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**OECD
ECONOMIC
SURVEYS
1994-1995**

ICELAND

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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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	<i>of which:</i>	
<i>of which:</i>		Glaciers	12
Cultivated area	1.1	Other area devoid of vegetation	70
Rough grazings	20		

THE PEOPLE

Population, 1st December 1993	264 922	Occupational distribution, 1991 (per cent):	
Net increase 1982-92, annual average (per cent)	1.1	Agriculture	5.4
		Fishing and fish processing	11.5
		Other manufacturing	12.5
		Construction, total	9.8
		Commerce	14.6
		Communications	6.9
		Services and other	<u>39.3</u>
			100.0

GOVERNMENT AND PARLIAMENT

	1991	1995
Parliament, number of seats:		
Independence Party (Lib. Cons.)	26	25
Progressive Party (Agrarians)	13	15
Peoples' Alliance (Socialists, Communists)	9	9
Social Democratic Party	10	7
National Awakening Party	-	4
Women's Alliance	5	3
Other	<u>1</u>	<u>0</u>
	63	63

Last general election: April 1995

PRODUCTION AND CAPITAL FORMATION

Gross national product in 1994:		Gross fixed capital formation in 1994:	
IKr million	420 582	IKr million	65 840
Per head, US dollars	22 531	Per cent of GNP	15.6

FOREIGN TRADE

Exports of goods and services in 1994, per cent of GNP	37.4	Imports of goods and services in 1994, per cent of GNP	32.0
Main exports in 1994 (per cent of merchandise exports):		Imports in 1994, by use (per cent of merchandise imports):	
Fish products	75.5	Consumer goods	35.6
Aluminium	9.5	Investment goods	29.1
Other manufacturing products	9.0	Intermediate goods (excl. fuels)	27.2
Agricultural products	1.9	Fuels and lubricants	7.7
Miscellaneous	4.1		

THE CURRENCY

Monetary unit: Krona		Currency units per US dollar, averages of daily figures:	
		Year 1994	70.0
		March 1995	64.2

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 6th March 1995.

•

After revisions in the light of discussions during the review, final approval of the Survey for publication was given by the Committee on 5 April 1995.

•

The previous Survey of Iceland was issued in May 1994.

Introduction

For a second year in a row Iceland's economy performed beyond expectations. In 1994 real GDP registered moderate growth, rather than the decline which had been expected until about mid-year; the unemployment rate stabilised, instead of continuing to rise; the current balance was in sizeable surplus, whereas projections had been for an outcome in near balance; and consumer price inflation was 1.5 per cent, well below official projections made at the time the budget was passed in late 1993. Following on the recovery in export markets, combined with the improved competitiveness of Icelandic producers, the current projections are for the better performance to persist in the growth and external balance domains, even if some slippage on the inflation front occurs. The recent wage negotiations should ensure that inflation rates are close to trading partners' outcomes for the next two years.

However, various structural problems confronting the nation, though receding from the foreground, have not by any means been solved. Looming largest among these is the serious condition of the cod fisheries. Once again Iceland's fishermen have proven their ingenuity in finding new cod fishing grounds beyond the economic zone from which to supplement their incomes, and they continue to exploit other species to the fullest extent possible. But catch quota reductions have continued to lag behind incoming information on the fragile condition of the stock. In addition, while the Treasury deficit was less than budgeted in 1994, the improvement was entirely due to unexpected buoyancy of activity, and public debt continues to rise faster than GDP. Finally, although the krona is at historically low levels in real terms and the current account is in better condition than in a very long time, a reluctance to follow the international uptrend in interest rates when domestic financial markets are becoming increasingly integrated with those abroad may put considerable pressure on the exchange rate.

The initial chapter of this Survey describes recent economic developments and then moves on to present Secretariat projections for 1995-96. Chapter II begins with a detailed look at recent budgetary outcomes and the stance of fiscal policy for the current year. It also examines monetary and exchange-rate policies and their results in terms of interest rates and conditions in the credit markets. A third chapter focuses on competition policy in this smallest and most geographically isolated of OECD economies. The state of competition is seen to be heavily conditioned by the openness of domestic markets and by the involvement of government-owned enterprises. Conclusions are presented in Chapter IV.

I. Recent trends and projections

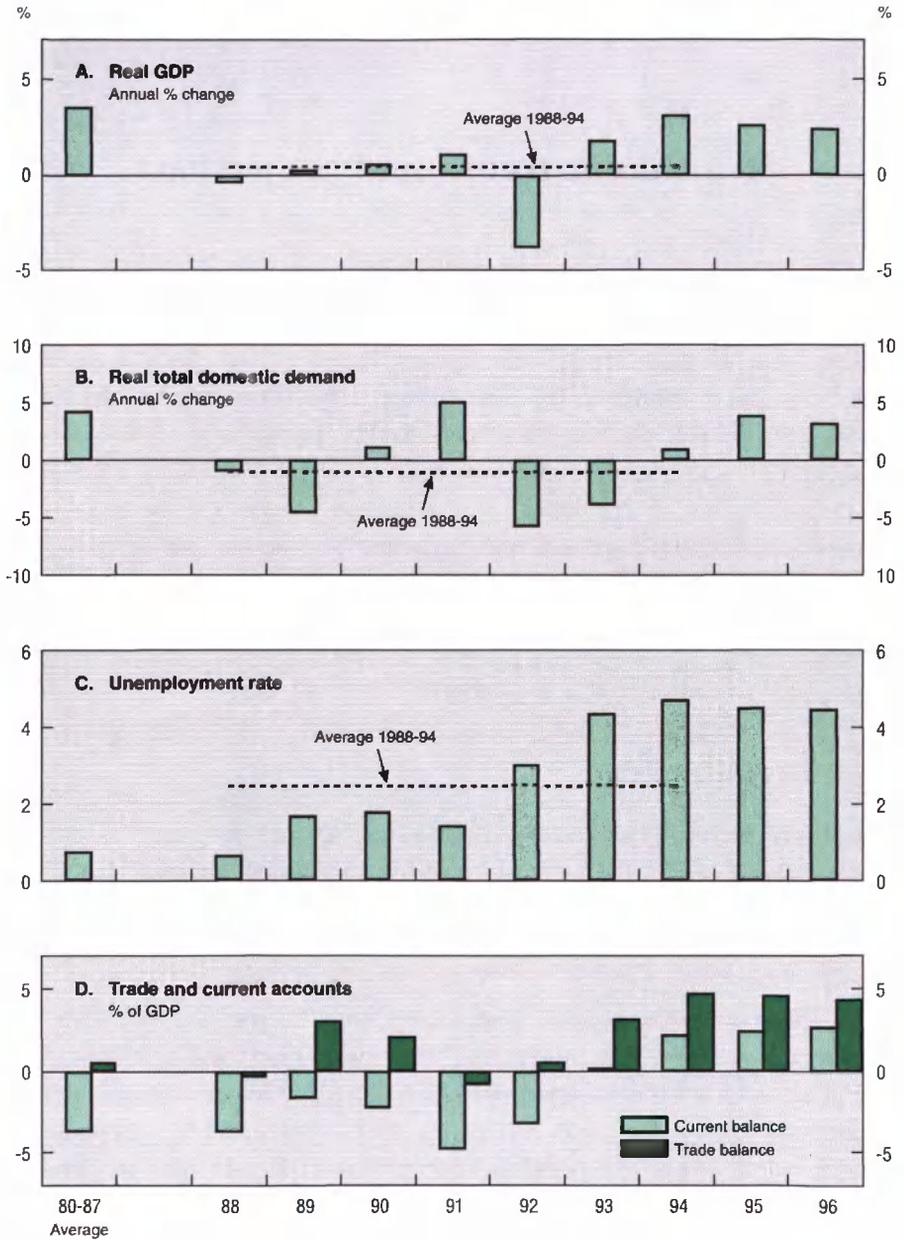
The recovery begins to take hold

The economic recovery in Iceland strengthened in 1994. Real output rose at a 3 per cent pace, compared to 1 per cent in 1993 (Diagram 1). Much of the renewed growth over the past two years can be traced to the external sector; indeed, in 1994 the trade account recorded its largest surplus as a per cent of GDP in the 50 years since independence, owing to a robust expansion in exports. The moderate economic growth was sufficient to stabilise the unemployment rate; although the yearly average rose to a record $4\frac{3}{4}$ per cent, the second half of the year witnessed figures below those of a year earlier. The inflation performance continued to improve markedly: the consumer price index edged up a scant $1\frac{1}{2}$ per cent, the lowest figure since 1959.

Exports and the fish catch

Nominal merchandise goods exports surged 20 per cent in 1994, twice the 1993 pace, with half of the increase from higher volumes and half from higher krona prices (Table 1). The price increases reflect both the effects of the $7\frac{1}{2}$ per cent devaluation of the krona that occurred in June 1993 and rising world prices for Iceland's exports (Diagram 2). Exports of marine products, which constitute three quarters of goods exports, rose a surprising 13 per cent in krona terms, reflecting a 9 per cent rise in volumes, the devaluation, and a stabilisation of world prices as from the summer of 1993. The rise in export volumes materialised despite a sharp reduction in cod fish landings from Icelandic waters, as effort was again successfully redirected to other fishing areas and species. While cod landings from territorial waters fell 75 000 tonnes (30 per cent), trawling in the Barents Sea netted an additional 35 000 tonnes, and thus the overall catch declined only 20 per cent.¹ Rising sales of capelin and products thereof² provided

Diagram 1. **AGGREGATE ECONOMIC PERFORMANCE**



Source: National Economic Institute; OECD, *National Accounts* and OECD projections.

Table 1. **Export production and trade**

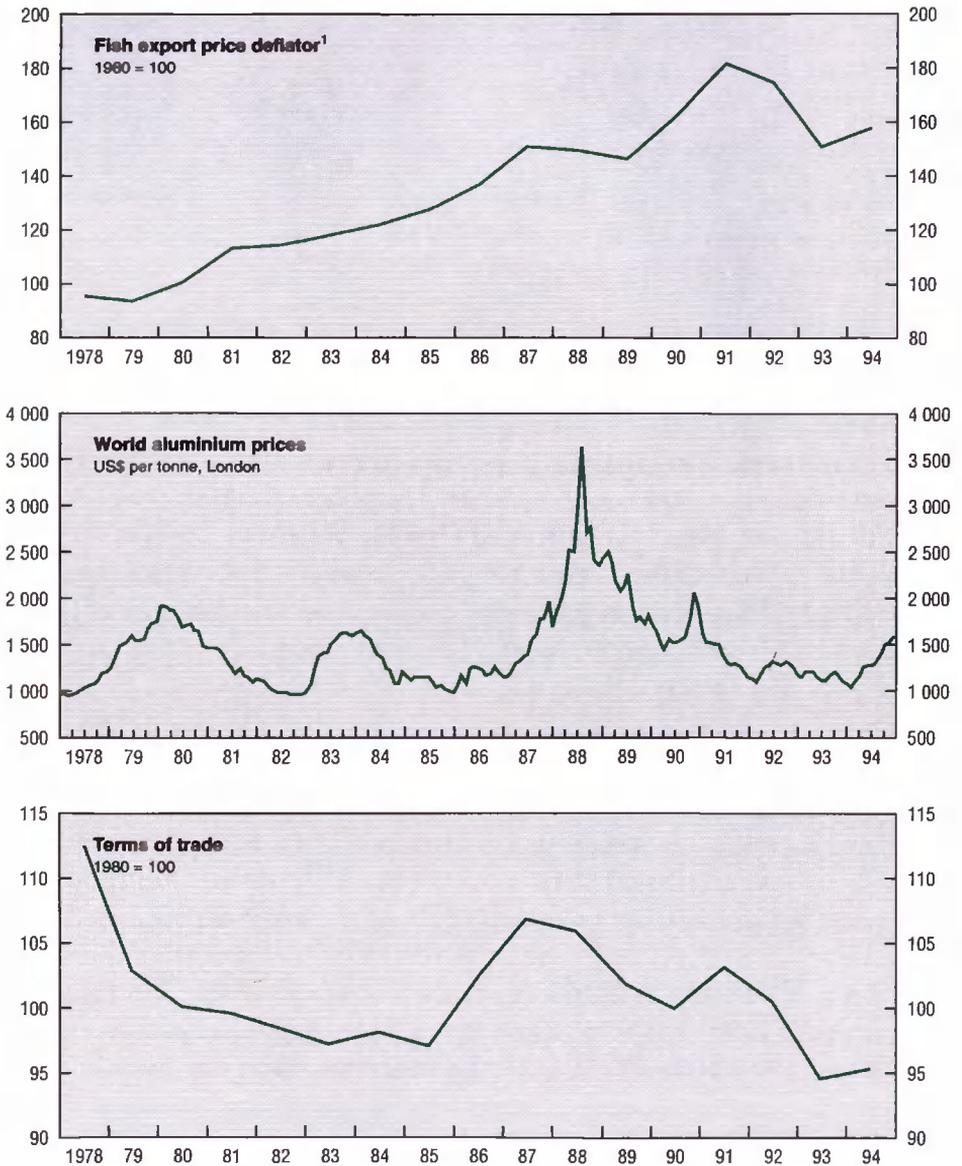
	Millions of krona			Volume change		
	1992	1993	1994	1992	1993	1994
Export production						
Marine products	70 210	76 752	86 590	-2.0	6.0	8.9
Aluminium	7 964	8 374	10 329	0.4	1.5	7.4
Ferrosilicon	1 545	2 370	2 432	8.7	27.5	2.3
Other	7 714	8 028	10 869	-10.5	-1.4	23.7
Total export production	87 433	95 522	110 219	-2.6	5.3	9.8
Exports of old ships and aircraft	523	1 308	3 345			
Stock changes	123	2 174	92			
Total merchandise exports	87 833	94 658	113 472	-1.0	5.1	13.1

Source: National Economic Institute.

about half the increase in export earnings. Exports of demersal fish other than cod (especially oceanic redfish) rose markedly, as trawlers shifted some of their efforts to deep-sea areas beyond Iceland's fishing zone. The shrimp catch also continued to expand. Exports of marine products are the fruits of the combined efforts of the fishing and fish processing sectors. The latter has generally performed better in recent years, reflecting increased processing of fish caught by foreign boats and a shift to processing-intensive species.

Exports of manufactured goods also surged in 1994, with almost all product categories registering increases in both volumes and krona prices. The widespread nature of the increases is indicative of the two general factors for growth: the improvement in competitiveness, especially due to the 1992-93 decline in the real exchange rate, and the recovery in world demand. More specifically, aluminium exports, which constitute nearly half of all manufactured exports, rose 23 per cent in value, with a 7 per cent increase in volume and a krona price increase of 16 per cent. In February 1994, a memorandum of understanding was signed by key producing countries (not including Iceland) pledging to cut production over the following 18 to 24 months in a bid to boost prices which had declined owing to recession-related weakness in demand and increased supplies from Russia. Since that time prices rose from \$1 100 per tonne to a peak of over \$2 000 per tonne in early 1995, before falling back to around \$1 800 more recently. Ferrosilicon production rose only 2 per cent, despite improving world markets, owing to a disruption caused by an accident at the plant. Manufactured exports excluding

Diagram 2. EXPORT PRICES AND THE TERMS OF TRADE



1. Trade-weighted foreign-currency export price index.

Source: Central Bank of Iceland, National Economic Institute and OECD.

these power-intensive products increased by over 20 per cent. Merchandise exports were also aided by a sale/leaseback agreement reached by the nation's major airline with a foreign firm. This deal boosted export volumes by roughly 2 percentage points.³ Nominal exports of non-factor services expanded 8 per cent, with an 3 per cent gain in volume terms. Two areas that posted particularly large gains were tourism, reflecting a 15 per cent increase in the number of visitors, and transportation services, benefiting from the overall rise in export volumes.

Domestic demand, saving and the current account

1993's export-led growth broadened in 1994 as domestic demand recovered. The improving economic climate was registered in final domestic demand, which rose 1 per cent in 1994 following two years of sharp declines. Rising real personal income generated a slight recovery in personal consumption, which rose a modest 2 per cent after plunging 9 per cent over the previous two years (Table 2), a result of worsening in the terms of trade and rising unemployment.

Table 2. **Demand and output**
Percentage change in volume terms, 1990 prices

	1990	1991	1992	1993	1994 ³
Private consumption	0.5	4.1	-4.4	-4.5	1.7
Public consumption	4.4	3.2	-0.8	2.0	1.4
Gross fixed investment	2.6	2.0	-11.1	-10.4	-1.1
Business	5.2	3.6	-17.1	-23.9	0.2
Residential	-0.6	6.0	-0.4	4.0	2.0
Public	-1.4	7.3	-3.6	15.1	-6.6
Final domestic demand	1.6	3.5	-5.0	-4.2	1.2
Stockbuilding ¹	-0.2	1.6	-0.3	0.2	-0.3
Total domestic demand	1.4	5.2	-5.3	-4.0	0.9
Exports of goods and services	0.0	-5.8	-1.7	6.4	10.2
Imports of goods and services	1.0	5.5	-7.8	-8.5	4.7
Foreign balance ¹	-0.4	-3.9	2.2	5.0	2.2
GDP	1.1	1.3	-3.3	0.9	3.0
GNP	1.2	1.1	-3.4	0.8	3.2
Gross national income ²	0.5	2.6	-4.1	-0.9	3.7

1. Contribution to GDP growth, *i.e.* changes in aggregates expressed as a percentage of GDP of the previous year.

2. GNP adjusted for effects of changes in the terms of trade.

3. Estimate.

Source: National Economic Institute and OECD.

Brighter economic prospects and lower interest rates contributed to the turnaround in housing investment, which rose for the first time in five years. The government sector provided no impetus to the economy in 1994 because rising real government consumption at both the central and local government levels managed only to offset the decline in public investment, as the temporary construction projects that were initiated in 1993 began to unwind.⁴

Business fixed investment stabilised after having fallen dramatically in 1992 and 1993. While the declines had been widespread across industries, they were particularly large in the transport, fishing and electric power generation sectors. In 1994, real investment in the especially volatile fishing sector posted a 40 per cent gain but remained only about half the average level recorded over the 1984-93 period, reflecting the sombre near-term sectoral outlook. Real investment in the transport and electric power generation sectors continued to fall to levels well below their ten-year averages. Investment in fish processing rose markedly, reaching a level not far from its average over the past decade.

The developments in domestic demand were echoed in merchandise imports which posted their first real increase in three years. About one-third of imports are capital goods (including automobiles) which remained virtually level, mimicking the pattern of business fixed investment. Import volumes of intermediate goods picked up considerably, reflecting the rebound in domestic production, and consumer goods (excluding autos) edged up, as the effects of real income gains more than offset the rise in relative prices: import prices advanced more rapidly than domestic inflation owing to the carry-over effects of the devaluation and a small rise in foreign prices. Combined with developments in export prices, the overall terms of trade were largely unchanged in 1994.

The robust export growth coupled with moderate expansion of imports meant that the trade account posted a surplus equal to $4\frac{3}{4}$ per cent of GDP, the largest since independence. The current account also posted a significant surplus (Table 3) for the first time since 1986. The current account surplus is much smaller than that on the trade account owing to the servicing costs of the large amount of foreign debt that was accumulated as a result of the persistent deficits since the early 1970s. The current account surplus and reductions in foreign reserves financed large capital outflows in 1994, entailing a reduction in short- and long-term debt positions by financial institutions and increasing outflows for

Table 3. **Balance of payments**

IKr billion

	1991	1992	1993	1994
Merchandise exports	91.6	87.8	94.7	113.5
Marine products	73.2	69.9	74.6	85.7
Aluminium and ferrosilicon	9.8	9.7	10.6	13.5
Other	8.5	8.2	9.5	14.2
Merchandise imports	94.6	87.9	82.4	93.0
Ships and aircraft	6.3	6.6	2.2	4.2
Other	88.3	81.3	80.2	88.8
Merchandise trade balance	-3.1	-0.1	12.3	20.5
Non-factor services exports	36.4	36.5	43.5	46.9
Travel	8.0	7.4	8.9	9.6
Transportation	13.0	12.2	15.6	17.0
Defence force	9.4	9.8	9.1	9.5
Other	5.9	7.1	9.9	10.7
Non-factor services imports	36.5	34.8	40.8	42.1
Travel	17.3	16.6	17.9	17.5
Transportation	11.9	10.8	12.8	13.7
Other	7.3	7.4	10.0	10.9
Non-factor services balance	-0.2	1.7	2.7	4.8
Net investment income	-14.8	-13.6	-14.6	-15.2
Unrequited transfers	-0.3	-0.4	-0.2	-0.9
Current-account balance	-18.3	-12.4	0.2	9.2
Capital-account balance	17.8	16.2	-5.3	-22.6
Direct investment, net	1.6	0.5	0.2	-0.1
Portfolio investment, net	1.3	-0.9	-2.8	-7.5
Long-term borrowing, net	14.6	13.1	6.4	-6.2
Short-term capital movements, net	0.3	3.5	-9.1	-8.7
Errors and omissions	1.3	0.7	-0.6	-0.6
Overall balance of payments	0.7	4.5	-5.7	-14.0

Source: Central Bank of Iceland.

portfolio investment (Table 4). The latter may have been a response to liberalisation of capital markets and the desire of investors to diversify their portfolios. Among broad sectors only the Treasury increased its net external debt position, and the Central Bank reduced its net foreign asset position. As a result of these

Table 4. **Net external position**

IKr billion, end of period

	1990	1991	1992	1993	1994 ¹
Total long-term foreign debt	176.7	191.4	228.1	265.0	257.1
Public sector	96.7	109.4	133.5	158.4	168.0
Treasury	59.5	67.7	86.7	101.9	113.2
Government enterprises	31.3	35.7	38.7	46.6	45.4
Municipalities	5.9	6.0	8.0	10.0	9.4
Financial institutions	59.4	60.4	70.1	81.3	68.6
Commercial banks	25.3	25.1	26.3	27.6	22.1
Investment credit funds	33.9	35.2	43.7	53.7	46.6
Private non-financial sector	20.6	21.6	24.6	25.3	20.5
Fisheries	1.0	1.0	1.8	1.6	2.5
Manufacturing	1.5	1.3	1.2	1.0	0.9
Transportation	12.9	15.6	17.5	18.6	14.7
Other	5.2	3.6	4.1	4.1	2.4
Short-term foreign debt	21.0	22.5	25.1	22.3	15.4
Public sector	0.3	0.1	0.6	0.4	0.0
Commercial banks	11.4	13.4	15.9	14.5	7.9
Private non-financial sector	9.3	9.1	8.6	7.4	7.5
Foreign assets ²	39.1	40.1	45.2	45.9	34.9
Public sector	0.0	1.0	0.1	0.3	0.1
Commercial banks net liquidity	2.8	3.4	3.0	5.2	6.2
Private non-financial sector	12.8	11.6	11.1	11.8	12.7
Central Bank, net	23.4	24.1	31.1	28.9	15.0
Portfolio investment, net	0.0	-1.3	-0.4	2.5	9.9
Net external debt position	158.6	175.2	208.4	238.8	228.9
in per cent of GDP	43.6	44.1	52.2	58.0	52.8

1. Preliminary figures.

2. Excluding portfolio investment.

Source: Central Bank of Iceland.

capital movements, and a broadly stable exchange rate (see Chapter II), net foreign debt in krona terms fell for the first time in at least twenty-five years, and the foreign-debt-to-GDP ratio eased.⁵

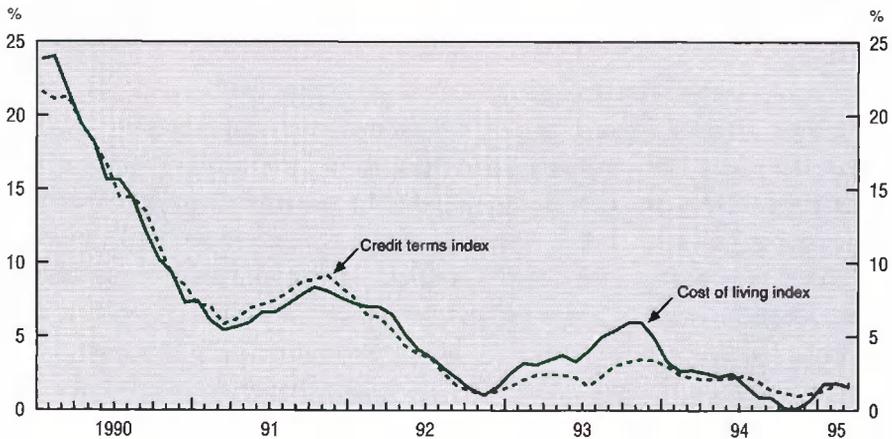
Inflation and the supply side

Labour-market slack and a stable currency provided an environment for further gains on the inflation front. Consumer prices inched up only 1½ per cent

in 1994, compared with a 4 per cent rise in 1993, and they were unchanged over the August to December period (Diagram 3). These are the lowest figures recorded in Iceland since the second World War, except for brief periods in the 1950s. Some of the improvement over 1993 reflects the reduction of the VAT on food products in January 1994,⁶ but much of the improvement can be credited to slack labour market conditions. In addition, prices of imported goods remained in check owing to the stable exchange rate.

The unemployment rate was on average a half percentage point higher in 1994 than a year earlier (Table 5). While the labour market continued to deteriorate during the first half of the year, conditions appeared to improve in the latter half. The April labour force survey indicated that the unemployment rate stood at 5.9 per cent, well above the 5.5 per cent rate recorded the previous April or the 5.0 per cent rate of November 1993 (these figures are not seasonally adjusted). The level of registered unemployment also was consistently higher than year-earlier figures.⁷ However, over the second half of the year the labour market steadied and then began to improve. The November labour market survey found only a 4.7 per cent unemployment rate, and the level of registered unemployment

Diagram 3. **INFLATION PERFORMANCE**
Percentage change from twelve months earlier



Source: Central Bank of Iceland.

Table 5. Labour market conditions

	1980-87	1988	1989	1990	1991	1992	1993	1994
Unemployment rate								
Registered	0.7	0.6	1.7	1.8	1.5	3.0	4.3	4.7
ILO definition ¹	n.a.	n.a.	n.a.	n.a.	2.4	4.3	5.3	5.3
Man-days lost due to work stoppages (thousand)	90.0	101.0	80.0	0.2	3.0	0.4	0.1	90.0
Wages ² (percent change)								
Nominal	42.3	27.5	13.6	7.2	8.2	5.8	1.1	1.0
Real	0.4	1.6	-6.2	-6.7	1.3	0.6	-3.6	-0.5

1. Average of spring and autumn surveys.

2. Average day-time earnings of ASI members, including bonuses and productivity-related payments.

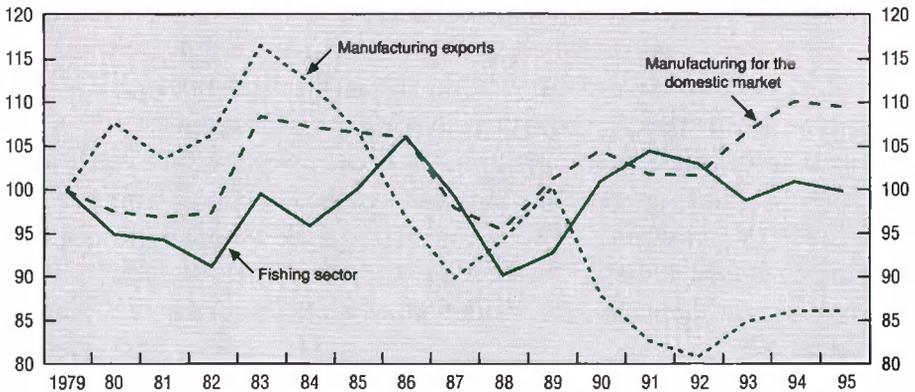
Source: National Economic Institute and Statistical Bureau of Iceland.

also dipped below year-earlier figures. Nevertheless, the continued high level of unemployment, by Icelandic standards, has resulted in very moderate wage gains. The wage agreements made in mid-1993 by the employers and the Icelandic Federation of Labour called for a nominal wage freeze through 1994 and reviews of the agreement in November 1993 and May 1994. At the May review it was decided to give a one-time bonus of Ikr 6 000 to each full-time employee. The central agreements provide a baseline for individual agreements that incorporate local, firm- or industry-specific developments. As a result of both the central and satellite agreements, overall wage rates grew at roughly a 1 per cent pace in 1994 (thus falling slightly in real terms), indicating little wage pressure in labour markets. However, labour stoppages reappeared in 1994 and 1995. At the beginning of 1994 there was a two-week strike by the fishermen's union over income/revenue-sharing issues,⁸ and at year-end there was a protracted strike by nurses' aides which was settled after the government agreed to a set of provisions that imply a wage increase of around 7 per cent. Then in February 1995, a nationwide strike by teachers got underway; no agreement had been reached when this survey was finalised. Shortly thereafter, a wage agreement covering the period until end-1996 was reached in the private, non-bank-sector. The pact provides for wage increases in two stages worth from over 5 per cent to about 15 per cent (higher amounts for the lower paid), with an average of about 7 per cent. After-

tax wages will rise slightly faster due to the elimination of employee pension-plan contributions from the tax base.

Along with slack in labour markets there appears to be untapped capacity in some key areas of the manufacturing sector which will undoubtedly be drawn on given the favourable export market conditions. The real value of the krona is well below its average for the 1980-93 period, by 10 per cent in terms of relative prices and 17 per cent in terms of labour costs. The Central Bank's index of competitiveness, which includes both input and output prices, shows a stable outlook for profitability in the export sector (Diagram 4). In addition, the price rises for aluminium and ferrosilicon make it profitable to expand production at these plants: discussions are underway regarding the possible expansion (by 60-90 per cent) of the production capacity of the existing aluminium smelter, although the uncertainties in the aluminium market are probably discouraging the development of another separate aluminium plant.⁹ But exploratory actions on the construction of a zinc ingot plant are well under way. Iceland's relatively inexpensive hydroelectric and geothermal energy make it an attractive site for investment in energy-intensive materials-processing plants.

Diagram 4. **INDEX OF COMPETITIVE POSITION¹**
1979 = 100



1. The index is based on the structure of domestic costs and on foreign prices; a rise indicates improved competitiveness.

Source: Central Bank of Iceland.

The major trouble spot on the supply side of the economy is the state of the fisheries. Iceland's fishing industry has been burdened for a number of years by declining stocks of cod, which still accounts for over one quarter of the value of the fish catch. The decline is partially attributable to overfishing and poor environmental conditions in the late 1980s and continued overfishing more recently.¹⁰ In addition, the size of the recruitment classes appear to have been disappointingly small, given the size of the fish stock and the environmental conditions. The government has traditionally chosen a total allowable catch (TAC) or catch quota in excess of the recommendations of the Marine Research Institute (MRI), and effort quotas and other flexibilities in the system have allowed the actual catch to exceed the national TAC.¹¹ In the summer of 1993, the national TAC was set at 165 000 tonnes (the total TAC of 165 700 tonnes includes an additional small amount for vessels from the Faroe Islands) for the September 1993/August 1994 fishing year, a sharp reduction from the 205 000 tonne limit set for the previous year, but well in excess of the MRI's recommendation, especially considering the likelihood that the catch would exceed the TAC. In the event, the catch was nearly 200 000 tonnes, a level which according to the MRI estimates caused further erosion in the fishable stock and the spawning stock.¹² It is estimated that the fishable stock is now at a historical minimum, and for the 1994/95 fishing season the MRI recommended a catch of 130 000 tonnes and projected that a catch averaging 160 000 tonnes over the next three years would most probably keep the spawning stock at its current low level. In the event, the national TAC for 1994/95 was reduced by only 10 000 tonnes, to 155 000 tonnes (Table 6), but the contractionary effect should be larger, because it is likely that the domestic catch will not exceed the national TAC by as much as it did this past year. For the first time, small boats will be subject to effort quotas that can effectively limit their catch; most of the overrun in 1993/94 occurred because the catch by the small boats was much greater than had been expected by the government.¹³ The catch of 155 000 tonnes in 1994/95 is expected to lead to a small increase in the cod stock, even though the MRI's recommended catch level would have led to a faster recovery in the stock toward its optimal size. Biological and economic calculations (Working Group on the Exploitation of Fish Stocks, 1995) show that it may be profitable to cut catches of cod even further below the 130 000 tonnes suggested by the MRI. But these results depend crucially on assumptions concerning the ability of the economy to cope with the effects of such reductions.

Table 6. **Declining codfish catch and stocks**

Thousands of tonnes per year¹

	1989	1990	1991	1992	1993	1994	1995
Total allowable catch							
MRI ² recommendation	300	250	240	250	190	150	130
Government-set quota	327	302	247	266	206	166	156
Actual landings ³	356	335	247	274	235	196	n.a.
Landings as a percent of recommendation	119	134	100	110	124	131	n.a.
Fishable stock ⁴	1 032	841	706	565	570	593	510
Spawning stock ⁵	270	349	238	228	228	235	230

1. Figures for 1989-90 are calendar years, 1991 is from January to August, and thereafter are fishing years (September of the previous year to August).

