2010	BBB-	A-3	BBB	A-3	Negative
Fitch	Jan. 2010	BB+	B	BBB+		Negative
R&I Rating of Japan	Jan. 2010	BBB-				Negative

Box 5.2

Icesave[1]

Icesave was an online retail savings account operated by a branch of Landsbanki in the UK and Netherlands. The bank operated under EU/EEA financial regulations. As a branch of the Icelandic Landsbanki, Icesave was subject to surveillance by the Icelandic Financial Supervisory Authority (FME).

Following the October 2008 collapse of Iceland's three main banks, which constituted 85% of the banking system, Landsbanki went into receivership and Icesave depositors found themselves unable to access their accounts. As a part of wide-ranging measures to address the global financial crisis, the UK and Dutch authorities announced that bank deposits would be guaranteed. Subsequently, the UK authorities reimbursed Icesave retail depositors in full, while Dutch authorities paid up to 100,000 euros (17 m.kr.) to Icesave retail depositors.

Following the collapse of Landsbanki, it became clear that Iceland's Depositors' and Investors' Guarantee Fund (DIGF), established under EU legislation to cover losses in the event of a bank failure, was unable to cover more than a fraction of the losses incurred by Icesave depositors. Talks therefore started on the practical aspects of the reimbursement by the UK and the Dutch authorities and whether the Icelandic Government were liable to cover the minimum deposit guarantee (20,887 euros, or 3.6 m.kr. per depositor).

With the support of the French EU presidency, Iceland, the UK, the Netherlands and several EU Member States reached a common understanding on 14 November 2008. The agreement, the so-called Brussels Guidelines, recalled that the EU Deposit Guarantee Directive had been incorporated into EEA legislation in accordance with the EEA Agreement and was therefore applicable in Iceland in the same way as in the EU Member States. The Guidelines also stated that the unprecedentedly difficult situation in Iceland and the necessity of finding arrangements that allowed Iceland to restore its financial system and its economy should be taken into account when resolving the Icesave issue. According to the EU and the EEA, institutions would continue to be involved and would act as some sort of intermediary if the need should arise. The Guidelines allowed for the expeditious finalisation of multilateral financial assistance for Iceland, including funding from the IMF.

On this basis, formal negotiations between Iceland, the UK, and the Netherlands started in February 2009 and concluded in June 2009. Under the agreements reached on 5 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.

Estimates made by the bank's resolution committee indicate that most of the principal of this debt will be covered by Landsbanki assets. The exact level will depend on the future value of Landsbanki assets and the future exchange rate of the Icelandic króna, and will therefore remain uncertain for some years. Any shortfall in covering the minimum deposit guarantees and accrued interest is to be covered by the Icelandic Government through its guarantee.

Because such a guarantee must be approved by Parliament according to the Constitution of the Republic of Iceland, the Icelandic

1. This account is based on a Ministry of Foreign Affairs fact sheet on the Icesave issue (http://www.mfa.is/media/MFA_pdf/Fact-Sheet---The-Icesave-Issue-June.pdf).

Government presented a bill of legislation to Parliament in summer 2009 so as to provide the necessary legal basis for the guarantee.

The terms of the State guarantee were the subject of intense debate in Parliament. Even though the loan was to be spread over 15 years, with a seven-year grace period, the 5.55% interest rate was criticised, and many argued that the terms would severely threaten Iceland's economic recovery and place too heavy an economic burden on future generations. After one of the longest debates in the history of the Parliament of Iceland, the Icesave Act was passed in August 2009 in an amended form, with a number of preconditions aimed at securing Iceland's debt sustainability and allowing the country to restore its economy and financial system.

Parliament's preconditions were then introduced to the governments of the UK and the Netherlands, as was required by the Icesave Act. The governments of the UK and the Netherlands indicated that they would be willing to accept the preconditions to the State guarantee through so-called Acceptance and Amendment Agreements, providing for the necessary adjustments to the June agreements.

The Acceptance and Amendment Agreements were signed on 19 October 2009. This required certain amendments to the Act passed in August; therefore, a new bill was presented to Parliament. Again, extensive debate took place, specifically on whether the proposed amendments satisfactorily reflected the preconditions previously made by Parliament. On 30 December 2009, Parliament passed the revised Icesave Act by a narrow margin.

On 5 January 2010, the President of Iceland decided not to sign the new law. According to the Constitution of Iceland, the Act nevertheless entered into force, and a decision on whether it should remain in force was to be made by the public in a national referendum. One of the main reasons cited by the President for his decision was an internet petition against the Icesave Act, signed by up to 25% of the electorate. The President also referred to the need to ensure a national consensus in addressing the Icesave issue.

On 15 February 2010, a negotiation committee representing the Icelandic Government met with representatives of the UK and Dutch governments. At this meeting, the committee presented a proposal for a new solution to the Icesave dispute, based on an agreement between government and opposition parties in Iceland. Subsequently, representatives of the three governments remained in close contact, holding meetings in London in late February and early March. Constructive proposals were made by both sides during these talks, but some differences still remain.

This round of Icesave talks was suspended because of Iceland's 6 March national referendum on the validity of the State guarantee. Voter turnout in the referendum was 62.7%, with 93.2% of those who voted opposing the Icesave Act of 30 December 2009. Iceland, the UK, and the Netherlands have all expressed firm willingness to resume the talks as early as possible.

On 26 May 2010, the EFTA Surveillance Authority (ESA) issued a Letter of Formal Notice on Iceland's application of the EU Deposit Guarantee Directive. ESA came to the opinion that, by failing to ensure payment of the minimum compensation to Icesave depositors in the UK and the Netherlands, Iceland failed to comply with the obligations resulting from the Directive (and failed to observe the principle of non-discrimination). This is the appropriate forum and process for deciding whether the acquis has been violated. Despite ESA's having initiated this process, Iceland remains committed to

resolving the Icesave dispute in bilateral negotiations with the UK and the Netherlands. ESA does not address whether Iceland has fulfilled its EEA obligations.

Negotiations between Iceland, the Netherlands and the UK aimed at settling the dispute were still underway as this publication was finalised.

6 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. The main monetary policy instruments are also described. The chapter 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 instruments and financial independence, and any direct access by the Government to Central Bank financing was banned.

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 2.5%, measured in terms of the twelve-month rate of change in the consumer price index (CPI). The declaration required the Central Bank to keep inflation as close to the target as possible, on average. In case of deviations of more than 1½% in either direction, the Bank was 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 6.1). 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 be comprised of the Governor of the Central Bank, the Deputy Governor, one of the Bank's executives responsible for formulating monetary policy, and two 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*.

Table 6.1 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 ±2¼% 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 7½% in June 1993. In September 1995, the fluctuation band was widened to ±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 ±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.sedlabanki.is).

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 are to be discussed at a joint meeting of the Parliamentary Economics and Tax Committee, Budget Committee, and Commerce Committee.

The interim objective of monetary policy

Following the banking and currency crises in 2008, and in accordance with the joint economic policy agreed upon by the Icelandic authorities and the IMF in November 2008, the main focus of monetary policy has been to stabilise the króna. Stabilising the currency using conventional tools would probably have called for much higher interest rates, which would have led to a larger contraction, and more extensive foreign exchange market intervention, which would have required much larger foreign exchange reserves than Iceland had. To aid monetary policy while establishing exchange rate stability, temporary capital account restrictions were therefore imposed in December 2008 (see Box 4.3). The aim was to halt the fall of the króna and promote exchange rate stability without formally committing to a fixed exchange rate regime,

as it was considered desirable that the króna should recover somewhat afterwards.

Another important goal was to create some shelter for the private sector debt restructuring that was critical due to the large share of exchange rate-linked loans in private sector debt. A stable exchange rate was also deemed conducive to bringing inflation into line with the inflation target.

Because of the focus on exchange rate stability, monetary policy has been tighter than would be warranted by inflation prospects and the degree of slack in the economy. The scope to soften the contraction in the real economy has thus been more limited than otherwise. As economic restructuring progresses, the inflation outlook will regain its importance in monetary policy decisions, in accordance with the legally mandated long-term monetary policy regime.

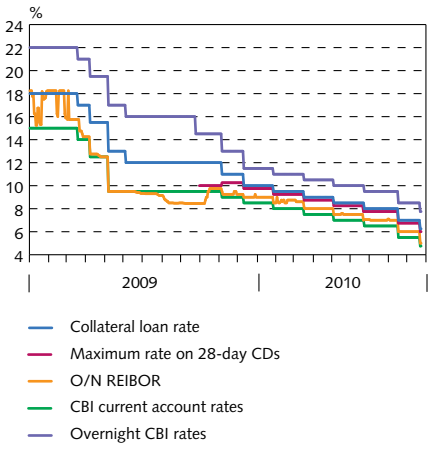
Monetary policy instruments

The Bank's monetary policy instruments are its interest rates on transactions with credit institutions, quantitative actions, decisions on minimum reserve requirements, and exchange rate interventions. Financial institutions subject to reserve requirements – commercial banks, savings banks, and credit institutions – are eligible for Central Bank facilities.[1] 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 collateral loans at a fixed interest rate in the middle of the interest rate corridor. In addition, the Central Bank offers certificates of deposit for sale when it considers this necessary. After the banks collapsed, there was a substantial amount of liquidity in the financial system due to a lack of other investment options, and interbank interest rates dropped below the interest rate corridor in 2009. In order to bring interbank market rates within the Central Bank interest rate corridor once again, the MPC decided to auction off 28-day certificates of deposit, with set maximum bid rates and with a maximum amount sold in each auction.

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

Chart 6.1
Central Bank of Iceland interest rates and short-term market interest rates
Daily data 1 January 2009 - 23 September 2010



Source: Central Bank of Iceland.

1. The term *credit institutions* applies to a group of undertakings that have a wide range of operations but are all licensed by the Financial Supervisory Authority (FME) to operate as credit institutions.

determinant of market rates, but since summer 2009, the interest rate on deposit institutions' current accounts with the Bank and the interest on certificates of deposit have been most important in interest rate formation.

The Central Bank of Iceland has not systematically used reserve requirements as a monetary policy instrument. The required reserve ratios are in line with those of the European Central Bank; that is, 2% of specific bank liabilities with a maturity of less than two years, and 0% of other liabilities.

Foreign exchange reserves and intervention

One of the functions of the Central Bank is to manage Iceland's foreign exchange reserves. Investment guidelines for the reserves are laid out in a resolution by the Governor. Currently, the size of the reserves should not be smaller than the value of three months' goods imports. The portfolio consists mainly of deposits and investment-grade bonds.

