OECD
ECONOMIC SURVEYS
1986/1987

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ICELAND

ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

MAY 1987

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Pursuant to article 1 of the Convention signed in Paris on 14th December, 1960, and which came into force on 30th September, 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April, 1964), Finland (28th January, 1969), Australia (7th June, 1971) and New Zealand (29th May, 1973).

The Socialist Federal Republic of Yugoslavia takes part in some of the work of the OECD (agreement of 28th October, 1961).

Publié également en français.

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DIAGRAMS

BASIC STATISTICS OF ICELAND

THE LAND

Area (1 000 sq. km.)	103	Unproductive area (1 000 sq. km.)	82
Productive area (1 000 sq. km.)	21	*of which:*	
of which:		Glaciers	12
Cultivated area	1.1	Other area devoid of vegetation	70
Rough grazings	20		

THE PEOPLE

Population, December 1st, 1985	242 089	Occupational distribution 1984 (per cent):	
Net increase 1981-1985,		Agriculture	6.4
annual average (per cent)	1.1	Fishing and fish processing	14.0
		Other manufacturing	16.5
		Construction, total	10.0
		Trade, finance and services	16.3
		Transport	6.7
		Other	30.1
			100.0

GOVERNMENT AND PARLIAMENT

Government, from 1983 to April 1987,		Parliament, number of seats:	1983	1987
number of ministers:		Independence Party (Lib. Cons.)	23	18
Progressive Party	4	Progressive Party (Agrarians)	14	13
Independence Party	6	Peoples' Alliance (Socialists, Communists)	10	8
		Social Democrats	6	10
		Social Democratic Alliance	4	0
		Feminists	3	6
		Other	0	8
			60	63

Last general election: April 1987

PRODUCTION AND CAPITAL FORMATION

Gross National Product in 1985:		Gross Fixed Capital Formation in 1985:	
Millions of I. Kr.	105 439	Millions of I. Kr.	24 154
Per head, US $	11 030	Per cent of GNP	23

FOREIGN TRADE

Exports of goods and services in 1985, per cent of GNP	32	Imports of goods and services in 1985, per cent of GNP	35.6
Main exports 1985, (per cent):		Imports 1985, by use (per cent):	
Fish products	74.7	Consumer goods	35.6
Aluminium	9.9	Investment goods	29.7
Other manufacturing products	12.5	Intermediate goods (excl. fuels)	34.7
Agricultural products	1.41	Fuels and lubricants	14.4
Miscellaneous	1.4		

THE CURRENCY

Monetary unit: Krona	Currency units per US $, averages of daily figures:	
	Year 1986	42.1
	May 1987	42.07

Note: An international comparison of certain basic statistics is given in an annex table.

This Survey is based on the Secretariat's study prepared for the annual review of Iceland by the Economic and Development Review Committee on 23rd March 1987.

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After revisions in the light of dicussions during the review, final approval of the Survey for publication was given by the Committee on 7th May 1987.

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The previous Survey of Iceland was issued in May 1985.

INTRODUCTION

The past two years have seen a strong recovery of output and real incomes and achievement of a better economic balance after the disruption caused by the 1982-3 recession. At that time Iceland faced a singularly unfavourable set of external circumstances: a sharp decline in the fish catch, poor terms of trade, rising real interest rates on foreign debt and a current payments deficit equal to 10 per cent of GNP. Wage indexation and currency depreciation pushed the annualised inflation rate to over 100 per cent in early 1983. Real incomes fell by 12 per cent in 1983 as a stabilization programme was introduced. In 1985 and 1986 conditions were reversed. The fish catch recovered strongly, the terms of trade improved remarkably and real disposable incomes grew by over 10 per cent a year. The inflation rate was the lowest since the first oil shock, with prices in the course of the year rising by 13½ per cent.

The 1983 stabilization programme was partly responsible for disinflation gains. In particular, the breaking of the automatic link between wage inflation and the exchange rate, through the de-indexing of wages, and a commitment to greater exchange rate stability have enhanced stability. The fact that real interest rates have been brought into closer alignment with world rates, checking excessive rates of credit expansion, has also contributed. But since 1984 disinflation has probably owed more to developments in the world economy than to domestic policies. Fiscal concessions have been made in return for wage moderation, and the easy budgetary stance has exerted pressure on an already tight labour market. Imbalances could worsen again if the particularly favourable external environment now facing the Icelandic economy were to deteriorate.

Key macroeconomic developments since 1984 are discussed in Part I. After describing government intervention in the wage bargaining process, Part II deals with fiscal, monetary and exchange rate policies. Part III reviews the short-term outlook, appraises the risks involved and assesses the prospects for the achievement of medium-term stabilization goals. In Part IV the Survey addresses the issue of financial reform, describing the progress made from credit rationing to a more market-oriented financial system. The Conclusions are summarised in Part V.

I. DEVELOPMENTS IN THE TWO YEARS TO 1986

Favourable international environment

A number of external factors have combined to create a particularly favourable environment for the Icelandic economy over the last two years. Lower oil prices were accompanied by rising prices for marine products on foreign markets (Table 1). The country also benefited from reduced interest rates on international financial markets which alleviated the burden of external debt servicing. These factors, together with an improving fish catch, contributed to a marked improvement in the terms of trade and a strengthening of the current external position. They also played a key role in the disinflationary process, while boosting output and income growth. The only unfavourable influences were the weakness of non-marine export prices and the depreciation of the U.S. dollar, which, in view of Iceland's trade structure, negatively affected the terms of trade.

The sharp drop in oil prices had a marked impact on inflation and the current account. Although Iceland has abundant energy resources (geothermal and hydroelectric), all fuel oil

Table 1. **External environment and economic performance**

	1981	1982	1983	1984	1985	1986[1]
External conditions						
Price of crude oil[2]	37.1	33.6	29.2	28.9	27.0	15.5
Relative price of fish[3]	140.8	135.4	130.5	123.5	115.1	125.0
Terms of trade (1980=100)	101.0	99.5	103.7	104.8	104.8	110.0
Average exchange rate for the Krona[4]	288.0	182.8	100.0	85.8	66.9	58.2
Average exchange rate for the U.S.$[5]	85.1	96.4	100.0	105.7	108.8	89.5
Foreign debt (per cent of GNP)	28.0	42.4	52.3	56.5	59.1	50.4
Average interest rate paid on foreign debt	–	11.8	–	10.4	9.3	8.5
Stabilization gains						
Inflation[6]	47.9	59.8	84.1	18.8	35.9	13.5
Value of fish catch[7]	–0.2	–12.0	–5.2	14.1	10.4	13.2
Current account (per cent of GNP)	–5.0	–10.0	–2.4	–5.4	–4.6	0.2
GNP growth (per cent)	2.1	–0.9	–5.7	3.0	3.1	6.2

1. Preliminary.
2. U.S.$/barrel, refiners' average acquisition price for imported crude oil.
3. Wholesale price of imported fish in the United States, divided by the U.S. fixed-weight price deflator for consumption.
4. Trade-weighted average nominal exchange rate for the Krona, 1983=100.
5. Trade-weighted average nominal exchange rate for the U.S. dollar, 1983=100.
6. December-December change in the cost of living index.
7. Change at constant prices.

Sources: Central Bank of Iceland, National Economic Institute, United States Commerce Department and Secretariat calculations.

has to be imported. Oil imports in 1985 accounted for about 15 per cent of all merchandise imports in value terms. When crude oil prices fell from $21 to $14 per barrel in the first half of 1986, the cost of oil imports declined accordingly: the import price deflator for oil decreased by about 32 per cent in 1986 (compared to a rise of almost 24 per cent in nonoil import prices), and the share of oil in the total value of merchandise imports was brought down to just over 10 per cent (Table 2). This windfall, which improved the terms of trade by about 7 per cent, amounted to about 1 per cent of GNP, and directly reduced consumer prices by 1½ per cent (a little more than in the rest of the OECD area). The contribution of the lower oil bill to the improvement of the current external balance was also substantial, of the order of 1 per cent of GNP.

Rising fish prices on the US market boosted export revenues. Prices of white fish were particularly buoyant, reflecting such factors as a shift in consumer preferences towards seafood, a greater ability to deliver high-quality products due to improved transportation and preservation techniques, and reduced fish catches by some other important competing countries (notably Norway). In spite of weak fish meal and oil prices, arising from a world grain glut and the growing production of palm oil in South-East Asia, the average foreign price of marine exports rose by 15 per cent in 1986. This shift in export prices was equivalent to a terms-of-trade gain of around 7 per cent. However, the gain was offset by the impact of the depreciation of the dollar and krona (which moved roughly in line with the dollar) against other major currencies, which raised the price of non-oil imports. Given the structure of the country's foreign trade, whereby the bulk of imports are from Europe and Japan, the depreciation of the dollar reduced the terms of trade by about 7 per cent[1]. Allowing for some weakness in non-marine export prices and the beneficial fall in oil prices noted above, the net improvement in the terms of trade was about 5 per cent. (For a further discussion of this issue, see Annex I.)

Table 2. **Export and import prices and the terms-of-trade**

	Weight in total trade, 1985	1986 percentage change, krona terms	Portion due to movements in[1]: Foreign prices	Portion due to movements in[1]: Price of foreign currency
Prices				
Merchandise exports	100.0	20.8	11.2	8.6
Marine	74.7	23.3	15.0	7.2
Non-marine	25.3	13.4	–0.2	13.7
Merchandise imports	100.0	15.0	–0.7	15.8
Oil	15.6	–32.0	–31.3	–1.0
Non-oil	84.4	23.7	4.9	17.9

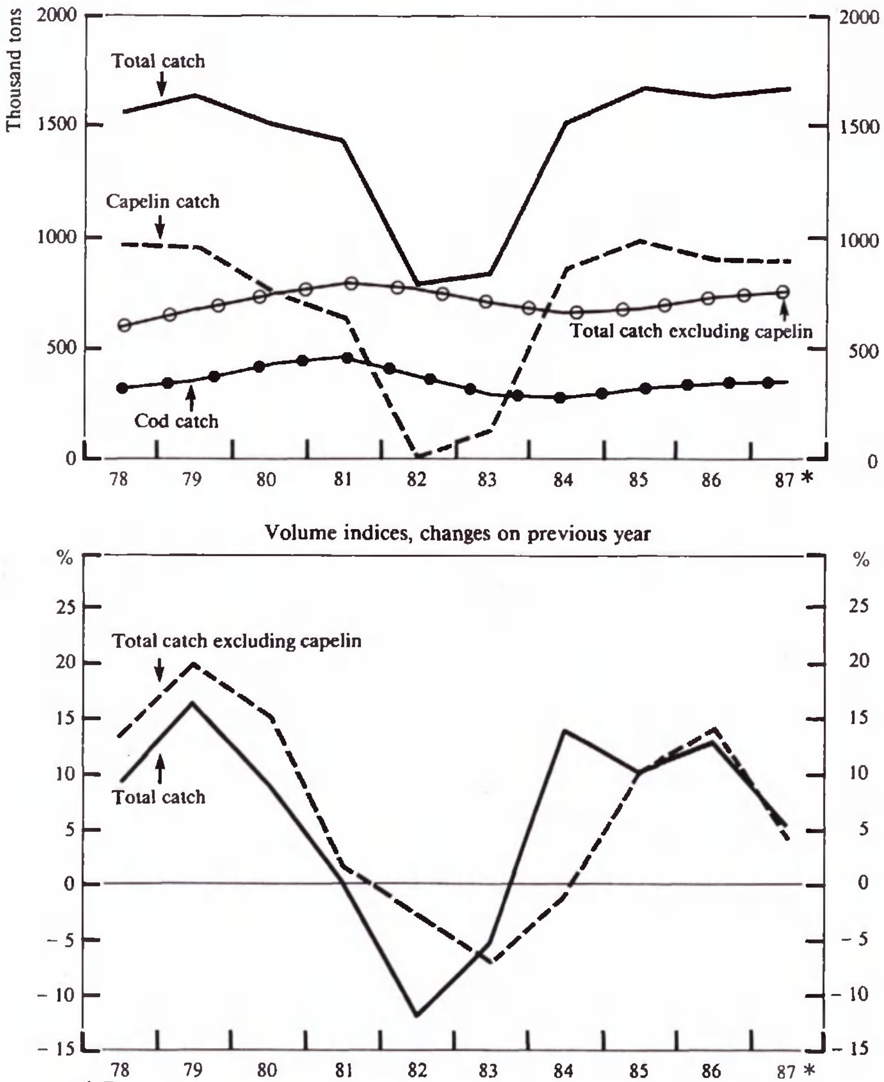
Terms of trade gains	Expressed in foreign prices	Exchange rate effects	Net change krona terms
Total	12.0	–7.0	5.0
Portion due to movements in the relative price of:[2]			
Marine exports	7.2	–7.4	–0.2
Non-marine exports	–1.2	–0.9	–2.1
Oil imports	5.4	1.6	7.0

1. Price changes in krona terms are related multiplicatively to foreign price changes and movements in exchange rates.
2. Prices are expressed relative to non-oil import prices. Columns may not sum to zero due to approximation errors. See Annex I for a discussion of the derivation of these calculations.

Sources: National Economic Institute and Secretariat calculations.

Another factor improving the external position and raising national income was the growth in the fish catch (Diagram 1). The total catch, which by 1984 had largely recovered from the poor harvests of 1982-83, grew rapidly in both 1985 and 1986 in constant-price terms, at rates of 10.4 and 13.2 per cent respectively. Widespread gains were registered in both the high-value cod and the lower-value capeline – a feed and oil fish whose price is currently depressed. Having bottomed in 1984 at 281 thousand tons, the cod catch reached 350 thousand tons in 1986 – which was nevertheless far below the 1981 record of

Diagram 1. **Fish catch 1978-1987**



* *Forecast*
Source : National Economic Institute

460 thousand tons[2]. Herring production remained relatively stable, although the sale of the 1986 harvest was temporarily complicated by difficulties in signing a new trade agreement with the Soviet Union. Overall, these output gains, which included a growing exploitation of "new" species such as shrimp, represented a significant productivity jump.

Reflecting the decline in world interest rates, the average interest rate paid by Iceland on foreign debt fell from 10½ per cent in 1984 to 8¾ per cent in 1986, helping to reduce the debt service burden from 11 per cent to under 9 per cent of GNP (Table 3). The external debt

Table 3. **Foreign funded debt and the debt service burden**[1]

	1980	1981	1982	1983	1984	1985	1986[2]
	Kronur, million						
Long-term foreign debt	4 623	7 521	14 904	32 127	42 559	60 857	75 076
Net foreign reserves	705	1 451	1 101	2 280	1 763	7 297	11 266
Net external debt[3]	4 233	6 549	15 022	31 141	43 470	62 257	71 000
Service of foreign-funded debt	819	1 460	2 771	5 648	8 455	9 710	12 125
	Per cent of GNP						
Long-term foreign debt	30.6	32.5	42.1	53.9	55.2	57.7	53.3
Net external debt[3]	28.3	28.0	42.4	52.3	56.3	59.1	50.4
Service of foreign-funded debt	5.4	6.3	7.8	9.5	11.0	9.0	8.6
	Per cent of export revenue						
Long-term foreign debt	79.5	84.6	114.1	117.0	122.3	120.5	117.0
Net external debt[3]	72.8	73.7	115.0	113.4	124.9	123.3	110.5
Service of foreign-funded debt	14.1	16.4	21.2	20.6	24.3	19.2	18.9
Memorandum items:							
Average interest rate on external debt (per cent)	10.6	12.3	11.8	9.9	10.4	9.3	8.8
Average maturity of external debt (years)	10.4	11.0	11.0	11.2	11.6	12.6	12.4
External debt denominated in U.S.$	54.0	62.7	60.8	57.0	53.9	52.3	51.0

1. Based on *average* exchange rates during the year.
2. Preliminary.
3. Long-term debt, plus short-term import credits, less unpaid exports and foreign exchange reserves.
Source: Central Bank of Iceland.

position also improved insofar as net outstanding foreign debt, as a ratio of GNP, fell from 59.1 per cent to 50.4 per cent. The stability of the krona against the dollar (in which about a half of Icelandic debt is denominated) meant that the krona value of dollar liabilities was unaffected by currency movements, but the domestic price level increased by almost 26 per cent, which implied a substantial fall in the *real* value of dollar debt. This was partly offset by the depreciation of the krona against the Japanese yen, the Deutschmark and the Swiss franc (which together account for over one-third of Icelandic debt), giving a net reduction in the debt burden of just over 5 per cent of GNP due to the combined effect of currency and domestic price movements. The remainder of the decline (3½ percentage points) was due to the increase in real GNP (for more details see Annex II).

Improving external position

Export volumes of marine products rose by about 8 per cent in 1985 and about 10 per cent in 1986, contributing an average of 2 percentage points to GNP growth in both years. The growth in the remaining quarter of Iceland's exports was also relatively strong; shipments of aluminum and ferro-silicon picked up in 1986, while agricultural and other exports registered healthy gains. Overall, export volumes grew by an average annual rate of a little over 10 per cent in 1985 and 1986, slightly faster than import volumes. Import demand for consumption and investment goods was strong, influenced by large gains in household real income and the improved profitability of fishing and other industries. In addition, car imports grew rapidly because of a large reduction in customs duties. These more favourable developments in trade volumes, coupled with large terms of trade gains, brought a substantial improvement in the trade balance, which shifted from a deficit of ½ per cent of GNP in 1984 to a surplus of almost 3 per cent in 1986 (Table 4).

After reaching a record 4½ per cent of GNP in 1984, the traditional deficit on invisibles was significantly reduced in 1986. This was partly due to higher receipts on account of tourism and airline revenues. Most of the improvement, though, was in reduced interest payments on external debt. Overall, the current account deficit was substantially cut from 5¼ per cent of GNP in 1984, to approximate balance in 1986. This reduced the rate of foreign borrowing from its previous high level, but at the end of 1986, the external debt (public and private) to GNP ratio was still one of the highest in the OECD area.

Table 4. **Balance of payments**

	1981	1982	1983	1984	1985	1986[1]	1987[2]
	Kronur, million						
Current account	–1 046	–3 166	–1 305	–4 105	–4 808	270	–950
Trade account, fob	–196	–1 885	467	–332	–10	3 980	2 550
Exports	6 536	8 479	18 623	23 557	33 750	44 968	49 650
Imports	6 732	10 364	18 156	23 889	33 760	40 988	47 100
Service account	–827	–1 225	–1 730	–3 798	–4 806	–3 870	–3 500
Net interest	–802	–1 475	–3 050	–4 555	–5 605	–6 270	–6 000
Other	–25	250	1 320	757	799	2 480	2 500
Net transfers	–23	–56	–42	25	8	160	0
Capital account	1 639	2 595	1 598	4 111	11 836	3 111	1 950
Net private borrowing	330	31	–435	–278	–99	–	–
Net public borrowing	560	1 752	2 489	2 689	3 928	–	–
Net short-term capital	240	416	–2 087	–287	3 379	–	–
Other	509	396	1 631	1 987	4 628	–	–
Net errors and ommissions[3]	–151	–686	–81	–930	–2 190	–	–
Overall balance of payments	442	–1 257	212	–924	4 838	3 381	1 000
Central bank total reserves	449	–1 104	327	–382	2 650	–	–
Central bank short-term liabilities	–7	–153	–115	–542	2 188	–	–
	Per cent of GNP						
Current account	–4.5	–8.9	–2.2	–5.3	–4.6	0.2	–0.6
Trade account	–0.9	–5.3	0.8	–0.4	0.0	2.8	1.5
Net interest	–3.5	–4.2	–5.1	–5.9	–5.3	–4.5	–3.5
Memorandum item:							
Conversion rate: 1 U.S. dollar	7.2	12.5	25.0	31.7	41.5	41.0	–

1. Estimate.
2. Forecast.
3. Includes 1981 allocation of SDRs.

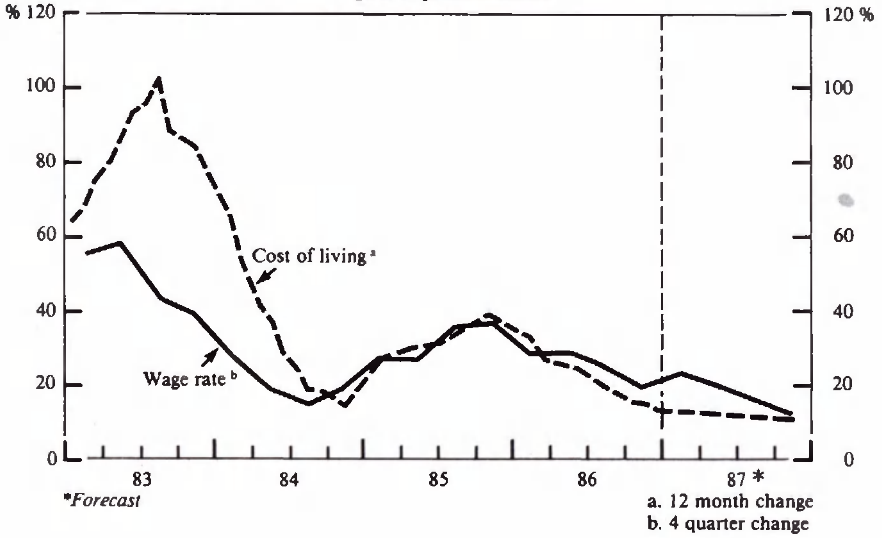
Source: Central Bank of Iceland.