2. Marine Research Institute.

3. Includes 1 to 2 thousand tonnes for vessels from Faroe Islands subject to a separate quota.

4. Stock in tonnes of fish ages 4 to 14, as estimated by MRI.

5. Stock of sexually mature fish. The 1995 estimate is based on a 160 000 tonne catch in 1995.

Source: Marine Research Institute.

One proposal is to adopt a quota-setting rule: the TAC would be a fixed proportion (say 22 per cent) of the fishable stock.

Only fortuitous environmental conditions and recruitment classes will allow an expansion of the catch over the next four or five years; it is more likely that the cod catch from Icelandic waters will be constrained to levels not generally experienced since early in the century. Distant waters have provided some near-term respite but may not develop into a source for further growth, given the competing claims on it and the record of what happened to other nearby stocks.¹⁴ Diversification to other species also holds only limited further scope. Of the other major demersal species, further exploitation of haddock and redfish are consistent with maintaining stock levels, but the catches for other fish are either at or above their maximum sustainable yields.¹⁵ Moreover, the potential size of the catch of these species is dwarfed by the size of the cod catch, and thus they cannot replace the value lost from the halving of the cod catch over the past decade. The MRI recommendations allow for greater exploitation of herring and capelin for the most part, relatively low-value fish, but not of crustaceans. There is a good chance that more herring will be available from the big Norwegian/Icelandic spring-spawning stock, should it migrate out of Norwegian jurisdiction.

In short, the fisheries industry may not be a source of economic growth over the near term, and further consolidation appears to be in the making. While the National Economic Institute's estimates show positive profitability for demersal fishing overall, there is much dispersion: freezer trawlers have averaged net profits of 11 per cent of gross income over the past five years, non-freezer trawlers have moved from profitability to nonprofitability over the same period, and boats (from 21 – 200 GRT) have consistently experienced losses. Although no data exist, very small boats (below 6 GRT) are probably profitable, since there has been substantial entry by small boats in recent years, but they will be experiencing a sizeable reduction in effective fishing rights as they move under a more binding form of effort quota. The new Fisheries Development Fund, which replaces the Fisheries Rationalisation Fund,¹⁶ has proffered grants of nearly IKr 3 billion to decommission some 8 per cent of Iceland's fishing fleet. As from 1995, vessel owners receive grants of 40 per cent of the hull insurance value up to a maximum of IKr 93.1 million (down from 45 per cent and 90 million in 1994) and in return must not renew their ships which are stricken from the registry and lose fishing rights.¹⁷

Near-term outlook

Prospects for income and output look fairly solid over the next few years, despite the bleak near-term outlook for the fisheries sector. The strengthening of domestic private consumption and investment demand should be more than sufficient to offset weakness in export production. Moreover, the fisheries sector is not the sole determinant of exports; rising manufacturing and services exports fuelled by the relatively low value of the krona and the rebound in foreign demand should support continued, albeit relatively weak, export volume increases. Overall the economy is poised for growth of around 2½ per cent over each of the next two years (Table 7).

On balance, fiscal policy should have little impact on the economy in 1995; only minor provisions have been implemented on the tax front, government consumption and capital spending are targeted to be little changed in real terms, and no major changes in transfers or subsidies have been implemented. Thus, private consumption will be largely determined by earnings prospects. With brighter prospects, the savings rate is expected to edge down, and real personal

Table 7. Short-term projections
 Percentage changes, volume (1990 prices)

	1995		1996
	Official forecast March 1995	OECD	OECD
Private consumption	3.9	3.7	3.0
Government consumption	2.0	2.0	2.0
Gross fixed capital formation	4.4	4.9	5.1
Final domestic demand	3.5	3.5	3.1
Change in stockbuilding ¹	0.0	0.1	0.0
Total domestic demand	3.6	3.7	3.1
Exports of goods and services	2.9	2.9	3.0
Imports of goods and services	4.5	6.5	5.5
Change in foreign balance ¹	-0.6	-0.9	-0.6
GDP	3.0	2.5	2.3
GDP implicit price deflator	3.0	3.6	2.9
Consumer price index	2.5	2.6	2.9
Unemployment rate (in percent)	4.3	4.5	4.4
Current balance ²	2.3	2.4	2.3

1. As a percentage of GDP in the previous period.

2. As a percentage of GDP.

Source: National Economic Institute and OECD.

consumption is projected to post a 4 per cent gain. Double-digit increases in housing permits during the second half of 1994 point to continued growth in residential investment, reflecting improving personal finances and the increasing use of mortgage financing. Growing domestic demand and favourable export markets will generate increased business investment outlays, at least outside the fishing sector. In addition, investment outlays will be bolstered when work begins on the Hvalfjordur tunnel, which is projected to begin in 1995 and be completed in three years. Accelerated depreciation provisions temporarily in effect for 1994 and 1995 should have little effect but may encourage businesses to shift investment from the beginning of 1996 to the end of 1995. Further sale/leaseback agreements in 1995 will artificially depress investment and boost exports in 1995, with a reversal in 1996. Import volumes will rise somewhat more rapidly, reflecting the rise in domestic demand particularly for import-intensive investment goods, and reduce the trade surplus. Despite the narrowing in the trade

surplus, the current account will probably continue to record modest surpluses, allowing a continued easing in the foreign-debt-to-GDP ratio.

The moderate prospects for growth imply that labour markets will tighten, but not excessively; it is likely that the seasonally adjusted unemployment rate will fall only modestly. The continued slack should promote moderate wage increases economy-wide, in line with those reached in February in the private non-bank sector; if realised, this will result in slowly rising unit labour costs. This is a prerequisite for the maintenance of the current level of the exchange rate and increases in domestic prices similar to those of trading partners. Consumer prices are projected to rise somewhat faster than in 1994, with inflation rising to nearly 3 per cent in 1996.

Of the many risks to the projections, the most important ones relate to the development of export markets and of the output of the fisheries sector. The projections are based on continued expansion of world markets and improved fish and aluminium prices. Prices of the latter have been rising of late and are approaching the upper ranges experienced over the past decade. The risks are probably balanced for movements in either direction.¹⁸ Persistently high aluminium prices may make it profitable to enlarge the aluminium smelter which would sharply increase investment and GDP in 1996.¹⁹ Changes in fish prices have traditionally flowed through national income to domestic demand quite quickly, in part because of revenue-sharing arrangements in the fishing industry. For marine export production, the risks may be unbalanced, with a greater probability of a significant decrease in cod fishing, owing either to further deterioration of the Icelandic stock or to reduced access to distant waters, than there is of significant increases in the catch. Private consumption and investment are expected to provide the near-term impetus to domestic demand. However, households may opt to stem the ongoing rise in their debt burdens,²⁰ which would weaken consumption and residential investment and thereby dampen the expected reversal in business investment. Historically, government spending has exceeded Treasury projections, particularly in election years; here the risks are probably higher for greater impetus to demand. Finally, there is uncertainty about wage and price developments. Iceland has little experience with the levels of unemployment reached in recent years and the wage accords and inflation pressures that will develop with 4½ per cent unemployment is uncertain. Nevertheless, it is likely that the Iceland will further distance itself from its high-inflation past.

II. Economic policies

Fiscal policy: struggling to contain the deficit

Introduction

Over the past seven years of economic restructuring and stagnation the authorities have struggled to control the budget deficit. Fiscal consolidation has been one of its primary goals, despite the inhospitable economic conditions, yet success has been elusive. Efforts have been focused on expenditure reduction; but spending has remained stubbornly high, oscillating between 26½ and 28½ per cent of GDP. This reflects alternation between budget cuts and fiscal concessions, but over the last 3 years expenditure have fallen as a share of GDP. In the late 1980s taxes were raised, but since 1989 tax policy has not been used to cut the deficit, as the major changes in tax law have usually been designed to be approximately revenue neutral; thus, revenues have varied within a narrow range of 25 to 26 per cent of GDP. The 1994 budget followed the recurrent pattern of intended fiscal stringency upon its passage the preceding December, despite a bleak economic outlook, that was subsequently undone, in part to accommodate the wage negotiations. Only unexpectedly good economic news kept the deficit on track. Indeed it was actually smaller than budgeted, but at 1.7 per cent of GDP, it was only slightly lower than the average outcome over the past eight years.

At the time of passage, the 1995 budget aimed at further deficit reduction, but with the better-than-expected 1994 outcome, the 1995 budget now shows no progress towards fiscal consolidation: expenditures are slated to be constant in real terms, but revenue growth is held down by the carry-over effects of earlier tax cuts, and the deficit is projected to remain unchanged. While the deficit has been boosted by measures taken to conclude the latest wage negotiations, these

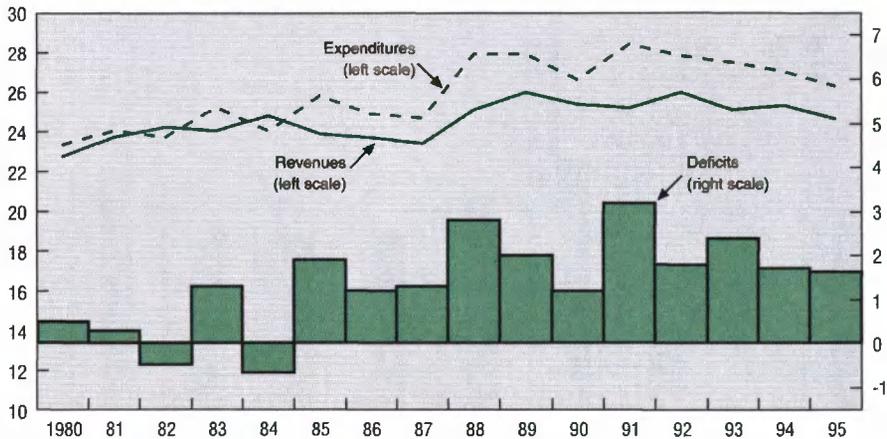
may well be offset by additional revenues owing to higher economic activity. Yet given the history of overruns on the expenditure side of the budget, even this stability is far from certain to be realised. The Treasury's net debt position, at some 30 per cent of GDP in 1994, is still low relative to the OECD average, but it has risen substantially from the 8 per cent figure recorded in 1988, and it will continue to rise unless further progress is made in fiscal consolidation. Nonetheless, while the deficit has not been reduced as much as planned, a certain number of fiscal-policy-related reforms have made important contributions to the restructuring of the economy: reducing tax rates and broadening tax bases, overhauling agricultural support programmes and discontinuing the use of direct Central Bank financing of the deficit should not be overlooked when evaluating the successes and failures of fiscal policy actions over the past decade.²¹

Recent outcomes

During the mid-1980s, while the economy was growing strongly and resource use was at unsustainably high levels, the Treasury deficit moved from a rough balance early in the decade to a deficit of 1 per cent of GDP in 1987 (Diagram 5).²² This left the Treasury ill-prepared for the recent period of economic stagnation, being saddled with the unenviable task of balancing the needs of fiscal consolidation and macroeconomic stabilisation.²³ The result of pursuing these two conflicting goals has been a set of policies that has yielded little improvement in the deficit since 1989. Fiscal consolidation efforts have been essentially offset by the effects of the automatic stabilisers. The swing in economic activity from more-than-full resource utilisation in 1989 to excess capacity in 1994 may have made for an increase in the deficit as a share of GDP by 2 percentage points. As the actual deficit was little changed, the cumulative net deficit reduction efforts would have equalled about 2 percentage points of GDP.²⁴ However, given the uncertainties about the evolution of the NAWRU (non-accelerating-wage rate of unemployment) and potential output, it is unclear how much improvement in the structural deficit there has been over this period, as at least some of the sub-par growth in recent years reflects longer-term structural changes in addition to demand and transitory supply shocks.²⁵

An important element of budget policy has been the adjustments made after the budget's annual approval in December. Indeed, these adjustments, particularly those made to assist conclusion of the wage negotiations, have often been

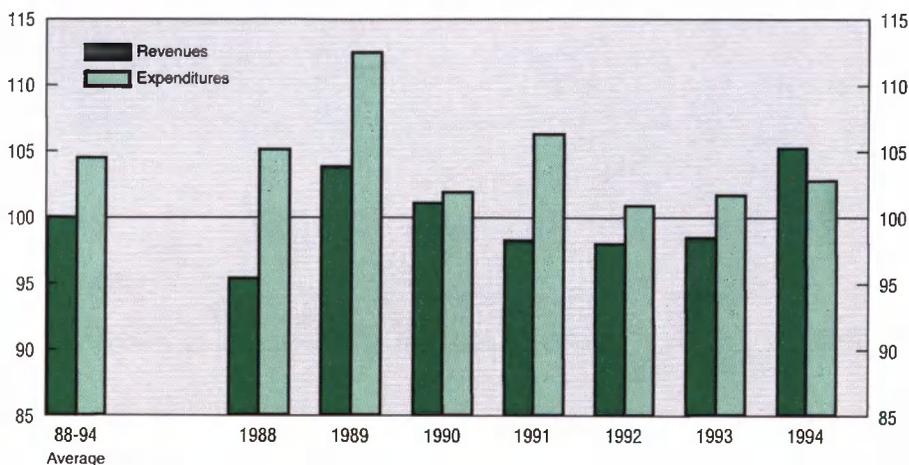
Diagram 5. **TREASURY REVENUES, EXPENDITURES AND DEFICITS**
Percentage of GDP



Source: Ministry of Finance.

substantial and make the budget a less reliable guide to budget outcomes. Rather, the budget has the character of a target which would be met only under optimal conditions. Even though there is much uncertainty about the evolution of the economy and thus of the bases for each type of taxation, the revenue forecasts have proven to be reasonably unbiased and accurate (Diagram 6). This probably reflects several factors: the structure of the Icelandic tax system implies that revenues respond less than proportionately to changes in current-year GDP;²⁶ the deviations of the economy from budget assumptions have generally been small; and discretionary changes to tax policy after the beginning of the budget year have been limited. However, spending has, on average, run 4½ per cent above projections, owing largely to changes in fiscal policy after the budget is passed. Given this pattern, success in consolidation will require either a sharp diminution of fiscal concessions after the fiscal year has begun or more aggressive deficit reduction efforts when the budget is passed in December.

Diagram 6. **BUDGET OUTCOMES RELATIVE TO PROJECTIONS**
 Outcome as a per cent of budget projection



Source: Ministry of Finance.

The 1994 outcome

The Treasury posted a IKr 7½ billion deficit in 1994, IKr 2 billion below what was projected in the budget passed in December 1993 (Table 8). This is the first time since 1984 that the actual deficit has been below projections and reflects the effects of two opposing forces: higher expenditures due to discretionary actions taken after the initial budget was approved and higher revenues due to a much better-than-expected macroeconomic climate. At the time the budget was passed in December 1993, real GDP was projected to decline about 2½ per cent in 1994, and fiscal policy was aimed at keeping the deficit at the 1993 level of IKr 9½ billion (2½ per cent of GDP) through holding the line on expenditures. The necessary expenditure cuts were augmented to some extent by the effects of tax cuts enacted earlier that were expected to reduce revenues in 1994. The rise in overall spending was expected to be held to 1 per cent primarily by reducing operating and capital outlays.²⁷ In addition, social security payments were expected to be cut by nearly IKr 1 billion through reforms in the sickness insurance programme. Besides these new discretionary measures, further reduc-

Table 8. Treasury finances

IKr billion, cash basis

	1992 Outcome	1993 Outcome	1994				1995	
			Budget	Outcome	% change from 1993		Budget	% change from 1994
					Budget	Outcome		
Total revenue	103.4	103.2	104.1	109.6	0.9	6.2	112.1	2.3
Direct taxes	20.3	20.3	21.3	23.2	5.1	14.1	22.8	-1.8
Indirect taxes	75.4	75.9	75.4	78.5	-0.6	3.5	81.7	4.1
Import duties and excises	8.2	7.7	7.9	8.1	3.1	5.3	8.7	7.6
VAT	39.9	40.5	38.8	40.9	-4.2	1.0	42.2	3.1
Social security	9.6	10.0	10.2	10.5	2.6	5.5	10.9	3.7
Other	17.7	17.7	18.4	19.0	4.0	7.2	19.9	4.9
Other revenue	7.7	7.1	7.4	7.9	5.2	12.4	7.6	-4.0
Total expenditure	110.6	112.9	113.8	117.0	0.8	3.7	119.5	2.1
Consumption	44.9	47.9	46.5	48.8	-2.9	2.0	49.2	0.8
Transfer payments	46.2	42.9	44.0	45.1	2.5	5.1	46.4	2.9
Social security	28.7	28.9	29.5	29.3	2.1	1.4	30.6	4.4
Agricultural subsidies	9.4	6.5	5.8	5.7	-11.7	-12.5	5.7	0.0
Other	8.1	7.5	8.8	10.1	16.7	34.3	10.1	0.2
Interest payments	8.3	9.7	11.5	10.7	17.7	10.0	12.3	14.9
Capital expenditure	11.1	12.3	11.8	12.4	-4.0	0.5	11.6	-6.3
Revenue balance	-7.2	-9.6	-9.6	-7.4	-0.1	-23.1	-7.4	0.3

Source: Ministry of Finance.

tions in agricultural subsidies were expected from the wholesale changes in agricultural support programmes made in 1991. Offsetting these reductions were the expected increases in interest payments and unemployment benefits. Interest expenditures were projected to rise 18 per cent owing to the rising level of overall debt to finance the deficit and the revaluation of interest payments on foreign debt as a result of the June 1993 devaluation.²⁸ Unemployment benefit payments were also expected to rise as the contraction of GDP would boost the unemployment rolls.

In the event, outlays rose nearly 4 per cent in 1994, 3 percentage points more than budgeted, due to discretionary decisions taken by the government during the year. A portion of the IKr 3 billion overrun reflects fiscal concessions made by the government to help conclude the 1994 wage agreements between private-sector employers and employees, a virtually perennial phenomenon.²⁹ Capital expenditures exceeded budget projections by only IKr ½ billion, although over IKr 1½ billion was added during the year for, among other things, a new rescue helicopter, some construction expenditures related to the Vestfirðir tunnel, and new offices for the Ministry of Foreign Affairs. Government consumption rose 2 per cent, 4 percentage points above budget plans, reflecting overruns in health and education and new wage agreements with civil servants. Transfer payments also exceeded expectations by IKr 1 billion because the government failed to implement its planned reductions in sickness insurance outlays and also voluntarily boosted payments to social security and unemployment benefit recipients by nearly IKr ½ billion, in line with the general wage agreements.

Revenues rose 6 per cent in 1994, much stronger than the 1 per cent increase projected in the budget and somewhat faster than overall GDP growth. The difference between the projected and actual outcomes largely reflects the better-than-expected economic performance, as no discretionary actions were taken. It now appears that the real economy grew about 3 per cent in 1994, implying a level of output about 5½ percentage points greater than projected in the budget. Thus, the Treasury estimates that the reversal of macroeconomic fortunes by itself boosted revenues in 1994 by 4 to 4½ per cent during the year.³⁰

Individual income and wealth taxes surged 20 per cent in 1994, far outstripping wage gains of about 3 per cent,³¹ owing to the positive cash flow effects on Treasury revenues from the reshuffling of tax bases between the Treasury and the

municipalities, the spillover effects of the 5 per cent surtax enacted for 1993 and 1994, and a 0.4 percentage point boost in the personal tax rate to help finance reductions in the VAT for food products.³² Receipts from corporate income and wealth taxes declined 6 per cent, as the lowering of the marginal tax rate from 39 to 33 per cent and a shift of the proceeds of the office property tax³³ to the municipalities outweighed the rise in corporate profits. Taxes on goods and services were buffeted by a variety of influences. Changes in the VAT were expected to reduce revenues on balance, as the losses from cutting the VAT on food products from 24½ per cent to 14 per cent were larger than the gains from the extension of the VAT to hotel services and the spillover effects of last year's VAT base broadening. This lowering of effective tax rates was more than offset by the rise in consumption.³⁴ Revenues from the employer's social security tax were lifted by the rising wage bill, the 0.4 percentage point increase in the tax rate and the end of the temporary exemption of export industries from the tax for the second half of 1993. Increases in other revenue were held down by a further reduction in the foreign currency tax, which will be abolished at the end of 1995.³⁵

The 1995 budget

The 1995 budget is designed to hold the deficit at IKr 7½ billion and the deficit-to-GDP ratio at 1¾ per cent, near where it was in 1990, before fiscal policy was considerably loosened in 1991.³⁶ The budget is based on real GDP growth of about 2 per cent, inflation of 2 per cent and a slight decline in the unemployment rate. As in previous years, the government is looking to moderation in expenditure growth to pare the budget deficit: specifically, spending growth is targeted at near the projected rate of inflation. On the revenue side, several small provisions that narrow the tax base were passed, but they were offset by tax rate increases.

The principal source of budget savings is a IKr 1 billion, or 6 per cent, reduction in planned capital expenditures.³⁷ Public infrastructure outlays were expanded dramatically in 1993 and 1994 to provide a short-term jobs programme. With the return to a growing economy these are being phased down. Moreover some one-time capital expenditures, such as the rescue helicopter and the appropriations for tunnel-related construction will not be repeated in 1995. Government consumption is expected to rise only 1 per cent as across-the-board belt

tightening is expected to outweigh real increases in nursing home and other health care services. Transfer payments are projected to rise above the rate of inflation, even though they are being restrained by the non-repetition of the one-time boost to social security benefits made in 1994 and steady agricultural subsidies. In 1995, a new rent subsidy programme is being introduced. This programme is managed by the municipalities, but partly financed by the Treasury, which is providing IKr 400 million by scaling back lending facilities for low-income groups. Interest payments are expected to rise 15 per cent, well above the pace of overall debt growth, in part because of the timing of certain cash transactions.

Revenues are expected to grow only 2 per cent in 1995 compared to the 4 per cent growth in nominal GDP, in part because of the carry-over effects of tax cuts enacted earlier which reduce revenue growth by about 1 percentage point.³⁸ In addition, several small changes to the tax code were made which, in aggregate, are approximately revenue neutral. The largest provision is a one-year extension (with some modifications) of the 5 per cent personal income tax surcharge on upper income taxpayers which will boost revenues by IKr 300 million. In addition, petrol taxes were increased. Several tax reductions were implemented: the highest bracket of the net-wealth tax was abolished; pensioners will now be able to exclude 15 per cent of their private pensions from the income tax; and accelerated depreciation will be introduced for investments made in 1994 and 1995.

The government eased fiscal policy a bit for 1995 to facilitate conclusion of the wage negotiations. Most important was the decision to phase-in an exclusion of employee pension contributions from the personal income tax. These contributions currently amount to 4 per cent of earnings; 2 percentage points are being excluded as of April 1995, another 1 percentage point in July 1996 and the final percentage point in July 1997. This measure will reduce tax revenues by IKr 800 million in 1995 and IKr 2.2 billion in 1998 when fully effective. Three-quarters of the revenue loss will be borne by the Treasury and the rest by municipal governments. In addition, Treasury expenditures will be boosted by IKr 500 million as a result of higher transfers to recipients of social security and unemployment benefits to reflect the lump-sum payments included in the agreement for low-income workers. While these measures loosen policy, the government is committed to offset them in the future, according to a policy statement it

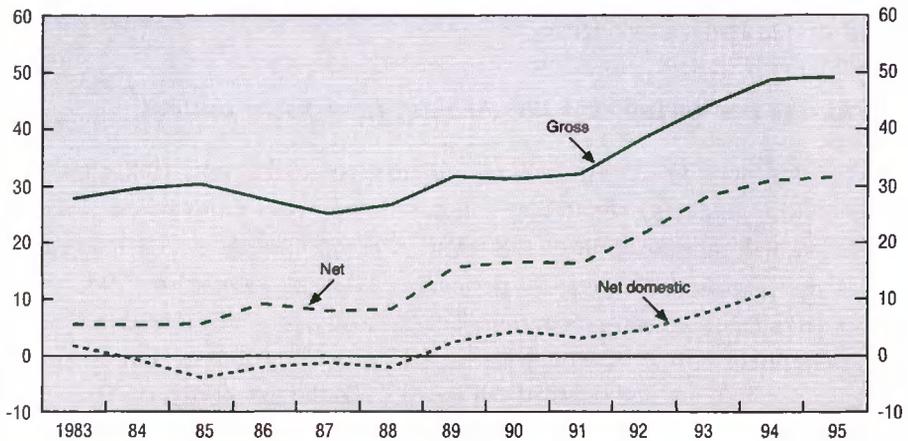
issued. Over the near-term, the Treasury estimates that revenues may be roughly IKr 700 million higher in 1995 owing to updated economic assumptions; thus, even without tightening measures, the deficit may not deteriorate as much as implied by the budget sweeteners.

Government borrowing and the medium-term fiscal outlook

Treasury debt has been growing rapidly since the mid-1980s owing to several factors: financing the deficit and net lending operations by the Treasury, devaluation and capitalisation of the inflation component of actual interest payments. Gross Treasury debt was 47 per cent of GDP by the end of 1994, roughly twice as large as only six years earlier. The Treasury provides loanable funds for public enterprises, some of which are strictly providing intermediation services and some of which are end users of the credit.³⁹ To the extent that the Treasury is providing intermediation services, borrowing by the Treasury does not place new demands on national saving except to the degree that its intermediating efforts boost credit demand by reducing the cost of borrowing for the end user. Intermediation is recorded within gross borrowing and is removed by examining net borrowing and debt levels which subtract out financial assets.⁴⁰ The net debt position of the Treasury has risen rapidly from 8 per cent of GDP at the end of 1987 to 30 per cent at the end of 1994, as the net foreign debt rose from 9 per cent to 22 per cent and net domestic debt from -1 per cent to 8 per cent (Diagram 7). A portion of the rise in the net foreign debt position results from the real devaluation of the krona, especially in recent years, but it also reflects the Treasury's continued reliance on foreign borrowing. Indeed, the Treasury relied heavily on foreign markets in 1994 in order to ease interest rate pressures in domestic credit markets. In addition, it issued IKr 1.1 billion in ECU-linked bonds in the domestic market. This move shifted exchange-rate risk from the private sector onto the Treasury which already faced substantial foreign-currency risk, given the composition of its balance sheet.

The net debt-to-GDP ratio is projected to edge up in 1995 even though the deficit is expected to be held near its 1994 level and the economy is projected to grow moderately. The National Economic Institute estimates that over the rest of the decade real economic growth will average 2 per cent per year, with inflation running about 2 per cent per year. Under these conditions and annual deficits amounting to $1\frac{3}{4}$ per cent of GDP, the net debt-to-GDP ratio would exceed

Diagram 7. **TREASURY DEBT OUTSTANDING**
Percentage of GDP



Source: Ministry of Finance.

33 per cent of GDP by the year 2000 and would not stabilise until it reached roughly 45 per cent.⁴¹ Even under this scenario, non-interest expenditures would have to be cut or taxes increased as a share of GDP to offset the rising interest burden as net interest payments would rise from 1½ to 2¼ per cent of GDP, if real interest rates remain unchanged. At current real interest rates and with modest prospects for real growth in coming years, a primary surplus of ¾ per cent of GDP is needed to stabilise the debt-to-GDP ratio at the current level.⁴² Recognising that maintaining current tax and spending policies would yield greater indebtedness, the government adopted a medium term fiscal plan in 1994 which called for balancing the budget by 1998 through expenditure cuts. The plan targeted a 5 per cent reduction in real public consumption, a 6 per cent cut in transfers and significant reductions in public investment over the 1995-98 period. If accomplished, this would reduce real interest rates and free up domestic saving for investment. The 1995 budget, along with the adjustments for the wage agreement, is consistent with the target path.

Besides Treasury borrowing, the public-sector borrowing requirement (PSBR) includes the financial needs of partly state-owned enterprises such as the National Power Company and public financial institutions such as the mortgage bond system and investment credit funds (Table 9). Again, as with Treasury borrowing, these other borrowers account for a mixture of loan demands for final use and for intermediation. Thus it is not instructive to use the PSBR as an indicator of borrowing pressure, but it is indicative of the large role played by the government in the credit markets. The PSBR peaked in 1991 at 10 per cent of GDP and declined to 3½ per cent in 1994, with most of the movement reflecting developments in mortgage-related borrowing, either by the Treasury or through the mortgage bond system (see below). The PSBR, as reported by Iceland, excludes the borrowing needs of the local governments. Their financial position has deteriorated in recent years; on an accruals basis their deficit has moved from a rough balance in 1990 to an estimated deficit of ¾ per cent of GDP in 1994, owing to rising public consumption expenditures as a share of GDP (Table 10). Overall then, any financial improvement achieved by the central government in recent years has been offset by the deterioration at the municipal level.

Table 9. Public sector borrowing requirement

	1988	1989	1990	1991	1992	1993	1994	1995 ¹
IKr billion, net								
Total	17.0	22.9	27.0	40.2	23.8	23.2	18.0	15.8
Treasury	8.2	7.5	7.9	14.7	7.2	10.7	14.8	9.4
Revenue balance	7.3	6.1	4.4	12.5	7.2	9.6	7.4	7.4
Net lending, etc. ²	0.9	1.4	3.5	2.2	0.0	1.1	7.4	2.0
Other ³	8.8	15.4	19.1	25.5	16.6	12.5	3.2	6.4
Percentage of GDP								
Total	6.6	7.4	7.4	10.1	6.0	5.6	4.2	3.4
Treasury	3.2	2.4	2.2	3.7	1.8	2.6	3.4	2.0
Revenue balance	2.8	2.0	1.2	3.2	1.8	2.4	1.7	1.6
Net lending, etc. ²	0.4	0.5	1.0	0.6	0.0	0.2	1.7	0.4
Other ³	3.4	5.0	5.2	6.4	4.2	3.0	0.7	1.4

1. Projection by Ministry of Finance.

2. Includes lending by Treasury to public enterprises including the State Housing Fund.

3. Includes borrowing by partially public enterprises, the investment credit funds, and borrowing by State Housing Fund.

Source: Ministry of Finance.

Table 10. **Government finances**
Deficit as a percentage of GDP, accrual basis

	1990	1991	1992	1993	1994 ¹
General	3.3	2.9	2.8	4.5	3.9
Central	3.4	2.8	2.4	3.3	3.0
Local	-0.1	0.2	0.4	1.2	0.9

1. Estimate.

Source: National Economic Institute.

Monetary policy: resisting upward pressure on interest rates

The year 1994 was marked by a notable calm in Icelandic financial markets in comparison with the recent past, even though interest-rate pressures were building steadily as from the spring. 1993 had been a year of successful achievement of substantially lower interest rates⁴³ after the krona devaluation of late June, and such trends continued into early 1994, with further downward pressure on interest rates internationally. But in the wake of the sea change in interest rates on foreign markets that got underway beginning in February with the first increase in US rates in the current cycle, achieving still lower rates in Iceland while at the same time maintaining a fixed exchange rate for the krona became increasingly difficult, especially in light of the opening up of capital movements that was proceeding apace.

Not unexpectedly, it was not long into the year that capital outflows began to occur. It is difficult to distinguish possible one-off portfolio adjustments in response to the liberalisation of the long-term capital account which occurred at the beginning of 1994 from those flows which resulted from the existing policy stance and the ensuing interest-rate differential with abroad. But it is safe to say that the linkages between domestic and foreign financial markets showed signs of strengthening in the course of the year.⁴⁴ February and March saw a capital outflow of some IKr 6 billion (1½ per cent of GDP), mainly in the form of resident purchases of krona bonds issued by the Nordic Investment Bank in 1991 and a new issue by the Icelandic Treasury (denominated in US dollars). Other capital outflows totalling some IKr 3 billion were intended to pay off foreign debt. In addition, domestic borrowers, especially the investment credit funds

(ICFs), began to react to the vanishing interest-rate differential by switching their bond issuance to domestic markets, causing normal inflows to cease. By the late spring the financial-market tide had turned, and both short- and long-term rates began to move back up.

An accommodating monetary stance

The monetary authorities resisted the reversal throughout the year, at least for long-term rates.⁴⁵ The Central Bank bought marketable Treasury and related government securities to the tune of about IKr 14 billion,⁴⁶ more than doubling their end-1993 holdings, as the deposit money banks (DMBs) reduced their positions in order to shift into foreign deposits; in all, its purchases represented about two-thirds of the Treasury's total net borrowing in 1994, and more than three times net domestic borrowing. Furthermore, pursuant to the 5 per cent ceiling set by the government on indexed bond yields, the Treasury began to refuse all available bids at primary auctions of longer-term government debt as early as June (for two-year notes), and all government securities auctions for domestic-currency debt with maturity greater than one year failed to generate any accepted bids as from early September.