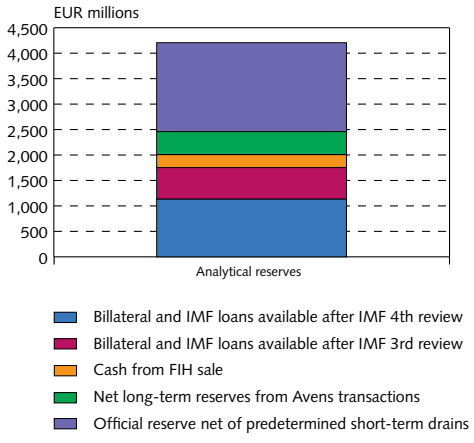
In the run-up to the financial crisis and after the collapse of Iceland's three commercial banks, the Central Bank established a temporary auction market and used a large share of the foreign exchange reserves to grant emergency loans to financial institutions and sell foreign currency so as to ensure payment for necessary goods and services. After the capital controls were imposed in November 2008 (see Box 4.3), the regular foreign exchange market was reopened on 4 December 2008.

Between June 2008 and June 2010, the Central Bank of Iceland's foreign exchange reserves grew by over 3 billion US dollars (2.4 billion euros, 383 b.kr.) as a result of loans taken from the IMF, the Nordic countries, and the Polish Government. In addition, the Faroe Islands loaned Iceland 300 million Danish kroner (40 million euros, 50 million US dollars, 6 b.kr.) in the autumn of 2008. In September 2009, the Central Bank, on behalf of the Treasury, paid down loans amounting to 150 million euros (25.9 b.kr.). Furthermore, in 2009 and 2010 the Bank has repurchased 403.8 million euros (63 b.kr.) worth of outstanding Treasury bonds maturing in 2011 and 2012.

In May 2010, the Central Bank of Iceland, on behalf of the Treasury, concluded agreements with the Banque centrale du Luxembourg, on the one hand, concerning the purchase of króna-denominated assets, and with the Icelandic pension funds, on the other, concerning the sale of Housing Financing Fund bonds that were paid for with foreign currency. The foreign exchange reserves will expand by 512 million euros (80 b.kr.) in the latter half of 2010 as a result of these transactions. Furthermore, after the third review of the IMF programme, scheduled for the autumn of 2010, 623 million euros (98 b.kr.) will be available.

As a percentage of GDP, the foreign exchange reserves expanded from 13.74% in June 2008 to 38.2% in June 2010, measuring 140% of 2009 goods imports and 60% of M2 in June 2010. In addition, the foreign exchange reserves measured roughly 12% of the short-term debt of the economy, up from 10% at the end of 2009. However, the banks in winding-up proceedings are responsible for 92% of the short-term debt.

Chart 6.2
Central Bank of Iceland reserves



Source: Central Bank of Iceland.

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 the 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 with the publication of its *Financial Stability* report.

To promote financial stability, the Central Bank sets prudential regulation 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 practice.

Supervision 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 the Insurance Supervisory Authority. The FME supervises financial undertakings and parties operating in 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 – that is, the ratio of liquid claims to liquid liabilities – and for their foreign exchange balance. Other prudential regulations on financial markets are either provided for by law or adopted by the FME.

In October 2008, the Government made a general statement that all deposits in Iceland were backed by the State. The declaration has been confirmed by subsequent governments. With the fall of the largest banks, their deposits in Iceland were moved into new domestic banks. In some cases, deposits in the banks' branches and subsidiaries abroad – e.g., Kaupthing Edge and Landsbanki Icesave – were reimbursed by the banks in winding-up proceedings, but in other cases they were paid by the authorities in the countries in which the banks operated. The UK and Dutch authorities paid Icesave depositors in their countries, and the authorities in Iceland, the UK, and the Netherlands have been engaged in negotiations on this issue since that time.

Cooperation

One of the lessons to be drawn from the recent financial crisis is the importance of cooperation and burden sharing in a cross-border crisis. For that reason, the Nordic and Baltic countries signed a new agreement on cross-border financial stability and crisis management and resolution in 2010. The agreement established the first European cross-border stability group. Although the agreement is legally non-binding, it enhances cooperation by establishing routines and procedures for information sharing and coordination.

In 2010, the Icelandic authorities signed an agreement establishing a committee on financial stability, which replaced a similar committee that had been set up in 2006. The role of the committee is to enhance cooperation, facilitate exchange of information, and increase preparedness so as to maintain financial stability and coordinate crisis prevention efforts. The agreement was based on a memorandum of understanding (MoU) concerning financial stability and contingency plans, signed in 2006 by the Prime Minister's Office, Ministry of Finance, Ministry of Commerce, Financial Supervisory Authority, and Central Bank of Iceland.

7 Foreign debt position

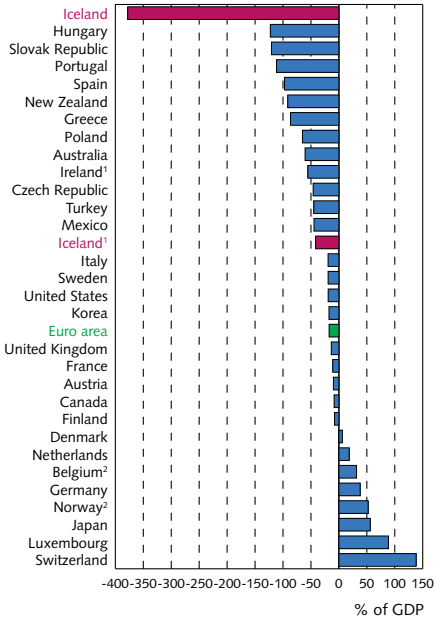
This chapter presents Iceland's foreign debt position, both gross and net. The chapter elaborates on the accumulation of debt in the years preceding the financial crisis and the increase in foreign direct investment. In addition, it provides estimates of net foreign debt levels once the failed private banks have been wound up.

International investment position

Iceland's external indebtedness has risen sharply since the mid-1990s and is high by international comparison. From 2003 until the financial crash in autumn 2008, the foreign assets of the Icelandic economy increased rapidly, much faster than nominal GDP; yet foreign debt increased still more rapidly. The net international investment position (IIP) therefore became highly negative, rising from 29% of GDP in 2003 to 131% of GDP by the end of 2007 (18.8 billion euros, 1,719 b.kr.). It continued to worsen as a result of the financial crash and the depreciation of the króna in 2008, and by the end of 2009, it was negative by 378% of GDP (31.5 billion euros, 5,670 b.kr.). When comparing assets and debt as share of GDP in 2008 and 2009, however, it must be kept in mind that GDP contracted by 6.8% in 2009 and the real exchange rate fell by 18.2%.

Chart 7.1

International investment position of OECD countries 2009



1. IIP excluding DMBs undergoing winding-up proceedings.
2. Figures are for 2008.

Sources: IMF and various central bank and statistics office websites.

Winding-up proceedings will lower the IIP

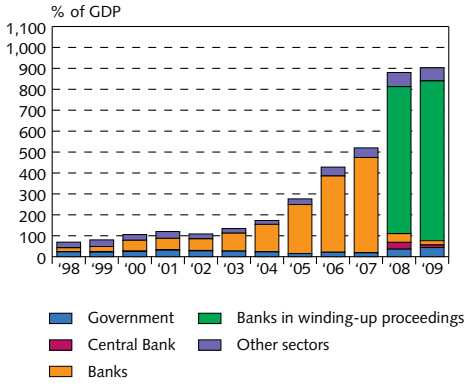
To some extent, Iceland's high debt ratio is deceptive. Excluding the banks (DMBs) in winding-up proceedings, the IIP was negative by 42% of GDP at the end of 2009. It is uncertain how Iceland's IIP will evolve once the banks have been wound up, but it is certain that it will fall by a large margin. As of this writing, substantial uncertainty remains regarding the value of the assets of the DMBs in winding-up proceedings, the division of assets into foreign and domestic assets, and the share of foreign vs. domestic creditors. However, the IIP is expected to decline significantly and lie in the range of 45%-60% of GDP within a few years. Although Iceland's net debt position will remain high over the next few years, it will be lower than it was before the financial crisis.

The public sector retired foreign debt during the upswing

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, including some of its foreign debt. At the onset of the crisis, general government gross debt as a share of GDP was among the lowest in the OECD. The financial crash reversed this, however, shifting substantial debt from the private to the public sector (see Box 5.1). At 123% of GDP in 2009, Iceland's gross debt was among the highest in the OECD. The foreign share of the debt also grew substantially, causing the general government's net debt position to deteriorate by 40% of GDP (excluding Icesave) over a two-year period.

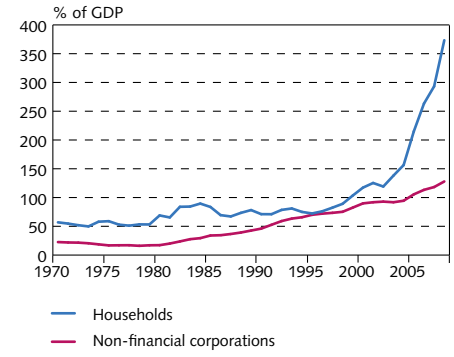
Although general government debt has risen, it must be kept in mind that there are substantial assets offsetting that debt, including the Central Bank reserves (see Chapter 6).

Chart 7.2
Estimated foreign debt by sector 1998-2009



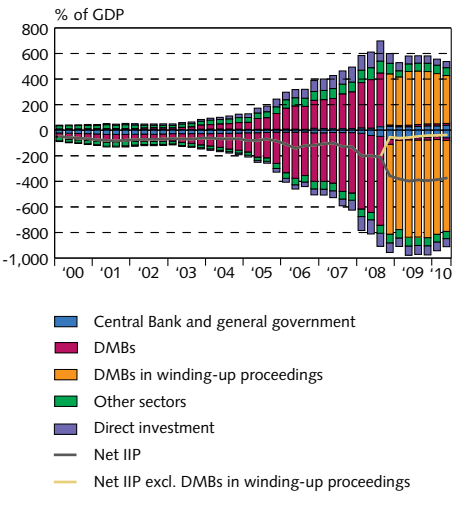
Source: Central Bank of Iceland.

Chart 7.3
Household and corporate sector debt 1970-2008[1]



1. New classification of lending from 2003. Private sector debt includes data from the whole credit system; i.e., DMBs and other loan institutions. The value for 2008 is for September 2008.
Source: Central Bank of Iceland.

Chart 7.4
International Investment Position (IIP)
Q1/2000 - Q2/2010



Sources: Statistics Iceland, Central Bank of Iceland.

