



The Economy of Iceland

# ECONOMY OF ICELAND

2007

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**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	307,672 (December 31, 2006)
Capital	Reykjavík, population 116,642 (December 31, 2006)
Language	Icelandic; belongs to the Nordic group of Germanic languages
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 May 12, 2007

### Economy

Monetary unit	Króna (plural: krónur); currency code: ISK
Gross domestic product	€13.0 billion (1,141.7 billion krónur, US\$16.3 billion) in 2006
International trade	Exports of goods and services 33% and imports of goods and services 50% of GDP in 2006
Per capita GDP	€42.8 thousand in 2006 (3.8 million krónur in terms of PPP, US\$39.3 thousand)

### Land

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

## Republic of Iceland credit ratings

	<i>Affirmed</i>	<i>Foreign currency</i>		<i>Domestic currency</i>		<i>Outlook</i>
		<i>Long-term</i>	<i>Short-term</i>	<i>Long-term</i>	<i>Short-term</i>	
Moody's	August 2007	Aaa	P-1	Aaa	P-1	Stable
Standard & Poor's	Dec. 2006	A+	A-1	AA	A-1+	Stable
Fitch	March 2007	A+	F1	AA+		Stable
R&I Rating of Japan	June 2007	AA+				Stable

## Central Bank of Iceland publications in English

Annual Report  
Monetary Bulletin  
Financial Stability  
The Economy of Iceland  
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	<a href="http://www.sedlabanki.is">www.sedlabanki.is</a>
Parliament of Iceland (Althingi)	<a href="http://www.althingi.is">www.althingi.is</a>
Government of Iceland	<a href="http://www.government.is">www.government.is</a>
Statistics Iceland	<a href="http://www.statice.is">www.statice.is</a>
OMX Nordic Exchange in Iceland	<a href="http://www.omxgroup.com">www.omxgroup.com</a>
National Debt Management Agency	<a href="http://www.bonds.is">www.bonds.is</a>
Trade Council of Iceland	<a href="http://www.icetrade.is">www.icetrade.is</a>
National Association of Pension Funds	<a href="http://www.ll.is">www.ll.is</a>
Invest in Iceland Agency	<a href="http://www.invest.is">www.invest.is</a>



# Introduction

*The 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 which 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 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* report. 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 developments. Chapter 2 presents basic facts about Icelandic geography, population and society. Chapter 3 describes Iceland's rapid evolution into a market-driven economy supporting one of the more affluent societies in Europe in the 21<sup>st</sup> century. It examines the interaction of volatility, growth and inflation in the preamble to the current upswing. Chapter 4 deals with the structure of the economy. It discusses size and income levels, the composition of GDP, foreign trade, main economic sectors and the labour market. It also describes the three pillars of the Icelandic pension system and presents the credit ratings of financial institutions. Chapter 5 provides an account of the financial markets and infrastructure. Chapter 6 surveys the public sector, including its size, division of tasks, expenditure structure and the tax system. It also describes the structure and management of the foreign debt of the Republic of Iceland, and sovereign credit ratings. Chapter 7 addresses monetary policy. It covers the framework of monetary policy, its instruments and the role of the Central Bank, with an account of foreign exchange reserves. Chapter 8 discusses foreign and domestic debt. 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 see other scope for improving this publication, please e-mail your suggestions to: [publish@centbk.is](mailto:publish@centbk.is)

# 1 Economic developments

Iceland's current growth episode began in 2003 and gained momentum in 2004, initially fed by investments in the aluminium and power sectors. Macroeconomic imbalances resurfaced and became increasingly pronounced in the wake of changes in housing finance, which greatly enhanced household access to credit. Annual GDP growth of over 7% in 2004-2005 outstripped the increase in potential output and contributed to substantial and mounting pressures in the domestic goods and labour markets. Inflation, which had been below target from November 2002, rose in the second half of 2004 and has remained above target since.

## The most extensive investments in Icelandic history

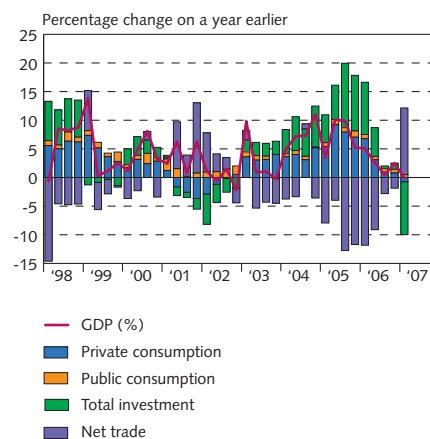
The large-scale investment projects in the aluminium and power sectors launched in 2003 are nearing completion. When these projects are completed in 2009, the total production capacity of aluminium smelters in Iceland will be 800 thousand tonnes per year (tpy), up from 270 thousand tpy in 2005. Power capacity needs to be stepped up by 80% to supply them. The long-term impact of these investments will strengthen the export base, increasing the share of aluminium in total merchandise exports from 20% in 2005 to roughly 40% in 2009.

In combination, these investments are equivalent to more than one-third of 2003 GDP, the year when construction commenced, and probably entail a greater macroeconomic shock than any other country with a comparable monetary framework has had to tackle. Projects of such scope are accompanied by a considerable widening of the current account deficit, mostly due to imports of capital equipment but also through induced general demand.

## Structural changes in the credit market

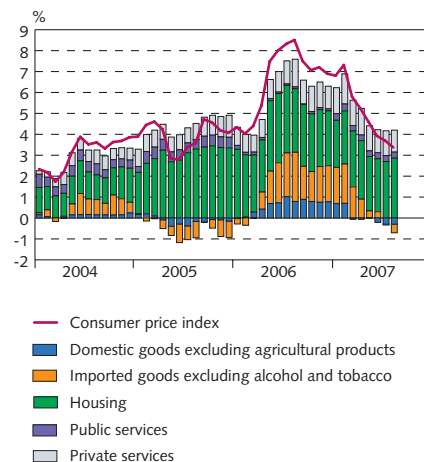
The second driver of macroeconomic imbalances has been the sweeping change that took place in the mortgage market in the second half of 2004. In late summer 2004 the commercial banks – as part of their ongoing expansion strategies that have witnessed meteoric growth in their foreign activities – raised their profile in the mortgage market by engaging in head-on competition with the state-run Housing Financing Fund (HFF), which had stepped up lending. The banks began to offer mortgage loans with lower interest rates, longer maturities and an unprecedented high loan-to-value ratio. Unlike the HFF, they did not set a housing purchase as a precondition for a loan, which facilitated refinancing and mortgage equity withdrawal. Although lending rates started to ease up late in 2006, credit supply to households grew by 15½% year-on-year in the first half of 2007. The massive increase in credit supply led to a surge in housing prices that has spurred CPI inflation since 2004 and is also still a main driver of private consumption growth. Private consumption and general market pressures have been compounded by a wealth effect from other soaring asset prices – especially equities, as reflected in the almost 300% rise in the OMX15 equity index since year-end 2003.

Chart 1.1  
Contributions to GDP growth  
Q1/1998 - Q1/2007



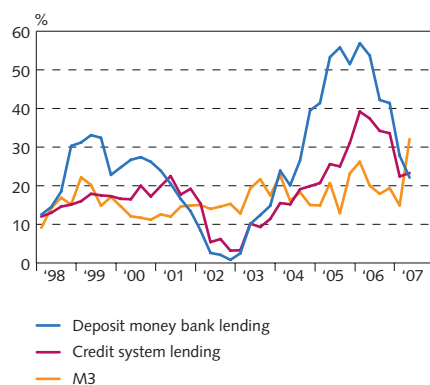
Source: Statistics Iceland.

Chart 1.2  
Components of CPI inflation  
Contribution to inflation in past 12 months



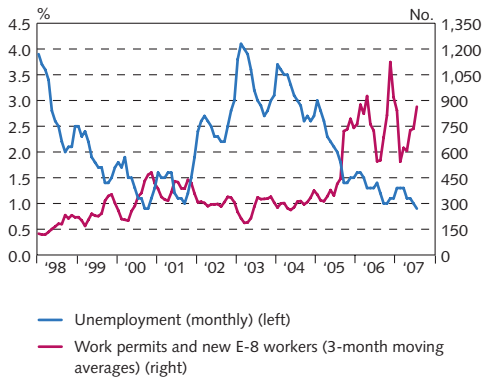
Source: Statistics Iceland.

Chart 1.3  
Growth of credit and monetary aggregates  
Q1/1998 - Q2/2007



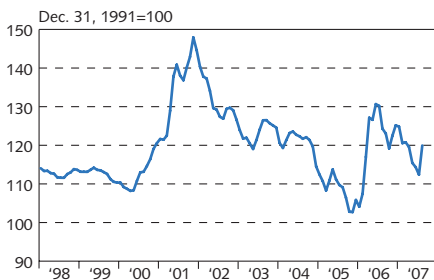
Source: Central Bank of Iceland.

Chart 1.4  
Unemployment and migrant labour  
January 1998 - July 2007



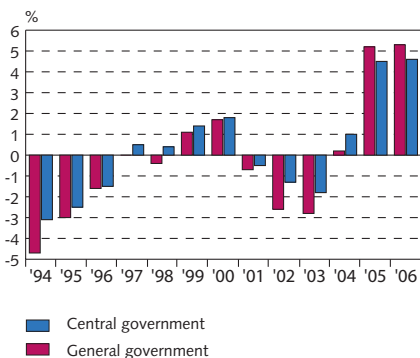
Source: Directorate of Labour.

Chart 1.5  
Nominal effective exchange rate  
January 1998 - August 2007



Source: Central Bank of Iceland.

Chart 1.6  
Treasury and public sector financial balance  
as % of GDP 1995-2006



Source: Ministry of Finance.

### Growing labour market pressures

In spite of vigorous GDP growth in 2004 and 2005, wage drift was muted in historical terms, even in sectors that have experienced labour shortages. Migrant labour has enhanced the resilience and flexibility of the Icelandic labour market in recent years and foreign nationals are estimated to have been around 7% of the labour force in 2006. Nonetheless, wage increases have been far above a level compatible with the inflation target. In line with a fall of unemployment from 3½% in 2003 to 1.1% in the first half of 2007, wage drift has increased recently. Employers, unable to meet all domestic labour shortages with imported staff, needed increasingly to compete for labour with wage-bidding. This, and a special agreement to compensate for higher inflation, resulted in a rise in the wage index by 9.7% between annual averages for 2005 and 2006.

### The fiscal stance

Since the early nineties the fiscal balance has followed the domestic cycle quite closely. A thirteen-year string of general government deficits came to an end in 1997 after economic growth picked up. During 1997-2000 there was a return to surplus, which was halted as the economy cooled in 2002-2003, but returned with renewed vigour in 2005-2006, when the surplus reached 5% of GDP.

At the beginning of 2007 the last phase of the previous government's personal income tax rate cuts took effect and in March, VAT and excise taxes on food and certain other items were reduced as well. The Treasury's combined revenue loss from these cuts is estimated at around 1½% of GDP per year.

### Demand drives inflation

Inflation was at or below the 2½% target until mid-2004 when it started to rise, reaching 6.9% over the year in 2006. The rise in inflation has been the result of rapid expansion of domestic demand brought about by the combined effect of hefty inward investment and enhanced access to credit at lower interest rates. The demand-driven nature of inflation is most evident in rising prices of non-traded goods and services and housing, where foreign competition is minimal.

Although headline inflation had fallen to 3.4% at the time of writing (August 2007), mainly due to the reduction in value-added and excise taxes, measures of core inflation excluding the effects of indirect taxes are still far above the inflation target. Inflation pressures from buoyant private consumption and labour markets remain strong. Moreover, the króna is vulnerable to shifts in investor sentiments, clouding the medium-term inflation outlook and creating considerable uncertainty concerning the commensurate policy rate path.

### Challenging monetary policy settings

The Central Bank began to tighten monetary policy in May 2004 and had raised its policy rate by more than 8 percentage points to 13.3% at the end of 2006.<sup>1</sup> Nonetheless, although tight monetary policy

1. As of May 2007 the Central Bank publishes its interest rate announcements as the nominal interest rate instead of the annual rate of return.

reversed the inflationary trend and managed to reduce it considerably in 2007, inflation still remained above target in autumn 2007. Uncertainty concerning important economic variables, including the exchange rate, which plays a critically important role in the transmission mechanism of a very small open economy, has complicated the conduct of monetary policy in Iceland. Having to deal with unusually large demand shocks during a period of ample global liquidity has been particularly challenging.

### Glacier bond issues dampened the impact of policy rate hikes

A new challenge faced by monetary policy in Iceland has been soaring carry trade. The first króna-denominated Eurobonds, known as glacier bonds, were issued in the global market in autumn 2005. Foreign investor demand for glacier bonds has had a sizeable impact on the transmission of monetary policy, diverting much of the effect into the exchange rate channel. Coupled with massive changes in the Icelandic financial sector, this external impact caused long-term real interest rates to move in the opposite direction to the policy rate for a long time after the cycle of hikes began.

### Large current account deficit

Glacier bond issuance has made the widening current account deficit easier to fund. The current account deficit almost doubled year-on-year in 2005 to reach nearly 27% of GDP in 2006. The strong króna, buoyant private consumption, and increasing pace of real wage growth, investment and asset price rises, have induced a surge in imports, while export growth contracted in 2006 after fairly strong growth in 2004 and 2005. In the first half of 2007 the current account deficit had shrunk noticeably compared to the same period in 2006.

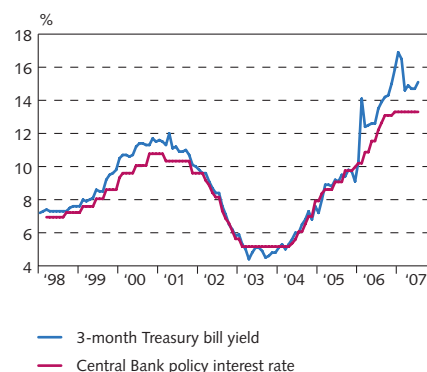
### Increased sensitivity towards developments in international finance markets

The current account deficit has been far too wide to be considered sustainable, leaving the economy highly dependent on developments in international finance markets and the willingness of foreign investors and creditors to fund it. This sensitivity towards external shocks was manifested by the volatility of the króna that was induced by changes in global financial conditions and a shift in investor sentiment in the first half of 2006 and August 2007. In these periods, there has been a very strong correlation between the króna and the high-yield currencies, such as the New Zealand and Australian dollars.

External and internal imbalances are declining but still remained pronounced at the time of writing.

Chart 1.7  
Central Bank policy interest rate  
and Treasury bill yield

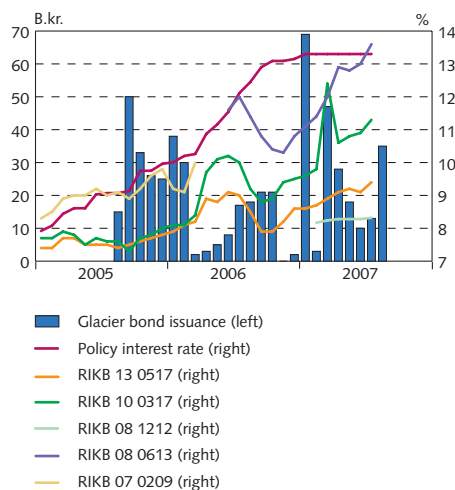
January 1998 - August 2007, at end of month



Source: Central Bank of Iceland.

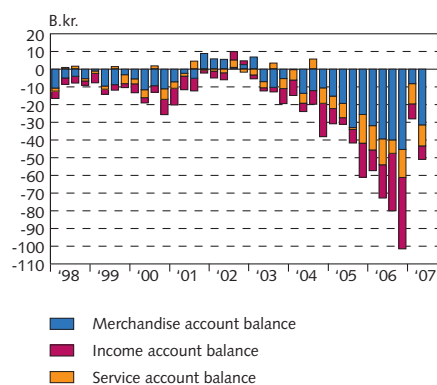
Chart 1.8  
Glacier bond issuance and  
interest rate developments

August 2005 - August 2007<sup>1</sup>



1. Data until August 16, 2007 inclusive.  
Sources: Reuters, Central Bank of Iceland.

Chart 1.9  
Current account balance components<sup>1</sup>  
Q1/1998 - Q2/2007



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



## 2 Country and people

### 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 Reykjavík, the capital, the average temperature is nearly 12°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.

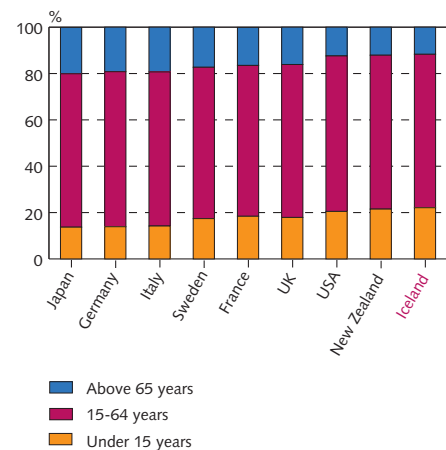
Iceland is endowed with abundant natural resources. These include the fishing grounds around the island, within and outside the country's 200-mile EEZ. Furthermore, Iceland has abundant hydro-electric and geothermal energy resources, which are still a long way from being fully harnessed.

With only 3 inhabitants per square kilometre, Iceland is one of the least densely populated countries in Europe. On December 31, 2006, the population of Iceland was 307,672. The annual rate of population growth 1996-2006 was 1.24%. Around 62% of the population (nearly 192 thousand) live in the capital city of Reykjavík and its surrounding municipalities. The largest town outside the capital area is Akureyri, in the north, with a population of 16,822. Most of the remainder live in small towns along the coast.

### People

Iceland was settled in the ninth century. 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

Chart 2.1  
Age structure of the population  
in selected countries 2005<sup>1</sup>



1. Ranked by share of population 65 and over. Data for Iceland are for 2006.

Source: OECD, Statistics Iceland.

founded a Republic. The native language, Icelandic, belongs to the Nordic group of the Germanic languages.

Iceland has experienced substantial net immigration in recent years, causing the share of citizens of foreign origin to rise to 6% of the total population at the end of 2006. Compared to most other developed countries this ratio still remains low.

As in other advanced countries the population of Iceland is ageing, but at a relatively slower pace than in most OECD countries. In 2004, notwithstanding high life expectancy, the ratio of the total population aged over 65 to the population of working age was lower in only five OECD countries: Ireland, South Korea, Mexico, the Slovak Republic and Turkey.

### **Society and the welfare state**

Iceland is a modern welfare state, which guarantees access for its citizens 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 a quarter of GDP in 2003.

Life expectancy which is among the highest in the world and one of the lowest infant mortality rates (1.4 per 1000 live births in 2006) 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 mostly 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, but children under 17 years of age have most of the cost refunded.

The standard of education is high and public education is compulsory between the ages of six and sixteen. A good command of English and the Scandinavian languages is widespread. Education is offered free of charge or at a nominal fee at three levels. First, there are ten years of compulsory education at the primary level (age 6-16). Second, there are 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 2005, 30.6% of the employed labour force held a university degree. Roughly one out of every five university degrees held by Icelanders is obtained in other countries. As in most OECD countries, university enrolment of those completing secondary education has increased substantially in Iceland in recent years. In 2004 the rate was around 79%, which is the third highest among the OECD countries. By comparison the enrolment rate among the OECD countries was 53% on average. The ratio of pre-school enrolment is also one of the highest among OECD countries.

### **Political structure**

The present constitution was adopted on June 17, 1944 when the Republic was established. Iceland has a parliamentary system of government. Legislative power is vested in the parliament (Althingi),

and executive power in a cabinet headed by the Prime Minister. The government has to be supported by a majority of parliament in order to remain in power. The 63 members of the Althingi are elected from six constituencies on the basis of proportional representation, for a term of four years. A parliamentary bill becomes law when it is passed by the Althingi 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.

Iceland has a tradition of political stability. Since Iceland gained 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 results of the May 2007 elections were as follows: The Independence Party obtained 36.6% of votes and 25 seats, the Social Alliance 26.8% and 18 seats, the Left-Green Movement 14.3% and 9 seats, the Progressive Party 11.7% and 7 seats, and the Liberal Party 7.3% and 4 seats. Others obtained 3.3% and no seats. A coalition between the Independence Party and Social Alliance took office the same month. The next general election is to be held in 2011.

### **External relations**

Iceland has participated actively in international cooperation. Iceland 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 increasingly been taking an 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. Iceland is a founding member of the Bretton Woods institutions that were 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 it was initiated in 1975.