The government's resistance was also reflected in the market for State Housing Fund (SHF) and so-called mortgage bonds.⁴⁷ These securities have traditionally carried a small premium of some 20 basis points over comparable Treasury debt, but in the first quarter of 1994 the government made some technical changes to make them more like Treasury instruments⁴⁸ in order to safeguard its decision to apply the 5 per cent interest-rate ceiling which it had fixed for Treasury debt to these securities as well. But the market apparently considered SHF debt to be more similar to mortgage bonds, and there was little or no demand for new SHF issues at the ceiling rate. As rates on mortgage bonds began to rise, due to a pickup in new construction and in sales of existing homes, the premium on SHF bonds over Treasury bonds in the secondary market also came under upward pressure. In a vain attempt to counteract that pressure, the Central Bank bought some IKr 4.1 billion worth of mortgage bonds, largely in the first half of 1994. And beginning in July the primary auction market for SHF bonds dried up completely – all bids were rejected as from the third quarter – forcing the Treasury to postpone all further Fund borrowing and to replace it with IKr 7 billion of direct Treasury borrowing and immediate relending to the Fund.

By year-end the secondary-market premium on mortgage bonds had widened to some 70 basis points.

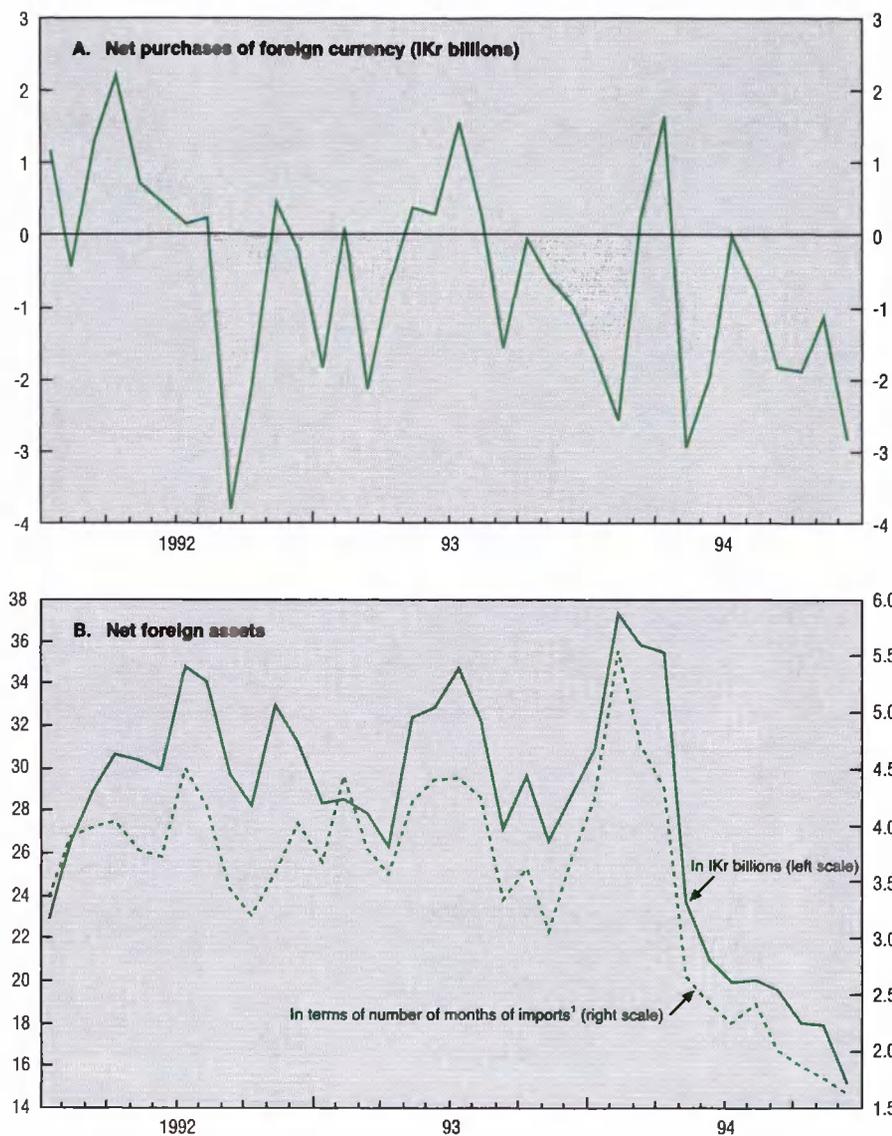
The year's capital outflows were also accommodated by a substantial reduction in the Central Bank's net foreign asset position (Diagram 8), despite a widening current-account surplus. Foreign currency sales had begun in August 1993, not long after the devaluation, but exchange-market intervention became much heavier in early 1994 (with the aforementioned capital outflows) and again in the spring, although it did ease somewhat as the year progressed. By year-end the Bank had run down its net foreign assets by nearly IKr 14 billion (48 per cent), bringing their cumulative decline since the peak in the summer of 1992 to about IKr 28 billion (65 per cent). At that point net foreign assets amounted to IKr 15 billion (\$226 million), equivalent to less than two months of merchandise imports. However, gross reserves were still over IKr 20 billion, or some 3 months of merchandise imports – a ratio the Bank regards as satisfactory.

A relatively stable exchange rate

Owing in part to this intervention, the krona was relatively stable (Diagram 9), falling about 1.7 per cent on an effective basis during the year (from marginally above the mid-point of the band⁴⁹ to about 1½ per cent below it). In real terms the depreciation was greater, due to Iceland's favourable inflation differential. In relative unit labour cost terms competitiveness improved by around 5 per cent, bringing the real rate to a record low, 20 per cent below its 1980-93 average. In relative consumer price terms it also fell by some 5 per cent to a level not seen since 1971. Accordingly, the index of competitive position improved, with particularly strong outcomes for domestic (import-competing) manufacturing.

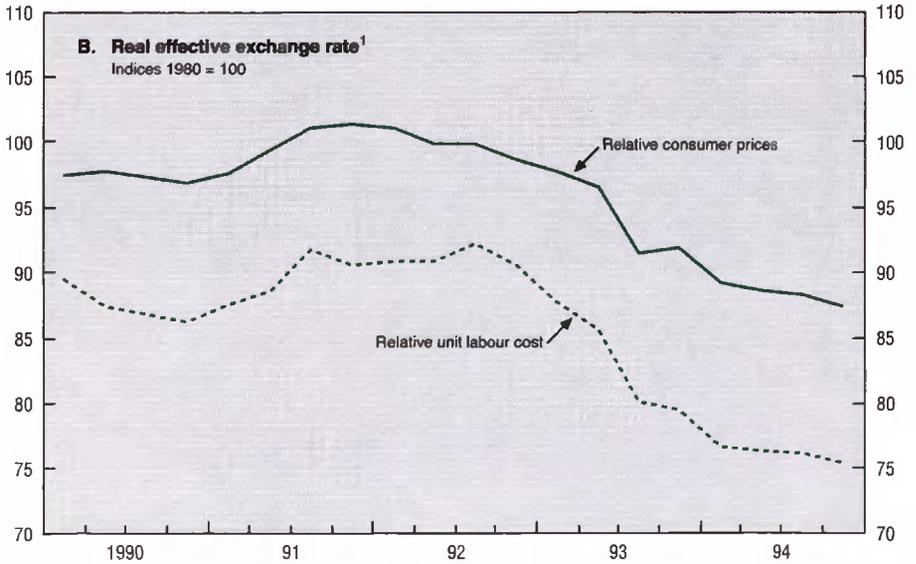
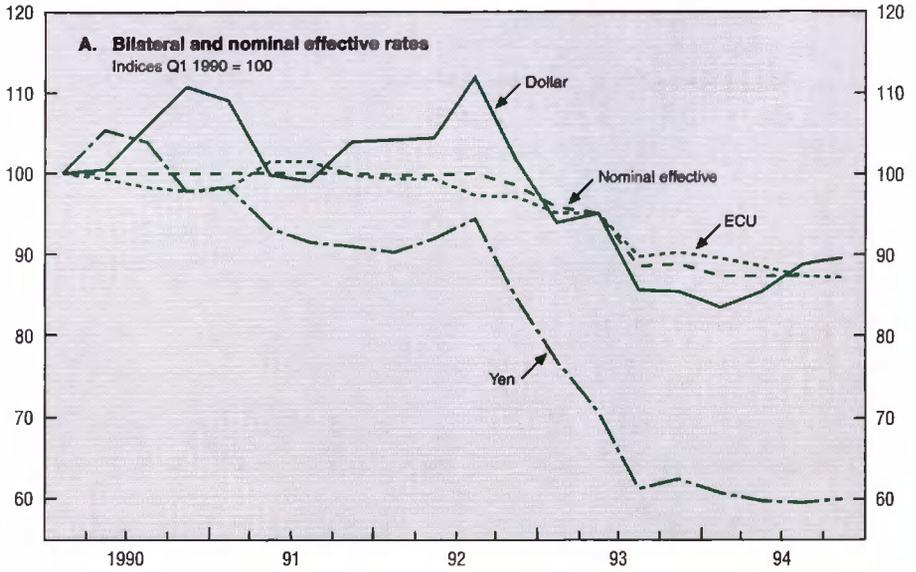
As the krona weakened in the band during the year its narrowness (2¼ per cent in either direction from the mid-point) began to be questioned in some quarters. While a stable exchange rate is required in order for it to be used as an intermediate target for monetary policy,⁵⁰ thereby providing a nominal anchor, Iceland's economy is clearly subject to relatively significant external shocks, given its size and high degree of export specialisation. Thus, a certain degree of exchange-rate flexibility is needed, especially as the economy may no longer have the real wage flexibility it manifested when inflation was high and variable. Hence the 1989 decision to follow an adjustable peg with a 2¼ per cent band

Diagram 8. EXCHANGE MARKET INTERVENTION
AND THE CENTRAL BANK'S NET FOREIGN ASSET POSITION



1. Divided by 3-month moving-average of imports of goods.
Source: OECD and Central Bank of Iceland.

Diagram 9. **NOMINAL AND EFFECTIVE EXCHANGE RATE OF THE KRONA**



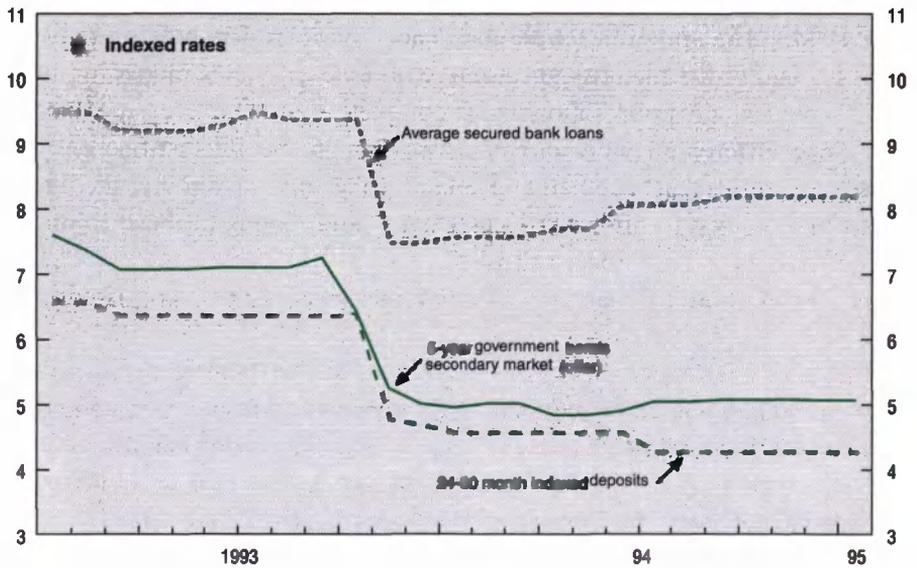
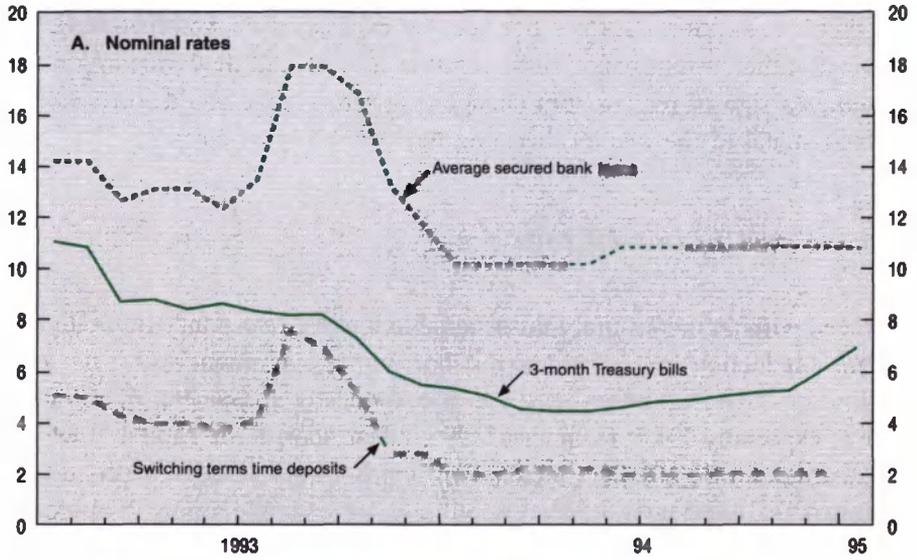
1. Data for the second half of 1994 were projected by the Central Bank of Iceland.
Source: Central Bank of Iceland.

around the central parity, and its retention in the intervening period, in contrast to Finland and Sweden which more recently abandoned a pegged rate and shifted to direct inflation targeting. The challenge is to choose a band width which allows some shock absorption but does not become excessively accommodating.⁵¹ It is possible that the current band width is rather narrow and that widening it might be taken as a sign of realism, but changing it at this stage could risk sending an undesired signal to the market, harming the credibility of the peg.

Inevitable rises in interest rates

Faced with an increasingly unsustainable interest-rate stance in the light of a substantial reduction in the demand for short-term government debt,⁵² the authorities slowly allowed short-term rates to rise, modestly at first, but more radically later on, especially after 1 January 1995 when short-term capital flows were liberalised (Diagram 10). The increases in market rates since the second-quarter trough took the three-month Treasury bill rate, for example, up by 2½ percentage points by end-January 1995; the corresponding 24-month rate rose by 3¼ points. Yet they remained below an average of those seen in foreign markets until very late in 1994.⁵³ The authorities were reasonably successful in holding rates down at the long end of the maturity spectrum, with indexed yields increasing by only about ½ percentage point, allowing a complete elimination of the long-term interest rate differential with abroad. Even though the interest-rate ceiling on indexed government debt remains in effect at the time of writing, the Treasury decided in February to offer a 0.3 percentage point bonus to those rolling over their holdings of a large maturing issue; with a 0.12 percentage point primary dealers' commission, for many the effective rate was 5.42 per cent. Holding rates at this level was made possible by the Central Bank's reducing the size of its above-market bid on the Securities Exchange to the minimum stipulated for market makers and by switching longer-term borrowing from krona-denominated issues (which were halted, thereby ending the lengthening of maturities that had been occurring to that point) to a series of six auctions of ECU-linked five-year bonds beginning in October.⁵⁴ By January, these had raised a total of IKr 1¼ billion with an average coupon yield of 8½ per cent, about ¼ percentage point above ECU rates paid by European governments and supranational institutions at the time.

Diagram 10. INTEREST RATE DEVELOPMENTS
Per cent, end of month



Source: Central Bank of Iceland.

The interpretation of these contrasting developments across the yield curve is complicated by the indexing phenomenon. It is possible that the rise in short-term rates is attributable to higher short-term inflation expectations, with holders of indexed bonds being satisfied with the inflation compensation provided.⁵⁵ Alternatively, underlying real interest rates may have risen, but this could have happened only over a fairly limited horizon, as the rise in indexed long rates has been far less dramatic than the increase in short-term rates.

For their part intermediated rates also generally fell through the early months of 1994 and then began to rise, but the increase since the spring trough has been at most rather modest. For unindexed loans the margin of lending rates over market rates has shrunk noticeably, although for indexed lending the DMBs have widened their margins over corresponding rates on Treasury securities. Nonetheless, the share of the stock of DMB lending provided in indexed form rose from 35.5 per cent at the end of 1993 to 44.7 per cent at the end of 1994.

Slow growth in money and credit

After rather robust growth in 1993, there was a marked slowdown for most money and credit aggregates in 1994 (Table 11). Broad money (M3) rose only fractionally last year, although narrow money (M1) growth accelerated somewhat, boosted by surprising strength in notes and coins.⁵⁶ Total lending by the banking system increased only modestly, led, as mentioned, by Central Bank lending to the Treasury – DMB lending actually fell slightly. Total credit growth dropped by more than half, mostly attributable to the drying up of the generous amounts of new foreign credit extended in 1992-93. Household borrowers and local governments maintained their double-digit increases in credit demand, while the central government reined in the increase in its credit needs, though to still-high rates. But it is business borrowers who were responsible for the bulk of the slowdown which dates from August 1993; they are benefiting from improved cash flow, and, with plenty of real capacity, investment remains at quite low levels.

Recent balance-sheet trends of financial institutions

The balance sheets of the *deposit money banks* shrank during the year. On the assets side, as previously mentioned, the DMBs cut their holdings of Treasury bills and experienced stagnant total credit demand; in addition, they continued to

Table 11. Growth in monetary and credit aggregates¹

	Per cent			
	1991	1992	1993	1994
Money				
Base money	9.6	-9.5	-12.0	1.6
M1	19.9	1.3	5.4	11.3
M3	14.4	3.8	6.5	2.3
Banking system lending ²	12.4	3.2	8.9	2.8
of which: Deposit money banks	12.0	4.4	7.8	4.0
Credit				
Total	15.4	11.1	11.1	3.9
of which claims on:				
Central government	23.8	16.7	25.9	9.8
Municipalities	12.9	11.4	17.2	3.8
Business	8.0	7.8	6.4	-4.1
Households	23.7	13.2	10.4	11.0
of which originating from:				
Domestic saving	18.6	8.5	9.1	7.5
Voluntary	20.1	5.0	8.3	4.8
Contractual	17.3	11.8	9.8	9.7
Foreign credit, net	8.6	16.8	15.2	-3.3

1. Through-the-year growth.

2. Including foreign funds lent and Central Bank lending to the Treasury.

Source: Central Bank of Iceland.

increase their foreign exchange position, albeit at a slower pace than in 1993. Total deposits edged up, but foreign borrowing for relending dropped sharply, due to the reversal of the interest-rate differential, and bank bonds fell off slightly, as did capital and reserves. Central Bank estimates point to a reduction in loan-loss provisions since 1992 at the DMBs and since 1991 at the ICFs as well (Table 12). This results from the write-off of most of the previous stock of bad debt (thereby shrinking balance sheets), but also indicates improved loan-portfolio quality. Also, all of the commercial banks met the BIS capital ratios, with one exception for which additional equity and subordinated debt of about Ikr 4.5 billion (about \$70 million) was provided by the Treasury and the deposit insurance fund in early 1993. Nevertheless, it would appear that Iceland's financial sector has avoided the worst balance-sheet problems which have afflicted several of its Nordic cousins.

Table 12. Some indicators of provisions for bad debts and loan losses

A. As a per cent of credits and guarantees

	Deposit money banks				Investment credit funds					Total	
	Commercial banks	Savings banks	Total	Total in IKr billion	Housing funds	Industry funds	Other funds	Total	Total in IKr billion	Total	Total in IKr billion
1987	0.4	0.6	0.4	0.7	0.04	0.7	1.0	0.4	0.3	0.4	1.0
1988	0.8	0.1	0.7	1.0	0.04	0.8	2.5	0.7	0.6	0.7	1.6
1989	1.3	1.0	1.3	1.9	0.01	2.2	4.4	1.5	2.0	1.4	3.9
1990	1.5	1.7	1.5	2.6	0.16	2.9	4.8	1.7	2.6	1.6	5.2
1991	1.3	1.4	1.3	2.5	0.1	2.2	22.8	3.7	6.9	2.5	9.4
1992	3.8	2.1	3.5	7.2	0.1	2.3	4.3	1.1	2.4	2.3	9.6
1993	3.0	1.9	2.8	6.1	0.2	3.1	5.1	1.4	3.4	2.1	9.5
1994 ¹	n.a.	n.a.	n.a.	4.5	n.a.	n.a.	n.a.	n.a.	1.2	n.a.	5.7

B. Nordic comparison (percent of GDP)

	Iceland		Denmark	Finland	Norway	Sweden
	Deposit money banks only	Total				
1989	0.6	1.3	1.2	0.4	1.7	0.2
1990	0.7	1.5	1.6	0.5	1.9	0.8
1991	0.7	2.5	1.6	1.6	3.1	2.5
1992	1.9	2.5	1.9	4.6	1.8	4.9
1993	1.5	2.4	1.7	4.0	1.4	3.2

1. Forecast.

Source: Central Bank of Iceland (1994).

The nation's 15 *investment credit funds* have also reduced the growth of their balance sheets, but not to the same extent: increases eased from about 13 per cent during 1993 to 10 per cent in the year to September 1994. There too the major deceleration on the liability side was in foreign borrowing,⁵⁷ while most major components of assets showed a slowing trend. This downshift is more pronounced for ICFs other than housing funds; the latter have still been boosting lending by about 12 per cent over year-earlier levels. Provisioning since 1989 has hurt their profitability so much that after several years of rapid asset growth they are no longer so extremely overcapitalised: own capital has been stagnant in nominal terms since 1991, and debt has risen to 83 per cent of assets from 54 per cent in 1974 and 76 per cent as recently as 1991. At end-1993, the business (non-housing) funds had an average Basle ratio of over 20 per cent.

Pension funds too experienced a rapid albeit slowing rate of growth in 1994. While they have apparently switched their investments away from State Housing Fund bonds, data are not yet available to discern what types of assets have gained their favour. It appears that they have not taken to investing in equities, at least they had not done so by the end of 1993, when equities represented a mere 2 per cent of their portfolio. However, the strong rally in the stock market in the second half of 1994 might possibly be ascribable in part to a change in their strategy on their behalf. *Mutual funds*, on the other hand, have enjoyed rapidly accelerating expansion: in net terms sales of money-market funds rose from IKr 0.9 billion in 1993 to an annualised rate of IKr 2.9 billion in the first three quarters of 1994, while those of other funds surged from IKr 0.9 billion to IKr 6.4 billion. Overall turnover on domestic financial markets rose by some 14½ per cent during 1994, but the distribution across markets was uneven. Volumes rose sharply for equities, money-market instruments and housing and other non-Treasury bonds,⁵⁸ but fell severely for government bonds. The volume of transactions on the interbank foreign exchange market established in 1993 continued to grow in 1994 but may have reached a plateau in the neighbourhood of IKr 50 billion per year.

Other structural changes in financial markets

Financial market liberalisation is continuing. For example, the beginning of both 1994 and 1995 marked further milestones on the road to complete capital movement liberalisation. All long-term flows were freed up by 1 January 1994, while short-term capital began to enjoy full freedom a year later. Otherwise, the

country's savings banks reorganised their collaboration at the outset of 1994 by setting up a new commercial bank, Iceland's fourth. In addition, as from the beginning of 1995 sight deposits at the DMBs may no longer be indexed; this regulation is designed to assist in the equalisation of indexed assets and liabilities of the DMBs. To this end the Central Bank is continuing to conclude its thrice-yearly swap agreements with the DMBs, as set out in the framework agreement of 22 September 1993.⁵⁹ On the other hand, revisions to the Central Bank Act have still not been passed; they were proposed in 1993 and were designed to augment the range of instruments available to implement monetary policy and to enhance the Bank's independence by giving the goal of price stability clear primacy. Four EEA-based banks have given notification of their intention to offer banking services in Iceland without opening branches. Various new laws in the financial services area was passed that, *inter alia*, removed restrictions concerning cross-border insurance, payment and depository services, and narrowed the scope of restrictions regarding operation of foreign insurers' branches and of intermediaries in financial services.

Other structural policy reforms

As mentioned earlier, a new fisheries management law was passed in 1994. One important element was the creation of the Fisheries Development Fund which will assist in reducing the size of the fleet. The Fund is financed over the near term by levies on fishing industry assets including fleet tonnage and real estate owned by the fish-processing industry. Beginning in 1996 there will also be a new levy of one kronur per kilogram of cod-equivalent quota, indexed for increases in fish prices. The 1994 law also placed new restrictions on the transfer of allotted-vessel quotas and added provisions to cut the quotas of vessels that do not fully utilise them.⁶⁰ In addition, an important provision of the 1990 law was altered. Boats under 6 Gross Registered Tonnes (GRT) had been scheduled to be brought into the catch quota system, but the 1994 law keeps them under the effort quota system yet gives the Ministry of Fisheries the ability to control the size of the overall catch of these boats by adjusting the number of days at sea in light of catch developments, should it so choose.

Elsewhere, the government continued to modify laws and regulations to bring them into accord with European Union directives, as required by the

European Economic Area Agreement. Modifications were made in labour laws concerning redundancies and work permits for foreigners; and parallel imports of pharmaceuticals are now allowed. Additional reforms made in the health care sector are the merger of two of the major hospitals in the capital area, and further deregulation in the sale and pricing of drugs which will be come into force in late 1995. Agriculture policies were little changed in 1994, while overall production and employment continue to slip in response to the market reforms enacted earlier this decade and that are still being phased in. In response to these actions, the production of sheepmeat has been falling in line with reductions in quotas and government support; however, excess supply persists as production exceeds domestic consumption (which is also falling), and expansion of exports is problematic with the abolition of export subsidies and Iceland's position as a high-cost producer. On the environmental front, the Ministry is still working on a schedule of levies on household and industrial goods based on their contribution to hazardous wastes.

III. Reaping the benefits of competition in a small, geographically remote economy

Nearly mid-Atlantic, some three hours' flight from the population centres of either continental Europe or North America, Iceland sits rather isolated from its main trading partners in the OECD. With its population of only slightly more than a quarter of a million – about equal to that of Anaheim in California or Nantes in France – it has easily the smallest economy among OECD Member nations. The challenge of organising domestic markets in order to gain all the theoretical benefits of competition⁶¹ in this context is therefore rather special, and the tradeoffs – in a world of substantial, albeit in many sectors declining, minimum efficient economic scale – between the attainment of technical efficiency on the one hand and allocative efficiency and industrial diversification on the other are rather acute. Public policy then must be guided by a search for balance between these two goals. Competition policy itself is not alone among government influences in this area: intervention in the market mechanism through regulation, public ownership and state sectoral aid, as well as foreign trade and investment and tax policies, all affect resource allocation, with potentially important implications for efficiency.

There is, not surprisingly, a wide variation among OECD countries in the relative importance attached to these different tools, as well as considerable variation over time for most countries taken individually. Iceland adheres more to the European tradition of emphasis on the need for orderly markets and fair competition than to the American view of the virtues of Adam Smith's invisible hand. But the emphasis has been changing, and the willingness to rely on market-based outcomes has been increasing in recent years. Intervention in price-setting has become exceptional, public ownership has been receding, state aid has been shrinking, a modern antitrust policy has been introduced, and the openness of the local market has been enhanced by reducing trade barriers both preferentially

with its European partners and multilaterally through the GATT/WTO. However, as for many other OECD countries much remains to be done, primarily in disengaging the state from activities where private-sector competition is feasible or already exists, and in further reducing state aids, especially to the agricultural sector. Nevertheless, the shallowness of the domestic market will remain a significant constraint on the authorities' ability to invigorate its markets through greater competition.

The impact of diminutive market size and remoteness

Small size is costly for the material well-being of any society: thinking about Robinson Crusoe for a moment makes that clear. This is because running a society requires certain overheads whose costs are fixed due to indivisibilities: examples would include a legislature, judiciary and foreign representation. Yet a homogeneous, close-knit society like Iceland's may actually have lower transactions costs due to a reduced need for intermediaries, written contracts and judicial enforcement. On the other hand smallness may entail a greater risk of ownership concentration, but a very recent survey by the Competition and Fair Trade Authority concluded that there is little connection between ownership and control, although a few large blocks of firms are extensively affiliated through overlapping directorships.

The fundamental dilemma confronting the design of government policy toward markets in Iceland is the conflict between the size of production units required to be competitive in the international market-place and the resulting dominance on the home front – which can only be attenuated by opening the market to the fullest extent possible. Furthermore, entry is constrained by the level of the real exchange rate which is determined by the efficiency of and policies toward the fishing industry (responsible for over 75 per cent of merchandise export earnings). Accordingly, there are few non-resource-intensive sectors where domestic producers have managed to crack the export barrier. Most such operations remain of a niche nature. The bulk of such domestic production is therefore import-competing and relies fairly heavily on protection *via* both natural and artificial barriers to trade. Regarding the former, transportation costs, as proxied by the cif-fob margin on merchandise imports, have averaged just below 10 per cent thus far in the 1990s, down from an average of about 11¾ per cent in

Table 13. Average employment per establishment by sector in OECD countries, 1990¹

ISIC classification	Australia	Austria	Belgium	Canada	Denmark	Finland	Germany	Greece	Iceland	Ireland	Italy	New Zealand	Norway	Spain ³	Sweden	Turkey	United States
31 Food, beverages and tobacco	47.6	60.2	14.4	61.8	32.4	65.9	104.6	48.9	14.6	51.4	103.1	29.1	34.7	8.7	79.4	178.6	63.8
32 Textiles, apparel and leather	34.7	76.1	28.3	42.3	10.6	52.7	103.4	38.2	8.5	44.7	61.4	12.4	26.7	18.9	45.8	180.7	29.7
33 Wood products and printing	16.9	20.2	16.8	32.2	12.4	46.7	60.6	20.8	3.9	17.4	48.8	7.0	26.0	5.4	48.3	107.8	13.7
34 Paper, paper products and printing	31.2	92.9	20.5	41.0	14.9	100.9	107.4	48.0	7.4	33.3	85.9	17.3	46.0	16.4	91.5	161.3	21.0
35 Chemical products	44.8	83.8	68.9	61.9	31.8	83.6	231.5	55.3	12.0	48.3	111.6	17.6	58.9	35.6	81.0	177.0	65.2
36 Non-metallic mineral products	28.7	69.5	27.6	31.9	13.0	47.9	85.7	37.2	8.8	36.3	83.8	7.4	28.9	14.9	57.5	152.9	48.9
37 Basic metal industries	102.4	275.0	341.8	196.8	45.1	235.6	385.3	105.3	287.3	38.8	137.0	35.8	219.8	64.7	219.0	308.3	57.5
38 Fabricated metal products	33.1	103.7	41.6	52.3	18.4	75.0	212.4	45.1	5.4	46.3	113.5	8.6	45.4	17.9	88.6	169.7	37.0
39 Other manufacturing	12.2	129.1	11.9	17.6	7.5	43.0	88.6	19.5	3.8	29.4	49.4	4.4	29.6	11.7	38.1	83.3	8.8
3000 Total manufacturing	33.6	70.7	29.3	46.9	17.8	71.2	164.3	42.4	9.3	42.2	90.6	12.2	41.7	13.9	81.2	177.2	33.9
1000 Agriculture, hunting, forestry, fishing	-	-	-	-	-	-	-	-	1.9	-	-	3.5	-	-	-	-	-
2000 Mining and quarrying	-	52.4	-	91.7	-	28.3	139.2	-	-	47.4	74.2	6.2	103.6	21.9	-	119.5	171.5
4000 Electricity, gas and water	-	63.0	-	318.8	-	50.9	234.4	-	26.4	152.5	756.7	20.8	51.0	6.3	-	19.8	2 131.9
5000 Construction	-	-	-	-	-	-	53.6	-	2.8	-	61.2	3.2	31.4	8.1	-	-	-
6.90 Services	-	-	-	-	-	-	-	-	3.9	-	-	6.2	-	-	-	-	-
0000 ² Grand total	-	69.9	-	-	-	68.7	135.8	-	3.8	-	-	6.4	41.0	11.8	-	135.5	-

1. Note that the figures for the following countries are biased upward due to thresholds (given in parentheses) in establishment size used in the national sample: Turkey (25), Germany (20), Italy (20), Greece (10), Finland (5), Norway (5), Spain (5) and Ireland (3).

2. This column measures the grand total only for the sectors for which data are available.

3. 1988.

Source: OECD, *Industrial Structure Statistics 1992*, Paris, 1994.

the 1980s, but over double the industrial country average of 4.4 per cent (IMF, 1994); regarding the latter, tariffs and other quantitative restrictions are discussed below.

In most sectors, the scale of production is microscopic: average employment per establishment was less than four in 1990, compared to 41 in fellow Nordic country Norway, for example, and nearly 136 in Germany (Table 13).⁶² Minuscule production units are the general rule, with 47 per cent of all establishments

Table 14. Establishment size distribution in the Nordic countries, 1990-91¹

	Per cent				
	Iceland ²	Denmark ³	Finland ³	Norway ³	Sweden ²
A. Manufacturing establishment shares					
Under 10 employed persons	79.9	26.6	23.0	32.7	8.2
10 – 19	10.0	31.9	26.3	27.0	30.7
20 – 49	5.5⁴	24.6	25.3	22.8	31.1
50 or more	4.6⁴	17.0	25.4	17.5	30.1
Total	100.0	100.0	100.0	100.0	100.0
B. Manufacturing employment shares					
Under 10 employed persons	20.7	4.7	2.3	5.6	0.6
10 – 19	14.9	10.5	5.8	9.1	5.3
20 – 49	16.3⁴	18.0	12.9	17.6	11.8
50 or more	48.1⁴	66.7	79.0	67.7	82.3
Total	100.0	100.0	100.0	100.0	100.0
C. Retail trade establishment shares					
Under 5 employed persons	82.2	n.a.	79.5	82.2	79.0
5 – 19	14.7⁵	n.a.	18.4	16.6	17.6
20 and more	3.1⁵	n.a.	2.1	1.2	3.4
Total	100.0	n.a.	100.0	100.0	100.0
D. Retail trade employment shares					
Under 5 employed persons	29.2	n.a.	36.0	44.0	20.5
5 – 19	28.3⁵	n.a.	39.1	42.4	39.3
20 and more	42.5⁵	n.a.	24.9	13.6	40.2
Total	100.0	n.a.	100.0	100.0	100.0

1. For the manufacturing sector only the data for Iceland are exhaustive. For the other Nordic countries manufacturing establishments with less than 5 or 6 employees are excluded.