Iceland's increased debt burden largely the foreign debt burden of the Icelandic banks

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 through the Icelandic banks. A large part of this investment centered on the banks' acquisition of foreign financial companies. 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 8). Therefore, the vast majority of the Icelandic economy's external debt is that of the failed banks. Offsetting that debt are substantial assets, even though their value has fallen sharply since the financial collapse. But although the banks acquired foreign assets, their net foreign debt burden rose from 43% of GDP in 2002 to 270% of GDP by the end of September 2008.

At the end of September 2008, total foreign assets, excluding the assets of the Government, the Central Bank and the financial institutions, amounted to 87% of GDP, while the debt of the same group was only 61% of GDP. Their net position was therefore positive by 26% of GDP. The largest group here is the pension funds, which own substantial assets abroad but have no debt.

Total stock of assets and debt has continued to increase

Iceland's total foreign debt amounted to 976% of GDP at the end of 2009, up from 625% of GDP at the end of 2007. Banks accounted for 78% of total foreign debt (784% of GDP), with DMBs in winding-up proceedings accounting for 76% of total foreign debt (764% of GDP). Consolidated debt of the general government and the Central Bank amounted to 56% of GDP at the end of 2009, up from 19% of GDP at the end of 2007. Debt of other sectors (other than credit institutions and businesses) was 63% of GDP at the end of 2009, up from 46% of GDP at the end of 2007. A large part of the increase in foreign debt between 2007 and 2009, other than of the Government and the Central Bank, can be attributed to the depreciation of the króna, which led to a large drop in the real exchange rate. The debt level has fallen somewhat in 2010, mainly due to the appreciation of the króna.

Iceland's total foreign assets amounted to 581% of GDP at the end of 2009, up from 494% of GDP in 2007. In 2009, they had fallen only marginally from the peak of almost 600% of GDP in 2008, as the decline in FDI and portfolio assets was largely offset by an increase in the value of other investments due to the depreciation of the króna. It should also be noted that GDP contracted by 6.8% in 2009.

However, DMBs in winding-up proceedings accounted for 71% of total foreign assets, and 411% of GDP, at the end of 2009. Excluding these DMBs, total foreign assets amounted to 170% of GDP at the end of 2009. Of that amount, the Central Bank's foreign reserves[1] account for roughly 32% of GDP and direct investment abroad for about

1. The Central Bank's foreign exchange reserves grew significantly in 2008 and have continued to do so in 2009 and 2010, as part of the Bank's preparation for removal of the capital controls.

Table 7.1 Foreign assets and liabilities

EUR billions (ISK billions)	*2003*	*2007*	*2009*	*1999-2007 (average change per year in ISK)*	*2004-2007 (average change per year in ISK)*	*2009 (change from prev. year in ISK)*
FDI by Icelandic residents	1.4 bn euros (123 b.kr.)	17 bn euros (1,554 b.kr.)	4.9 bn euros (873 b.kr.)	62%	89%	-41%
Foreign capital equities	2.7 bn euros (239 b.kr.)	11.8 bn euros (1,075 b.kr.)	7.5 bn euros (1,348 b.kr.)	50%	57%	-13%
Foreign debt securities	0.3 bn euros (23 b.kr.)	6.5 bn euros (596 b.kr.)	4.0 bn euros (736 b.kr.)	95%	178%	-10%
Foreign lending	1.8 bn euros (162 b.kr.)	23.1 bn euros (2,104 b.kr.)	20 bn euros (3,592 b.kr.)	161%	118%	15%
Total assets	7.9 bn euros (709 b.kr.)	70.9 bn euros (6,462 b.kr.)	48.5 bn euros (8,721 b.kr)	56%	82%	-1%
Total assets (% of GDP)	171%	494%	581%			
FDI in Iceland	0.9 bn euros (85 b.kr.)	11.1 bn euros (1,016 b.kr.)	6 bn euros (1,078 b.kr.)	49%	83%	22%
Total liabilities	13.8 bn euros (1,235 b.kr.)	90 bn euros (8,181 b.kr.)	81.4 bn euros (14,640 b.kr.)	40%	61%	21%
Total liabilities (% of GDP)	298%	625%	975%			

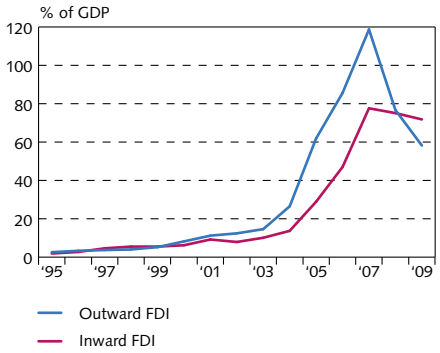
58%. As with foreign debt, the depreciation of the króna explains a large part of the increase in foreign assets. In the first half of 2010, total foreign assets declined somewhat, with all foreign assets categories declining except reserves.

The pension funds' foreign portfolios soared after the crisis, to 34% of GDP (2.8 billion euros, (504 b.kr.)), by the end of 2009. At that time, the pension funds owned just under 6% of Icelandic residents' total foreign assets and just over 24% of foreign portfolio holdings. The rest of the private sector, excluding financial institutions and the pension funds, had a positive net debt position of 6.5% of GDP at the end of 2009.[2]

Increase in assets and debt prior to the financial crisis reflects growth in FDI ...

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. Because the Icelandic market is small, acquiring foreign subsidiaries in similar sectors was the most common means for Icelandic companies to expand before the financial crisis. In addition, a sizeable share of the foreign debt was used to fund domestic lending, some of which was then used to invest abroad. Foreign direct investment (FDI) grew by an average of 85% per year in 2003-2007. The stock of FDI amounted to 119% of GDP at the end of 2007, up from 30% of GDP in 2003. FDI continued to grow in 2008, peaking at 152% of GDP in Q3/2008. Following the financial collapse, the stock decreased dramatically, falling to 58% of GDP by the end of 2009.

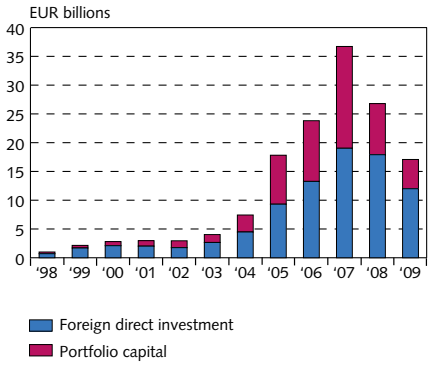
Chart 7.5
Outward and inward FDI as % of GDP



Sources: Statistics Iceland, Central Bank of Iceland.

2. This group also includes holding companies, which substantially increased their foreign debt 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.

Chart 7.6
Foreign direct investment and portfolio capital owned abroad by residents (at year-end) 1998-2009



Source: Central Bank of Iceland.

… and in 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 amounted to 39% of GDP in 2003 but had grown to 161% of GDP by the end of 2007, growing by 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 65% from Q1/2008 to Q3/2008 and measuring 235% of GDP by end-September 2008. The failed banks owned 96% of this loan portfolio at the time of the collapse. Since then, foreign lending as recorded in official data has not changed much but has only moved in line with exchange rate movements. Until the winding-up proceedings for the failed banks are concluded, their assets and liabilities will be included in the data.

Investment in equities and debt securities

Investment in foreign equities and debt securities also grew substantially over the period 2003-2007. In 2003, residents' stock of foreign capital amounted to approximately 58% of GDP, while debt securities were only 6% of GDP. By 2007, the stock of capital equities had risen to 260% of GDP and the stock of debt securities to 144% of GDP.

The total stock of foreign equities and debt securities continued to rise in the first half of 2008 but then plunged with the financial collapse. At the end of 2009, residents' foreign equities amounted to 90% of GDP, whereas debt securities were 49% of GDP.

FDI in Iceland

FDI in Iceland had also been growing during the years prior to the collapse, with the stock of FDI in Iceland peaking at 103% of GDP at the end of June 2008. Since that time, it has declined steadily, measuring 72% of GDP at year-end 2009. Before the crisis, non-resident funds had been investing in companies listed on the OMX Nordic Exchange Iceland, but since 2008 the number of companies listed has fallen off sharply. Furthermore, franchising was on the rise in Iceland prior to the crisis, especially in retail, consulting, auditing and accounting. The largest decline in FDI in Iceland since 2008 has been in financial institutions and telecommunications, as the investment stock in those two sectors has largely been wiped out.

Outward FDI exceeded inward investment by a substantial margin in 2000-2008; however, by the end of 2009, inward FDI exceeded outward investment by 0.9 billion euros (154 b.kr.), as outward FDI fell by a larger margin than inward FDI after the collapse.

Table 7.2 Foreign assets

% of total foreign assets	*1999*	*2007*	*2009*
Reserves	15	3	5
Trade credit	5	0.2	0.3
Foreign lending	4	33	42
Foreign equity	51	17	15

Table 7.3 Foreign liabilities

% of total foreign liabilities	*1999*	*2007*	*2009*
Icelandic equity investment	1	4	0.1
Short-term lending	10	30	47
Long-term lending	42	13	12
Icelandic bonds	33	40	34

8 Government, corporate, and household balance sheets

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

Government balance sheets

Although the net debt burden of the economy will diminish significantly over the next few years as banks and large holding companies are wound up, the opposite will be true for the public sector, as a substantial amount of debt has been shifted from private to public sector since the banks collapsed (see Box 5.1).

Central government

By the time the banks collapsed, Iceland's fiscal position was quite strong because record surpluses in 2004-2007 had enabled the central government to retire a large part of its debt while accumulating deposits in the Central Bank. The central government's gross debt fell from 64% of GDP in 2001 to 44% in 2007. Gross foreign debt fell from 26% of GDP to 18% over the same period. The central government took on 1 billion euro debt in 2006, in order to strenghten the foreign reserves of the Central Bank. However, debt related to foreign reserves does not affect the net debt position of the central government, which improved by 30% of GDP between 2001 and 2007. The net debt position of the central government turned marginally positive in 2007, but as a result of the financial crisis, it turned negative by 34% of GDP in 2009.

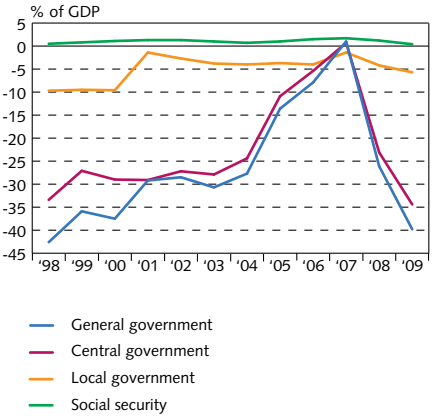
In 2007, 40% of central government debt was denominated in foreign currency, predominantly in euros. The depreciation of the króna in 2008 therefore led to a rapid deterioration of the gross debt position, and foreign debt nearly doubled in krónur terms. However, a part of the increase in gross debt was driven by the Government's effort to supplement reserves to boost confidence in Iceland´s cross-border banks. The need to strengthen foreign exchange reserves led to a continued increase in foreign debt after the collapse of the financial sector. Consequently, foreign debt rose from 18% of GDP in 2007 to 41% of GDP in 2009.