Progress with disinflation

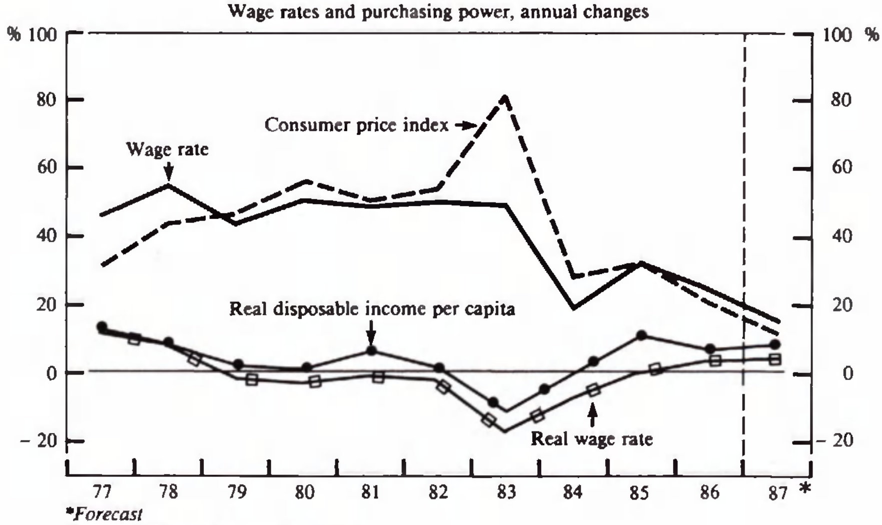
Following rapid disinflation in late 1983 and early 1984, further progress in reducing inflation has been difficult, in spite of favourable external influences. Consumer price increases reaccelerated to 32 per cent in 1985, before falling to around 21 per cent in 1986 (Diagram 2 and Table 5). The deceleration throughout the year was more impressive, consumer price inflation falling to around 13.5 per cent in the twelve months to December,

Diagram 2. **Wage and price trends**

Wage and price inflation



Wage rates and purchasing power, annual changes



Source: National Economic Institute

Table 5. **Incomes and prices**
In per capita terms, percentage change on previous year

	1980	1981	1982	1983	1984	1985	1986[1]
Wage and salary rates	51.0	48.8	50.4	49.5	19.3	32.7	25.3
Earnings	52.6	56.2	53.8	56.5	27.8	42.5	35.0
Disposable income	57.2	59.3	55.4	59.5	28.0	47.0	33.7
Cost of living index	58.5	50.9	51.0	84.3	29.2	32.4	21.3
Building cost index	55.6	51.8	56.2	70.8	22.2	32.1	24.5
Private consumption price deflator	56.2	50.5	54.0	81.0	29.0	32.4	21.3
Real wage rates[2]	–3.3	–1.1	–2.3	–17.4	–7.5	0.2	3.3
Real earnings[2]	–2.3	3.8	–0.1	–13.5	–0.9	7.6	11.3
Real disposable income[2]	0.6	5.8	0.9	–11.9	–0.8	11.0	10.2

1. Estimate.
2. Deflated by the private consumption price deflator.
Source: National Economic Institute.

compared with 36 per cent in the course of 1985. As noted, the sharp fall in oil prices contributed importantly to this outcome. In addition, the specific measures taken by the authorities to influence the climate of wage negotiation reduced the cost of living index by an estimated 4 per cent (for more details, see Part II of the draft Survey.) The greater stability of the exchange rate also played an important role.

Wage developments were less satisfactory. Wage and salary rates are estimated to have grown by some 25 per cent in the course of 1986, down from almost 33 per cent in 1985, but higher than expected because of the activation of indexation clauses in the course of the year. With longer working hours and wage drift adding 10 percentage points to the increase in wages, total earnings rose by some 35 per cent for the year as a whole. This was significantly more than the 25 to 26 per cent projected at the time of the national wage agreement in February 1986, and was partly a result of special settlements concluded during the summer in the wake of strong fish catches and increasing business profitability. Real earnings grew by nearly 12 per cent rather than the 4 to 5 per cent initially expected. Although the household share of national income rose in 1986, the growth in output and the improvement in the terms of trade were sufficient to allow an increase in the profitability of the business sector and an improvement of the current external balance.

Increased output and profitability

Real GNP growth accelerated from a little over 3 per cent in 1985 to just over 6 per cent in 1986 (Table 6). Activity remained strong in the fishing and fish processing industries, and both manufacturing and farm output strengthened, despite government policies to reduce excess production in agriculture. The growth in value added by the trade and catering industries also increased substantially; only the construction sector was weak. Final domestic demand growth was more moderate, of the order of 4½ per cent in both years. A rundown in marine export stocks reduced the growth rate of total domestic demand to 3.0 and 3.8 per cent in 1985 and 1986, respectively. As noted, the foreign balance gave a significant boost to growth, and the contribution of real net exports turned from a negative 3 per cent in 1984 to a positive 2½ per cent in 1986. With a marked improvement in the terms of trade, national

Table 6. **Demand and output**

A. NATIONAL EXPENDITURE

	Year-to-year percentage changes in volume[1]						
	1981	1982	1983	1984	1985	1986[2]	1987[3]
Private consumption	4.7	1.4	-8.3	3.0	5.0	6.5	5.0
Public consumption	7.2	5.5	5.5	0.1	6.2	3.9	3.0
Gross fixed investment	1.0	-0.5	-12.3	8.9	1.0	0.0	4.1
Final domestic demand	4.2	1.6	-6.8	3.8	4.3	4.6	4.4
Stockbuilding[4]	0.6	1.2	-3.7	2.2	-1.3	-0.8	1.6
Total domestic demand	4.7	2.8	-10.1	6.0	3.0	3.8	6.0
Exports of goods and services	1.4	-9.7	10.3	3.0	11.0	10.0	3.0
Imports of goods and services[5]	7.2	-1.1	-5.7	9.3	9.7	6.5	1.5
Foreign balance[4]	-2.7	-3.8	5.3	-3.2	0.1	1.9	-1.6
GNP at market prices	2.1	-0.9	-5.7	3.0	3.1	6.2	3.5
Terms of trade effects[4]	0.3	-0.2	1.5	0.0	0.5	2.4	1.8
Gross national income	2.4	-1.1	-4.2	3.0	3.6	8.6	5.3

B. NATIONAL PRODUCT

	Weight in total (percentage)	Year-to-year percentage changes[1]					
	1980	1981	1982	1983	1984[2]	1985[2]	1986[2]
Agriculture and processing	6.5	-5.4	0.9	-1.0	3.6	1.8	3.4
Fishing and fish processing	18.3	0.6	-11.5	-12.3	11.6	9.1	10.9
Manufacturing industry	13.5	-0.3	5.1	-1.9	6.7	2.3	4.3
Construction industry	8.4	0.6	9.4	0.8	4.0	4.5	0.0
Trade and catering	11.9	1.6	7.2	-7.6	3.0	2.6	6.5
Public service and other industries	41.4	4.3	6.6	4.7	1.5	4.4	5.4
Gross domestic product	100.0	1.8	3.1	-1.1	4.1	3.6	5.7
VOLUME CHANGES ACCORDING TO EXPENDITURE METHOD							
Gross domestic product		2.6	-0.3	-5.0	3.4	3.1	5.0
Gross national product		2.1	-0.9	-5.7	2.8	2.8	5.2

1. Constant (1980) prices.
2. Estimate.
3. Forecast.
4. Contribution to GNP growth, i.e. changes in aggregates expressed as a percentage of GNP of the previous year.
5. Includes net factor income sent abroad.

Source: National Economic Institute.

income grew even faster than GNP, accelerating from 3 per cent in 1984 to 8½ per cent in 1986.

Fuelled by the strong rise in income, real private consumption has been buoyant, growing by 5 per cent in 1985 and 6½ per cent in 1986 (Table 6). As real disposable income expanded on average by 10½ per cent a year during the period, households took advantage of the increased cash flow to raise their saving ratio, which had fallen quite dramatically in 1984. Much of the rise in the propensity to save was probably associated with an attempt by households to improve their financial position, through rebuilding the real value of financial assets. These appear to have been run down during 1983-84 (see Table 14 below), when real income fell sharply because of the severe recession and a restrictive incomes policy under the stabilization programme (see Part IV). Although real consumption per capita had climbed back only to 1981-82 levels by 1986, the emergence of positive real rates of return on financial assets, as a result of disinflation and the monetary reform, may mark a secular shift to a higher rate of household saving. (It has already resulted in a marked upward trend in bank deposits). On the other hand, the 1986 reduction in import tariffs on cars caused a temporary boom in such purchases. Government consumption, despite the goal of restraining public sector demand in order to halt the growth in public sector debt, has also made a significant contribution to final demand growth. The volume of spending rose by around 10 per cent in the two years to 1986.

Gross fixed capital formation grew at a rate of 1 per cent in 1985 and remained flat in 1986. Public investment continued the downward trend begun in 1982; with major electricity supply and geothermal projects being completed, and limited spending on road and harbour improvements, public investment in 1986 was only two-thirds of its 1981 peak (Table 7). Residential investment was also weak because of the rise in real interest rates and the desire by households to rebuild financial assets. In contrast, reflecting the improved profitability of fishing and other sectors, private non-residential capital formation was buoyant, growing at an average annual rate of almost 11 per cent in volume between 1984 and 1986. Net profits in the fishing industry swung from –9 per cent of gross income in 1984 to a positive 6.2 per cent in 1986, and the corresponding change for the fish processing sector was also large, if not as

Table 7. **Gross fixed investment**

	Per cent share of gross fixed investment 1985	Percentage changes in volume from previous year[1]						
		1981	1982	1983	1984	1985	1986[2]	1987[3]
Residential construction	21.9	–9.8	9.4	–9.1	10.4	–15.3	0.0	5.0
Other private investment	49.7	3.2	0.6	–11.3	13.9	17.3	4.5	1.5
Agriculture	6.3	–22.4	22.5	–14.4	38.9	21.7	9.1	–5.2
Fishing	3.8	18.0	–11.7	–13.3	–11.7	–15.0	104.1	4.3
Fish processing	4.7	2.7	3.3	–16.6	22.9	9.9	0.0	0.0
Aluminium smelter	0.3	36.4	–84.8	–68.8	0.0	140.0	33.3	21.5
Ferrosilicon plant	0.2	–80.0	–78.6	–33.3	150.0	40.0	–42.9	–13.3
Other manufacturing	12.0	2.7	21.7	–7.4	30.2	12.2	–9.8	5.0
Transport equipment	7.2	10.2	–18.6	–24.8	–21.5	64.0	–30.5	4.0
Other machinery and equipment	7.8	7.8	28.5	–6.1	52.3	21.8	0.0	5.0
Commercial building, etc.	7.4	15.9	27.5	3.5	–8.2	12.1	9.7	–5.0
Public works and buildings	28.4	5.9	–7.6	–15.6	–1.7	–8.5	–8.0	–8.6
Electricity supply	4.7	5.9	–7.4	–26.4	–15.0	–43.7	–22.3	–13.5
Geothermal heating, water supply	3.6	–8.2	–42.9	33.6	23.7	15.7	–13.5	24.5
Communications	12.7	7.2	2.8	–4.7	12.1	3.0	–1.0	7.2
Public buildings	7.4	20.5	8.0	–4.9	–14.0	1.9	–8.7	15.7
Gross fixed investment	100.0	1.0	–0.5	–12.3	7.8	1.0	0.0	4.1
Fixed capital formation as a percentage of GNP		25.6	26.1	23.7	23.5	22.9	21.1	20.3

1. Constant (1980) prices.
2. Estimate.
3. Forecast.
Source: National Economic Institute.

dramatic. The drop in oil prices, strong export prices and higher capacity utilisation accounted for most of the increased profitability of the business sector (see below). Boat owners have taken advantage of these developments to speed up the modernisation of the fleet, and have scrapped (or sold abroad) old boats at a faster rate. New investment has not increased the size of the fleet, which is already underutilised, but rather has raised its efficiency.

Strong gains in output continued to give Iceland one of the lowest unemployment rates in the OECD area (Table 8). With an unemployment rate of less than 1 per cent and with vacancies running at about 2½ per cent of the labour force, the labour market has been in a continuous state of excess demand. Thus the success in reducing the inflation rate has been achieved in the face of quite adverse wage bargaining conditions.

Table 8. **Labour market indicators**

	Annual averages					
	1981	1982	1983	1984	1985	1986[1]
Unemployment (days per month)	8 827	16 661	25 730	32 093	24 006	17 830
Reykjavik area	2 817	4 992	10 058	11 269	6 733	5 482
Outside Reykjavik	6 010	11 669	15 672	20 824	17 273	12 348
Average number of unemployed	408	770	1 185	1 480	1 106	823
Unemployment rate	0.4	0.7	1.0	1.3	0.9	0.7
Length of work week[2]	49.9	50.2	49.6	49.5	50.2	–

1. Estimate.
2. Average hours worked in the Reykjavik area, excluding those on monthly salaries.
Source: National Economic Institute.

II. ECONOMIC POLICIES

Overview

Over the last few years the Government has been quite heavily involved in the wage bargaining process to achieve its disinflation goals. At the same time, emphasis has been placed on the need for tighter monetary policy, better fiscal balance and "the greatest possible stability" in the exchange rate to control credit and labour market pressures. The two sets of objectives have often been in conflict, as concessions made in the interests of arriving at wage agreements have run counter to the needs of fiscal and monetary balance. The exchange rate objective has been least compromised, as exchange rate stability has directly eased wage pressures. However, since profits had been squeezed in the face of the adverse terms-of-trade changes of 1979 and 1980, the move towards positive real rates of interest was impeded by the perceived need to cushion export industries from further financial pressure. This has led to an over-reliance on public foreign borrowing to achieve consistency between monetary and exchange rate objectives. The burden of foreign debt has put a greater onus on fiscal restraint to cut back credit demands and ease pressure on domestic interest rates. But budget balance has been undermined by a tendency to use fiscal concessions to obtain favourable wage bargains.

Wage policy

The 1986 wage agreement

The Government capitalised on the improving external environment by offering fiscal concessions in return for wage restraint during the February 1986 wage settlement. The improved prospects for national income growth made it possible to reach an agreement on a wage package that was consistent with both lower inflation and rising real earnings. The settlement allowed for staged increases in wage rates of about 13.5 per cent between March and December, considerably less than in earlier years. On average, given the overhang from the previous year, both prices and wages were expected to rise by 20 to 21 per cent from 1985 to 1986, so that real wage rates were expected to remain approximately unchanged[3]. However, as a result of wage drift, nominal earnings were forecast to grow by 25 to 26 per cent, so that real earnings were projected to rise by 4 to 5 per cent, roughly compensating for the sharp reduction which had occurred in 1982 and 1983. Although large, the projected gain in purchasing power was not seen as inflationary because output, after adjustment for terms-of-trade effects, was expected to grow even faster. (In the spring of 1986 the National Economic Institute projected real gross national income to grow by 5 per cent.) The settlement embodied an agreement that households would retain part of the terms-of-trade gains and that the rest would be used to improve business profitability.

In order to achieve wage moderation, and as a precondition to the settlement, the Government introduced a package of measures designed to lower the cost of living. As noted, customs and excise duties on cars and other consumer goods were reduced, along with payroll taxes and charges for basic utilities. Combined with increased agricultural subsidies, these changes directly reduced the cost of living by an estimated 4 per cent. Nominal interest rates were also reduced, and the Government reaffirmed its commitment to stabilizing the exchange rate at its January level, at least until the end of the year. For the longer term, the Government reduced income taxes and increased the supply of subsidised mortgage credit, which effectively raised future real household income and wealth. Taken together, this package was intended to build upon the opportunity for disinflation presented by the terms of trade gains, and helped to achieve a significant deceleration in wage-price inflation. However, the outcome was somewhat less favourable than foreseen at the time of the February wage settlement, while a good deal of the disinflationary gain was at the expense of a higher Treasury deficit.

The 1987 wage settlement

The Icelandic Federation of Labour and the employers association concluded a new agreement respecting 1987 wage increases in December 1986. The settlement, which covers most private sector workers, resulted in a substantial increase in minimum wage rates and, on the crucial assumption that the terms of other wage settlements are similar, average nominal wage rates are expected to increase by 7 to 8 per cent in the course of the year, resulting in an average increase of 18 per cent from 1986 to 1987. Together with wage drift and other factors, this implies a likely rise in nominal earnings of around 22 to 23 per cent. The agreement is based on an assumption of about 14 per cent price inflation and is contingent on the maintenance of a stable exchange rate, so that it implies a further major gain in real per capita earnings, of the order of 8 per cent. As in 1986, the government granted fiscal concessions in order to achieve a settlement. These included the withdrawal of a proposed oil import tariff, increased social security benefits, and various measures to hold down food, electricity and other prices.

Fiscal policy

The 1985 and 1986 Budgets

Public finances have deteriorated over the last two years, reflecting difficulties in controlling the growth of public outlays and fiscal concessions in return for wage moderation. The intention of the 1985 Budget was to use fiscal policy to consolidate the trend towards disinflation. However, since public expenditure was also meant to cushion the financial squeeze on industry, a moderate deterioration in Treasury finances was foreseen, with the Budget projected to go into slight deficit (Table 9). In the event, Treasury borrowing exceeded estimates by about 3 per cent of GNP and expenditure, instead of remaining approximately steady, rose from 26 to 28 per cent of GNP.

Against the background of a deteriorating financial position, the original 1986 Budget called for the restoration of a slight Treasury surplus. Despite a number of measures reducing direct and indirect taxes, in order to pave the way for the impending wage settlements, this would have represented a marked fiscal tightening. Government expenditure was to fall by ½ per cent of GNP. However, the package of measures agreed during the February wage negotiations was expected to cost 1 800 million kronur in lower revenues and increased subsidies. As a result, the Treasury deficit was estimated to reach 1.5 billion kronur (just over 1 per cent of GNP). Because of subsequent increases in public spending (higher public sector salaries and wage-linked social security benefits, resulting from specific wage contracts), the

Table 9. **Treasury finances (the "A-Budget")**

	1982	1983	1984	1985		1986			1987 Budget
				Original	Outturn	Original budget	Amended budget	Outcome	
				Cash basis, in millions of kronur					
Revenue	9 577	15 100	20 747	25 336	27 110	37 854	35 344	38 235	43 029
Expenditure	9 379	16 263	19 964	26 079	29 497	37 691	36 830	40 111	45 872[1]
Financial Balance[2]	198	–1 163	783	–743	–2 387	163	–1 486	–1 876	–2 843
Net lending (lending –)	–532	–376	–598	65	–228	–598	786	233	480
Miscellaneous, net	–207	–1 135	–302	–120	–1 492	–1 150	–1 150	–964	–300
Net borrowing requirement[2]	–492	–2 674	–245	–798	–4 107	–201	–1 850	–2 607	–2 663
Net borrowing outside banking system	639	1 484	796	964	1 686	1 078	2 703	5 642	2 740
Change in cash balance	–147	–1 190	–551	166	2 421	–877	–853	–3 035	–77
Central bank financing, net	–126	1 258	–532	166	2 478	–877	–853	–2 827	–77
Cash deposits (increase +)	–21	–68	–19	–	–57	0	0	–208	0
				Cash basis, as per cent of GNP					
Revenue	27.0	25.3	26.9	28.7	25.7	27.5	25.1	27.1	25.2
Expenditure	26.5	27.3	25.9	29.6	28.0	27.4	26.2	28.5	26.8
Financial balance[2]	0.6	–2.0	1.0	–0.8	–2.3	0.1	–1.1	–1.3	–1.6
Net borrowing requirement[2]	–1.4	–4.5	–0.3	–0.9	–3.9	–0.1	–1.3	–1.8	–1.5
				Accruals basis, as per cent of GNP					
Revenue	29.2	27.3	28.7	–	25.6	–	–	–	–
Expenditure	26.8	29.7	26.6	–	27.9	–	–	–	–
Financial balance[2]	2.4	–2.4	2.1	–	–2.3	–	–	–	–

1. Operational expenditures, which account for about 40 per cent of total outlays, have been adjusted for a projected 9.6 per cent increase in wages and salaries. However, estimates of transfers, maintenance and investment outlays are based on end-year 1986 prices.
2. In Icelandic usage, the "Financial Balance" (or "net lending" as defined in the SNA) is referred to as the "Revenue Balance" and the "Net borrowing requirement" is described as the "Financial Balance". To avoid confusion with the national accounts table (10), the terms have been harmonised to be nearer to standard usage, but differences in coverage remain.

Sources: Central Bank of Iceland, *Annual Report 1983*, data provided by the Bureau of the Budget and Secretariat calculations.

outturn was a deficit of 1.9 billion kronur (approximately 1¼ per cent of GNP). This meant that only limited progress was made in reducing the Treasury deficit in 1986, despite a favourable economic growth performance and buoyant revenues.

Incorporating government capital expenditures (which are not all included in the Treasury "A" Budget, but are part of a separate "B" Budget), the central government deficit declined from 1.8 billion kronur in 1985 to 1.3 billion in 1986 (on a national accounts, accruals basis) (Table 10). Investment spending was held back (falling in volume terms), while central government debt service rose from 1.6 to 2.9 per cent of GNP, cutting back the current account surplus. There was thus an implied change in the composition of public spending, towards greater public consumption (though there seems to have been a previous tendency to over-investment – see Part IV). Moreover, when revenues are adjusted for the impact of the strong growth of GNP on receipts, the shift towards lower financial deficit disappears. The structural ("cyclically-adjusted") central government deficit expanded by ½ per cent of GNP in 1986 (Table 10).

The development of public finances in 1985 and 1986 entailed substantial competition for domestic savings and some upward pressure on interest rates, which was mitigated by Treasury borrowing from the Central Bank until late 1986[4] and by an overshooting of the credit budget target for foreign long-term borrowing. The 1985 budget deficit overshoot was financed almost wholly by running an overdraft at the Central Bank. With net new foreign

Table 10. **Government finances**

	1981	1982	1983	1984	1985[1]	1986[2]
	Accruals basis, in millions of Kronur					
A. *Central Government*[3]						
Current revenue	6 324.1	10 352.1	16 328.7	22 012.8	28 825.1	39 155.0
Current expenditure	5 045.7	8 244.0	14 443.7	17 266.1	25 312.7	34 838.0
Consumption	2 183.0	3 511.4	6 333.3	7 669.3	11 204.6	15 207.0
Interest	159.2	222.1	824.7	828.0	1 655.3	4 016.0
Subsidies and transfers	2 703.5	4 510.5	7 285.7	8 768.8	12 452.8	15 615.0
Current balance	1 278.4	2 108.1	1 885.0	4 745.7	3 512.4	4 317.0
Capital balance	–971.6	–1 349.2	–3 300.3	–3 153.2	–5 328.4	–5 657.0
Financial balance	306.8	758.9	–1 415.3	1 593.5	–1 816.0	–1 340.0
As a per cent of GNP	(1.3)	(2.1)	(–2.3)	(2.0)	(–1.6)	(–0.9)
Net borrowing requirement	–6.0	486.1	2 673.6	245.1	4 065.4	3 079.0
As a per cent of GNP	(0.0)	(1.4)	(4.5)	(0.3)	(3.7)	(2.1)
B. *Financial balance*						
General government	387.5	767.8	–1 441.4	2 405.6	–1 696.4	–768.0
Central	306.8	758.9	–1 415.3	1 593.5	–1 816.0	–1 340.0
Social security	67.4	60.5	54.7	102.9	108.4	120.0
Local	13.3	–51.8	–80.8	710.4	11.0	451.0
Memorandum item:						
Central government						
Structural balance	–254.9	891.4	–8.6	3 097.0	–406.5	–1 340.0
As a per cent of GNP	(1.1)	(2.5)	(–0.1)	(4.0)	(–0.4)	(–1.0)

1. Preliminary
2. Forecast
3. Excluding social security.
Source: Natural Economic Institute and Secretariat estimates.

borrowing for the economy as a whole (i.e. borrowing net of amortisation) rising to 5.5 billion kronur, and the external debt/GNP ratio (public and private) increasing to nearly 60 per cent of GNP, the scope for further external borrowing was limited. The 1986 credit budget called for a substantial decline in the rate of net new foreign borrowing, though the debt service ratio was still scheduled to rise. In the event, there was substantial overshoot, since net long-term foreign borrowing reached 6 billion kronur (4.2 per cent of GNP) (Table 11).