2. 1990.

3. 1991.

4. For Iceland the thresholds are 39 rather than 49, and 40 rather than 50.

5. For Iceland the thresholds are 29 rather than 19 and 30 rather than 20.

Source: OECD Secretariat calculations based on data provided in Nordic Statistical Secretariat (1994), *Yearbook of Nordic Statistics 1994*, Nord 1994:1, Copenhagen.

having no more than one full-time equivalent employee and less than 5 per cent greater than ten employees.⁶³ Only the basic metals sector (primarily the aluminium smelter) has employment levels per plant in line with OECD averages. About 80 per cent of manufacturing and retail trade establishments employ fewer than ten and five persons, respectively. The size distribution for retail trade seems surprisingly concentrated on large outlets by Nordic standards; but for manufacturing 36 per cent of all employment in 1990 was to be found in plants with fewer than twenty employees, compared to an average of only 11 per cent in the other four Nordic nations (Table 14).

The opposite side of this coin is a heavily concentrated market structure in a wide variety of sectors. Herfindahl indices show a single monopolistic domestic supplier in a broad range of markets (Table 15), although some new entry has

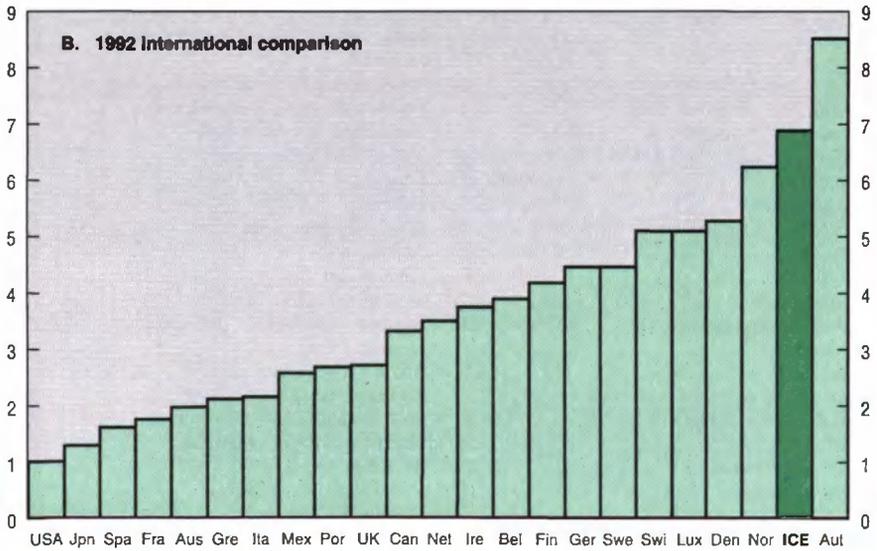
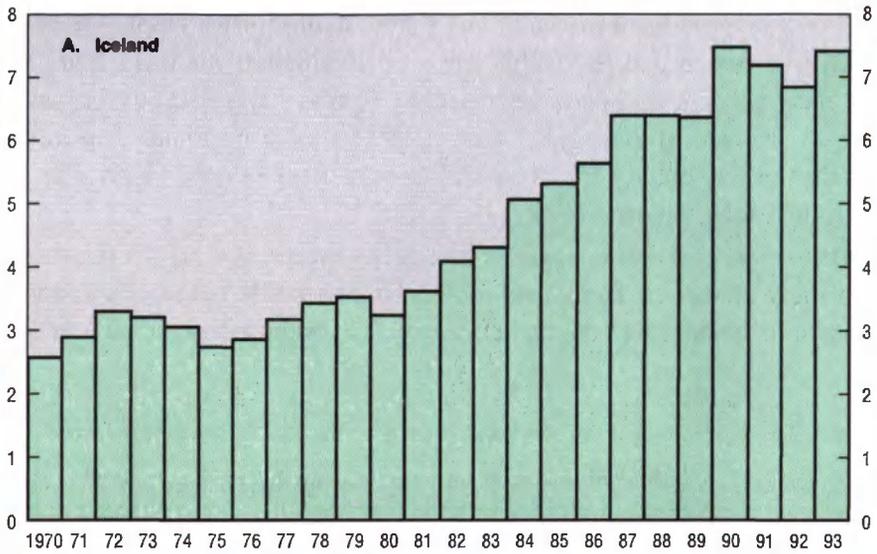
Table 15. **Herfindahl indices of turnover of domestic producers, 1993**^{1, 2}

Fish and seafood production	0.02	Drugs, wholesale	0.33
Pension funds	0.04	Magazine publishing	0.35
Plastic film and mouldings	0.06	Concrete	0.37
Food sales	0.07	Radio and television broadcasting	0.38
Travel agencies	0.07	Fishmeal	0.39
Computer hardware and software sales	0.10	Newspaper publishing	0.40
Slaughtering and meat processing	0.11	Geothermal energy distribution	0.43
Banks and savings institutions		Corrugated and other paper	0.43
including investment credit funds	0.11	Non-alcoholic beverages	0.46
Glass products	0.11	Shipping	0.49
Building materials	0.12	Airlines	0.64
Confectionery	0.13	Electricity generation	0.96
Printing	0.15	Aluminium	1.00
Seafood exports	0.16	Ferrosilicon	1.00
Publishing houses	0.17	Diatomite	1.00
Automobiles and parts sales	0.17	Synthetic fertilizers	1.00
Fishing gear	0.18	Cement	1.00
Milk, wholesale	0.20	Alcoholic beverage sales	1.00
Insurance	0.23	Tobacco, wholesale	1.00
Banks and savings institutions	0.23	Post, telephone and telecommunications	1.00
Paint and varnish	0.26	Cheese and butter, wholesale	1.00
Electricity distribution	0.27	Rockwool	1.00
Petroleum products	0.31	Motor vehicle inspection	1.00

1. Where market share information on firms was not available, it was assumed in general that they are all of equal size, implying that the calculated indices are lower-bound estimates.
2. The Herfindahl index is the sum of the squared shares of the market of all producers in the market. It is bound from above at unity for a monopoly and zero for atomistic competition.

Source: OECD Secretariat calculations based on data provided by the Competition and Fair Trade Authority.

Diagram 11. DIRECT PURCHASES ABROAD BY RESIDENT HOUSEHOLDS
 Percentage of final consumption expenditure of resident households at current prices



Note: Data refer to 1991 for Luxembourg and Norway and to 1990 for Portugal.
 Source: OECD, Annual National Accounts.

occurred in the interim. The number of industries where domestic producers alone suffice to form a rivalrous environment would appear to be very limited. Furthermore, the remoteness of Iceland's location weakens the efficacy of cross-border shopping – such as occurs across the Canada-United States, Ireland-United Kingdom and Denmark-Germany borders, for example – as a price-disciplining mechanism, especially in retail trade. Nevertheless, such shopping has been increasing over time in line with the decline in costs of passenger air travel: from about 3 per cent in the 1970s direct purchases abroad by resident households have risen to some 7½ per cent of their total final consumption expenditure (Diagram 11), the second highest in the OECD after Austria. This represented almost 18 per cent of total imports included in such household expenditure. All of that competitive pressure results from short shopping trips by air, primarily to the British isles.⁶⁴ There was some sign of a reversal of the upward trend in direct purchases abroad in the 1990s, although the latest data point to a renewed upturn in 1993.

Indicators of market performance and the state of competition

It is by now well known that, excluding the effects of net indirect taxes, price levels (at factor costs) across nations are well correlated with per capita incomes;⁶⁵ indeed the relevant estimated elasticity is around ½ in a sample of OECD countries (Table 16). Based on such a relationship it would appear that Iceland's 15 per cent premium in prices over the OECD average in 1990⁶⁶ – which had fallen to 8 per cent in 1993 – can be only partly explained by its relative income level; the rest may indicate unusually high prices possibly due to the lack of sufficiently competitive markets or a fairly flat wage structure which keeps the relative price of labour-intensive nontradable services relatively high. However, it is argued here that import penetration is also relevant; in particular, 1990 relative price levels across OECD countries seem to have been compressed by increases in import shares over the preceding seven years.⁶⁷ Imports have often been shown in the academic literature for a range of countries to limit the degree to which producers can lift the margins of prices over costs and to which wage earners can bargain away profits from their employers.

In Iceland's case, however, in contrast with experience in other OECD countries, both goods and services imports have represented a declining share of

Table 16. **The determination of nations' price levels as a percentage of the OECD average, 1990¹**

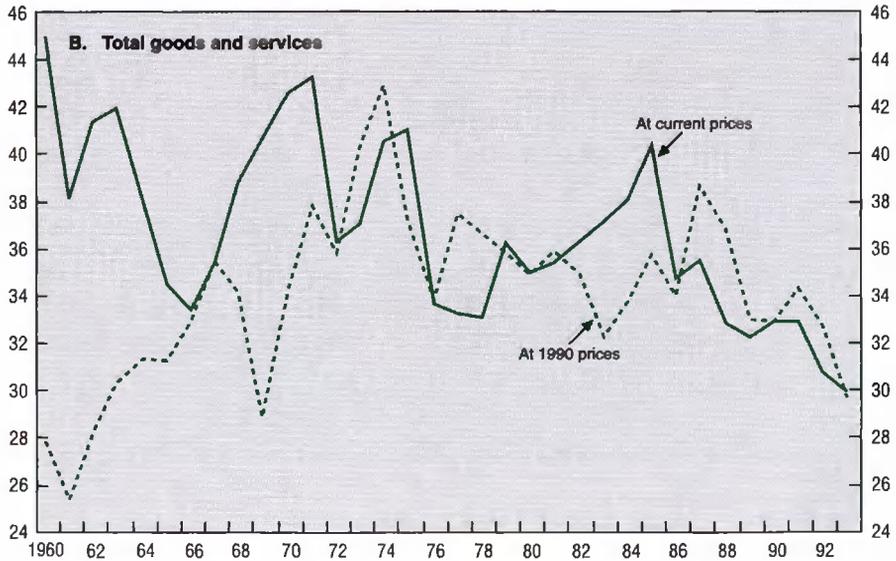
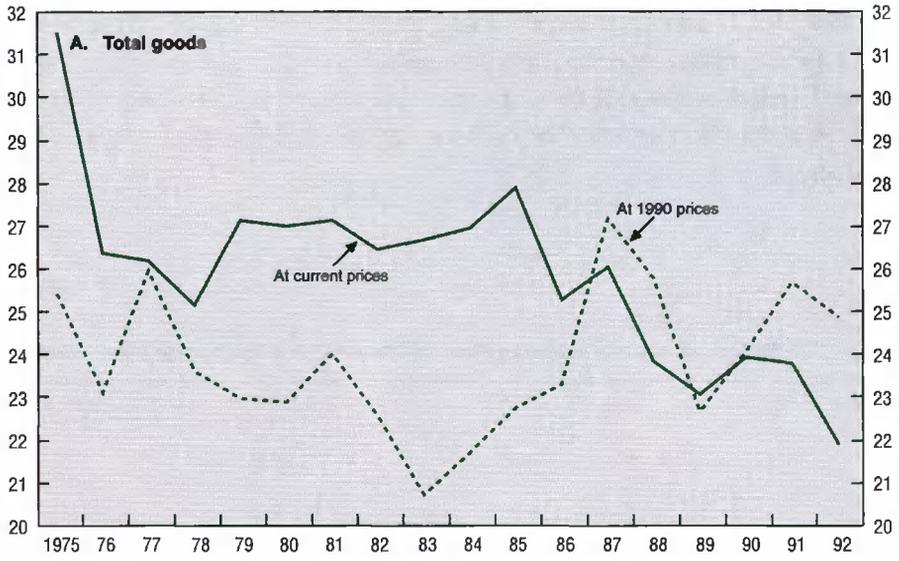
	Linear specification	Loglinear specification	Inclusion of Mexico in sample	Addition of change in import share to list of regressors
	(1)	(2)	(3)	(4)
Constant	0.44 (3.18)	2.15 (5.33)	1.98 (5.88)	2.31 (8.06)
Per capita income	0.65 (4.39)	0.55 (6.11)	0.58 (7.78)	0.51 (7.98)
Changes in import share				-0.028 (3.64)
Adjusted R ²	0.44	0.61	0.71	0.81
SEE	16.65	0.15	0.15	0.12
NOBS	24.0	24.0	25.0	25.0
Iceland: Observed	113.2	113.2	114.9	114.9
Predicted	107.0	106.7	108.4	121.5
Residual	6.2	6.4	6.5	-6.6

1. The table gives regression results for a cross-section regression equation to explain nations' comparative price levels of final expenditure on GDP at factor cost as a percent of the OECD average using per capita income on a purchasing power parity basis and the change in the share of imports relative to GDP in current prices between 1983 and 1990 in percentage points. Absolute values of t-ratios are given in parentheses.

Source: OECD Secretariat.

GDP over time (Diagram 12). According to the equation, Iceland's four percentage point decline in import penetration from 1983 to 1990 was associated with a predicted increase in the price level of over 12 per cent, leaving observed prices *below* the level predicted by the equation.⁶⁸ This implies that relatively high prices in Iceland might be attributed primarily to relatively weak competitive pressures emanating from abroad. The evidence is conflicting as to whether Iceland's degree of openness is appropriate for its situation. Some have argued that it is unusually low among OECD countries, given its small size (Krugman, 1991), although once transportation costs are taken into account, import penetration does not appear to have been unusually low, at least prior to 1985 (Barbone, 1988). But declining import penetration since the mid-1980s may well have changed that conclusion: the ratio of nominal imports to GDP fell from 40.3 per cent in 1985 to 32.9 per cent in 1990 and 29.9 per cent in 1993.⁶⁹ The importance of import prices in domestic producer-price determination is also manifest in

Diagram 12. **IMPORT PENETRATION**
Percentage of GDP



Source: OECD.

comparing the results of simple regression equations for each OECD country (Table 17). In the short term at least the role of import prices in explaining the pattern of increases in Iceland's GDP deflator appears to have been larger than in any other OECD country except Turkey, Norway and Finland. Specifically in Iceland's case import price moderation has held down increases in domestically generated inflation. Overall then, the principal focus for enhancing competitive pressures in the economy must be on boosting openness to both foreign trade and investment.

Table 17. **The importance of import prices in domestic producer price determination**¹

	First year	Long run
Australia	0.00	0.15
Austria	0.27	0.22
Belgium	0.00	0.12
Canada	0.05	0.25
Denmark	0.06	0.10
Finland	0.43	0.18
France	0.04	0.00
Germany	0.08	0.03
Greece	0.22	0.02
Iceland	0.39	0.03
Ireland	0.00	0.15
Italy	0.22	0.21
Japan	0.13	0.00
Mexico	0.37	0.18
Netherlands	0.18	0.09
New Zealand	0.00	0.08
Norway	0.45	0.17
Portugal	0.00	0.15
Spain	0.00	0.10
Sweden	0.07	0.10
Switzerland	0.14	0.03
Turkey	0.86	0.47
United Kingdom	0.03	0.03
United States	0.19	0.24

1. The figures represent the beta coefficients (that is, the coefficients which would result if the respective underlying variables had been normalised by subtracting their means and dividing by their standard deviations) for α_2 and α_5 , respectively, from the following reduced-form model:

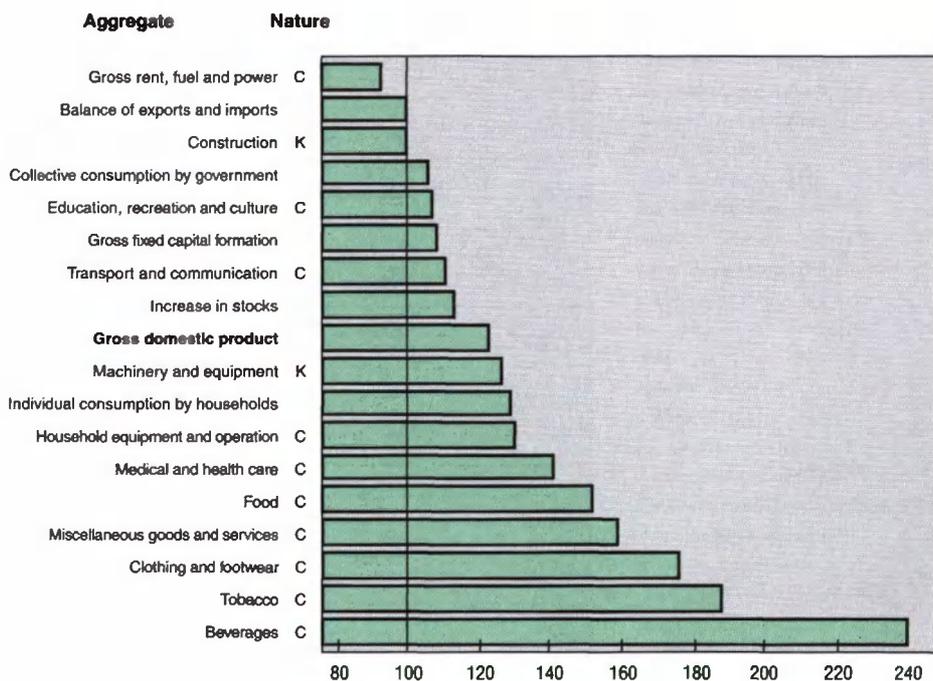
$$\Delta p = \alpha_0 + \alpha_1 \Delta u + \alpha_2 \Delta m + \alpha_3 \Delta t - \alpha_4 (p_{t-1} - u_{t-1}) - \alpha_5 (p_{t-1} - m_{t-1}) - \alpha_6 (p_{t-1} - t_{t-1})$$

where p is the GDP deflator, u is unit labour cost, m is the deflator for imports of goods and services and t is the implicit average net indirect tax rate; all variables are in natural logarithms, and all coefficients are greater than zero. Thus, higher import prices are associated with *higher* domestic prices. Detailed estimation results are given in the Annex.

Source: OECD Secretariat.

While aggregate price-level comparisons reveal that prices are rather high in Iceland, there is substantial variation across products (Diagram 13). Gross rent (essentially imputed) and water charges are seen to be low by OECD standards, as are market prices for civil engineering works, fish, education and communication.⁷⁰ Beverages, tobacco, clothing, footwear and food prices are especially high in comparison with OECD averages, despite the fact that they are in many cases items with high import penetration or are at least eminently tradable.⁷¹

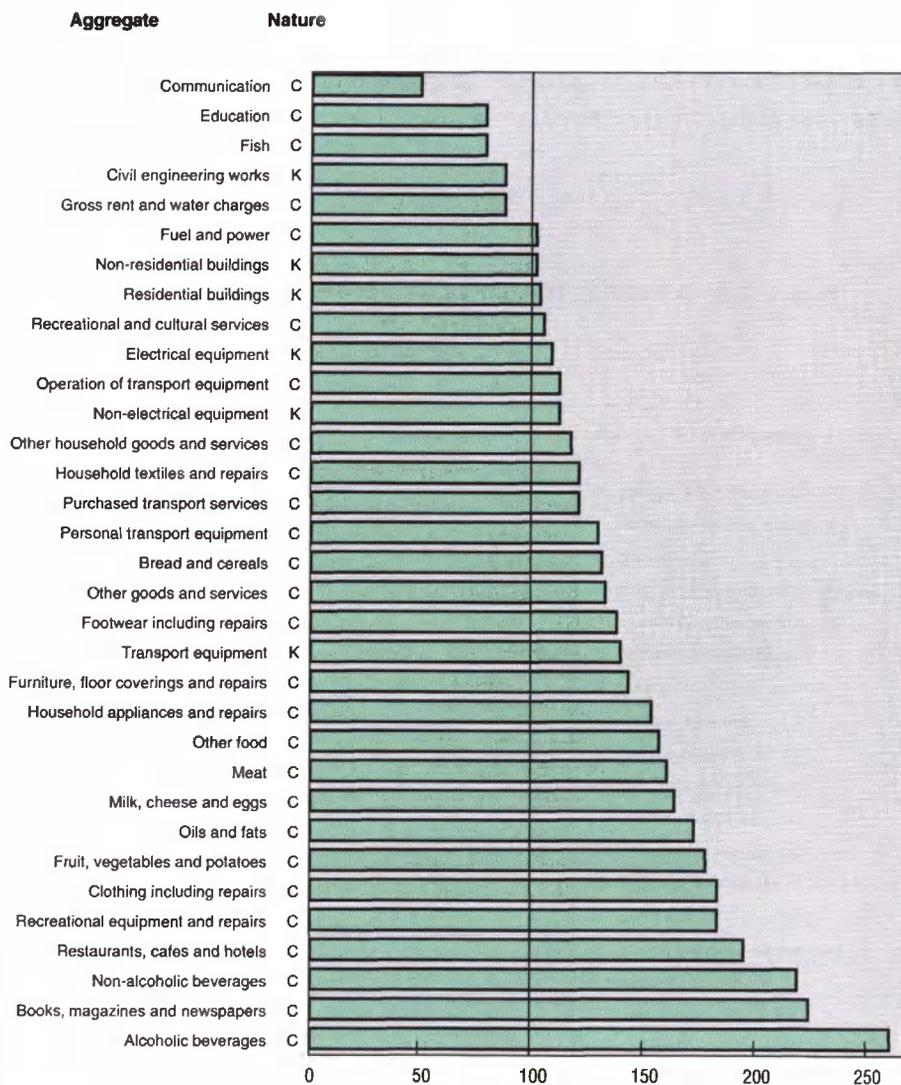
Diagram 13.A. **COMPARATIVE PRICE LEVELS OF FINAL EXPENDITURE ON GDP**
(OECD = 100)
Main aggregates



Note: C signifies a component of the aggregate "Individual consumption by households", K signifies a component of the aggregate "Gross fixed capital formation".

Source: *Purchasing power parities and real expenditures 1990*, Volume 2, OECD 1993.

Diagram 13.B. **COMPARATIVE PRICE LEVELS OF FINAL EXPENDITURE ON GDP**
(OECD = 100)
 Disaggregated categories



Note: C signifies a component of the aggregate "Individual consumption by households", K signifies a component of the aggregate "Gross fixed capital formation".

Source: *Purchasing power parities and real expenditures 1990*, Volume 2, OECD 1993.

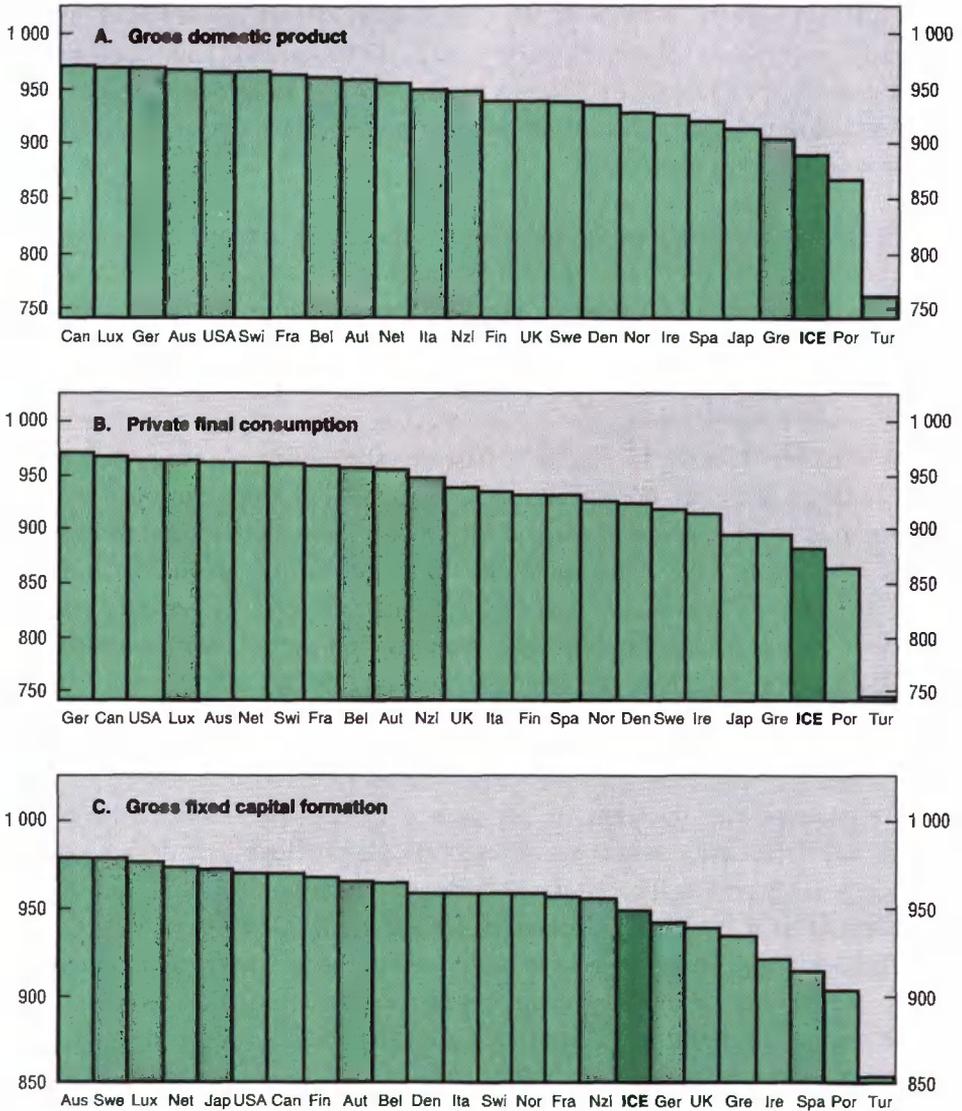
Another indicator of the efficacy of global competition is the similarity of the structure of relative prices across OECD countries.⁷² In Iceland's case relative prices are less similar to those of the OECD than almost any other country's, especially for private final consumption outlays (Diagram 14). Thus, Iceland may have a great deal to gain by opening its markets further to international competition (see below), thereby shifting its relative prices (other than transport costs) toward world market outcomes.

The ultimate measure of the success of competition in terms of static allocative efficiency is the limitation of business profitability to the required return on capital and the rapid elimination of any super-normal returns. The optimal measure for such analysis would be the return on equity or assets, but, even so measured, profitability could be dissipated through rent-sharing with workers or cost elevation through managerial inefficiency. In any case, however, these data are not available. Judging by capital's share of value added – an imperfect proxy which includes not only normal returns and monopoly rents, but also resource rents, returns to entrepreneurship and differences in relative factor intensity – returns in Iceland have been unusually low, by Nordic standards at least⁷³ (Table 18). In only two sectors has capital's share not been either the lowest or the second lowest among the five Nordic nations, and overall returns in manufacturing were less than half those in Sweden and Finland. But much of this probably reflects the smaller scale and resulting lower capital intensity in Icelandic production, at least outside the basic metals sector.⁷⁴

To examine the question of persistence in the inter-industry pattern of returns, a different data base must be used, as the previous data do not cover a sufficiently long period. The National Economic Institute has published figures on net profit as a per cent of revenues for the period 1981-91 for 27 sectors including services. The average net profit across the eleven-year period was a meagre 0.3 per cent,⁷⁵ and the intersectoral correlation coefficients among the annual vectors of profit rates show a fairly substantial and rising degree of persistence (Table 19).

Overall then the picture painted of the state of competition is mixed. Prices are high and dissimilar from other countries', but profits are low yet intersectorally persistent; and imports seem to be important in determining allocative outcomes.

Diagram 14. PRICE SIMILARITY INDICES, 1990¹



1. These indices are derived by regressing the nation's relative price level indices for each basic heading against the corresponding relative price level indices for the OECD in order to generate a correlation coefficient. This coefficient is then multiplied by 1 000.

Source: OECD.

Table 18. Capital's share of industrial value added in the Nordic countries

In per cent

Branches of industry ISIC 1968	Iceland 1990	Denmark 1991	Finland 1991	Norway 1991	Sweden 1991
3 Manufacturing	23.8	39.1	47.7	27.5	48.3
31 Food, beverages and tobacco	13.9	53.2	59.8	41.5	56.5
32 Textiles, clothing and leather	25.2	32.1	33.9	22.3	43.4
321 Textiles	20.9	34.7	33.9	24.6	45.0
322 Clothing excluding footwear	17.1	21.2	34.1	13.5	36.8
33 Wood and wood products	17.5	26.5	36.0	18.1	47.3
34 Paper and paper products	31.7	20.7	44.9	25.7	48.1
341 Paper and paper products	29.6	44.5	47.2	37.3	53.6
342 Printing and publishing	31.9	10.6	41.6	20.1	40.9
35 Chemicals and related products	45.0	58.0	59.7	43.5	66.0
351 Industrial chemicals	47.5	67.2	57.3	45.8	58.8
352 Other chemical products	44.6	60.0	54.6	38.7	67.9
353 Petroleum refineries	-	91.9	79.0	68.1	93.9
36 Non-metallic mineral products	35.6	44.1	49.7	35.1	53.3
37 Base metal industries	27.3	45.4	52.1	25.6	40.3
371 Iron and steel	18.1	51.0	50.6	12.0	37.4
372 Non-ferrous base metals	29.7	24.1	55.7	31.8	48.4
38 Fabricated metal products	26.8	26.7	41.2	15.6	41.8
381 Fabricated metal products excluding machinery	29.5	31.7	45.0	14.4	47.2
382 Non-electrical machinery	-	22.5	40.5	15.6	42.5
383 Electrical machinery	-	24.0	43.1	19.1	41.2
384 Transport equipment	15.1	34.1	33.7	13.8	36.9
39 Other manufacturing	34.8	47.9	47.1	10.2	50.2
4 Electricity, gas and water	76.6	n.a.	70.1	81.8	88.4
2-4 All industry (including mining and quarrying)	34.8	n.a.	50.6	77.2	55.1

Source: OECD Secretariat calculations based on Nordic Statistical Secretariat (1994), *Yearbook of Nordic Statistics 1994*, Nord 1994:1, Copenhagen, Table 73.

Table 19. Persistence in intersectoral profitability, 1981-91

Matrix of correlation coefficients of vectors of profitability¹ across 27 sectors

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1981	1.00										
1982	0.72	1.00									
1983	0.71	0.82	1.00								
1984	0.42	0.58	0.73	1.00							
1985	0.65	0.50	0.71	0.71	1.00						
1986	0.75	0.52	0.58	0.46	0.80	1.00					
1987	0.70	0.50	0.51	0.39	0.66	0.71	1.00				
1988	0.39	0.30	0.51	0.60	0.62	0.49	0.77	1.00			
1989	0.48	0.31	0.53	0.67	0.72	0.48	0.78	0.93	1.00		
1990	0.62	0.36	0.55	0.60	0.83	0.44	0.65	0.79	0.88	1.00	
1991	0.72	0.57	0.67	0.72	0.88	0.62	0.71	0.81	0.87	0.94	1.00

1. Net profit as a percentage of revenues.

Source: OECD Secretariat calculations based on data provided by the National Economic Institute.

Government influences on and policies toward resource allocation

The regulatory and legislative environment for competition

Background

As with many other countries, Iceland's reliance on the price mechanism to distribute resources has varied substantially over time. Beginning in the 1930s most governments included members antipathetic to market mechanisms. Price controls were implemented during World War II. Import controls were retained longer than elsewhere, with liberalisation coming only in 1960. The first attempt to institutionalise a modern market-based mechanism came in 1969, but the relevant legislation failed to be passed by the Parliament by a single vote. There followed a price freeze in 1970, and the phase-out period of controls lasted until 1982. A new competition law, similar to those in existence in other Nordic countries, was passed in 1978, but its effective date was postponed a year, and before it was implemented it was substantially changed. In 1982, following the period of price controls, the law changed again with a view to limiting the maximum margins that producers could apply. Government intervention in price-setting continued until around 1987-88; since then there has been a substantial change in attitudes. Today direct government interference in the formation of market prices is largely limited to primary and agricultural products, taxis and delivery vans, drugs and medicines and various public utilities' charges, although the law does permit the reimposition of generalised controls for up to three months in emergency situations (Article 38). Also, until September 1994, the government enforced equal prices for a number of products (gasoline, cement, fertiliser) throughout the country through a system of levies or taxes in order to offset differences in transportation costs; since then only transportation costs have been equalised, and prices have not been regulated (indeed in January 1995, fertiliser imports were fully liberalised, and there are accordingly no longer any price restrictions on fertiliser at all). There is no price regulation in trucking or buses, although bus routes are allocated *via* exclusive licences. The State also has a long-standing tradition of limiting the number of pharmacists' licences although access will be eased modestly in November 1995 under recent legislation.

