OECD ECONOMIC SURVEYS

DENMARK

1996

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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

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Publié également en français.

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BASIC STATISTICS OF DENMARK

THE LAND

Area (1 000 sq. km)	43	Inhabitants in major cities, 1.1.1995 (thousands):	
Agricultural area (1 000 sq. km) (1994)	27	Copenhagen	471
		Aarhus	277
		Odense	183
		Aalborg	159

THE PEOPLE

Population, 1.1.1995, thousands	5 216	Civilian employment, 1993, thousands	2 552
Number of inhabitants per sq. km	121	By sector:	
Net natural increase (average 1991-1994, thousands)	6	Agriculture	132
Net natural increase per 1 000 inhabitants, 1994	0.8	Industry	524
		Construction	148
		Market services	846
		Community, social and personal services	883
		Other	17

PRODUCTION

Gross domestic product, 1994 (Kr million):	933 185	Gross fixed capital formation in 1994 (Kr million):	137 778
GDP per head (1994 US$)	28 130	Per cent of GDP	14.8
		Per head	4 153

THE GOVERNMENT

Public consumption in 1994 (percentage of GDP)	25	Composition of Parliament (Number of seats):	
General government current revenue in 1994 (percentage of GDP)	58	Social Democrats	63
Public gross fixed capital investment in 1994 (percentage of GDP)	2	Conservatives	28
		People's Socialists	13
		Liberals	44
		Progressive Party	11
		Social Liberalists	8
		Centre Democrats	5
		Left Alliance	6
		Independent	1
		Total	179
Last general elections: 21.09.1994		Next general elections: 21.09.1998 (at the latest)	

FOREIGN TRADE

Exports of goods and services as percentage of GDP, 1994	35	Imports of goods and services as percentage of GDP, 1994	28
Main exports in 1994, percentage of total merchandise exports:		Main imports in 1994, percentage of total merchandise imports:	
Agricultural products	14	Intermediate goods for agriculture	3
Canned meat and canned milk	2	Intermediate goods for other sectors	43
Industrial goods	71	Fuels and lubricants	5
Other goods	13	Capital goods	11
		Transport equipment	8
		Consumer goods	27

THE CURRENCY

Monetary unit: Krone	Currency units per US$, average of daily figures:	
	Year 1995	5.604
	December 1995	5.581

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 Denmark by the Economic and Development Review Committee on 4th December 1995.

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After revisions in the light of discussions during the review, final approval of the Survey for publication was given by the Committee on 21st December 1995.

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The previous Survey of Denmark was issued in August 1994.

Introduction

The expansion, which continued at a moderating pace into the first half of 1995, seems more soundly based than its predecessor in the mid-1980s. In contrast to the previous cyclical upturn, household and corporate financial balances have remained healthy, the domestic demand growth which has underpinned the recovery being based on strong productivity and earnings growth. So far, inflationary pressures have been absent from both goods and labour markets and from the residential property market. Underpinned by ERM membership, exchange rate stability has been consistent with a cautious monetary stance, which has contributed to the balanced recovery by acting as an anchor for domestic inflation and maintaining positive after-tax real interest rates. Following some temporary fiscal support to domestic demand in 1993 and 1994, budgetary stance is set to be moderately restrictive in the years 1995 to 1997, the projected general government deficit being among the lowest in the OECD area. Thus, Denmark is in a relatively satisfactory position with regard to macroeconomic and policy fundamentals.

Unemployment, having fallen slowly with the cyclical recovery, remains the most serious economic problem. The structural component of unemployment is high, at between 9 and 10 per cent in 1995, implying that the underlying microeconomic balance of the economy may not be as healthy as the macroeconomic one. To prevent unemployment persisting at this rate requires a wide range of policy measures, which, indeed, the authorities are already undertaking, both through measures introduced in earlier budgets and those incorporated in the 1996 budget, to introduce greater flexibility into labour and product markets. Some of these initiatives, in the sphere of taxation, income benefits and wage structures, may seem to involve a trade-off between the creation of new incentive structures and a scaling back in the established principles of the universal benefit system, which has been very effective in making Danish society one of the most egalitarian in the OECD area. However, because the risk of unemployment seems to be concentrated among certain segments of the population – the young and less-well educated in particular – it appears that persistent unemployment itself is the most important factor behind life-time income inequality.