For a number of reasons, króna-denominated debt also increased after the collapse. Fiscal deficits had to be financed, which was done on the domestic credit market. The fiscal deficits of 2010 and 2011 are also scheduled for domestic financing. The costs associated with re-capitalising the banking system and the Central Bank amount to 14% and 10% of GDP, respectively. At year-end 2009, króna-denominated debt stood at 63% of GDP, compared to 26% in 2007.

Total central government debt amounted to 105% of GDP in 2009. The central government's marginally positive net debt position in 2007 turned into a negative debt position of 34% of GDP in 2009.

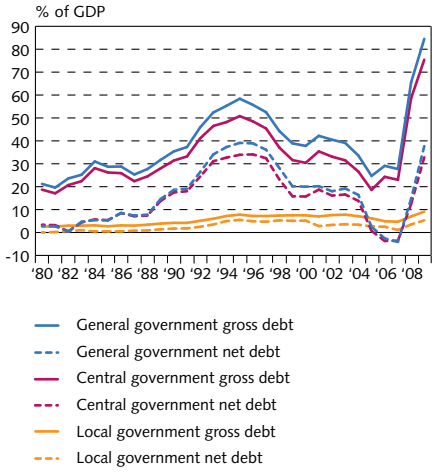
The financing of losses did not lead only to an increase in debt, because some assets were acquired as well. The recapitalisation of the banking system led to Government ownership of the new banks. The

Chart 8.1
Net financial assets 1998-2009



Source: Statistics Iceland.

Chart 8.2
Government debt 1980-2009[1]



1. Without corporate equity or civil pension liabilities.
Sources: Statistics Iceland, Treasury account.

Table 8.1 Central government financial assets and liabilities 1998-2009

Percentage of gross domestic product	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Financial assets	31.4	33.6	31.4	34.6	32.7	29.5	26.4	29.0	40.0	44.7	66.4	70.0
Currency and deposits	2.2	2.4	2.5	2.3	2.0	2.0	2.6	5.0	7.9	8.0	12.5	15.1
Loans	11.0	11.1	10.4	12.1	9.9	9.1	5.6	7.0	14.5	13.4	31.9	24.1
Shares and other equity	11.3	10.8	10.9	12.0	11.4	10.8	10.2	8.5	8.8	14.7	13.4	22.3
Other accounts receivable	6.9	9.2	7.7	8.1	9.3	7.7	8.0	8.6	8.8	8.6	8.6	8.6
Liabilities	64.7	60.7	60.4	63.7	59.9	57.4	50.8	39.9	45.5	44.0	89.5	104.5
Securities other than shares	16.3	13.1	10.2	10.6	10.6	11.9	11.5	10.4	9.7	9.6	20.9	41.6
Loans	21.1	19.4	20.8	26.2	22.8	20.0	15.6	8.7	15.3	14.2	42.1	36.8
Domestic loans	1.1	0.7	0.4	0.5	0.5	0.5	0.4	0.4	0.3	2.4	20.6	13.0
Foreign loans	19.9	18.7	20.4	25.7	22.3	19.5	15.2	8.3	15.0	11.9	21.5	23.8
Insurance technical reserves	21.3	21.7	23.8	21.7	22.4	21.9	20.5	18.7	18.0	17.7	23.2	22.7
Other accounts payable	6.1	6.6	5.5	5.1	4.1	3.6	3.1	2.2	2.5	2.4	3.3	3.4
Net financial assets	-33.4	-27.1	-29.0	-29.1	-27.2	-27.9	-24.4	-10.9	-5.4	0.7	-23.1	-34.4

Source: Statistics Iceland.

Government currently holds an 81% stake in Landsbanki, 13% in Arion Bank, and 5% in Íslandsbanki. In addition, the Treasury provides subordinated loans to the latter two banks. The total Treasury contribution to the new banks' recapitalisation is therefore 1.1 billion euros (184 b.kr.) An additional 130 million euros (22.5 b.kr.) will be injected into the savings banks in exchange for an ownership share. This, plus the fact that the Treasury now needs to keep more cash on hand than before the collapse so as to be able to finance the deficit, explains why financial assets rose from 45% of GDP in 2007 to 70% in 2009 (see Table 8.1).

Local government

The economic upswing had also favourable effects on local government balance sheets. Local governments' gross debt position, which had remained relatively stable at around 13% of GDP since 1998, fell to around 10% of GDP in 2006-2007. Moreover, the net debt position fell to 1.4% of GDP in 2007. The local governments' foreign debt declined considerably in the years before the crisis, dropping from roughly 5% of GDP in 2001 to 1% of GDP in 2007. Iceland's local governments had to realise a loss of nearly 1% of GDP on their foreign debt in 2008.

Local governments' gross and net debt increased after the onset of the financial crisis. Gross debt as a share of GDP rose by 4.6 percentage points between 2007 and 2009, to 15% of GDP in 2009, while net debt rose from 1.4% of GDP to 5.7% of GDP.

As is the case with the central government, local governments' deficits have been financed primarily in the domestic credit market, raising króna-denominated debt from 3.3% of GDP in 2007 to 6.2% in 2009. However, local governments' financial assets have been very stable for the past five years, at approximately 9% of GDP.

General government

General government is comprised of central and local government accounts and the social security authorities. Central government assets and liabilities constitute 81% of the general government balance sheet, while the local government share is about 18%. As a result, the

Table 8.2 General government financial assets and liabilities 1998-2009

Percentage of gross domestic product	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Financial assets	34.7	37.8	35.4	45.7	43.5	40.3	36.8	39.0	49.6	54.3	76.3	79.8
Currency and deposits	2.7	2.9	2.9	3.0	2.6	2.8	3.4	6.0	9.1	10.2	14.8	17.6
Securities other than shares	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans	11.8	11.6	10.8	14.6	12.4	11.5	7.8	8.9	15.8	15.0	33.6	26.4
Shares and other equity	11.3	11.2	11.3	17.4	16.4	15.7	14.7	12.8	12.8	17.3	15.6	24.6
Other accounts receivable	8.9	12.0	10.4	10.7	11.9	10.4	11.0	11.3	11.9	11.9	12.2	11.2
Liabilities	77.3	73.6	73.0	75.0	72.0	71.0	64.5	52.6	57.4	53.3	102.4	119.5
Securities other than shares	16.3	13.1	10.2	10.6	10.6	11.9	11.5	10.4	9.7	9.6	20.9	41.6
Loans	28.2	26.9	28.3	33.3	30.2	27.7	22.7	14.9	20.3	18.9	49.6	46.1
Domestic loans	6.2	5.9	5.5	4.7	4.6	4.8	4.8	4.5	3.6	5.6	24.9	19.2
Foreign loans	22.0	21.0	22.8	28.6	25.6	22.9	17.9	10.4	16.8	13.3	24.7	27.0
Insurance technical reserves	25.6	26.4	28.5	25.6	26.8	27.0	25.7	23.8	23.4	20.5	25.9	25.2
Other accounts payable	7.2	7.3	5.9	5.4	4.4	4.4	4.6	3.5	4.1	4.3	6.0	6.6
Net financial assets	-42.6	-35.9	-37.5	-29.2	-28.5	-30.7	-27.7	-13.6	-7.9	1.0	-26.1	-39.8

Source: Statistics Iceland.

social security system accounts for only a marginal share compared to the central and local governments.

The financial assets and liabilities of general government social securities funds are only marginal compared to those of the central and local governments. In 2009, social securities fund assets amounted to 1.5% of GDP, while liabilities amounted to 1% of GDP. Net debt is therefore slightly positive at ½% of GDP. As a result, general government financial assets and liabilities are largely the sum of central and local government assets and liabilities.

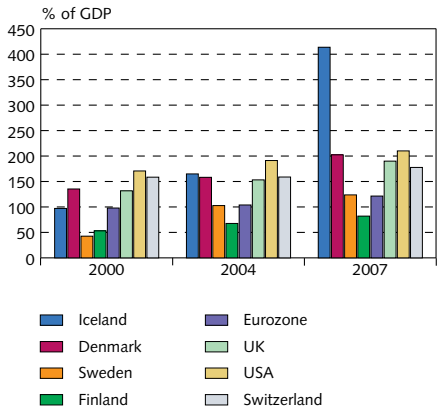
General government financial assets have been on the rise since 2004, when they dipped to a historical low of 37% of GDP. In 2009, financial assets reached a high of 80% of GDP. This doubling of assets is due to three main factors. First, cash deposits have increased by 14 percentage points, in two steps. In 2005 and 2006, both central government surpluses and the proceeds from the sale of the State-owned telephone company were used to accumulate deposits in the Central Bank. In 2008 and 2009, deposits were built up even further, so as to build a cash buffer to finance nearly a year's worth of deficit spending. Second, shares and equity held by the Government have increased by 10 percentage points, due mainly to capital injected into the three new banks. Third, the subordinated loans granted to two of the new banks explain most of the 15-percentage-point increase in outstanding loans.

In 2005, financial liabilities hit a low of 53% of GDP, but after the financial collapse, they soared to a high of 120% of GDP in 2009. For an analysis of the reasons for this increase in debt, see Box 5.1 and the previous discussion of central and local governments in this chapter.

Private sector debt

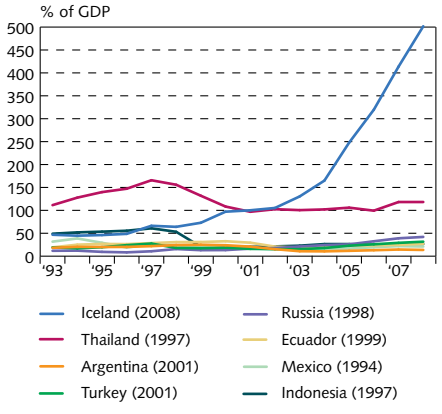
In 2000-2004, Iceland's private sector debt as a share of GDP was similar to that in the Nordic countries, the euro area, the UK, and the US. After 2004, the debt burden of Icelandic corporations and households increased rapidly and outgrew that in neighbouring countries. In terms of private sector debt, Iceland stands out in comparison with

Chart 8.3
Private sector debt for the years 2000, 2004 and 2007
Comparison to other countries



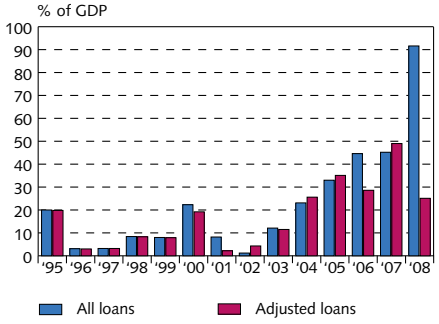
Sources: Reuters Ecowin, Central Bank of Iceland.