The 1993 legislation and its scope

Partly in order to comply with the European Economic Area requirements, a new competition law was passed and took effect on 1 March 1993. Its text begins by stating that its objective is “to promote effective competition, and thus to increase the efficiency of the means of production” by preventing unfair trade practices and other barriers, limitations and restrictions and by facilitating new entry. Like the preceding 1978 Act, it is based on the abuse principle, but the number of prohibitions is greater; these include price co-ordination, market sharing, binding vertical restraints and collusive tendering. Somewhat unusually, due to the small size of the country, a single entity – the Competition and Fair Trade Authority – was established under the responsibility of the Ministry of Commerce to tend to *both* competition matters and unfair trade practices harmful to consumer interests. The number of its staff dropped from 33 to 22 with the implementation of the new law, although this is not felt to be insufficient to carry out its mandate which involves less extensive price monitoring, lending credibility to the assertion that market-based pricing is institutionally efficient. In addition, a five-person Competition Council, appointed by the Minister, is the main decision-making body.⁷⁶ Rulings may be appealed to a three-member Appeals Committee, whose final decisions can, as a general rule, be overruled by the courts only on narrow grounds of legality, not the appropriateness of any judgement involved.

The law applies to a wide and possibly very wide field of activities. Article 2 specifies that any economic operation is covered other than those pertaining to collective labour agreements which have long been centralised in Icelandic tradition.⁷⁷

But there is disagreement whether or not the Act covers public services such as education, health care and other social services. These had been thought not to constitute “economic operations”, but doctors in independent clinics have recently complained of being subject to an unfair disadvantage relative to those in State-owned hospitals; the Appeals Committee has recently upheld a decision by the Competition Council and ruled that health care falls within the scope of the Act. The substantive part of the case is now under consideration by the Competition Authority. In all cases the scope of the Act is affected by specialised legislation which applies in certain fields such as banking, insurance, agriculture, telecommunications, radio and television operation, pharmaceuticals, alcoholic

beverages and tobacco. Finally, in order to avoid conflicts in extra-territorial application between nations, the Act applies only to actions which have or are intended to have effects in Iceland (the so-called “effects doctrine” is employed), thereby excluding exports. In any case, no export cartels are said to be active any longer,⁷⁸ although a committee of exporters controls the export of fresh fish in order to help maintain fish prices.

Principal provisions

The Act prohibits horizontal price-distorting agreements, whether binding or guiding in nature, regarding: prices,⁷⁹ discounts or margins; market sharing by area, type of customer or sales volume; or collusive tendering (Article 10). Such agreements when vertical in nature are also prohibited, even if recommending resale prices and determining maximum resale prices are permitted (Article 11). The same prohibitions apply to measures to restrict competition by associations and their officials (Article 12). Derogations are allowed for if the Competition Council determines that this will enhance competition, if the advantages of the restrictions are expected to outweigh the disadvantages or if specific welfare considerations argue for such a course of action, and, in any case, they cannot restrict competition more than is necessary (Article 16). This is more constraining than the exemptions allowed under the 1978 law under which, for example, book publishers had been permitted to co-ordinate their prices and margins on cultural grounds. But members of a single economic unit (Article 14) and holders of intellectual property (Article 15) are allowed to enter into agreements which serve to limit competition. Finally, a new provision of the 1993 law is a “*de minimis*” rule (Article 13) which allows the Council to authorise competition-restricting agreements which would have only limited effects on the market in question.

The Council has wide power to intervene in price- or terms-setting by individual firms with dominant market positions⁸⁰ if their anti-competitive conduct cannot be prevented by other means (Article 17). It can also control mergers on an *ex post* basis⁸¹ if the merged firm assumes a dominating position or the merger reduces competition substantially (Article 18); but wisely the Act obliges the Council to consider the extent to which foreign competition influences the combined firm’s position on the domestic market, and it cannot be used to break up mergers which occurred before the Act came into effect. It also allows for

tacit approval if no objection is forthcoming from the Council within two months after a merger is announced or six weeks after a prior opinion is sought in order to force speedy consideration by the authorities.

Another provision (Article 14) allows the Council to order the financial segregation of monopoly operations in the public sector from those operating in rivalry with private competitors in order to prevent cross-subsidisation. This is a provision which is unique to Iceland. In addition, it must inform the government if it believes that laws, regulations or administrative practices are detrimental to competition (Article 19). With regard to transparency, the 1993 law did away with the requirement under the 1978 law (much used in other Nordic countries as well) that producers notify the authority of agreements with restrictive effects, since this was seen to be providing little relevant market information at great bureaucratic cost. Rather the Council is accorded the power to collect the information it needs and to assess and publish it (Articles 33 and 34) and to order sellers to label their prices clearly and conspicuously (Article 31). Other provisions deal with unfair trade practices and use of payment cards.

The Act allows the Council to impose "administrative fines" of up to IKr 40 million (about \$600 000) or even up to 10 per cent of the previous calendar year's turnover if the violation can be shown to have yielded more than IKr 40 million in gains. Daily penalties are also allowed for in case of non-compliance. Criminal sanctions are also available.

Enforcement under the 1993 law

The new regime took some time to become operational, as several of the initially nominated members of the Council were ruled legally incompetent to serve. Their replacements were approved only in May 1994. There have been about 300 complaints since the new law took effect, about 100 of which pertain to unfair trade practices. The most noteworthy complaint has been against unfair competition from public enterprises, and the public data processing firm and a west-coast ferry operator have been ordered to separate the accounts of their subsidised monopoly operations from those engaged in competitive provision of services; in September 1994 the Post and Telecommunications Administration (PTA) was also ordered to separate its telephone equipment sales operation from the provision of basic telephone and telecommunications services and then in February 1995 to separate its finances in the area of post distribution. Several

applications from professional associations for exemptions from Article 10 have been made, but thus far all have been refused, and fee schedules have therefore been banned. There is an ongoing investigation of abuse of dominant market positions by the three oil firms,⁸² and the behaviour of a large shipping firm⁸³ (which has a controlling interest in the country's major airline) is monitored closely. There have been no merger control cases thus far; two big food distributors merged just before the new law took effect.⁸⁴ Neither have any fines been imposed, although some have been threatened.

There have been complaints in the financial sector, but jurisdiction here is unclear. This is indeed a sector where the extent of competition and the level of efficiency is crucial, as how well financial markets mobilise savings affects not only the level of output but growth as well. In Iceland's case, the banking sector is fairly concentrated and largely government-owned.⁸⁵ The four commercial banks may well be bigger than can be justified by economies of scale and scope.⁸⁶ And efficiency may not be high according to a 1993 study by the University of Iceland, although the situation may be improving as bank employment has been falling in recent years. Although international comparisons may be risky, interest-rate spreads, for example, appear to be extremely high (Table 20),⁸⁷ and bank lending rates for both indexed and unindexed loans have risen relative to corresponding market rates over the past few years (see Chapter II).

While the banks and insurance companies are independent, the banks do own three of the five securities firms, even if they appear to be allowed the freedom to operate autonomously, and they also own leasing firms. Effective competition in lending is still weak, although it is slowly increasing due to the participation of securities firms and foreign banks in the market for corporate loans and, as mentioned in Chapter II, to the increased willingness of municipalities and firms to by-pass the banks and place new issues directly on the market – in 1994 this amounted to about IKr 14 billion. Foreign banks also compete in some foreign exchange services. The phased liberalisation of foreign exchange markets as well as the threat of switching business to foreign banks has had a clearly pro-competitive effect. Similarly, the imposition of the Basle capital adequacy requirements has forced all involved to focus on the commercial aspects of all decisions relating to the sector. On the deposit side there is some competition for indexed deposits among the banks (less for non-indexed deposits), and investors can shift easily into indexed Treasury bonds and mutual funds.

Table 20. Interest-rate spreads

Lending¹ minus deposit rates

	1986	1987	1990	1991	1992	1993
Australia	5.89	6.06	6.78	5.94	..	..
Belgium	5.11	4.33	6.87	6.63	6.75	5.56
Canada	2.27	1.85	1.25	1.32	0.81	1.02
Denmark	6.40	6.55	6.17	4.23	4.10	..
Finland	1.75	1.91	4.12	4.30	4.64	5.17
Germany	5.04	5.16	4.52	4.84	5.58	6.58
Greece	5.00	5.94	8.10	8.78	8.79	9.23
Iceland	6.60	11.10	11.90	12.60	11.70	..
Italy	7.04	6.57	7.28	7.25	8.66	7.74
Japan	3.70	3.45	3.39	3.70	3.39	2.27
Netherlands	4.70	4.60	8.44	9.22	9.55	7.30
New Zealand	..	20.84	4.36	5.08	4.81	4.10
Norway	3.40	4.28	4.47	4.59	3.58	3.66
Spain	3.14	7.39	5.36	3.91	3.80	3.45
Sweden	3.57	3.90	6.76	8.09	7.40	6.30
United Kingdom	0.98	1.07	2.53	1.48	2.11	2.16
United States	1.83	1.35	1.85	2.62	2.57	2.83

1. This is calculated on the basis of lending rates for loans that are not perfectly comparable between countries. Some lending rates are averages for all types of loans. Others pertain to particular types of loans for particular types of customer.

Source: International Monetary Fund, *International Financial Statistics Yearbook*, 1994.

But banks have introduced charges at the same time and the same levels in recent years, leading critics to allege implicit collusion. In the homeowners' fire insurance market there has been competition only since the beginning of 1995; previously, such insurance was provided monopolistically by the municipal government in Reykjavik and a partly State-owned enterprise in the rest of the country. The market for other property insurance is duopolistic, although recent foreign entry has injected greater competition. Finally, thanks to the European Economic Area agreement, 17 foreign insurance firms have announced their intention to offer personal (life and non-life) insurance without setting up local branches.

A somewhat stronger role for the government in financial markets in Iceland than elsewhere is justifiable by the greater likelihood of market failure due to the small scale involved. Missing and/or incomplete markets are especially pervasive. But the major question is whether that public presence is optimally ensured *via* public ownership rather than greater prudential regulation. In any case, with

markets becoming more complete over time, the case for government intervention would appear to be declining. The government has indicated its desire to reduce public ownership in the financial sector, but major steps in this direction remain to be taken, awaiting better equity market conditions. A second crucial question relates to the concessional component of credit provided by government-controlled institutions in the form of State guarantees.⁸⁸ The distortions that these introduce into the structure of interest rates and therefore costs and prices more generally may be very important. The Ministry of Finance has shown a willingness to retreat from the practice of providing guarantees, but thus far such a reform has not had government approval.

Trade and investment policy

But for a country of Iceland's size and location it is fairly clear that the best assurance of competitive prices and conditions is a domestic market open to foreign trade and investment.⁸⁹ Accordingly, the most important plank to competition policy is commercial policy, broadly defined. On the trade front, Iceland's regime is indeed quite open in general (Table 21): its overall simple average MFN tariff rate – 3.7 per cent – was already the lowest in the OECD in 1993, and the share of duty-free items easily the highest;⁹⁰ then many tariffs were replaced in 1994 by excise taxes as part of the implementation of the European Economic Area agreement. But for items subject to non-zero tariffs, the average rate was quite high, raising the weighted average MFN rate to 4.3 per cent, in line with most other OECD countries. The result is greater variation in tariff rates across items (as measured by the coefficient of variation) than anywhere else in the OECD except Switzerland and a greater preponderance of tariff “spikes” (rates in excess of three times the simple average MFN rate). This implies a distorted domestic price structure.

Recourse to non-tariff barriers is also more limited than elsewhere in the OECD with the exceptions of Australia and New Zealand. Such barriers are important only for agricultural products where tariffs are low or non-existent. There has only been a single recent case where anti-dumping or countervailing duties have been imposed – a countervailing duty on margarine in 1993. There is also a price equalisation duty on bakery products and chocolate and an equalisation tax of 90 per cent on frozen french fried potatoes. Special duties and taxes apply to gasoline and automobiles (neither of which is produced domestically),

Table 21. Trade barriers of OECD countries, 1993

Per cent

	Specific and composite tariff lines/ all items	Tariff lines with no <i>ad valorem</i> equivalent/ all items	Overall simple average MFN tariff rate	Average MFN tariff rate for all dutiable lines	Duty-free items/ all items	Weighted average MFN tariff rate ¹	Domestic tariff "spikes" ² / all items	Coefficient of variation	Standard deviation	Tariff lines subject to "hard-core" non-tariff barriers ³ /all items
United States	17.0	1.6	6.8	7.9	14.4	4.2	3.6	1.36	9.24	22.9
European Union	10.4	8.2	7.6	8.5	10.8	6.1	2.4	0.82	6.13	21.4
Japan	8.1	1.2	6.5	10.0	35.1	3.4	7.0	1.47	9.38	7.5
Canada	6.3	0.1	8.8	12.0	26.3	6.7	0.3	0.95	8.42	8.2
Finland	17.0	2.4	7.4	12.2	39.4	5.2	10.3	1.39	10.32	7.9
Iceland	0.0	0.0	3.7	13.5	72.5	4.3	11.4	1.97	7.33	2.8
Norway	26.8	2.4	5.6	8.0	30.0	4.3	12.3	1.22	6.81	5.9
Sweden	9.2	0.0	4.5	7.0	35.9	3.4	8.2	1.09	4.91	10.8
Austria	28.5	18.4	9.5	11.8	19.4	8.5	2.6	0.91	8.65	14.3
Switzerland	100.0	5.6	4.2	4.3	3.7	4.5	6.3	2.78	11.60	3.5
Australia	1.8	1.0	9.0	13.3	42.9	7.0	8.9	1.22	10.90	0.9
New Zealand	14.7	8.7	8.5	16.5	48.7	8.0	6.2	1.22	10.37	0.4

1. OECD import weights.

2. Share of those exceeding three times the overall simple average MFN rate.

3. Quantitative restrictions and price control measures (including antidumping and countervailing duties, variable levies); for more details see Annex III to ECO/DIV/95(3).

Source: OECD.

fodder, imported calendars and imported beer (until end-1997 at the latest). Licenses are required for a number of imports, including agricultural products, brooms and brushes (produced by the blind in Iceland), drugs unregistered in Iceland and weapons and explosives. Policy with respect to so-called "parallel" imports, that is those imports of foreign branded merchandise that enter the country outside of normal channels, is pragmatic: they are seen as injecting competition and lowering prices where foreign suppliers attempt to impose exclusive supply contracts on their Icelandic subsidiaries or representatives, often forcing them to purchase from other high-cost Scandinavian sources. But only Icelanders resident in Iceland or foreign citizens resident for more than a year have the right to hold trading licences; otherwise, foreign firms have to direct their sales through local agents. Yet Iceland was willing to pass liberalised patent legislation which granted patent rights as of the beginning of 1992, except in the case of medicines where a five-year grace period was granted in order to protect the nation's three producers of generic drugs.

In the area of inward foreign investment, despite substantial liberalisation since 1991,⁹¹ restrictions still apply in a small number of areas: fisheries, banks, geothermal and hydroelectric energy distribution, airlines, farm land and residential real estate. Under the European Economic Area (EEA) agreement, which entered into force in 1994, all restrictions except those pertaining to the fisheries will be abolished by the end of this year. It is expected that most of the liberalisation measures will be on an *erga omnes* basis, that is they will be extended to all foreign investors, except in the case of energy, for which the liberalisation will apply only to those resident in EEA member countries. Furthermore, the very strict rules dealing with investment in the fisheries are likely to be relaxed somewhat to allow indirect ownership of fisheries-related firms. Also, the small domestic airline market will have to be opened up to foreign competition by 1997. In 1992 the National Economic Institute estimated that this and other supply-side effects from the EEA agreement would reduce domestic services charges by 10 to 15 per cent. More recently, as part of its implementation of the Uruguay Round agreements, the government has indicated that it will also adopt the various Tokyo Round codes, with the possible exception of the Government Procurement Code.

Public ownership

The most direct way the government influences resource allocation is through direct ownership of certain activities. Iceland has a long history of significant public ownership of commercial enterprises, with an equity share recently estimated to be worth almost IKr 100 billion (nearly 25 per cent of GDP). Excluding production of public services by the civil service proper, different levels of government were responsible for over 13 per cent of the wage bill in 1991⁹² (Table 22). Nearly one-third of that was below the central-govern-

Table 22. **The importance of public ownership, 1991**
Share of wages and salaries in per cent

ISIC classification	Central government	Local government entities	Other government entities
11 Agriculture	2.1	e	-
13 Fishing	0.1	-	-
30 Fish processing	1.2	e	-
31 Other food and beverages	0.3	-	-
32 Textiles, clothing and leather products	1.6	-	-
33 Wood and wood products	0.4	-	0.6
34 Paper and paper products, printing and publishing	2.0	-	-
35 Chemicals and plastic products	19.2	-	-
36 Non-metallic mineral products	14.5	4.6	-
37 Aluminium and ferrosilicon	-	-	-
38 Fabricated metal products, machinery, equipment	0.3	0.5	-
39 Other manufactures	0.8	-	-
41 Electricity and hot water	16.3	33.0	50.7
42 Water supply	-	95.2	-
50 Construction	8.3	11.0	e
61 Wholesale trade and commission broking	3.5	0.2	-
62 Retail trade	1.9	e	-
63 Restaurants and hotels	8.2	0.9	-
71 Transport and storage	7.2	6.9	-
72 Post and telecommunications	99.9	-	-
81 Financial institutions	52.9	-	e
82 Insurance	19.4	0.4	-
83 Real estate and business services	1.1	3.2	0.2
93 Market services of health	2.9	0.1	-
94 Recreation and cultural services	34.1	19.1	-
95 Personal and household services	1.2	4.5	2.1
Total of above sectors	8.9	3.3	1.0

e = less than 0.05 per cent.

Source: OECD Secretariat calculations based on data provided by the National Economic Institute.

ment level. Some activity by public firms was present in almost every sector of the economy. The justification for such a role is not always clear, but sometimes scale has an important part to play: for example, the State and the municipality of Reykjavik jointly own a large data processing firm, mainly because when the need arose for the nation to purchase its first computer in the 1960s, the demand was sufficiently limited relative to the size of mainframes then available on the market that there was no need for more than one piece of such equipment to be purchased. In this case at least there is now some competition, but in many others State trading entities have legal monopolies or dominant positions over production and/or imports: until this year the fertiliser plant alone could import fertiliser; only the Liquor and Wine Authority is authorised to import not only alcoholic beverages but also industrial alcohol and tobacco;⁹³ the PTA has a dominant position in the importation of telephone and telegraph equipment; and the Agricultural Production Board controls the importation of all fresh vegetables into the country.

Besides the well-known problem of X-inefficiency (Leibenstein, 1966) and soft-budget constraints, public ownership risks stifling private-sector entry and entrepreneurship and allowing arbitrary political and self-serving influences (Willig, 1993). Public entities are generally believed to be called for when the underlying activities need to respond to non-market public-interest exigencies which cannot be specified in advance or reliably adjudicated after the fact. While obviously having a still rather limited potential in Iceland's case, monitoring of enterprise performance by capital markets along with the threat of take-over are entirely absent for public enterprises, and where legislated monopolies exist, even "yardstick competition" is lacking.

The present government has recognised the desirability of disengagement from direct ownership, especially for activities in competition with the private sector. With a view to widening share ownership among the public, encouraging the development of the equities market and generating some revenues for the Treasury, a programme of privatisation has been underway since the beginning of its mandate in 1991⁹⁴ (Table 23), but the progress achieved in this direction has been less rapid than had been originally envisaged.⁹⁵ This is attributable to the weakness of the economy with its attendant effects on conditions in the stock market and workers' fears for job security. PTA employees have opposed pro-

Table 23. Iceland's privatisation programme, 1991-95

	Firm	Description	Proceeds IKr million
1991	Skipaútgerð ríkisins (coastal shipping line)	Company disbanded. Assets sold to private lines. Services now in competitive market	223
1992	ÁTVR (alcohol and tobacco monopoly)	Production facilities, trademarks and patents sold	15
1992	Prentsmíðjan Gutenberg (printing plant)	Complete privatisation	86
1992	Jarðboranir (geothermal drillers)	Sale of entire 50 per cent Treasury holding ¹	120
1992	Ferdaskrifstofa Íslands (travel agency)	Sale of entire 1/3 Treasury holding	19
1992	Menningar sjóður (arts fund)	Publishing unit sold	57
1992	Próunarfélag Íslands (venture capital)	Sale of entire 29 per cent Treasury holding	130
1992	Íslensk endurtrygging (insurance)	Sale of entire 1/3 Treasury holding	162
1993	Rýni (fisheries quality control)	Complete privatisation	5
1993	SR-mjöl (herring processing)	Complete privatisation	725
1994	Pormódur rammi (trawlers and fish processing)	Sale of entire 1/6 Treasury holding	88
1994	Lyfjaverslun Íslands (pharmaceutical manufacturing and distribution)	Sale of 50 per cent Treasury holding	201
1995	Lyfjaverslun Íslands (pharmaceuticals)	Sale of remaining 50 per cent Treasury holding	201

1. Note that this sale is still ongoing.

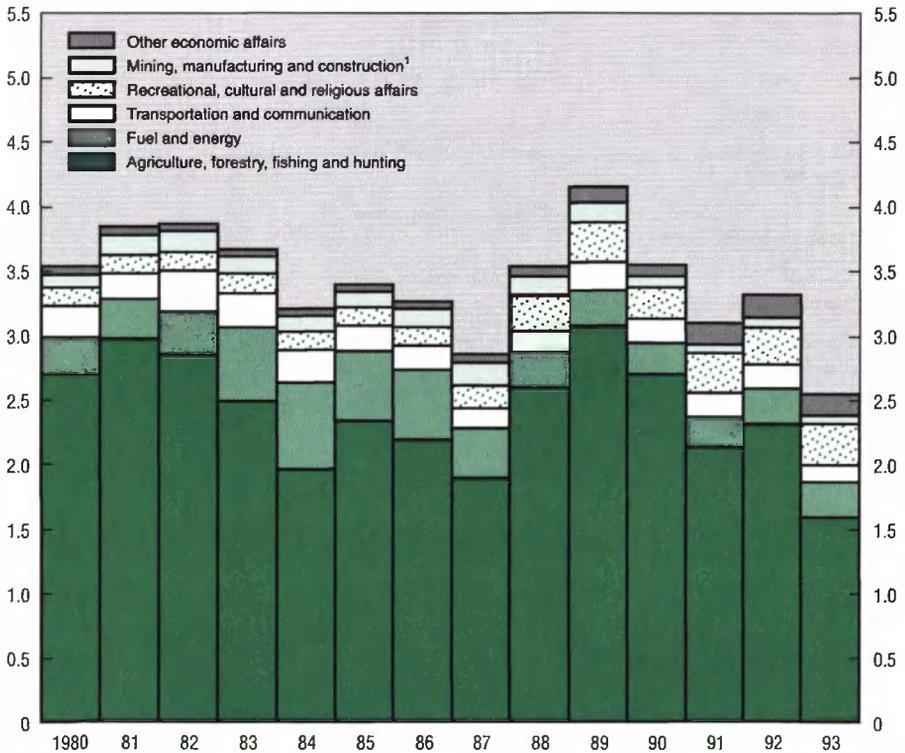
Source: Ministry of Finance.

posals to incorporate the enterprise as a step towards privatisation, and the labour unions have successfully pressured the Reykjavik municipal government to reverse the incorporation of the city bus company.

Indirect taxes, subsidies and other State aid

Governments also intervene in the distribution of sectoral outcomes through their tax and subsidy policies. Only when the rate of (net) indirect taxation is identical across industries is there no impact at all. In Iceland's case average indirect tax rates have been fairly high and subsidies rather limited.⁹⁶ The latter have remained near 3 per cent of GDP since 1980, with a declining trend beginning to appear around 1989 (Diagram 15). The bulk of subsidisation has

Diagram 15. **SUBSIDIES BY FUNCTION**
Percentage of GDP



1. Excluding fuel and energy.

Source: OECD, *Annual National Accounts*.

been allocated to the primary sector, especially agriculture, with small and declining shares proffered to energy and general industry. But more important in this context is the variation in rates across sectors, and here Iceland stood out until recently as one of the OECD countries with the least uniform rates of net indirect taxation (Table 24). Improvement in recent years has resulted from the reforms which have taken place in agricultural policy, described in last year's *Survey* and further detailed in OECD (1995). The fisheries benefit from some loan guarantees, and a canning factory receives some aid; these firm-specific programmes are largely designed to promote adjustment. Since the 1960s fishermen have also received income tax concessions, worth about Ikr 1.3 billion in 1993. It is asserted that there is no subsidy element in the price paid by the aluminium smelter for its electricity, although costs are difficult to measure in the current context of excess supply. Product development, export promotion and industrial R&D are in addition accorded generalised assistance.⁹⁷ While there are no permanent regional assistance programmes, the government accorded the Vestfirðir region Ikr 300 million in aid in 1994; and several prices are equalised across the island through systems of levies (cement, fertiliser, gasoline) to compensate for higher transportation costs. Finally, as mentioned above, with government involvement in the allocation of credit – through ownership of two of the four commercial banks and control of most of the investment credit funds (ICFs) – comes the risk of inappropriate, non-economic factors entering the financial intermediation process; in any case, most ICF lending comes with a government guarantee, even if borrowers are charged for that guarantee.

Procurement and contracting out

The potential for competition to play a beneficial role in resource allocation and cost minimisation also extends to government procurement. While Iceland's central government has tendered its capital projects since around 1970, it is only recently that it has moved beyond the previous price-survey method of attempting to obtain good value in its procurement. Updating 1970 legislation on public-works contracts and 1987 legislation on procurement, a new market-oriented policy was approved in September 1993 whose aim is to ensure the participation of the greatest number of suppliers. Since the end of 1994, all procurement and purchased services by all State institutions and enterprises are to be handled by the State Trading Centre (formerly the Government Purchasing Department) in

Table 24. Variation in average net indirect tax rates¹ across industries

	Standard deviation					Coefficient of variation				
	1973	1980	1985	1990	Most recent after 1990	1973	1980	1985	1990	Most recent after 1990
Australia	n.a.	5.1	6.6	1.8	1.3 ⁷	n.a.	-3.7	-2.8	2.1	1.1 ⁷
Austria	3.6	6.1	5.1	3.4	4.5 ⁷	0.6	0.9	0.8	0.7	0.8 ⁷
Belgium	10.9	10.1	9.9	8.1	8.4 ⁷	24.2	-5.4	-5.0	-8.2	-14.5 ⁷
Canada	7.1	11.2	10.0	10.0	n.a.	1.4	4.2	2.0	1.5	n.a.
Finland	n.a.	2.4	3.0	5.0	9.0 ⁷	n.a.	-3.0	-3.7	-3.1	-3.0 ⁷
France	n.a.	22.6	32.3	23.9	n.a.	n.a.	-20.6	-8.6	-18.0	n.a.
Germany	10.3	9.6	9.3	15.1	15.9 ⁶	2.3	3.1	3.4	11.1	11.2 ⁶
Iceland	20.4	26.4	29.4	32.6	8.8⁶	1.7	1.3	1.4	3.4	2.4⁶
Ireland	n.a.	n.a.	9.7 ²	8.0	12.8 ⁶	n.a.	n.a.	-1.2 ²	-1.3	-1.4 ⁶
Italy	9.4	12.6	13.1	10.0	9.8 ⁸	67.2	-3.4	-3.3	-4.7	-27.1 ⁸
Japan	9.9	9.9	9.7	8.7	8.3 ⁷	1.3	1.1	1.0	0.8	0.7 ⁷
Netherlands	n.a.	n.a.	6.2	5.4	7.4 ⁷	n.a.	n.a.	17.5	5.6	3.7 ⁷
New Zealand	5.1	4.8	5.1	6.6	n.a.	3.7	2.3	1.3	1.3	n.a.
Norway	83.5	104.8	134.3	267.4	153.0 ⁶	-5.1	-3.3	-4.0	-3.8	-3.4 ⁶
Portugal	n.a.	9.2	13.4	17.9 ⁴	n.a.	n.a.	1.3	1.4	2.7 ⁴	n.a.
Spain	n.a.	n.a.	18.8	17.9 ⁵	n.a.	n.a.	n.a.	22.5	-5.2 ⁵	n.a.
Sweden	n.a.	93.3	42.0	37.7	44.4 ⁷	n.a.	-5.2	-6.0	-5.6	-5.1 ⁷
United States	6.4	5.1	6.2	5.3 ³	n.a.	0.9	0.8	0.8	0.8 ³	n.a.

1. Indirect taxes less subsidies as a per cent of value added for each of 32 sectors.

2. 1986.

3. 1987.

4. 1988.

5. 1989.

6. 1991.

7. 1992.

8. 1993.

Source: OECD, *Annual National Accounts*.

the Ministry of Finance and those over IKr 2 million (about \$30 000) are subject to tendering,⁹⁸ with a requirement that the best value bid be accepted unless an explanation is provided. About 180 invitations to tender were extended in the past year, up 13 per cent over the previous year; about 70 per cent of the value of public procurement by the Government Purchasing Department representing IKr 1.5 billion was made through public tenders in 1991 (GATT, 1994). The result has been average savings in the 15 to 25 per cent range.⁹⁹ The government's goal was to raise the use of tenders to some IKr 4 billion worth of purchases per year by end-1994. Since June 1994 tender invitations and outcomes have been made *via* computer networks in order to disseminate the information as widely and rapidly as possible. The new policy conforms with EEA requirements in terms of being open to foreign bidders, but with the importance of the language barrier and the small size of most contracts (an average of about \$150 000), there is normally little direct foreign interest, although foreign suppliers have been relied on in about half of all purchases (GATT, 1994).

Only very limited contracting-out of public services has taken place; some has been effected in cleaning and catering, for example, and the intention is to move further in this direction.¹⁰⁰ But this is a very limited initiative by international standards: already in 1988 Sweden, for example, contracted out over 10 per cent of its public expenditures, with an even higher share being subject to tender (OECD, 1992b), while for Denmark about 10 per cent of current public expenditures and well over half of construction outlays were contracted out in 1990 (OECD, 1993a). The idea of market testing of various public services such as health, welfare and education in order to enhance client choice, boost efficiency incentives and reduce costs has received little attention to this point.¹⁰¹

The special case of agriculture

The agricultural sector in Iceland and elsewhere has long been seen as one where the supposed deleterious effects of competition on farmers outweighed consumer and taxpayer interests and where the market mechanism was prevented from functioning. Last year's *Survey* detailed many of the policy interventions used to support the nation's farmers. Since then the Secretariat has made the standardised calculations of Producers' and Consumers' Subsidy Equivalents (PSEs and CSEs) necessary in order to complete the documentation for the OECD's first review of Iceland's agricultural policies which was considered by a

Working Party of the Committee for Agriculture 16 December 1994 (OECD, 1995). The results confirm the preliminary calculations presented in this *Survey* last year: Iceland's net percentage PSE dropped from an OECD record of 84 per cent in 1991 to 75 per cent in 1993, only slightly lower than Norway's top figure of 76 per cent (the OECD average excluding Iceland and Turkey is 42 per cent). The net percentage CSE has been very volatile, reaching -40 per cent in 1993; this compares with an OECD average of -34 per cent. The difference in absolute values between the PSE and the CSE is easily the largest in the OECD. Thus, the main additional direct financial burden of agricultural protection is to be found on the budget.

While the relative price of food remains among the highest in the OECD, price rises for farm products with administered prices have been below overall price inflation in recent years, especially since 1992. Food prices have also been held down of late by increased retail competition. But the cost of maintaining Iceland's 5 700 farmers is heavy due to the high degree of complicated regulation in the support system. Besides the subsidies and high prices to consumers, the administrative costs are substantial: in 1993 there was one full-time employee of an institution involved in agricultural policies for every seventeen farmers.

With the passage of the Uruguay Round trade agreements, Iceland has agreed to open its agricultural markets further over the next six years. Although the 20 per cent reduction in total support (from \$222 million to \$177 million) has already been achieved, as has the 36 per cent cut in export subsidies (78 per cent for sheepmeat and 22 per cent for dairy products), it is likely that the minimum market access quotas of 3 to 5 per cent will provide some welcome import competition. Upstream adjustment is apt to prove most difficult for sheep farmers, who seem the least willing to leave their farms, while adjustment in the dairy sector has made good progress. Also, a debate is already underway whether to reclassify processed food from agricultural to manufactured products in order to lift various regulations and import restrictions: inefficiencies in the downstream slaughterhouse and dairy sector are seen to be the result of a lack of competition. Finally, according to the Ministry of Foreign Affairs Iceland has agreed to allow the GATT/WTO to decide whether its strict sanitary/phytosanitary restrictions can be maintained.