Table 11. **Long-term borrowing: The Credit Budget**

	1986	1987		
	Foreign	Domestic	Foreign	Total borrowing
	Millions of kronur			
Public sector				
Estimate	4 110	4 450	2 550	7 000
Outturn	5 846			
Treasury				
Estimate	3 230	4 450	1 700	6 150
Outturn	5 004			
Public enterprises				
Estimate	750	–	500	500
Outturn	720			
Municipalities[1]				
Estimate	130	–	350	350
Outturn	121			
Housing funds				
Estimate	–	3 815	–	3 815
Outturn				
ICFs				
Estimate	2 440	1 480	1 565	3 045
Outturn	1 967			
Private enterprises[1]				
Estimate	2 850	–	3 500	4 100
Outturn	4 109			
TOTAL				
Estimate	7 902	9 745	7 615	17 360
Outturn	11 922			
Less amortization	5 940		6 300	
NET BORROWING	5 982		1 315	
Per cent of GNP	(4.2)		(0.8)	

1. Excluding conversion of short-term into long-term loans.
Source: The Bureau of the Budget.

The 1987 Budget

The initial 1987 Budget proposal implied a gradual elimination of the Treasury deficit, with a planned cut of one-quarter relative to the estimated 1986 outcome. However, as a result of fiscal concessions granted by the government in the 1987 wage negotiations, revenues were reduced by about 800 million kronur (largely due to the abandonment of a proposed oil import fee) while increased subsidies and other outlays boosted expenditures by 915 million kronur. The financial deficit is officially projected to increase to 1.6 per cent of GNP, compared to 1.3 per cent in 1986.

The Credit Budget plans a reduction in external borrowing, as the economy moves towards external balance and positive real interest rates increase the volume of domestic savings (Table 11). Net long-term borrowing from abroad is expected to decline to under 1 per cent of GNP – a cut of nearly 3½ per cent of GNP relative to 1986. The public sector, in particular, is projected to reduce its foreign credit demands substantially, such that amortization will exceed new borrowing and the net PSBR will be wholly financed domestically. A large rise in residential construction is to be financed by the reformed housing credit system, in which the various pension funds will be investing an increased share of their assets (see Part IV). With domestic saving projected to increase, the government expects the stock of total foreign debt (public and private) to fall to under 50 per cent of GNP, with borrowing abroad contributing to an increase in the net foreign reserve position.

Monetary and exchange rate policies

Monetary conditions

The principal aims of policy over the last few years have been to create positive real interest rates, restore confidence in monetary assets, encourage domestic savings and restrain credit expansion. Until recently, credit growth has been excessive, insofar as loans have expanded more rapidly than bank deposits, and much faster than nominal output, with detrimental consequences for the external balance and inflation (Table 12). With the spread of financial indexation in the 1980-83 period, and the Central Bank's delegation of responsibility for setting interest rates to the deposit money banks starting in 1984, the situation has been brought nearer to equilibrium. (See Part IV of the Survey.) A wide spectrum of real interest rates has become positive, and this has brought bank deposits and credit creation back to better balance (Table 13). Lending by the domestic money banks grew roughly in line with the growth in nominal GNP in 1986, and the ratio of bank credit to deposits has improved significantly since early 1985. However, the benefits of improved control over money creation have been partially offset by the deterioration in the finances of the Treasury, which borrowed substantial amounts from the Central Bank in 1985 and early 1986. This has been one of the principal forces behind monetary expansion since 1982.

Monetary expansion has been rapid in recent years, with broadly-defined money (M3) rising almost 50 per cent in 1985 and 35 per cent in 1986. Because the fall in inflation has been great, real M3 increased almost 9 per cent in 1985 and accelerated to over 17 per cent last year; correspondingly, the ratios of the broader aggregates to GNP have risen substantially (Table 12). Much of this decline in velocity has been a direct consequence of disinflation and the move towards market-determined interest rates; it is probably a sign of renewed confidence in holding monetary assets. Nevertheless, the fact that M3 overshot its 1986 Credit Budget target by almost 20 percentage points entails the risk that the rise in real money balances could translate into excessive credit growth, especially in the context of an expansionary fiscal policy and the move towards greater subsidisation of housing investment.

Although the restoration of positive real interest rates represents an important accomplishment for monetary policy, interest rates have still been subject to political

Table 12. **Monetary indicators**

A. GROWTH RATES OF SELECTED AGGREGATES
PERCENTAGE CHANGE FROM PREVIOUS YEAR

	1981	1982	1983	1984	1985	1986
Central Bank						
Base money	66.8	48.9	73.6	29.1	50.1	33.0
Notes and coin	64.6	30.8	46.1	24.4	29.7	38.0
Deposit money banks						
Lending	73.9	88.3	77.2	46.2	30.4	21.6
Deposits	69.9	59.7	80.2	33.8	48.2	34.5
Banking System						
Domestic assets (net)	–	78.3	93.5	41.7	33.1	19.0
M3	70.5	58.1	78.7	33.4	47.6	34.6
M2	74.5	47.4	73.7	50.7	61.8	36.5
M1	60.1	29.1	77.9	42.5	27.3	43.3
Real money growth[1]	15.5	–1.5	3.1	12.2	8.8	17.3

B. ANNUAL AVERAGES OF DEPOSITS AND MONEY INCLUDING ACCRUED INTEREST
AS PER CENT OF GROSS NATIONAL PRODUCT

	Notes and coin	Demand deposits	General savings deposits	Time deposits	Total deposits	Money supply			Income velocity of money			
						M1	M2	M3	M1	M2	M3	Deposits
1980	1.13	4.05	9.06	7.15	20.26	5.18	14.24	21.39	19.30	7.02	4.67	4.94
1981	1.34	4.41	10.82	7.53	22.76	5.75	16.58	24.11	17.38	6.03	4.15	4.39
1982	1.14	3.90	11.19	8.30	23.39	5.03	16.22	24.52	19.87	6.17	4.08	4.28
1983	0.92	3.71	10.59	10.09	24.39	4.63	15.22	25.31	21.60	6.57	3.95	4.10
1984	0.95	4.30	13.34	9.82	27.46	5.25	18.58	28.41	19.06	5.38	3.52	3.64
1985	0.91	4.36	17.25	7.49	29.10	5.28	22.53	30.01	18.94	4.44	3.33	3.44
1986	0.95	4.63	19.35	7.17	31.15	5.58	24.93	32.10	17.93	4.01	3.12	3.21

1. Growth rate, M3 deflated by Credit Terms Index.
Source: Central Bank of Iceland.

influence to some extent. Prior to the February 1986 wage settlement, nominal rates on general bank loans stood at 32 per cent. Had they not fallen at the time of the settlement, real rates would have risen to excessive levels as inflation fell. The issue of real borrowing costs became a matter of concern in the national wage talks. Rather than waiting for interest rates to adjust competitively, the Central Bank, in consultation with the deposit money banks, reduced nominal interest rates to 20 per cent in March. Rates were further lowered to just over 15 per cent in April and by the autumn real yields on loans were only slightly positive. Without these steps, the implementation of the wage agreement could have implied excessive real rates, as nominal rates adjusted only slowly to lower inflation expectations. (A dilemma which illustrates the difficulties of a free capital market during a period of rapid disinflation). The Government has since transferred to the banks the right to set almost all interest rates, so that interest rate policy should no longer play the same role in future wage negotiations, but the decision to subsidise mortgage rates is an indication of the persistence of pressures to administer rates. The Bank will still have power to intervene if rates become "excessive" under the new system (see Part IV).

Table 13. **Interest rates**

	1970	1975	1980	1983	1984	1985	1986
Non-indexed							
Average rate paid on savings deposits	7.0	13.0	33.3	38.7	16.1	27.2	11.1
Penalty rate charged on bank overdrafts	12.0	24.0	55.8	58.2	31.5	44.0	30.5
Average rate charged on bank credit	9.5	14.9	41.2	56.7	24.7	33.9	22.9
Secured bank loan rate	9.2	18.8	39.9	48.8	23.0	32.5	21.2
Indexed							
Time deposits, six month	–	–	1.0	1.0	1.3	2.5	3.0
Indexed secured loans, over 2½ years	–	–	2.0	2.5	6.2	5.0	5.0
Memorandum items:							
Inflation rate[1]	15.5	50.3	57.5	79.4	33.8	30.6	24.6
Real rate charged on foreign loans[2]	–	–3.3	–0.6	5.6	5.7	5.1	4.8

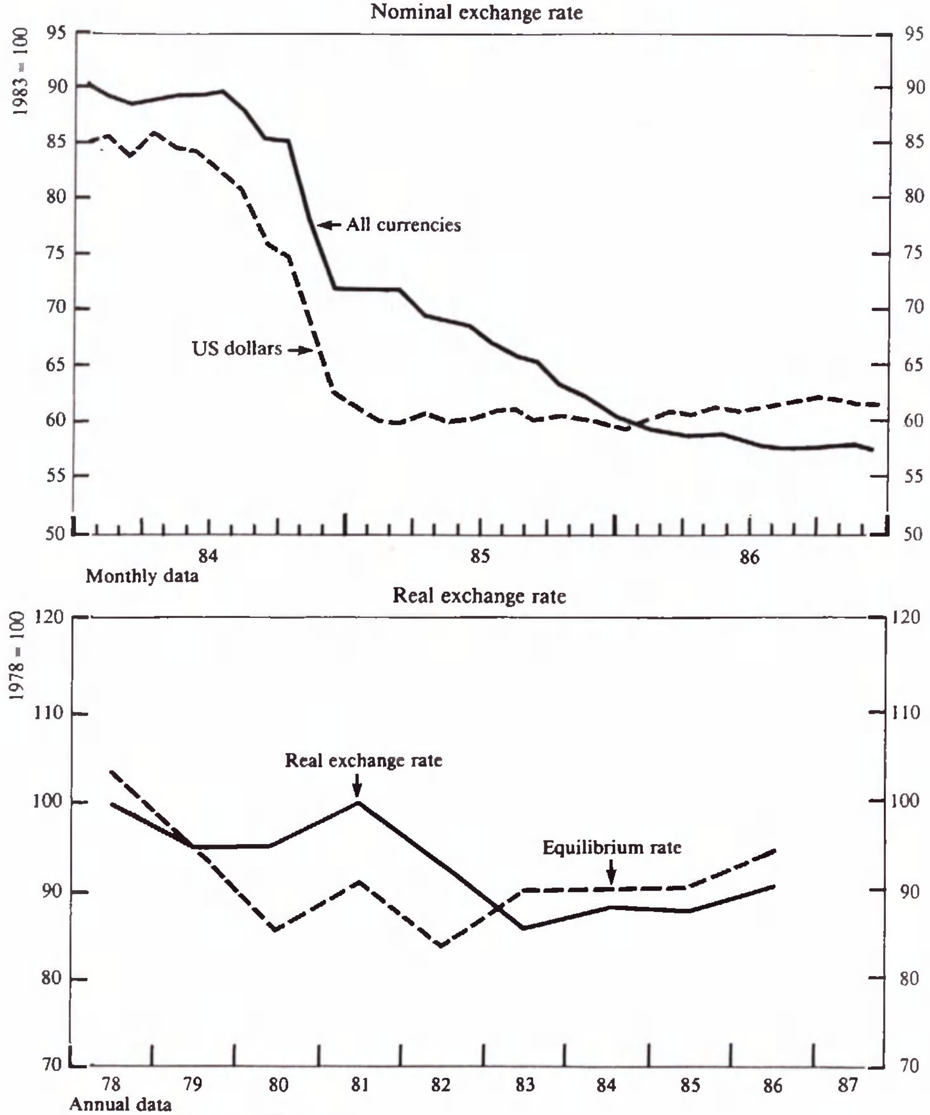
1. Annual percentage change in Credit Terms Index.
2. Average of nominal rates less GDP deflator percentage changes, weighted by Iceland's debt.
Source: Central Bank of Iceland.

Exchange rate developments

Until 1983 exchange rate policy was targeted on maintaining the profitability of the export sector, via an almost continuous depreciation of the krona. So long as wages did not respond fully to higher import prices, depreciation was a way of raising profit shares. However wage indexation and efforts by unions to protect real earnings led to a wage-price spiral. With the adoption of the 1983 stabilization programme, the earlier policy was replaced by a two-pronged strategy. First, with a *real* devaluation in May 1983, efforts were made to restore export profitability. Second, price stability was pursued by an attempt to stabilize the effective nominal exchange rate of the Krona. Overall, this policy has been only partially successful. While profits in fishing and other export sectors have improved, largely because of the favorable movement in fish and petroleum prices, the Krona has continued to depreciate in nominal terms, though appreciating in real terms. However, in line with greater price and wage moderation, the rate of depreciation of the effective exchange rate of the Krona has been reduced from an annual average of almost 50 per cent in 1983 to 15 per cent in 1986 (5.8 per cent in the course of the year), while the real exchange rate has been virtually stable since mid-1983 (Diagram 3).

In order to evaluate the need for exchange rate adjustment, the Central Bank employs an index of exchange rate adjustment. The index measures the divergence of the exchange rate from its "equilibrium" level, which is defined as the price of foreign currency that maintains the share of operating profits in value added constant in the traded goods sector, relative to a selected base period. Depreciation raises the share of profits because it increases the krona value of exports denominated in foreign currency, while raising import prices and lowering real wages. A lower-than-normal share of profits in the traded goods sector would call for a depreciation (increasing krona revenues) and vice versa. According to the index, improvements in the terms of trade have resulted in the equilibrium rate being slightly above the actual exchange rate in the last two years, implying some scope for revaluation[5]. This is a marked change from the 1980-82 period, when the squeeze on profits implied a significant *over*valuation of the krona. The subsequent 15 per cent depreciation of the real exchange rate in 1983 ameliorated the structural problem in the profitability of the fishing sector. Since that

Diagram 3. **Exchange rate movements**



Source: Central Bank of Iceland

time, export industries have gained substantially from improvements in fish prices and fuel costs, so that profit shares have risen, despite a rapid rise in real earnings. For 1987, the government aims at achieving as stable an exchange rate as possible, implying some increase in the real rate. However, this result hinges quite critically on nominal wage developments (about which there is some uncertainty) and a continued favourable external environment (see below).

For a small open country, which is a price-taker on international markets, profitability in the traded goods sector is a prime factor in the formulation of exchange rate policy. However, other criteria should also be taken into consideration. A depreciation of the exchange rate raises prices. Moreover, given the large ratio of foreign debt to GNP (over 50 per cent including public and private), depreciation worsens the net worth of many over-borrowed firms and increases public sector debt. These negative influences have to be weighed against the benefits of higher profitability for the traded-goods sector and its effects for the long-run growth of the economy. Depending on the importance given to lower inflation for economic growth and stability, it is arguable that a smaller effective depreciation of the krona in 1986 might have been desirable from the point of view of achieving a more balanced development of the economy.

III. SHORT-TERM OUTLOOK AND MEDIUM-TERM POLICY ISSUES

Short-term outlook

Following strong growth in 1986, the Government expects a further significant increase in output in 1987. The fish catch is beginning to approach harvest ceilings for some important species, so that the growth of marine production should slow somewhat. The overall catch may increase by about 5½ per cent in constant price terms, less than half the average growth experienced since 1984. The cod catch may rise by a somewhat smaller percentage, to a level of 360 thousand tons (the maximum sustainable harvest being in the vicinity of 400 thousand tons under current conservation policy), while the capelin catch is expected to fall slightly, in light of marine research indicating a deterioration in environmental conditions. In the remaining quarter of the export sector, capacity constraints will probably allow only modest increases in combined aluminium and ferro-silicon output. However, given a reasonable expansion in the output of woollen and other miscellaneous goods, the total volume of export production may rise by about 5½ per cent. On a value-added basis (net of imported materials), this increase would add roughly 1½ percentage points to GNP growth in 1987. A small increase in government employment and in the output of the other portions of the non-tradable goods sector may bring the total rise in GNP to about 3½ per cent.

On the demand side, the government projects a rise in public consumption of about 3 per cent in real terms and an increase in total investment of about 4 per cent, most of which is expected to come from the private sector (Table 6). Following the 1987 wage settlement the increase in consumer demand is likely, once more, to be rapid. The agreement is officially expected to lead to an increase in nominal per capita earnings of 22½ per cent over 1986, and since prices are expected to increase by 14½ percent, real disposable income will rise by at least 8 per cent. Allowing for a further rise in the savings ratio, private consumption is expected to rise by 5 per cent in volume. As a result, the official forecast is for a real increase in final domestic demand of nearly 4½ per cent. Total domestic demand is projected to rise even faster at 6 per cent, due to a cessation of the rapid rundown in export stocks that occurred in 1985 and 1986. Because inventories can no longer be used to satisfy foreign demand, the large increase in export production translates into only a small increase in export volumes of 1½ per cent. Coupled with a rapid expansion of imports, the contribution to real growth from the external balance will be negative (an estimated 2½ per cent of GNP), making for the 3½ per cent real GNP growth noted above. Even with the significant terms of trade improvement assumed in the official projection, the current account of the balance of payments is expected to return to deficit.

Risks to the forecast

While the official growth forecast is about a percentage point greater than that projected by the Secretariat for the OECD area, it is based on a worse inflation outlook, continuing favourable external conditions (which could be reversed), and a relatively loose budgetary stance. In these circumstances there are three main areas of risk which could upset the projections:

- Excessive wage increases could lead to pressure on the krona, and hence to accelerating inflation;
- Faster-than-expected growth in domestic demand, together with a less favourable outturn for the terms of trade, could lead to a greater deterioration in the current account and excessive foreign borrowing;
- External balance and exchange rate pressures could be accentuated by the weakness of the fiscal stance.

These risks are discussed in turn.

The inflation risk. The wage projections, based on the new settlement, may be optimistic given widespread excess demand for labour. Taking account of the usual slippage between negotiated wage settlements and actual outcomes, due to local agreements and wage drift, nominal wage increases may be more rapid than expected and the rise in real earnings higher. In such an event, the demand for imports would rise, the current account deteriorate and the profitability of the export sector suffer. Such developments would pose a clear threat to the stabilization gains made so far since pressure on the krona would increase, with risks of triggering a new wage-price spiral. Devaluation is precluded under the terms of the wage settlement, which is contingent upon the Central Bank maintaining the krona exchange rate (and hence the purchasing power of wages). But exchange rate stability would be difficult to maintain if further wage increases were accompanied by declining profit shares, which would be the case if wage increases became excessive.

Terms of trade risks. Even if real income and consumption grow in line with current projections, there is a significant risk that external events could negatively affect the value of net exports and possibly inflation. A key element of this year's forecast is a rise in the terms of trade of about 2 per cent. However, relative prices could move against Iceland, especially if a further substantial depreciation of the U.S. dollar were to take place. It is unlikely that movements in foreign trade prices would offset such a development, as they did in 1986. In recent months oil prices have firmed, and the price of exported capelin products should remain weak due to continuing world excess supply of feed and oil grains. If the forecast improvement in the terms of trade fails to materialise, it would be impossible to sustain the real wage gains embodied in the new wage settlement without increasing foreign borrowing and/or putting pressure on the profitability of the export sector.

Weaknesses in fiscal policy stance. While the recovery has facilitated the move to higher real interest rates, concessions made in the interests of achieving wage moderation mean that the fiscal imbalances have worsened and are not projected to improve much in the near future. Given the commitment to reducing foreign borrowing, non-inflationary domestic financing of the deficit could require a further rise in real domestic interest rates; otherwise monetary expansion could remain excessive and demand and price pressures could increase. Until fiscal stance is made independent of wage negotiations, the success of the disinflation programme will be, to some extent, dependent on circumstances outside the government's control, since sound budget finance may not be possible at politically-acceptable real interest rates.

Economic fluctuations and medium-term policies

The weak stance of fiscal policy illustrates the need for a medium-term anchor to budgetary plans, since the pressures induced by excessive borrowing emerge only gradually.

This is all the more important in the Icelandic case, since, as was pointed out in the last *Survey*, the economy is particularly sensitive to external shocks and environmental conditions. Because of its dependence on a relatively narrow resource base, and because it is a price taker on world markets, its output and export earnings are volatile. In the past the country has therefore experienced large and unpredictable fluctuations in the balance of payments and standard of living. In such a situation, medium and long-run policy should be directed towards minimising the costs of these economic disruptions, and finding ways to dampen the swings in output and foreign earnings. To this end, there are three potential guidelines available to policy-makers:

- The stance of monetary and fiscal policies should aim to keep the longer-run growth of consumption and investment in line with the expected long-run path of export earnings;
- Fluctuations in the value of exports should be met by the building-up and running down of foreign assets; and
- Swings in economic activity should be dampened, as far as possible, through industrial diversification.

Given that it is extremely difficult to estimate with precision the long-run path of export earnings, the first two guidelines may be reduced to the single proposition that the economy should be in external surplus when conditions are favourable (otherwise there would be a secular increase in external debt). In this case, the economy being in a relatively favourable cyclical position, the appropriate external position would currently be one of surplus. This suggests the need for a more restrictive fiscal and monetary stance in order to reduce domestic demand and lower imports.

However, the current level of total foreign indebtedness (public and private), at over 50 per cent of GNP, is already relatively high and needs to be restored to more normal levels. The medium-term outlook recently published by the authorities illustrates this "stock" problem. As part of its 1987 National Economic Programme, the government presented two possible scenarios for the economy through 1991. In the optimistic case, continued favourable marine harvests were assumed, with output growth averaging about 2½ per cent per year. Under these conditions, total foreign debt falls from 52 per cent of GDP in 1986 to only 38 per cent in 1991; this decline, although large in percentage terms, is achieved mainly through GNP growth and does not represent net amortization. Moreover, the improvement in the relative size of the debt depends on favourable economic conditions. In the government's alternative scenario, a "typical" contraction in the fish catch in 1989-90 reduces GNP growth to about 1½ per cent for the 1987-91 period, raising foreign indebtedness to a high of 57 per cent of GDP by 1991. A recession in the OECD could have similar effects on Icelandic growth. Current policies are thus designed to reduce the effective burden of debt only in relatively favourable circumstances.

As discussed in the last *Survey*, progress towards greater diversification is slow and necessarily partial. Although the country has abundant potential energy resources (hydroelectric and geothermal), their development requires heavy capital outlays, faces environmental constraints, and is contingent upon the expected path of future energy prices. With the fall in the price of oil the rate of return on these projects has declined, and uncertainty has increased about their long-run value. At the present time, it is unclear how fast and to what extent these domestic energy resources should be developed. In other areas, though, there has been progress. For example, the government has supported the rapid expansion of fish farming, an industry in which the country may possess some special advantages. Production has doubled in the past two years, and annual increases of over 20 per cent over the next five years are not considered unrealistic. If this new industry does grow this quickly, it could account for over 5 per cent of all exports by the early 1990s. The government is also reviewing the nation's investment policies, in the hope of finding ways to attract more foreign risk capital; however, such investment is limited by the availability of profitable capital projects and the desire to maintain the country's economic independence.