Chapter I of the *Survey* reviews economic developments since the previous *OECD Economic Survey of Denmark* was published, highlighting the characteristics of the cyclical pick-up in economic activity in 1994 and 1995 and its sustainability. Chapter II discusses the evolution of monetary and budgetary policies during this period, in the light of convergence plans for stage two of the Economic and Monetary Union, as well as the longer-term budgetary aspects of the ageing population. The special chapter of the Survey (Chapter III) examines the costs and efficiency of the Danish tax and transfer system, assessing distributional effects as well as possible adverse incentive effects on the labour market. Chapter IV develops the general policy discussion contained in the *OECD Jobs Study,* elaborating a broad programme of action for Denmark aimed at lowering the country's high level of structural unemployment. Policy recommendations embrace a broad range of issues, including the labour-market policy *per se*, product market competition, and human capital development. The *Survey* closes with conclusions (Chapter V) presenting key points together with policy considerations.

I. Economic trends and prospects

Initially led by private consumption, the economic upturn that began in mid-1993 has been supported by buoyant export growth and has broadened to include business investment (Table 1). Employment, having been slow to respond to output growth at first, has been growing at an annual rate of around 1½ per cent since the second half of 1994. This, together with a reduction of the labour force via labour market measures, has helped to bring down unemployment by 3 percentage points from its peak in the first half of 1994, to a still-high rate of 9½ per cent. Despite the rapid narrowing of the output gap, to an estimated 1 per cent of GDP in 1995, no significant wage or price acceleration has so far been evident (Figure 1).[1] But labour market slack could be used up in the next