IV. Conclusions

While a year ago it was believed that the unexpected increases in activity in 1993 were temporary, in the event 1994 proved to be a year of further surprising strength in product and labour markets, and it is now safe to say that a recovery has taken hold. Real GDP growth of some 3 per cent, in line with the OECD average, was the best in seven years. This achievement came in spite of a sharp fall in the catch of cod, the principal marine export, especially from domestic waters. It is attributable to continued diversification into other species, as well as the most robust growth in other merchandise exports since 1989. Manufactured exports were boosted by the greater buoyancy of world markets and enhanced cost competitiveness resulting from the lowest level of the real exchange rate of the krona in decades. As a result, manufacturing output (excluding fish processing) jumped by about 6 per cent. A wide range of services sectors also began to benefit from the pickup in demand, as a stabilisation in the terms of trade and further expansion in employment translated into more rapid gains in disposable incomes and spending. Even though some of the added outlays were for imports, the trade balance recorded its largest surplus as a share of GDP in modern history, and the current account moved into a clear surplus for the first time since 1986. The economic upturn was sufficient to stabilise the unemployment rate at around $4\frac{3}{4}$ per cent, and by end-1994 it was becoming clearer that the peak in joblessness had been reached. With significant labour-market slack and modest increases in import prices, inflation has thus far remained quiescent, with very small increases in both wages and prices.

By recent standards the prospects for the economy in 1995 are reasonably bright. The authorities have chosen to cut the catch quota for cod by only 10 000 tonnes (6 per cent) for the current fishing year, but since the small-boat exemption has been restricted, the actual decline in the cod catch will be much

larger, possibly around 20 per cent. However, some further gains are probable from increased exploitation of other species, especially herring and capelin, and from processing foreign fish. And the outlook for other exports continues to be favourable, in view of a recovery in ferrosilicon production, another large improvement in aluminium prices, and persistent gains in other manufactured exports. Even though export growth will nonetheless almost certainly slow, a further acceleration in domestic demand can be counted on to limit the impact on GDP. Private consumption may remain buoyant, given the signs of improvement in job prospects and renewed real wage gains, and both housing and business investment should strengthen markedly, pushing output up by 2½ per cent this year. This should be sufficient to hold the unemployment rate within its recent range. Whether that implies any spare capacity in labour and product markets is unclear, given the very recent outcome of the nation-wide wage negotiations which granted rises in base wages of some 3½ per cent for both 1995 and 1996. With moderate increases in import prices this could push consumer price inflation from its average of 1½ per cent in 1994 to the area of 2½ per cent, similar to trading-partner outcomes.

But the risks and uncertainties surrounding the outlook grow quite large even as soon as later this year. On the plus side, one or more major investment projects might possibly get underway, temporarily boosting real activity and imports but bringing with them added upward pressure on wages and prices. On the other hand, however, the cod stock is at a very low level by historical standards – the result of taking more fish than recommended by the official marine biologists as well as unfavourable environmental conditions; the sustainability of the catch in the Barents Sea must be open to question; and the species diversification strategy might encounter at least transient difficulties. For cod, even though the current catch level is probably consistent with a slight recovery in the stock, a good case can be made for further reducing the catch in order to speed its rebuilding. Indeed, the proposal of an official working group to establish a quota-fixing rule of 22 per cent of fishable stock would appear to offer the promise of removing this decision from the political sphere. If adopted, it would imply significant further curtailment of cod fishing.

In view of the faster-than-expected growth path now engaged upon, the appropriate stance of macroeconomic policy is one of caution. Budgetary policy should more than ever focus on arresting the upward trend in public-sector

indebtedness which has lifted net central-government debt from as little as 8 per cent of GDP in 1988 to around 30 per cent at end-1994, despite deliberate deficit-reduction efforts cumulatively worth about 2 percentage points of GDP. Most of the increase has been denominated in foreign currencies, entailing heightened exchange-rate risk for the Treasury. In 1994 for the first time in a decade the actual Treasury deficit was lower than projected in the budget. This was attributable to the much stronger-than-expected outcome for real economic growth, as once again, spending levels were well above budgeted levels. The lack of progress achieved on the spending side in 1994 makes the future task of deficit reduction more difficult but all the more necessary.

There is a clear need for a more ambitious path to fiscal consolidation than has been achieved in the recent past. Measures designed to reduce the Treasury deficit already this year should be high on the agenda of the incoming government. For, as voted in December 1994, the deficit targeted is level with the 1994 outcome and still far from what is required to stabilise the debt-to-GDP ratio. Furthermore, the unfortunate tradition of providing tax and expenditure concessions to the social partners continued in the recently concluded wage round, with a total cost to Treasury finances of about 0.4 per cent of GDP this year, even if part of this will be offset by resulting rise in real earnings and tax payments. Even if nowadays budgetary limits on outlays are respected by spending agencies to a greater extent than in the past, there remains some way to go before the budget is seen as a document which is strictly adhered to, rather than a normative exercise whose deficit target is realised only under optimal conditions. The government has adopted a medium-term fiscal consolidation plan which aims at achieving a balanced budget by 1998, allowing the debt ratio to fall by 1997. There is a clear need to adhere to this plan. For if the total deficit is held at the targeted 1995 level of 1.6 per cent of GDP over the medium term – which itself would require eventual consolidation to the tune of $\frac{3}{4}$ of a percentage point of GDP just to offset rising debt interest charges – this would imply a further increase in net central-government debt from a projected level of 30 per cent of GDP in 1995 to 45 per cent of GDP. It is clear that such a level of public-sector indebtedness would provide little room for manoeuvre in the event of an adverse supply or demand shock and that it would entail a substantial squeeze on the private-sector saving available for investment, with serious implications for either foreign debt levels or domestic standards of living.

For the monetary authorities 1994 was a difficult year. Faced with capital outflows which may have reached 5 per cent of GDP they had to decide to what extent such flows could be ascribed to one-time portfolio adjustments resulting from the liberalisation of long-term capital movements at the beginning of the year. Accordingly, some attempt to offset these flows without adjusting domestic interest rates was easily justified, and the move to lower rates in late 1993 was sustained well into 1994. In retrospect, the authorities' provision of liquidity early in the year was excessive, leading to unduly low short-term interest rates in the spring and an initially sluggish response to the increases which were getting underway abroad. Furthermore, the governments' reluctance to allow long-term interest rates to follow the world-wide increase last year eliminated any krona-based long-term funding of the Treasury deficit after the summer. Agents preferred to pay off foreign loans, with the result that the Central Bank had to use up a substantial portion of its reserves to prevent the currency from falling below the bottom of its band. But it may have also risked its credibility by increasing its holdings of Treasury and related market securities by about IKr 14 billion (3¼ per cent of GDP). For the Treasury alone such increases represented over two-thirds of net borrowing in 1994.

To some extent, the capital outflows were surely also a response to the unusually low long-term interest-rate differential and, as the year wore on, to the risks of higher inflation resulting from the 1995 wage negotiations. Now that the authorities have freed up international capital flows, consistency dictates that financial markets be allowed to price and allocate credit. In a deregulated system with an adjustable peg for the exchange rate it is the markets which set interest rate levels, not the Treasury, and lower rates have to be earned by convincing agents that policies and institutions are non-inflationary and that the risks to the peg are minimal. Credibility will be built by avoiding a revival of inflation. This will be achieved most easily if the rate of increase in demand is prevented from outpacing the economy's supply potential which could result if households are provided with excessive gains in purchasing power. But credibility would be damaged by continuing heavy indirect central-bank financing of the deficit.

Yet optimal macroeconomic policies can do no more than ensure that the economy is as stable as possible. It is the responsibility of structural policies to provide an appropriate institutional setting in order for private-sector agents to enhance their longer-term welfare. For Iceland, the OECD's smallest Member

nation and one of the most geographically remote, ensuring the most efficient intersectoral resource allocation is one of the most significant challenges. Various indicators point in diverging directions as to the success of its market-based outcomes. Although its market structure is in general highly concentrated, there is little sign that profits are excessive or that capital is inordinately remunerated, but that may be a result of the small scale of production. More disturbingly, relative profit rates across sectors are persistent over time, implying that markets are not successfully reallocating resources to eliminate excess or sub-par profits, probably due to the profusion of government intervention, especially in credit allocation. The average level of prices is undoubtedly relatively high in Iceland, but some of that is due to the impact of correspondingly high incomes on the prices on non-traded services in conjunction with a flat wage structure and some no doubt to high transport costs. But much seems attributable to the varying level of import competition, itself probably due to the evolution of the real exchange rate which is heavily influenced by conditions in the fisheries. Nevertheless, effective competition is most likely to be achieved by an open trade and investment regime, since a nation of a quarter of a million people cannot feasibly produce more than a small share of tradable goods and services at a technically efficient scale.

There is no doubt that for several decades now Iceland's commercial policy has been fairly liberal in general, with low average tariffs and little recourse to non-tariff barriers. As was seen in the previous *Survey*, agriculture has long been an exception, with the result that food prices are extremely high. But even here recent progress has been notable, with export subsidies eliminated, lower overall support to farmers and a commitment to minimum market access quotas following the completion of the Uruguay Round. Yet with scant import protection provided to most other sectors and gratifyingly limited subsidisation, net indirect tax rates are highly variable, and the result is a distorted price structure which is dissimilar to those observed abroad. Only by further market opening will Iceland obtain all possible gains from trade. In this regard, the European Economic Area (EEA) agreement should prove extremely beneficial. The agreement also means that almost all international capital flows, which had been restricted for a very long time, are now or will imminently be freed, allowing greater competition from abroad.

Compliance with the EEA agreement also led Iceland to adopt a new public procurement policy and a reformed competition law in 1993. The former should improve the value received by the government as a purchaser of goods and services, but public-sector efficiency would benefit further from increased contracting-out and greater market testing of public services. The new competition law is consistent with most legislation on the books of Iceland's trading partners and should provide an improved legal and regulatory framework with which to ensure that market outcomes are fair and seen to be fair. So far, although the record of enforcement decisions is not long, they appear to be sound and pragmatic. The number of cases in which government-owned enterprises have been ordered to separate their finances by market according to their mandate of monopoly or potential competition in order to prevent unfair cross-subsidisation is noteworthy. Although worthwhile, this may be a second-best policy in situations of unnecessary public ownership. Public enterprises in Iceland are found in an amazingly broad range of industries, and too many are accorded monopoly rights. Privatisation has been espoused by the current government, and indeed some sell-offs have occurred. But progress has been disappointingly slow in the financial sector where government ownership exceeds half of the credit-granting market and where the effectiveness of competition has long been questioned. Once the elections are over, the new government should examine closely the justification, in the new era of liberalised financial markets, for its having such a strong direct role in credit allocation through both ownership and Treasury guarantees, rather than through efficient regulation, as seen elsewhere.

Judging by the standards of the recent past, the economy has enjoyed remarkable success over the past year. Output growth has strengthened, unemployment has stabilised, inflation has remained low, and the current account has been in comfortable surplus. And the stage is set for another good year in 1995. But there is still plenty of room for further improvement. If the authorities can step up the pace of fiscal consolidation, refrain in future from granting concessions to wage bargainers and adjust interest rates more flexibly in light of global financial trends, then aggregate demand policy will be appropriately oriented towards macroeconomic stability. In tandem with this, Iceland needs to continue along the path of structural reform – especially with regard to prudent fisheries management and further disengagement of the state – in order for a renewed spirit of entrepreneurship to lift output onto a new and higher plane over the medium term.

Notes

1. There are ongoing fisheries disputes concerning fishing by Icelandic trawlers in the Barents Sea.
2. Capelin is a small, relatively low-value fish used primarily for fish meal and oil. A small portion of the catch is used for frozen capelin and frozen capelin roe, both high-value products.
3. The sale is recorded simultaneously as an export and a negative domestic investment outlay and the future lease payments will be recorded as imports of factor services. The transaction leaves GDP and GNP unaffected in 1994, but the future imports will reduce GNP, but still leave GDP unaffected.
4. Small reductions in effective tax rates also bolstered demand by boosting after-tax personal and corporate income (see Chapter II).
5. The evolution of the ratio of net foreign debt to GDP depends on several factors: the position of the current account, the growth rate of nominal GDP and the evolution of the real exchange rate. Even though the current account was in balance in 1993, the foreign-debt-to-GDP ratio deteriorated because of the real devaluation of the krona.
6. The VAT on food products was reduced from 24½ per cent to 14 per cent, but this was partially offset by abolishing rebates on food products and increases in excise duties on sweets and soft drinks. On balance, this reduced government revenues and consumer expenditures by IKr 3 billion and prices by a little over 1 percentage point.
7. The registered unemployment rate is seasonally adjusted, but some seasonal patterns may nevertheless emerge owing, in part, to the changing pattern of employment in the fishing industry. For example, the registered unemployment rate dipped during the summer in both 1993 and 1994. Comparisons with year-earlier figures clearly abstract from seasonal developments.
8. Last year's *Survey* contains a thorough discussion of this matter.
9. In the early 1990s when the government was negotiating with an international consortium to build a second smelter, it was estimated that a \$1 800 per tonne price was necessary for viability. Prices have been above that level only since November 1994.
10. The enormous drop in the fishable stock from 1 030 000 tonnes in 1989 to an estimated 560 000 tonnes in 1992 cannot be fully explained by overfishing. Indeed, in August 1989 the Marine Research Institute (MRI) estimated that a fish catch of 300 000 tonnes a year (which is what actually transpired) would reduce the stocks by 1992 to 820 000 tonnes. Part

of the difference between its projection and the actual outcome probably reflects the ensuing poor environmental conditions, resulting in higher mortality rates and smaller-than-expected recruitment classes. Another portion of the difference is probably due to uncertainty about the initial stock of fish; in 1989 the MRI estimated that the 1989 fishable stock was 1 070 000 tonnes, while the current estimate for 1989 is 1 030 000 tonnes, and perhaps it was even smaller. Finally, a portion of the difference is undoubtedly related to uncertainties surrounding the mathematical models used to project fish stocks.

11. Fisheries management has operated under two types of quotas: effort quotas, only available to small boats, and catch quotas. Effort quotas restrict a boat to a certain number of days spent at sea fishing, while catch quotas limit the tonnage for a given year. The catch can exceed the TAC for several reasons: catch quotas can be shifted forward or backward a year; there are special provisions for undersized fish that undercount them in the quota; and the catch subject to both effort quotas and a longline exemption can exceed expectations.
12. The fishable stock equals the tonnes of cod aged 4 to 14, while the spawning stock includes only sexually mature cod (roughly one-third of the five year-old fish, half of the six year-old fish and all of the older fish). The actual catch also includes a large number of three year-old cod.
13. To set the catch quota consistent with the overall TAC, the government makes an estimate of the catch by small boats under the effort quota and the catch by longline boats which are exempt from quota, and subtracts this amount from the TAC to arrive at the distributable catch quota. The government greatly underestimated the catch by small boats (31 334 tonnes versus 10 000 tonnes), and thus the catch was well above the TAC. The fleet-wide small-boat allocation for the current fishing year is 21 500 tonnes, a reduction of over 30 per cent from the previous year's catch.
14. As noted in the 1994 *Survey* cod stocks are near catastrophic levels in the North American fisheries and troubled in the Irish Sea.
15. MRI (1994) estimates that the stocks of saithe, redfish, greenland halibut, halibut, wolffish, plaice, witch, ling, tusk and blue whiting are all fully exploited. In addition, although the report states that ocean perch can probably sustain much higher annual catches, it cautions that knowledge concerning ocean perch is limited and that the effects of possible higher fishing levels for this species are not well understood.
16. As noted in last year's *Survey*, the Fisheries Rationalisation Fund, which operated from 1991 through 1994, had little success because the grant of 30 per cent of the insurance value of the boat was insufficient to attract many retirements. The new Fund may be more successful because of the larger grants (see below) and because the continuing deterioration of the cod stocks has further reduced fishing prospects.
17. At the same time, imports of fishing vessels more than doubled in 1994, reaching IKr 4 billion. These were primarily trawlers.
18. For example, rising world demand is often correlated with rising materials prices, yet aluminium prices could tumble if the 1994 accord to reduce output by major producers unravels.
19. The effects of an additional aluminium smelter were explored in OECD (1991).

20. Partly as a result of financial liberalisation as well, the earlier combination of credit rationing and negative real interest rates gross household debt levels have risen rapidly over the past decade, even during the recent period of stagnation, reaching about 120 per cent of disposable income in 1993.
21. Indeed, on the tax front alone there was a major overhaul of the personal income tax system in 1988 as well as reforms to the sales and excise taxes, introduction of a VAT in 1990, restructuring of the payroll tax in 1991 and substantial rate reductions and base broadening of the corporate income tax over the 1991-94 period.
22. The term deficit refers to the revenue balance recorded by the Treasury which includes expenditures and revenues on both the current and capital accounts on a cash basis, but excludes Treasury lending operations. To date, the budget has been presented on a cash basis only. However, proposals have been put forth to publish the budget on an accrual basis also. The exclusion of public employees' accrued pension liabilities is one of the principal differences between the national accounts estimate of the deficit (as well as the accrual-based estimates) and the Treasury's revenue balance. Including these payments boosts the deficit by IKr 2.3 billion (about ½ percentage point of GDP).
23. At the same time, however, the low debt-to-GDP ratio provided the government with significant manoeuvring room, which was a major advantage in light of the unfavourable economic conditions.
24. This estimate was made by using a rule-of-thumb method of what the budget outcomes would have been if the unemployment rate were constant throughout the period at 3 per cent (the level chosen does not matter). Unemployment benefits were adjusted using the average benefit payments as a per cent of GDP per percentage point of unemployment. Revenues were assumed to be unit elastic with respect to changes in GDP, and every percentage point decline in the unemployment rate was assumed to be associated with a rise in GDP of two percentage points (the Okun coefficient was assumed to be two).
25. Demand shocks and temporary supply shocks affect the actual budget and leave the structural budget unchanged, but permanent supply shocks flow through to the structural deficit.
26. The cyclical elasticity of the central government's revenue accruals is approximately 1, with elastic personal income taxes, unit elastic indirect taxes and inelastic corporate taxes and "other" revenues (interest, dividends, etc.). But the payment lags reduce the near-term gains considerably. For example, the two-month lag between accruals and payment for the VAT implies that if VAT accruals grow 1 per cent faster beginning in January, the payments would be only 0.7 per cent higher the first year. Overall, the elasticity of revenues to changes in current year GDP is about 0.7.
27. Operating costs were expected to be reduced by cutting the wage bill through attrition and a reduction in overtime, while wage rates were expected to remain unchanged. The proposed reduction in capital outlays reflected an unwinding of the temporary expansion in road construction put in place in 1993 to provide short-term job creation.
28. Although real interest rates in Iceland fell markedly at the end of 1993, this did little to slow the rise in Treasury interest expenses because it affected only new domestic debt issues. Only 15 per cent of total gross debt was refinanced during 1994.

29. In the spring, the social partners agreed to a one-time 6 000 krona payment to full-time employees, and the government granted the same amount to civil servants and recipients of social security and unemployment benefits.
30. In addition, non-macroeconomic factors were at work. For example, a shift in the composition of GDP on either the production side or the income side will have revenue effects owing to the different marginal tax rates on the components of income and demand. For 1994, revenues for corporate taxes and the VAT were particularly strong relative to budget projections.
31. The tax base for personal income taxes most closely follows employment income (wages, salaries and self-employment income) which accounts for about 75 per cent of the personal income tax base. Another 10 per cent comes from pension income. Most capital income is excluded from the tax base.
32. At the beginning of 1993 the business turnover tax was abolished; at IKr 4 billion, it was a key source of revenue for the municipal governments. They were partially compensated by a 1.5 percentage point rise in the municipal personal income tax rate with an offsetting reduction in the state tax rate, bringing the municipal tax rate to 8.54 per cent and leaving the (combined) marginal personal tax rate at 41.35 per cent. Furthermore, a property tax on office buildings and buildings used in wholesale or retail trade was shifted to the municipalities.
33. It is a tax of 1.5 per cent of assessed value that generates about IKr ½ billion per year.
34. In addition, revenues were reshuffled in a neutral fashion to bring Iceland into compliance with some aspects of the European Economic Area agreement. Specifically, tariffs on manufactured goods imported from the EEA were abolished, but they were in many cases replaced by excise duties. At the same time, the system of excise duties went through a comprehensive revision.
35. At the end of 1992, it was decided to phase out the tax on foreign currency commissions. The tax was 45 per cent of commissions in 1993, 30 per cent in 1994 and 15 per cent in 1995.
36. At the time when the 1995 budget was passed, the 1994 deficit outcome was projected to be IKr 8½ billion, so the 1995 budget originally aimed for a slight lowering of the deficit.
37. One major capital expenditure, the Vestfjord tunnel is not included in these figures as it will be built and financed by the private sector. Tolls will be levied to pay off the project, and it will be turned over to the government after 30 years. However, some tunnel-related expenditures were included in 1994 outlays.
38. In particular, the spillover effects of the 1994 lowering of the VAT on food products are expected to reduce VAT receipts by IKr 600 million, the reshuffling of the personal income tax between the Treasury and the municipalities to cut Treasury revenues by IKr 500 million, and the stepwise lowering of the charge on foreign currency sales to cut receipts by IKr 100 million. In the main, these changes should have no measurable impact on economic activity in 1995 because they would largely have been incorporated into spending decisions in 1994.
39. Important public enterprises include the State Housing Fund, Students' Loan Fund, State Building Fund, State electric power works and Keflavik airport terminal.

40. Net lending by the Treasury (lending less repayment) amounted to IKr 7½ billion in 1994, compared to a budget projection of IKr 2 billion. The difference is almost entirely due to the State Housing Fund which issues government-guaranteed securities backed by mortgages. The increase in net lending did not add to net debt because the liabilities were matched by financial assets. See below for a more detailed description of this episode.
41. If the deficit is held at a constant share of GDP, d , then the debt-to-GDP ratio, D , will stabilise at $d^*(1+n)/n$, where n is the the growth rate of nominal GDP. Maintaining a constant deficit-to-GDP ratio requires discretionary fiscal actions to offset movements in net interest outlays as a share of GDP. When the inflation component of interest payments is capitalised, the real rate of GDP growth replaces the nominal growth rate in the calculations. The capitalisation component currently is quite small because only a fraction of Iceland's net debt is subject to capitalisation and the inflation rate is low. The 45 per cent figure is based on the $d^*(1+n)/n$ formula with a small adjustment for inflation capitalisation.
42. The primary surplus is the budget surplus less net interest payments. In 1995, the budget is expected to register its first primary surplus since 1990, a necessary but not sufficient condition to stabilise the debt/GDP ratio when real interest rates, r , exceed the real growth rate of the economy, y . The debt/GDP ratio stabilises when the primary surplus equals $D*(r-y)/(1+y)$. With 4½ per cent real interest rates and 2 per cent real growth, a primary surplus of ¾ per cent of GDP is required to stabilise the net-debt/GDP ratio at the current 30 per cent level. With interest costs, as recorded, currently amounting to about 1½ per cent of GDP, this implies an overall deficit of ¾ per cent of GDP. Capitalising the inflation component of the interest charges does not change this calculation if the index for the inflation component is identical to the GDP deflator.
43. During the autumn of 1993 the government announced its intention to refuse all bids on Treasury bonds implying (indexed) yields in excess of 5 per cent. Downward movements in market rates were amplified in terms of intermediated rates by the simultaneous reduction in reserve and liquidity requirements imposed on the deposit money banks. These ratios have not been changed since November 1993.
44. The linkages will remain weaker than would otherwise be the case due to the prevalence of indexation in the Icelandic financial system, a practice that is generally absent elsewhere. There has been a long-running debate over the advisability of eliminating indexation, independent of whether its maintenance is market-determined.
45. Even in the autumn the government's National Budget expressed optimism that the favourable economic fundamentals (low inflation, current external surplus) would allow the decline in long-term rates to be sustained and even possibly extended at some point.
46. While the Treasury had agreed to the complete end of direct Central Bank financing of the deficit in 1993, nothing prevents it from making non-competitive bids at auctions for Treasury bills nor from acquiring government debt in open market operations. The Bank does not bid for longer-term Treasury paper at auction.
47. The SHF is an ICF which is charged with financing public (subsidised) housing. Prior to April 1993 it was funded through a contractual relationship with the pension funds. But at that time the government decided to require it to auction all its debt, and the pension funds subsequently reduced their participation in the market (see below). This system, which dates

from 1992, is to be distinguished from the mortgage bond system, instituted in 1990, under which households are provided with mortgage financing with a Treasury guarantee; this guarantee is believed to be worth about $\frac{1}{4}$ percentage point, and as from January 1994 a premium of 0.10 percentage point was added to the resulting mortgages; in January 1995 this was boosted to 0.35 percentage point. The government's 1994 credit budget authorised issuance of IKr 11.5 billion of such bonds, but with the recovery in the real estate market a further IKr 3.3 billion was issued in the fourth quarter of the year; only IKr 13 billion was authorised in the 1995 credit budget. The Ministry of Finance is of the opinion that this system should eventually be privatised, and that in the interim it should operate only for mortgage transactions which have already been negotiated by lending institutions (as is done in the United States by the Federal Home Loan Mortgage Corporation and the Federal National Mortgage Association).

48. For example, the Central Bank became a market maker in these bonds.
49. Iceland maintains a pegged exchange rate with bands of $4\frac{1}{2}$ per cent width against a basket of currencies with the following weights: ECU, 76 per cent; US dollar, 18 per cent; and yen, 6 per cent.
50. No other intermediate target is viewed as possible (Gudmundsson, 1994): even if the relationship between broad money and the price level has been relatively stable over time, the causality is thought to run from prices to the demand for money, rather than from its supply to prices. This is confirmed by more recent spectral analysis, as yet unpublished, undertaken within the Central Bank. Furthermore, it is only narrow money which is under the Central Bank's control, and the mechanisms linking narrow and broad money may be unstable in an era of rapid structural change in financial markets.
51. Wider official exchange-rate bands have been shown to be significantly related to conditional exchange-rate volatility in a sample of 22 countries (excluding Iceland) over the past 22 years (Rose, 1994). Volatility may also be linked to higher capital mobility.
52. The deposit money banks cut their portfolios of Treasury bills, preferring to make more general loans and pay off some of their foreign debt.
53. Weighted by Iceland's official currency basket foreign rates on three-month Treasury bills exceeded those in Iceland by as much as about 90 basis points in the early spring. By the summer that gap had shrunk to about 30 basis points where it remained until late in the year. By January 1995, domestic rates were about 60 basis points above those of its trading partners.
54. These were designed to capture domestic residents' demand for securities denominated in foreign currencies in the wake of the liberalisation of long-term capital flows at the beginning of 1994 referred to above. However, the size of such issues has been limited by the fact that this demand dwindled as from the end of the second quarter. This public debt-management innovation was joined by the introduction of two-year Treasury notes at the beginning of 1994. It is intended to stretch the maturity of such notes into the three- to five-year range and, possibly, to lengthen bond maturities beyond the current 10-year limit.
55. Indexation is based on the so-called "credit terms index", a geometric average of the cost of living index, the building cost index (to capture developments in prices other than consumer prices) and a wage rate index. While indexation began in 1979, the latter was

added by the government in the late 1980s, a time when it was believed that wages would lag other prices and that borrowers would benefit accordingly. At the time there was a court challenge to this action, but the government's power to make such modifications was upheld. Consideration was given of late to reforming indexation. This resulted in an agreement between the social partners and the government to index both new and existing financial obligations solely to the cost of living index (to be renamed the consumer price index) as from the beginning of April.

56. This switch to cash since mid-1992 results from lower inflation and interest rates, but it may also have been assisted by the introduction of a IKr 19 charge on cheques and a IKr 9 charge per debit on charge card transactions in July 1994. Indeed, the number of cheques written, which was already on a gently declining trend, fell sharply in 1994.
57. Foreign debt fell to 24 per cent of total debt, ending the recent upward trend which had raised the foreign share from 25.9 per cent in 1991 to 27.6 per cent in 1993.
58. Disintermediation by local governments, government-owned enterprises and private corporations has meant a declining role for the DMBs in credit provision.
59. However, the DMBs did not renew the swap agreement with the Central Bank for the period January to May of 1995, believing that indexed liabilities and assets had become balanced. They still have the option to make agreements for the last two four-month periods ending in January 1996. For a more detailed description of these swap agreements, see OECD (1994, p. 39).
60. In order to impede speculative behaviour, vessels will be prohibited from assuming quota levels in excess of their fishing capacity and will not be able to undertake quota transactions involving more than twice their permanently assigned quota over the course of a year. Vessels failing to harvest 50 per cent of their quotas two consecutive years face a possible loss of quota and face a 5 per cent loss of quota for each month spent in international waters.
61. As Jacquemin (1990) has said, there is a presumption that the competitive market system is "least bad" for promoting economic and political freedoms and offers the best chance to achieve high standards of living. Competition diffuses economic power and assures consumers of maximum welfare.
62. However, there are some reasons for noncomparability – see the footnote to the table.
63. Similarly, among the nearly 25 000 firms not selling exclusively on the export market, only 21 per cent have turnover in excess of IKr 10 million (about \$150 000) and only 13 had turnover greater than IKr 5 billion (about \$75 million).
64. Comparing data for Icelandair and the two other Nordic passenger airlines (SAS and Finnair) shows that average load factors excluding freight and mail since 1986 have been higher for Icelandair, but that the gap with SAS alone has been eliminated since 1989; unfortunately no official data exist for inbound and outbound flights taken separately.
65. See, for example, Diagram 15 in OECD (1993a). The logic behind this finding, first pointed out by Balassa (1964), is that countries with higher per capita incomes and therefore higher levels of labour productivity generally have higher wage rates in both tradables and, with intersectoral labour flows, in nontradable services. With relatively small international productivity differences in nontradables, however, price levels tend to be higher in high-income countries and conversely.

66. Only Switzerland, Finland, Sweden, Denmark and Japan had price levels at factor costs which exceeded that of Iceland on a purchasing-power-parity basis in 1990.
67. The change in import shares rather than the level is used in this analysis because of a better observed fit; in fact, what is being proxied is the elasticity of import supply, and it is perhaps not surprising that the change is a better proxy than the level for this effect.
68. It should be noted that this observation is qualitatively if not quantitatively robust: if the change in import share is specified in volume terms in the estimated equation, the coefficient is negative but no longer significant; and the residual for Iceland becomes only -0.7 per cent without the EFTA dummy and -11.9 per cent with it. However, this is a troubling result, based on the argumentation of the previous footnote: if we are trying to capture the elasticity of import supply, then it would seem that a volume specification should work better than a value specification, since a decline in import prices should indicate, if anything, a more elastic import supply.
69. Much of that represents relative price developments: the downward trend is less clear when measurement is undertaken on a constant-price basis, especially for goods alone: it was only in 1993 that the volume of imports relative to real GDP fell well below the 1983 level.
70. The continuing low level of communication prices is attested to by OECD statistics on telephone charges as at 1 January 1994: for a typical basket of both residential and business user calls Iceland had the lowest charges in the OECD, 46 and 65 per cent, respectively, below OECD average levels (Kato and Paltridge, 1994/95).
71. It is interesting to note that all these items are marketed through the retail sector – see below for another indicator of its efficiency. In the case of food, however, increased competition since 1990 has led to a decline in relative prices.
72. However, it could also be surmised that price similarity indices may additionally reflect the level of per capita income and the resulting homogeneity of the spending basket between countries.
73. Examination of identical data from the years 1987 to 1989 shows the hierarchy of capital's share to be unchanged.
74. Another possibility is that Iceland's currency might have been overvalued during this period, possibly due to "Dutch-disease" considerations resulting from the availability of the fisheries.
75. Over the period 1987-92 the average return on equity has been only 0.7 per cent, compared to some 11 per cent in twelve other OECD nations.
76. Under the old system, six of nine members of the corresponding institution were appointed by interest group organisations.
77. A 1938 labour law requires that such agreements be extended at least to all similar workers in the same municipality. This centralisation has recently become more controversial: while many would argue that it was useful in holding down wages in a period of excess demand for labour and others that it was a precondition for the wage freeze implemented in 1993, some critics believe that it has outlived its usefulness by failing to reflect the industry-level changes that have taken place over the past six years, in technology for example. Union opponents of the centralised approach cite the example of the contract between the fish

processors and their unskilled workers. These employees have seen their bonuses cut because of declines in throughput and in average fish size which have boosted the amount of effort necessary to process each fish. However, it is by no means clear that such a cut is inappropriate in such circumstances. In any case, specialised demands have cumulated, and worker representatives feel too few of them have been involved in the negotiations. Employers, on the other hand, fear a craft-based, decentralised approach, in part because of its time-consuming nature, especially during an electoral period.