Although these initiatives are important, diversification and stability have been pursued primarily through reforms to fisheries management and marine research. In order to prevent overfishing, current legislation provides for catch quotas limiting the exploitation of all major fish stocks. These quotas were raised in 1986 and again in 1987, based on the Marine Research Institute's view that climatic conditions and the fish stocks have improved. Because catch quotas can lead to the inefficient use of boats and crews, management regulations have allowed boat operators to substitute "effort quotas", which specify the number of days a boat can be at sea, for direct limits on the size of the catch. Although effort quotas do not eliminate the overall inefficiency associated with the excess capacity of the fishing fleet, they do increase the yield per unit of fishing effort and boost profitability. Apart from these management measures, stability of the fishing sector has been increased through the increased exploitation of "new" species, such as shrimp.

The government has also attempted to improve the functioning of the economy through an increased reliance on market mechanisms. The most widespread changes have occurred in the financial system, which are discussed below. Also of significance has been the decontrol of prices. By late 1985 all controls on wholesale/retail price markups were removed, except for some food products. Some remaining controls, such as those on car and capital goods prices, are planned to be eliminated in the future. In the fishing industry, the pricing mechanism has been overhauled in order to clarify the relationship between foreign prices and those paid to domestic fishermen. Vessel operators now sell their catches to the processing industry at a price which is directly comparable to prices on foreign markets. This was not the case in the past, as various payments that side-stepped usual business channels made price comparisons difficult. These and other changes have made the setting of fish prices more flexible. In addition, studies are underway on the feasibility of establishing an Icelandic auction market for fresh fish.

IV. FINANCIAL DEREGULATION

Background to reform

Financial Institutions

The Icelandic financial system has been characterised by a high degree of government involvement in commercial banking, investment credit and foreign capital transactions. The banking system, which comprises the central bank, commercial and savings banks and a postal giro, is to a large extent government owned. (However, there are plans to reduce the government's ownership in this sector.) The insurance system includes private insurance companies, which are free to make their own investment decisions, but the portfolio behaviour of the pension funds is substantially determined by legislation. Capital for both residential and non-residential investment has been allocated partly by the banking system, but mostly by a number of investment credit funds (ICFs). Generally, these funds serve specific sectors of the economy, and specialise in long-term loans; they are restricted from accepting deposits, but have privileged access to Treasury funds and compulsory bond purchases, to which the pension funds are the largest contributors. The background to the reforms outlined below is that there have been no organised markets for money, bonds or foreign exchange.

Financial savings total about 90 per cent of GNP (Table 14)[6]. Just over half are held in the form of institutional savings, accumulated because of socio-legal requirements. Nearly two-fifths (33 per cent of GNP) are currently placed in the banking system. Together with government savings certificates and insurance reserves these make up "voluntary savings" equal to about one half of GNP. Portfolio shifts have been quite marked as a result of rapid and fluctuating inflation. Institutional savings (particularly pension fund savings) have increased as a share of the total, while bank deposits have fallen. Since the late 1970s, the ratio of narrow money to GNP has been the lowest of any OECD country, as savers have sought an inflation hedge, partly by borrowing to purchase real assets, partly by switching to indexed savings. As is described below, financial indexation has a long history, and is probably as highly developed in Iceland as anywhere in the OECD area.

The government takes about a quarter of total credit, borrowing 70 per cent of its needs abroad. The government's share of total credit has been increasing, to the detriment of businesses, whose share fell from 52 to 41 per cent between 1970 and 1986. Business borrowing (including relent credit via the banks and the Investment Credit Funds) is about 25 per cent financed by foreign borrowing, the foreign sector providing almost 40 per cent of all credit in 1986. Households now account for a quarter of all credit market debt.

Overview of reform

Financial markets, and in particular the banking system, have recently undergone an extensive process of liberalisation. New Acts governing the operations of commercial and savings banks came into effect at the beginning of 1986, followed by an Act redefining their

Table 14. **Credit market debt outstanding**

Millions of kronur at end of year

	1970	1980	1982	1983	1984	1985 (Prelim.)	1986 (Prelim. estimate)
Liabilities							
Treasury and government institutions	89	4 287	13 283	25 655	35 451	46 725	54 200
Local governments	21	1 041	3 666	6 225	7 979	9 833	11 250
Businesses	230	7 431	22 180	38 655	53 886	71 799	82 200
Households	103	2 724	9 514	19 061	27 563	42 840	53 270
Total liabilities	443	15 483	48 643	89 596	124 879	171 197	200 920
(Per cent of GNP)	(96.6)	(78.4)	(102.0)	(119.5)	(134.3)	(133.6)	(140.4)
Assets							
Domestic savings	350	9 677	27 434	51 003	66 515	99 178	123 300
(Per cent of GNP)	(76.3)	(49.0)	(57.6)	(68.0)	(71.5)	(77.4)	(86.1)
Voluntary	197	5 358	14 252	25 073	31 769	46 867	57 800
Notes and deposits	178	4 097	11 069	19 539	26 052	37 742	47 000
Saving certificates	11	905	2 220	3 930	3 700	5 675	6 800
Other	8	356	963	1 584	2 017	3 450	4 000
Institutional	153	4 319	13 182	25 930	34 746	52 311	65 500
Pension fund assets	34	1 922	6 613	12 651	16 987	26 200	34 200
Compulsory deposits with ICFs	8	251	554	985	1 096	1 470	1 700
Capital of financial institutions	78	1 778	4 882	9 540	13 555	19 943	24 000
Other	33	368	1 133	2 754	3 108	4 698	5 600
Foreign credit[1]	93	5 806	21 209	38 593	58 364	72 019	77 620
(Per cent total)	(21.0)	(37.5)	(43.6)	(43.1)	(46.7)	(42.1)	(38.6)
(Per cent of GNP)		(28.3)	(42.9)	(52.3)	(56.3)	(59.1)	(50.4)

1. Long-term and short-term loans, less short-term claims on foreigners, evaluated at *year-end* exchange rates.
Source: Central Bank of Iceland.

relations with the Central Bank in November. According to the new legislation, the commercial banks are now free to decide their own interest rates. However, stricter prudential guidelines have been imposed which should allow the Central Bank better control over the expansion of the monetary base. The reforms are the culmination of a series of measures designed to correct several interrelated defects in the previous system:

i) The inability of a system based on regulated interest rates to cope adequately with high and variable inflation, which has resulted in negative and highly variable real interest rates and a bias against saving;

ii) The weakness of monetary control, stemming from the automatic rediscounting of commercial "produce" loans by the Central Bank and the propensity of both the deposit money banks and the Treasury to run overdrafts at the Bank;

iii) A tendency for the credit rationing system to lead to a misallocation of scarce credit resources and an over-investment in some sectors.

These weaknesses have to be seen in the overall policy context. They derived as much from the use of monetary and exchange rate policies to cushion the economy against adverse supply shocks as from institutional defects *per se*. The momentum for financial market reform has built up as a result both of a change in the macro-policy mix – towards less accommodation – and a new commitment to free market principles. Given a highly indexed economy, the mix of monetary accommodation and currency depreciation favoured up to 1983 tended to lead to an explosive wage-price spiral. It also exacerbated the problem of a growing foreign currency debt which had to be serviced at high and increasing real rates of interest. The stabilization package introduced in 1983 put emphasis on exchange rate stability as a means of keeping inflation expectations in check and monetary policy has had to adapt to this. In practice, this has meant bringing real interest rates up to world levels, as measured by the real rate of interest paid on Icelandic debt (Table 13 and Diagram 7 below). Financial deregulation has been a means to this end, but it has not been an end in itself whenever it conflicted with other stabilization goals. The problems associated with the old system are briefly described in the following paragraphs; the succeeding sections review the recent move towards liberalisation and greater competition within the banking system and the reform of central bank monetary control; problems associated with credit allocation and foreign borrowing are discussed in the final two sections.

The era of interest rate regulation

Up to 1984, the monetary authorities regulated interest rates on all loans and deposits. Relations with the deposit money banks were maintained directly, there was no money market and the central bank set the interest rates that deposit money banks were allowed to charge. Indeed, with few exceptions, the law did not allow interest rates on domestic financial contracts made by other parties to exceed those set by the Central Bank. (Although financial paper could be sold on the secondary market with a discount, until recently such a market was virtually non-existent). The lack of freedom to set interest rates meant that real interest rates tended to be below true market rates, and a gap was created between domestic savings and demand for credit, which led to credit rationing and overseas borrowing.

The global rationing of long-term funds was accomplished through the annual Credit Budget, which set out targets for overall credit creation and overseas borrowing (private foreign long-term borrowing having to be approved by committee). However, as noted, lending was channelled through a set of quasi-autonomous entities known as the Investment Credit Funds (ICFs), which had privileged access to finance. The result was the frequent overshooting of credit Budget borrowing targets. Furthermore, because lending was linked directly to particular industries, the allocation of credit to various end-uses was both rigid and decentralised. Because interest rates were not fully used to ration credit, some ICFs had to rely on such arbitrary methods as queuing.

Short-term domestic loan activity was subject to a similar contradiction between attempts to limit the supply of money while subsidising borrowing costs. Without a domestic money market, reserve requirements and limits on borrowing from the Central Bank were vital to regulating money growth. However, these tools were rendered otiose by the institutional custom of rediscounting industrial loans. The Central Bank withdrew funds from the banking sytem through the reserve requirement, and channeled them directly into particular industries by rediscounting produce loans from the commercial banks. Generally these loans were linked to stocks. A fish producer for example would be able to borrow from his commercial bank an amount equivalent to 75 per cent of the value of his stocks. The Central Bank would then rediscount more than two-thirds of the loan, i.e. 52 per cent of the stock value would be financed by the Central Bank[7]. Borrowers of rediscountable loans enjoyed lower interest rates than others on the market. This automatic source of Central Bank finance led to fluctuations in the money supply, limiting the ability of the Central Bank to control the capacity of the DMBs to advance credit. Up to 1985, DMB deposits grew significantly more slowly than their advances (and slower than GNP), the difference being made up by borrowing from the central bank or, to a lesser extent, from abroad. Since all producers in the designated industries were entitled to such loans, lending was purely automatic. Over time, the reserve requirement had come to have little significance for monetary control, but became chiefly a means of channeling funds to industry. In addition, the Central Bank was unable to control its short-term lending to the DMBs and the Treasury, which ran substantial overdrafts. This has further compromised the ability of the Bank to control monetary expansion.

This "open-endedness" to money creation was aggravated by high inflation, as nominal interest rates were not flexible enough to keep real interest rates positive when inflation increased sharply (Diagram 4). Until the early 1970s, interest rate policy was purely passive; nominal rates varied little, leading to sharp swings in real rates. From 1973, a policy of gradually raising the cost of credit was initiated, but since the initial adjustments failed to keep pace with the acceleration of inflation, negative real interest rates widened again to about 30 per cent in 1974. Although the situation improved as inflation moderated in 1976, the Investment Credit Funds were forced to issue index-linked bonds to attract capital. That year also saw the introduction of a method of inflation-adjusting interest rates paid on deposits, via a so-called "interest premium" scheme. Under this system the rate on one-year deposits was divided into two parts, a base rate and a price compensation factor, which was to be formally linked to price developments. However, the premium (determined by the Central Bank) covered only a portion of the gap between the basic interest rate and the inflation rate, so that bank deposits declined in relation to GNP, and the demand for credit far exceeded available funds. Institutional savings grew strongly, the assets of pension funds in particular, both because these were protected by indexation and the system was being expanded[8]. This situation persisted, with interest premium loans yielding increasingly negative real interest rates as inflation accelerated, until April 1979 when the comprehensive Economic Management Act was passed. This Act provided for gradual implementation of a system of full-indexation of savings and credit – interest rates being ultimately fully adjusted to the inflation rate and time deposits becoming fully index-linked[9].

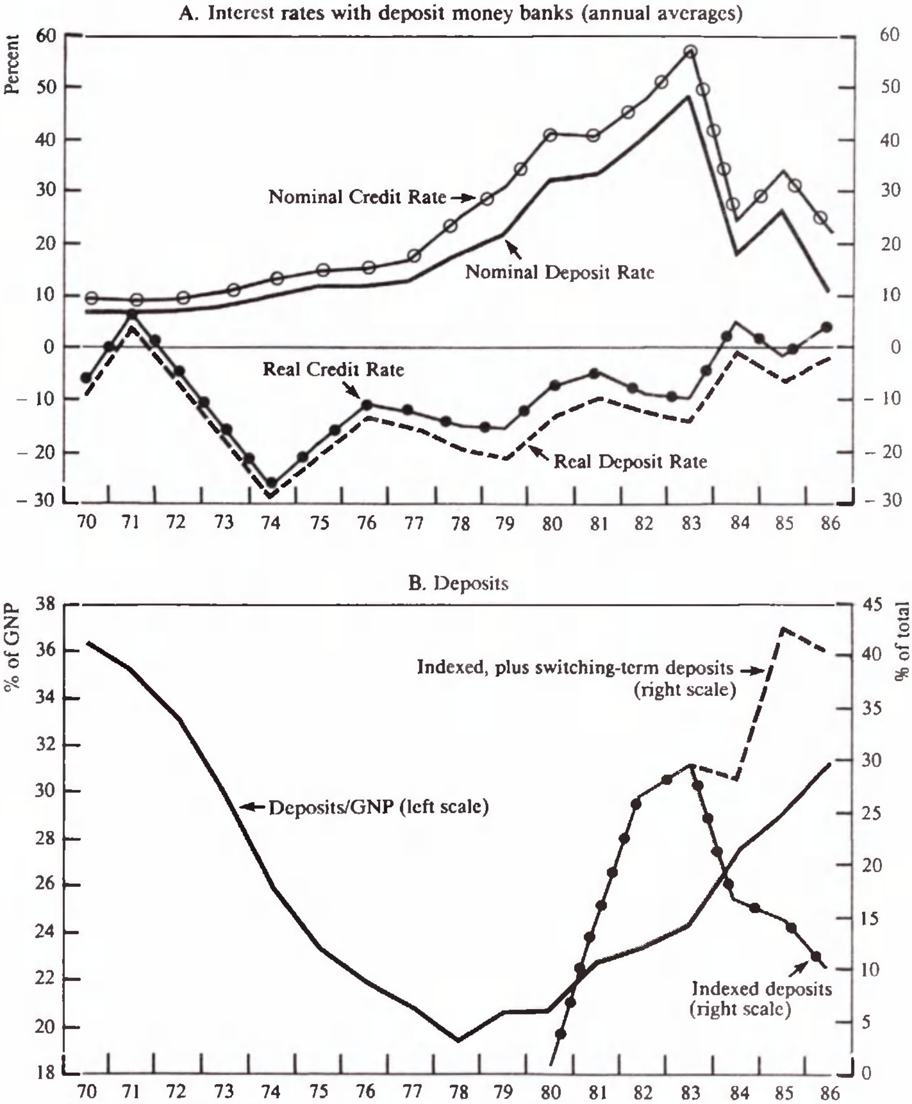
The growth of financial indexation, 1979-1983

The Economic Management Act provided for two different kinds of indexation, either through a full and direct indexation of loan principal, or through a supplement – a price compensation factor – to the interest rate. Whereas the former was mainly aimed at longer term assets, the price compensation supplement to the nominal interest rate applied to short-term debt obligations where direct indexation of the principal was thought to be difficult to administer. Full indexation of the principal has followed a credit terms index, calculated monthly since June 1979 on the basis of the cost-of-living index (with a weight of two-thirds) and the building cost index (one-third). Following the 1979 Act, price indexation became more widespread, and by 1981 (when inflation decelerated somewhat) indexation extended to loans of over 2½ years and to six-month deposits, which carried a real rate of 1 per cent. The alternatives offered by the banks were general savings and 3 and 12 month time deposits, with high nominal rates. Indexed accounts proved very popular, and by the end of 1982, one-third of total deposits in deposit money banks were indexed (Diagram 4B).

The 1983-84 stabilization programme

Even though the introduction of indexation led to positive interest rates on a large portion of the credit market, interest rates remained too low to equilibrate the supply and demand for

Diagram 4. **Interest rates and deposits**



Source: Central Bank of Iceland

credit. The unindexed part was still significant and, as inflation accelerated, it bore negative real interest rates, even though nominal yields were around 50 per cent. This encouraged speculative borrowing, which further accentuated the inflationary spiral caused by depreciation and wage indexation. The May 1983 package removed the automatic link between prices and wages and introduced a policy of greater exchange rate stability, which required a less accommodating monetary stance. To achieve this, and to stimulate domestic financial savings, the government decided to maintain indexation in the financial system and to reduce nominal interest rates by less than the fall in inflation. As price increases decelerated markedly, from mid-1983, real interest rates rose considerably, as intended. Nevertheless, credit demand remained excessive, growing much faster than deposits, and suggesting that real rates based on expected inflation were still relatively low.

Liberalisation and the growth of competition

Enhanced role of market forces in interest rate determination

The longer-run aim of the stabilization programme was to establish a decentralised framework for economic decision-making, in which a relatively restrictive fiscal and monetary policy could be implemented against the background of a greater role for market forces. In 1984, steps were taken to make interest rates more market determined. As a first experiment, 90-day Treasury bills were offered for sale monthly from March to November of that year. (However, the banks were not particularly attracted by these bills on the terms acceptable to the Treasury, and when inflation picked up towards the end of 1984 the sales stopped.) The next step, and far more important, was granting the deposit money banks greater authority over their interest rates. As of August 1984, the DMBs were allowed to decide all interest rates except those on general savings accounts, rediscountable produce loans and penalty rates (Table 15). Nonetheless, the Central Bank reserved the right to veto the DMBs' decisions and it used this authority on several occasions in 1985. However, as of 1st November 1986 the DMBs have been completely free to set all their interest rates on deposits and credit, although the Central Bank still decides penalty rates on overdue payments. The new law also contains a provision that allows the Bank to intervene if real interest rates become "higher than those generally prevailing" in Iceland's trading partners or if there is an "inordinate margin between deposit and lending rates of interest".

Table 15. **The determination of interest rates 1984-1986**

21 January 1984	11 August 1984	1 January 1985	1 March 1986	1 November 1986
The Central Bank controls interest rates, but allows the DMBs to fix interest rates on Interbank lending and 6-month time deposits.	Central Bank delegates the control of interest rates to DMBs but reserves right to override DMB decisions[1]. Exceptions: General savings	Central Bank resumes control of nominal interest rates on indexed loans.	Interest rates on general savings accounts deregulated, but control of non-indexed bonds resumed. Hence all interest rates on bond loans regulated.	New legislation effective. DMBs decide all interest rates except penalty rates. The CB can interfere if domestic real interest are excessive compared to foreign interest rates, or interest rate margins are excessive.

1. This right was used on several occasions, especially in 1985 when the DB overruled decisions by the DMBs to raise interest rates on the credit side.
Source: Central Bank of Iceland.

Greater competition for deposits

As a result of the freedom to set their own rates, average real interest rates on deposits have risen as the banks have had increasingly to compete among themselves and with other institutions for financial savings. The average real rate of interest on loans reached 5 per cent in 1986, while that on deposits became nearly positive (Diagrams 4 and 5). To maintain competitiveness, the banks have introduced "switching term deposits", where the terms switch between ordinary and indexed conditions according to which is more favourable to the depositor. This type of deposit now accounts for over 30 per cent of all deposits (Table 16). At the same time, in response to higher real rates the ratio of total DMB deposits to GNP has recovered to 31 per cent of GNP (Diagram 4). This portfolio shift probably reflected the lower opportunity cost of holding money as inflation fell; it was also evidenced in a decline in the velocity of the broad money aggregates (see Table 12 above).

Table 16. **Balance sheet ratios of deposit money banks**

Per cent of total

	Year-end			
	1983	1984	1985	1986
Financial assets:				
Foreign currency denominated	35.8	41.8	37.9	29.9
Indexed loans	24.6	17.2	22.2	24.2
Other	39.6	41.0	39.9	45.9
	100.0	100.0	100.0	100.0
Financial liabilities:				
Foreign currency denominated	37.0	39.5	34.0	27.7
Indexed deposits	13.6	7.4	7.7	6.7
Switching accounts	–	5.0	13.7	17.7
Other liabilities	43.1	42.4	38.4	41.4
Capital, etc.	6.3	5.7	6.2	6.5
	100.0	100.0	100.0	100.0
	Per cent of total deposits			
Memorandum items[1]:				
Indexed accounts	29.7	16.9	15.0	10.6
Indexed plus switching accounts	29.7	28.2	42.8	41.1
Liquidity ratio	–5.1	–8.1	–5.3	–2.3

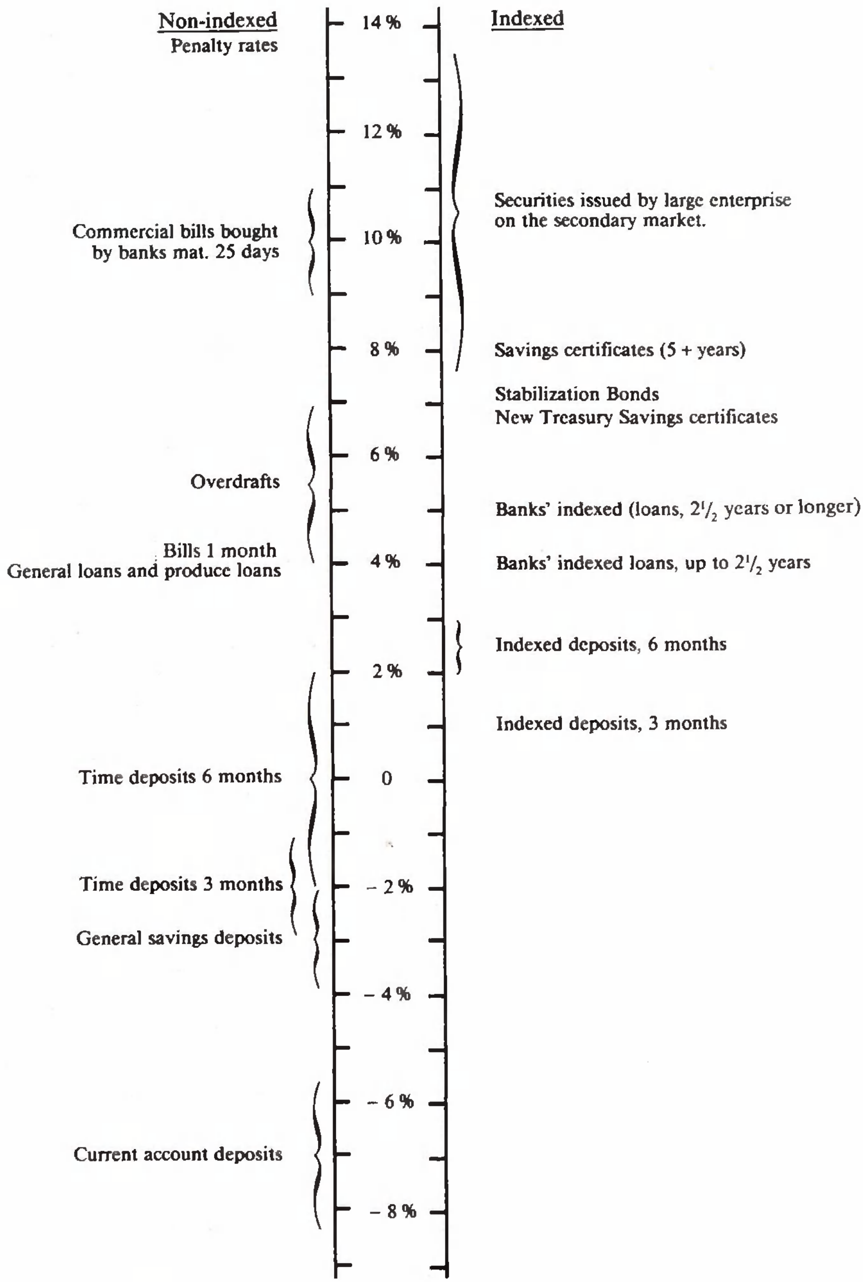
1. From deposit money bank's accounts.
Source: Central Bank of Iceland.