Chart 8.4
Private sector lending as % of GDP[1]
Comparison to other countries



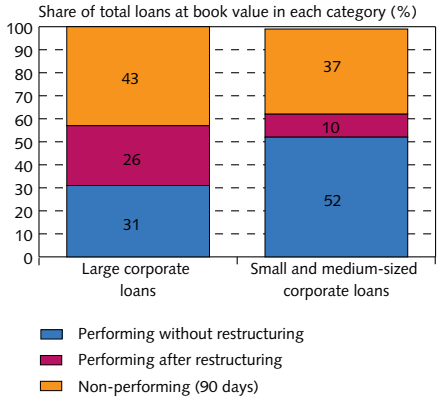
1. The year in parentheses represents the onset of crisis in the country concerned.
Sources: Reuters Ecowin, Central Bank of Iceland.

Chart 8.5
Lending growth as % of GDP
DMBs lending to businesses[1]



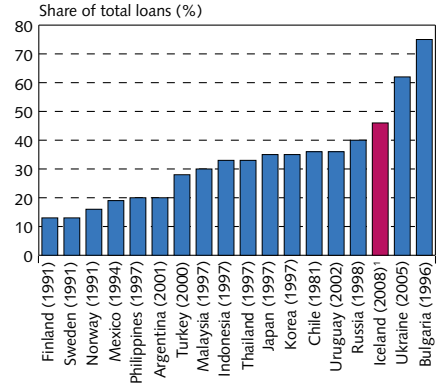
1. Available data for 2008 include only the first nine months of the year, or until the financial crisis hit. Adjusted loans are indexed lending adjusted according to the CPI, and FX lending is adjusted according to the ISK exchange rate index. The exchange rate index may not reflect the currency composition of foreign-denominated loans; hence this is merely an approximation.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 8.6
Status of loans to corporates at the three large commercial banks[1]



1. The chart shows the loan status at the three large commercial banks at the end of June 2010. Loans with the outstanding amount exceeding 100 m.kr. are defined as large loans. Large corporate loans are 92% of total loans to corporations. Small and medium-sized corporate loans are 8% of total loans to corporations.
Sources: Financial Supervisory Authority - Iceland, Central Bank of Iceland.

Chart 8.7
Peak of non-performing loans to private sector by countries



1. Book value of non-performing loans to the private sector at the three largest banks in Iceland in January 2010.
Sources: Laven, L. And F. Valencia (2008), "Systematic Banking Crisis: A New Database" IMF Working Paper, WP 1081224, Central Bank of Iceland.

other countries that have experienced financial crises followed by debt crises. Private sector debt exceeded 500% of GDP in 2008, while the lending ratio in Thailand, which suffered a crisis in 1997, peaked at 165% of GDP. 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 asset holding companies with extensive foreign activities explain a large share of the increase in private sector debt.

Table 8.3 Corporate FX lending – comparison with other crisis countries[1]

	Iceland 2007	*Argentina 2000*	*Uruguay 2001*	*Brazil 2001*	*Thailand 1996*	*Korea 1996*
FX loans as a share of exports	309	213	199	135	132	39
FX loans as a share of GDP	107	24	35	18	52	12

1. Based on stock data one year before the crisis struck.
Sources: International Monetary Fund, Central Bank of Iceland.

Corporate balance sheets

In 2003-2005, after the banks were privatised, lending to corporations surged. Around 60% of the growth is explained by an increase in foreign-denominated lending. After the Icelandic banks came under criticism in 2006, they found foreign credit harder to come by. Lending growth stalled but gained pace again in 2007 as the banks managed to secure foreign credit in new markets. The growth in corporate debt in 2008 was primarily attributable to exchange rate effects, however. 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 DMBs' stock of loans to corporations was to holding companies. In September 2008, this amounted to 110% of GDP, compared to 37% of GDP in 2005. Total debt of Icelandic corporations – from both DMBs and other credit institutions – was 370% of GDP at the end of September 2008.

A Central Bank study on the position of corporations following the financial crisis showed that holding companies were the most leveraged sector, with the service sector second in line[1]. Although foreign-denominated loans accounted for 70% of total debt to the corporate sector, only 44% of companies had borrowed in foreign currency.

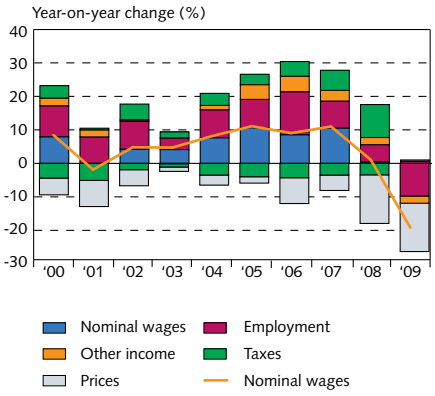
At the end of June 2010, 43% of the DMBs' loans to large companies and 37% of loans to small and medium-sized companies were in default, based on the book value of the loans. The magnitude of loans in default is large compared with other systemic crises.

Aggregate figures on corporate debt based on bank balance sheets have not been available since the banks collapsed. However, preliminary data about the book value of the new banks' corporate debt at the end of July 2010 are available. These figures reflect the de-

1. The database included information on the status of domestic businesses' loans, which were received from commercial banks, savings banks, credit institutions, and the resolution committees of the old banks. For further information on the position of corporations following the financial crisis, see *Financial Stability* 2010/1.

posit institutions' balance sheets and therefore do not show the actual balance of loans from the debtor's viewpoint. DMBs' loans to holding companies amounted to 13% of GDP (1.3 billion euros (197 b.kr.)) at the end of July 2010, down from 109% of GDP (11.1 billion euros (1,609 b.kr.)) in September 2008. Transferring the debt stock to the new banks involved a reduction of 88% for holding companies and 46% for other companies. As a result, the share of holding companies, the largest debtors, which accounted for almost half of total lending from DMBs prior to the collapse, had fallen to 15% in July 2010, while service companies had become the largest debtors, with 36% (up from 25% prior to the collapse). Fisheries are the second-largest debtors, with around 21% of total loans from DMBs. Growth in corporate lending has stalled since December 2009, with the book value of the outstanding loan balance remaining broadly constant.

Chart 8.8
Developments in real disposable income and its main components 2000-2009[1]



1. Value for 2009 is based on the Central Bank's baseline forecast in *MB* 2010/3. The contribution of the main underlying factors in the yearly changes in real disposable income is calculated based on each factor's weight in disposable income. Due to rounding and incomplete income accounts for households from Statistics Iceland. The combined contribution of underlying factors does not add up to the total change
Sources: Statistics Iceland, Central Bank of Iceland.

Household balance sheets

The increase in household debt in the pre-crisis period was mainly driven by two factors. On the one hand, the supply of credit was fuelled by ample international liquidity and accompanying large inflows of capital. On the other hand, demand for credit was driven by a rise in expected permanent income, induced by large inflow of foreign direct investment and stimulative policy measures, which drove expected growth to unrealistic levels.

At the end of summer 2004, the banks began competing with the Housing Financing Fund (HFF), offering mortgage loans and refinancing without maximum loan limits and at lower interest rates than before.

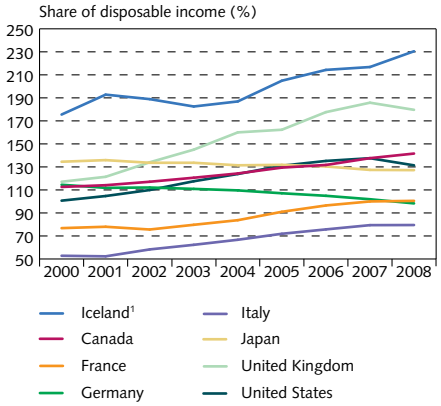
Developments between 2004 and 2007 appeared to strengthen household balance sheets. Real disposable income rose rapidly, lending rates dropped, access to credit became more widespread, unemployment declined, asset prices increased, and debt service fell. However, the overall picture did not give a sufficiently clear view of the underlying risk in the event of sudden changes in variables such as the exchange rate, inflation, income, debt service, employment, and asset prices.

Even though debt accumulation was substantial in many countries, household debt as a share of disposable income grew considerably faster in Iceland than elsewhere between 2000 and 2008, and by autumn 2008, Icelandic households ranked among the most indebted in the world, with debt measuring 230% of disposable income.

In the wake of such large-scale debt accumulation, household balance sheets sustained severe damage from the collapse of the banks and the króna in autumn 2008 and the resulting surge in inflation. The exchange rate of the króna plunged by 48% in trade-weighted terms from the beginning of 2008 until year-end 2009, causing a corresponding rise in exchange rate-linked debt. Moreover, high inflation in the wake of the currency depreciation caused a sharp increase in index-linked debt. As a result, debt service increased considerably during that period, especially for households with exchange rate-linked loans.

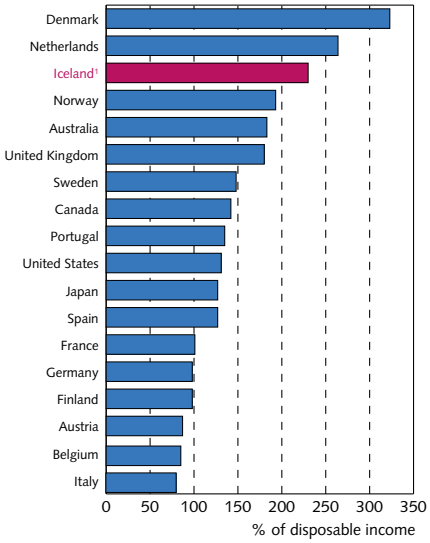
A Central Bank study on the position of households following the financial crisis indicated that, by the beginning of 2008, one-fifth

Chart 8.9
Household indebtedness 2000-2008[1]
Comparison to other countries



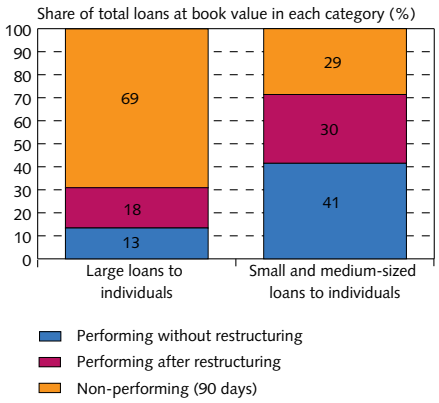
1. New classification of lending from 2003. The value for 2008 is for September 2008.
Sources: OECD Economic Outlook No. 87, Central Bank of Iceland.