78. A 1932 law obliged all herring producers to participate in a cartel, but it ceased operations in the late 1980s. Export cartels in other sectors operated on a government-permission basis, but they too fell into disuse in the 1980s. However, joint ventures in marketing do exist, in salt fish, for example, but these entail no compulsion.
79. Prior to the implementation of this legislation the issuance of price schedules by professional organisations for guidance purposes had been tolerated.
80. The official definition of dominant market provision, given in Article 4, is similar to that of the EU: "the position of an undertaking which has sufficient economic strength to be able to prevent active competition in the relevant sector of the market, and which enables such undertaking to carry on a significant part of its operations without regard to competitors, customers or consumers".
81. It may also rule on an *ex ante* basis if the merging firms ask for such an opinion.
82. Maximum oil product prices were in effect until 1992, but since then there has been an apparent lack of rivalrous behaviour among the three suppliers. The authorities have been trying to encourage foreign entry through more relaxed planning rules and may be on the verge of success with the probable entry of a Canadian supplier.
83. Nevertheless, there has been a steady increase in import penetration since 1980: the share of foreign vessels arriving in Iceland (by tonnage) has risen from 34 per cent to nearly 60 per cent in 1993.
84. There have been complaints against the two remaining big food distributors for joint purchasing: producers claim that because they sell with such low margins to these chains they must charge smaller buyers more; the latter tend to be located in rural areas. This is, of course, the normal cost-based outcome in other OECD countries, but Iceland has a tendency to subsidise various costs to residents of remote areas.
85. For a more detailed look at Iceland's financial markets, and especially the government's role therein, see OECD (1992a).
86. Recent estimates based on data from the US banking system indicate that the industry's average cost curve is U-shaped, with the trough coming in the range of \$75 to \$300 million in assets, at least when substantial off-balance sheet activities are absent (Berger and Humphrey, 1992). At the end of 1992 Iceland's commercial banks each had an average of \$1.2 billion in assets. Nevertheless, this was the lowest figure of any in the Nordic region.
87. The figures in Table 20 for Iceland give spreads for non-indexed deposits and credits, whereas indexed instruments dominate the market. Using average interest rates the spread is much lower, although still high by international standards at about 8 per cent.

88. Since 1967, however, all borrowers benefiting from a State guarantee have had to pay a front-end charge (generally 1½ per cent). Beginning in 1995, housing bond borrowers have had to pay an annual rate premium of 0.35 percentage points. A related matter is whether credit is extended neutrally across individual borrowers and sectors: some have claimed that ICFs – at least in the past – favoured some over others. Even though ICFs were set up to channel credit to corresponding sectors, it is possible that they serve to lock capital into its existing intersectoral pattern.
89. As Jacquemin (1990) has noted, the importance of free international trade as a disciplining device on market performance is inversely proportional to the size of the market. Indeed, he goes as far as to argue that small, open OECD economies do not really need an antitrust policy at all.
90. In comparison with the United States, the European Union and Japan average tariff rates are relatively high only for transport equipment, arms and ammunition and miscellaneous manufactures. While no significant decline in MFN rates occurred, implicit tariff rates declined steadily in the years 1976-88 by nearly three-quarters, as Iceland liberalised its trade with and shifted its pattern of imports toward its partners in Europe. It also cut its duties in 1988 when it adopted the Harmonised Commodity Description and Coding System.
91. Most importantly, a reciprocity requirement was eliminated at the end of 1993.
92. This is the most recent year for which data are available. These wages were paid by 430 establishments of which 307 were at the local level.
93. Late in 1994 the EFTA Surveillance Authority ruled that this monopoly on importing alcohol must be done away with. In March 1995, Iceland's 35 per cent tax on imported beer was also found to be in contravention of EEA competition rules. Accordingly, draft legislation has been submitted which would remove the Liquor and Wine Authority monopoly on 1 April 1995 and would eliminate the special levy on beer imported from EEA member nations. A bill is also before the Parliament which would abolish its monopoly on the importation of tobacco and related products.
94. By far the largest privatisation to date actually occurred at the end of 1989 when one of the three state-owned commercial banks (Íslandsbanki) was sold off. The second largest was the sale of a large fishmeal company in 1993.
95. For example, the legislation to privatise the pharmaceuticals firm was first presented to Parliament in mid-1992, but the shares were not first sold to the public until late 1994.
96. The average net indirect tax rate in Iceland has varied between 21 and 25 per cent of GDP over the past two decades and for most of that period was the highest among OECD Member countries. Only in 1992 did a massive tax rise in Greece drop Iceland to second place. However, in 1993 the turnover tax was abolished, and the VAT rate on food was lowered substantially resulting in a decline to 19½ per cent.
97. The government finances about two thirds of all R&D, all of it pre-competitive; see OECD (1993b). Along with non-profit institutions, it also performed 49 per cent of all R&D in 1991, down from 56 per cent in 1989, but still several orders of magnitude greater than the corresponding shares in other Nordic countries. Nonetheless, R&D represented only 1.3 per

cent of GDP in 1993, nearly double the 1981 share, but well below the unweighted average of its Nordic partners of 2.2 per cent (Nordic Statistical Secretariat, 1994).

98. The threshold is IKr 5 million (about \$75 000) for construction and maintenance contracts, but there is an escape clause allowing avoidance of tenders if "it be obvious that this does not serve the interests of the establishment concerned". These thresholds are well below those included in the GATT Plurilateral Agreement on Government Procurement concluded in 1994 (about \$182 000 for central governments' purchases of goods and services; an average of \$560 000 for utilities and \$280 000 for sub-central governments; and an average of \$7 million for public construction projects).
99. This is consistent with the evidence for the United States and United Kingdom cited in Oxley *et al.* (1991) and for Sweden in OECD (1992*b*).
100. Municipalities have not yet even gone this far in exposing their procurement requirements to competitive processes, a major problem in many other OECD countries.
101. However, some private schools exist, and parents may choose to send their children to public schools other than the nearest one, if they are willing to arrange transportation.

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Annex I

The importance of import prices in domestic producer price determination

In order to judge the relative importance of different factors which jointly determine producer prices in OECD countries, a simple, reduced-form regression equation was estimated for all Member countries except Luxembourg. The three factors examined are labour costs, net indirect taxes and import prices. It is hypothesised that all excess demand effects are already captured within the unit labour cost term. All that remains is to specify a functional form which allows for dynamic adjustment; for the present purposes a simple error-correction model was chosen. Accordingly, the model to be estimated is the following:

$$\Delta p = \alpha_0 + \alpha_1 \Delta u + \alpha_2 \Delta m + \alpha_3 \Delta t - \alpha_4 (p_{-1} - u_{-1}) - \alpha_5 (p_{-1} - m_{-1}) - \alpha_6 (p_{-1} - t_{-1})$$

where p is the GDP factor, u is unit labour cost, m is the deflator for imports of goods and services, t is the implicit average net indirect tax rate and Δ is the difference operator. All variables are in natural logarithms, and all coefficients are hypothesised to be greater than zero. Annual national accounts are the source for all data. The sample taken is from as early as possible in the 1960s or 1970s to as recent as data are available (1991, 1992 or 1993). Estimation proceeded using a general-to-specific strategy, *i.e.* perversely-signed variables were successively omitted. Dummy variables were occasionally included in order to help account for extreme outlying observations. Estimation results are given in Table A1.

The natural measure of the relative importance of the three factors is the beta coefficient – the coefficient which would result if the underlying variable had been normalised by subtracting its mean and dividing by its standard deviation. Here, attention is focused on the coefficients on the import price variables α_2 and α_5 ; the former represents the first-year effect and the latter the long-run impact. Table 17 in the text reports the beta coefficient for these two variables.

Table A.1. **Regression results**
t-ratios in parenthesis

	α_0	α_1	α_2	α_3	α_4	α_5	α_6	Sample	RBSQ	SEE	DW
Australia	0.03 (4.53)	0.51 (10.12)	-	0.75 (1.05)	0.23 (3.31)	0.07 (2.75)	0.01 (1.44)	62-93	0.92	0.011	1.85
Austria	0.04 (4.34)	0.43 (6.94)	0.12 (2.80)	0.63 (1.50)	0.66 (2.10)	0.03 (1.74)	-	61-93	0.75	0.008	2.39
Belgium	0.05 (6.12)	0.54 (7.77)	-	0.48 (0.96)	0.15 (4.03)	0.03 (1.63)	-	61-93	0.84	0.010	1.75
Canada	0.09 (4.35)	0.67 (10.31)	0.04 (0.61)	0.21 (0.51)	0.32 ¹ (4.03)	0.05 (3.11)	-	62-93	0.89	0.010	2.06
Denmark	0.29 (5.74)	0.51 (9.56)	0.02 ¹ (0.70)	-	0.45 (5.29)	0.02 (1.61)	0.02 (5.35)	62-93	0.93	0.008	1.62
Finland	0.02 (2.64)	0.46 (6.96)	0.22 (5.15)	0.29 (0.54)	0.20 (2.64)	0.06 (2.45)	0.01 (1.71)	62-93	0.88	0.014	1.67
France	0.21 (9.99)	0.53 (13.25)	0.01 (0.91)	0.47 (1.59)	0.29 (9.32)	-	0.02 (6.38)	65-93	0.98	0.005	1.90
Germany	0.01 (4.22)	0.37 ² (5.69)	0.02 ¹ (1.16)	0.47 (0.79)	-	0.00 (0.27)	0.01 (1.39)	70-93	0.91	0.005	2.15
Greece	0.16 (7.46)	0.44 (5.73)	0.16 (3.00)	0.41 (2.01)	0.20 ¹ (6.91)	0.01 (0.44)	-	62-93	0.94	0.016	2.03
Iceland	0.03 (2.39)	0.78 (10.06)	0.18 (3.12)	-	0.40 (2.78)	0.02 (0.59)	-	62-93	0.96	0.028	1.84
Ireland	0.09 (7.38)	0.43 (5.76)	-	0.87 (2.06)	0.51 (5.58)	0.07 (1.97)	0.01 (1.82)	62-92	0.91	0.016	2.38
Italy	0.15 (10.84)	0.49 (11.88)	0.11 (5.70)	1.11 (3.97)	0.26 (7.76)	0.07 (6.28)	-	62-93	0.98	0.007	2.43
Japan	0.03 (4.26)	0.53 (8.96)	0.03 (1.65)	-	0.25 (3.30)	-	0.06 (3.50)	62-92	0.88	0.012	1.62
Mexico	0.45 (1.60)	0.65 (5.68)	0.28 (4.57)	1.06 (1.04)	0.10 ¹ (1.61)	0.20 (2.95)	-	72-92	0.98	0.033	1.51

Table A.1. Regression results (*cont'd*)

t-ratios in parenthesis

	α_0	α_1	α_2	α_3	α_4	α_5	α_6	Sample	RBSQ	SEE	DW
Netherlands	0.01 (3.68)	0.26 (2.40)	0.07 ¹ (1.91)	–	0.20 (2.92)	0.03 (0.84)	0.04 (2.68)	72-93	0.94	0.008	2.25
New Zealand	0.20 (3.92)	0.54 (5.04)	–	0.81 (1.67)	0.25 (3.34)	0.03 (0.72)	–	63-92	0.76	0.030	2.23
Norway ³	0.03 (1.70)	0.32 (2.49)	0.15 ¹ (1.42)	0.66 (1.20)	0.09 ¹ (1.07)	0.10 (1.60)	–	64-92	0.74	0.018	2.01
Portugal	0.34 (9.71)	0.44 (9.04)	–	–	0.33 ¹ (6.93)	0.07 ¹ (2.15)	–	62-91	0.93	0.019	1.78
Spain	0.15 (8.25)	0.53 (8.94)	–	–	0.37 (7.88)	0.03 ¹ (2.19)	–	66-92	0.94	0.010	1.90
Sweden	0.12 (7.45)	0.52 (10.38)	0.03 (0.99)	0.29 (1.21)	0.20 ⁴ (5.63)	0.11 ⁵ (3.67)	–	62-92	0.91	0.009	1.86
Switzerland	0.01 (0.45)	0.73 (12.09)	0.02 ⁶ (1.03)	1.00 (1.20)	0.01 (0.18)	0.00 (0.19)	–	62-93	0.89	0.007	1.86
Turkey	0.66 (4.56)	0.19 (3.76)	0.70 ⁷ (11.40)	2.04 (1.46)	0.25 (4.82)	0.63 (4.56)	0.02 (2.63)	74-92	0.96	0.030	2.30
United Kingdom	0.03 (3.91)	0.67 ² (12.34)	0.02 ¹ (0.45)	0.20 (0.61)	0.25 ¹ (3.21)	0.01 (0.51)	–	62-93	0.97	0.009	2.22
United States	0.07 (7.58)	0.50 (11.09)	0.05 ¹ (3.85)	–	0.35 (6.22)	0.03 (4.99)	0.01 (3.38)	62-93	0.96	0.004	2.26

1. Lagged one year.

2. Also includes first lag of unit labour cost growth with coefficient 0.13 (2.39) for Germany and 0.10 (2.26) for the United Kingdom.

3. Also includes the deflator for energy exports with coefficient 0.05 (2.18).

4. Sum of coefficients on $(p_1 - u_1)$ and $(p_2 - u_2)$ with an equality constraint.5. Offset by a term in $(p_2 - u_2)$ with coefficient -0.09 (-2.85).6. Sum of coefficients on $(p_1 - m_1)$ and $(p_2 - m_2)$ with an equality constraint.

7. Also includes first lag of import deflator growth with coefficient 0.09 (1.58).

Source: OECD Secretariat.

Annex II

Main economic events

1994

January

The European Economic Area agreement takes effect, increasing access of Icelandic goods, services and labour to EU markets. Most importantly, EU tariffs on Icelandic fish products are reduced.

VAT on food is reduced from 24.5 per cent to 14 per cent while a 14 per cent VAT is applied to hotel services. The corporate income tax rate falls from 39 to 33 per cent, and proceeds from the property tax on commercial and office buildings are shifted from the Treasury to the municipalities. The personal income tax rate is raised by 0.35 percentage points.

Various limitations on foreign exchange transactions are discontinued according to the Foreign Exchange Regulation legislation of 1992. Specifically, transactions related to long-term capital movements are liberalised.

The Icelandic savings banks set up a new commercial bank, the nation's fourth.

Strike idles the fish processing industry for two weeks over pay issues. The union believed that boat owners were violating union contracts by trading quotas over the counter in ways that deducted the price of purchased quotas from the catch value before the proceeds from the sale of the catch were divided up with crew members. To settle the strike, the government sets up a commission which proposes to require quota trading to operate only through a formal trading exchange.

February

Treasury issues \$200 million of 10-year bonds on United States market with a coupon of 6.2 per cent (about 1/2 percentage point above comparable US government rates).

The Icelandic State Herring Oil and Meal Factories are privatised through a sale to a consortium of 21 fishing firms and 4 financial firms for \$10.3 million.

Various trade disputes break out: with France over fish exports and with Canada over imports of french fries and chicken breasts.

On 21 February, the Central Bank lowers interest rates on certificates of deposit by 25 basis points, to 4.5 per cent and repurchase rates for securities other than Treasury bills by 25 basis points to 6.25 per cent.

March

The Central Bank lowers interest rates on certificates of deposit twice, by a total of 50 basis points. Most interest rates bottom out.

April

The Central Bank and DMBs conclude a third interest swap agreement for the May-September period, according to the framework agreement of September 1993 which was designed to reduce the risk that DMBs had from carrying mismatched assets and liabilities. The DMBs agree to pay the Central Bank 5 per cent nominal interest on IKr 17.5 billion in assets in return for 4.25 per cent interest plus an inflation adjustment. The contract is based on an assumption that the credit terms index would rise by 0.72 per cent (annual rate) over the following four months; actual inflation was 2.3 per cent.

Iceland signs Svalbard Treaty designed to resolve fishing disputes in the Svalbard archipelago. Iceland, Norway and Greenland reach agreement on capelin fishing in Iceland's waters. Iceland also initials the GATT treaty in Marrakesh.

May

The May review of the wage agreement results in a one-time IKr 6 000 payment to union employees and recipients of retirement and unemployment benefits.

Parliament passes new fisheries management law that creates the Fisheries Development Fund, a successor to the Fisheries Rationalisation Fund.

June

Changes made to facilities open to deposit money banks in the Central Bank.

The Central Bank introduces new regulations on indexation of deposits and credits. From the beginning of 1995 sight deposits cannot be indexed. The aim is to obtain a

balance between indexed assets and liabilities of the DMBs. Thus, no further swap agreements will be required after the end of the year.

The Ministry of Commerce introduces a regulation on limitations to commercial banks', savings banks' and other credit institutions' credits and letters of credit to a single customer. The limit is 40 per cent of the institution's own capital and will be phased down to 25 per cent by the year 2001.

The Treasury rejects bids at the monthly two-year Treasury note auction.

The dispute between Iceland and Norway over fishing rights in the Barents Sea peaks when the Norwegian coast guard disrupts fishing by Icelandic trawlers on two occasions.

The government sets 1994/95 fish quotas; overall quotas are reduced by roughly 3½ per cent, reflecting a 6 per cent reduction in the cod quota.

July

The Treasury rejects bids at a State Housing Fund bond auction for the first time in 1994. Bids are rejected six consecutive times through the end of September; since then all further auctions have been postponed.

August

The Treasury rejects bids at the monthly two-year note auction and at the ten-year bond auction, while bids are accepted at the five-year bond auction.

September

The Central Bank and DMBs conclude an interest swap agreement for the September-January period. The DMBs agree to pay the Central Bank 5.33 per cent nominal interest on IKr 14 billion in assets in return for 4.25 per cent interest plus an inflation adjustment. The contract is based on an assumption that the credit terms index would rise by 1.07 per cent (annual rate) over the following four months; actual inflation was exactly 1.07 per cent.

The Treasury rejects bids at the monthly two-year note auction and at the ten-year bond auction, while bids are accepted at the five-year bond auction.

October

The Treasury issues 5-year Treasury bonds linked to the krona/ECU exchange rate. A total of five auctions are held through the end of 1994.

The Treasury rejects bids at the monthly two-year note auction and at the five- and ten-year bond auctions.

Negotiations begin between Iceland and Norway over fishing rights in the Barents Sea.

Four foreign banks are granted operating licenses.

Draft budget is released; the projections include a 2½ per cent rise in revenues from 1994 to 1995, a 1½ per cent decline in nominal expenditures and a IKr 6½ billion deficit for 1995.

November

Norway rejects EU membership, leaving Iceland and Norway as the only members of EEA outside of the EU, as Austria, Finland and Sweden join the EU as of January 1995.

December

Budget is passed by the Althing. For 1995, revenues are expected to rise 2½ per cent, expenditures are projected to rise 1½ per cent and the revenue balance is projected to decline from IKr 8½ to IKr 7½ billion. Many of the proposed spending cuts from the October proposal are dropped.

1995

January

The World Trade Organisation is founded with Iceland as a founding member.

The CPI rises by 0.8 per cent, the largest increase since October 1993, reflecting some one-time factors such as a new sanitary tax on households.

Treasury sells remaining share capital in State Pharmaceuticals Import Company for approximately IKr 200 million.

All capital movements now liberalised except those related to inward direct investment in certain sectors.

For the first time a foreign firm issues bonds in Iceland.

Owners and skippers of the two Icelandic trawlers escorted to port by the Norwegian coast guard for fishing in waters off Svalbard in September 1994 are fined a total of \$325 000 by the Norwegian authorities.

Government announces plans to subsidise Icelandic shipbuilding industry in line with European Economic Area regulations. A subsidy rate of 4.5 per cent will be provided for 1995 for ships over 100 gross registered tonnes and worth less than \$12 million, but no subsidy will be offered for those worth more than \$12 million; instead Iceland will use its prerogative to demand the dropping of subsidies in other EEA countries whose firms bid for contracts in Iceland.

Treasury borrows 15 billion Euro-yen (worth IKr 10.2 billion) to replenish cash position. The issue, of 10 years' maturity, carries a 4.9 per cent coupon.

February

Special offers of a 0.3 percentage point bonus yield made to present owners of about IKr 10 billion of Treasury bonds maturing 10 February in order to coax them to roll over these securities.

General private non-bank sector wage agreement reached covering the period through end-1996. The agreement comprises an increase for this year of IKr 3 700 per month (about 8 per cent) for the lowest paid, sliding to about 3 per cent for high earners. Increases for 1996 will be IKr 2 700 per month or 3 per cent, whichever is greater. Overall, the average increase is about 7 per cent over the two years; wage drift may add a further 2 percentage points or so. Fiscal concessions are more limited than is often the case but centre on the gradual phasing-out of the 4 per cent employee contribution to private pension funds from the personal-tax base.

A nationwide teachers strike gets underway.

Formal talks take place regarding an expansion of the capacity of the existing aluminium plant by 60 per cent at a cost of about US\$150 million.

A bill to resume commercial whaling of minke wales (ceased since 1986) so long as an internationally recognised surveillance structure is established is placed before Parliament. No vote is taken on this or on legislation ending the State monopoly on alcohol imports – demanded by the Surveillance Authority of the EFTA as part of fulfilling the terms of the European Economic Area agreement – before Parliament recesses to prepare for national elections on 8 April.

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STATISTICAL ANNEX AND STRUCTURAL INDICATORS

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

IKr million, current prices

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 ¹
Private consumption	55 872	77 240	99 196	133 557	161 068	190 254	223 729	248 999	249 044	248 952	257 461
Public consumption	14 701	21 130	28 776	38 981	50 537	60 341	69 989	78 157	80 374	84 818	87 445
Gross fixed asset formation	19 337	25 528	30 778	42 593	50 503	58 730	70 007	76 060	69 599	64 176	65 840
Expenditure on final domestic use	89 910	123 898	158 750	215 131	262 108	309 325	363 725	403 216	399 017	397 946	410 746
Change in stocks of export products	-661	-3 111	-3 748	-3 783	-3 085	-8 143	-4 546	-1 226	-406	557	-284
National expenditure	89 249	120 787	155 002	211 348	259 023	301 182	359 179	401 990	398 611	398 503	410 462
Exports of goods and services	33 765	48 774	61 961	71 681	81 721	106 282	124 246	124 943	121 248	134 972	157 351
Imports of goods and services	33 871	48 663	55 880	73 965	84 100	99 240	119 595	130 305	121 943	122 493	134 525
Gross domestic product (market prices)	89 143	120 898	161 083	209 064	256 644	308 224	363 830	396 628	397 916	410 982	433 288
Net income from abroad	-4 024	-4 824	-5 302	-4 799	-6 506	-11 164	-12 401	-12 686	-11 305	-12 142	-12 706
Gross national product	85 119	116 074	155 781	204 265	250 138	297 060	351 429	383 942	386 611	398 840	420 582
Depreciation	11 409	15 483	19 696	23 473	29 001	37 267	43 814	48 347	51 423	54 582	56 690
Net national product (market prices)	73 710	100 591	136 085	180 792	221 137	259 793	307 615	335 595	335 188	344 258	363 892
Indirect taxes	20 918	27 638	35 823	48 320	61 324	72 152	79 162	83 965	83 763	77 156	79 112
Subsidies	2 866	4 107	5 273	5 988	9 107	12 835	12 953	12 320	13 225	10 504	10 010
Net national income	55 658	77 060	105 535	138 460	168 920	200 476	241 406	263 950	264 650	277 606	294 790

1. Preliminary.

Source: National Economic Institute.

Table B. **Supply and use of resources**¹
 IKr million, constant 1990 prices

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 ²
Private consumption	186 574	194 453	207 894	241 508	232 327	222 643	223 729	232 978	222 645	212 696	216 354
Public consumption	51 125	54 444	58 392	62 211	65 108	67 071	69 989	72 194	71 581	73 227	74 252
Gross fixed asset formation	62 756	63 401	62 195	74 056	74 000	68 246	70 007	71 428	63 512	56 229	55 585
Expenditure on final domestic use	300 455	312 298	328 482	377 774	371 436	357 960	363 725	376 600	357 738	342 153	346 191
Change in stocks of export products	5 778	-4 025	-9 519	-3 533	6 142	-1 894	-4 546	1 126	34	925	-72
National expenditure	299 998	308 083	321 600	372 262	370 222	354 075	359 179	377 726	357 772	343 078	346 119
Exports of goods and services	103 080	114 471	121 279	125 240	120 725	124 278	124 246	117 066	115 077	122 448	134 956
Imports of goods and services	101 574	111 141	112 195	138 298	131 957	118 422	119 595	126 252	116 415	105 195	110 612
Statistical discrepancy ³	-6	13	29	-46	-49	6	0	0	0	0	0
Gross domestic product (market prices)	301 499	311 427	330 713	359 159	358 942	359 938	363 830	368 540	356 434	360 330	370 463
Net income from abroad	-8 973	-9 321	-9 259	-9 411	-11 333	-12 514	-12 401	-13 255	-13 200	-13 175	-12 136
Gross national product (market prices)	292 526	302 106	321 454	349 748	347 609	347 424	351 429	355 285	343 234	347 155	358 327
Effect of changes in terms of trade	-2 950	-4 165	2 536	8 611	7 617	2 311	0	7 141	3 791	-3 311	-1 864
Gross national income	289 128	297 516	323 849	358 510	355 414	349 708	351 429	362 426	347 025	343 844	356 463

1. 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 "Effect of changes in the terms of trade" equals the external purchasing power of export earnings (nominal exports deflated by a price index for imports) minus the volume of exports of goods and services.

2. Preliminary.

3. The presence of a statistical discrepancy in the data prior to 1990 is attributable to the fact that the Icelandic authorities rebased the data without modifying the growth rates in volume terms calculated from the previous 1980 base year data.

Source: National Economic Institute.

Table C. Production and employment

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 ¹
Fisheries and fish processing											
Output (volume change over previous year)	13.7	8.1	10.1	4.9	-0.2	-2.3	-1.1	-2.2	-2.0	6.0	6.2
Export production											
Value (IKr million)	16 562	23 937	34 627	40 322	43 819	56 812	69 897	73 236	69 881	74 571	86 590
Fishing fleet: ²											
Trawlers (GRT)	50 801	50 844	50 569	51 380	54 086	52 830	49 912	47 493	43 031	41 502	41 500
Motor boats (GRT)	62 046	61 750	61 822	66 072	65 521	63 181	59 366	52 500	47 317	44 747	44 750
Total (GRT)	112 847	112 594	112 391	117 452	119 607	116 011	109 278	99 993	90 348	86 249	86 250
Employment (man-years)	15 802	15 728	16 064	16 788	15 145	14 893	14 746	14 303	13 023	13 128	13 543
Agriculture											
Output (volume change over previous year)	4.5	3.8	-1.8	2.1	-7.8	1.7	-3.6	-0.8	-2.4	1.6	1.7
Export production											
Value (IKr million)	406	597	690	1 015	997	1 288	1 765	1 657	1 394	1 471	2 133
Capacity:											
Cultivated grassland (1 000 hect.)	143.9	145.1	146.1	146.6	147.0	147.0	146.8	146.5	146.2	145.9	145.6
Sheep (1 000 heads)	714.4	709.3	675.5	624.3	586.9	560.9	548.5	510.8	486.8	487.0	476.0
Cattle (1 000 heads)	72.7	72.9	71.4	69.0	70.8	72.8	74.9	77.7	76.0	74.6	72.2
Employment (man-years)	7 595	7 420	7 374	7 147	6 470	6 399	6 164	6 709	6 514	6 319	6 192
Manufacturing (excluding fish processing)											
Output (volume change over previous year)	7.4	2.8	2.7	9.3	-5.2	-3.6	-3.1	1.6	-4.4	-4.9	7.3
Export production											
Value (IKr million)	6 673	7 776	8 794	10 059	13 677	19 460	18 742	15 927	17 223	18 905	21 040
<i>of which:</i>											
Aluminium	3 445	3 472	4 042	4 761	6 705	10 146	9 629	8 222	7 964	8 373	10 833
Diatomite	189	289	284	296	348	416	522	406	422	374	541
Ferro-silicon	1 060	1 267	1 352	1 195	2 203	2 899	2 180	1 637	1 545	2 370	2 689
Employment (man-years)	16 956	17 620	17 740	18 439	17 057	16 195	15 573	15 586	14 776	14 352	14 494

1. Preliminary.

2. Including whale catchers, excluding open boat; stock at end of year.

Source: National Economic Institute and Central Bank of Iceland.

Table D. **Gross fixed asset formation and national wealth**
 IKr million, current prices

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 ¹
Gross fixed asset formation, total	25 528	30 778	42 593	50 503	58 730	70 007	76 060	69 599	64 176	65 840
Classification by end-use:										
Industrial asset formation	15 300	19 490	27 406	29 406	32 501	38 516	42 182	36 119	28 932	30 500
Agriculture	1 152	1 126	1 607	1 597	1 616	1 441	1 830	1 628	1 883	1 800
Fishing	1 360	3 688	4 952	6 788	4 216	2 711	2 911	5 950	2 146	3 400
Fish processing	1 137	1 358	1 440	1 509	1 265	1 730	1 413	1 408	1 679	2 400
Manufacturing other than fish processing	3 023	3 457	4 261	4 671	5 865	5 387	6 642	5 432	5 420	5 510
Electricity, heating and water supply	1 862	1 739	2 107	3 532	5 443	6 526	7 101	3 857	3 513	3 200
Various machinery and equipment for construction	603	764	1 165	1 305	1 377	1 744	2 473	1 562	1 527	1 300
Commercial and office buildings	1 933	2 626	4 770	4 190	4 700	4 721	4 330	4 397	3 884	3 660
Transport and storage	2 396	2 321	3 809	2 559	5 280	10 941	11 348	7 387	3 952	2 830
Communications	552	802	1 116	752	905	1 003	1 466	1 854	2 036	2 500
Computers and office equipment	1 281	1 608	2 180	2 502	1 835	2 312	2 668	2 646	2 892	3 900
Residential construction	6 455	6 923	9 303	12 586	15 936	18 666	19 104	18 912	18 212	19 040
Public works and buildings	3 773	4 365	5 884	8 510	10 293	12 825	14 775	14 568	17 032	16 300
National wealth	394 867	498 389	604 523	738 868	935 371	1 115 180	1 221 195	1 270 647	1 326 160	1 378 335
Industrial sector	184 673	235 386	284 747	348 928	442 272	504 727	547 910	565 903	589 185	607 178
Private sector ²	145 668	183 742	220 167	265 465	334 786	403 167	442 068	460 342	476 819	495 501
Public works and buildings	64 526	79 261	99 609	124 475	158 313	207 286	231 217	244 402	260 156	275 656

1. Preliminary.

2. Residential housing.

Source: National Economic Institute.

Table E. **Gross fixed asset formation and national wealth**

IKr million, constant 1990 prices

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Gross fixed asset formation, total	63 398	62 194	74 053	73 997	68 243	70 007	71 428	63 510	56 229	55 585
Classification by end-use:										
Industrial asset formation	36 836	38 046	46 573	42 402	36 598	38 516	39 918	33 085	24 879	24 918
Agriculture	2 939	2 386	3 030	2 491	1 951	1 441	1 750	1 527	1 638	1 506
Fishing	3 531	7 462	8 660	10 029	4 935	2 711	2 752	5 471	1 802	2 663
Fish processing	2 730	2 591	2 434	2 136	1 432	1 730	1 343	1 288	1 444	1 934
Manufacturing other than fish processing	7 367	6 710	7 322	6 799	6 752	5 387	6 293	4 976	4 615	4 422
Electricity, heating and water supply	4 488	3 384	3 482	4 940	6 178	6 526	6 653	3 506	3 105	2 763
Various machinery and equipment for construction	1 057	1 065	1 489	1 705	1 399	1 744	2 371	1 439	1 265	1 000
Commercial and office buildings	4 408	4 809	7 422	5 558	5 039	4 721	4 024	3 990	3 449	3 172
Transport and storage	5 573	4 672	6 730	3 946	6 160	10 941	10 810	6 766	3 423	2 420
Communications	1 352	1 550	1 829	1 070	1 017	1 003	1 363	1 682	1 745	2 038
Computers and office equipment	3 040	3 028	3 623	3 329	1 863	2 312	2 558	2 438	2 394	3 000
Statistical discrepancy ¹	352	388	552	399	-129	0	1	2	0	-0
Residential construction	16 170	13 930	15 903	18 265	18 772	18 666	17 755	17 162	16 174	16 499
Public works and buildings	10 101	9 750	10 851	13 154	13 001	12 825	13 756	13 268	15 176	14 168
Statistical discrepancy ¹	290	468	725	177	-128	-0	-1	-4	0	0
National wealth	973 025	996 465	1 030 529	1 064 139	1 089 258	1 115 180	1 141 524	1 158 363	1 166 927	1 175 408
Industrial sector	435 075	448 702	469 901	486 557	495 137	504 727	515 326	517 850	511 597	506 337
Private sector ²	364 866	369 704	376 558	385 428	394 297	403 167	410 827	417 681	423 512	429 424
Public works and buildings	173 084	178 059	184 070	192 154	199 824	207 286	215 370	222 832	231 818	239 647

1. The presence of statistical discrepancies in the data prior to 1990 is attributable to the fact that the Icelandic authorities rebased the data without modifying the growth rates in volume terms calculated from the previous 1980 base year data.

2. Residential housing.

Source: National Economic Institute.