Reform of the monetary control system

The pace of reform has been influenced by macroeconomic conditions and the associated precarious state of commercial bank balance sheets. The inflationary shock experienced in the 1982-84 period highlighted several weaknesses of the banking system:

i) An inability on the part of the Central Bank to prevent excessive monetary expansion, because of the automatic accommodation of demands for commercial credit;

Diagram 5. **Real interest rates**[a]



a. Real interest rates as of October 1986, evaluated according to inflation rate of 11.7 %.

ii) A threat to the stability of the banking system from (a) a deterioration in the liquidity position of the commercial banks as the growth of deposits fell short of advances, causing them to make up for this deficiency by borrowing short-term from the Central Bank and abroad; and (b) an erosion of the DMBs' profit margins and capital base as the inability to vary interest rates caused competition to centre on an (over-)expansion of retail operations.

iii) Increasing recourse to central bank borrowing by the Treasury, as the budget deficit rose and portfolio shifts reduced demand for government bonds.

These weaknesses have necessitated major reforms of the system of rediscounts; a curtailment of DMB borrowing rights at the Central Bank and a strengthening of banks' prudential balance sheet ratios; and agreement to curtail government access to the central Bank.

Abolition of produce loan rediscounting

The rediscounting system was abolished in 1985, when all produce loans were recalled. Discounting of foreign currency-denominated export produce loans was replaced by a limited SDR facility (equal to about 16 per cent of rediscounts), apportioned among the banks according to size, and not directly linked to particular lending activities. The SDR facility carried rates in line with international ones. For the rest, the banks were allowed to borrow directly from abroad, up to a maximum of 75 per cent of export stocks placed as collateral. For many of the banks, the SDR facility is thought to be sufficient to finance all export-produce loans granted, making it unnecessary to look for funds in international markets.

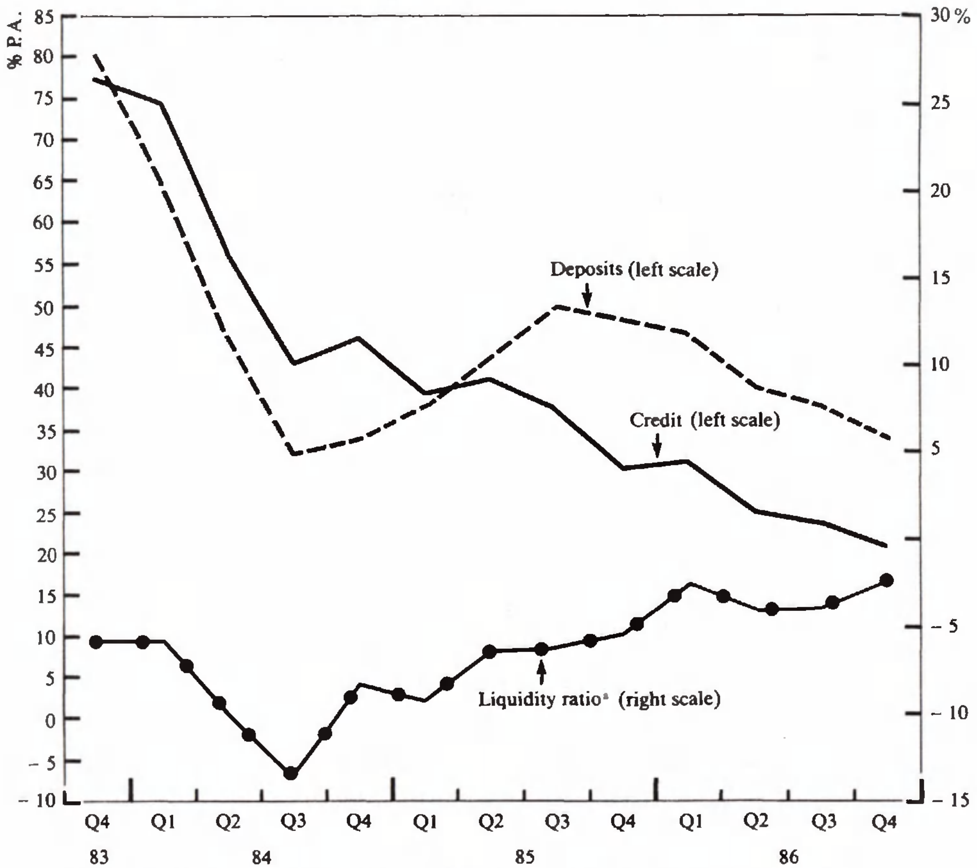
Recall of domestic produce loans was financed by cutting the required reserve ratio from 28 to 18 per cent of deposits. For most deposit money banks, freed reserves exceeded loan repayments to the Central Bank, in which case the balance was paid with securities issued by the Central Bank. If reserves freed did not offset the produce loan debt, the institution in question was granted a long-term loan. Financing of new produce loans now rests completely with the DMBs with loan rates increasingly related to domestic rates. Furthermore, as a result of the reforms, an interbank market has emerged. Until recently this had not existed, and the rediscounting/reserve requirement system assumed that function. Given the new freedom for banks to set their own interest rates a role for such a market has been created[10].

Improvement of commercial bank balance sheets

In the past, Central Bank attempts to control monetary expansion were thwarted as much by a deterioration in the liquidity and balance sheet position of the commercial banks as by the need to safeguard company cash flow via the rediscounting scheme. As deposits failed to keep up with credit expansion the DMBs borrowed from the Central Bank and from abroad, so that the net short-term assets (excess reserves minus short-term borrowing from the Central Bank) became negative in the period 1982 to 1984 (reaching a record year-end low of -8 per cent of deposits) (Diagram 6). This deterioration occurred despite the introduction, in 1982, of high and increasing penalty rates on DMB overdrafts at the Central Bank. Circumstances – falling GNP and increasing fish stocks – proved to be unfavourable to a tightening of central bank credit, which would have put additional strain on the DMBs at a time when their financial structure was weak.

Overdraft rules were tightened in late 1984, with less emphasis being put on penalty rates, and more on the direct prohibition of such loans. DMBs that overdraw their accounts in the Central Bank have to provide explanations and apply for short-term accommodation in another form. The accommodation is conditional on agreements on ceilings on credit expansion[11]. Under the new system, and with improving economic circumstances, the

Diagram 6. **Credit expansion and the liquidity position of the deposit money banks**



a. Excess reserves minus short-term borrowing from the central bank, as a ratio of deposits
Source: Central Bank of Iceland

liquidity position of the DMB has recovered somewhat, but it was still negative, at 2¼ per cent of deposits, in December 1986. It remains the aim for the DMBs to move into a positive liquidity position, in order to create a buffer against export volatility and to allow scope for open market operations.

As a further step in this direction, in February 1987 the primary reserve requirement, for which the only eligible assets are deposits held at a blocked account with the Central Bank, was cut from 18 to 13 per cent and a liquidity ratio of 7 per cent introduced. The base for this secondary reserve requirement includes deposit and other liabilities except relent foreign loans. Eligible assets have maturities of not more than three months, and include Treasury Bills. Some 60 per cent of the reduction in the primary reserve requirement was paid out in the form of such bills, and the rest deposited on current accounts, so that the total reduction became eligible towards the secondary requirement. The purpose of the reform is to move away from direct Central Bank involvement in commercial bank finances, to develop the interbank market further and to create a market for Treasury Bills as a basis for open market operations. The ratio and the base for the secondary requirement were selected in such a way as to offset the monetary impact of the reduction and the Bank has announced that further revisions may have to be made so as to ensure that the reform does not result in monetary expansion.

With increasing competition for deposits, the era of regulated interest rates saw a tendency for the DMBs to over-expand retail operations and an increasing Central Bank concern about the profitability of the banking system. The process of disinflation has also caused some strains, as in early 1984 when the terms on unindexed claims suddenly exceeded indexed ones, so that savers reacted by moving out of indexed into un-indexed accounts. This created an imbalance between indexed assets (the banks having considerable sums tied up in indexed loans) and the indexed liabilities of the deposit money banks, which fell quite sharply (Table 16). This had an unfavourable effect on their profitability in the first half of 1984[12]. An additional matching problem arose in 1984 when DMB borrowing from abroad caused their foreign current liabilities to exceed their assets (Table 16). This exposed the banks to exchange rate risks and further reduced the effectiveness of monetary control[13]. Efforts to reduce these risks have resulted in an improved matching of assets and liabilities (Table 16). In September 1984, a regulation was issued stipulating a balance between foreign assets and liabilities. The DMBs are required to maintain a balanced foreign exchange position in order to avoid exchange risks, and limits are placed on the foreign financing of banks[14]. The new legislation on commercial banks which came into effect on 1st January 1986 consolidated and expanded these changes. The banks (as of 1st November) are free to set their own interest rates, but are supposed to maintain a minimum capital/reserves ratio of 5 per cent, while holdings of real estate are not to exceed 65 per cent of capital and own reserves.

Attempts to reduce Central Bank financing of budget deficit

In recent years, the annual cash deficit of the Treasury has been financed by the Central Bank, either by using the overdraft facility or by bond issues. 1983 and 1985, in particular, saw a serious deterioration in central government finances, with net borrowing requirements of 4½ and 4 per cent of GNP respectively. Of this, amounts equal to 2 and 2½ per cent of GNP, respectively, were borrowed from the Central Bank. In 1986, increases in public sector salaries and wage-linked social security benefits subsequent to the February agreements were financed via a Treasury overdraft at the Central Bank, although for the year as a whole Treasury debt at the Bank fell.

Treasury recourse to borrowing from the Central Bank has increased substantially since 1982, reaching a peak of nearly 4 per cent of GNP at the end of 1985 (Table 17). Indeed, as DMB credit expansion has slowed, the use of central bank credit by the Treasury has become one of the main elements in monetary expansion. Base money increased by 40 to 50 per cent in 1985 with the Treasury deficit accounting for up to three-quarters of the increase[15]. The new Central Bank Act seeks to reduce the direct financing of the budget deficit at the Central Bank. The use of overdraft facilities by the Treasury will henceforth be limited to financing the government deficit within the year. Any overdraft outstanding at the end of the year must be paid within three months. Consistent with this policy, the Treasury's current account deficit was cleared at the end of 1986, reducing the level of outstanding Central Bank claims on the Treasury to 2 per cent of GNP. The subsequent reform of the reserve requirement system regularised this reduction, by creating Krona 1.4 billion of short-term loans from the DMBs to the Treasury, in the form of Treasury Bills. The Central Bank is allowed to purchase such securities as part of a move to expand its open market activities.

Table 17. **Central Bank claims on the Treasury**

Kronur, million

	Year end				
	1982	1983	1984	1985	1986
Change	–71	1 315	–214	2 873	–1 430
Claims outstanding	155	1 470	1 256	4 129	2 699
(Per cent of GNP)[1]	(0.4)	(2.5)	(1.6)	(3.9)	(1.9)

1. Per cent of GNP during the year.
Sources: Central Bank and OECD Secretariat calculations.

Part of the difficulty in financing the government deficit has arisen from the fact that financial liberalisation has caused a marked portfolio shift away from government certificates, as yields on alternative forms of saving have improved. 1984 saw a particularly marked switch out of saving certificates into certificates of deposit. As part of the steps taken in 1984 to find alternative sources of finance, and to evaluate the effects of moving interest rates towards market rates, the Treasury was permitted to sell Treasury Bills by auction. But the Treasury was not bound to accept bids below a given limit and, at the yields demanded by the market, the amounts offered were quite small. Interest waned as the Treasury began to turn down bids on the grounds that they were too low[16]. Treasury Bills were not, until the February 1987 reform, a significant factor in the financing of the Treasury deficit, so that a potentially important instrument of monetary control did not gain a foothold in Iceland. Treasury paper in general has had a high illiquidity premium and the Government has not been willing to pay the initial interest rate costs of establishing a market which would bring the premium down.

Investment and the allocation of credit

The investment credit funds

In deregulating DMB interest rates and tightening monetary control, the objective has been to counteract the inflationary expansion of domestic borrowing, which has led at times to a rapid and speculative growth of consumer good imports. However, there have also been doubts about the viability of some investment projects undertaken with a rate of discount kept artificially low by regulated interest rates, especially in the face of much higher interest rates on foreign borrowing and over-capacity in the fishing sector, which has led to negative profitability (Table 18). While real rates of interest on domestic credit were below those on foreign borrowing, Iceland experienced a rate of investment higher than generally elsewhere, financed by capital imports. The gap between the real interest rate in Iceland and abroad was negatively correlated during the 1970s, both with the current account deficit and the difference between the investment/GNP ratio for Iceland and that for the rest of Europe (Diagram 7). A high rate of investment has probably been a net positive factor in Icelandic growth (including the move to diversification) but as real rates on domestic loans have risen to virtual parity with rates charged on overseas borrowing, investment has fallen back: this may suggest the possibility of "over-investment" under the regime of subsidised interest rates. Some over-investment may have been encouraged, and facilitated, by the system of investment fund allocation, which has relied heavily both on priviledged savings channels and

Table 18. **Profitability of the fishing sector**

Per cent of gross income	1982	1983	1984	1985	1986[1]
I. Gross profits[2]					
Fishing, total	4.9	7.3	7.0	9.7	18.0
Trawlers less than 500 GRT	8.9	8.1	8.0	11.1	19.6
Trawlers larger than 500 GRT	7.4	4.7	8.2	10.5	18.2
Boats	-0.6	7.1	5.6	8.0	16.3
Fish processing, total	2.5	4.6	4.3	6.1	8.2
Freezing plants	3.1	4.9	5.7	5.5	6.1
Saltfish processing	1.1	3.9	-0.6	7.7	13.0
II. Net profits[3]					
Fishing, total	-11.1	-9.3	-9.0	-3.8	6.2
Trawlers less than 500 GRT	-9.7	-11.3	-10.1	-3.9	6.8
Trawlers larger than 500 GRT	-9.9	-11.2	-5.4	-1.2	8.3
Boats	-12.8	-6.6	-8.6	-4.0	5.2
Fish processing, total	2.9	2.0	-4.9	-2.0	0.8
Freezing plants	2.5	1.8	-4.0	-3.1	-1.8
Saltfish processing	3.6	2.4	-8.3	-0.9	7.0

1. Estimate.
2. Operating surplus excluding cost of capital, i.e. interest payments and depreciation.
3. Gross profits less interest payments and depreciation.

Source: National Economic Institute, Iceland.

on quite rigid access to funds. The Investment Credit Funds, with their close connections with particular sectors (Table 19), have a large degree of rigidity, making for a potential misallocation of resources. The system has come under review in recent years. No fundamental reform has been undertaken, but a notable innovation in long-term finance, to date, has been the establishment of an Icelandic securities exchange. The first transactions took place in March 1986. This represents a first step towards erecting an equity base for industry.

Table 19. **Financing of investment credit fund lending**

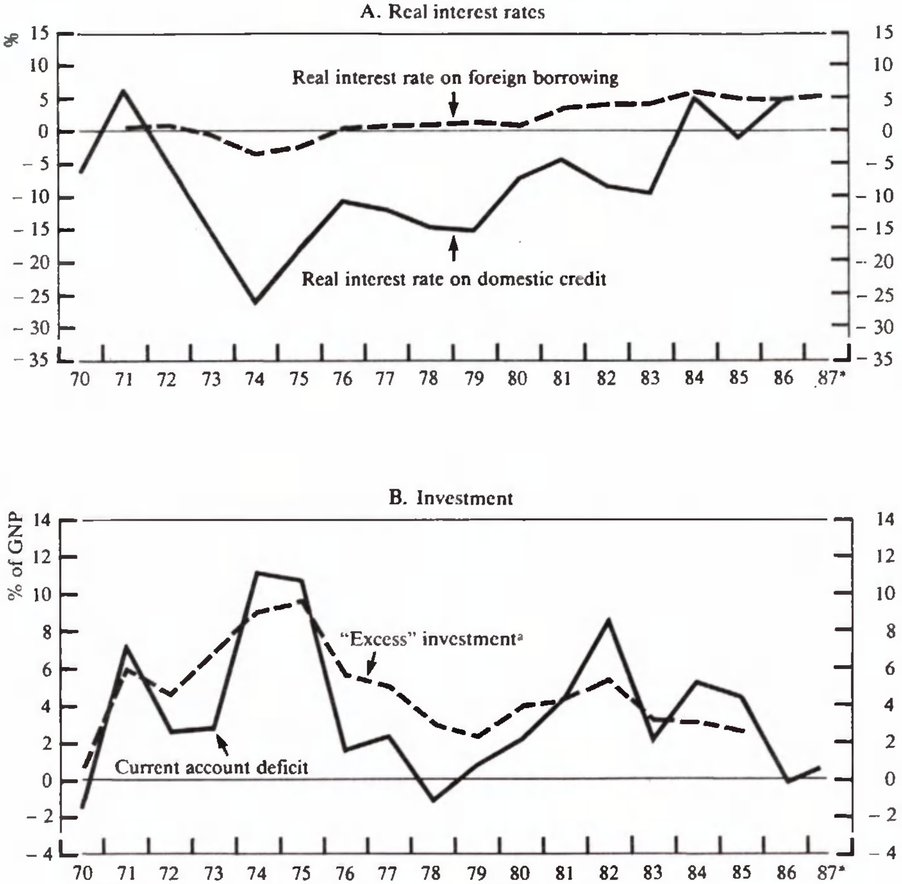
Percentage distribution

	1981	1982	1983	1984	1985
Own resources, net	2	-16	-14	-10	-10
Tax revenue and grants	29	29	29	18	31
Borrowing	69	87	85	92	79
Foreign	16	40	28	42	30
Domestic	53	47	57	50	49
Treasury		–	6	12	10
Banking system	13	6	5	10	2
Pension funds	25	25	30	17	25
Other compulsory savings	12	13	16	10	10
Other	3	3	–	1	2
New lending	100	100	100	100	100

1. A minus indicates an increase in cash and deposits.

Source: Central Bank of Iceland.

Diagram 7. **Real interest rates and investment**



a. Difference between Iceland and the average of OECD Europe
*Forecast
Source: Central Bank of Iceland and OECD Estimates

Established at the initiative of the Central Bank, the Icelandic Securities Exchange was a response to the growth of a secondary market for securities, mainly government bonds. A small market for government paper developed in the early 1980s. Other bond issues were practically non-existent until 1984, when interest rate deregulation made it possible for private enterprises to obtain domestic financing by offering competitive yields on their bond issues. Statistics on the market are as yet poor, transactions remain rather low, and the market remains to be more fully developed. But even so. the exchange is proving helpful in evaluating trends in domestic market rates.

Housing finance

An important example of distortions caused by financial intervention (in combination with the influence of the tax system) is housing finance. Subsidised interest rates have encouraged investment in residential property, which accounts for most of household wealth. Financial deregulation brought higher real interest rates, but these, together with the prevalence of short maturities on bank and private lending for housing finance, created social tensions during the 1984-86 period. As a result, housing finance became an issue in the February wage negotiations, the government offering concessions in the form of a new system. Under this system a much higher part of home building and buying will be financed by long term loans granted by the state building funds at subsidised interest rates.

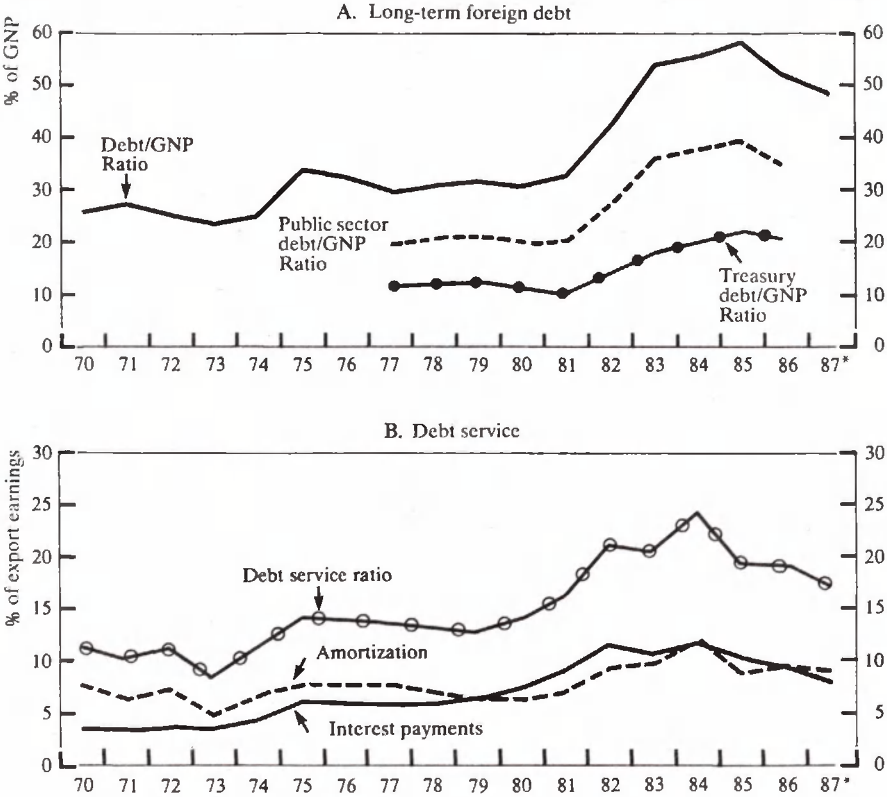
The expected increase in mortage credit will be financed by greater pension fund lending to the state building funds and the Treasury at the expense of pension fund lending to individuals. In recent years, pension funds have had to allocate 40 per cent of their disposable funds to the purchase of bonds from the investment credit funds, with the totals for 1984 and 1985 falling below this ratio in practice. Following the recent change, they are essentially obligated to take up ICF bonds to the value of 50 per cent of their disposable funds, namely from the Housing Agency[17]. The pension funds are currently guaranteed a real rate of return of 6½ per cent on their lending, with individual borrowers being charged 3½ per cent – a subsidy of 3 per cent. At the same time, the disposable funds of the pension funds are forecast to expand quite rapidly as a result of the February agreement to increase pension fund premiums in the years 1987-1990. The reform of the housing finance system, with its priviledged access to institutional savings and subsidisation of interest rates, runs contrary to the current trend towards liberalisation.