Chart 8.10
Household liabilities in 2008



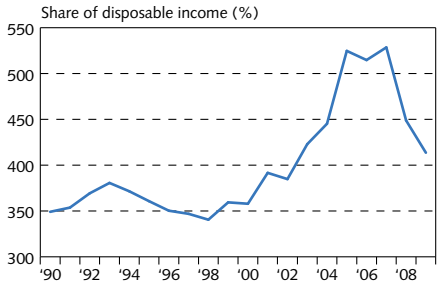
1. The value is for September 2008.
Sources: OECD Economic Outlook No. 87 (May 2010), OECD Statistics, Central Bank of Iceland.

Chart 8.11
Status of loans to individuals at the three large commercial banks[1]



1. The chart shows the loan status at the three large commercial banks at the end of June 2010. Loans with the outstanding amount exceeding 100 m.kr. are defined as large loans. Large loans are roughly 7% of total loans to households.
Sources: The Financial Supervisory Authority - Iceland, Central Bank of Iceland.

Chart 8.12
Household assets excluding pension reserves 1990-2009[1]



1. Value for disposable income in 2009 is a forecast.
Sources: Statistics Iceland, Central Bank of Iceland.

of households were experiencing financial difficulties and were therefore quite vulnerable to changes in financial conditions.[2] Furthermore, the findings indicate that 23% of indebted households were candidates for financial distress in early 2010, even assuming that they had made use of several policy measures to assist indebted households.

Although many households have undergone some sort of debt restructuring since autumn 2008, almost 30% of the commercial banks' small and medium-sized loans to individuals were in default in June 2010. Around 30% of loans were performing after restructuring, while roughly 40% were performing without any restructuring.

Preliminary data show that the book value of DMBs' loans to households amounted to just over 33% of GDP in 2009 (3.2 billion euros (500 b.kr.)) at the end of July 2010, down from 70% of GDP (7 billion euros (1,030 b.kr.)) in September 2008. These figures, however, do not reflect the actual balance of loans from the debtors' viewpoint, since they are based on the purchase price of assets in the transfer between the old and the new banks. Loans to households at claim value from pension funds, the HFF, and various other smaller financial institutions (excluding the DMBs) amounted to roughly 67% of GDP in 2009 (6.4 billion euros (1,000 b.kr.)) in July 2010, compared to 58% of GDP (5.9 billion euros (860 b.kr.)) in September 2008.

Asset values have declined sharply since the financial crisis struck. When the banks failed, about 80% of equity securities were wiped out, and many firms' bonds plunged in value. Households also lost a portion of their investment fund savings and pension savings. Total household assets excluding pension reserves amounted to 229% of GDP (19 billion euros (3,430 b.kr.)) in December 2009, having fallen by almost 7% since year-end 2008 and by approximately 9% since December 2007. Of that total, households' real assets in housing and motor vehicles declined by 8.4% between 2008 and 2009.

2. For further information on the position of households following the financial crisis, see *Financial Stability* 2010/1.

9 Appendix

Table A1 Economic development[1]

	2009
Population size at year-end (thousands)	317.6
Average annual population growth (%)	
Last 10 yrs.	1.7
Last 20 yrs.	1.3
Last 30 yrs.	1.2
GDP in ISK billions	1,500
GDP in EUR billions	8.7
GDP in USD billions	12.1
GDP/capita in EUR thousands	27.2
GDP/capita in USD thousands, in terms of PPP	35.1
Rank among OECD countries (2008)	12.0
Average annual growth rate of GDP (%)	
Last 10 yrs.	3.0
Last 20 yrs.	2.6
Last 30 yrs.	2.8
Average annual inflation rate (%)	
Last 10 yrs.	6.2
Last 20 yrs.	5.1
Last 30 yrs.	15.2
Labour force participation rate , males (%)	84.7
Labour force participation rate, females (%)	77.1
Rate of unemployment (% of labour force)	7.2
Infant mortality (% of 1,000 live births) (2008)	2.5
Life expectancy (males)	79.7
Life expectancy (females)	83.3
Live births per 1,000 inhabitants (2008)	15.1
Energy consumption per 100,000 inhabitants (PJ) (2009)	74.4
Physicians per 1,000 inhabitants	3.7
Passenger cars per 1,000 inhabitants	656.7
Access to Internet (% of population)	93
Exports as a share of GDP	53.0
International investment position at year-end	-394
Government revenues as a share of GDP	42.4
Government expenditures as a share of GDP	51.5
General government gross debt as a share of GDP	95.1

1. Data refer to 2009 unless otherwise indicated.

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

Table A2 Structure of the economy

A Components of GDP	At current prices (EUR millions) 1990	2000	2009	% of GDP 1990	2000	2009	Average volume change (%) 1969-2009	1989-2009
Private consumption	2,990	5,708	4,433	59.8	60.6	51.0	3.5	1.5
Public consumption	996	2,206	2,299	19.9	23.4	26.4	4.6	3.3
Gross capital formation	973	2,154	1,204	19.5	22.9	13.9	2.3	0.1
National expenditure	4,934	10,102	7,929	98.7	107.3	91.2	3.5	1.6
Exports of goods and services	1,682	3,162	4,603	33.6	33.6	53.0	4.6	4.2
Imports of goods and services	1,617	3,847	3,841	32.3	40.9	44.2	4.2	2.0
GDP	5,000	9,416	8,692	100.0	100.0	100.0	3.7	2.6
Current account balance	-104	-956	-156	-2.1	-10.2	-1.8	.	.

B GDP by sector	% of GDP 1973	1980	1990	2000	2009
Agriculture	5.2	4.8	2.6	2.0	1.4
Fishing	7.2	8.0	9.6	7.1	6.3
Mining and quarrying	0.1	0.1	0.2	0.1	0.1
Manufacturing	20.9	20.2	16.3	13.9	13.3
Fish processing	8.2	7.8	4.7	2.8	...
Electricity and water supply	2.9	4.2	3.9	3.4	4.8
Construction	12.0	8.7	8.4	8.7	5.3
Wholesale and retail trade	10.6	10.1	11.8	11.5	9.9
Hotels and restaurants	1.2	1.1	2.0	1.9	1.9
Transport, storage and communication	9.3	7.7	8.0	8.7	7.6
Finance, insurance, real estate and business services	15.2	17.9	17.7	18.9	23.4
Other service activities	15.2	17.2	19.6	23.9	26.1
Total industries	100.0	100.0	100.0	100.0	100.0

C Employment by sector	Thous. man-years 1997	Percentage breakdown[1] 1963	1970	1980	1990	1997	2000[1]	2009[1]
Agriculture	5,207	13.4	12.4	7.9	4.9	4.0	2.8	2.6
Fisheries	6,115	6.6	6.4	5.3	5.7	4.7	4.0	2.6
Fish processing	7,598	9.7	7.8	9.1	6.1	5.9	4.3	2.1
Manufacturing industry	15,282	15.6	15.2	15.2	12.5	11.9	12.1	9.8
Construction, electricity and water	11,638	11.1	11.4	11.0	10.8	9.0	8.0	7.9
Wholesale & retail trade, restaurants & hotels	20,118	13.7	13.5	13.4	14.5	15.6	17.8	17.2
Transport, storage and communication	8,817	9.6	8.5	7.3	6.7	6.8	7.3	7.2
Finance, insurance, real estate, business services	11,537	2.7	4.0	5.4	8.1	9.0	11.3	14.5
Producers of government services	25,300	9.5	12.4	15.7	18.2	19.6	6.8	5.5
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	28.1
Total employment[2]	128,832	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1. Figures for 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 1990-2009

	At current prices (EUR millions)				% of total exports or imports			
	1990	*1995*	*2000*	*2009*	*1990*	*1995*	*2000*	*2009*
Exports of goods and services	1,684	1,925	3,161	4,565	100.0	100.0	100.0	100.0
Imports of goods and services	1,615	1,728	3,837	3,767	100.0	100.0	100.0	100.0
Merchandise exports (fob value)	1,247	1,392	2,056	2,901	74.0	72.3	65.0	63.5
Marine products	941	1,001	1,301	1,208	55.9	52.0	41.2	26.5
Manufacturing goods	255	298	643	1,411	15.1	15.5	20.3	30.9
Other goods	51	92	112	281	3.0	4.8	3.5	6.2
Merchandise imports (fob value)	1,180	1,233	2,572	2,378	73.1	71.3	67.0	63.1
Consumption goods	.	418	817	375	.	24.2	21.3	10.0
Capital goods	.	321	795	195	.	18.6	20.7	5.2
Industrial supplies	.	493	960	1,808	.	28.6	25.0	48.0
Services exports	437	533	1,105	1,664	26.0	27.7	35.0	36.5
Transportation	174	207	533	741	10.3	10.8	16.9	16.2
Travel	119	143	247	402	7.0	7.4	7.8	8.8
Other services	145	183	324	521	8.6	9.5	10.3	11.4
Services imports	435	495	1,265	1,389	26.9	28.7	33.0	36.9
Transportation	132	160	450	494	8.2	9.2	11.7	13.1
Travel	224	217	511	383	13.9	12.6	13.3	10.2
Other services	79	118	304	513	4.9	6.8	7.9	13.6

B Merchandise exports by commodity group (fob value) 1990-2009

	At current prices (EUR millions)				% of total merchandise exports			
	1990	*1995*	*2000*	*2009*	*1990*	*1995*	*2000*	*2009*
Total merchandise exports	1,247	1,392	2,056	2,901	100.0	100.0	100.0	100.0
Marine products	941	1,001	1,301	1,208	75.5	71.9	63.3	41.7
Salted and/or dried fish	177	161	280	196	14.2	11.6	13.6	6.8
Fresh fish	161	81	151	181	12.9	5.9	7.3	6.2
Whole-frozen fish	70	149	130	133	5.6	10.7	6.3	4.6
Frozen fish fillets	349	278	376	329	28.0	20.0	18.3	11.3
Frozen shrimp	60	184	137	57	4.8	13.2	6.7	2.0
Fish meal	42	56	128	97	3.4	4.0	6.2	3.3
Fish oil	14	29	26	57	1.1	2.1	1.3	2.0
Other marine products	67	63	73	159	5.4	4.6	3.5	5.5
Agricultural products	24	25	35	44	1.9	1.8	1.7	1.5
Manufacturing products	255	298	643	1,411	20.4	21.4	31.3	48.6
Aluminium	129	147	381	988	10.4	10.6	18.6	34.1
Ferrosilicon	33	38	53	98	2.6	2.8	2.6	3.4
Other manufacturing products	93	113	0	325	7.4	8.1	0.0	11.2
Other products	27	68	76	237	2.2	4.9	3.7	8.2
Ships and aircraft	16	49	43	148	1.3	3.5	2.1	5.1
Other products	11	19	33	89	0.9	1.3	1.6	3.1

Sources: Statistics Iceland, Central Bank of Iceland.