In 1964, Iceland became a party to the General Agreement on Tariffs and Trade (GATT), the predecessor to the World Trade Organisation (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 countries 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 January 1, 1994. Iceland participates in numerous Free Trade Agreements (FTAs) through its EFTA membership with

countries including Turkey, Israel, Morocco, Palestine, Macedonia, Mexico, Jordan, Croatia, Singapore, Chile, Lebanon, Tunisia and the Republic of Korea. Agreements have also been made with the South African Customs Union and Egypt but await implementation. Negotiations on an FTA with Canada have been finalised but await confirmation. Work is in progress on FTAs with Thailand, the Gulf Cooperation Council, Peru and Colombia. Preparations are also being made for FTAs with Albania, the Ukraine, MERCOSUR, Serbia, Algeria, Indonesia and Mongolia. Iceland has enacted bilateral Free Trade Agreements with Greenland and the Faroe Islands.

Iceland is a founding member of the North Atlantic Treaty Organisation (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 documents have been signed with Denmark and Norway regarding cooperation on security and defence.

Table 2.1 Iceland's membership of international organisations

	<i>Year of association</i>
International Monetary Fund (IMF)	1945
International Bank for Reconstruction and Development (World Bank)	1945
United Nations (UN)	1946
North Atlantic Treaty Organisation (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
Organisation 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 Organisation (WTO)	1995

### 3 Economic history

#### A century of high but volatile growth

In the course of the 20th century Iceland was transformed from one of Europe's poorest economies, with almost 2/3 of the labour force employed in agriculture, to a prosperous modern economy employing 2/3 of its labour force in services. For most of the century economic growth was led by the fisheries. Consequently, swings in the fish catch and export prices of marine products were the leading source of fluctuations in output growth.

Post-World War II economic growth has been both significantly higher and more volatile than in other OECD countries. The average annual growth rate of GDP from 1945 to 2006 was about 4%. Studies have shown that the Icelandic business cycle has been largely independent of the business cycle in other industrialised countries. This can be explained by the natural resource-based export sector and external supply shocks. However, the volatility of growth declined markedly towards the end of the century, which may be attributed to the rising share of the services sector, diversification of exports, more solid economic policies and increased participation in the global economy.

#### From liberal trade to a controlled economy and on to European integration

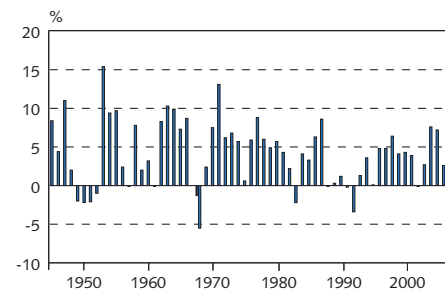
The first three decades of the last century were characterised by rapid growth, interrupted only by World War I. This growth occurred in the context of fairly liberal economic policies. In the wake of the Depression and World War II, however, Iceland, like many other countries, became entangled in a web of trade barriers, capital controls and a complex system of multiple exchange rates which led to serious distortion of the price mechanism and misalignment of real exchange rates.

A radical departure from these policies occurred in 1960, when barriers to trade were lowered considerably in conjunction with a large devaluation of the króna, leading to more efficient allocation of resources. Trade barriers were further lowered when Iceland became a member of the General Agreement on Tariffs and Trade (GATT) in 1964 and the European Free Trade Association (EFTA) in 1970 and further still when it became a founding member of the European Economic Area (EEA) in 1994, which integrated Iceland and other EFTA member countries (except Switzerland) into the internal market of the European Union (EU).

#### Episodes of inflation and disinflation

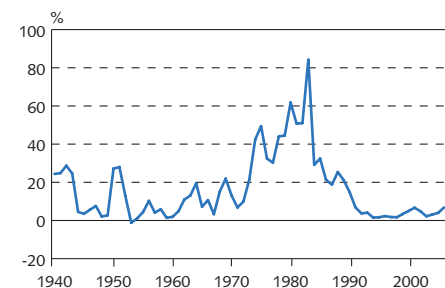
A distinguishing feature of Iceland's economic development in the post-World War II era was the high and variable rate of inflation. Inflation surged in the 1970s, reaching a peak in 1983, when the 12-month rate briefly exceeded 100%. The inflationary tendencies were explained by the combination of structural features of the economy, which generally made attaining price stability a difficult task, and excessively accommodative policies.

Chart 3.1  
Growth of GDP 1945-2006  
Annual percent changes



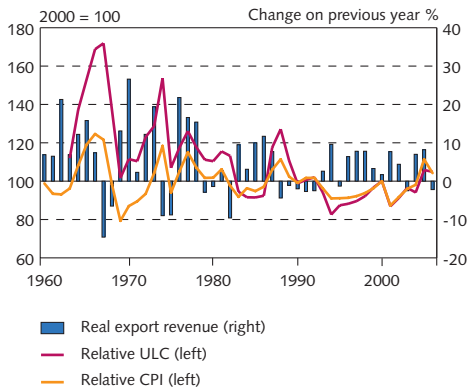
Source: Statistics Iceland.

Chart 3.2  
CPI inflation 1940-2006  
Percent change between annual averages



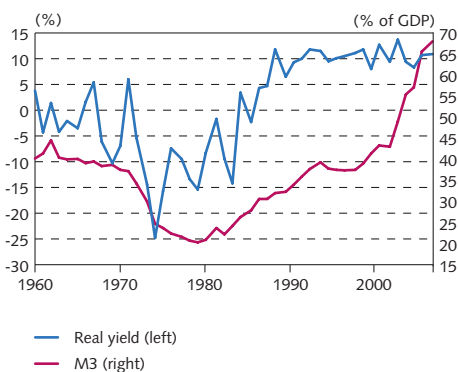
Source: Central Bank of Iceland.

Chart 3.3  
Real effective exchange rate of the króna<sup>1</sup>  
and real export revenue 1960-2006



1. Based on relative consumer prices (CPI) or relative unit labour cost (ULC).  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 3.4  
Real yield and broad money 1960-2006<sup>1</sup>  
Real yield on nominal bank loans  
and M3 as percent of GDP



1. Latest data are preliminary.  
Source: Central Bank of Iceland.

While Iceland for a while had one of the highest inflation rates among OECD countries, it also provides one of the more remarkable examples of a successful disinflation strategy. Through a combination of tighter monetary and exchange rate policies, incomes policies that managed to reach a wide-ranging consensus on the need to reduce inflation, and broad-based structural reforms, inflation was brought down in the early 1990s to the rate prevailing in major trading partner countries.

### A market-based economy

Over the past two decades, significant structural reforms have taken place in the Icelandic economy and financial markets. These reforms have aimed to enhance allocative efficiency by increasing the role of market forces through deregulation and integration into the world economy. Policies of market liberalisation, fiscal consolidation, privatisation and other structural reforms were implemented in the late 1980s and early 1990s. This process was accelerated by the need to align the Icelandic legislative and regulatory framework to that prevailing in the European Union when Iceland became one of the founding members of the EEA in 1994.

Government interference with the allocation of credit was gradually reduced following the deregulation of interest rates. A legacy of the regulated economy of the post-World War II years was that substantial segments of the economy became owned by either central or local governments. Most of these have been privatised in recent years. The liberalisation process continued during the second half of the 1990s, competition increased and the Icelandic financial markets and financial institutions were restructured. The energy sector is still predominantly publicly owned. An exception to the trend towards liberalisation has been agriculture, which is still widely supported by government subsidies, import protection and a system of production quotas.

### New framework of monetary policy

The emergence of a money market in the early 1990s and the establishment of an interbank market for foreign exchange in 1993 laid the foundation for modern monetary policy implementation. Liberalisation of capital movements also made monetary and exchange rate policies in some respects more challenging. In order to cope with those challenges, exchange rate policy became gradually more flexible, until the króna was officially floated in March 2001, under a new framework of monetary policy based on inflation targeting. An inflation target of 2½% was set for the Central Bank. By the turn of the century Iceland had become an advanced economy, thoroughly integrated into the European market, with most of the features of a modern market economy.

### From negative growth to overheating

In the late 1980s and beginning of the 1990s, the Icelandic economy was characterised by slow or negative output growth mainly due to a decline in fish catches, in conjunction with a downturn in the global

economy and restrictive economic policies aimed at curbing inflation and restoring the fiscal balance to a more sustainable long-term position.

Economic growth started to gain momentum by the middle of the 1990s, rekindled by favourable fish prices, a global economic recovery, a rise in exports and a new wave of investment in the aluminium sector. Iceland experienced one of the highest growth rates of GDP among OECD countries. While initially the upswing was led by rising exports and foreign investment in the export sector, it became increasingly characterised by booming consumption and investment in the non-traded goods sector, which was to a large extent financed by foreign credit.

In 1998 signs of overheating became increasingly visible. Inflation took off and reached 6% in the spring of 2000. These imbalances were the underlying reason for a sharp depreciation of the króna in the latter half of 2000 and in 2001, with inflation rising to above 9% in January 2002. The economy then underwent rapid adjustment, the current account deficit disappeared in the space of two years and inflation fell rapidly as the economy cooled down and the króna appreciated again. A new upswing, largely driven by inward investment and private consumption, began in 2003 (see chapter 1).

## 4 Structure of the economy

### Size and income level

The Icelandic economy is the smallest within the OECD, generating GDP of €13 billion in 2006. This was less than 1/1000 of the US economy, 1/20 of the Danish economy and 1/3 of the economy of Luxembourg but ten times larger than the economy of Malta. The small size of the Icelandic economy mainly reflects the small size of the population, which reached 308 thousand at the end of 2006.

Iceland has all the characteristics of a modern welfare state. GNI per capita measured in terms of Purchasing Power Parities (PPP) amounted to 36 thousand USD in 2006, the eighth highest in the world and the sixth highest among the OECD countries. In comparison to the Nordic countries, Iceland's GNI per capita is the same as Denmark, lower than in Norway but higher than Finland and Sweden, and somewhat above the EU average.

Historically, this prosperity has largely been built on Iceland's comparative advantages in abundant marine and energy resources. More recently, the main driver of economic growth has been services, in particular the financial services sector.

### Composition of output and expenditures

As in other developed economies, largely non-tradable services form the bulk of economic activity, accounting for approximately 67% of GDP in 2005. While the marine sector is the most important source of export revenue, its share of GDP has declined considerably in recent years, from 16% in 1980 to 6% in 2006. The fastest growth in recent years has taken place in the finance, insurance and real estate sector whose share of GDP has risen from 17% in 1998 to 26% in 2006.

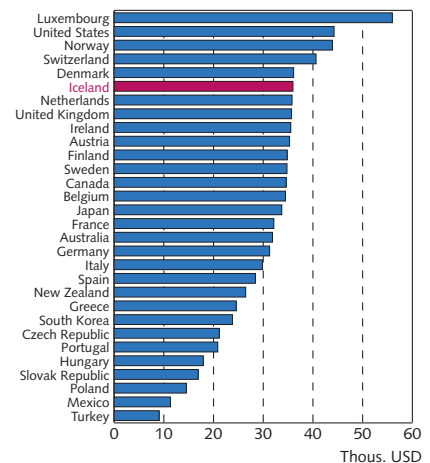
Private consumption contributed on average about 58% of GDP in 2002-2006 and public consumption and gross fixed investment 25% and 24% respectively. The investment-to-GDP ratio has risen substantially in recent years on average, after falling below 1/5 in the mid-1990s. The ratio of public consumption has also risen somewhat over the past five years, after remaining broadly stable through most of the 1990s.

### Foreign trade

Iceland is a fairly open economy, with imports and exports of goods and services amounting to 51% and 33% of GDP respectively in 2006. Trade involves a fairly large share of primary products and commodities, but exports have been diversifying significantly in recent years. Certain factors restrict its openness, however, such as geographic distance from major population centres, limited intra-industry and transit trade, a natural resource-based export sector and extensive protection of domestic agriculture.

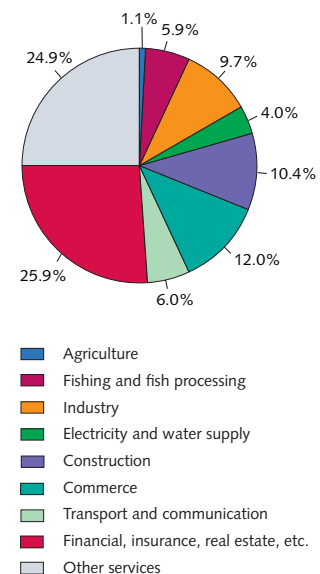
The mainstay of merchandise exports is still fish and other marine products although, as a share of total exports, this category has been declining over the past four decades. In 2006, fish and other marine products accounted for 51% of merchandise exports and roughly

Chart 4.1  
Gross national income per capita  
in OECD countries 2006<sup>1</sup>



1. Based on PPP.  
Source: World Bank.

Chart 4.2  
Breakdown of GDP by sector 2006

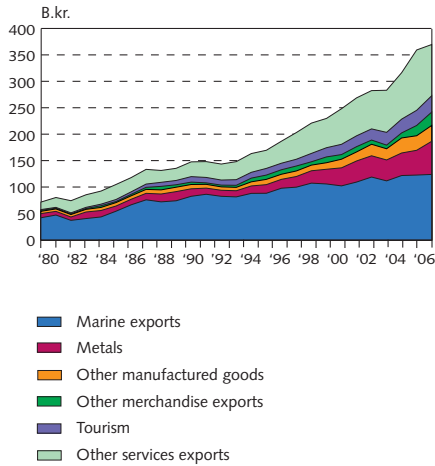


Source: Statistics Iceland.



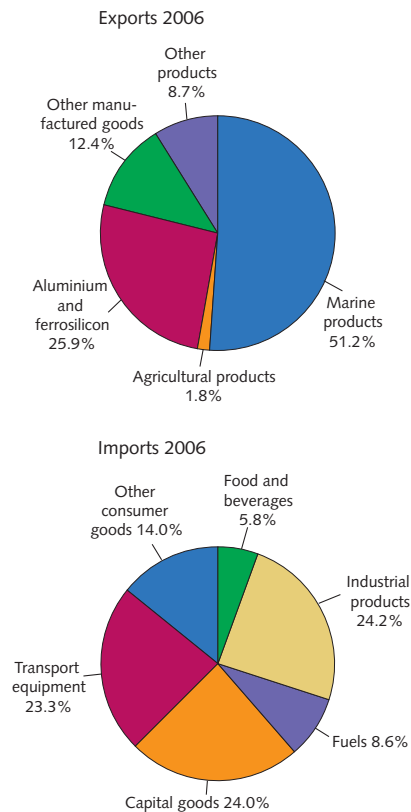
Chart 4.3  
Exports of goods and services 1980-2006

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



Source: Statistics Iceland.

Chart 4.4  
Merchandise trade by category 2006



Source: Statistics Iceland.

Table 4.1 Output and expenditure

Percentage distribution (period average) % of GDP	1972-1976	2002-2006
Private consumption	57.6	58.1
Public consumption	15.1	25.0
Gross fixed investment	31.7	24.3
Changes in stock	0.2	0.2
National expenditure	103.8	107.5
Exports of goods and services	35.1	34.4
Goods, fob	23.9	22.0
Services	11.2	12.4
Less: Imports of goods and services	38.8	41.9
Goods, fob	29.4	27.3
Services	9.5	14.6
GDP	100.0	100.0
Current account balance	-5.5	-11.3

34% of total exports, down from 82% and 60% respectively in 1991. Led by aluminium smelting and medical and pharmaceutical products, exports of manufactured goods have been growing rapidly in importance and accounted for 38% of merchandise exports in 2006. Export of services have also soared as the economy becomes increasingly service-oriented. Services now account for almost 35% of total export revenues while in 1990 the share was 26%.

Iceland imports a wide range of manufactured goods and commodities, reflecting both the small size of the economy and the limited range of natural resources. Imports of capital goods accounted for 37% of total merchandise imports in 2006. Industrial supplies and consumer goods are around one-third of imports each.

Free trade arrangements with Europe have stimulated Iceland's trade with the region, causing the share of North America to fall. In 2006, 75% of merchandise exports went to the member countries of the EEA, which also were the source of 65% of imports. Currently, the largest trading partner countries are Germany, the UK, the Netherlands and the Nordic countries. In terms of currency, the euro area constitutes the largest trading area, accounting for 41% of imports and 30% of exports. Iceland has in recent years generally had a trade surplus with the UK, Germany, the Netherlands and the Iberian countries, but a deficit with the USA, Japan and its Nordic neighbours.

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, just over 1/4 of Iceland's services exports in 2006 used the euro and just over 2/5 used the USD as the vehicle currency.

### Foreign investment

In recent years foreign expansion of Icelandic companies has rapidly gained pace, largely through acquisition of companies abroad. The total stock of foreign direct investment (FDI) by Icelandic residents grew by 49% year-on-year in 2006, to €10 billion (946 b.kr.), and has grown by over 55% per year on average over the past ten years.

The most common means of expanding abroad has been through FDI. The Icelandic market is small and companies in markets such as pharmaceuticals, financial services, food production, retail commerce, property development, aviation and shipping have acquired subsidiaries abroad in similar sectors to broaden their base and increase their revenues and profit. Foreign investments have mostly been focused on the UK and Scandinavia but to a lesser extent continental Europe and elsewhere.

Investment in foreign equities has also grown substantially over the past decade. Before full liberalisation of cross-border capital movements in 1995, residents owned only approximately €77.9 million (6.5 b.kr.) in foreign capital equities. Over the twelve years to 2006 the stock had increased to €9.8 billion (922.5 b.kr.).

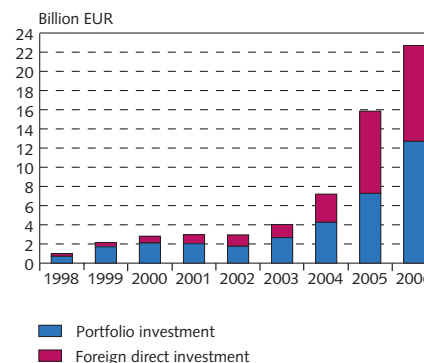
Foreign direct investment in Iceland has also been growing over the past few years. In 2006, FDI in Iceland amounted to roughly €3 billion (265 b.kr.) and the stock of FDI investment in Iceland increased by €2.9 billion (252.5 b.kr.). This increase must though be interpreted with caution as it is to a large extent a pass-through investment of Icelandic residents via foreign holding companies. Over the past few years non-resident funds have been investing in companies which are listed on OMX Nordic Exchange Iceland (OMX ICE). Also, franchising has been increasing in Iceland, especially in retail, consulting, auditing and accounting.

Liberalisation of cross-border capital movements has led to a profound change in the composition of residents' financial asset portfolios. Before full liberalisation in 1995 residents owned only approximately €156 million (13 b.kr.) in foreign securities but this figure had increased to €12.7 billion (1,200 b.kr.) by the end of 2006, the equivalent of 105% of GDP. In 1995, Iceland's outward investment stock was equivalent to approximately 14.5% of GDP. Eleven years later, in 2006, it had risen more than twenty-six-fold to 396%.

The composition of foreign assets has also changed substantially over this period. Reserve assets and trade credit once accounted for a significant portion of foreign assets but are now relatively unimportant. Instead, foreign lending has surged to 39% of foreign assets. The share of foreign equity has also almost doubled to roughly a fifth of

Chart 4.5

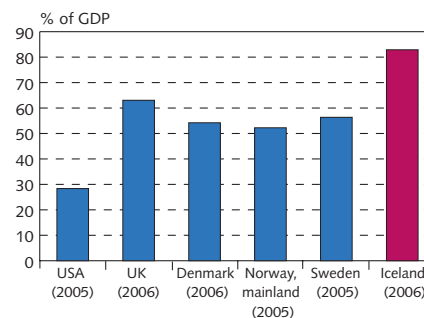
Foreign direct investment and portfolio capital owned abroad by residents (at year-end) 1998-2006



Source: Central Bank of Iceland.

Chart 4.6

Direct investment abroad: outward position



Sources: Reuters EcoWin, Central Bank of Iceland.

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 are 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 must not own more than 49% of the shares in Icelandic aviation companies.