Domestic savings and foreign borrowing

Table 14 illustrates the growing dependence on direct borrowing from abroad during the eighties. In 1970, loans from abroad were equivalent to 20 per cent of all outstanding credit system loans; by 1980 this had risen to nearly 40 per cent. By the end of 1986 overseas claims equalled nearly 39 per cent of all credit and the total (public and private) foreign debt amounted to 50 per cent of GNP. Over two-thirds of public sector debt is now financed abroad, an exceptionally high ratio which the 1987 Budget intends to begin correcting. An important rationale for financial market reform has been the need to reduce the growing dependence on external finance, by raising the domestic savings rate[18].

With external borrowing subject to close government control, Icelandic credit assessment is not an issue. The overseas debt is conservatively managed, with an average maturity of 11.0 years, an amortization pattern of 8 to 9 per cent per annum, and a virtual equality of fixed and floating debt (Table 20). Currency exposure is also split evenly between U.S. dollars and non-dollar currencies. However, real interest rates have averaged 5½ per cent in the last five years, while GNP has grown by about 1½ per cent a year in real terms over the same period. It should be noted though that this period includes the unusually severe contraction in 1982. The recent fall in interest rates still leaves real rates at 4.8 per cent (Table 20). There has thus been a gap between the real return on capital and its cost which, if it were to re-emerge after the rapid cyclical upturn of the last two years, would be reflected in an increasing ratio of debt interest to GNP, and in higher public sector payments of interest relative to revenues (Table 20 and Diagram 8). To contain the upward pressure on the debt/GNP level that this would cause would necessitate offsetting developments in the non-interest components of the current account, so that domestic demand would need to grow for some time at a slower rate than GNP. Amortization of the debt would require even slower growth. Financial deregulation, by raising the opportunity cost of domestic borrowing, should raise domestic savings, but there still remains the legacy of past borrowing which needs to be corrected.

Diagram 8. **Overseas debt and debt service**



* Forecast
Source: Central Bank of Iceland

Concluding remarks

The aims of the financial reform programme have been to restore better balance between the supply and demand for credit, remove the biases which have caused excess money creation, and bring external borrowing back under control. Crucial to the achievement of these aims have been the restoration of positive real interest rates and a tightening of central bank control over the balance sheet expansion of the commercial banks. During the era of regulated interest rates, institutional rigidities (related to political resistance to higher interest rates) meant that real rates were usually substantially negative in the face of accelerating inflation, so that the propensity to save was weakened and over-investment occurred. Financial indexation has been used with effect to restore confidence in monetary assets and, together with the greater freedom for the deposit money banks to compete on interest rates, positive real interest rates now obtain on all monetary instruments except demand deposits. Real rates on domestic borrowing are also linked more closely to those paid on foreign loans. Financial savings, including bank deposits, have increased considerably; there has been a return to more normal patterns of portfolio behaviour and investment has been pruned back.

Table 20. **The structure of foreign debt**

A. AVERAGE INTEREST RATES ON EXTERNAL FUNDED DEBT

	Weight 1985	Nominal interest rate[1]					Real interest rate[2]				
		1982	1984	1985	1986	1987[3]	1982	1984	1985	1986	1987[3]
By borrower:											
Public sector	68.1	11.5	10.5	9.2	8.9	..	5.3	5.8	5.0		
of which: Treasury	38.6	11.5	10.9	9.6	9.4	..	5.3	6.2	5.4		
Financial institutions	23.7	12.3	10.1	9.4	7.7	..	6.0	5.5	5.2		
Private sector	8.3	12.2	10.5	9.2	8.7	..	6.0	5.8	5.0		
Total debt	100	11.8	10.4	9.3	8.8	7.7	5.6	5.7	5.1	4.8	4.4
By interest rate:											
Fixed rate	50.0	9.3	9.2	9.4	9.4	9.1	3.2	4.6	5.2	5.5	5.4
Floating rate	50.0	14.4	12.0	9.2	8.2	7.2	8.0	7.3	5.0	4.3	3.6
of which: LIBOR-USD	..	14.4	12.5	9.4	8.5	.	10.1	8.2	5.2		
By currency:											
U.S. dollars	52.3	13.2	11.8	9.7	9.0	..	9.0	7.5	5.7		
Pounds sterling	5.9	14.7	11.8	13.4	12.9	..	8.8	6.9	7.3		
Norwegian kroner	1.3	9.3	10.2	10.6	11.5	..	–2.6	4.1	4.7		
Swiss francs	8.7	6.2	6.8	6.8	6.5	..	0.7	4.0	3.5		
Dutch guilders	2.6	9.9	8.7	9.1	8.2	..	5.4	5.7	7.3		
Deutschmark	9.7	7.9	8.3	8.1	7.7	..	3.2	6.2	6.2		
Japanese yen	1.7	10.4	7.7	8.1	7.9	..	8.5	5.0	6.2		

B. MATURITY STRUCTURE OF TOTAL EXTERNAL FUNDED DEBT

Amortization in per cent of debt outstanding at the end of the year

Year	1	2	3	4	5	6	7	8	9	10	Over 10	Average maturity
Average 1979-85	9.2	10.1	10.3	11.1	11.3	10.1	9.9	8.1	6.4	5.0	8.5	11.0 years
1986	8.0	7.6	9.3	8.6	8.4	12.7	13.7	6.1	6.4	5.9	13.3	12.4 years

1. Yearly interest payments in per cent of average debt outstanding in the beginning and end of year, less ½ of net borrowing (new borrowing minus repayments).
2. Calculated from consumer price indexes. Per cent change in December over corresponding period of previous year.
3. Estimated.

Source: Central Bank of Iceland.

At the same time, reforms to central bank operating procedures (particularly the removal of automatic rediscounting of produce bills at the central bank) and new rules governing commercial bank balance sheet ratios, promise eventually to strengthen both DMB liquidity and the ability of the central bank to tighten monetary conditions when necessary.

On the other hand, some weaknesses remain:

– *Interest rates.* Although the new Central Bank Act delegates wide powers to the DMBs, the Bank can override DMB decisions if real interest rates are out of line with foreign rates, or if DMB profit margins are "too high". These provisions imply quite broad scope for the Central Bank to set interest rates and might still imply a bias towards too easy credit;

- *Monetary control.* Although Central Bank lending to the DMBs is less automatic under the new regulations, the scope for affecting DMB lending via their balance sheets is still limited because of the restricted scope for open market operations, while DMB liquidity is still too weak to permit the use of special reserve requirements;
- *The Budget deficit and its financing.* Treasury overdrafts at the Central Bank have become the main source of monetary expansion as control over the DMBs has been tightened, the budget deficit has increased and liberalization has caused a portfolio shift away from government savings certificates. Although direct monetization of the Treasury borrowing requirement is now excluded by legislation, the absence of a mature Treasury bill and bond market remains a lacuna from the point of view of budget finance and monetary control;
- *Credit allocation.* A high proportion of savings is directly channelled – a feature enhanced by the recent housing finance reform. This serves to make Icelandic credit markets even thinner than they otherwise would be. In particular, the move to increase the amount of savings going into housing reflects the impediments which exist against moving to a system of competitively set interest rates, where the extent and composition of investment is primarily market-determined.

How important these weaknesses prove to be depends (in the absence of a fully independent Central Bank) on the set of priorities adopted for economic policy. To some extent, problems arise because of the small size of the Icelandic economy, which makes a rational structure of interest rates (or company capitalisation) difficult to maintain. This difficulty reinforces the need – recognised during the process of deregulation – to focus on external financial conditions as a point of reference, by stabilizing the exchange rate and/or achieving real interest rates in line with those abroad. Improvements in the external sector have allowed this goal to be achieved recently, but the system could again come under strain if the terms of trade were to deteriorate, calling for real interest rates to rise further.

CONCLUSIONS

When the last Survey of Iceland was published in May 1985, the country was in the process of implementing a stabilization programme launched in May 1983. The initial phase of the adjustment package was rather successful. Owing to greater nominal exchange rate stability, wage de-indexation and a statutory incomes policy, inflation abated markedly – from an annual rate of more than 130 per cent in the early months of 1983 to around 15 per cent by the third quarter of 1984. However, following a month-long strike, the wage settlement of autumn 1984 and the accompanying large depreciation of the exchange rate led to a reacceleration of price and wage increases to some 25 to 30 per cent in early 1985. Moreover, lack of control over money and credit creation and a rising public sector deficit were reflected in the re-emergence of a large current external deficit and expanding foreign debt. There was therefore doubt as to whether further progress towards sustained and balanced non-inflationary growth would be achieved over the following two years. Greater fiscal and monetary discipline was seen at the time as a necessary condition for correcting internal and external imbalances.

In many respects, performance in the two years to 1986 has been much better than anticipated, as the Icelandic economy benefited from an unusual set of favourable circumstances, both at home and abroad. Rising fish catches, lower international interest rates and a marked improvement of the terms of trade, in the wake of a reduced oil bill and rising fish prices, led to a gradual elimination of the current external deficit. In the past two years, real GNP grew in total by nearly 9½ per cent and gross national income by about 12½ per cent. Full employment was maintained but progress in the fight against inflation was less satisfactory. Consumer price increases reaccelerated to 32.4 per cent in 1985, before falling to around 21 per cent in 1986. The deceleration in the course of last year was more impressive, with price increases falling to around 13½ per cent in the 12 months to December, compared to 36 per cent in the course of 1985. However, this was largely accounted for by the substantial improvement in the terms of trade and the fiscal concessions granted by the authorities in exchange for wage moderation. With more relaxed financial policies and extremely tight labour market conditions, earnings actually rose more in 1986 than projected at the time of the national wage agreement in February. This prevented a more rapid dampening of domestic cost pressures and contributed to the persistance of inflationary expectations.

Prospects for 1987 point to a further significant expansion of real GNP and national income, with continuing full employment. However, the current external balance is projected to move back into deficit, while considerable uncertainties attach to the inflation outlook. Given the outcome of the recently concluded 1987 wage settlement, nominal per capita earnings are officially expected to grow by 22½ per cent this year and real disposable income by some 8 per cent, far in excess of developments in other OECD countries. This development may be incompatible with the maintenance of internal and external equilibrium. Against the background of continuing tight labour market conditions, there is a risk that wages will advance faster than officially projected, putting additional pressures on the current external balance, business profitability, and, eventually, the exchange rate. Given the risk of renewed acceleration of the cost-price spiral, adoption of a more effective anti-inflation strategy is needed, calling for greater commitment to non-accommodating fiscal and monetary policies.

In spite of favourable macroeconomic conditions, no significant progress has been made in cutting the Central Government budget deficit in the last two years. In fact, the underlying structural position has probably deteriorated. Given the large overruns typical of the past, it is particularly important that any slippage in the implementation of the 1987 budget be avoided and that initial objectives be achieved. Indeed, in present circumstances, this is a minimum requirement. In view of the outcome of the last wage settlement, serious consideration might even be given to a further tightening of fiscal policy. A more determined attitude towards fiscal restraint would be desirable on various counts:

- In conditions of full employment and emerging bottlenecks in some segments of the labour market, excessive public sector claims on resources contribute to stronger wagedrift, undermining further progress towards disinflation;
- Because of the difficulty, in spite of the recent agreement between the Treasury and the Central Bank, of avoiding increasing recourse to central bank credit, budget deficit financing is a major impediment to greater monetary discipline, thus fuelling inflation and jeopardising the achievement of greater exchange rate stability;
- The rapid rise in debt interest payments needs to be arrested if enough flexibility is to be retained in the budgetary process. Relying on further reduction in real interest rates in international markets may not be sufficient, all the more since a greater proportion of the deficit is planned to be financed domestically.

In this context, fiscal concessions to achieve wage moderation are only acceptable to the extent that they do not add to the budget deficit. Otherwise the above imbalances would increase, threatening to undermine the process of disinflation in the longer run.

It is important, as indeed intended by the authorities, to curb the pace of real money expansion and domestic credit creation, through, notably, allowing interest rates more fully to play their market-clearing role. As described in Part IV of the Survey, substantial changes have been made over the last few years in the institutional arrangements of monetary policy, remedying long-standing weaknesses in this area. As a result of financial indexation and liberalisation of financial markets, real interest rates on a range of financial instruments have been brought up to world levels. Deposit money banks' balance sheets have improved and confidence in monetary assets has been at least partially restored. Rigidities in the process of money creation have also been alleviated, with the abolition of automatic rediscounting of produce loans by the Central Bank and a tightening of overdraft rules.

However, despite the progress made towards more effective monetary control and greater efficiency of resource allocation, a number of problems remain:

- Although the balance sheets of money deposit banks have improved, their liquidity position still appears to be too weak to allow the newly introduced reserve requirement to be an effective instrument of Central Bank control;
- More generally, there is a risk that monetary policy will remain too accommodating as long as the cost of allowing interest rates to reach market levels is perceived as too high, all the more since markets are very thin and may not always give accurate signals. In order to achieve steady growth and a widening of secondary markets, the Government must accept a greater share of the transition costs involved, which it has not been willing to do so far. In particular, during the process of liberalisation, the

illiquidity premium on government bonds has been high and the Government has been reluctant to borrow from the public at market rates. This may be too short-term a view, as the establishment of a genuine domestic bond market could gradually reduce the illiquidity premium on such paper;

- Finally, direct allocation of saving and regulated interest are still features of important segments of the Icelandic market, notably mortgage financing. Although purely economic considerations may have to be balanced against other social goals, the misallocation of resources resulting from such policies should not be underestimated.

However, there are clear limits to what can be expected from monetary policy alone; until the budget deficit is substantially reduced, the burden put on monetary policy will remain excessive and its efficiency impaired.

Medium-term considerations also underscore the need for a tighter fiscal and monetary stance. Indeed, it would be unwise to rely on the continuation of the exceptionally favourable international climate of the last two years. In spite of progress made in diversifying the Icelandic economy, its base remains relatively narrow and the scope for reducing dependence on traditional industries is limited; the country remains therefore vulnerable to external disturbances. Less favourable outcomes for the dollar, prices of marine products, fish catches, growth in the world economy and international interest rates could again impart serious shocks to the real economy and the current account position. The total of foreign debt, public and private, which currently amounts to 50 per cent of GNP, could then reach unacceptable proportions. In view of these considerations, it is essential that policies should aim at greater stabilization of the economy. This has been a long-standing issue in Iceland. Past attempts to insulate the economy from the effects of volatile export incomes through micro instruments such as the Fish Price Equalisation Fund were not very successful. Demand management policies should therefore play a greater role in creating more stable conditions for viable growth over the medium-term. This implies raising the national savings ratio, through a much tighter stance of policies in periods of strong cyclical upswings driven by external influences.

The new approach to policy making evident since 1983, and the widespread structural reforms carried out over the last few years, have played an important role in the improvement of Iceland's economic performance. But favourable external conditions over the last two years also made a significant contribution. The adoption of more efficient monetary instruments, the new emphasis on greater exchange rate stability, the improved fisheries management policies and the increasing reliance on market mechanisms across the economy have laid the ground for more stable economic conditions in the medium term. Up to now, however, stabilization policies have not always been granted priority over other goals and implementation of the new strategy remains incomplete. Further efforts are needed, if additional progress is to be made on the road toward sustained and balanced non-inflationary growth.

NOTES AND REFERENCES

1. Icelandic trade is characterised by a heavy dependence on dollar export markets, whereas imports from Europe and Japan have a large weight in total imports. During 1986, the krona appreciated by 4.3 per cent vis-à-vis the U.S. dollar but depreciated 5.8 per cent vis-à-vis a trade weighted basket of currencies.
2. Based on marine research, annual harvest targets are set for individual species in order to ensure long-run stability of the fish catch. (See below for a discussion of fisheries management policies).
3. The settlement contained a provision for cost-of-living adjustments if actual inflation differed from that projected. In 1986 the cost of living rose slightly faster than was assumed in the February wage settlement; arbitration committees adjusted wages by the full amount of the difference.
4. Central bank finance might normally be expected to raise inflation expectations and long-term interest rates, and to weaken the exchange rate. In Iceland, however, the existence of capital controls weakens the link between monetary policy and the exchange rate.
5. The index of exchange rate adjustment has consistently given an equilibrium exchange rate slightly above the actual exchange rate since 1983, taking 1979 as a base period. But this fact has to be assessed in the light of the specific difficulties of the fishing industry in the same period. A specific index of exchange rate adjustment for the fishing industry shows a need for a devaluation during 1983-1985 of the order of 5 to 10 per cent. Exchange rate policy took this partly into account. This discrepancy between conditions in the fishing industry and the traded goods sector as a whole disappeared in 1986.
6. As yet, limited reliable information is available on the distribution of savings by owner, though borrowing can be broken down by sector. A complete flow of funds table awaits further research.
7. These were the ratios applied for export products; similar rules with lower ratios applied to agricultural products for the domestic market. Commercial bills from the manufacturing sector were also rediscounted, but on a discretionary basis.
8. See Central Bank of Iceland, *Annual Report, 1985*, p. 57. The fall in real money assets also reflects a shift into housing investment (Table 14), as well as a fall in the savings ratio.
9. Price indexation of financial assets and liabilities actually has a long history, beginning with the partial indexation of public housing loans in the latter half of the 1950s. The Treasury began issuing indexed savings loans in 1964.
10. There are three main avenues of interbank lending: direct short-term loans from one bank to another, sales of unused discount bill quota with the Central Bank and finally foreign loans relent in connection with the export produce loans.
11. The Central Bank allocates monthly discount bill quotas to the deposit money banks according to their size. The deposit money banks can themselves decide the duration and amount of bills they sell each time, but generally the quota amounts to 1 per cent of deposits at the beginning of the year. This credit facility can be used to meet an unexpected deterioration of the liquidity position without resorting to an overdraft in the Central Bank.
12. Central Bank of Iceland, *Annual Report 1984*, p. 36.

13. From the middle of 1983 the commercial banks increased their overdrafts at their customer banks abroad, expanding their lending capacity at home while running foreign exchange risks incompatible with normal banking operations.
14. The DMBs are forbidden to have a negative liquidity position towards foreign banks without special permission.
15. As the Central Bank ceased to rediscount produce loans and lowered the required reserve ratio, distortions occurred in the monetary base, the latter growing by only 2.5 per cent in 1985. Given the inflation rate of 35 per cent, this would normally suggest a restrictive monetary stance. However, once adjusted, for the lowering of the required reserve ratio, base money may have increased by some 40 to 50 per cent, of which financing of the Treasury deficit was responsible for 33 per cent.
16. In March, the annual yield at which the total offer would have been taken up was 26.5 per cent, while the yield on sold bills was 25.7 per cent. This was 3½ per cent above the yield on common bank loans. By November, when issues ceased, the average annual yield implied by the total offer (which was undersubscribed) was 28.1 per cent.
17. Although the pension funds are not required to invest 50 per cent of their funds in housing bonds, failure to do so means that their members cannot borrow from the Housing Agency.
18. See Central Bank of Iceland, *Annual Report 1985*, p. 44.

Annex I

DECOMPOSING CHANGES IN THE TERMS OF TRADE

Movements in relative prices

Iceland's trade can be divided into four main categories: marine exports; non-marine exports; oil imports; and non-oil imports. The terms of trade can thus be expressed as a function of four sets of prices:

$$PX/PM = [aPXM + (1\text{-}a)PXNM]/[bPMO + (1\text{-}b)PMNO],$$

where
PX = price of exports,
PM = price of imports,
PXM = price of marine exports,
PXNM = price of non-marine exports,
PMO = price of oil imports,
PMNO = price of non-oil imports,
a = share of marine exports in total exports,
and b = share of oil imports in total imports.

Expressing price movements in relative terms, by using non-oil imports as the numeraire, the above expression can be written:

$$PX/PM = [aPXM^* + (1\text{-}a)PXNM^*]/[bPMO^* + (1\text{-}b)],$$

where * denotes a price expressed relative to PMNO. Setting all prices to unity in the base period and differentiating, the percentage change in the terms-of-trade approximately equals:

$$\frac{\Delta(PX/PM)}{(PX/PM)} = a\ \frac{\Delta PXM^*}{PXM^*} + (1-a)\ \frac{\Delta PXNM^*}{PXNM^*} - b\ \frac{\Delta PMO^*}{PMO^*}$$

The overall terms-of-trade gain is a weighted average of the relative increase in the price of fish and non-marine exports, less the (weighted) increase in the relative price of oil.

The results are summarised in Table 2 of the text. In krona terms relative price of marine exports fell by 0.3 per cent in 1986; because such exports make up about three-quarters of total exports (a = .75), the increase lowered the terms of trade by 0.2 per cent. This decline was reinforced by an 8.3 per cent decline in the relative price of other exports, which reduced the terms of trade by 2.1 per cent. The large drop in the price of oil (which made up 15½ per cent of imports) had the biggest impact of any single price change; a 45 per cent drop in its relative price improved the terms of trade by 7 per cent.

The effect of exchange rate movements

The above price changes are defined in krona terms and measure the net impact of changes in foreign prices and exchange rates. If there were no real exchange rate shifts among Iceland's trading partners, and/or the foreign currency composition of imports and exports was the same, currency movements would not affect the calculation, since the exchange rate changes applicable to exports and imports would be the same. However, if as in 1986 there are swings in exchange rates, the different currency composition of Icelandic exports and imports generates differential exchange rate changes for exports and imports. To illustrate this effect on the terms of trade, the ratio of domestic export to import prices can be decomposed into its world price and exchange rate components:

$$PX/PM = \frac{[aPXMW.RXM + (1\text{-}a)PXNMW.RXNM]}{[bPMOW.RMO + (1\text{-}b)PMNOW.RMNO]}$$

where PXMW, PXNMW, PMOW, PMNOW = world prices for the four chief components of Icelandic trade, marine, non-marine, oil and non-oil respectively; and

RXM, RXNM, RMO, RMNO = price of foreign currency, using separate trade-weights for the four commodities.

Again, we normalise by the price of non-oil imports:

$$PX/PM = \frac{[aPXMW^*.(RXM/RMNO)+(1\text{-}a)PXMNW^*.(RXNM/RMNO)]}{[bPMOW^*.(RMO/RMNO)+(1\text{-}b)]}$$

where * now denotes a price expressed relative to PMNOW. As this equation shows, exchange-rate movements can have important effects on the terms of trade. Because the currency composition of trade varies across the four commodities – in particular Iceland exports far more to the United States than it imports – any exchange-rate realignment among its trading partners will cause the three foreign price ratios to change.