Table A3 (continued) Structure of foreign trade

C Merchandise imports by economic category (fob value) 1990-2009

	At current prices (EUR millions)				*% of total merchandise exports*			
	1990	*1995*	*2000*	*2009*	*1990*	*1995*	*2000*	*2009*
Total merchandise imports	1,186	1,236	2,579	2,378	100.0	100.0	100.0	100.0
Food and beverages	90	123	207	242	7.6	10.0	8.0	10.2
Primary, mainly for industry	4	29	64	11	0.4	2.4	2.5	0.5
Primary, mainly for houshold consumption	25	16	21	67	2.1	1.3	0.8	2.8
Processed, mainly for industry	10	11	12	19	0.8	0.9	0.5	0.8
Processed, mainly for houshold consumption	52	67	110	145	4.4	5.4	4.3	6.1
Industrial supplies not specified elsewhere	311	344	597	724	26.2	27.9	23.2	30.4
Primary	12	14	28	26	1.0	1.2	1.1	1.1
Processed	299	330	569	698	25.2	26.7	22.1	29.3
Fuels and lubricants	117	87	238	296	9.9	7.1	9.2	12.4
Primary	3	3	6	13	0.2	0.3	0.3	0.5
Motor spirit	25	18	50	64	2.1	1.4	1.9	2.7
Other	89	66	182	219	7.5	5.4	7.1	9.2
Capital goods (except transport)	219	264	611	512	18.5	21.3	23.7	21.5
Capital goods (except transport)	136	169	417	200	11.5	13.7	16.2	8.4
Parts and accessories	83	94	193	312	7.0	7.6	7.5	13.1
Transport equipment	218	154	440	230	18.4	12.4	17.0	9.7
Passenger motor cars (excl. busses)	42	55	168	48	3.5	4.4	6.5	2.0
Transport equipment (excl. ships, aircraft)	24	17	67	14	2.1	1.4	2.6	0.6
Other, non-industrial	3	3	6	4	0.3	0.2	0.2	0.2
Parts and accessories	36	35	63	69	3.1	2.8	2.5	2.9
Ships	19	35	80	21	1.6	2.9	3.1	0.9
Aircraft	94	10	54	75	7.9	0.8	2.1	3.1
Consumer goods not specified elsewhere	229	261	484	371	19.3	21.1	18.8	15.6
Durable	51	54	117	62	4.3	4.3	4.5	2.6
Semi-durable	92	104	189	129	7.7	8.4	7.3	5.4
Non-durable	85	103	178	180	7.2	8.4	6.9	7.6
Goods not specified elsewhere	2	3	3	3	0.2	0.2	0.1	0.1

Sources: Statistics Iceland, Central Bank of Iceland.

Table A3 (continued) Structure of foreign trade

D Geographic distribution of foreign trade (fob value) 1970-2009[1]

	Share of total					*EUR millions*
Merchandise exports	*1970*	*1980*	*1990*	*2000*	*2009*	*2009*
European Union	52.8	52.3	70.7	67.4	77.7	1,314.2
Euro area	25.4	30.2	37.6	42.3	59.0	978.1
Other EU countries	27.4	22.0	33.1	25.1	18.7	335.0
United Kingdom	13.2	16.5	25.3	19.3	12.8	232.9
Other Western European countries	2.8	2.3	3.4	7.8	7.1	110.3
Eastern Europe and former Soviet Union	9.6	8.8	2.9	1.4	4.1	36.5
Russia	6.8	5.4	2.5	0.4	1.2	24.2
United States	30.0	21.6	9.9	12.2	3.9	92.7
Japan	0.1	1.5	6.0	5.2	1.9	73.8
Other OECD countries	0.5	0.6	0.5	2.0	1.1	11.1
Developing countries[2]	4.2	12.9	5.5	3.0	8.9	40.3
Other countries	0.0	0.0	1.1	1.0	1.7	81.4
Total	100.0	100.0	100.0	100.0	100.0	1,760.2
Merchandise imports						
European Union	64.9	58.0	59.9	57.0	46.1	1,479.8
Euro area	32.0	33.2	35.5	33.5	25.0	763.2
Other EU countries	33.0	24.8	24.4	23.6	21.1	706.5
United Kingdom	14.3	9.5	8.1	9.0	4.1	132.1
Other Western European countries	5.4	8.1	5.2	9.7	14.0	188.7
Eastern Europe and former Soviet Union	10.4	10.9	6.5	5.7	4.2	30.5
Russia	7.2	9.7	5.0	1.8	0.6	28.3
United States	8.2	9.4	14.4	11.0	6.2	332.4
Japan	2.9	4.0	5.6	4.9	3.1	116.4
Other OECD countries	0.4	5.8	3.7	4.5	4.2	88.1
Developing countries[2]	7.2	2.7	3.1	5.6	14.8	278.3
Other countries	0.6	1.1	1.4	1.5	2.9	49.5
Total	100.0	100.0	100.0	100.0	100.0	4,193.7

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

	At current prices (EUR millions)					*Volume change on previous year (%)*				
	2005	*2006*	*2007*	*2008*	*2009*	*2005*	*2006*	*2007*	*2008*	*2009*
Private consumption	7,798	7,751	8,580	6,195	4,433	12.7	3.6	5.7	-7.9	-15.9
Public consumption	3,233	3,253	3,617	2,882	2,299	3.5	4.0	4.1	4.5	-1.7
Gross fixed capital formation	3,729	4,533	4,258	2,824	1,204	35.8	22.4	-11.1	-20.9	-50.9
Industries	2,574	3,198	2,600	1,676	670	60.2	24.2	-22.1	-25.7	-55.0
Housing	748	849	1,034	635	232	11.9	16.4	13.2	-21.8	-55.7
Public works and buildings	407	486	624	514	302	-17.2	22.2	19.1	0.8	-31.6
National expenditure	14,760	15,537	16,455	11,901	7,936	15.7	9.5	-0.1	0.0	0.0
Exports of goods and services	34,166	4,295	5,175	5,161	4,603	7.5	-4.5	17.7	7.1	7.4
Exports of goods	2,495	2,775	3,493	3,663	2,901	-0.1	-1.5	22.3	11.4	2.4
Exports of services	1,671	1,520	1,682	1,498	1,702	21.0	-9.2	9.4	-1.9	19.5
Imports of goods and services	5,775	6,665	6,769	5,492	3,841	29.3	10.4	-0.7	-18.2	-24.1
Imports of goods	3,686	4,560	4,521	3,715	2,378	25.3	16.9	-4.2	-18.2	-27.3
Imports of services	2,089	2,105	2,247	1,776	1,463	36.7	-1.2	6.9	-18.3	-17.5
Gross domestic production (GDP)	13,139	13,322	14,937	11,596	8,692	7.5	4.5	6.0	1.0	-6.8
Current account balance	-2,105	-3,175	-2,457	-1,689	-1,246	.	.	.	.	.
Current account balance, % of GDP	.	.	.	.	.	-16.0	-23.8	-16.4	-22.1	-2.2

Source: Statistics Iceland.

Table A5 Financial sector indicators

Financial institutions (number, unless otherwise indicated)	*2000*	*2005*	*2007*	*2009*
Commercial banks	4	4	5	4
Savings banks	25	24	20	12
Number of employees in commercial banks and savings banks, year-end[1]	3,046	3,884	...	...
Total assets of commercial and savings banks (EUR billions)[1]	9.6	51.6	106.2	16.4
Credit undertakings	12	11	13	11
Undertakings engaged in securities	11	11	16	14
Pension funds	56	45	37	35
Insurance companies	12	12	13	13
Financial markets				
Listed companies on Iceland Stock Exchange (ICEX), now OMXI	75	24	26	10
Market capitalisation of listed companies at end of period (EUR billions)	5.0	24.3	28.2	1.2
Market capitalisation of listed companies at end of period (% of GDP)	59.0	182.3	201.0	14
Annual turnover in listed equities (EUR billions)	2.7	15.2	33.7	0.3
Annual turnover in listed bonds (EUR billions)	4.6	16.7	26.6	...
Annual turnover on the Icelandic interbank market for foreign exchange (EUR billions)	10.6	26.3	40.0	0.4
Annual turnover on the interbank currency swap market (EUR billions)	.	0.6	0.4	0
Annual turnover on the interbank market for krónur (EUR billions)	7.2	20.0	14.9	1.6

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

% of GDP	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*
Revenues	41.8	41.6	42.7	44.1	47.0	47.9	47.7	44.2	40.9
Taxes	35.3	35.2	36.7	37.9	40.6	41.4	40.5	36.7	33.7
on income and wealth	18.9	18.9	19.4	19.5	21.0	21.6	21.6	20.6	19.0
on prod./imports/consumption	16.4	16.4	17.2	18.3	19.5	19.8	19.0	16.1	14.7
Interest	1.8	1.8	1.3	1.1	1.0	1.7	2.3	3.4	3.1
Sales of goods and services	3.3	3.3	3.5	3.5	3.5	3.2	3.1	3.2	3.1
Other income	1.4	1.2	1.3	1.6	2.0	1.6	1.7	0.9	1.0
Expenditures	42.5	44.1	45.6	44.0	42.1	41.6	42.2	57.7	50.8
Wages	14.7	15.7	16.3	15.7	15.6	15.3	14.8	14.6	14.9
Purchases of goods and services	10.3	11.2	11.3	11.1	10.7	10.6	10.8	11.6	12.5
Interest	3.4	3.0	2.7	2.4	2.2	2.2	2.6	3.3	6.6
Subsidies	1.8	1.8	1.9	1.8	2.0	1.7	1.8	1.8	1.9
Current transfers	5.8	6.7	7.6	7.3	6.7	6.3	6.3	6.7	8.9
Fixed investment	4.5	3.9	3.6	3.9	3.1	3.9	4.2	4.5	3.5
Captial transfers	1.0	0.7	0.9	0.8	0.7	0.7	0.6	13.7	0.9
Other	1.1	1.2	1.2	1.1	1.1	1.0	1.2	1.4	1.7
Memorandum item: Public consumpt.	23.6	25.4	26.0	25.1	24.6	24.4	24.2	24.9	26.4