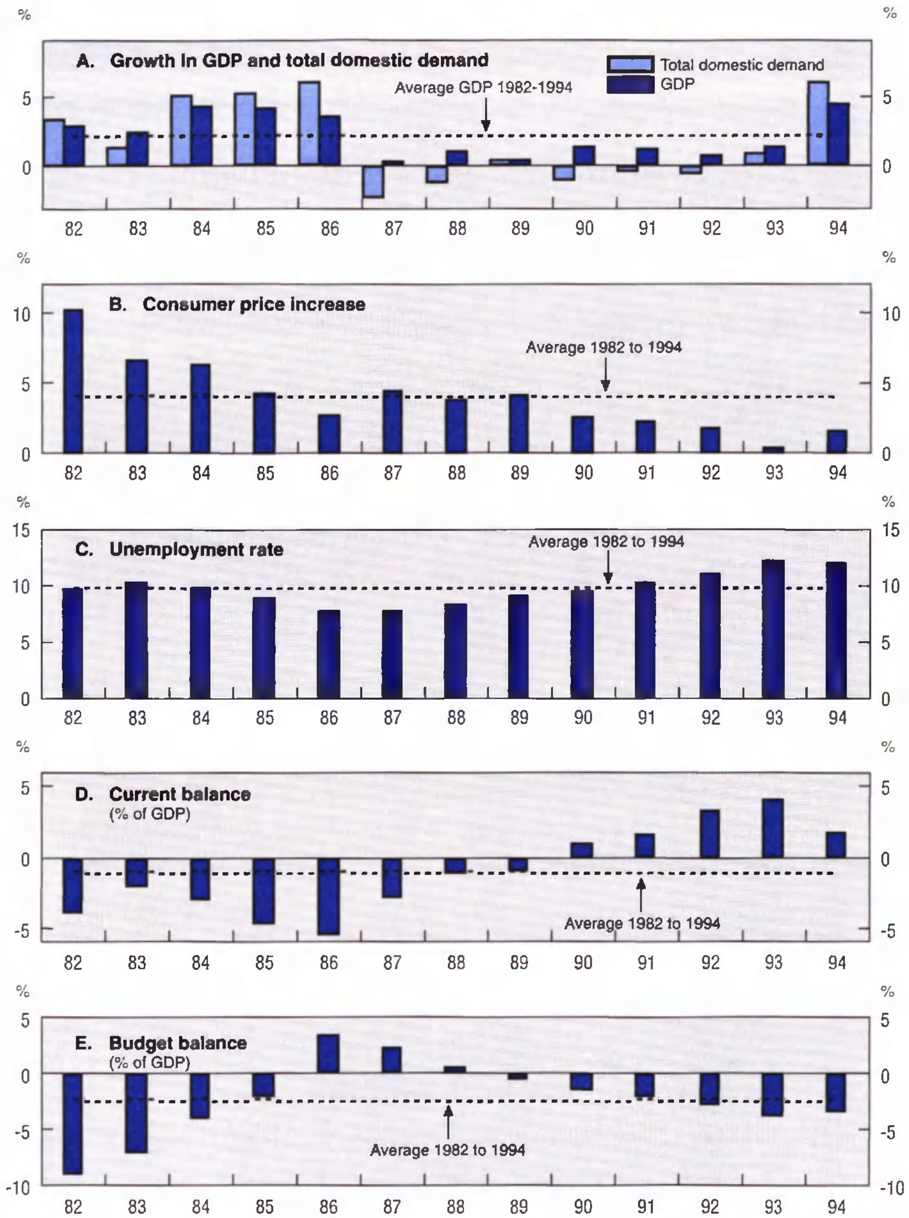
Table 1. **Main demand components**

Percentage changes from previous period

	1992	1993	1994	1994 [1]		1995 [1]
				I	II	I
Private consumption	1.1	2.9	7.0	8.2	4.1	1.9
Public consumption	1.4	2.8	1.1	0.5	–1.1	0.8
Gross capital formation	–7.2	–2.3	3.1	3.2	4.4	13.4
of which:						
Housing	–5.0	–3.0	6.4	9.6	4.5	0.0
Business	–11.4	–2.8	2.6	1.8	5.1	24.9
Change in stocks [2]	–0.2	–1.0	1.1	2.4	–0.8	–0.2
Exports	2.7	–2.0	7.3	5.8	6.8	4.8
Total demand	0.5	–0.1	6.5	7.4	3.6	5.0
Imports	–0.2	–4.1	12.1	15.3	5.3	7.0
GDP	0.8	1.4	4.5	4.6	2.2	4.9

1. Seasonally adjusted annual growth rate.
2. Contribution to GDP.
Source: OECD.

Figure 1. **MACROECONOMIC PERFORMANCE**



Source: OECD.

two years, under the relatively buoyant real growth pressures embodied in the OECD projections, implying that inflationary prospects could build up. The possibility that this could threaten the recovery is a particular focus of the comparative cyclical analysis in this chapter.

Demand and production: a buoyant recovery

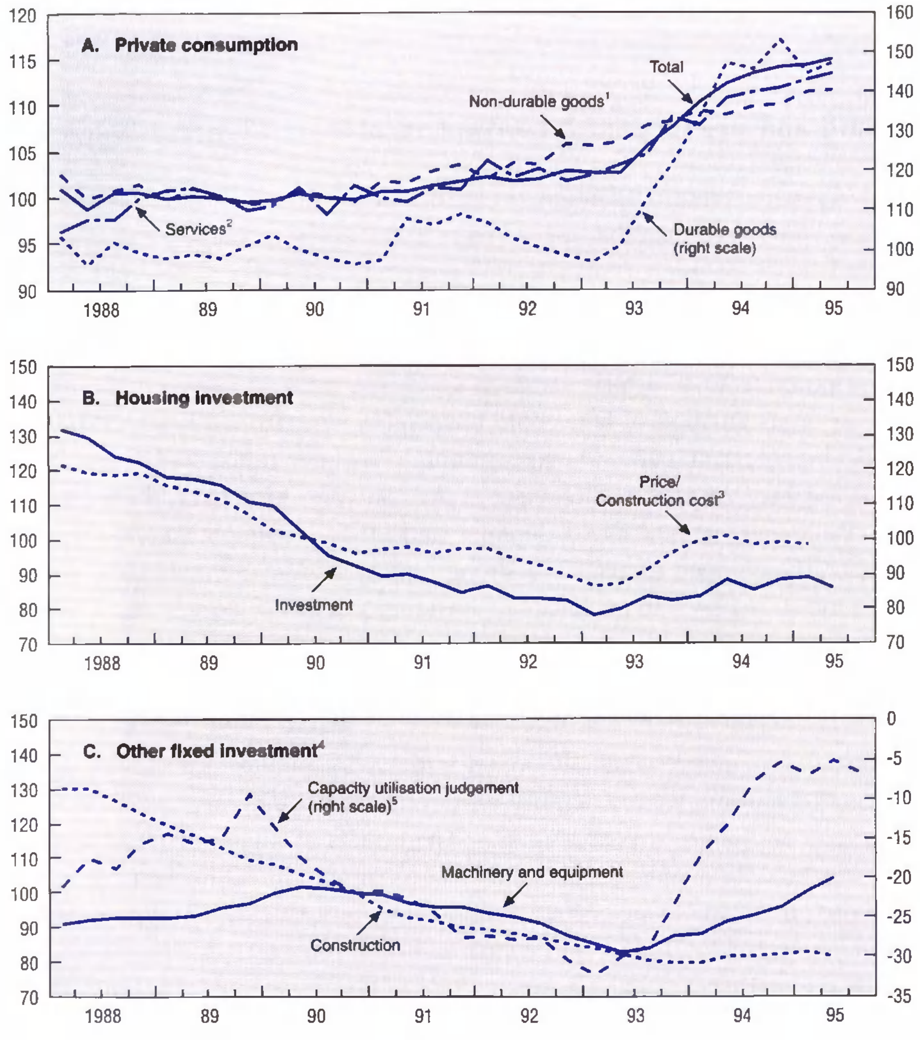
Private consumption continued to grow in the first half of 1995, albeit at a more moderate pace than that registered in 1994, when a combination of *i)* lower household taxes; *ii)* higher income from employment; and *iii)* a falling household saving ratio[2] made for particularly buoyant household spending. The reduced propensity to save seems to have been partly confidence-induced, household surveys pointing to a historically high level of confidence since early 1994, in which the consolidation of household financial balances since 1986 has probably played an important part. Average wealth-to-income ratios had risen to their highest level for decades at the outset of the recovery. Moreover, the release of a pent-up demand for household durables and other infrequent purchases, which are generally assumed to display a strong replacement-cycle, may have played a role[3] in the strong growth in consumer spending in 1994 (Figure 2, Panel A). This was particularly related to a temporary premium for scrapping old passenger cars, which had an important impact on the registration of new cars through most of 1994, but the effect of which abated in 1995 as the premium was abolished.