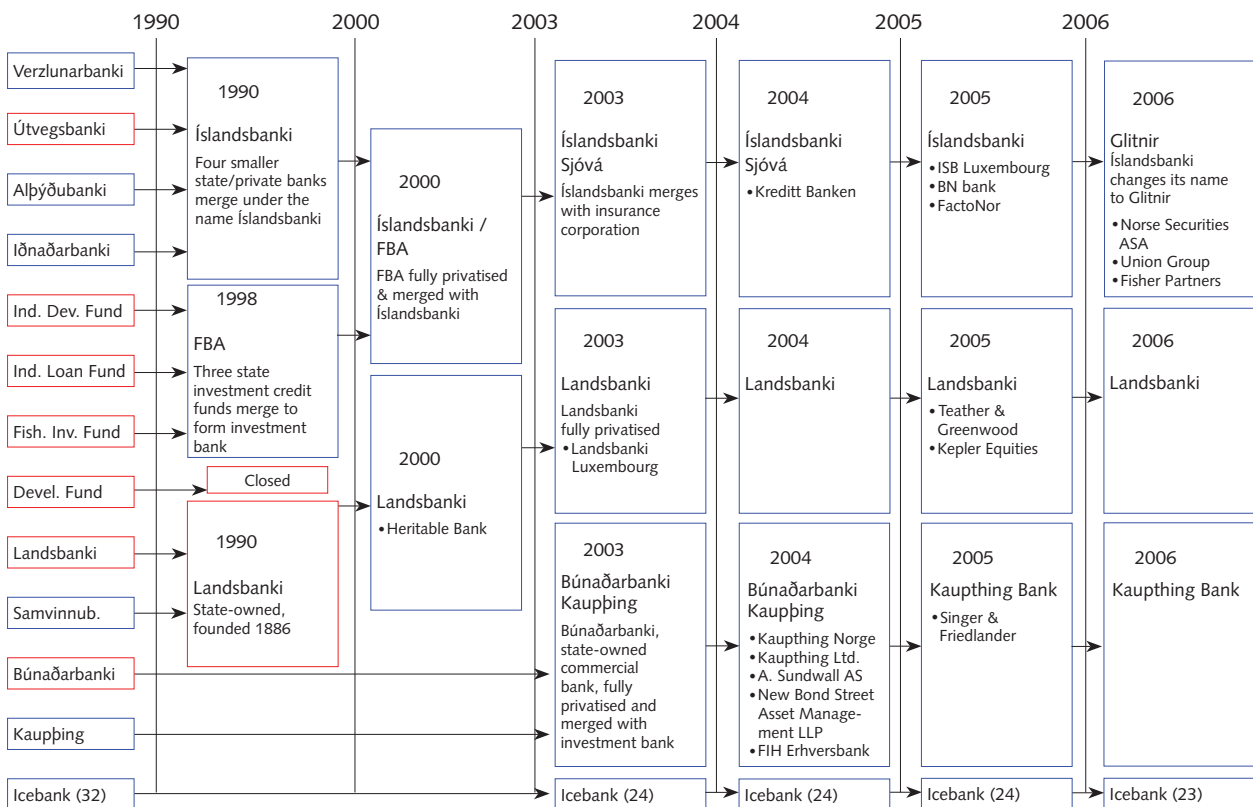
## Sectoral limitations on foreign direct investment

the total foreign investment stock. On the other hand, inward equity investment accounts for only 6% of total foreign liabilities. Iceland's outward FDI accounted for about 21% of the total foreign assets at the end of 2006. Lending by domestic credit institutions to foreign borrowers is one of the largest single contributors to the increase in foreign assets. Foreign lending amounted to €0.47 billion (44 b.kr.) in 2001 but had risen meteorically to €18.4 billion (1,740 b.kr.) in 2006. Pension funds' foreign portfolios have also soared to €4.7 billion (442 b.kr.) at the end of 2006, accounting for 10% of Icelandic residents' total foreign assets and 37% of foreign portfolio holdings. Extensive direct, portfolio and real estate investment by other Icelandic residents explains the rest of the growth in assets. Outward FDI and equity portfolio exceeded inward by €10.3 billion (974 b.kr.) at the end of 2006.

**Financial sector**

Iceland's financial services sector has experienced meteoric growth in recent years, catalysed by deregulation in the 1990s and, in particular, privatisation of two commercial banks, which was completed in 2003. International acquisitions and internal growth have swollen the banks' combined balance sheets tenfold from 2000 to 2006. The three commercial banks have subsidiaries and branch offices in e.g. the UK, USA, Scandinavia and continental Europe. Financial legislation is transposed from EU law. Major companies have adopted the International Financial Reporting Stands (IFRS) and are preparing to implement Basel II.

Chart 4.7  
Consolidation of the banking system



There are currently five commercial banks in Iceland. The three largest – Glitnir, Kaupthing Bank and Landsbanki – provide all conventional banking and securities services. Total assets of the largest commercial bank groups amounted to €89.6 billion (8,475 b.kr.) at the end of 2006.

At the end of 2006 there were 23 savings banks in Iceland and one commercial bank, Icebank, serves as a banking institution for most of them. Total assets of the savings banks and Icebank amounted to €5.2 billion (494.4 b.kr.) at the end of 2006 (parent company basis).

Glitnir, Kaupthing Bank and Landsbanki are privately held. In recent years they have expanded their operations abroad by acquiring subsidiaries in commercial banking and security brokerage. At the end of 2006, almost half of total assets of the largest commercial bank groups were accounted for by foreign subsidiaries, most of them located in northern Europe, and in 2006 about 50% of their overall income was generated abroad. The three largest commercial banks are rated by international rating agencies.

Chart 4.8

Market value and total assets of the three largest commercial banks as of June 2007<sup>1</sup>

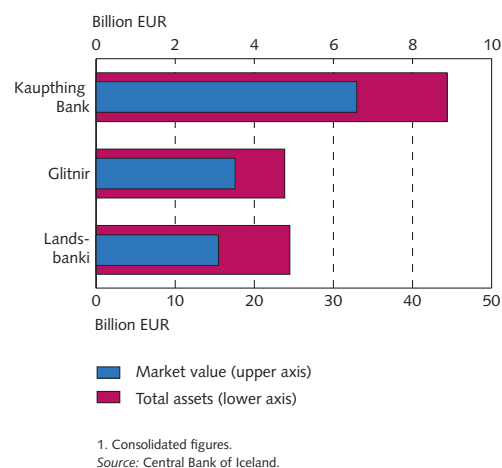


Table 4.2 Commercial banks' credit ratings

	Moody's ratings for foreign-currency obligation			
	Affirmed	Long-term	Short-term	Financial strength
Kaupthing Bank	April 2007	Aa3	P-1	C
Glitnir	May 2007	Aa3	P-1	C
Landsbanki	April 2007	Aa3	P-1	C

	Fitch's ratings for foreign-currency obligation				
	Affirmed	Long-term	Short-term	Indivital rating	Support rating
Kaupthing Bank	August 2007	A	F1	B/C	2
Glitnir	March 2007	A	F1	B/C	2
Landsbanki	March 2007	A	F1	B/C	2

	S&P's ratings for foreign-currency obligations		
	Affirmed	Long-term	Short-term
Glitnir	Feb. 2007	A-	A-2

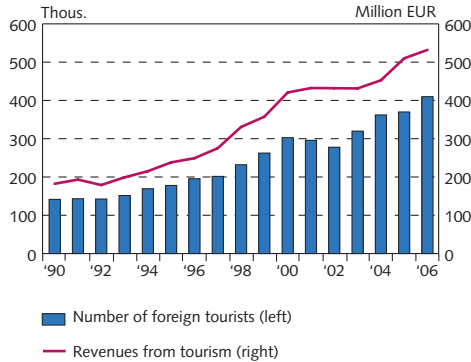
	R&I's ratings for foreign-currency obligations	
	Affirmed	Long-term
Kaupthing Bank	July 2007	A+

Twelve other credit institutions currently operate in Iceland, comprising five investment banks, two payment card companies, two investment funds and three leasing companies, plus the Housing Financing Fund, a state-owned mortgage credit fund.

Table 4.3 The Housing Financing Fund's credit ratings

	Affirmed	Foreign currency		Domestic currency		Outlook
		Long-term	Short-term	Long-term	Short-term	
Moody's	Dec. 2006	Aaa	P-1	Aaa	P-1	Stable
Standard & Poor's	Dec. 2006	A+	A-1	AA-	A-1+	Stable

Chart 4.9  
Number of incoming tourists and  
revenues from tourism 1990-2006  
At current euro exchange rates



Sources: Statistics Iceland, Central Bank of Iceland.

There are 12 insurance companies authorised to operate in Iceland, with total assets of around €1.8 billion (171 b.kr.) at year-end 2006. Sjóvá, VÍS and TM are by far the largest. Life insurance companies represent only 8.6% of total assets of insurance companies. In addition, 274 foreign insurance companies have licences to provide services in Iceland, but only two have established a branch in the country so far.

### Other service industries

Tourism has been one of the fastest-growing industries in recent years. The number of visitors from abroad in 2006 is estimated at 410 thousand, compared to 140 thousand in 1990. Foreign exchange revenues generated by tourism in 2006 amounted to approximately €532 million (47 b.kr.), equivalent to 12.6% of export revenues.

The technological sector of the services industry has also been rapidly diversifying. Iceland's software industry has extensive know-how and long practical experience in the design of software for sophisticated food and fish processing equipment. Icelandic software developers are also actively engaged in multimedia and Internet applications, e-commerce, real-time communication, on-line games, medical software and general office and database systems. In 2006, exports of software products amounted to €72 million (6.3b.kr.), an increase of more than 175% since 2000.

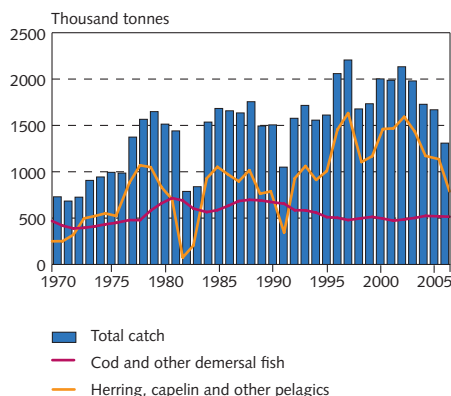
### Marine sector

The marine sector is still one of the main economic sectors and one of the pillars of export activities in Iceland, but its relative importance has diminished with the ascendancy of aluminium and services. In 2006, fishing and fish processing contributed 51% of total merchandise exports, compared with around 90% in the early 1960s. Likewise, the sector's contribution to GDP has fallen from 13-17% to roughly 7% over the same period. The marine sector is highly diversified in terms of species, modes of processing and markets.

Fishing and processing of groundfish, mainly cod but also haddock, saithe and redfish, are the principal part of the Icelandic marine sector. The catch of these and other demersals accounted for 82% of landed value of fish in 2006. Cod is the most valuable species in Icelandic waters in terms of total catch value, accounting for 36%. A decline in the cod catch has been partly offset hitherto by increased harvesting of other species such as capelin, haddock, saithe, redfish, flatfish, blue whiting and herring, inside and outside Iceland's exclusive 200-mile fishing zone.

Enhanced value added in processing has helped to offset lower total catch volumes in recent years, backed by gains in efficiency through ITC, automation and modern management techniques. Value has also been boosted by a shift towards fresh groundfish products – which generate higher prices in markets in Europe and the US – instead of more traditional frozen or salted products. The most important step in the value-added strategy over the past 3-4 years has been in processing of filleted and frozen pelagic products, mainly from herring and capelin which were previously converted into relatively low-value

Chart 4.10  
Fish catch by Icelandic vessels 1970-2006



Source: Statistics Iceland.

All commercially important species are regulated within the individual transferable quota (ITQ) system. Quotas represent shares in the annual TAC and are allocated to individual fishing vessels. The present quota system is built on the following factors:

- Each year a 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 fixed quota share of each species subject to a TAC.
- The individual quota share is multiplied by the TAC to give the quantity which each vessel is authorised to catch during the fishing year.
- Permanent quota shares 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 holdings of quotas for individual species and aggregate holdings of quotas.

In 1995 a refinement to the management system introduced a "catch rule" setting the TAC for the next consecutive quota year at 25% of the mean of the fishable biomass in the assessment year and the year after. Annual fishing quotas are allocated against an annual fee for fisheries inspection and enforcement purposes. 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 aggregated value of the total catch of the fishing fleet minus operating expenses, divided by the catch quantity. In a transition period the percentage will increase from 6.5% in 2004 to 9.5% in 2009. This fee will still remain well below the market price of annual quotas.

## The ITQ system

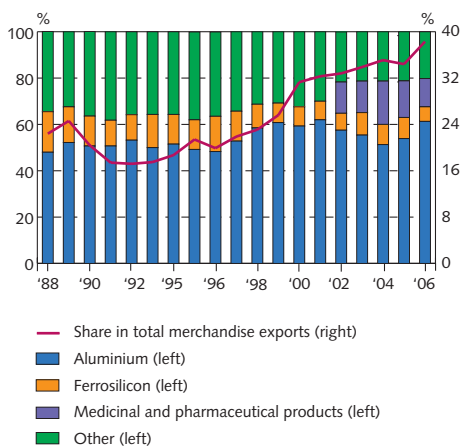
fish oil and meal. In 2000, only 20% of the export value of herring and capelin was accounted for by food products, but in 2006 this ratio had risen to over two-thirds.

A comprehensive fisheries management system (FMS) based on individual transferable quotas (the ITQ system) has been developed to manage fish stocks and promote conservation, sustainability and efficient utilisation of the marine resources. 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 in the FMS is a commitment to take account of the effects of certain measures or policies on the ecosystem.

The Marine Research Institute (MRI) has recently highlighted the urgent need for immediate action to increase the spawning stock biomass of cod to increase recruitment and, ultimately, the harvestable stock. The biomass of cod is now estimated close to a historical low and only half of the size assumed to be needed to produce maximum sustainable yield. Therefore, the MRI recommended in May 2007 a drastic cut of one-third in the total allowable catch (TAC) for the fishing year commencing on September 1, 2007. The Ministry of Fisheries acknowledged this recommendation and lowered the TAC of cod to 130,000 from 193,000 tonnes in the fishing year 2006/2007.

Other direct measures support the aims of the FMS and reinforce the conservation measures, including rules on permitted fishing gear,

Chart 4.11  
Composition of manufacturing exports  
and share in total merchandise exports  
1988-2006



Source: Statistics Iceland.

closure of areas for bottom trawls, obligatory small fish grids to prevent juvenile fish catches and temporary closures of fishing grounds to protect spawning fish and limit by-catch of undersized fish.

In recent years, fisheries companies have actively been 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 52% and 64% of the total respectively in June 2007.

Fisheries companies were among the first to be listed on Iceland Stock Exchange (now OMX Nordic Exchange Iceland) in the 1990s. At one time there were 25 listed fisheries companies, but due to mergers and acquisitions and management buy-outs, only one company is left. Two seafood production and marketing companies are also listed, both leaders in the European seafood markets.

### Manufacturing and power-intensive industries

The largest manufacturing industries in Iceland are the aluminium smelters which produce exclusively for export. Other manufacturing exports have also grown considerably in recent years. In 2006, manufactured products accounted for 38% of total merchandise exports, up from 22% in 1997. Power-intensive products (mainly aluminium) amounted to 26% of total merchandise exports in 2006 but 12% in 1997.

A number of small and medium-size enterprises (SMEs) have emerged in export-oriented manufacturing in recent years. Some have grown to become key international players in their fields – for example medical equipment, pharmaceuticals and capital goods for fisheries and food processing. Most of these companies are founded on product innovation, R&D, strategic marketing and ITC. These industries now account for approximately 1/5 of manufactured goods exports.

Iceland's aluminium industry is mainly based on competitive energy costs and skilled labour force. Aluminium production has risen sharply in recent years, from 210 thousand tonnes in 2000 to an estimated 470 thousand tonnes in 2007. The largest smelter, owned by Alcoa in east Iceland, entered production in April 2007 and will reach full capacity of 346 thousand tonnes per year (tpy) in 2008. Century Aluminium's smelter in southwest Iceland is also being expanded from 180 thousand tpy to 270 thousand tpy by 2008. Alcan Iceland's smelter near Reykjavik also has a capacity of 180 thousand tpy. Total production capacity of the aluminium industry in Iceland will therefore be 800 thousand tpy in 2008, or nearly triple the production level in 2006. This will make Iceland one of the ten largest aluminium producers in the world with roughly 2.5% of global production.

Icelandic Alloys (Elkem ASA) is a ferrosilicon plant with an annual capacity of 120 thousand tpy.

### Energy

Iceland has extensive hydro and geothermal resources and is the only country in Western Europe that still has large-scale, competitively priced power remaining to be harnessed from such sources. Electricity consumption per capita is the highest in the world at some 32,300

kWh per capita in 2006. Even so, only roughly one-fifth of energy potential for generating electricity had been tapped in 2006 but will have increased to one-third in 2008. In no other country is a greater proportion of energy supplied from renewable sources.

Electric power potential from hydro and geothermal sources is now estimated to be 50 thousand GWh/year (50 TWh), taking into account feasibility and environmental considerations. Commonly quoted estimates are 25 TWh per year for hydropower potential and 25 TWh per year from geothermal resources. Only 10,000 GWh/year of this power was harnessed in 2006.

In 2006, total installed hydropower was 1,162 MW in 31 power plants with a capacity of 7,289 GWh per year (4/5 of generated electricity). Installed geothermal power in seven steam turbine plants now (August 2007) amounts to 452 MW or 3,616 GWh/year. The largest single hydropower plant has an installed power capacity of 270 MW and the largest geothermal plant 120 MW. In 2008, the largest hydro plant will have a capacity of 690 MW and the largest geothermal plant 210 MW.

Iceland is a world leader in the use of geothermal energy for domestic and industrial purposes other than generating electricity. Some 90% of all homes are heated by geothermal energy, at less than one-third of the comparable cost of fossil fuels or electrical heating. Current utilisation of geothermal energy for heating and other industrial and commercial uses is considered to be only a small fraction of what this resource can sustain.

Five large-scale power stations are now under construction or expansion and three will be in full production in 2008, Total production will be boosted by 780 MW from 1,590 MW in 2006 to 2,371 MW in 2008. In all, an extra 690 MW from hydro sources and 390 MW from geothermal will be provided by projects currently under way.

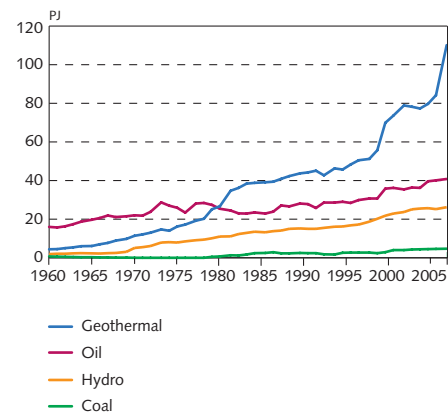
Of the main producers, Landsvirkjun (the National Power Company) is wholly owned by the Icelandic state, while Reykjavik Energy is owned by City of Reykjavík and Sudurnes Heating is jointly owned by local municipalities in southwest Iceland, Reykjavik Energy and a private investment company. Iceland 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 or any changes with regard to the state and/or municipal guarantees they currently enjoy.

### Agriculture and farming

Approximately one-fifth of the total land area of Iceland is arable or pasture. Around 6% of this area is cultivated, with the remainder used for grazing or left undeveloped. Meat and dairy products are mainly for domestic consumption. The principal crops have been hay, potatoes and other root vegetables, while vegetables and flowers are mainly cultivated in greenhouses heated with geothermal water and steam. An ambitious forestry programme is ongoing.

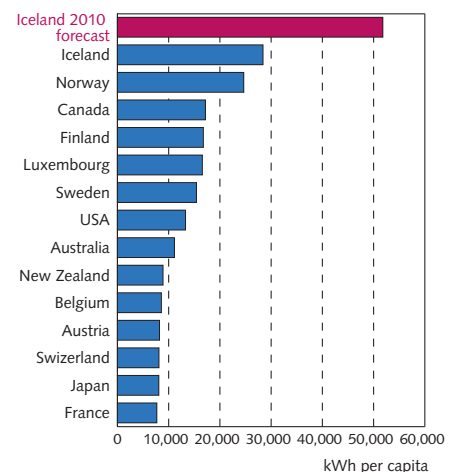
Icelandic agriculture is one of the most heavily supported and subsidised in the world. Subsidies are now almost entirely in the form of direct income payments to sheep and dairy farmers. In 2006, direct

Chart 4.12  
Primary energy consumption  
in Iceland 1960-2006



Source: National Energy Authority.

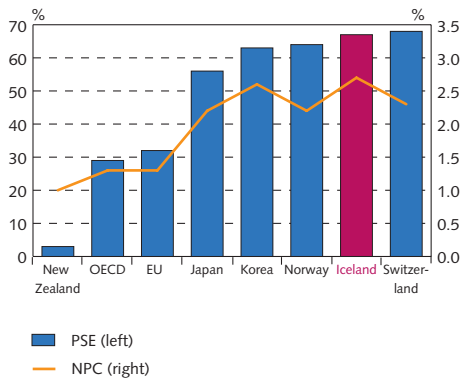
Chart 4.13  
Electricity consumption per  
capita in selected countries 2004



Source: International Energy Agency, Central Bank of Iceland.