Government expenditure by function

General government, % of GDP

Administration, safety, defence[1]	4.6	4.5	4.6	4.3	4.3	4.1	4.3	4.6	5.1
Education	7.7	8.3	8.3	8.2	8.3	8.3	8.1	8.4	8.5
Health services	7.9	8.7	8.9	8.5	8.1	7.9	7.9	7.9	8.3
Social security	7.9	8.7	9.7	9.5	9.1	8.3	8.5	8.9	11.3
Other social affairs[2]	4.1	4.7	4.7	4.8	4.4	4.9	4.9	5.0	4.9
Economic services	7.0	6.4	6.6	6.3	5.8	5.9	5.8	19.5	6.0
Interest expenditure	3.4	3.1	2.8	2.5	2.3	2.3	2.7	3.5	6.8

Central government, % of GDP

Expenditure	31.7	32.2	33.7	32.0	31.0	30.0	30.8	45.2	38.1
Administration, safety, defence[1]	4.3	4.3	4.5	4.2	4.1	4.0	4.3	4.4	4.9
Education	3.2	3.3	3.4	3.4	3.4	3.3	3.3	3.4	3.5
Health services	7.7	8.5	8.7	8.3	8.0	7.8	7.7	7.8	8.5
Social protection	6.6	6.7	7.4	7.2	7.3	7.0	7.3	7.1	8.2
Other social affairs[2]	1.7	1.7	1.8	1.8	1.7	1.7	1.8	1.7	1.8
Economic services	5.4	5.3	5.6	5.1	4.7	4.4	4.3	18.0	5.0
Interest expenditure	2.8	2.4	2.2	2.0	1.8	1.7	2.1	2.8	6.1

Local government, % of GDP

Expenditure	12.4	13.1	12.9	12.9	12.6	13.5	13.5	14.0	13.6
Administration and safety	1.1	1.0	1.0	1.0	1.0	0.9	1.0	1.1	1.0
Education	4.6	5.0	4.9	4.8	5.0	5.0	4.9	5.0	5.0
Health services	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Social protection	1.8	2.1	2.2	2.1	2.1	2.0	2.1	2.2	2.5
Other social affairs[2]	2.5	3.0	3.0	3.1	2.8	3.3	3.2	3.3	3.1
Economic services	1.6	1.2	1.1	1.3	1.2	1.6	1.6	1.6	1.2
Interest expenditure	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.7	0.7

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

Source: Statistics Iceland, September 2010.

Table A7 Balance of payments

EUR millions	*1990*	*1995*	*2000*	*2005*	*2009*[1]
Current account	-104	41	-956	-2,121	-193
Balance on goods, services and income	-101	44	-946	-2,099	-142
Exports	1,749	1,992	3,318	5,299	5,155
Imports	-1,851	-1,947	-4,264	-7,399	-5,297
Balance on goods and services	67	198	-676	-1,604	797
Exports	1,684	1,928	3,161	4,133	4,565
Imports	-1,617	-1,731	-3,837	-5,737	-3,767
Balance on goods	65	160	-516	-1,191	523
Merchandise exports fob	1,246	1,395	2,056	2,495	2,901
Marine products	942	1,003	1,301	1,409	1,208
Aluminium and ferro silicon	162	186	435	538	1,086
Ships and aircraft	14	49	43	123	148
Other goods	128	157	276	423	459
Merchandise imports fob	-1,182	-1,235	-2,572	-3,686	-2,378
Investment goods	-219	-263	-611	-860	-512
Transport equipment	-215	-154	-440	-745	-230
Fuels and lubricants	-117	-87	-238	-346	-296
Industrial supplies	-310	-344	-597	-884	-724
Consumer goods	-320	-387	-687	-851	-616
Balance on services	2	38	-160	-412	275
Exports of services, total	438	534	1,105	1,638	1,664
Transportation	174	207	533	867	741
Air transport	94	130	416	717	0
Sea transport	81	78	117	150	0
Travel	119	144	247	333	402
Other services	145	183	324	438	521
Communications services	12	18	11	7	0
Insurance services	5	4	6	7	0
Government services	95	80	116	69	0
Other not specified elsewhere	33	82	191	355	0
Imports of services, total	-435	-496	-1,265	-2,050	-1,389
Transportation	-132	-160	-450	-711	-494
Travel	-224	-218	-511	-788	-383
Other services	-79	-119	-304	-552	-513
Communications services	-9	-14	-2	-35	0
Insurance services	-12	-16	-6	-33	0
Government services	-7	-9	-17	-18	0
Other not specified elsewhere	-51	-80	-280	-467	0
Balance on income	-168	-153	-269	-496	-939
Receipts	65	63	157	1,166	591
Compensation of employees	36	39	76	59	14
Investment income	29	24	81	1,107	576
Dividents and reinvested earnings	5	-1	28	811	229
Interest payments	24	25	53	296	348
Expenditures	-234	-217	-427	-1,662	-1,530
Compensation of employees	-9	-4	-12	-20	-13
Investment income	-224	-212	-415	-1,642	-1,517
Dividents and reinvested earnings	-7	-13	-9	-847	427
Interest payments	-218	-200	-406	-796	-1,944
Current transfer, net	-3	-4	-10	-22	-51
Public transfer, net	-5	-7	-11	-20	-32
Private transfer, net	2	3	1	-2	-19

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

EUR millions	*1990*	*1995*	*2000*	*2005*	*2009*[1]
Capital and financial account	2	-5	1,137	1,774	-1,140
Capital transfer, net	124	-3	-3	-22	-8
Financial account[2]	181	-1	1,141	1,796	-1,132
Financial account excl. reserves	8	2	1,061	1,856	-988
Direct investment, net	-9	-26	-241	-3,232	-1,531
Abroad	-4	-19	-427	-5,715	-1,584
Equity capital	-5	-4	-437	-4,154	-1,717
Reinvested earnings	0	2	-6	-695	-100
Other capital	17	-17	16	-865	232
In Iceland	1	-7	185	2,483	53
Equity capital	-10	5	228	1,316	166
Reinvested earnings	27	2	-21	803	-438
Other capital	20	-14	-21	364	325
Portfolio investment, net	0	120	689	9,822	-7,376
Assets	0	-49	-599	-3,778	311
Equities	0	-34	-670	-2,633	268
Debt securities	0	-16	71	-1,144	44
Bonds and notes	0	-14	67	-1,146	44
Money market instruments	20	-2	4	1	0
Liabilities	0	169	1,288	13,599	-7,687
Equities	20	0	-17	67	-9
Debt securities	-1	169	1,305	13,532	-7,678
Bonds and notes	21	145	1,247	13,433	-7,291
Money market instruments	-1	24	58	99	-386
Financial derivatives, net	-1	0	-1	0	-479
Assets	0	-13	17	0	0
Liabilities	153	12	-18	0	-479
Other investment, net	-41	-91	614	-4,734	8,397
Assets	0	20	-98	-8,788	671
Loan	-21	0	-43	-7,452	966
Deposits	-20	29	-35	-1,350	-264
Trade credits	0	-8	0	3	-17
Other capital	194	-1	-20	11	-14
Liabilities	180	-111	712	4,054	7,726
Loans	200	-121	713	3,680	-3,302
Long-term borrowing	-20	-188	383	2,073	-2,350
Short-term borrowing	0	67	330	1,607	-952
Deposits	14	3	-14	314	21
Trade credits	-1	1	1	56	-53
Other capital	-57	5	12	3	11,060
Reserve assets	-22	-3	80	-60	-144
Net errors and omissions	0	-36	-181	347	1,334
Memorandum items:					
Debt securities, loans, etc., net	199	58	2,017	17,586	48
Long-term borrowing, net	-1	-42	1,630	15,505	-9,641
Monetary authorities	14	0	0	0	206
General government	-12	150	67	-279	168
Deposit banks	198	-99	1,048	14,485	-66
Other sectors	15	-93	515	1,299	-9,949
Short-term borrowing, net	-1	101	387	2,080	9,689
Monetary authorities	21	16	148	0	-1,393
General government	-8	24	158	-162	220
Deposit banks	2	57	-29	2,183	-50
Other sectors	1	4	110	59	10,912
Conversion rate: ISK per EUR	74.18	83.61	72.61	78.14	172.67

Table A8 Projected external debt service[1]

EUR millions	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*Principal thereafter*	*Total*
Government								
Principal	43	1,336	532	293	396	59	297	2,956
Interest[2]	141	139	93	61	40	19	.	.
Total	183	1,476	625	354	436	78	.	.
MA & Treasury								
Principal	0	1,299	491	255	393	56	289	2,783
Interest[2]	137	137	91	61	40	19	.	.
Total	137	1,436	582	315	433	75	.	.
Local government								
Principal	43	37	41	38	3	3	8	173
Interest[2]	4	2	2	1	0	0	.	.
Total	46	39	43	39	3	3	.	.
Banks								
Principal	180	0	0	0	0	0	0	180
Interest[2]	2	0	0	0	0	0	.	.
Total	182	0	0	0	0	0	.	.
Other credit institutions								
Principal	58	75	77	45	45	45	268	615
Interest[2]	13	12	10	9	8	7	.	.
Total	72	87	87	54	53	52	.	.
Other sectors								
Principal	634	114	39	122	34	9	26	978
Interest[2]	22	8	5	4	2	1	.	.
Total	657	122	45	126	35	10	.	.
Total payments								
Principal	915	1,525	648	460	475	114	591	4,728
Interest[2]	179	159	108	74	49	26	.	.
Total	1,094	1,684	756	534	525	140	.	.
Old banks[3]								
Principal	8,147	6,278	4,774	624	387	2,335	4,719	27,263
Interest[2]	878	693	474	350	330	291	.	.
Total	9,024	6,971	5,248	974	716	2,626	.	.
Grand total	9,062	7,804	5,422	1,084	862	2,448	5,309	31,991
Principal	1,057	852	582	424	379	317	.	.
Interest[2]	10,118	8,655	6,004	1,508	1,241	2,766	.	.

1. Based on debt outstanding at end of year-end 2009. Conversion rate: ISK per EUR = 180. 2. Floating interest rate: LIBOR-USD is assumed at 1.5% and EURIBOR at 2% per year.
3. Former DMBs in winding-up proceedings.

Source: Central Bank of Iceland.

Tables and charts

Tables

Charts