Housing demand, while supported initially by publicly-subsidised housing construction and renovation activity benefiting from temporary government subsidies,[4] has not picked up substantially. The effects of higher disposable income have been broadly counter-balanced by historically high real interest rates and by a declining tax value of interest payment deductions. Consequently, house prices have increased only slightly more than construction costs during the recovery (Figure 2, Panel B), leaving the construction of new residential dwellings unprofitable in many parts of the country.[5]

Business fixed capital formation remained subdued during the early phases of the expansion, but gained increasing momentum during 1994. Machinery and equipment investment increased by 29 per cent (s.a.a.r.) in the first half of 1995, as capacity utilisation reached its highest level since 1986. However, with business structures remaining in excess supply since the construction boom in the

Figure 2. **PRIVATE DEMAND**

Index 1990 = 100, seasonally adjusted



1. Including semi-durables.
2. Excluding housing.
3. Average price of one-family dwelling divided by average residential construction costs.
4. Four-quarter moving average.
5. Net figure, share of enterprises experiencing capacity constraints minus enterprises unconstrained.

Source: Statistics Denmark.

1980s, construction investment has remained subdued (Figure 2, Panel C). Public sector investment, of less importance to total demand, actually receded somewhat from 1994 to 1995 as local authorities cut back capital spending.

Since the beginning of the recovery in mid-1993, exports of goods and services have remained on an upward trend, recording semi-annual volume growth rates of 6 to 7 per cent (s.a.a.r.) throughout the past two years (Table 2). This principally reflected a pick-up in import demand among Denmark's main trading partners due to the international recovery, Danish exporters having incurred a considerable loss of market share in 1993 and 1994, particularly as regards exports of manufactures. While Danish competitiveness has been weakening with the gradual appreciation in the real exchange rate, part of the loss in market share has derived from the composition of exports. The manufacturing sector specialises in sectors, such as food and beverages and wood products, with a comparatively low income elasticity,[6] implying a falling aggregate market share during a recovery. While the more cyclically-sensitive exports of machinery and equipment recorded a year-on-year volume growth of 12 per cent in the second half of 1994, before dropping back somewhat, this component accounts for slightly less than a quarter of total Danish goods exports. Also, reflecting geographical differences in the business cycle as well as access to new export

Table 2. **Export performance**

Percentage changes from previous period

	1991	1992	1993	1994	1993[1]		1994[1]		1995[1]
					I	II	I	II	I
Manufactured products									
Relative export prices	–1.8	2.1	0.2	1.1	1.1	–6.7	3.1	5.3	2.7
Relative unit labour costs	–2.5	–0.3	–1.7	0.6	2.2	–13.3	4.4	8.5	3.2
Export growth	6.1	5.6	–2.6	7.5	–7.4	5.2	8.4	7.8	6.7
Market growth	1.2	2.3	–0.7	11.5	–4.1	5.7	13.4	13.7	7.5
Export performance	4.8	3.2	–1.9	–3.6	–3.4	–0.4	–4.4	–5.2	–0.8
Total goods									
Export growth	7.5	4.6	–2.6	6.5	–7.2	6.5	6.3	6.8	6.2
Market growth	1.8	3.0	–0.8	9.7	–4.4	5.7	11.3	10.5	6.7
Export performance	4.8	1.2	–1.9	–2.9	–2.9	0.7	–4.5	–3.3	–0.5

1. Seasonally adjusted annual growth rate.
Source: OECD.

markets, most of the growth in exports during the past two years has focused on export markets other than neighbouring ones. Out of a total growth in goods exports of DKr 19 billion from 1992 to 1994, half went either to the United States or to emerging markets in Asia and Eastern Europe.