Although one can differentiate the above expression to obtain a rough decomposition of the terms-of-trade gain into its foreign price and exchange rate components, this procedure introduces approximation errors. Alternatively, the terms-of-trade gain can be broken down into foreign price terms and a residual assigned to exchange-rate movements, i.e.:

$$\frac{\Delta(PX/PM)}{(PX/PM)} = \frac{\Delta(PXW/PMW)}{(PXW/PMW)} + \text{exchange rate component,}$$

where

$$\frac{\Delta\,(PXW/PMW)}{(PXW/PMW)} = a\,\frac{\Delta\,PXMW^*}{PXMW^*} + (1-a)\,\frac{\Delta\,PXNMW^*}{PXNMW^*} - b\,\frac{\Delta\,PMOW^*}{PMOW^*}$$

The result of this exercise is shown in Table 2. At world prices, the terms of trade rose 12 per cent in 1986, with well over half of the increase accounted for by a sharp rise in relative fish prices. Exchange-rate movements reduced the overall rise by almost 60 per cent, and offset completely the impact of higher world marine prices. In the case of oil, whose price is usually set in dollars, exchange rate movements boosted the terms of trade. At world prices the drop in the cost of oil raised the terms of trade by 5½ percentage points, and currency fluctuations added an additional 1½ point.

Annex II

EXCHANGE RATE MOVEMENTS AND THE VALUE OF FOREIGN DEBT

Exchange-rate movements also affected the burden of foreign debt. The foreign debt to GNP ratio (DR) can be defined as:

DR = [D.RX]/[P.Q],

where D = outstanding net foreign debt denominated in foreign currency,
RX = debt-weighted effective nominal exchange rate,
P = aggregate price level, and
Q = real output.

The percentage change in the ratio can be approximated by differentiating with respect to time, and dividing by DR, i.e.:

$$\frac{\Delta DR}{DR} = \frac{\Delta D}{D} + \frac{\Delta RX}{RX} - \frac{\Delta P}{P} - \frac{\Delta Q}{Q}$$

where Δ denotes a time differential.

In 1986, the foreign debt to GNP ratio fell from 59.1 to 50.4 per cent, a proportional decline of almost 15 per cent. Real output rose by about 6 per cent, and thus accounted for 3½ percentage points of the decline in the ratio. The krona price of foreign currency rose almost 14 per cent in 1986, using debt weights, while the domestic price level increased 26 per cent. Together, these two factors reduced the ratio by over 5 percentage points. The contribution of changes in foreign indebtedness was negligible, because the current account was in balance.

Table A1. **Total external debt by currency**[1]

	1978	1980	1982	1984	1985	1986[2]
U.S. dollars	44.3	54.0	60.8	53.9	52.3	50.7
Pounds sterling	2.6	0.7	3.4	6.1	5.9	5.7
Norwegian kroner	6.4	5.5	2.2	1.4	1.3	1.0
Deutschemark	14.7	14.7	12.7	9.1	9.7	9.5
Swiss francs	7.1	5.3	5.1	8.1	8.7	9.1
Dutch guilders	0.9	1.4	0.9	2.0	2.6	2.4
Japanese yen	3.8	3.9	7.2	15.4	15.6	17.3
EUA/ECU	11.1	7.8	3.6	1.6	1.7	2.9
Other	9.1	6.7	4.1	2.4	2.2	1.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

1. Per cent of debt outstanding at the end of the year.
2. Estimated.
Source: Central Bank of Iceland.

Annex III

CALENDAR OF MAIN ECONOMIC EVENTS

1985

January

The Central Bank raised the nominal rate paid on general savings accounts by 7 percentage points, and the deposit money banks raised other rates by a similar amount.

February

The Central Bank raised the interest rate charged on general loans from 26 per cent to 34 per cent.

April

The Central Bank ceased its rediscounting of produce loans from deposit money banks. In a related development, the required reserve ratio for banks was lowered from 28 per cent of deposits to 18 per cent.

Exchange controls were loosened.

Nominal interest rates on domestic produce loans were increased by 2 percentage points.

May

The Central Bank lowered interest rates for loans and deposits by 1 to 3 percentage points, while rates paid on demand deposits fell by 8 percentage points.

June

The Althing passed the 1985 Credit Budget.

Wage negotiations were reopened by the unions, due to higher than expected price inflation over the previous six months. The new contract provided for an initial average wage increase of 7 per cent, and further rises of 2.4 per cent in August and 4.5 per cent in October. The contract expired on 31st December 1985.

July

The Treasury and the Central Bank sign an agreement limiting credit accommodation. The Bank agreed to supply up to 30 per cent of any unbudgeted increase in operational credit needed by the Treasury.

August

The deposit money banks raised interest rates on unregulated loans and deposits by ½ to 3 percentage points, to bring them in line with rates prevailing on regulated accounts.

October

The Government submitted its 1986 budgets to the Althing.

1986

January

New legislation on commercial and savings banks came into effect. Banks are to maintain a minimum of 5 per cent capital and reserves ratio, after a transition period of five years.

February

The 1986 national wage agreement was signed. This tripartite settlement between the Government, unions, and employers provided for a reduction in nominal wage increases in exchange for a variety of official measures to hold down the cost of living. The Government pledged to reduce tariffs and other taxes, increase agricultural subsidies, lower public service charges, and slow the rate of depreciation of the krona. The housing finance system was also overhauled, and the Central Bank agreed to reduce nominal interest rates.

As part of the settlement, workers received an immediate 5 per cent increase in wages.

March

The Central Bank lowered interest rates on non-indexed loans by 10 to 12 percentage points, and the deposit money banks lowered other non-indexed rates by a similar amount.

The first transactions on the new Icelandic Securities Exchange took place.

April

The Central Bank and deposit money banks lowered all non-indexed interest rates by 4 to 6 percentage points.

May

An arbitration committee ruled that workers be fully compensated for the difference between the actual January-May rise in prices and that anticipated in the 1986 wage agreement.

The Central Bank announced guidelines for the growth rate of bank lending during the year, aiming at a maximum 12.3 per cent increase.

The deposit money banks agree to buy 850 million kronur worth of stabilization bonds in order to help finance the Treasury deficit.

New legislation on housing finance came into effect, requiring pension funds to invest 55 per cent of their assets in the State Building Fund.

October

The U.S.-U.S.S.R. summit talks were held in Reykjavik.

The Budget Bill for 1987 was submitted to the Althing.

November

New legislation on the Central Bank came into effect. Interest rates on bank loans and deposits were deregulated, and the use of Bank overdraft facilities by the Treasury limited to the financing of the Government deficit within the year.

December

Agreement was reached in the 1987 national wage negotiations. Minimum wages were raised, with effect from 1st December 1986, but there were no immediate changes in other wage rates. The settlement provided for general wage increases of 2 per cent in March 1987 and 1½ per cent in both June and October of that year.

As part of the new wage agreement, the Government pledged to maintain its strict exchange rate policy.

The Althing passed the 1987 Budget. The new budget provides for a reduction in personal income taxes.

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STATISTICAL ANNEX

Table A. **Supply and use of resources**

Kr. million, current prices

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985[1]
Private consumption	1 641	2 345	3 659	5 514	8 858	13 957	21 789	36 260	48 185	67 000
Public consumption	300	653	1 074	1 638	2 542	4 026	6 586	11 536	14 015	20 079
Gross fixed asset formation	780	1 090	1 546	2 248	3 927	5 929	9 251	14 127	18 306	24 154
Expenditure on final domestic use	2 721	4 088	6 279	9 400	15 327	23 912	37 626	61 923	80 506	111 233
Change in stocks of export products and livestock	–17	66	–39	51	80	253	913	–1 070	786	–978
National expenditure	2 704	4 154	6 240	9 451	15 407	24 165	38 539	60 853	81 292	110 255
Exports of goods ands services	1 055	1 443	2 482	3 810	5 746	8 724	12 714	27 078	34 295	49 819
Imports of goods and services	1 099	1 452	2 242	3 631	5 648	8 936	14 329	25 275	33 871	49 051
Gross national product (market prices)	2 660	4 145	6 480	9 630	15 505	23 953	36 924	62 656	81 716	111 023
Depreciation	371	489	753	1 138	1 806	2 843	4 656	8 634	10 620	13 900
Net national product (market prices)	2 289	3 656	5 727	8 492	13 699	21 110	32 268	54 022	71 096	97 123
Indirect taxes	700	962	1 454	2 172	3 520	5 778	9 202	14 486	20 062	25 550
Subsidies	126	122	218	373	490	762	1 392	2 204	2 389	3 730
Net national income	1 715	2 816	4 491	6 693	10 669	16 094	24 458	41 740	53 423	75 303
Net income to abroad	73	88	161	244	411	811	1 495	3 066	4 554	5 584
Net domestic income	1 788	2 728	4 330	6 449	10 258	15 283	22 963	38 674	48 869	69 719

1. Provisional.
Source: National Economic Institute.

Table B. **Supply and use of resources**

Kr. Million, constant prices

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985[2]
	1969 prices	1980 prices								
Private consumption	341.4	7 669	8 317	8 560	8 858	9 274	9 404	8 623	8 882	9 326
Public consumption	53.1	2 207	2 364	2 493	2 542	2 725	2 876	3 033	3 036	3 224
Gross fixed asset formation	154.9	3 546	3 433	3 440	3 927	3 965	3 945	3 461	3 768	3 807
Expenditure on final domestic use	549.4	13 422	14 114	14 493	15 327	15 964	16 225	15 117	15 686	16 357
Change in stocks of export products and livestock	–7.7	198	–130	60	80	170	357	–207	122	–71
National expenditure	541.7	13 620	13 984	14 553	15 407	16 134	16 582	14 910	15 808	16 286
Exports of goods and services	248.4	4 572	5 265	5 595	5 746	5 825	5 261	5 802	5 976	6 631
Imports of goods and services	294.6	5 164	5 352	5 484	5 648	6 056	5 988	5 648	6 174	6 775
Gross national product (market prices)	495.5		13 028	13 897	14 664	15 505	15 903	15 855	15 064	15 61016 142
Effect of changes in terms of trade	34.0		612	646	157	–	48	11	237	240320
Export income	282.4	5 184	5 911	5 752	5 746	5 873	5 272	6 039	6 216	6 951
Income balance of goods and services	–12.2	–909	–473	–257	–313	–726	–1 307	–503	–964	–980
Gross national income[1]	529.5	13 640	14 543	14 821	15 505	15 951	15 866	15 301	15 850	16 462

Note: Estimates of real income coincide with output in real terms on the assumption of unchanged terms of trade. Due to particularly strong fluctuations in Icelandic terms of trade national expenditure in real terms may deviate substantially from real gross national product without adverse effects on the balance of payments. This is explicitly introduced in the Icelandic national accounts, as shown above. The item "Export income" obtained through the deflation of exports with a price index for imports, expresses the external purchasing power of the export earnings, and the difference between this item and exports, normally deflated with an export price index, is a measure of the real income "effect of changes in terms of trade".

1. Gross national product + effect of changes in terms of trade.
2. Provisional.

Source: National Economic Institute.

Table C. **Production and employment**

		1977	1978	1979	1980	1981	1982	1983	1984	1985
Fisheries and fish processing										
Export production:										
Value, current prices	Kr. mill.	829.8	1 309	2 144	3 411	5 318	7 267	12 564	16 241	24 320
Volume, constant pricess	1980 = 100	73.9	79.9	90.0	100	100.4	85.0	76.9	86.3	94.2
Fishing fleet[1], end of year:										
Trawlers	GRT	38 422	39 096	40 269	42 265	45 258	47 944	48 478	50 801	50 844
Motor boats	GRT	62 817	67 319	63 891	64 222	63 313	63 904	63 294	62 046	61 750
Total	GRT	101 239	106 415	104 160	106 487	108 571	111 848	111 772	112 847	112594
Employment in fish processing	1980 = 100	85.2	83.6	90.3	100.0	102.9	99.9	103.9	103.8	97.9[3]
Agriculture										
Production: Volume, 1980 prices	Kr. mill.	39.76	106.8	100.6	100.0	97.2	98.1	96.7	100.2	103.3
Capacity:[2] Cultivated grassland	1 000 hect.	121.6	123.6	125.7	127.2	129.0	130.1	131.1	132.1	133.4[3]
Sheep	1 000 heads	896.2	890.8	769.8	827.9	794.6	747.7	711.9	714.4	709.3
Cattle	1 000 heads	62.7	62.8	57.2	59.9	60.4	64.4	68.5	72.7	72.9
Manufacturing (excl. fish processing)										
Production, volume	1980 = 100	90.7	90.3	96.5	100.0	99.8	105.1	105.1	109.9	111.5[3]
Employment	1980 = 100	92.9	96.8	99.4	100.0	101.2	102.7	102.2	105.6	111.7[3]
Dwelling construction										
Started	Number	1 980	2 278	1 932	1 758	1 648	1 829	1 631	1 736	1 269
Completed	Number	2 300	2 283	2 045	2 237	1 623	1 924	1 711	1 601	1 690
Under construction, end of year	Number	5 088	5 083	4 970	4 491	4 516	4 421	4 341	4 476	4 055

1. Including whale-catchers, excluding open boat.
2. At the end of year.
3. Provisional.

Source: Direct Icelandic communication to the OECD.

Table D. Gross fixed asset formation

Kr. million, current prices

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985[1]
Gross fixed asset formation, total	780.1	1 090	1 546	2 248	3 927	5 929	9 251	14 127	18 306	24 154
Classification by end-use:										
Industrial asset formation	277.3	466	670	926	1 567	2 396	3 775	5 888	7 911	12 009
Agriculture	47.7	71	92	79	183	212	409	621	978	1 518
Fishing	35.0	104	107	167	217	376	518	781	839	910
Fish processing	25.7	50	64	105	148	222	360	521	785	1 137
Manufacturing other than fish	52.4	85	191	297	407	568	798	1 264	2 020	3 023
Transport equipment	54.9	75	77	99	283	470	593	832	790	1 734
Commercial buildings, hotels, etc.	39.7	50	85	108	176	308	613	1 084	1 219	1 803
Various machinery and equipment	21.9	31	54	71	153	240	484	785	1 280	1 884
Residential construction	169.4	233	375	588	964	1 317	2 251	3 495	4 714	5 276
Public works and buildings	333.4	391	501	734	1 396	2 216	3 225	4 744	5 681	6 869
Electric power, generation and distribution	157.2	137	153	236	507	797	1 159	1 510	1 550	1 146
Geothermal heating and water supply	33.5	64	91	140	267	370	330	375	570	871
Communications	88.1	115	159	227	403	649	1 061	1 764	2 229	3 062
Public buildings	54.6	75	98	131	219	400	675	1 095	1 332	1 790
Classification by type of assets:										
Machinery and equipment	158.5	290	395	579	1 017	1 618	2 274	3 418	4 734	7 522
Machinery and other equipment	103.6	215	318	480	734	1 148	1 681	2 586	3 944	5 788
Transport equipment	54.9	75	77	99	283	470	593	832	790	1 734
Buildings and other construction	621.6	796	1 151	1 707	2 887	4 331	7 004	10 732	13 529	16 579
Residential buildings	169.4	233	375	588	964	1 317	2 251	3 495	4 714	5 276
Non-residential buildings	152.2	226	342	478	683	1 119	2 035	3 337	4 117	5 468
Other construction	300.0	337	434	641	1 240	1 895	2 718	3 900	4 698	5 835

1. Provisional.
Source: National Economic Institute.

Table E. **Gross fixed asset formation**

Kr. million, constant prices

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
	1969 prices	1980 prices								
Gross fixed asset formation, total	154.9	3 546	3 433	3 440	3 927	3 965	3 945	3 461	3 768	3 807
Classification by end-use:										
Industrial asset formation	59.7	1 463	1 440	1 390	1 567	1 617	1 627	1 443	1 643	1 927
Agriculture	9.8	222	196	116	183	142	174	149	207	252
Fishing	6.8	325	228	246	217	256	226	196	173	147
Fish processing	5.5	153	136	158	148	152	157	131	161	177
Manufacturing other than fish processing	11.7	267	413	447	407	386	344	308	402	459
Transport equipment	13.0	230	155	148	283	312	254	191	150	246
Commercial buildings, hotels, etc.	7.3	168	194	169	176	204	260	269	247	277
Various machinery and equipment	5.6	98	118	106	153	165	212	199	303	369
Residential construction	31.0	784	858	915	964	870	952	865	955	809
Public works and buildings	64.2	1 299	1 135	1 135	1 396	1 478	1 366	1 153	1 170	1 071
Electric power, generation and distribution	33.0	448	341	361	507	537	497	366	311	175
Geothermal heating and water supply	6.1	214	208	218	267	245	140	93	115	133
Communications	15.1	385	362	354	403	432	444	423	474	488
Public buildings	10.0	252	224	202	219	264	285	271	270	275
Classification by type of assets:										
Machinery and equipment	37.7	888	826	855	1 017	1 104	993	835	999	1 227
Machinery and other equipment	24.7	658	671	707	734	792	739	644	849	981
Transport equipment	13.0	230	155	148	283	312	254	191	150	246
Buildings and others construction	117.2	2 641	2 608	2 643	2 887	2 874	2 963	2 631	2 761	2 572
Residential buildings	31.0	784	858	915	964	870	952	865	955	809
Non-residential buildings	28.1	752	774	741	683	739	858	823	833	838
Other construction	58.1	1 105	976	987	1 240	1 265	1 153	943	973	925

Source: National Economic Institute.

Table F. **Balance of payments, OECD basis**

US $ million

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Current balance	–155.0	–139.8	–24.0	–48.7	28.1	–21.2	–69.6	–144.5	–252.9	–52.2	–129.6	–115.9
Long terme (excl. spec. trans.)												116.71
	109.1		107.5	47.5	98.4	64.3	88.6	158.7	200.5	228.0	116.9	11.8
a) Private	63.9	43.6	6.6	22.0	19.6	23.0	80.4	123.3	88.2	17.3	31.8	17.1
b) Official	45.2	63.9	40.9	76.4	44.7	65.6	78.3	77.2	139.8	99.6	84.9	94.7
Basic balance	–45.9	–32.3	23.5	49.7	92.4	67.4	89.1	56.1	–29.4	64.7	-12.9	–4.1
Non-monetary short-term capital	–10.3	4.0	–0.9	–5.7	–12.5	11.0	11.3	24.6	–13.5	–66.9	35.9	145.0
Errors and omissions	–1.0	–2.9	–4.2	–14.1	–26.6	–33.2	–47.6	–23.9	–54.6	–3.4	–29.3	–52.8
Balance on monetary transactions	57.2	–31.2	18.4	29.9	53.3	45.2	52.8	56.8	–93.0	–5.6	–6.3	88.1
Private monetary institutions short-term capital	–9.3	3.6	1.7	1.3	0.9	2.0	–4.2	1.0	–7.4	14.2	–22.6	7.9
Balance on official settlements	–66.5	–27.6	20.1	31.2	54.2	47.2	48.6	57.8	–100.4	8.6	–28.9	96.0
Use of IMF credit	19.0	19.4	28.9	–	–11.7	–16.3	–25.0	–12	18	1.0	–	–
Special transactions	–	–	–	–	–	–	–	–	–	–	–	–
Miscellaneous official accounts	–2.9	9.0	–18.0	–15.7	4.7	–6.5	–2.3	7	–1	3.5	16.8	–53.3
Allocations of SDRs	–	–	–	–	–	3.4	3.3	3.3	–	–	–	–
Change in reserves (+ = increase)	–50.4	0.8	31.0	15.5	47.2	27.8	24.6	56	–83	13.1	–12.1	63.9
a) Gold	–	–	–	0.5	0.3	0.2	–	–	–	–	–	–
b) Currency assets	–43.4	2.6	34.5	14.0	49.3	22.6	18.6	55	–72	10.6	–12.3	63.9
c) Reserve position in IMF	–7	–	–	–	–	7.1	5.9	–	–10	4.8	–	–
d) Special Drawing Rights	–0.1	–1.8	–3.5	1.0	–2.4	–2.1	0.1	1	–1	–2.4	0.2	–

Sources: Central Bank of Iceland; Direct Icelandic communication to the OECD.

Table G. **Central government income and expenditure**

Accruals basis

Kr. million

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Current revenue	713.2	1 003	1 637	2 480	3 929	6 304	10 328	16 282	22 088	28 746
Direct taxes	91.9	110	280	462	649	983	1 800	2 614	3 230	3 698
Indirect taxes[1]	609.8	873	1 327	1 966	3 179	5 203	8 230	12 868	17 746	23 646
Other	11.5	19	29	52	101	118	299	800	1 112	1 403
Current expenditure	537.2	803	1 354	2 077	3 118	5 080	7 910	14 229	17 238	26 019
Purchase of goods and services[2]	226.5	390	634	932	1 418	2 290	3 552	6 484	7 887	12 295
Current transfers and subsidies	310.7	413	720	1 145	1 700	2 790	4 358	7 745	9 351	13 724
Gross saving	176.0	200	283	403	811	1 224	2 418	2 053	4 850	2 727
Gross fixed asset formation	47.0	80	96	143	288	440	782	1 238	1 592	1 758
Surplus on current and fixed investment account	129.0	120	187	260	523	784	1 636	815	3 258	969
Lending, net[3]	13.3	–8	23	–35	77	–10	683	–245	1 063	550
Net capital transfers to other sectors	120.9	146	202	272	384	609	787	2 250	1 643	2 840
Overall balance[4]	–5.2	–18	–38	23	62	185	166	–1 190	552	–2 421

1. Including employers' social security contributions.
2. Including interest.
3. "–" = net borrowing.
4. Net change in floating debts and cash balances.

Source: Central Bank of Iceland.

Table H. **Fish catch, wages and prices**

	Fish catch (thous. metric tons)					Wages and prices (1980 = 100)								
						Hourly wage rates, unskilled workers[1]	Cost of living index			Building cost	Export prices of fish products[2]			
	Total	White fish, etc.	Herring	Capelin	Shrimp, lobster, shell-fish		Total	Food and beverages	Home-ownership		Fresh and iced fish	Frozen products	Salted products	Fish meal and oil
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1977	1 374	518	29	813	14	29.7	30.1	32.3	32.0	29.9	25.0	33.3	27.1	39.9
1978	1 566	544	37	967	18	46.0	43.4	46.5	45.3	44	50.9	46.3	42.4	59.3
1979	1 649	622	45	964	18	66.3	59.7	61.9	65.2	64	68.6	74.3	64.3	63.8
1980	1 514	680	53	760	21	100	100	100	100	100	100	100	100	100
1981	1 441	738	40	642	21	149	151	157.2	153.5	151	124.3	144.3	171.1	152.3
1982	788	696	55	13	24	224	228	225.7	231.5	236	220.4	240.4	260.7	191.5
1983	839	615	59	134	31	335	420	435.9	383.5	402	360.1	501.6	449.4	511.6
1984	1 536	579	50	865	42	400	543	577.0	474.8	491	486.2	574.8	523.5	551.5
1985	1 672	586	49	993	44	530	718	784.8	612.6	645	805.0	783.6	731.6	598.0
1986	1 635	630	55	900	50	662	869	956.6	787.3	805	1 013.5	1 002.3	1 042.5	628.9

1. Weighted averages.
2. The index shows the development of export prices (fob) in terms of Icelandic kronur.

Sources: *Icelandic Statistical Bulletin* and Hagtidindi; Central Bank of Iceland, *Economic Statistics;* Direct Icelandic communication to the OECD.