Table F. Balance of payments, OECD basis

US\$ million

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Current balance	-57	-131	-115	17	-191	-221	-84	-134	-309	-208	-2
Long term (excl. special transactions)	94	113	155	157	178	208	261	278	292	222	67
a) Private	-29	-18	32	47	95	65	70	120	71	39	-34
b) Official	122	131	123	109	83	143	191	159	221	182	102
Basic balance	37	-18	40	174	-13	-14	177	144	-17	14	62
Non-monetary short-term private capital	-47	25	128	-43	76	15	-104	-65	48	9	-57
Non-monetary short-term official capital	4	23	-58	-4	-16	22	-24	-2	-18	22	16
Errors and omissions	2	-28	-53	-18	-59	-4	13	-2	20	2	-6
Balance on non-monetary transactions	-5	1	56	108	-12	19	63	75	33	46	16
Private monetary institutions' short-term capital	16	-16	8	-9	-6	-17	-8	0	-22	24	-76
Balance on official settlements	11	-15	64	99	-18	1	55	74	11	70	-60
Use of IMF credit	-1	-	-	-13	-14	-	-	-	-	-	-
Special transactions	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous official accounts	-	-	-	-	-	-	-	-	-	-	-
Allocations of SDRs	-	-	-	-	-	-	-	-	-	-	-
Change in reserves (+ = increase)	10	-15	64	86	-32	1	55	74	11	70	-60
a) Gold	-	-	-	-	-	-	-	-	-	-	-
b) Currency assets	8	-15	64	87	-34	2	56	74	11	61	-60
c) Reserve position in IMF	4	-	-	-	-	-	-	-	-	9	-
d) Special Drawing Rights	-2	-	-	-	2	-1	-1	-	-	-	-

Source: OECD.

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

IKr million, accruals basis

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 ¹
Current revenue	33 727	44 603	57 907	78 168	93 986	106 139	119 375	121 133	119 048	125 191
Direct taxes	5 693	9 080	10 184	18 395	22 387	29 252	38 178	39 295	39 616	43 089
Indirect taxes	24 147	31 193	42 468	53 460	62 665	69 572	72 623	72 193	70 252	72 907
Other	3 887	4 330	5 255	6 313	8 934	7 315	8 574	9 645	9 180	9 195
Current expenditure	30 049	39 530	51 855	72 193	88 912	103 880	113 543	116 143	119 301	123 791
Public consumption	16 675	22 534	30 838	39 603	46 843	54 864	60 537	60 696	63 445	65 113
Interest expenditure	3 300	3 931	4 340	7 174	9 685	11 370	12 961	12 875	13 678	15 877
Current transfers and subsidies	10 074	13 065	16 677	25 416	32 384	37 646	40 045	42 572	42 178	42 801
Current balance	3 678	5 073	6 052	5 975	5 074	2 259	5 832	4 990	-253	1 400
Capital revenue	680	880	1 234	1 492	1 714	1 976	2 346	2 330	2 448	2 473
Capital transfers	129	169	371	474	469	468	610	517	531	500
Consumption of fixed capital	551	711	863	1 018	1 245	1 508	1 736	1 813	1 917	1 973
Capital expenditure	6 372	12 362	8 847	12 481	19 041	16 536	19 186	16 828	15 892	16 876
Gross fixed investment	1 890	1 874	3 078	3 972	4 445	6 338	7 100	6 434	8 025	9 011
Capital transfers	4 482	10 488	5 769	8 509	14 596	10 198	12 086	10 394	7 866	7 864
Capital balance	-5 692	-11 482	-7 613	-10 989	-17 327	-14 560	-16 840	-14 498	-13 444	-14 403
Financial balance	-2 014	-6 409	-1 561	-5 014	-12 253	-12 301	-11 008	-9 508	-13 697	-13 003
Net increase in claims	3 159	-3 340	3 523	3 839	707	-1 053	5 827	-1 934	-1 195	4 258
Borrowing requirement	5 171	3 068	5 087	8 852	12 961	11 249	16 836	7 574	12 502	17 261

1. Preliminary.

Source: National Economic Institute.

Table H. Fish catch, wages and prices

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Fish catch (thousand of metric tons)														
Total	1 435	786	835	1 525	1 672	1 651	1 625	1 750	1 502	1 500	1 037	1 566	1 680	1 436
Demersal species	716	690	603	564	585	632	684	698	692	673	654	585	547	500
Herring	40	57	59	50	49	66	75	93	97	90	78	123	112	128
Capelin	641	13	134	865	993	895	804	909	667	692	254	796	956	728
Crustaceans	21	24	31	43	44	55	55	42	39	44	51	62	65	80
Wages and prices (indices 1980 = 100)														
Hourly wage rates, non-clerical workers ¹	153	240	364	445	597	790	1 124	1 421	1 610	1 734	1 884	1 958	1997	2 007
Total cost of living	150.8	227.8	419.6	542.0	717.5	870.1	1 033.5	1 296.2	1 570.0	1 803.0	1 925.7	1 997.5	2 079.3	2 110.3
Consumer price index	150.6	227.5	422.6	550.7	730.5	880.9	1 047.5	1 324.5	1 619.8	1 858.0	1 988.6	2 069.7	2 172.4	2 209.1
Credit term index	151.8	227.4	407.9	545.7	712.8	888.4	1 043.3	1 287.2	1 524.4	1 759.8	1 892.1	1 962.2	2 011.0	2 048.2
Building cost	152.4	236.7	403.4	505.0	668.0	855.0	1 005.0	1 185.0	1 449.0	1 727.0	1 865.0	1 916.0	1 955.0	2 006.0
Export price of fish products ²														
Fresh and iced fish	124.2	220.4	360.0	486.2	805.0	1 048.2	1 180.0	1 313.9	1 762.9	2 314.4	2 476.5	2 460.4	2 517.6	2 801.2
Frozen groundfish products	144.8	242.9	500.7	593.5	821.4	985.0	1 163.6	1 296.2	1 583.1	2 090.4	2 457.1	2 347.6	2 433.9	2 521.6
Salted products	173.3	263.5	448.4	519.5	726.8	1 013.8	1 295.5	1 387.7	1 634.7	2 286.7	2 666.3	2 561.7	2 339.8	2 463.7
Fish meal and oil	152.2	191.7	511.6	551.4	597.8	603.8	592.7	889.3	1 237.8	1 139.9	1 295.5	1 286.4	1 360.1	1 449.5

1. Weighted averages.

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

Source: National Economic Institute and Central Bank of Iceland, *Economic Statistics*.

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

US\$ million, monthly rates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total imports, cif	68.8	83.4	86.3	78.6	69.1	70.3	75.5	93.1	131.9	133.6	116.7	138.7	143.0	140.4	112.4	122.7
OECD countries	57.5	71.0	74.6	67.1	59.5	60.7	66.7	83.9	119.6	121.3	104.5	124.1	130.2	128.3	101.3	110.7
EEC	34.3	39.7	41.0	38.9	33.7	36.2	40.0	49.5	69.1	69.0	65.6	69.5	75.0	68.3	54.4	59.8
Other Europe	13.9	15.7	19.1	15.6	14.2	13.1	14.9	19.2	27.3	29.7	22.4	22.7	24.6	35.1	26.7	31.0
USA	4.5	7.8	6.7	6.6	5.4	4.8	5.1	6.5	9.4	10.1	13.0	19.7	14.8	11.6	10.5	10.9
Eastern Europe	8.5	9.1	7.8	7.8	7.6	7.5	6.4	5.8	7.2	7.2	7.3	9.0	5.9	3.3	4.0	4.1
Non-OPEC developing countries	2.7	3.3	3.9	3.7	2.0	2.1	2.3	3.3	5.1	5.1	4.8	5.5	6.8	8.6	6.9	7.6
Total exports, fob	65.8	77.5	75.4	57.2	62.5	61.9	67.8	91.2	114.3	119.5	116.7	132.6	129.1	127.3	116.6	135.3
OECD countries	58.1	62.8	57.3	48.9	52.8	54.6	61.0	83.1	105.4	108.5	104.0	123.2	123.0	121.4	110.4	130.1
EEC	30.7	36.4	34.5	27.8	27.6	29.2	33.1	49.5	65.6	70.6	65.6	89.9	86.3	87.6	69.7	80.5
Other Europe	6.7	8.1	5.2	4.2	5.5	5.3	5.9	9.2	9.6	12.2	13.3	11.6	9.9	9.3	10.5	9.0
USA	18.4	16.7	15.7	14.8	17.7	17.6	18.3	19.8	20.9	16.2	16.4	13.1	16.1	14.4	18.5	19.6
Eastern Europe	5.3	6.8	6.0	4.8	5.0	5.9	5.3	5.0	5.4	6.3	6.2	3.8	1.1	0.5	0.5	1.1
Non-OPEC developing countries	1.4	2.2	1.6	1.2	1.6	1.2	1.4	1.5	1.8	3.3	6.0	4.7	4.0	4.3	4.5	3.3

Source: Central Bank of Iceland and OECD, *Foreign Trade Statistics*, Series A.

Table J. Foreign trade by commodity group

US\$ million

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Imports														
Total	1 000.1	1 021.0	941.5	815.2	821.3	904.0	1 115.3	1 581.3	1 590.3	1 395.0	1 654.6	1 738.8	1 681.8	1 406.9
Transport equipment, SITC 78-79	102.7	107.8	87.5	58.4	65.4	60.7	135.4	268.4	266.8	183.8	260.8	220.7	246.3	124.1
Other imports	897.4	913.1	854.0	756.9	755.9	843.2	979.9	1 313.0	1 323.5	1 211.2	1 393.8	1 518.1	1 435.5	1 282.7
Food and live animals, SITC 0	82.3	81.3	76.1	72.9	69.5	72.0	85.2	99.8	106.6	110.7	122.5	126.7	127.4	132.3
Manufactured goods, SITC 6	194.1	189.4	182.3	156.7	149.8	163.2	211.1	275.6	286.4	256.6	278.4	309.0	286.5	253.4
Machinery and apparatus, SITC 71-77	172.6	183.8	169.1	139.0	155.9	185.0	233.3	337.9	318.2	263.1	318.9	370.7	331.2	283.9
Other goods	448.4	458.6	426.5	388.3	380.7	423.1	450.4	599.7	612.2	580.8	674.0	711.7	690.4	613.1
Exports														
Total	931.2	894.6	684.9	749.2	722.2	813.8	1 094.8	1 370.4	1 431.1	1 400.9	1 590.7	1 571.4	1 526.5	1 400.2
Fish products, total	697.1	706.4	507.9	506.7	500.2	609.3	843.8	1 044.5	1 016.9	994.3	1 197.7	1 239.2	1 214.5	1 103.1
Frozen fish fillets	266.4	237.1	220.0	245.9	222.3	261.5	320.7	381.8	367.1	398.2	521.9	589.8	457.3	400.1
Herrings salted	21.7	22.1	17.7	18.3	24.5	21.2	18.0	21.7	24.6	21.8	26.0	14.8	11.1	8.8
Herring and capelin meal	61.6	45.3	8.5	1.9	42.3	44.4	57.0	50.9	75.1	63.1	53.9	21.5	72.9	72.8
Agricultural products	17.7	13.3	9.0	9.1	13.9	13.1	16.9	26.1	24.8	23.9	30.5	27.4	28.4	24.0
Aluminium products	113.2	87.5	68.0	130.9	108.2	80.5	100.5	131.6	153.8	180.1	164.3	136.6	140.0	122.2
Other manufactured products	88.7	86.2	82.7	87.4	99.4	102.1	115.7	144.4	167.0	164.8	159.8	132.8	122.9	122.3

Source: Central Bank of Iceland and OECD, *Foreign Trade Statistics*, Series C.

Table K. Money and credit

IKr million, end of period

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Central Bank														
Penalty rates (annual rate), per cent ¹	55.3	58.0	58.2	31.5	44.0	30.5	35.9	43.9	35.9	26.0	25.0	19.5	17.7	14.2
Net position of government	268	145	852	1 159	3 147	2 806	5 550	9 117	8 237	3 594	8 748	1 551	5 775	17 117
Money supply														
M1 ²	1 620	2 089	3 700	5 299	6 662	9 682	12 750	14 853	19 725	24 644	29 553	29 942	31 564	35 075
M2 ³	4 841	7 133	12 372	18 666	30 126	41 368	56 902	73 271	92 548	105 731	116 697	124 391	129 905	131 953
M3 ⁴	7 056	11 149	19 902	26 575	39 135	52 940	71 602	88 802	112 998	129 802	148 436	154 101	164 127	167 702
Deposit money banks														
Required reserves and other funds with Central Bank	1 904	3 048	5 594	7 143	7 987	10 778	11 159	12 162	14 711	11 223	10 418	9 255	7 186	7 070
Demand deposits	1 224	1 570	2 941	4 354	5 436	7 991	10 562	12 302	16 750	21 587	26 314	26 350	27 664	30 389
Net foreign liquid assets	69	198	-45	283	144	429	715	1 730	2 749	2 805	3 410	2 981	5 164	3 559
Lending (excl. foreign funds relet) of deposit money banks														
Total	6 165	11 592	20 627	30 132	39 604	48 651	71 701	95 504	118 130	136 539	152 927	159 640	172 021	178 899
Agriculture	800	1 273	2 191	2 860	4 028	4 972	6 367	7 681	9 254	10 589	10 768	8 887	8 251	7 779
Fishery and fish processing	1 421	3 111	5 570	8 857	8 537	7 602	11 699	17 161	19 261	17 939	19 307	19 568	20 254	19 682
Manufacturing and commerce	1 645	3 386	5 806	8 694	12 567	15 782	22 596	28 737	34 518	36 037	40 854	41 964	41 172	40 995
Dwellings	781	1 197	2 183	2 830	3 678	4 651	6 171	8 064	11 325	12 916	14 051	14 771	14 408	14 036
Foreign exchange														
Central Bank net foreign reserves	1 637	1 494	2 603	2 160	7 671	11 273	10 537	11 887	20 063	23 412	24 064	31 054	28 651	14 958
Deposit money bank's net short-term foreign position	-447	-1 217	-3 088	-5 710	-10 022	-7 860	-11 105	-15 399	-11 512	-8 596	-10 008	-12 898	-9 287	-4 294

1. Annual average.

2. Notes and coins plus demand deposits.

3. M1 plus general savings deposits.

4. M2 plus time deposits.

Source: Central Bank of Iceland.

Table L. **Public sector**

	1960	1970	1980	1990	1991	1992	1993	1994 ²
General government accounts								
(as a per cent of GDP)								
Current revenue	28.2	30.2	33.1	36.0	37.3	37.8	36.5	35.9
Tax revenue ¹	27.2	29.6	30.9	33.6	34.6	34.9	33.8	33.2
Interest income	..	..	1.9	1.6	1.8	1.7	1.7	1.6
Capital revenue	..	..	0.2	0.7	0.8	0.8	0.8	0.8
Total expenses	25.8	29.9	32.4	40.1	41.0	41.4	40.9	40.5
<i>of which:</i>								
Current expenditure	..	..	26.0	33.4	33.8	34.8	34.8	34.2
Current transfers	..	..	4.3	7.0	7.3	7.6	8.0	7.9
Subsidies	..	..	3.1	3.6	3.1	3.3	2.6	2.3
Capital expenditure	..	..	6.4	6.7	7.2	6.6	6.1	6.2
Gross fixed investment	..	..	3.7	4.0	4.1	4.0	4.3	4.2
Capital transfers	..	..	2.7	2.7	3.1	2.5	1.8	2.0
Tax receipts as a per cent of general government total taxes								
General government								
Direct taxes	31.5	30.9	26.9	35.2	38.8	39.7	43.5	44.6
Indirect taxes	68.5	69.1	73.1	64.8	61.2	60.3	56.5	55.4
Central government and Social security								
Total taxes	77.5	77.2	79.8	80.9	80.8	80.3	80.4	80.7
Direct taxes	13.3	16.8	15.9	23.9	27.8	28.3	29.0	30.3
Indirect taxes	64.2	60.4	63.9	57.0	53.0	52.0	51.4	50.4
Local government								
Total taxes	22.5	22.8	20.2	19.1	19.2	19.7	19.6	19.2
Direct taxes	18.2	14.1	11.0	11.2	10.9	11.4	14.5	14.2
Indirect taxes	4.3	8.7	9.2	7.9	8.3	8.3	5.1	5.0

1. Direct and indirect taxes.

2. Preliminary.

Source: National Economic Institute and Sögulegt Yfirlit Hagtalna, 1945-1988, National Economic Institute.

Table M. Labour market

	Capital area	Western Iceland	West Fjords	North-West Iceland	North-East Iceland	Eastern Iceland	Southern Iceland	Reykjanes peninsula	Total
Employment (number of man years)									
1980	57 481	6 510	5 208	4 674	11 104	5 913	8 602	6 783	106 275
1988	76 858	7 133	5 190	4 950	12 105	5 978	9 057	7 471	128 742
1990	72 970	6 965	5 327	4 989	11 867	5 758	9 401	7 462	124 739
1991	72 828	6 980	5 304	4 968	11 860	5 759	9 388	7 390	124 477
1992	72 254	6 966	5 328	4 969	11 834	5 762	9 338	7 200	123 651
1993	71 296	6 936	5 276	4 957	11 677	5 722	9 290	7 248	122 402
1994	71 034	6 923	4 704	4 669	12 692	6 081	9 952	6 989	123 044
Unemployment rate (per cent)									
1980	0.2	0.2	0.1	0.9	0.7	0.5	0.4	0.3	0.3
1988	0.2	1.4	0.3	2.0	1.4	1.2	1.5	0.7	0.6
1990	1.2	2.6	0.4	3.0	3.3	3.3	2.4	1.9	1.8
1991	0.9	1.9	0.3	2.9	2.9	2.9	2.1	2.3	1.5
1992	2.6	3.0	0.8	3.7	4.0	3.7	3.5	5.7	3.1
1993	4.2	3.7	2.1	4.3	5.5	4.7	4.3	5.4	4.3
1994	4.7	4.6	2.2	4.9	6.3	4.5	4.5	4.6	4.7
	1961	1970	1980	1990	1991	1992	1993		
Population by age group									
(per cent change over previous year)									
Under 15 and over 65 years	2.0	-0.4	0.3	0.8	1.1	1.1	1.4		
Between 15 and 19 years	3.3	1.8	-0.4	1.5	1.0	-1.1	-2.3		
Between 20 and 64 years	1.9	1.1	1.9	0.8	1.4	1.4	1.1		
Between 15 and 64 years	2.1	1.2	1.5	0.8	1.2	1.0	1.0		
Total population	2.1	0.5	1.1	0.8	1.3	1.2	0.7		
Labour supply (per cent change over previous year)	-0.1	2.0	3.3	-0.9	-0.6	-0.4	2.1		
Work stoppages									
Number of stoppages	..	65	14	1	7	4	2		
Working days lost	..	48	48	31	27	6	51		
Number of participants	..	15 705	4 220	177	751	611	13		
Number of man-days lost	..	303 743	30 760	231	3 413	385	120		
Non-seamen in ASI	..	296 596	16 044	231	1 873	32	22		
Seamen	..	7 147	3 696	0	1 540	0	98		
Others	..	0	11 020	0	0	353	0		

Source: National Economic Institute.

*BASIC STATISTICS:
INTERNATIONAL COMPARISONS*

BASIC STATISTICS: INTERNATIONAL COMPARISONS

	Units	Reference period ¹	Australia	Austria	Belgium	Canada	Denmark	Finland	France	Germany	Greece	Iceland	Ireland	Italy	Japan	Luxembourg	Mexico	Netherlands	New Zealand	Norway	Portugal	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States
Population																											
Total	Thousands	1992	17 489	7 884	10 045	28 436	5 171	5 042	57 374	80 569	10 300	260	3 547	56 859	124 320	390	89 540	15 184	3 443	4 287	9 858	39 085	8 668	6 875	58 400	57 998	255 610
Inhabitants per sq. km	Number	1992	2	94	329	3	120	15	105	226	78	3	50	189	329	150	45	372	13	13	107	77	19	166	75	237	27
Net average annual increase over previous 10 years	%	1992	1.4	0.4	0.2	1.5	0.1	0.4	0.5	2.7	0.5	1.1	0.2	0	0.5	0.6	2.1	0.6	0.8	0.4	0	0.3	0.4	0.6	2.2	0.3	1
Employment																											
Civilian employment (CE) ²	Thousands	1992	7 637	3 546	3 724	12 240	2 613	2 163	22 032	28 708	3 634 (91)	140 (91)	1 113 (91)	21 271	64 360	162 (91)	23 403 (90)	6 576	1 467	1 970	4 498	12 359	4 195	3 481	18 600	25 175	117 598
Of which: Agriculture	% of CE		5.3	7.1	2.6	4.4	5.2	8.6	5.2	3.1	22.2 (91)	10.7 (91)	13.8 (91)	8.2	6.4	3.7 (91)	22.6 (90)	4	10.8	5.6	11.6	10.1	3.3	5.6	43.9	2.2	2.9
Industry	% of CE		23.8	35.6	27.7	22.7	27.4	27.9	28.9	38.3	27.5 (91)	26.4 (91)	28.9 (91)	32.2	34.6	31.5 (91)	27.8 (90)	24.6	22.6	23.5	33.2	32.4	26.5	33.9	22.1	26.5	24.6
Services	% of CE		71	57.4	69.7	73	68.7	63.5	65.9	58.5	50.2 (91)	62.9 (91)	57.2 (91)	59.6	59	64.8 (91)	49.6 (90)	71.4	66.6	71	55.3	57.5	70.2	60.6	34	71.3	72.5
Gross domestic product (GDP)																											
At current prices and current exchange rates	Bill. US\$	1992	296.6	186.2	220.9	563.7	141.6	106.4	1 322.1	1 801.3	77.9	6.9	51	1 220.6	3 662.5	10.6	329.3	320.2	41.1	113.1	84.2	576.3	247.2	240.9	159.1	1 042.8	5 937.3
Per capita	US\$		16 959	23 616	21 991	19 823	27 383	21 100	23 043	27 770	7 562	26 595	14 385	21 468	29 460	27 073	3 678	21 089	11 938	26 386	8 541	14 745	28 522	35 041	2 724	17 981	23 228
At current prices using current PPPs ³	Bill. US\$	1992	294.5	142	181.5	536.8	91.2	73.2	1 063.7	1 328.2	85.1	4.4	45.3	1 005.9	2 437.2	8.5	493.1	257.2	49.2	75.7	95.9	500.2	143.3	152.8	297.3	941.1	5 953.3
Per capita	US\$		16 800	18 017	18 071	19 585	17 628	14 510	18 540	20 482	8 267	17 062	12 763	17 373	19 604	21 833	5 507	16 942	14 294	17 664	9 743	12 797	16 526	22 221	5 019	16 227	23 291
Average annual volume growth over previous 5 years	%	1992	2	3.4	3.1	1.1	1.1	-0.1	2.4	4	2.2	-0.1	5.6	2.2	4.2	3.1	3	0.4	1.3	3.3	3.3	0.6	1.7	1.7	3.7	0.9	1.9
Gross fixed capital formation (GFCF)																											
Of which: Machinery and equipment	% of GDP	1992	19.7	25	19.1	18.8	15.1	18.5	20	20.9	18	17.5	15.9	19.1	30.8	27.7	20.8	20.3	16.4	19.2	26.2	21.8	17	23.7	23	15.6	15.6
Residential construction	% of GDP		9.3	9.9	8.6	6.2	6.8	8.8	9.2	7.9	5.3	6.7	8.9	12.4	..	10.6	9.4	8.2	..	..	..	6.8	6.2	8	8.5	7.2	7.2
Average annual volume growth over previous 5 years	%	1992	5.1	5.7	4.6	6.4	3	4.6	5.1	6.1	3.8	4.8	4.3	5.3	5.2	..	4.5	5	4.1	..	..	4.3	5.9	15.7 ¹⁰	7.6	3	3.7
Gross saving ratio ⁴	% of GDP	1992	-1	5.1	7.1	1.4	-4.2	-4.3	3.3	5	4.9	-3	2.9	2.7	6.5	8.9	2.5	-1.3	-5.4	6.8	6.2	-0.6	1.5	4.6	0.6	0.6	0.7
General government																											
Current expenditure on goods and services	% of GDP	1992	18.5	18.4	14.7	21.9	25.5	24.9	18.8	17.9	19.7	20.2	16.1	17.6	9.3	17.1	10.1 ⁹	14.5	16.3	22.4	18.3	17	27.8	14.3	12.9	22.3	17.7
Current disbursements ⁵	% of GDP	1992	36.9	46.2	54.6	49.2	58.2	56.1	48.4	44.1	47.1	32.1	..	51.5	25.9	..	55.3	..	..	..	..	64.6	35.1	..	..	42.1	36.7
Current receipts	% of GDP	1992	33.1	48.3	49.7	43.7	57.3	53.2	46.1	45	39.9	34.8	..	43.6	34	..	..	54.1	..	..	..	..	59.6	34.7	..	38	31.6
Net official development assistance	% of GNP	1992	0.33	0.3	0.39	0.45	0.98	0.61	0.63	0.42	..	..	0.14	0.34	0.3	0.34	..	0.86	0.24	1.13	0.36	0.26	1	0.47	..	0.31	0.2
Indicators of living standards																											
Private consumption per capita using current PPPs ³	US\$	1992	10 527	9 951	11 420	11 863	9 120	8 285	11 144	11 186	5 929	10 557	7 443	10 936	11 191	12 285	3 978	10 213	8 769	9 189	6 124	8 083	8 907	13 043	3 206	10 397	15 637
Passenger cars, per 1 000 inhabitants	Number	1990	430	382	387	469	311	386	413	480	169	464	228	478	282	470	85	356	440	378	260	307	418	441	29	361	568
Telephones, per 1 000 inhabitants	Number	1990	448	589	546	570	972	530	482	671	458	496	279	555	421	413	118	462	430	502	263	323	681	905	151	434	509
Television sets, per 1 000 inhabitants	Number	1989	484	475	447	626	528	488	400	506	195	319	271	423	610	252	127	485	372	423	176	389	471	406	174	434	814
Doctors, per 1 000 inhabitants	Number	1991	2	2.1	3.6	2.2	2.8	2.5	2.7	3.2	3.4	2.8	1.5	1.3	1.6	2.1	1.1	2.5	1.9	3.1	2.8	3.9	2.9	3	0.9	1.4	2.3
Infant mortality per 1 000 live births	Number	1991	7.1	7.4	8.4	6.8	7.5	5.8	7.3	7.1	9	5.5	8.2	8.3	4.6	9.2	43	6.5	8.3	7	10.8	7.8	6.1	6.2	56.5	7.4	8.9
Wages and prices (average annual increase over previous 5 years)																											
Wages (earnings or rates according to availability)	%	1992	5	5.4	4.1	4.4	4.7	7	3.9	5.1	17.7	..	5.1	6.9	4	..	5.3	2.7	3.9	5	..	7.7	7.3	..	..	8.3	2.9
Consumer prices	%	1992	5.2	3	2.7	4.2	3.3	5	3.1	2.8	16.6	14.3	3.2	5.9	2.2	3	35.8	2.1	4.3	4.2	11.2	6	6.8	4.1	66.6	6.3	4.3
Foreign trade																											
Exports of goods, fob*	Mill. US\$	1992	42 844	44 361	123 264 ⁷	134 696	39 732	23 956	235 911	429 727	9 541	1 571	28 297	178 217	339 553	.. ⁸	46 196	140 234	9 831	35 140	17 990	64 509	55 980	65 478	14 853	190 103	448 033
As % of GDP	%		14.4	23.8	55.8	23.9	28.1	22.5	17.8	23.9	12.2	22.7	55.5	14.6	9.3	..	14	43.8	23.9	31.1	21.4	11.2	22.6	27.2	9.3	18.2	7.5
Average annual increase over previous 5 years	%		10.1	10.4	8.2	7.4	9.2	4.3	9.8	7.9	6.2	3	12.1	8.9	8.1	..	17.7	8.6	6.5	10.4	14.5	4.8	7.5	7.5	7.5	7.8	12
Imports of goods, cif*	Mill. US\$	1992	40 751	54 038	125 133 ⁷	122 445	33 707	21 166	230 050	408 180	23 012	1 710	22 467	188 524	233 100	..	62 129	134 578	9 159	26 057	29 588	99 659	49 916	65 587	23 267	220 994	531 070
As % of GDP	%		13.7	29	56.6	21.7	23.8	19.9	17.4	22.7	29.5	24.7	44	15.4	6.4	..	18.9	42	22.3	23	35.1	17.3	20.2	27.2	14.6	21.2	8.9
Average annual increase over previous 5 years	%		8.6	10.7	8.4	6.9	5.8	2.4	8.5	12.4	10.7	1.6	10.5	8.6	9.2	..	36.1	8.1	4.8	2.9	17.4	15.3	4.2	5.3	10	7.5	5.5
Total official reserves⁶																											
As ratio of average monthly imports of goods	Ratio	1992	8 152	9 006	10 037 ⁷	8 314	8 032	3 792	19 657	66 158	3 486	362	2 502	20 104	52 089	..	13 776	15 954	2 239	8 684	13 912	33 094	16 454	24 185	4 480	26 648	43 831
			2.4	2	1	0.8	2.9	2.1	1	1.9	1.8	2.5	1.3	1.3	2.7	..	2.7	1.4	2.9	4	5.6	4	4	4.4	2.3	1.4	1

* At current prices and exchange rates.
 1. Unless otherwise stated.
 2. According to the definitions used in OECD Labour Force Statistics.
 3. PPPs = 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 SDRs per ounce. End of year.
 7. Including Luxembourg.

8. Included in figures for Belgium.
 9. Refers to the public sector including public enterprises.
 10. Including non-residential construction.
 Sources: Population and Employment: OECD, Labour Force Statistics. GDP, GFCF, and General Government: OECD, National Accounts, Vol. 1. 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.

EMPLOYMENT OPPORTUNITIES

Economics Department, OECD

The Economics Department of the OECD offers challenging and rewarding opportunities to economists interested in applied policy analysis in an international environment. The Department's concerns extend across the entire field of economic policy analysis, both macroeconomic and microeconomic. Its main task is to provide, for discussion by committees of senior officials from Member countries, documents and papers dealing with current policy concerns. Within this programme of work, three major responsibilities are:

- to prepare regular surveys of the economies of individual Member countries;
- to issue full twice-yearly reviews of the economic situation and prospects of the OECD countries in the context of world economic trends;
- to analyse specific policy issues in a medium-term context for the OECD as a whole, and to a lesser extent for the non-OECD countries.

The documents prepared for these purposes, together with much of the Department's other economic work, appear in published form in the *OECD Economic Outlook*, *OECD Economic Surveys*, *OECD Economic Studies* and the Department's *Working Papers* series.

The Department maintains a world econometric model, INTERLINK, which plays an important role in the preparation of the policy analyses and twice-yearly projections. The availability of extensive cross-country data bases and good computer resources facilitates comparative empirical analysis, much of which is incorporated into the model.

The Department is made up of about 80 professional economists from a variety of backgrounds and Member countries. Most projects are carried out by small teams and last from four to eighteen months. Within the Department, ideas and points of view are widely discussed; there is a lively professional interchange, and all professional staff have the opportunity to contribute actively to the programme of work.

Skills the Economics Department is looking for:

- a) Solid competence in using the tools of both microeconomic and macroeconomic theory to answer policy questions. Experience indicates that this normally requires the equivalent of a Ph.D. in economics or substantial relevant professional experience to compensate for a lower degree.
- b) Solid knowledge of economic statistics and quantitative methods; this includes how to identify data, estimate structural relationships, apply basic techniques of time series analysis, and test hypotheses. It is essential to be able to interpret results sensibly in an economic policy context.
- c) A keen interest in and extensive knowledge of policy issues, economic developments and their political/social contexts.

- d) Interest and experience in analysing questions posed by policy-makers and presenting the results to them effectively and judiciously. Thus, work experience in government agencies or policy research institutions is an advantage.
- e) The ability to write clearly, effectively, and to the point. The OECD is a bilingual organisation with French and English as the official languages. Candidates must have excellent knowledge of one of these languages, and some knowledge of the other. Knowledge of other languages might also be an advantage for certain posts.
- f) For some posts, expertise in a particular area may be important, but a successful candidate is expected to be able to work on a broader range of topics relevant to the work of the Department. Thus, except in rare cases, the Department does not recruit narrow specialists.
- g) The Department works on a tight time schedule with strict deadlines. Moreover, much of the work in the Department is carried out in small groups. Thus, the ability to work with other economists from a variety of cultural and professional backgrounds, to supervise junior staff, and to produce work on time is important.

General information

The salary for recruits depends on educational and professional background. Positions carry a basic salary from FF 305 700 or FF 377 208 for Administrators (economists) and from FF 438 348 for Principal Administrators (senior economists). This may be supplemented by expatriation and/or family allowances, depending on nationality, residence and family situation. Initial appointments are for a fixed term of two to three years.

Vacancies are open to candidates from OECD Member countries. The Organisation seeks to maintain an appropriate balance between female and male staff and among nationals from Member countries.

For further information on employment opportunities in the Economics Department, contact:

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