Rising aggregate demand led to a swift domestic supply response in the course of the recovery, business sector value added growing by around 11 per cent from mid-1993 to mid-1995. Such growth affected all parts of the business sector, but was particularly pronounced for private services, which, with construction, grew comparatively more strongly at the beginning of the recovery,[7] whereas manufacturing output growth picked up more gradually (Table 3). The considerable expansion in manufacturing output in the first half of 1995, which primarily reflected the pick-up in industrial exports, contributed to a high level of capacity utilisation. The resultant lack of capacity, in turn, could have hampered further output expansion and probably contributed to import growth rates considerably in excess of import-weighted demand in both 1994 and the first half of 1995.[8] Evidence of increasing import-dependency during the present recovery is not restricted to Denmark and may be taken to typify a general trend toward increased business-sector internationalisation as well as possible supply constraints. Indeed, raw materials and input goods to the business sector – account-

Table 3. **Growth in value added by sector**

Annual average growth rates, per cent[1]

	1993		1993	1994		1994	1995	*Memorandum item*
	I	II		I	II		I	Share of value added (1994)
Business sector								
Total	–2.8	7.0	–0.2	2.8	5.3	4.5	4.9	61.1
Manufacturing	2.2	3.1	1.9	4.1	5.1	4.2	9.5	20.3
Construction	3.3	–3.8	–1.1	10.4	2.6	4.9	5.2	4.6
Private services	–6.6	9.8	–1.2	2.6	3.6	4.7	5.0	36.2
Agriculture and fishing	46.1	17.0	15.8	6.2	–22.6	1.5	25.4	6.4
Mining and off-shore	8.7	13.1	10.1	11.7	–1.6	8.6	3.2	4.5
Public sector	1.4	2.5	1.4	0.5	–1.0	0.8	0.2	20.7
Total economy	1.0	5.7	1.3	2.8	1.1	3.1	4.6	100.0

1. At factor prices. Seasonally adjusted annual rates.
Source: Statistics Denmark.

ing for some 40 per cent of total goods imports – provided the largest absolute boost to imports in 1994. Reflecting the demand composition of the upturn, other import segments – notably capital goods and transport equipment – also grew rapidly. As for service imports, the sharpest increase was recorded in tourism (18 per cent volume growth in 1994), associated with the revival of household spending (Table 4).

Reflecting both the pick-up in imports of goods and negative terms-of-trade effects as well as a temporary increase in interest expenditure, the current account surplus was reduced almost by half to 1.8 per cent of GDP in 1994 (Table 5). In the first half of 1995, the deterioration was arrested by a more favourable development on the trade side and a temporary boost to net investment income inflows, associated with foreign purchases of Danish bonds.[9] Over the longer term, declining Danish debt service payments are contributing to a structural improvement in the current account balance, since the significant current account

Table 4. **Imports of goods and services**[1]

Percentage year-on-year change, 1980 prices

	1991	1992	1993	1994	1994[2]		1995[2]
					I	II	I
Imports of goods	5.1	–0.5	–4.9	11.9	15.4	5.7	5.3
of which:							
Raw materials	1.8	5.3	–7.5	9.0	14.1	9.6	0.8
Energy	6.2	1.2	0.0	1.1	–17.6	–5.6	–25.0
Capital equipment	0.9	–0.9	–10.1	20.4	12.5	48.6	–26.1
Transportation equipment	7.7	4.3	–12.3	51.6	144.3	16.8	13.4
Consumer goods	10.4	4.4	–5.4	13.4	9.4	12.0	–11.3
Imports of services	–0.7	1.3	0.3	10.8	13.6	13.3	11.8
Total goods and services	4.1	–0.2	–4.1	11.7	15.1	6.9	6.4
Memorandum items:							
Total domestic demand	–0.4	–0.5	0.9	5.8	7.9	1.5	5.6
Import-weighted demand	3.1	0.3	–0.5	6.1	5.5	5.7	5.2
Private goods consumption, excluding purchase of motor vehicles	2.7	0.6	3.4	3.6	–7.3	14.1	–8.7

1. OECD definition. Seasonality in imports *e.g.* goods and services differs from Table 1.
2. Growth from previous half-year (s.a.a.r.). The sub-components of the goods' imports are not seasonally adjusted.
Source: Statistics Denmark.