Chart 4.14  
Support to agriculture<sup>1</sup>



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.

payments from the state amounted to an estimated 47% of farmers' income in lamb and mutton production and 46% of the producers' price for milk production. Total on-budget transfers to farmers amounted to about 1% of GDP in 2006, although agriculture contributed less than 1.3% to GDP that year.<sup>1</sup> In terms of Producer Support Estimate (PSE), the most common indicator of agricultural support, Iceland was outpaced only by Switzerland in 2005 with a PSE of 67; Switzerland recorded 68 and Norway came third with 64. Producers' support in 2005 amounted to 32 on average in the EU and 29 in the OECD countries.

Imports of meat, dairy products and vegetables that compete with domestic production are subject to high tariffs, quotas and strict controls to prevent diseases. Imports are likely to increase as tariffs go down in line with WTO agreements on trade in agricultural products.

### Transport

The domestic transportation network consists of roads, air transportation and coastal shipping. Car ownership is widespread. In 2006, Iceland had 641 passenger cars per 1,000 inhabitants.

The road system totals 13,000 km, of which 4,300 km are primary roads. Some 4,600 km of the road network is paved and nearly 30 km of road tunnels have been built, with 11 km scheduled to be added in 2009.

Five international airlines operate in Iceland, all fully privately owned. Two of them offer direct passenger services to and from Iceland – both serve a number of cities in Europe and one has several gateways in the US as well. The other airlines operate charter and air cargo services worldwide. The international airlines have been investing in foreign subsidiaries and other airlines in recent years, mainly in Scandinavia and in the UK.

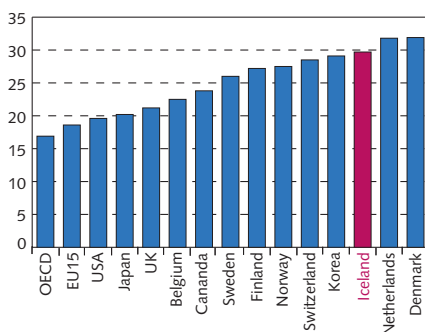
Iceland has numerous harbours large enough to handle international ship traffic, which are without exception free of ice throughout the year. The two main shipping lines operate regular liner services to the major ports of Europe and the US. Both have been building transport networks on land and sea in Europe and North America by investing in foreign subsidiaries and other transport companies. A weekly ferry connection operates between two Nordic countries and east Iceland for passengers, cars and cargo.

### Communications

The telecom market in Iceland is characterised by one of the world's highest penetrations of broadband, Internet and mobile phones. Broadband penetration per 100 inhabitants was the third highest in the OECD in 2006, surpassed only by Denmark and the Netherlands. In 2005, Iceland had the second-highest mobile telephone penetration in the world, after Luxembourg, with 101 wireless subscribers per 100 inhabitants. In 2006, 89% of Icelandic households owned a computer. The percentage of households with an ADSL, SDSL or other xDSL connection has increased steadily in recent years to 85% in 2006.

Iceland's telecommunication infrastructure is both extensive and modern, with satellite earth stations, optical fibre cables, broadband

Chart 4.15  
Broadband subscribers per 100 inhabitants  
in December 2006



Source: OECD.

1. The sum of on-budget payments, market price support and general services support.

networks and a wide-reaching cellular mobile phone system, reaching 98% of the population. There are two major telecommunication players in the market and two smaller companies entered in 2006.

Three broadcasting companies operate a total of 8 radio channels and 9 TV channels. In addition, a large number of foreign TV channels are widely received via satellite, cable or UHF relay.

## Environment

Compared to other industrial countries, Iceland is relatively unpolluted, due to 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, 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 by the use of renewable energy: hydro and geothermal. Utilisation of hydroelectric power, however, requires the building of dams and reservoirs that affect nature and the landscape.

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

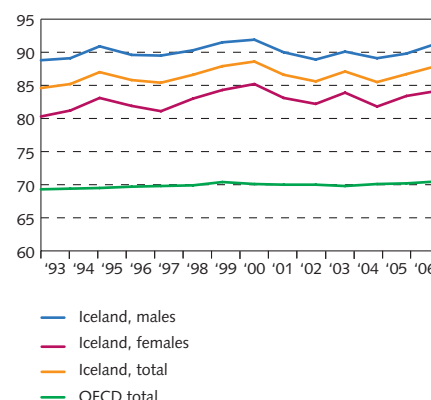
The emission limit for greenhouse gases in Iceland according to the Kyoto Protocol for the period 2008-2012 entails a 10% increase from the 1990 levels. In addition, emissions from single relatively large projects can be reported separately and are not included in the above set limit, provided that they utilise renewable energy and adhere to certain criteria. Emissions of greenhouse gases from Iceland in 2004 were 11% higher than the 1990 level, but projections imply that Iceland will be within its Kyoto limits, using the clause for reporting certain sources separately. The largest share of emissions stems from industrial processes, followed by the fishing industry and the transport sector.

## Labour market

The Icelandic labour market has one of the highest participation rates among OECD countries. Over the past 10 years it has consistently been well above 80%. This is explained partly by the fact that the rate of unemployment has normally been one of the lowest among OECD countries. The participation rate of women has also been very high by international comparison. In 2005, female participation was in fact one of the highest in the OECD countries, with women accounting for 46% of the labour force. Participation rates among the young and the elderly have also been quite high. Furthermore, Icelanders tend to work long hours. The participation rate and number of hours worked are positively correlated with economic growth, thereby dampening cyclical movements in unemployment.

Iceland's EEA membership facilitates movement of labour within the area. The Icelandic labour market tends to attract both foreign and Icelandic nationals during upswings and the opposite applies during downswings. Moreover, even in the case of significant shifts in sectoral or regional employment, a high degree of labour mobility

Chart 4.16  
Labour force participation rate  
in Iceland and OECD countries 1993-2006



Source: OECD.

between them prevents large differences in regional unemployment from emerging.

The influx of foreign labour has increased substantially in recent years, both from within and outside the EEA area. It is estimated that approximately 7% of the labour force comprised non-Icelandic nationals in 2006 compared with 2.3% in 1998.

The wage bargaining process in Iceland is highly centralised and usually leads to more or less nationwide settlements. Some 85% of the labour force is unionised and the employers are also highly organised. The government has frequently been involved in wage settlements, either through tax concessions and social transfers or with legislative acts aiming to accomplish moderate settlements. In addition, tailoring of national framework pay deals in sectoral and firm-level negotiations enables specific local conditions to be taken into account.

Notwithstanding its high degree of centralisation, the Icelandic labour market appears to be quite flexible compared to the rest of the EEA. Substantial and increasing labour mobility, flexible hours and variable participation rates serve to dampen the effects of external shocks. Furthermore, various studies indicate that real wages respond quickly to external shocks, which reduces their employment effect, although the measured flexibility may to some extent be the result of high historical inflation.

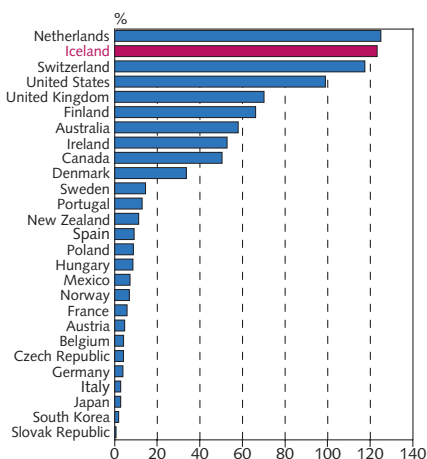
### Pension system

Iceland will face fewer problems due to the ageing of the population during the coming decades than most other developed nations. There are three main reasons. 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 2006, somewhat lower than in the US (21%) but far less than the average in the EU (36%). Second, labour participation rates among the elderly are high and the pension system does not give special incentives for early retirement. The official retirement age is 67 and 33% of 65- to 74-year-olds worked at least one hour a week in 2006. 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. The old age pension is in most cases paid from the age of 67. It is divided into a basic pension and supplementary pension. Both are means-tested but pensions received from other sources are treated differently from other income. These do not affect the basic pension and the level at which they begin to reduce the supplementary pension is higher than for other income. The basic pension amounts to around 12% of the average earnings of unskilled workers but the maximum total old age pension to around 60% 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 the trade unions and employ-

Chart 4.17  
Size of pension funds in selected  
OECD countries 2005  
As percentage of GDP



Source: OECD.

ers. 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 €832 million (73 b.kr.) – 6½% of GDP – in 2006.

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 a 8% contribution from the employer. The funds have grown by leaps and bounds over the past two and a half decades as their coverage has become almost total and the return on their assets has been strong. Assets were equivalent to over 130% of GDP at the end of 2006. Pension funds in Iceland are large relative to GDP by international comparison as Iceland ranked second in 2005 among OECD countries on this criterion.

At the end of 2006 there were 32 fully operational pension funds in Iceland, thereof 13 with employer guarantees from the government, municipalities or banks. Funds without employer guarantee are required under current legislation to be fully funded. The ten largest pension funds held about 80% of the net assets of all pension funds in 2006, and the two largest ones accounted for 35%. The average fund had net assets of around €380 million (36 b.kr.), while the biggest had assets of a little over €3 billion (282 b.kr.).

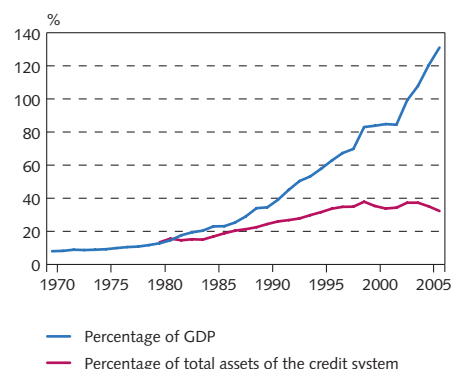
The benefits paid by occupational pension funds without employer guarantee will ultimately depend on their net return and will therefore vary from one fund to another. But the investment risk is borne collectively by the members of each fund and there are no individual accounts as in pure defined contribution plans (DC plans). It has been estimated that a typical general occupational pension fund will, at full maturity, 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 saving, 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 have to be authorised by the Ministry of Finance. They are in most cases defined contribution individual accounts. The pension saving is not redeemable until the age of 60 and has to be paid in equal instalments over a period of at least seven years. It is estimated that 60% of wage earners were paying into such schemes in 2005.

Pension funds used to invest most of their assets in government-guaranteed bonds, housing finance and loans to members. During the last decade a significant shift took place in the asset allocation of pension funds, with the shares of equities and foreign assets increasing strongly. The proportion of equities was just over 1% of total assets in 1990 but had increased to 38% in 2006. The share of foreign assets went up from less than 2% in 1995 to almost 25% at the end of 2005. Current legislation sets upper limits on the share of equities in a pension fund's portfolio at 60% and restricts exposure to exchange rate risk to 50% of net assets.

The build-up of the pension funds has contributed greatly to the development of financial markets in Iceland. It is estimated that their

Chart 4.18  
Net assets of pension funds 1970-2006



Source: Central Bank of Iceland.

assets were equivalent to 32% of the size of the credit system in 2006. The funds held 17% of the stock of marketable bonds in the same year and 42% of the stock of housing bonds. At the end of 2006 the funds owned domestic equities and shares in equity funds that amounted to around 10% of the size of the organised equity market. This figure really underestimates their scope, due to extensive cross-ownership of listed companies. Finally, foreign asset accumulation of the pension funds is very significant in terms of the national economy. Their foreign assets accounted for nearly 37% of all foreign portfolio assets of Icelandic residents at the end of 2006 and almost 10% of total foreign assets as recorded in the international investment position.

## 5 Financial markets and infrastructure

### Overview

Structural and legislative reforms, along with the massive expansion in financial services and activity that they have engendered, have made Iceland's financial system more international in character and broadly on a par with European norms. Under its obligation to transpose into national law all existing and future EU legislation in the field of financial services, Iceland has implemented all the EC directives on banking, insurance and securities trading whose general objective is to accomplish an integrated European market for financial services, in particular with respect to the right of establishment, provision of services, prudential rules and capital movements. Furthermore, the Icelandic authorities, in close cooperation with market participants, have been implementing policy objectives and specific measures on the basis of the EU's Financial Services Action Plan aimed at enhancing harmonisation, competition and effectiveness of financial services, payment systems and electronic commerce throughout Europe.

Table 5.1 Financial market liberalisation in Iceland: some important steps

<i>Event</i>	<i>Year</i>
Financial indexation permitted	1979
Liberalisation of domestic bank rates	1984-86
Iceland Stock Exchange established	1985
Interest Rate Act – Interest rates fully liberalised	1987
Stepwise liberalisation of capital movement begins	1990
Treasury overdraft facility in the Central Bank closed	1992-1993
New foreign exchange regulation marks the beginning of liberalisation of cross-border capital movements	1992
Interbank market for foreign exchange established	1993
Iceland becomes a founding member of the EEA	1994
Long-term capital movements fully liberalised	1994
Short-term capital movements fully liberalised	1995
Foreign direct investment liberalised in accordance with EEA agreement	1995
Interbank money market	1998
Interbank FX swap market	2001
Privatisation of state-owned banks completed	2003

A new Act on the Central Bank of Iceland entered into force in 2001 (see Chapter 7). It simplified and clarified the objectives of the Central Bank, provided full independence for applying its monetary instruments and increased its financial independence. The Central Bank of Iceland is committed to modern central banking principles such as transparency, accountability and independence. It pursues an inflation-targeting monetary policy and promotes financial stability.

### **OMX Nordic Exchange Iceland and the Icelandic Securities Depository**

There is currently one authorised stock exchange operating in Iceland where public listing of securities and securities trading are carried out,

Table 5.2 Selected legislation in the field of financial services

Act on the Central Bank, No. 36/2001
Act on Activities of Stock Exchanges and Regulated OTC markets, No. 34/1998
Act on Electronic Registration of Title to Securities, with Amendments, No. 131/1997
Act on Official Supervision of Financial Operations, with Amendments, No. 87/1998
Act on Financial Undertakings, No. 161/2002
Act on Securities Transactions, No. 33/2003
Act on Undertakings for Collective Investment in Transferable Securities (UCITS) and Investment Funds, No. 30/2003
Act on Insurance Activities, with Amendments, No. 60/1994
Act on Insurance Contracts, with Amendments, No. 30/2004
Act on the Mandatory Guarantee of Pension Rights and the Operation of Pension Funds, No. 129/1997
Act on Deposit Guarantees and Investor-Compensation Scheme, No. 98/1999
Act on Cooperative Societies, No. 22/1991
Act on Housing Affairs, No. 44/1998
Act on the New Business Venture Fund, No. 61/1997
Act on Measures against Money Laundering and Terrorist Financing, No. 64/2006

i.e. OMX Nordic Exchange Iceland (OMX ICE, previously Iceland Stock Exchange, ICEX). OMX ICE is also licensed to operate a regulated OTC market. The Stock Exchange Act of 1998, modelled on EU legislation, furthermore regulates listing, takeover bids, disclosures and flagging in the event of the acquisition of major shareholdings and accompanying rights. Nordic stock exchanges have been cooperating for many years on various aspects of exchange operations, sharing their experience and addressing a variety of common interests together. This cooperation evolved into the Nordic Stock Exchanges (NOREX) alliance, which adopted a single trading system and a harmonised regulatory framework. Today, all the Nordic and Baltic exchanges are members of the NOREX alliance and share a joint trading system, SAXESS. Iceland Stock Exchange, founded in 1985, merged in December 2006 into OMX, which owns exchanges in all the Nordic and Baltic countries except Norway.

Electronic issue of securities and registration of titles to electronic securities can only be carried out by a licensed securities depository. The Icelandic Securities Depository is a registry, depository and clearing house for securities in dematerialised (electronic) form. Settlement of bonds takes place on a T+1 basis but equities on a T+3 basis. The Icelandic Securities Depository is also owned by OMX.

### Bond market

The Icelandic bond market consists of a primary market which usually takes the form of bond auctions, and a secondary market which is mainly operated on OMX ICE. Icelandic bond issues can be broadly divided into four categories:

1. Government bonds, issued by the Treasury, are indexed against inflation and paid up with accrued interest at maturity date.
2. Treasury notes and Treasury bills, which are non-indexed, zero-coupon bonds.

3. Housing Financing Fund (HFF) bonds, housing authority bonds and housing bonds which are indexed, interest-bearing bonds in an annuity format.
4. Bonds that are issued by government agencies, private firms or institutions such as banks.

An active market-making programme on the stock exchange ensures sufficient liquidity in the market for benchmark government bonds, HFF bonds, housing bonds and housing authority bonds. A primary dealer system is also in place for Treasury notes and bills. Most new issues are registered in the Icelandic Securities Depository and trading is conducted on a payment versus delivery basis. Several categories of bonds are registered in Clearstream. HFF bonds are registered in Euroclear, but a large share are sub-registered in the Icelandic Securities Depository.

The Icelandic bond market has several features which set it apart from those in other countries. First, indexed bonds dominate the market. The bulk of issues of maturity exceeding 5 years are linked to the CPI. Second, the majority of bonds carry a state guarantee, including HFF bonds, which are the market's most liquid issues. Third, yields on the Icelandic bond market have been high by international comparison. Over the past decade real yields of indexed housing and government bonds have fluctuated in the range 3.5% to 8%. At the end of July 2007 they were around 4.6%. There were 344 listed bonds and their market value amounted to €15.5 billion (1,295 b.kr.) at the end of July 2007. Turnover on the bond market in 2006 was €27.2 billion (2,274 b.kr.) and from January to July 2007 €10.5 billion (875 b.kr.).

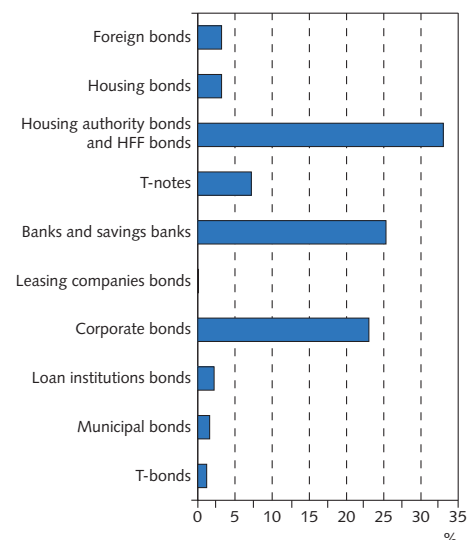
### Equity market

Market capitalisation of Icelandic equities has increased in recent years as equity prices rose significantly from October 2001 to 2006. In the beginning of July 2007, a total of 27 companies were listed on the OMXI15 main list, one company on the alternative market which is an organised but not officially recognised market, and two companies on the new isec (small cap) securities market which opened in July 2006, where securities are officially listed and traded. Market capitalisation of listed companies at the end of 2006 was €31.0 billion (2,590 b.kr.), or 226% of 2006 GDP.

From 1998 to 2002, Icelandic share prices broadly followed a similar trend to that in foreign markets, reaching an all-time high in early 2000 and subsequently dropping considerably. In 2002, the trend was reversed and Icelandic share prices gained 56% in 2003 and 59% in 2004. In 2005 the ICEX-15 index (now OMXI15) rose more than ever before and it well outstripped other markets, increasing by 64.7% during the year. Early in 2006, share prices began to drop, partly after international reports focusing on underlying economic and financial uncertainties, but they climbed back to leave the OMXI15 index 15.83% higher at the end of the year. From January to July 2007 the index had gained 34.6%. Turnover in shares was €26.2 billion (2,192 b.kr.) in 2006 and €17.3 billion (1,444 b.kr.) over the first six months of 2007.