Table I. **Foreign trade, total and by area**

US $ million, monthly rates

	Total imports cif		Imports by area						Total exports fob		Exports by area					
			OECD countries				Non-OECD countries				OECD countries				Non-OECD countries	
	Orig.	Adj.	Total	Europe		USA	Eastern Europe	Devel-oping countries	Orig.	Adj.	Total	Europe		USA	Eastern Europe	Devel-oping countries
				EEC	Others							EEC	Others			
1974	43.7	..	36.7	19.6	9.9	3.5	5.9	1.1	27.4	..	23.1	8.2	7.5	6.1	3.5	0.9
1975	41.1	..	34.7	18.5	9.0	3.8	5.1	1.3	26.0	..	20.8	6.8	6.1	7.6	3.5	1.7
1976	39.2	..	32.3	17.0	7.6	4.1	5.4	1.5	33.6	..	29.1	10.9	7.9	9.7	3.4	1.1
1977	50.7	..	41.5	24.0	10.7	3.3	6.2	3.0	42.7	..	34.5	13.4	7.3	12.9	5.2	3.0
1978	56.7	..	47.6	26.7	12.9	4.0	5.8	3.2	54.2	..	43.6	17.9	8.6	15.9	4.2	6.4
1979	68.8	..	57.3	32.0	16.0	4.5	8.7	2.9	65.8	..	58.1	26.4	11.1	18.4	5.3	2.4
1980	83.4	..	70.8	36.7	18.6	7.8	9.3	3.3	77.5	..	62.7	30.0	14.4	16.7	6.9	7.8
1981	86.3	..	74.3	38.4	21.6	6.7	8.1	4.0	75.4	..	57.3	23.6	16.2	15.7	6.0	12.1
1982	78.6	..	66.8	36.1	18.2	6.6	8.1	3.7	57.2	..	48.9	18.7	13.3	14.8	4.8	3.5
1983	69.1	..	59.2	31.1	16.4	5.4	7.8	2.0	62.5	..	52.8	21.7	11.4	17.7	5.0	4.7
1984	70.3	..	60.4	36.0	13.1	4.8	7.7	2.2	61.9	..	54.6	29.2	5.3	17.6	5.9	1.4
1985	75.5	..	66.5	39.8	14.9	5.1	6.6	2.4	67.8	..	60.9	33.1	5.9	18.3	5.3	1.6

Sources: OECD *Foreign Trade Statistics*, Series A; Central Bank of Iceland.

Table J. **Foreign trade by commodity group**

US $ million

	Imports by commodity group							Exports by commodity group							
			Other imports												
	Total	Trans-port equip-ment	Total	Food and live animals	Manu-factured goods	Machin-ery and appa-ratus	Other goods	Total	Fish products, total	Frozen fish fillets	Herring salted	Herring and capelin meal	Agricul-tural products	Alumi-nium products	Others manu-factured products
	SITC No	78-79		0	6	71-77									
1975	488.0	61.6	426.4	46.4	99.0	88.7	192.3	307.8	239.6	105.8	1.3	17.5	9.1	32.5	22.7
1976	469.8	46.0	423.8	49.5	94.4	94.5	185.4	403.8	290.1	123.6	7.7	17.0	10.4	68.1	28.6
1977	606.6	90.6	516.0	53.2	120.5	109.4	232.9	512.1	377.4	168.3	10.1	47.7	12.1	74.9	37.2
1978	673.4	66.6	606.8	57.7	141.4	137.1	270.6	648.2	495.2	216.2	15.4	63.2	15.1	87.1	40.8
1979	825.0	74.0	751.0	68.8	159.0	143.7	379.5	789.0	589.2	258.4	22.1	60.9	20.1	106.2	64.3
1980	1 000.1	102.8	897.4	82.3	194.1	172.6	448.4	929.2	695.6	265.8	21.7	61.5	16.0	112.9	88.5
1981	1 021.0	107.8	913.2	81.3	189.4	183.8	458.6	900.3	704.7	236.5	22.0	45.2	12.3	87.3	86.0
1982	941.5	87.5	854.0	76.1	182.3	169.1	426.5	675.1	506.4	219.3	17.7	8.4	8.5	67.8	82.5
1983	821.9	58.8	763.1	73.4	157.9	140.0	391.8	744.9	506.6	245.9	18.3	1.9	8.3	130.9	87.4
1984	843.7	67.2	776.5	71.4	153.8	160.1	391.2	744.1	500.1	222.2	24.5	42.3	12.8	108.2	99.4
1985	904.1	60.7	843.4	72.0	163.2	184.9	423.3	813.8	608.3	261.4	21.2	44.4	11.5	80.5	102.1

Sources: Icelandic Statistical Bulletin; OCDE.

Table K. **Money and credit**

End of period

	Central Bank		Non-Bank sector			Deposit money banks			Credits granted by DMB					Foreign exchange	
			Money supply							*of which to:*					
	Interest rate on bank over-drafts	Net Position of govern-ment	M1[1]	M2[2]	M3[3]	Required reserves	Redis-counted bills	Net foreign position	Total	Agri-culture	Fishery and fish pro-cessing	Manu-facturing and commerce	Dwell-ings	Official gold and foreign exchange[4]	Commercial banks' short-term foreign assets
	%[5]	Kr. millions												Millions SDR's	Millions Kr.
1974	24.00	48	124	336	439	86	82	–34	458	45	102	148	48	40	4
1975	24.00	103	171	441	566	114	125	–84	561	72	122	179	57	40	10
1976	36.00	129	207	548	750	159	160	–93	708	96	161	210	77	69	14
1977	36.00	149	306	783	1 079	225	265	–138	1 009	153	264	267	105	82	18
1978	36.00	279	432	1 122	1 605	337	397	–272	1 419	240	333	376	156	106	29
1979	36.00	283	625	1 677	2 503	556	587	–408	2 230	378	501	617	273	125	40
1980	4.75	312	1 012	2 775	4 139	1 001	992	–894	3 517	532	817	978	456	138	78
1981	5.00	196	1 620	4 841	7 056	1 900	1 392	–1 422	6 116	800	1 421	1 645	781	199	73
1982	4.50	115	2 092	7 136	11 152	3 039	2 935	–3 062	11 477	1 273	3 111	3 291	1 197	134	179
1983	3.75	813	3 722	12 394	19 924	5 582	4 915	–7 119	20 334	2 191	5 567	5 599	2 174	145	–143
1984	2.5	1 122	5 305	18 672	26 581	7 142	6 809	–9 311	29 723	2 860	8 854	8 447	2 820	132	371
1985	3.00	3 128	6 752	30 074	39 161	6 956	447	–14 858	38 752	4 012	8 521	12 138	3 638	185	34

1. Notes and coins, demand deposits.
2. Broad money, i.e. M1 plus general savings deposits.
3. M2 plus time deposits.
4. Excluding IMF position.
5. From 1980, per month..

Sources: Central Bank of Iceland, *Annual Reports; Principaux indicateurs économiques* de l'OCDE.

BASIC STATISTICS :

INTERNATIONAL COMPARISONS

BASIC STATISTICS: INTERNATIONAL COMPARISONS

	Units	Reference period[1]	Australia	Austria	Belgium	Canada	Denmark	Finland
Population								
Total	Thousands	1985	15 752	7 555	9 857	25 379	5 113	4 901
Inhabitants per sq.km	Number		2	90	323	3	119	14
Net average annual increase over previous 10 years	%		1.3	0.0	0.1	1.1	0.1	0.4
Employment								
Total civilian employment (TCE)[2]	Thousands	1985	6 676	3 235	35 607	11 311	2 522	2 427
of which: Agriculture	% of TCE		6.2	9.0	2.9	5.2	6.7	11.5
Industry	% of TCE		27.7	38.1	29.7	25.5	28.1	31.9
Services	% of TCE		66.1	52.9	67.4	69.3	65.2	56.6
Gross domestic product (GDP)								
At current prices and current exchange rates	Billion US$	1985	155.1	66.1	79.1	346.0	57.9	54.0
Per capita	US$		9 847	8 743	8 022	13 635	11 319	11 024
At current prices using current PPP's[3]	Billion US$	1984	..	85.7	119.7	382.2	68.0	59.6
Per capita	US$		..	11 345	12 150	15 198	13 311	12 217
Average annual volume growth over previous 5 years	%	1985	3.0	1.6	0.6	2.6	2.3	2.6
Gross fixed capital formation (GFCF)	% of GDP	1985	24.4	22.3	15.9	19.6	18.5	23.4
of which: Machinery and equipment	% of GDP		10.4 (84)	9.6	5.3 (84)	6.6	8.6	8.8
Residential construction	% of GDP		5.4 (84)	4.6	3.2	5.4	4.3	6.2
Average annual volume growth over previous 5 years	%	1984	1.9	–0.5	–4.0	0.9	2.1	2.6
Gross saving ratio[4]	% of GDP	1985	20.1	24.4	15.9	19.0	14.9	23.7
General government								
Current expenditure on goods and services	% of GDP	1985	16.7	18.7	17.3	20.1	25.3	20.2
Current disbursements[5]	% of GDP	1985	33.4 (84)	44.9 (84)	52.3	43.3 (84)	56.7	37.6
Current receipts	% of GDP	1985	34.1 (84)	47.0 (84)	46.5	39.9 (84)	57.0	40.6
Net official development assistance	% of GNP	1984	0.46	0.28	0.56	0.50	0.85	0.36
Indicators of living standards								
Private consumption per capita using current PPP's[3]	US$	1984	6 742 *	6 490	7 637	8 484	6 826	6 287
Passenger cars, per 1 000 inhabitants	Number	1984	..	306 (81)	335	421 (82)	293 (85)	316 (85)
Telephones, per 1 000 inhabitants	Number	1984	540 (83)	460 (83)	414 (83)	664 (83)	783 (85)	615 (85)
Television sets, per 1 000 inhabitants	Number	1984	..	300 (81)	303	471 (80)	392 (85)	380 (85)
Doctors, per 1 000 inhabitants	Number	1984	..	1.7 (82)	2.8	1.8 (82)	2.5	2.1 (85)
Infant mortality per 1 000 live births	Number	1985	9.2 (84)	11.0	9.4	9.1 (83)	7.9	6.3
Wages and prices (average annual increase over previous 5 years)								
Wages (earnings or rates according to availability)	%	1986	7.7	5.0	4.4	5.5	6.2	10.2 (85)
Consumer prices	%	1986	8.2	3.8	5.7	5.8	6.3	6.9
Foreign trade								
Exports of goods, fob*	Million US$	1986	22 536	22 428	68 652[7]	86 664	21 216	16 296
as % of GDP	%		14.5	33.9	86.8	25.0	36.6	30.2
average annual increase over previous 5 years	%		0.7	7.3	4.4	4.2	5.8	3.1
Imports of goods, cif*	Million US$	1986	23 916	26 724	68 544[7]	81 312	22 824	15 300
as % of GDP	%		15.4	40.4	86.7	23.5	39.4	28.3
average annual increase over previous 5 years	%		0.1	4.9	2.1	4.1	5.4	1.5
Total official reserves[6]	Million SDR's	1986	6 202	5 778	5 724[7]	3 348	4 116	1 528
As ratio of average monthly imports of goods	Ratio		3.7	3.0	1.2	0.6	2.5	1.4

	France	Germany	Greece	Iceland	Ireland	Italy	Japan	Luxembourg	Netherlands	New Zealand	Norway
Population											
Total	55 162	61 015	9 950	243	3 562	57 128	120 754	366	14 484	3 279	4 148
Inhabitants per sq.km	101	245	75	2	51	190	324	141	427	12	13
Net average annual increase over previous 10 years	0.5	–0.1	1.0	1.1	1.2	0.3	0.8	0.1	0.6	0.6	0.3
Employment											
Total civilian employment (TCE)[2]	20 916	25 011	3 588	114 (84)	1 056 (84)	20 509	58 070	160	5 083	1 329	2 012
of which: Agriculture	7.6	5.5	28.9	10.6	16.0	11.2	8.8	4.2	4.9	11.1	7.2
Industry	32.0	41.0	27.3	36.8	28.9	33.6	34.9	33.4	28.1	32.4	27.8
Services	60.4	53.5	43.8	52.6	55.1	55.2	56.3	62.4	67.0	56.5	65.0
Gross domestic product (GDP)											
At current prices and current exchange rates	510.3	625.0	32.8	2.7	18.2	358.7	1 327.9	3.6	125.0	21.9	57.9
Per capita	9 251	10 243	3 294	10 958	5 123	6 278	10 977	9 745	8 628	6 722	13 960
At current prices using current PPP's[3]	694.7	811.6	62.3	..	27.6	575.1	1 468.4	5.3	168.9	..	63.6
Per capita	12 643	13 265	6 296	..	7 795	10 093	12 235	14 385	11 710	..	15 367
Average annual volume growth over previous 5 years	1.1	1.3	1.0	0.7	1.8	0.9	3.9	2.4	0.7	3.3	3.1
Gross fixed capital formation (GFCF)	18.9	19.5	19.0	21.5	20.9	18.2	27.5	20.2	18.6	25.4	21.7
of which: Machinery and equipment	9.4	8.4	7.9	5.8 (84)	11.0 (84)	7.9	10.1 (84)	8.9 (82)	8.1 (84)	12.3 (84)	6.3
Residential construction	4.7	5.5	4.0	4.8	5.6 (83)	4.7	5.0 (84)	4.7 (82)	5.0 (84)	4.3 (84)	4.1
Average annual volume growth over previous 5 years	–0.1	–1.3	–2.8	–1.0	–1.9	0.3	2.7	–2.8	–1.0	6.6	–1.2
Gross saving ratio[4]	18.0	22.2	12.2	16.3	18.1	17.7	31.4	65.3	24.1	20.9	30.0
General government											
Current expenditure on goods and services	16.3	19.9	19.9	18.0	19.1	19.5	9.8	15.6	16.3	16.4	18.6
Current disbursements[5]	49.4	43.4	43.2	26.4 (84)	51.5 (83)	51.9	27.1 (84)	47.8 (82)	55.9 (84)	..	44.0
Current receipts	48.5	45.4	34.6	34.8 (84)	43.6 (83)	44.1	30.3 (84)	53.0 (82)	54.3 (84)	..	56.1
Net official development assistance	0.77	0.45	..	..	..	0.33	0.35	..	1.02	0.25	1.02
Indicators of living standards											
Private consumption per capita using current PPP's[3]	8 009	7 274	4 118	6 335 *	4 338	6 254	6 751	8 540	7 270	4 041 *	6 624
Passenger cars, per 1 000 inhabitants	360 (83)	424 (85)	108 (83)	431 (85)	206 (83)	355	221 (83)	414 (85)	341 (85)	455 (85)	367 (85)
Telephones, per 1 000 inhabitants	541 (83)	621 (85)	336 (83)	525 (83)	235 (83)	448	535 (83)	404	410 (86)	646 (85)	622
Television sets, per 1 000 inhabitants	297 (80)	372 (85)	158 (80)	303 (85)	181 (80)	244	250 (80)	336 (83)	317 (86)	291 (85)	330 (85)
Doctors, per 1 000 inhabitants	2.1 (82)	2.5	2.8 (83)	2.4 (84)	1.3 (82)	3.6 (82)	1.3 (82)	1.7	2.2	2.4 (85)	2.2 (85)
Infant mortality per 1 000 live births	6.9 (85)	9.1	14.1	5.7	8.9	10.9	5.9 (84)	9.0	9.6 (86)	10.8	8.4
Wages and prices (average annual increase over previous 5 years)											
Wages (earnings or rates according to availability)	8.7	3.7	25.1 (85)	..	12.0 (85)	12.6	3.9	..	3.3	10.3 (85)	9.2 (85)
Consumer prices	7.4	2.6	20.4	42.4	9.0	11.3	1.8	5.3	2.9	11.6	7.8
Foreign trade											
Exports of goods, fob*	119 268	242 400	4 560 (85)	816 (85)	10 380 (85)	97 476	210 804	..[8]	80 580	3 924 (85)	18 240
as % of GDP	23.4	38.8	13.9	30.2	57.0	27.2	15.9	..	64.5	17.9	31.5
average annual increase over previous 5 years	3.3	6.7	–2.5	–2.5	4.1	5.2	6.8	..	3.3	–2.2	0.3
Imports of goods, cif*	128 760	189 684	10 224 (85)	900 (85)	11 616	99 972	127 668	..	75 420	4 639 (85)	20 292
as % of GDP	25.2	30.3	31.2	33.3	63.8	27.9	9.6	..	60.3	21.2	35.0
average annual increase over previous 5 years	1.3	3.1	–0.8	–2.0	1.8	1.9	–2.2	..	2.7	0.4	5.4
Total official reserves[6]	28 579	45 632	935 (85)	255	2 658	18 661	35 394	..	10 687	4 752	10 541
As ratio of average monthly imports of goods	3.1	3.4	1.3	4.0	3.2	2.6	3.9	..	2.0	1.2	7.3

	Portugal	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States	Yugoslavia
Population								
Total	10 230	38 602	8 350	6 530	49 870	56 618	239 283	23 120
Inhabitants per sq.km	111	76	19	158	64	231	26	89
Net average annual increase over previous 10 years	0.6	0.8	0.2	0.2	2.1	0.1	1.0	0.8
Employment								
Total civilian employment (TCE)[2]	4 029	10 623	4 299	3 171	15 213	24 089	107 150	..
of which: Agriculture	23.2	17.6	4.8	6.6	57.3	2.6	3.1	..
Industry	35.3	31.8	29.9	37.7	17.6	32.4	28.0	..
Services	41.5	50.6	65.3	55.7	25.1	65.0	68.9	..
Gross domestic product (GDP)								
At current prices and current exchange rates	20.7	164.2	100.2	92.7	52.7	449.7	3 946.6	43.5 (84)
Per capita	2 032	4 255	12 006	14 195	1 057	7 943	16 494	1 896 (84)
At current prices using current PPP's[3]	50.9	317.8	..	..	..	625.2	3 634.6	..
Per capita	5 021	8 279	..	..	..	11 068	15 356	..
Average annual volume growth over previous 5 years	1.0	1.4	1.8	1.3	4.9	1.9	2.4	..
Gross fixed capital formation (GFCF)	21.8	19.1	19.1	23.8	19.8	17.2	18.6	21.9 (4)
of which: Machinery and equipment	13.7 (81)	6.1 (83)	9.1	8.0	9.1 (82)	8.1 (84)	8.4	..
Residential construction	7.1 (81)	5.2 (82)	4.1	15.8[9]	2.6 (82)	3.7 (84)	4.8	..
Average annual volume growth over previous 5 years	–4.5	–1.4	1.2	2.7	4.9	2.1	5.0	..
Gross saving ratio[4]	23.1	21.0	17.8	30.0	18.7	19.2	16.5	..
General government								
Current expenditure on goods and services	14.2	14.0	27.4	13.2	8.5	21.1	18.3	14.0 (84)
Current disbursements[5]	37.5 (81)	32.3 (82)	59.6	30.9	..	44.8 (84)	35.3	..
Current receipts	33.2 (81)	31.2 (82)	59.8	34.4	..	42.8 (84)	31.1	..
Net official development assistance	..	..	0.80	0.30	..	0.33	0.24	..
Indicators of living standards								
Private consumption per capita using current PPP's[3]	3 076	5 456	5 821 *	8 755 *	759 *	6 535	10 214	966 *
Passenger cars, per 1 000 inhabitants	135 (82)	231	377 (85)	392	18 (82)	312 (83)	473	121 (83)
Telephones, per 1 000 inhabitants	166 (83)	360	890 (83)	1 299	55 (83)	521	650	122 (83)
Television sets, per 1 000 inhabitants	140 (80)	256 (82)	390 (85)	329	76 (79)	336	621 (80)	175 (83)
Doctors, per 1 000 inhabitants	1.8 (82)	3.2	2.5 (85)	1.4	1.5 (83)	0.5 (83)	2.3 (83)	1.6 (82)
Infant mortality per 1 000 live births	17.8	7.0 (84)	6.8	6.9	..	9.4	10.6 (84)	31.7 (83)
Wages and prices (average annual increase over previous 5 years)								
Wages (earnings or rates according to availability)	19.2 (85)	15.0 (85)	8.0	..	..	9.1	4.0	..
Consumer prices	21.5	11.1	7.4	3.1	37.2	5.5	3.8	56.3
Foreign trade								
Exports of goods, fob*	6 051 (85)	27 132	37 200	37 248	7 908 (85)	101 544 (85)	217 308	7 188
as % of GDP	29.2	16.5	37.1	40.2	15.0	22.6	5.5	16.5
average annual increase over previous 5 years	5.5	5.8	5.4	6.7	23.5	–2.5	–1.4	–3.1
Imports of goods, cif*	8 148 (85)	34 920	32 484	40 860	11 328 (85)	109 920 (85)	369 960	8 196
as % of GDP	39.4	21.3	32.4	44.1	21.5	24.4	9.4	18.8
average annual increase over previous 5 years	–2.6	1.7	2.4	6.0	12.6	–1.8	7.2	–7.5
Total official reserves[6]	1 896	12 581	5 568	20 726	1 332	15 726	38 412 (85)	1 259
As ratio of average monthly imports of goods	3.3	5.1	2.4	7.1	1.7	2.0	1.5	2.2

* At current prices and exchange rates.
1. Unless otherwise stated.
2. According to the definitions used in OECD *Labour force Statistics*.
3. PPP's = Purchasing Power Parities.
4. Gross saving = Gross national disposable income *minus* Private and Government consumption.
5. Current disbursements = Current expenditure on goods and services *plus* current transfers and payments of property income.
6. Gold included in reserves is valued at 35 SDR's per ounce. End of year.
7. Including Luxembourg.
8. Included in Belgium.
9. Including non-residential construction.

Sources:
Population and Employment: OECD *Labour Force Statistics*.
GDP, GFCF, and General Government: OECD *National Accounts*, Vol. I and OECD *Economic Outlook, Historical Statistics*.
Indicators of living standards: Miscellaneous national publications.
Wages and Prices: OECD *Main Economic Indicators*.
Foreign trade: OECD *Monthly Foreign trade Statistics, series A*.
Total official reserves: IMF *International Financial Statistics*.

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