Table 5. **Balance of payments**

DKr billion

	1991	1992	1993	1994	1995 I[1]
Trade balance	30.3	43.4	50.4	47.8	12.1
Non-factor services	26.6	23.5	18.8	11.4	5.5
Net investment income	–36.5	–34.2	–31.1	–33.5	–3.5
Unrequited transfers	–7.4	–7.2	–7.5	–8.6	–2.0
Current account	13.0	25.5	30.5	17.0	12.2
Direct investment	–2.5	–7.3	2.0	5.4	2.4
Portfolio investment	14.5	63.5	83.5	–74.3	17.3
Borrowing and lending[2]	7.1	–23.6	–13.1	–18.6	–8.6
Banks' external position	–9.8	–54.6	–140.6	84.2	–13.7
Private sector capital account	9.3	–22.0	–68.2	–3.3	–2.6
Autonomous items[3]	22.3	3.5	–37.7	13.7	9.6
Financed by:					
Government lending in foreign currency	–35.0	4.9	56.7	–27.5	–4.8
Other factors[4]	–8.1	–9.5	5.8	0.8	..
Change in international liquidity	–20.8	–1.1	24.8	–13.0	..

1. Not seasonally adjusted.
2. By households and enterprises.
3. Current account plus private sector capital account.
4. Includes valuation changes and unrecorded capital flows.

Source: Danmarks Nationalbank, OECD.

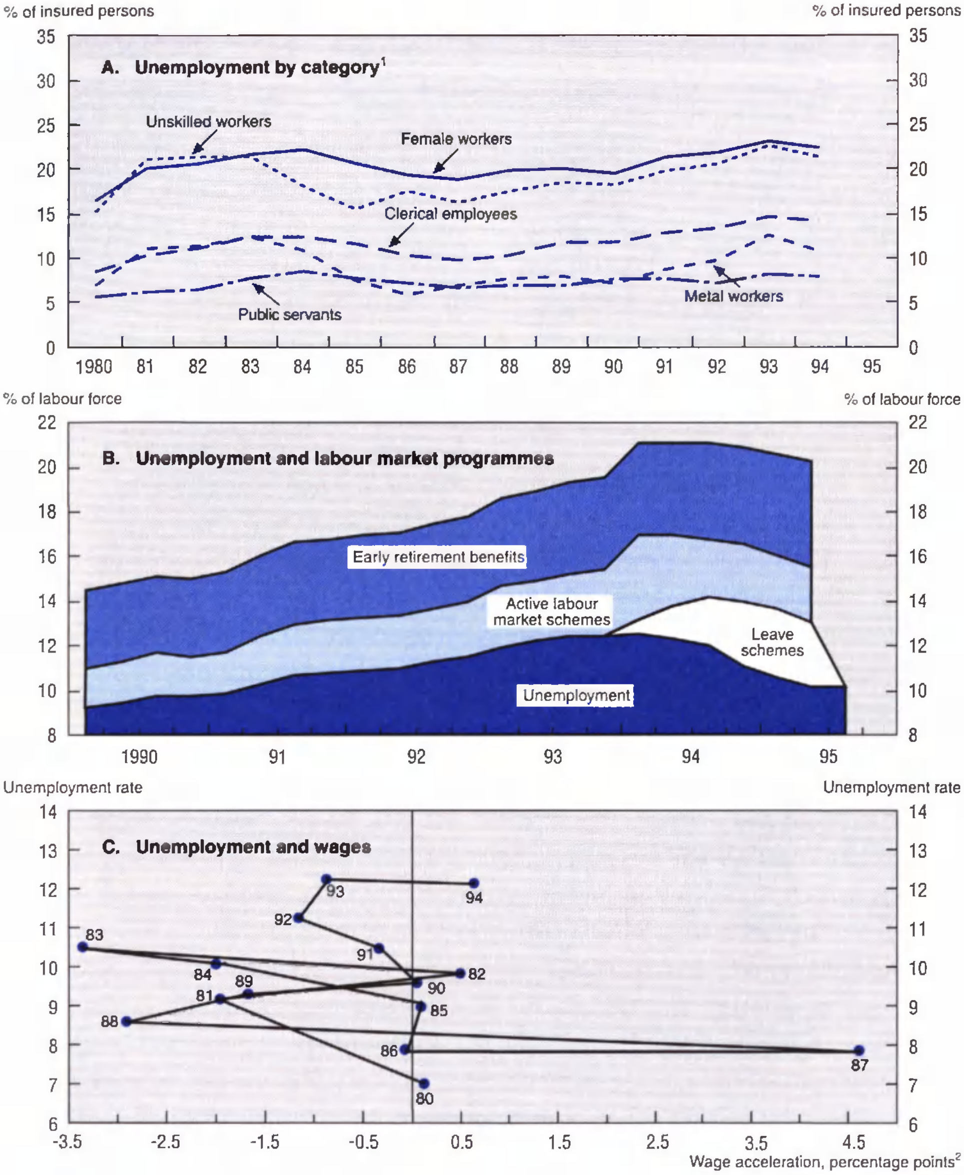
surpluses of recent years have allowed a rapid reduction in net foreign debt. But in the short term, the composition of debt is changing. Net portfolio investment, which recorded strong outflows in 1994, showed a healthy surplus in the first half of 1995 as exchange rate and price stability boosted foreign investors' confidence. Banks' external transactions, on the other hand, having generated capital inflows in 1994 as hedging arrangements related to previous exchange market crises were unravelled, shifted to net outflows over the same period.