Chart 5.1

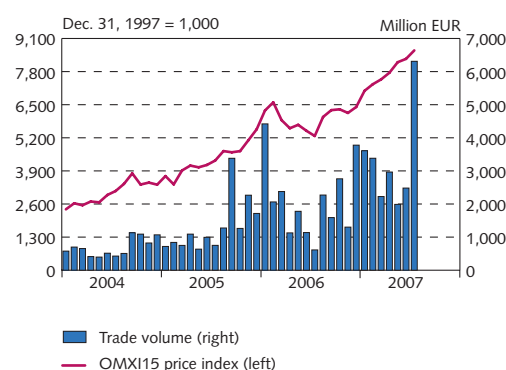
The Icelandic bond market at the end of 2006, percentage breakdown of market value



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

Chart 5.2

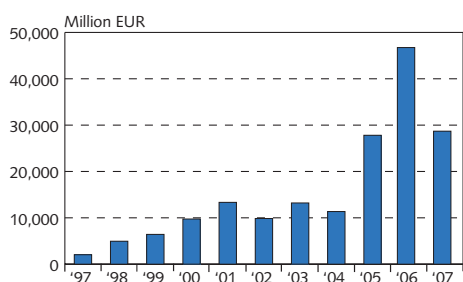
Equity market: Monthly trade volume and prices  
At month-end January 2004 - July 2007



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



Chart 5.3  
Volume traded in the interbank market  
for foreign exchange 1997-2007<sup>1</sup>



1. Data until July 2007 inclusive.  
Source: Central Bank of Iceland.

### Money market

The money market consists of a secondary market in Treasury bills, bank bills and other short-term bonds on the Stock Exchange, and the interbank loan market. Turnover on the secondary market on OMX ICE in 2006 was €459 million (40,3b.kr.) and from January to June 2007 €252 million (22 b.kr.) The interbank market is operated by the Central Bank of Iceland and trading involves unsecured loans between the members of the market. Members must display indicative bid and ask yields on various maturities, ranging from overnight to 12-month loans. Trades must be reported to the Central Bank. Once a day, the Central Bank fixes REIBID and REIBOR rates for the market. Turnover on the interbank market for domestic currency amounted to €19.7 billion (1,647 b.kr.) in 2006 and €9.8 billion (816 b.kr.) over January-June 2007.

### Foreign exchange market

The foreign exchange market is an interbank market run by the Central Bank of Iceland, operating since 1993. Market participants are the three largest commercial banks. The Central Bank of Iceland is the fourth participant but has not been an active market maker for a number of years. The Central Bank has purchased foreign exchange in the interbank market on behalf of the Treasury and to boost its own reserves for the past four years. Market makers are subject to rules issued by the Central Bank, which were last changed in the beginning of 2003.

Activity on the market is highly variable. Total turnover in 2006 was €52.9 billion (4,422 b.kr.) and in the first six months of 2007 it had already reached €28.7 billion (2,399 b.kr.).

In 2006, issuance of glacier bonds (króna-denominated Euro-bonds) was 166 b.kr. (€2.0 billion). Issuance from January to July 2007 had grown to 187 b.kr. (€2.2 billion). Most glacier bonds mature in 1-2 years but the longest issue spans 10 years. The outstanding glacier bond stock amounted to 427 b.kr. (€5.1 billion). Glacier bonds on maturity from August to December 2007 amount to 104.5 b.kr. (€1.3 billion). In 2008, glacier bonds in the amount 235.5 b.kr (€2.8 billion) will mature.

In November 2001 an informal FX swap interbank market was launched, for which the Central Bank of Iceland issued rules in March 2002. Turnover in the swap market was USD 455 million in 2006 and USD 400 million from January to June 2007. Other derivative instruments are used in Iceland but not in a formal market.

### Financial stability and the Central Bank

Article 4 of the Central Bank Act stipulates that it shall undertake such tasks as are consistent with its role as a central bank, such as to maintain external reserves and promote an efficient and safe financial system, including payment systems domestically and with foreign countries.

In performing its important role of promoting an efficient and safe financial system, the Central Bank of Iceland focuses on assessing

the risk of liquidity problems among financial companies and problems in payment and securities settlement systems which could be systemically important. It also promotes efficiency and positive development of the financial system. Financial stability is an important precondition for economic stability, and vice versa. Central Bank activity in this field needs to be undertaken in such a way that markets and decision-makers take the Bank's views into account so as to contribute to an effective and safe financial system. One important way to achieve this is with the annual publication of the Central Bank's *Financial Stability* report. The main findings of the Central Bank's analysis in *Financial Stability* 2006 was that the financial system was broadly sound, but more challenging waters lay ahead. Two main causes of concern were identified: macroeconomic imbalances and uncertainty about the commercial banks' refinancing of their foreign borrowing. In the second half of 2006 refinancing was successfully completed. However, macroeconomic imbalances increased. In the latest *Financial Stability* report published in April 2007 the Central Bank's finding was that the financial system is broadly sound. It is equipped to withstand shocks to the economy and financial markets, to mediate credit and payments, and to redistribute risks appropriately. Iceland's banking system meets the demands made of it and performs well on stress tests conducted by the Central Bank and FME. In 2006 the focus was on short-term risks on the liabilities side of the financial companies' balance sheets, but in 2007 it has shifted more to long-term asset quality.

In its work on financial stability the Central Bank has taken into account international agreements and other standards for best practices along with the work of leading foreign central banks in this field. In light of the increasing prevalence of banks with cross-border establishments, in 2003 the central banks of the five Nordic countries signed a memorandum of understanding (MoU) on managing financial crises. In 2006, the Office of the Prime Minister, Ministry of Finance, Ministry of Commerce, Financial Supervisory Authority and Central Bank of Iceland published an MoU on consultation concerning financial stability and contingency plans.

### **Supervision and deposit insurance**

The Financial Supervisory Authority (Fjármálaeftirlitið, FME) has since 1999 handled supervisory tasks formerly assigned to the now-disbanded Bank Inspectorate of the Central Bank and the Insurance Supervisory Authority. The Central Bank's role is in oversight and prudential regulation.

The FME has a Board of Directors appointed by the Minister of Commerce. The institution supervises commercial banks, savings banks and other credit institutions, insurance companies, companies and individuals acting as insurance brokers, undertakings engaged in securities services, UCITS, management companies, stock exchanges and other regulated markets, central securities depositories and pension funds. The FME also supervises other activities as authorised in accordance with specific laws.

The main task of the FME is to ensure that the activities of the above institutions and firms are conducted in accordance with the

relevant laws and regulations and that they remain sound in other respects. These institutions and firms are obliged to provide all the information considered necessary by the FME to facilitate statutory supervision of their activities.

New international capital standards for financial companies took effect at the beginning of 2007. They are based on the Basel Committee on Banking Supervision's Revised International Capital Framework (Basel II). Basel II replaces an earlier Capital Accord originally dating to 1988. Under the new Basel II rules, financial companies may defer calculation of capital adequacy ratios and risk base according to the new rules until January 1, 2008, and retain the corresponding provisions in force at the end of 2006. Two-thirds of financial companies in Iceland – primarily smaller ones accounting for 5% of total assets of financial companies – have taken advantage of the deferral clause.

By law, the Central Bank of Iceland sets rules for the liquidity ratio of credit institutions, i.e. the ratio of liquid claims to liquid liabilities, and for their foreign exchange balance. Other prudential regulations on financial markets are either sanctioned by law or adopted by government minister or the FME. The regulation on liquidity aims to ensure that credit institutions always have sufficient liquidity to meet foreseeable and conceivable payment liabilities over specific periods. For instance, the ratio of claims to liabilities which fall due or can be liquidated within 3 months must not be lower than 1. Limits are stipulated for the balance of foreign-denominated assets and liabilities. The general rule is that exposure in individual currencies is restricted to 20% of equity and total foreign exchange exposure is limited to 30% of equity.

A Cooperation Agreement between the FME and Central Bank of Iceland is in place. The main aim of the Cooperation Agreement is to make clear the responsibility of each party and the division of tasks between them, both with respect to each other and vis-à-vis companies in financial markets and the general public. Contingency exercises are held on a regular basis.

A deposit insurance scheme is in force in Iceland. The commercial and savings banks have annually contributed 0.15% of their deposits to this scheme (until the limit of 1% of total insured deposits is reached). Since the beginning of 2000, the Insurance Fund of the commercial banks and the savings banks has been a private institution. A separate department of the fund provides insurance for securities investors.

## 6 Public sector

### The size of the government sector

Compared to its neighbours, Iceland has a relatively small public sector, with expenditures of around 41½% of GDP in 2006. This is lower than in the Nordic countries (49½%) and the mainland countries of the European Union (48%), but higher than for the US, Japan or South Korea. The expenditure ratio has fallen by 4 percentage points since 2003 after a similar rise from 1998-2003. The rise was concentrated in health, social services and education, while the subsequent fall seems more widely based.

Several factors should allow Icelanders to get by with a relatively small government sector: historically low unemployment, comparatively low spending on social affairs and the historical absence of defence expenditure.<sup>1</sup> Furthermore, occupational fully funded pension funds are gaining importance and have become more significant measured in terms of benefit payouts than the public pay-as-you-go system, which is the dominant pillar in many other OECD countries (see Chapter 4). The relatively young population and high retirement age also help to lower overall pension expenditures. Compared to either the EU (before the latest accessions) or the Nordic countries, the latest available figures from 2004 on government expenditures by function show that low outlays on social affairs are to a large degree counterbalanced by greater spending on general services, health care, education and economic affairs.

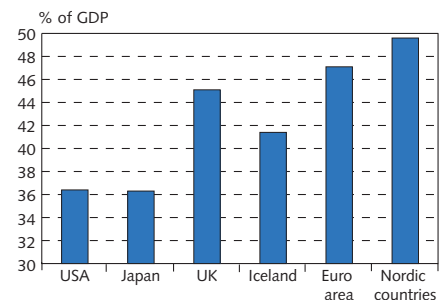
### General government finances

Iceland, like many other OECD countries, ran up a relatively large public sector deficit in the late 1980s and early 1990s, with deficits averaging 3% of GDP in 1985 to 1995. Finances consolidated after 1995 and boom-related surpluses were recorded in 1999-2000. There was a brief return to deficit as the economy cooled in 2002-2003. Since then, surpluses have risen to 5½% of GDP in 2005 and 2006. The fiscal balance has been well above the OECD average since the mid-1990s. Treasury plans from June 2007 predict a surplus of 3½% of GDP in 2007.

The revenue ratio was 46% of GDP in 2006 but is expected to fall as large aluminium and power investment projects wind down and because of cuts in personal and value-added taxes in 2007. Similarly, increased spending on transfers and fixed investment are expected to raise the expenditure ratio by around two percentage points in 2007.

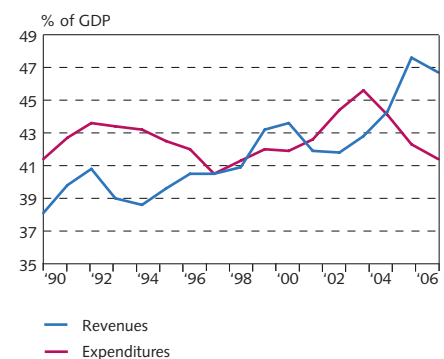
General government debt rose significantly during the recession from the late 1980s to mid-1990s. Net debt peaked in 1995 at 38% of GDP. With stronger growth, improving government finances and revenue from privatisation, it fell significantly to around 7½% of GDP at the end of 2006.

Chart 6.1  
Size of general government:  
Total expenditure 2006



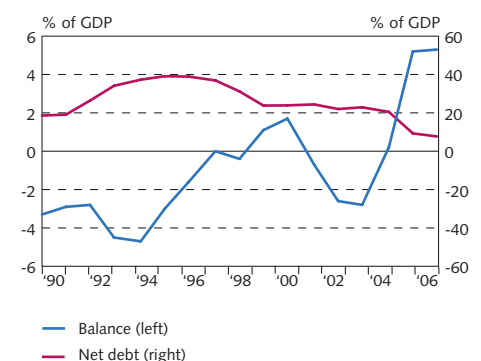
Source: OECD Economic Outlook No. 81 (June 2007).

Chart 6.2  
General government finances 1990-2006  
Revenues and expenditures



Source: Statistics Iceland.

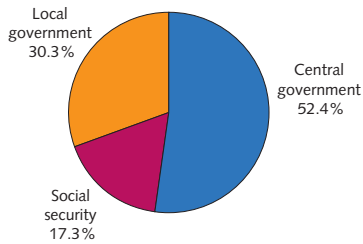
Chart 6.3  
General government net debt  
and fiscal balance 1990-2006



Sources: Statistics Iceland, Ministry of Finance.

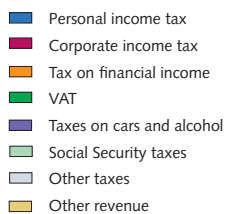
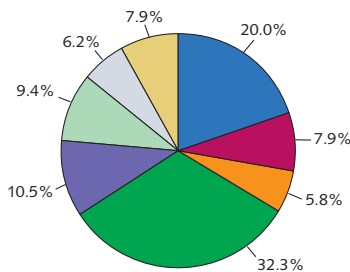
1. Although this may change with the withdrawal of the US military in 2006.

Chart 6.4  
Relative size of government subsectors



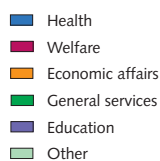
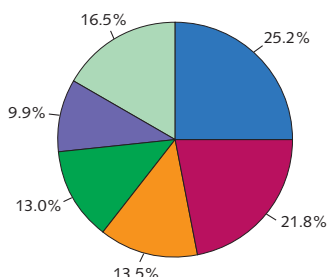
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 6.5  
Central government revenues by source 2006



Source: Treasury accounts.

Chart 6.6  
Central government expenditures by function 2006



Source: Treasury accounts.

### Division of responsibilities

The government sector in Iceland is organised on two levels, the central government as described in the Treasury accounts, and local governments. Separate sets of social security accounts are maintained, but their expenditures and revenues are authorised through the Treasury budget. Since the early 1990s, local government expenditures have climbed from 10% of GDP to around 13%, while the central government has shrunk from 33½ to 30%, mainly because of a shift of school expenditures and commensurate revenues from the state to the local authorities.

The central government regulates local governments and their authority to collect revenue, collecting more than 80% of local government tax revenues. 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, rebates on mortgage interest payments for owner-occupied housing, child benefits and parental leave at childbirth. These programmes are means-tested although to varying degrees.

Local governments are responsible for local planning, most local infrastructure, day care and education from pre-school through the lower secondary level, and welfare services of various kinds, in particular services for the elderly except for health care. They are also responsible for solving 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.

### Central government finances

Central government regular revenues as presented in the Treasury's accounts amounted to 35% of GDP in 2006. The composition of Treasury revenues is shown in Chart 6.5. The noticeably large share of taxes on goods and services puts Iceland in third place among OECD countries for indirect taxes relative to total taxes and second in terms of such taxes as a percentage of GDP.

Discretionary expenditures of the central government are quite low and have been falling. In particular, expenditure on fixed capital and capital transfers fell from around 4½% to around 2% of GDP from 1990 to 2006. The Government has outlined a medium-term programme aiming to keep real growth in public consumption below 2% per year and the growth of income transfers below 2.5%. The composition of central government expenditures is shown in Chart 6.6, with health and welfare accounting for almost half of all spending.

Treasury revenues have been strongly procyclical in Iceland for three main reasons: First, a pre-determined level of tax-exempt income translates growth spurts into revenue bonuses. Second, 40% of Treasury revenues come from taxes on consumption goods falling heaviest

on luxury durables which are mostly imported. Such revenues are sensitive to exchange rates, which are quite procyclical. Third, since 1997 taxes on corporate profits and the financial income of households have grown from 5% to 13% of Treasury revenue. Although experience is limited both must be expected to be very sensitive to fluctuations.

Treasury surpluses, privatisation revenues, reduced lending activity and strong economic growth contributed to a fall in gross Treasury debt from 51% of GDP in 1995 to around 25% in 2006, while net debt, taking account of Treasury deposits with the Central Bank, has been reduced from 33% of GDP to an estimated surplus of 4% at the end of 2007. Besides, since 1999 the Treasury has made an effort to pre-fund civil service pension liabilities, which are not generally classified as debt under the OECD's national accounts standards. These liabilities rose from 13% of GDP in 1989 to 21% in 1998, but have since been trimmed back to 18% of GDP in spite of rising individual benefits and upward revisions of lifespans.

### Local government finances

According to the revised national accounts, the local government sector broke a 14-year string of deficits in 2005 with a surplus equivalent to ½% of GDP in 2005 and repeated this performance in 2006. Local government outlays have run at 12-13% of GDP in the past five years. They have grown from an average of 7% of GDP in the early 1980s, mainly because of new and expanded tasks in the area of primary education and day care. Local government revenues are dominated by a flat-rate, no-exemptions municipal income tax, with property taxes and a Treasury-funded revenue sharing programme lagging far behind. Education, from preschool to the age of 15, accounts for more than a third of expenditures, with culture and recreation and welfare expenditures each accounting for about 15%. More details are shown in Chart 6.9.

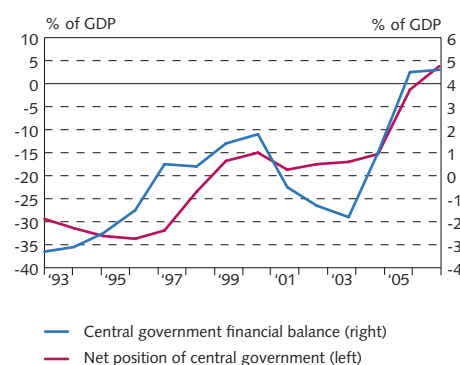
In spite of the deficit history, gross local government debt hovered around 7% of GDP in the period 1994-2005, while net debt stayed around 5%. The seeming contradiction is explained by asset sales, economic growth and a 15% strengthening of the real exchange rate since 1994.

### The tax system

The central government or Treasury derived around 92% of revenues from taxes in 2006 according to preliminary estimates which omit one-off privatisation revenues. The comparable ratio at the local government level was 73%. Of Treasury revenue, 34% came from direct taxes on income and wealth, 9% from payroll taxes, 32% from a value-added tax and 17% from various excise taxes on imports, production and consumption.

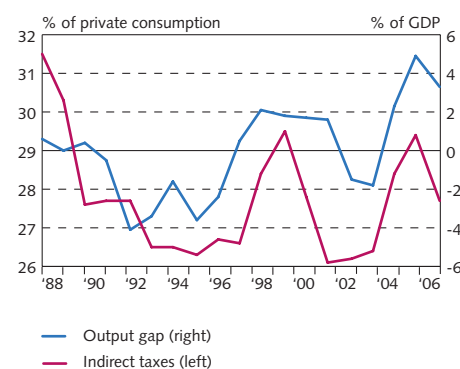
A 22.75% tax is levied on personal income over €12.4 thousand (1.08 m.kr.) for individuals per annum. In addition to the state income tax, a flat municipal tax is levied on personal income. It ranges from 11.2% to 13% depending on locality. The state and local government taxes are levied jointly and the state pays local governments the tax for persons whose income is below the overall tax-exempt level. Pen-

Chart 6.7  
Central government finances 1993-2006



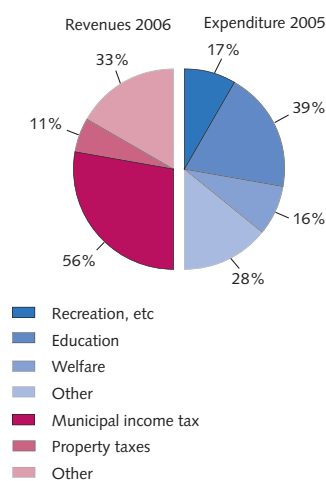
Sources: Ministry of Finance, Statistics Iceland.

Chart 6.8  
Cyclicality of indirect taxes 1998-2006



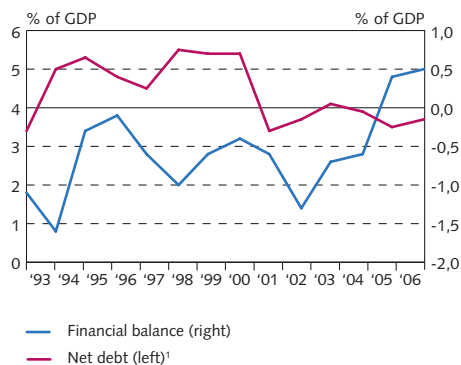
Source: Central Bank of Iceland.

Chart 6.9  
Local government expenditures and revenues  
% of total



Sources: Treasury accounts, Central Bank of Iceland.

Chart 6.10  
Local government finances 1993-2006  
Net debt and financial balance



1. Including cash position but excluding pension liabilities.  
Sources: Ministry of Finance, Central Bank projections.

sion fund contributions and certain public income support payments are exempt.

The Treasury taxes interest, dividends, rental income and personal capital gains at a lower rate of 10%. Property taxes accrue to local governments. Rates vary by community. In 2006, the average rate was 0.29% on residential property and 1.6% on commercial property.

The corporate income tax was lowered from 50% in 1991 to the current 18% in 2002. Capital income of corporations is treated like other revenue for tax purposes. A payroll tax of 5.34% is charged on wages. It is earmarked for unemployment and disability benefits and parental leave after childbirth. It was cut from 5.79% at the beginning of 2007.

The largest single source of Treasury revenue is the value-added tax, which is levied at 24.5% on most goods and services. Food, house heating, books, newspapers, magazines and some services are taxed at 7%. This rate was cut from 14% in March 2007 and compact discs added to this category. A few specific categories of goods and services are exempt, notably financial services, education, health services and passenger transportation.

Table 6.1 Main features of the tax system in Iceland

State income tax <sup>1</sup>	22.75%
Municipal income tax <sup>1</sup>	11.2-13%
State tax on financial income <sup>2</sup>	10%
Corporate income tax	18%
Payroll taxes	5.34%
Value-added tax	
General rate	24.50%
Low rate <sup>3</sup>	7.0%
Property taxes <sup>4</sup>	
Commercial and certain public property	1.60%
Residential property	0.29%

1. Incomes up to €12.4 thousand per person are exempt from income taxes. Municipalities receive a flat rate, so the exemption falls entirely on the Treasury. Pension fund contributions are exempt up to a point. 2. Interest, dividends, realised capital gains and rental income of persons. 3. Food, hotel rooms, heating, books, newsprint, CDs and television and radio subscriptions. 4. Weighted averages for 2006.

Sources: Association of Local Authorities, Internal Revenue Directorate.

A general excise tax is levied on a range of goods at three rates of 15% to 25% while unit fees are charged on some goods. Customs duties range from 0% to 30% of cif value; most imports from the EU as well as Iceland's EFTA partners, Norway, Switzerland and Liechtenstein, are exempt. Revenue from general excise taxes and import duties has fallen from around 20% of Treasury revenues in the early 1980s to around 2% in 2006. Taxes on imports and ownership of motor vehicles, and excise taxes on motor fuel, made up 7% of Treasury revenues in 2006, while around 3% derived from charges on the sale of alcohol and tobacco.

In total, the Treasury and local government taxes described above accounted for 84% of general government revenues and 95% of tax revenues in 2006. Non-tax revenue accounted for 12% of gen-

eral government revenue, consisting mostly of service charges, interest income and dividends. Privatisation proceeds are not counted as revenue under national accounts definitions. The ratio of total general government revenue to GDP fell by a percentage point between 2005 and 2006 to 46½% compared to a weighted average of 39% for the OECD as a whole, 46% for the euro area and 57% for the Nordic countries in 2006.

### 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.

Table 6.2 Highlights of Central government privatisation

Years	Company sold	Million EUR	% of total
2005	Iceland Telecom	860	50
1999-2003	Búnaðarbanki	199	12
1998 and 2003	Landsbanki	251	15
1998-1999	FBA investment bank	184	11
2007	Sudurnes Heating	88	5
1998 and 2003	IAV (contractors)	28	2
2005	Agricultural Investment Fund	37	2
2002	Icelandic Alloys (ferrosilicon)	14	1
1991-2007	Other	59	3
1991-2007	Total	1,720	
	Percentage of 2006 GDP	14	

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

Over the last 20 years the central government has pursued an extensive programme of privatisation. The latest to go in early 2007 was the Treasury's share in a geothermal hot water and electricity utility, mainly owned by local governments in the southwest. The Treasury did, however, consolidate its hold on the national power company Landsvirkjun, by buying the 48% share previously held by local governments. The state now owns the company 100%.

After the most recent sales, the state's most important business holdings are in the production and distribution of electricity and postal services, as well in the Housing Financing Fund, the Student Loan Fund and a few smaller financial institutions, altogether responsible for around 11% of credit in the economy.

Local governments still own a considerable share in electricity production, even after selling their share in Landsvirkjun. Local governments own almost all the geothermal power companies which supply heating for most homes in Iceland and on an increasing scale electricity to the aluminium industry. Many own their local distributor of electricity and they generally own operating companies for harbours.

### Government guarantees

Besides debt on the books of government entities, the state and local governments guarantee certain debts of various enterprises. State guarantees must now be authorised explicitly in budget legislation and



in recent years have been confined to government enterprises and institutions related to government. Local governments are now legally prohibited from granting loan guarantees except to their own subsidiary institutions.

Table 6.3 Treasury guarantees at the end of 2006

	<i>Million EUR</i>	<i>% of total</i>
Housing Financing Fund	6,158	81
Regional Development Institute	117	2
National Power Company	881	12
Landsbanki	211	3
Other	234	3
Total Treasury guarantees	7601	
Percentage of 2006 GDP		63

Source: Treasury Accounts 2006.

The Treasury accounts for 2006 show that the government has outstanding guarantees of around €7.6 billion (719 b.kr.), equivalent to 60% of GDP. Some 81% of this represents government backing of residential mortgages through the Housing Finance Fund, a state-owned investment fund with a considerable share in household mortgage lending in Iceland. Until mid-year 2004 it operated the 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 linked 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.

Another 12% represents guarantees for the debt of Landsvirkjun. Since the Treasury takeover of the local authorities' stakes did not take effect until January 2007, the Treasury's guarantees of Landsvirkjun's debt are now approximately double the figure in last year's accounts. Landsvirkjun's debt at the end of 2006 stood at €1.9 b.

### 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 proceeds from privatisation have contributed to a gradual reduction in the ratio of Treasury foreign debt to GDP in the past years. In November 2006, however, the Treasury made a Eurobond (EMTN) issue of €1 billion (90 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 December 1, 2011.

At the end of June 2007, the Treasury's long-term foreign debt amounted to USD 2.4 billion (148 b.kr.). There was no short-term foreign debt. Around 29.0% of the Treasury's foreign obligations were denominated in US dollars, 48.3% in euros, 4.2% in Japanese yen, 10.0% in sterling and 8.4% in Swiss francs.

Currently, 90.3% of the Treasury's total foreign debt carries fixed interest rates. The average maturity of foreign long-term debt was ap-

Table 6.4 Republic of Iceland foreign bond issues 2000-2006

Currency	Amount	Issue date	Maturity
EUR	200,000,000	14.3.2000	1.3.2007
EUR	250,000,000	6.4.2001	6.4.2006
USD	100,000,000	5.10.2001	5.4.2004
EUR	90,000,000	5.10.2001	5.10.2005
EUR	87,000,000	8.10.2001	10.10.2005
EUR	250,000,000	10.4.2002	10.4.2012
EUR	150,000,000	30.9.2002	30.9.2009
EUR	150,000,000	12.5.2003	12.5.2008
USD	200,000,000	10.3.2004	10.3.2014
EUR	1,000,000,000	1.12.2006	1.12.2011

proximately 4.15 years and the average duration 3.5 years at the end of June 2007.

The Republic of Iceland has established three financial programmes to facilitate its financing requirements. These are a Euro-Commercial Paper (ECP) programme amounting to USD 500 million, a United States Commercial Paper (USCP) programme amounting to USD 1 billion and a Medium-Term Note (MTN) programme amounting to USD 2 billion. The ECP programme was originally established in 1985 and the MTN and USCP programmes were introduced in 2001. The Treasury also has a committed credit facility under a five-year agreement in the amount of USD 250 m. This is a syndicated bank facility from 2005.

Under a special agreement with the Minister of Finance, the Central Bank is responsible for the implementation of foreign borrowing for the Treasury. As of October 2007, the Central Bank will also handle the borrowing and debt management functions previously assigned to the NDMA.

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

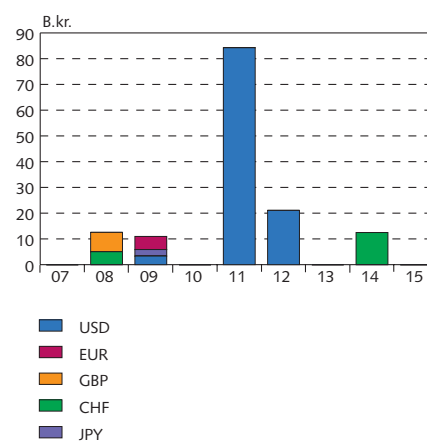
### Credit rating history

Moody's rating is Aaa for long-term foreign and domestic obligations, Aaa for country ceiling and P-1 for short-term obligations, which are the highest ratings that the agency issues. In its analysis on Iceland in August 2006, Moody's says the "Aaa rating and stable outlook are supported by institutional strength, low government debt and a tested ability to withstand shocks [...] Despite these positive features, a number of macroeconomic imbalances have developed, including a fast-growing and high level of foreign currency debt, particularly by the banking system." However, Moody's considers that Iceland's financial system is "well-managed, well-capitalized and adequately liquid."

In December 2006, Standard & Poor's lowered its foreign currency sovereign credit ratings to A+ long-term and A-1 short-term, from AA- and A-1+ respectively. At the same time, the long-term local currency rating was lowered to AA from AA+ and the short-term

Chart 6.11  
Maturity profile of Treasury external long-term debt

July 2007



Source: Central Bank of Iceland.

local currency rating was affirmed at A-1+. The outlook is stable. The main arguments for the downgrade were loosening of fiscal policy by the Icelandic government ahead of the 2007 election [...] and an increasingly unbalanced policy mix. However, Standard & Poor's stated further that "the ratings on Iceland remain supported by its stable and flexible political institutions, high level of prosperity, and strong long-term economic growth prospects and low and declining government debt level."

In March 2007, Fitch Ratings lowered Iceland's foreign and local currency issuer default ratings to A+ and AA+ from AA- and AAA respectively. The outlook on both ratings was stable. The short-term foreign currency rating was also lowered to F1 from F1+ and the country ceiling was lowered to AA- from AA. Fitch stated that "the downgrade reflects new data on the balance of payments and the international investment position that points to a material deterioration in Iceland's external balance sheet, amplifying concerns about external debt sustainability". In addition to this view, Fitch recognised in its statement "that Iceland possesses certain strengths that clearly set it apart from other 'single A' category sovereigns: these include per capita income of USD 52,000, very high standards of governance and strong, transparent institutions. These continue to provide important underpinnings for the sovereign rating."

In June 2007, R&I Rating of Japan announced its first rating for the Republic of Iceland, assigning it a foreign currency issuer rating of AA+. The outlook is stable. The rating was not requested by the authorities but came in connection with a formal request by Kaupthing Bank for a rating from the agency.

Table 6.5 Ratings for Icelandic Treasury bonds 2007

	Affirmed	Foreign currency		Domestic currency		Outlook
		Long-term	Short-term	Long-term	Short-term	
Moody's	Aug. 2007	Aaa	P-1	Aaa	P-1	Stable
Standard & Poor's	Dec. 2006	A+	A-1	AA	A-1+	Stable
Fitch	March 2007	A+	F1	AA+		Stable
R&I Rating of Japan	June 2007	AA+				Stable

Iceland's relationship with the rating agencies started in 1986 when Standard & Poor's assigned an indicative rating for the Republic of Iceland. At first the rating was outside the traditional letter ratings structure until 1989, when an indicative Ai rating was assigned to the Republic. Moody's followed in 1989 by assigning an indicative A2 rating. These ratings actions were unsolicited. Iceland's formal ratings history began when the Republic requested a short-term rating from Standard & Poor's in 1989 and later from Moody's in 1990. The respective short-term ratings formally assigned to the Republic at the time were A-1 and P-1. In connection with preparations for the Republic's initial bond issue in the US public market in 1994, Moody's and Standard & Poor's were formally asked to provide long-term credit ratings for Iceland. Standard & Poor's awarded an A for long-term debt in January 1994. Moody's announced an A2 long-term rating for Iceland the

same month. The agencies thereby affirmed earlier, informal ratings which they had issued for Iceland.

In 1996 and 1997 Moody's and Standard & Poor's upgraded Iceland's credit rating to reflect better the country's increased creditworthiness. Standard & Poor's announced in 1996 that it had upgraded the credit rating for the Republic of Iceland's long-term foreign currency-denominated debt from A to A+, and short-term debt from A-1 to A-1+. Furthermore, Standard & Poor's assigned a first-time rating of AA+ to Iceland's long-term local currency debt. In July 1997, Moody's upgraded the Republic's foreign currency rating to Aa3 and assigned an Aaa rating to the Republic's long-term ISK bonds. In September 1998 Standard and Poor's changed the outlook of their rating from stable to positive. In February 2000 Fitch entered the field by assigning an AA- long-term foreign currency rating for Iceland. A short-term rating of F1+ and an AAA rating for long-term local currency were also assigned.

One of the most important rating actions for the Republic of Iceland occurred in October 2002 when Moody's upgraded the foreign currency rating to Aaa in connection with a revision of its ratings methodology.

## 7 Monetary policy

### **The Central Bank**

The Central Bank of Iceland was established as a separate institution in 1961. The current Central Bank Act entered into effect in May 2001 and involved substantial changes from the previous Act. In the new Act, ensuring price stability was defined as the Bank's single main objective. Furthermore, the Bank was granted instrument and financial independence, transparency and accountability provisions were strengthened and others were added which serve to boost the capital position of the Bank.

The legislation granted the Central Bank of Iceland full independence to implement monetary policy in accordance with the inflation target, and formally closed any direct access by the government to Central Bank financing. At the same time it aimed to improve the transparency of monetary policy and make the Bank more accountable towards the government and the public at large. Monetary policy decision-making authority continued to be vested in the Board of Governors, consisting of three governors appointed by the Prime Minister to seven-year terms. The new Act specifically authorised the adoption of an inflation-targeting policy.

The activities of the Central Bank have evolved over the years. Foreign exchange controls, for example, were removed with the liberalisation of capital flows in the early 1990s and the supervisory responsibilities of the Bank were moved to a separate Financial Supervisory Authority (FME) at the beginning of 1999 (see Chapter 5). In recent years the Central Bank, like its counterparts in many other countries, has put increasing emphasis on monitoring financial stability. The 2001 Act mandated the Central Bank to promote financial stability (see pp. 36-37).

### **Inflation targeting**

In 2001, Iceland joined a growing number of countries that have adopted a formal inflation target as a framework for monetary policy. The inflation target was specified in a joint declaration of the government and the Central Bank of Iceland on March 27, 2001 as inflation of 2½%, measured in terms of the twelve-month rate of change in the consumer price index (CPI). The aim is to keep the rate of inflation on average as close to the target as possible. If it deviates by more than 1½% in either direction, the Central Bank is obliged to submit a report to the government, explaining the causes for the deviation, how it intends to respond and when it expects the inflation target to be reached again. The report shall be made public. Three such reports have been compiled and published to date, in July 2001, February 2005 and September 2005.

By defining the role of the Central Bank in the formulation of monetary policy, the current legislation has brought the Bank into line with best practice around the world. It sets price stability, as defined by the inflation target, as the main goal of monetary policy. Hence, monetary policy may only be applied to achieve other economic goals insofar as

Table 7.1 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 steps.
1990-1995	More emphasis was again put on exchange rate stability as the anchor of monetary policy. Until 1992 the currency peg was specified against a basket of 17 currencies, weighted according to merchandise trading shares, with $\pm 2\frac{1}{4}\%$ fluctuation bands. The basket was redefined in 1992, with the ECU given a 76% weight, the US dollar a 18% weight and the Japanese yen a 6% weight. The króna was devalued twice in this period, in November 1992 by 6% and in June 1993 by 7½%.  In September 1995 the fluctuation band was widened to $\pm 6\%$ in response to the abolition of capital controls. The currency basket was also changed. The new basket contained 16 currencies, weighted by their share in Iceland's trade in goods and non-factor services.
1996-2000	Fluctuation of the króna within the bands increased as the foreign exchange market deepened and the emphasis on price stability relative to exchange rate stability increased. Reflecting this, the exchange rate band was widened to $\pm 9\%$ in February 2000.
2001-	The exchange rate target was abolished in March 2001 and an inflation target adopted. The target requires approval by the Prime Minister but the Central Bank has full independence in setting monetary policy to attain this target without interference by the government. <sup>1</sup>

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](http://www.sedlabanki.is)).

the Central Bank deems this to be consistent with the inflation target. The Central Bank publishes forecasts three times a year, projecting inflation and other key economic variables. The forecast horizon spans three years and the baseline forecast is based on a policy rate path that the Central Bank's staff considers consistent with the inflation target. Although the policy rate path in the baseline forecast does not entail a declaration or commitment by the Board of Governors, it should be regarded as an important indicator of the policy rate level required under the current outlook to ensure that the inflation target is attained within the forecast horizon. The forecast serves as an important guide to monetary policy decisions and is also a key tool for communication of monetary policy outside the Bank.

The inflation targeting regime represents a significant departure from previous monetary policy regimes of different types of currency pegs. Iceland has a long history of using the exchange rate as a monetary anchor, although with a varying degree of commitment, as can be inferred from table 7.1.

Under the current regime of inflation targeting, the currency floats freely without Central Bank interventions. Under provisions in the Act, the Bank may temporarily limit or halt trading in the domestic foreign exchange market, and temporarily suspend its own quotation of the rate of exchange of the króna. However, these authorisations have not been exercised.

### Monetary instruments

The main monetary instrument of the Central Bank of Iceland is the interest rate in its weekly auction of collateral loans – the policy interest rate. Usually the Bank auctions one-week loan agreements. So far the auctions have been fixed-price, with unlimited access subject to collateral. Collateral loans are secured against eligible securities that the Bank approves. This liquidity facility was previously known as “repurchase agreements” but was renamed in June 2007 since it does not in strictly technical terms qualify as such.

At the same time, the numerical presentation of the policy rate was altered to make it comparable with that of other central banks. It is now stated as a 13.30% nominal interest rate instead of the earlier presentation as 14.25%, which is the corresponding annual rate of return. No change in policy rate is implied by this new numerical presentation.

Since year-end 2003 the Central Bank has offered weekly certificates of deposit (CDs) with a maturity of one week.

The Central Bank offers an overnight loan facility to the banks, subject to collateral requirements. Central Bank CDs can be pledged against collateral loans and overnight loans. Banks are subject to reserve requirements and may deposit money at will on an interest-bearing account with the Central Bank. The required reserve base is the balance sheet total less equity and interbank liabilities at the end of the preceding month.

The required reserves ratios are in line with those of the European Central Bank, i.e. 2% of specific bank liabilities with a maturity of less than two years, and 0% of other liabilities.

The Central Bank of Iceland may also intervene in the interbank foreign exchange market and participate in the interbank FX swap market. The Bank has not intervened in the FX market since 2001.

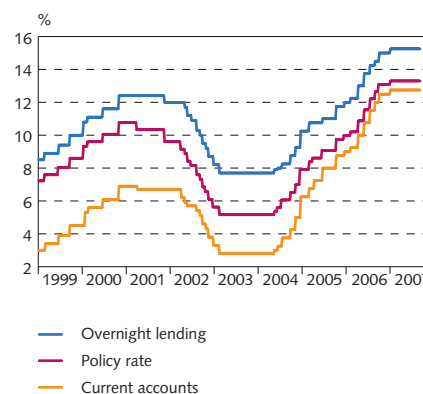
### Foreign exchange reserves

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 Board of Governors. The resolution prescribes the minimum amount of reserves, their currency composition and the investment categories of the portfolio. Currently the size of the reserves should not be smaller than the value of 3 months' merchandise imports. The portfolio consists mainly of deposits and investment grade bonds. The Central Bank holds a small position of gold reserves amounting to about 64 thousand ounces and Iceland has a quota of SDR 117.6 million at the International Monetary Fund.

On November 22, 2006 the Republic of Iceland made a Eurobond (EMTN) issue of €1 billion (90 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 December 1, 2011.

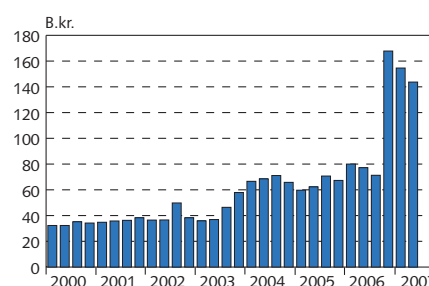
At the end of June 2007 the foreign exchange reserves amounted to about 145.5 b.kr., the equivalent of 12.5% of 2006 GDP.

Chart 7.1  
Central Bank of Iceland interest rate corridor  
Weekly data, January 5, 1999 - August 29, 2007



Source: Central Bank of Iceland.

Chart 7.2  
Foreign exchange reserves of  
the Central Bank of Iceland  
At end of quarter March 2000 - June 2007



Source: Central Bank of Iceland.