The labour market and inflation

With business sector productivity growing by 6 per cent in the first four quarters of the recovery, output growth generated only a moderate increase in labour demand during 1994. But by the second quarter of 1995, full-time employment had grown by more than 2 per cent. The job gains were concentrated on employees in the private sector, with public employment showing no clear trend and self-employment actually declining. While the largest number of the jobs were created in the private service sector, the construction sector recorded the largest proportional increase, employment growing by more than 8 per cent. Reflecting a reduction in the size of the labour force, registered unemployment receded from a peak of 12.6 per cent in spring 1994 to 9.5 per cent in October 1995. Nevertheless, including the large number of persons temporarily taking part in active labour market measures or leave schemes, total unemployment in the second quarter of 1995 was 16 per cent of the labour force – down only slightly from the outset of the economic recovery (Figure 3, Panel B).

Reflecting the sectoral differences in labour demand, the reduction in unemployment was unevenly distributed among occupational groups (Figure 3, Panel A). The skilled segments of the manual labour market recorded the largest declines, unemployment among construction workers and metal workers decreasing by around 40 per cent between the second quarters of 1994 and 1995. Within other unemployment insurance (UI) funds related to the manufacturing sector, such as "specialised workers" and "female workers" (both for persons with limited formal education), the drop in unemployment was roughly 20 per cent, whereas those segments of the labour market comprising persons with tertiary education recorded considerably smaller declines. So far, however, there is little evidence of a nation-wide excess demand for persons with particular occupations or skill levels. According to business surveys, the number of companies in both manufacturing industries and construction who are constrained by a lack of qualified manpower has increased during the recovery, but is still below the levels reached during the last upturn. On the other hand, some nascent regional problems can be detected. If unemployment rates below 5 per cent are taken to indicate a tight labour market, evidence of a shortage of construction workers and metal workers in certain counties in the western part of Denmark emerged in the first half of 1995. Also, several UI-funds directed toward public employees have shown low and declining unemployment rates – reflecting, *inter alia*, a high uptake of paid leave among these groups. Wages in this segment of the labour market do not, however, normally respond significantly to unemployment rates.

Figure 3. **UNEMPLOYMENT AND LABOUR MARKET PROGRAMMES**



1. Insured unemployed persons as a percentage of all insured persons in the relevant UI Fund.
2. Wage index for workers in manufacturing.

Source: Statistics Denmark.