## 8 Domestic and foreign debt

### Foreign debt

Iceland's external indebtedness is high by international comparison and has risen sharply since the mid-1990s. The net international investment position (IIP) was negative by €14.8 billion (1,397 b.kr.) at the end of 2006, equivalent to -122% of GDP. The net debt position, i.e. net liabilities excluding venture capital, was negative by €25.1 billion (2,371 b.kr.), equivalent to more than double GDP for that year. Iceland's international investment position has changed sharply in the recent term. Both foreign assets and liabilities have mushroomed in the space of a very few years, but liabilities by considerably more than assets. Thus as a proportion of GDP, net IIP is very negative and net foreign liabilities at one of the highest levels in the world (see Chart 8.1). At the same time as foreign liabilities have grown, net interest and dividend payments to abroad have soared and weigh heavily in the current account deficit. In the standard methodology, there may be an underreporting of assets while liabilities may be fully reported, thus exaggerating to some extent the negative IIP.

Iceland's total foreign debt amounted to €62.5 billion (5,916 b.kr.), the equivalent to 518% of GDP at the end of 2006, up from 332% of GDP at the end of 2005. Part of this substantial increase is explained by the significant depreciation of the króna in 2006. Credit institutions accounted for 82% of Iceland's total foreign debt. Public sector debt amounted to €2.78 billion (263 b.kr.) at the end of 2006 while debt of other sectors (other credit institutions and businesses) was €5.45 billion (516 b.kr.).

The increase in debt largely reflects the growth of the foreign investment stock. Icelandic banks have played a major role in brokering foreign capital for domestic investors and have invested extensively abroad on their own account. Also, a sizeable share of the banks' extra foreign debt has gone to fund domestic lending, some of which has then been used to invest abroad.

Central and local government, on the other hand, were not responsible for the increase in foreign debt, because the public sector has retired a substantial amount of its foreign debt over the last decade.

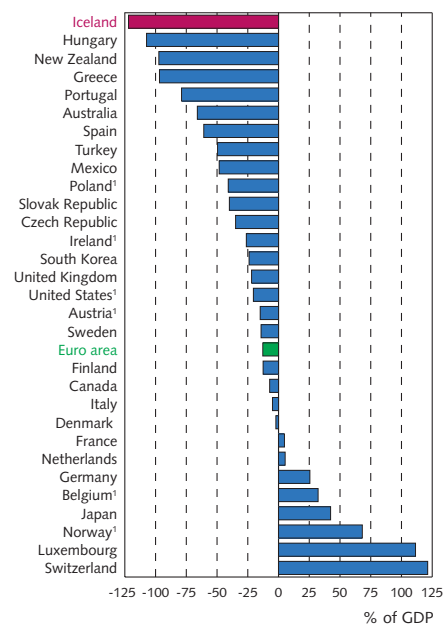
### Private debt

Of total foreign debt, the private sector was responsible for some 95%, or 434% of GDP, by the end of 2006, having increased from 34% of GDP in 1996. This entails a considerable increase from 2004 since balance sheets of both households and corporations swelled enormously in 2005 and continued to increase in 2006.

Low private sector savings and the financial liberalisation of the mid-1990s account for the rapid increase in foreign debt during the recent decade. The robust economic expansion over the last ten years and strong demand for credit raised domestic interest rates, which induced companies, especially those with income in foreign currency, to borrow abroad. The majority of Icelandic corporate debt is external, either direct or intermediated by banks, but most of it is intrinsically hedged, namely, matched by export revenues.

Chart 8.1

International investment position of OECD countries 2006

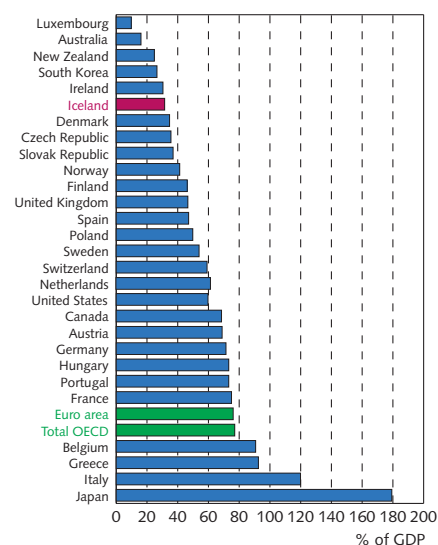


1. Figures are for 2005.

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

Chart 8.2

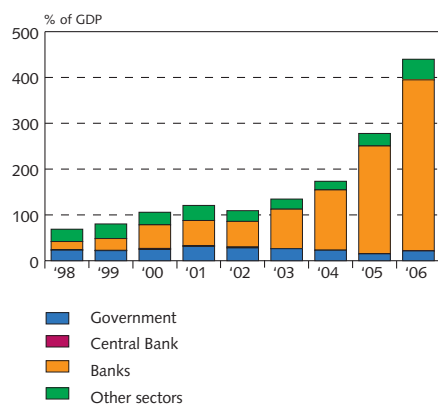
General government gross debt in OECD countries 2006



Source: OECD.



Chart 8.3  
Estimated external debt by sector  
1998-2006



Source: Central Bank of Iceland.

High levels of foreign indebtedness by international comparison and its increase in recent years must be seen in the light of country-specific factors such as high domestic and foreign investments, as well as changes in the balance sheets of households and companies over the past decade.

### The household balance sheet

Households in Iceland rank among the most indebted in the world. According to OECD data (see Table 8.1), only Danish and Dutch households have higher ratios of indebtedness to disposable income. A major reason for the rise in household debt over the past two decades is improved access to credit. It was not until the 1980s that widespread credit rationing was lifted and interest rates became increasingly market-determined. When real interest rates turned positive with the widespread indexation of financial instruments in the 1980s, banks became more willing to lend. A major overhaul of the public housing fund in 1990 towards a market-based system greatly improved access to housing financing. At the end of summer 2004 the banks entered into competition with the Housing Financing Fund (HFF), offering mortgage loans and refinancing without limits on maximum loan and at lower interest rates than before – and not requiring a property transaction to take place when they grant mortgages, so some mortgage equity withdrawal for consumption took place. Due to the extended mortgage loan maturities and refinancing at lower interest rates, the increase in household debt has not produced a correspondingly greater debt service burden. Additionally, household debt service is relatively immune to short-term interest rate movements since roughly 84% of the total stock is CPI-indexed at fixed interest rates. Further, as interest rate differentials have widened, households have increasingly turned to foreign currency-denominated loans. Their share of total household debt grew to 12% at the end of Q2/2007 compared to 5% a year and a half earlier.

Table 8.1 Household liabilities 2005

	% of disposable income
Australia	181
Austria	88
Belgium	78
Canada <sup>1</sup>	126
Denmark	292
Finland	100
France	89
Germany <sup>1</sup>	108
Iceland	199
Italy	54
Japan <sup>1</sup>	132
Netherlands	239
Norway	176
Portugal	130
Spain	120
Sweden	135
United Kingdom <sup>1</sup>	155
United States <sup>1</sup>	135

1. Figures are from OECD Economic Outlook No. 81 (June 2007)  
Sources: OECD Data Warehouse August 2007, Central Bank of Iceland.

At the beginning of the 1980s household debt was around 26% of disposable income and 17% of GDP, but by the end of 2006 debt to financial institutions had reached 116% of GDP and 216% of disposable income. In pace with its rising debt, the asset position of the household sector has strengthened and, if pension funds assets are included (see Chapter 4), so has its net worth. While debt rose from 90% of disposable income in 1990 to 216% in 2006, the value of the households' stake in pension funds showed similar growth, from 60% of disposable income to 254%. Therefore, in spite of a large increase in indebtedness, the net equity of households has improved, especially when pension fund reserves are taken into account. Increasing household debt is also to some extent a question of terminology, since it encompasses only debt for which bodies within the monetary system are creditors. Before the introduction of the housing bond system, some housing debt was between buyers and sellers, so that a lower level of debt to the monetary system was recorded. Furthermore, inflationary effects decreased the real value of household debt before general indexation of loans was introduced in 1979.

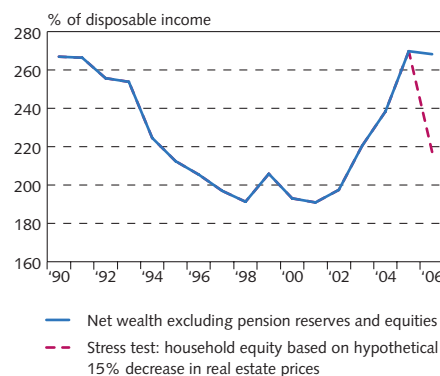
Data on financial assets are not as reliable as data on real assets. The main sources of information are tax returns for dwellings and automobiles, insurance assessments for household furnishings and financial sector series collected by the Central Bank. The total value of household assets including pension reserves is estimated at over sevenfold disposable income, valued at the end of 2006. Equity holdings represent a particular problem, since Icelandic tax returns report a monetary face value (equivalent to the number of shares) rather than market value. The Icelandic securities depository reports direct household ownership of registered shares equivalent to around 42% of disposable income at the end of 2006, but a realistic figure could easily be double or even quadruple that amount. Finally, note must be taken of the very strong position of Icelandic pension funds, whose reserves are counted as household assets in the OECD financial accounts and whose existence clearly influences the need and demand for other kinds of household saving.

Net wealth of Icelandic households excluding pension reserves and equities was around 270% of disposable income at the end of 2006 and 513% including pension reserves. The net wealth of Icelandic households is broadly in line within the range of the G7 countries if pension fund assets are included, but lower if they are excluded.<sup>1</sup> It must be acknowledged, however, that both real estate prices and share prices in Iceland have increased considerably in recent years, which obviously boosts the asset side of household balance sheets.

### Corporate balance sheets

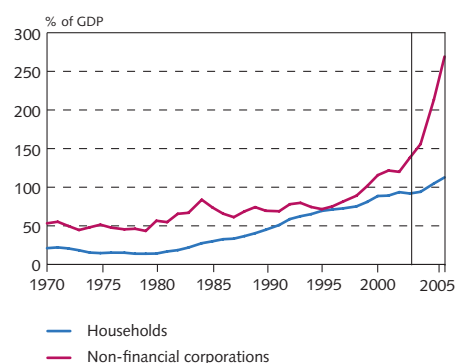
Icelandic corporate debt is also high compared with other countries for which data are available. At the end of 2006, total corporate debt was equivalent to about 277% of GDP, the highest figure for the Nordic countries both throughout recent years and across industries. There are various factors explaining the relatively high debt leverage among Icelandic corporations.

Chart 8.4  
Net wealth of households excluding pension reserves 1990-2006<sup>1</sup>



1. Excluding shareholdings. Data for 2006 are estimates.  
Source: Central Bank of Iceland.

Chart 8.5  
Private sector debt 1970-2006<sup>1</sup>



1. New classification of lending from 2003.  
Source: Central Bank of Iceland.

1. OECD Economic Outlook No. 81 (June 2007).

Just like households, Icelandic corporations were relatively debt-free at the end of the negative real interest era in the early 1980s. As real interest rates turned positive around that time, corporate debt rose relative to GDP, but then remained roughly stable for 15 years by this criterion. Liberalisation of the domestic financial markets in the late 1980s was followed by external liberalisation in the first half of the 1990s. With liberalisation of capital flows and the expansion of banking system balance sheets since 1997, the debt of Icelandic corporations has climbed from 80% of GDP to 277% in 2006. Businesses have also gradually increased their share of foreign-currency denominated debt recently. At the end of June 2007, 58% of corporate debt with deposit money banks was denominated in foreign currency.

A significant amount of increased corporate debt lies with companies that have been expanding their operations overseas through acquisition of foreign companies (FDI) and the formation of foreign subsidiaries. A large part of the 958 b.kr. increase in corporate debt in 2006 can be traced to overseas expansion. The funding of this considerable increase in outward investment by Icelandic residents has mainly been intermediated by domestic banks.

The stock market is young and not as well developed as the banking sector, which causes firms more difficulties in raising funds by issuing equity than by issuing debt. However, the stock market is fairly large relative to GDP and has grown rapidly in recent years.

Important sectors like fisheries, power generation and transport are very capital-intensive and high capital formation in these sectors has been ongoing in recent years. Small and medium-sized companies are the backbone of the Icelandic business sector and due to their small size they must be financed through the banking sector.

The asset side of the corporate sector as a whole is difficult to estimate, but it is clear that real estate prices soared in 2006. The same is probably true of other assets, in light of strong business investment. In real terms, the price of business premises was 50-60% higher at the end of 2006 than a decade before.

### **Other explanatory factors**

Important underlying factors need to be highlighted that explain Iceland's relatively high levels of indebtedness by international comparison. The IMF pointed out in a recent report on Iceland that its "cross-country analyses supported the view that the deviation of Iceland's international investment position with respect to comparable economies was largely explained by demographic factors." Furthermore, that "private sector borrowing appears rooted in demographic trends and the build-up of substantial private assets – rather than weak public finances or market distortions."<sup>2</sup> The age structure of Iceland's comparatively young population, which reduces aggregate saving due to life-cycle behaviour, therefore accounts for a large part of its external liabilities.

2. IMF country report No.05/366: Iceland – selected issues: "Corporate leverage: How different is Iceland?"

## 9 Appendix

Table A1 Economic development<sup>1</sup>

	2006		2006
Population size at year-end (thous.)	307.7	Labour force participation rate , males (%)	87.5
<i>Average annual population growth (%)</i>		Labour force participation rate, females (%)	78.4
in last 10 yrs.	1.2	Rate of unemployment (% of labour force)	2.9
in last 20 yrs.	1.1	Infant mortality (% of 1,000 live births)	1.4
in last 30 yrs.	1.1	Life expectancy (males)	79.4
GDP in b.kr.	1,142	Life expectancy (females)	83.0
GDP in billions EUR	13.0	Live births per 1,000 inhabitants (2005)	14.5
GDP in billions USD	16.4	Energy consumption per 100,000 inhabitants (PJ) (2005)	154.6
GDP/capita in thous. EUR	42.8	Physicians per 1,000 inhabitants (2004)	3.6
GDP/capita in thous. USD in terms of PPP	36.0	Passenger cars per 1,000 inhabitants (2005)	625
Rank among OECD countries	6	Access to Internet (% of population, 16-75 yrs.) (2006)	88
<i>Average annual growth rate of GDP (%)</i>		Exports as a share of GDP	32.6
in last 10 yrs.	3.8	International investment position at year-end	-122.4
in last 20 yrs.	2.8	Government revenue as a share of GDP	46.7
in last 30 yrs.	3.7	Government expenditures as a share of GDP	41.4
<i>Average annual inflation rate (%)</i>		General government gross debt as a share of GDP	13.6
in last 10 yrs.	3.9		
in last 20 yrs.	6.8		
in last 30 yrs.	18.0		

1. Data refer to 2006 unless otherwise indicated.

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

Table A2 Structure of the economy

	At current prices (million EUR)			% of GDP			Average volume change (%)	
	1990	2000	2006	1990	2000	2006	1966-2006	1986-2006
<i>A Components of GDP</i>								
Private consumption	2,988	5,706	7,826	59.8	61.0	60.1	3.8	3.4
Public consumption	996	2,193	3,200	19.9	23.4	24.6	4.8	3.5
Gross capital formation	973	2,108	4,167	19.5	22.5	32.0	4.1	5.3
National expenditure	4,933	10,041	15,345	98.7	107.3	117.9	4.0	3.8
Exports of goods and services	1,682	3,162	4,243	33.7	33.8	32.6	3.7	3.3
Imports of goods and services	1,617	3,847	6,572	32.3	41.1	50.5	4.9	5.1
GDP	4,999	9,356	13,016	100.0	100.0	100.0	3.6	3.1
Current account balance	-104	-956	-3,481	-2.1	-10.2	-26.7	.	.

<i>B GDP by sectors</i>	% of GDP				
	1973	1980	1990	2000	2006
Agriculture	5.2	4.8	2.6	1.8	1.1
Fishing	7.2	8.0	9.6	6.8	4.5
Mining and quarrying	0.1	0.1	0.2	0.1	0.1
Manufacturing	20.9	20.2	16.3	14.0	11.0
Fish processing	8.2	7.8	4.7	2.8	1.4
Electricity and water supply	2.9	4.2	3.9	3.4	4.0
Construction	12.0	8.7	8.4	8.6	10.4
Wholesale and retail trade	10.6	10.1	11.8	11.4	10.5
Hotels and restaurants	1.2	1.1	2.0	1.8	1.5
Transport, storage and communication	9.3	7.7	8.0	8.4	6.0
Finance, insurance, real estate, etc.	15.2	17.9	17.7	20.0	25.9
Other service activities	15.2	17.2	19.6	23.6	24.8
Total industries	100.0	100.0	100.0	100.0	100.0

<i>C Employment by sectors</i>	Thous. man-years 1997	Percentage breakdown <sup>1</sup>						
		1963	1970	1980	1990	1997	2000 <sup>1</sup>	2005 <sup>1</sup>
Agriculture	5,207	13.4	12.4	7.9	4.9	4.0	2.8	2.7
Fishing	6,115	6.6	6.4	5.3	5.7	4.7	4.0	3.5
Fish processing	7,598	9.7	7.8	9.1	6.1	5.9	4.3	4.1
Manufacturing industry	15,282	15.6	15.2	15.2	12.5	11.9	12.1	10.9
Construction, electricity and water	11,638	11.1	11.4	11.0	10.8	9.0	8.0	7.8
Wholesale & retail trade, restaurants & hotels	20,118	13.7	13.5	13.4	14.5	15.6	17.8	17.1
Transport, storage and communication	8,817	9.6	8.5	7.3	6.7	6.8	7.3	6.8
Finance, insurance, real estate, etc.	11,537	2.7	4.0	5.4	8.1	9.0	11.3	11.5
Providers of government services	25,300	9.5	12.4	15.7	18.2	19.6	6.8	6.8
Other services	9,202	7.0	6.9	7.2	7.4	7.1	5.9	6.9
Other	8,018	1.0	1.4	2.4	4.9	6.2	19.6	21.8
Total number of employed	128,832	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1. Figures for the period 1963-1997 show number of man-years by industry. Since 2000, data have been compiled from PAYE returns and show number of employed persons by industry.

Sources: Statistics Iceland, Central Bank of Iceland.

Table A3 Structure of foreign trade

## A Exports and imports by basic categories 1990-2006

	At current prices (million EUR)				% of total exports or imports			
	1990	1995	2000	2006	1990	1995	2000	2006
Exports of goods and services	1,684	1,925	3,161	4,231	100.0	100.0	100.0	100.0
Imports of goods and services	1,615	1,728	3,837	6,614	100.0	100.0	100.0	100.0
Merchandise exports (fob value)	1,247	1,392	2,056	2,767	74.0	72.3	65.0	65.4
Marine products	941	1,001	1,301	1,418	55.9	52.0	41.2	33.5
Manufacturing goods	255	298	643	1,060	15.1	15.5	20.3	25.1
Other goods	51	92	112	289	3.0	4.8	3.5	6.8
Merchandise imports (fob value)	1,180	1,233	2,572	4,560	73.1	71.3	67.0	68.9
Consumption goods	.	418	817	880	.	24.2	21.3	13.3
Capital goods	.	321	795	759	.	18.6	20.7	11.5
Industrial supplies	.	493	960	2,921	.	28.6	25.0	44.2
Services exports	437	533	1,105	1,464	26.0	27.7	35.0	34.6
Transportation	174	207	533	664	10.3	10.8	16.9	15.7
Travel	119	143	247	354	7.0	7.4	7.8	8.4
Other services	145	183	324	446	8.6	9.5	10.3	10.5
Services imports	435	495	1,265	2,054	26.9	28.7	33.0	31.1
Transportation	132	160	450	610	8.2	9.2	11.7	9.2
Travel	224	217	511	878	13.9	12.6	13.3	13.3
Other services	79	118	304	566	4.9	6.8	7.9	8.6

## B Merchandise exports by commodity groups (fob value) 1990-2006

	At current prices (million EUR)				% of total merchandise exports			
	1990	1995	2000	2006	1990	1995	2000	2006
Total merchandise exports	1,247	1,392	2,056	2,767	100.0	100.0	100.0	100.0
Marine products	941	1,001	1,301	1,418	75.5	71.9	63.3	51.2
Salted and dried fish	177	161	280	256	14.2	11.6	13.6	9.2
Fresh fish	161	81	151	275	12.9	5.9	7.3	9.9
Whole-frozen fish	70	149	130	152	5.6	10.7	6.3	5.5
Frozen fish fillets	349	278	376	390	28.0	20.0	18.3	14.1
Frozen shrimp	60	184	137	84	4.8	13.2	6.7	3.0
Fish meal	42	56	128	114	3.4	4.0	6.2	4.1
Fish oil	14	29	26	33	1.1	2.1	1.3	1.2
Other marine products	67	63	73	115	5.4	4.6	3.5	4.1
Agricultural products	24	25	35	49	1.9	1.8	1.7	1.8
Manufacturing products	255	298	643	1,060	20.4	21.4	31.3	38.3
Aluminium	129	147	381	650	10.4	10.6	18.6	23.5
Ferrosilicon	33	38	53	67	2.6	2.8	2.6	2.4
Other manufacturing products	93	113	208	343	7.4	8.1	10.1	12.4
Other products	27	68	76	240	2.2	4.9	3.7	8.7
Ships and aircraft	16	49	43	183	1.3	3.5	2.1	6.6
Other products	11	19	33	56	0.9	1.3	1.6	2.0

Sources: Statistics Iceland, Central Bank of Iceland.

Table A3 (continued) Structure of foreign trade

C Merchandise imports by economic category (fob value) 1990-2006

	<i>At current prices (million EUR)</i>				<i>% of total merchandise exports</i>			
	1990	1995	2000	2006	1990	1995	2000	2006
Total merchandise imports	1,186	1,236	2,579	4,574	100.0	100.0	100.0	100.0
Food and beverages	90	123	207	264	7.6	10.0	8.0	5.8
Primary, mainly for industry	4	29	64	57	0.4	2.4	2.5	1.3
Primary, mainly for household consumption	25	16	21	42	2.1	1.3	0.8	0.9
Processed, mainly for industry	10	11	12	14	0.8	0.9	0.5	0.3
Processed, mainly for household consumption	52	67	110	151	4.4	5.4	4.3	3.3
Industrial supplies not elsewhere specified	311	344	597	1,105	26.2	27.9	23.2	24.2
Primary	12	14	28	42	1.0	1.2	1.1	0.9
Processed	299	330	569	1,063	25.2	26.7	22.1	23.2
Fuels and lubricants	117	87	238	395	9.9	7.1	9.2	8.6
Primary	3	3	6	9	0.2	0.3	0.3	0.2
Motor fuel	25	18	50	83	2.1	1.4	1.9	1.8
Other	89	66	182	303	7.5	5.4	7.1	6.6
Capital goods (except transport), parts and accessories	219	264	611	1,100	18.5	21.3	23.7	24.0
Basic capital goods	136	169	417	759	11.5	13.7	16.2	16.6
Parts and accessories	83	94	193	341	7.0	7.6	7.5	7.4
Transport equipment	218	154	440	1,064	18.4	12.4	17.0	23.3
Passenger motor cars (excl. buses)	42	55	168	297	3.5	4.4	6.5	6.5
Transport equipment (excl. ships, aircraft)	24	17	67	148	2.1	1.4	2.6	3.2
Other, non-industrial	3	3	6	25	0.3	0.2	0.2	0.5
Parts and accessories	36	35	63	101	3.1	2.8	2.5	2.2
Ships	19	35	80	36	1.6	2.9	3.1	0.8
Aircraft	94	10	54	458	7.9	0.8	2.1	10.0
Consumer goods not elsewhere specified	229	261	484	642	19.3	21.1	18.8	14.0
Durable	51	54	117	182	4.3	4.3	4.5	4.0
Semi-durable	92	104	189	233	7.7	8.4	7.3	5.1
Non-durable	85	103	178	226	7.2	8.4	6.9	4.9
Goods not elsewhere specified	2	3	3	5	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) 1970-2006<sup>1</sup>

	<i>Share of total</i>					<i>Million EUR</i>
	1970	1980	1990	2000	2006	2006
<i>Merchandise exports</i>						
European Union	52.8	52.3	70.7	67.4	74.6	1,896.1
Euro area	25.4	30.2	37.6	42.3	47.7	1,257.0
Other EU countries	27.4	22.0	33.1	25.1	26.8	639.0
United Kingdom	13.2	16.5	25.3	19.3	17.8	432.5
Other Western European countries	2.8	2.3	3.4	7.8	5.9	166.8
Eastern Europe and former Soviet Union	9.6	8.8	2.9	1.4	1.1	56.7
Russia	6.8	5.4	2.5	0.4	1.0	53.0
United States	30.0	21.6	9.9	12.2	8.8	297.9
Japan	0.1	1.5	6.0	5.2	3.2	57.2
Other OECD countries	0.5	0.6	0.5	2.0	1.5	31.8
Developing countries	4.2	12.9	5.5	3.0	4.4	122.1
Other countries	0.0	0.0	1.1	1.0	0.4	9.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>2,767.2</b>
<i>Merchandise imports</i>						
European Union	64.9	58.0	59.9	57.0	61.6	2,841.5
Euro area	32.0	33.2	35.5	33.5	33.7	1,637.6
Other EU countries	33.0	24.8	24.4	23.6	27.9	1,204.0
United Kingdom	14.3	9.5	8.1	9.0	5.8	259.3
Other Western European countries	5.4	8.1	5.2	9.7	9.5	480.9
Eastern Europe and former Soviet Union	10.4	10.9	6.5	5.7	0.9	26.6
Russia	7.2	9.7	5.0	1.8	0.5	17.2
United States	8.2	9.4	14.4	11.0	9.3	632.3
Japan	2.9	4.0	5.6	4.9	5.3	204.4
Other OECD countries	0.4	5.8	3.7	4.5	3.8	232.1
Developing countries	7.2	2.7	3.1	5.6	8.6	448.3
Other countries	0.6	1.1	1.4	1.5	1.0	45.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>4,926.0</b>

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 (million EUR)					Volume change on previous year (%)				
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
Private consumption	5,030	5,158	5,505	6,746	6,883	-1.5	6.1	6.8	12.4	5.3
Public consumption	2,067	2,331	2,450	2,921	2,817	5.0	1.7	2.8	3.4	4.7
Gross fixed capital formation	1,889	1,646	1,889	2,724	3,283	-15.7	13.4	27.4	37.6	10.7
Industries	1,153	924	1,120	1,654	2,278	-20.0	21.2	32.7	60.6	12.4
Housing	367	453	487	647	666	12.4	4.0	14.1	11.9	17.2
Public works and buildings	369	270	282	423	339	-30.4	2.1	29.7	-13.1	-1.4
National expenditure	8,986	9,135	9,844	12,391	12,983	-2.5	6.1	9.8	15.5	7.4
Exports of goods and services	3,474	3,524	3,311	4,056	3,697	3.7	1.7	8.4	7.1	-5.5
Exports of goods	2,280	2,356	2,095	2,590	2,222	6.6	-1.1	9.2	-0.1	-1.5
Exports of services	1,194	1,168	1,216	1,466	1,475	-1.7	7.3	7.0	19.9	-11.6
Imports of goods and services	3,569	3,378	3,607	4,722	5,131	-2.5	10.7	14.5	28.9	9.3
Imports of goods	2,349	2,194	2,278	3,058	3,284	-3.3	7.2	15.8	25.3	14.0
Imports of services	1,219	1,184	1,329	1,664	1,848	-1.0	17.2	12.1	35.7	0.6
Gross domestic production (GDP)	8,867	9,280	9,531	11,713	11,539	-0.3	2.7	7.6	7.5	2.8
Current account balance	-387	143	-463	-1,167	-1,879	.	.	.	.	.
Current account balance, % of GDP	.	.	.	.	.	1.5	-4.8	-9.8	-16.1	-26.9

Source: Statistics Iceland.

Table A5 Financial sector indicators

<i>Financial institutions (number, unless otherwise indicated)</i>	2000	2005	2006
Commercial banks	4	4	4
Savings banks	25	24	23
Number of employees in commercial banks and savings banks, year-end <sup>1</sup>	3,046	3,884	...
Total assets of commercial and savings banks (billion EUR) <sup>1</sup>	9.6	51.6	65.9
Credit undertakings	12	11	12
UCITS	11	11	11
Pension funds	56	45	41
Insurance companies	12	12	12
<i>Financial markets</i>			
Listed companies on Iceland Stock Exchange (ICEX), now OMX Iceland	75	24	24
Market capitalisation of listed companies at end of period (billion EUR)	5.0	24.3	29.5
Market capitalisation of listed companies at end of period (% of GDP)	59.0	182.3	227.0
Annual turnover in listed equities (billion EUR)	2.7	15.2	25.0
Annual turnover in listed bonds (billion EUR)	4.6	16.7	25.9
Annual turnover on the Icelandic interbank market for foreign exchange (billion EUR)	10.6	26.3	46.7
Annual turnover on the interbank currency swap market (billion EUR)	.	0.6	0.0
Annual turnover on the interbank market for krónur (billion EUR)	7.2	20.0	17.4

1. Parent company basis.

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

Table A6 Government sector indicators

*General government revenues and expenditures*

<i>% of GDP</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006
Revenue	40.9	43.2	43.6	41.9	41.8	42.8	44.3	47.6	46.7
Taxes	34.5	36.9	37.2	35.4	35.4	36.7	37.9	40.8	40.4
On income and wealth	18.0	19.2	18.7	16.4	16.4	17.3	18.4	19.6	19.1
On prod./imports/consumption	16.4	17.7	18.5	19.0	19.0	19.5	19.6	21.1	21.2
Interest	1.2	1.3	1.4	1.8	1.8	1.3	1.1	1.0	1.5
Other income	1.7	1.6	1.5	1.4	1.2	1.3	1.8	2.3	1.5
Expenditure	41.3	42.0	41.9	42.6	44.4	45.6	44.1	42.3	41.4
Public consumption	22.0	22.7	23.2	23.4	25.2	25.9	24.9	24.6	24.6
Interest	3.6	3.4	3.4	3.3	3.0	2.7	2.4	2.1	2.1
Subsidies	1.7	1.8	1.8	1.8	1.8	1.9	1.8	2.0	1.7
Current transfers	6.1	5.9	5.9	5.8	6.7	7.6	7.3	6.7	6.3
Fixed investment	4.4	4.7	4.1	4.5	3.9	3.6	3.9	3.1	3.1
Capital transfers	0.9	0.9	0.8	1.0	0.7	0.9	0.8	0.7	0.7
Other	1.1	1.3	1.3	1.4	1.5	1.5	1.3	1.3	1.3
Depreciation	-2.0	-2.0	-2.0	-1.9	-1.9	-1.9	-1.9	-1.8	-1.8
Cost of goods sold	3.5	3.4	3.4	3.3	3.4	3.5	3.5	3.5	3.4

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

Expenditure	41.3	42.0	41.9	42.6	44.4	45.6	44.1	42.3	41.4
Administration and safety	4.5	4.5	4.2	4.6	4.5	4.6	4.4	4.4	
Education	7.4	7.5	7.5	7.8	8.3	8.3	8.2	8.4	
Health services	7.5	8.3	8.0	7.9	8.7	8.9	8.7	8.3	
Social security	7.7	7.6	7.7	7.9	8.7	9.7	9.3	8.9	
Other social affairs <sup>1</sup>	3.9	4.2	4.3	4.1	4.7	4.7	4.8	4.4	
Economic services	6.7	6.7	6.8	7.0	6.5	6.6	6.3	5.8	
Interest expenditure	3.6	3.5	3.4	3.4	3.1	2.8	2.5	2.2	

*Central government, % of GDP*

Expenditure	30.6	31.6	31.3	31.8	32.4	33.7	32.1	31.1	
Administration and safety	3.8	4.1	4.2	4.4	4.3	4.5	4.3	4.2	
Education	2.9	3.0	2.9	3.2	3.3	3.4	3.4	3.4	
Health services	7.4	8.1	7.8	7.7	8.5	8.8	8.3	8.1	
Social security	6.5	6.5	6.6	6.6	6.8	7.5	7.2	7.4	
Other social affairs <sup>1</sup>	1.6	1.7	1.8	1.7	1.7	1.8	1.8	1.7	
Economic services	5.3	5.4	5.3	5.5	5.3	5.6	5.1	4.7	
Interest expenditure	3.1	2.9	2.7	2.8	2.4	2.1	2.0	1.7	

*Local government, % of GDP*

Expenditure	11.7	11.7	11.8	12.3	13.0	12.7	12.8	12.6	12.5
Administration and safety	1.2	1.1	0.8	1.1	1.0	1.0	1.0	1.0	
Education	4.5	4.5	4.6	4.6	5.0	4.9	4.9	5.0	
Health services	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Social security	1.6	1.6	1.7	1.8	2.1	2.2	2.2	2.1	
Other social affairs <sup>1</sup>	2.4	2.5	2.6	2.5	3.0	3.0	3.1	2.8	
Economic services	1.5	1.4	1.6	1.6	1.2	1.1	1.3	1.2	
Interest expenditure	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	

1. Culture, religion, recreation, housing and community affairs, environment protection.

Source: Statistics Iceland, statistical series, March 2007.

Table A7 Balance of payments

Million EUR	1990	1995	2000	2005	2006 <sup>1</sup>
<i>Current account</i>	-104	41	-959	-2,115	-3,562
<i>Balance on goods, services and income</i>	-101	44	-949	-2,093	-3,534
Exports	1,749	1,992	3,328	5,314	6,166
Imports	-1,851	-1,947	-4,277	-7,407	-9,701
<i>Balance on goods and services</i>	67	198	-679	-1,610	-2,382
Exports	1,684	1,928	3,171	4,148	4,251
Imports	-1,617	-1,731	-3,849	-5,758	-6,633
<i>Balance on goods</i>	65	160	-518	-1,195	-1,790
Merchandise exports fob	1,246	1,395	2,062	2,502	2,783
Marine products	902	1,003	1,305	1,418	1,426
Aluminium and ferrosilicon	162	186	436	542	721
Ships and aircraft	14	49	43	124	184
Other goods	128	157	277	418	451
Merchandise imports fob	-1,182	-1,235	-2,580	-3,697	-4,573
Investment goods	-219	-263	-611	860	1,099
Transport equipment	-215	-154	-440	745	1,064
Fuels and lubricants	-117	-87	-238	346	395
Industrial supplies	-310	-344	-597	884	1,105
Consumer goods	-320	-387	-694	862	438
<i>Balance on services</i>	2	38	-161	-415	-592
Exports of services, total	438	534	1,109	1,646	1,468
Transportation	174	207	535	876	666
Air transport	94	130	417	726	563
Sea transport	81	78	118	150	103
Travel	119	144	248	330	355
Other services	145	183	325	439	447
Communications services	12	18	11	7	9
Insurance services	5	4	6	7	8
Government services	95	80	117	69	46
Other not elsewhere specified	33	82	191	356	385
Imports of services, total	-435	-496	-1,269	-2,062	-2,060
Transportation	-132	-160	-452	-713	-612
Travel	-224	-218	-512	-790	-881
Other services	-79	-119	-305	-559	-568
Communications services	-9	-14	-2	-35	-37
Insurance services	-12	-16	-6	-33	-31
Government services	-7	-9	-17	-18	-16
Other not elsewhere specified	-51	-80	-281	-473	-484
<i>Balance on income</i>	-168	-153	-270	-483	-1,153
Receipts	65	63	158	1,166	1,915
Compensation of employees	36	39	76	60	58
Investment income	29	24	81	1,107	1,857
Dividends and reinvested earnings	5	-1	35	831	1,022
Interest payments	24	25	46	276	836
Expenditures	-234	-217	-428	-1,649	-3,068
Compensation of employees	-9	-4	-12	-20	-31
Investment income	-224	-212	-416	-1,629	-3,036
Dividends and reinvested earnings	-7	-13	-17	-842	-1,133
Interest payments	-218	-200	-399	-787	-1,903
<i>Current transfer, net</i>	-3	-4	-11	-22	-28
Public transfer, net	-5	-7	-11	-20	-23
Private transfer, net	2	3	1	-2	-5

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 repayments or increase in assets.

Source: Central Bank of Iceland.

Table A7 (continued) Balance of payments

Million EUR	1990	1995	2000	2005	2006 <sup>1</sup>
<i>Capital and Financial Account</i>	2	-5	1,208	1,771	5,011
<i>Capital transfer, net</i>	124	-3	-3	-22	-20
<i>Financial account<sup>2</sup></i>	181	-1	1,211	1,793	5,031
<i>Financial account excl. reserves</i>	8	2	1,131	1,853	6,008
Direct investment, net	-9	-26	-242	-3,249	-608
Abroad	-4	-19	-428	-5,725	-3,647
Equity capital	-5	-4	-438	-4,165	-2,099
Reinvested earnings	0	2	-6	-697	-861
Other capital	17	-17	16	-864	-687
In Iceland	1	-7	186	2,476	3,039
Equity capital	-10	5	229	1,319	1,482
Reinvested earnings	27	2	-21	793	990
Other capital	20	-14	-21	364	567
Portfolio investment, net	0	120	759	9,850	8,826
Assets	0	-49	-533	-3,788	-2,679
Equities	0	-34	-614	-2,641	-1,065
Debt securities	0	-16	81	-1,147	-1,615
Bonds and notes	0	-14	96	-1,149	-1,610
Money market instruments	20	-2	-15	1	-4
Liabilities	0	169	1,292	13,638	11,506
Equities	20	0	-17	68	928
Debt securities	-1	169	1,309	13,570	10,577
Bonds and notes	21	145	1,251	13,471	11,104
Money market instruments	-1	24	58	100	-526
Financial derivatives, net	-1	0	-1	0	0
Assets	0	-13	17	0	0
Liabilities	153	12	-18	0	0
Other investment, net	-41	-91	616	-4,747	-2,210
Assets	0	20	-98	-8,812	-8,892
Loan	-21	0	-44	-7,473	-7,309
Deposits	-20	29	-35	-1,354	-1,480
Trade credits	0	-8	-20	11	-82
Other capital	194	-1	0	3	-21
Liabilities	180	-111	714	4,065	6,682
Loans	200	-121	715	3,691	3,503
Long-term borrowing	-20	-188	384	2,079	2,632
Short-term borrowing	0	67	331	1,612	871
Deposits	14	3	-14	315	3,160
Trade credits	-1	1	1	56	9
Other capital	-57	5	12	3	10
Reserve assets	-22	-3	80	-61	-977
Net errors and omissions	0	-36	-249	344	-1,809
<i>Memorandum items:</i>					
Debt securities, loans, etc., net	199	58	2,023	17,635	17,259
Long-term borrowing, net	-1	-42	1,635	15,549	13,736
Monetary authorities	14	0	0	0	0
General government	-12	150	67	-280	691
Deposit banks	198	-99	1,051	14,526	11,400
Other sectors	15	-93	517	1,303	1,644
Short-term borrowing, net	-1	101	388	2,086	3,523
Monetary authorities	21	16	148	0	-15
General government	-8	24	158	-162	19
Deposit banks	2	57	-29	2,189	3,209
Other sectors	1	4	111	59	311
Conversion rate: ISK per EUR	74.18	83.61	72.39	77.92	87.47

Table A8 Projected external debt service<sup>1</sup>

Million EUR	2007	2008	2009	2010	2011	2012	Principal thereafter	Total
<b>General government</b>								
Principal	169	198	172	56	1,054	298	272	2,219
Interest <sup>2</sup>	89	81	76	72	70	30		
Total	258	279	248	128	1,123	328		
<b>Central government</b>								
Principal	125	155	134	0	1,000	250	194	1,857
Interest <sup>2</sup>	75	70	66	64	64	26		
Total	200	224	200	64	1,064	276		
<b>Local government</b>								
Principal	45	43	38	56	54	48	78	362
Interest <sup>2</sup>	14	12	10	8	6	4		
Total	58	55	48	64	60	52		
<b>Financial institutions</b>								
Principal	8,831	4,349	6,691	5,078	5,325	1,396	5,038	36,708
Interest <sup>2</sup>	1,518	1,241	1,050	783	578	322		
Total	10,349	5,591	7,741	5,861	5,902	1,718		
<b>Banks</b>								
Principal	8,795	4,139	6,603	5,022	5,316	1,186	4,961	36,024
Interest <sup>2</sup>	1,492	1,216	1,034	769	565	310		
Total	10,287	5,355	7,637	5,792	5,882	1,496		
<b>Other loan institutions</b>								
Principal	36	210	87	56	8	210	77	685
Interest <sup>2</sup>	26	25	16	14	12	12		
Total	62	235	104	70	21	222		
<b>Other sectors</b>								
Principal	407	398	1,024	630	231	141	1,209	4,040
Interest <sup>2</sup>	174	157	137	84	63	55		
Total	581	555	1,161	714	294	196		
<b>Total payments</b>								
Principal	9,407	4,945	7,887	5,764	6,609	1,836	6,519	42,967
Interest <sup>2</sup>	1,781	1,479	1,264	939	710	407		
Total	1,188	6,425	9,150	6,703	7,319	2,242		

1. Based on debt outstanding at end of year 2006. Conversion rate: ISK per EUR = 94.61. 2. Floating interest rate, LIBOR-USD is assumed at 5.5% and EURIBOR at 3.7% per year.

Source: Central Bank of Iceland.

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