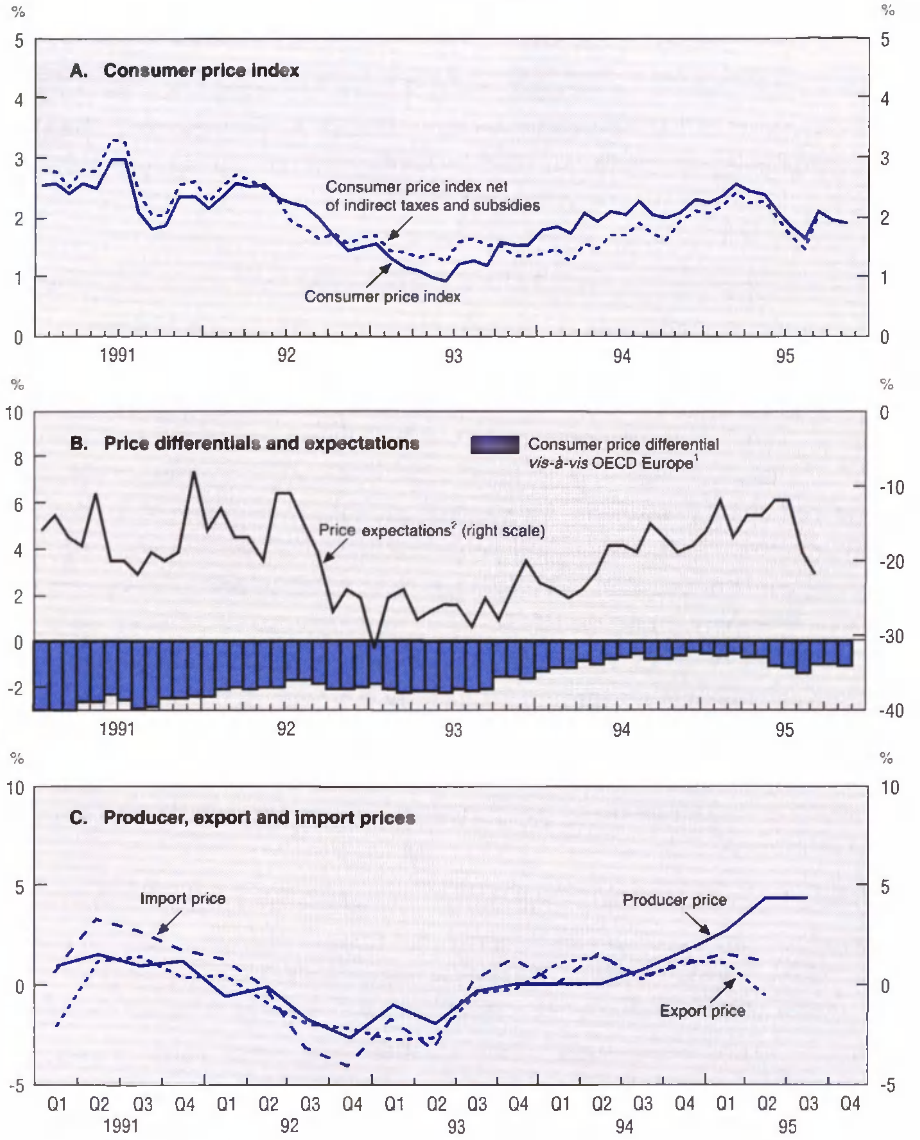
With an estimated output gap of around 1½ per cent in 1994, there have so far been few signs of a pick-up in wage inflation. Although the aggregate wage increase of 3.3 per cent[10] in 1994 was the highest nominal wage increase since the wage-hike in 1987, in the light of past experience this was not particularly high given the reduction in unemployment (Figure 3, Panel C). Recent wage rises have been stronger for blue-collar workers than for salary-earners. But, somewhat surprisingly, they have not been particularly strong for the segments of the labour market which have experienced the largest reductions in unemployment. The outcome of local wage negotiations point to wage increases of between 3 and 3½ per cent for 1995, not including the possible effects of individual wage drift.

Consumer prices remained remarkably stable during the first two years of the recovery, year-on-year inflation slowly increasing from around 1 per cent to 2.3 per cent in the first half of 1995 before dropping back below 2 per cent (Figure 4, Panel A). Consequently, Danish inflation has remained below the OECD average, although less so than in previous years. Consumer prices have been pushed up by exogenous factors, such as indirect taxes and higher prices for agricultural products, transport and public utilities. Moreover, despite the continued appreciation of the effective exchange rate, higher import prices – in particular prices of imported raw materials – were instrumental in pushing up inflation in the first half of 1995. However, domestically generated inflation has shown few signs of picking up during the first two years of the recovery. Indeed, reflecting, in particular, an increase in business sector productivity of 3.5 per cent through 1994, the domestic component of consumer prices – the combination of unit labour costs and domestic profit margins – has consistently registered rates of increase below 2 per cent.[11]

There has thus been little indication so far that the expansion has given rise to inflationary pressures in either labour and product markets. There are, nevertheless, signs that the slack in certain segments of the labour market is close to being eliminated, and in the first half of 1995 there was some evidence of productivity gains being significantly smaller than in the early phases of the recovery. This could be a signal that domestically-generated inflation will not remain at its recent low levels. Indeed, in the light of the wage-wage spiral which occurred toward the end of the previous upturn, a question to be addressed is whether a change in the economic environment or the composition of the present recovery are making for a more favourable outcome this time.

Figure 4. **INFLATION DEVELOPMENTS**

Percentage changes over 12 months



1. OECD Europe: unweighted average, excluding Turkey.
2. At the beginning of the period. Persons expecting higher inflation minus persons expecting lower inflation over the following 12 months.

Source: OECD, *Main Economic Indicators.*

Cyclical balance of the economy

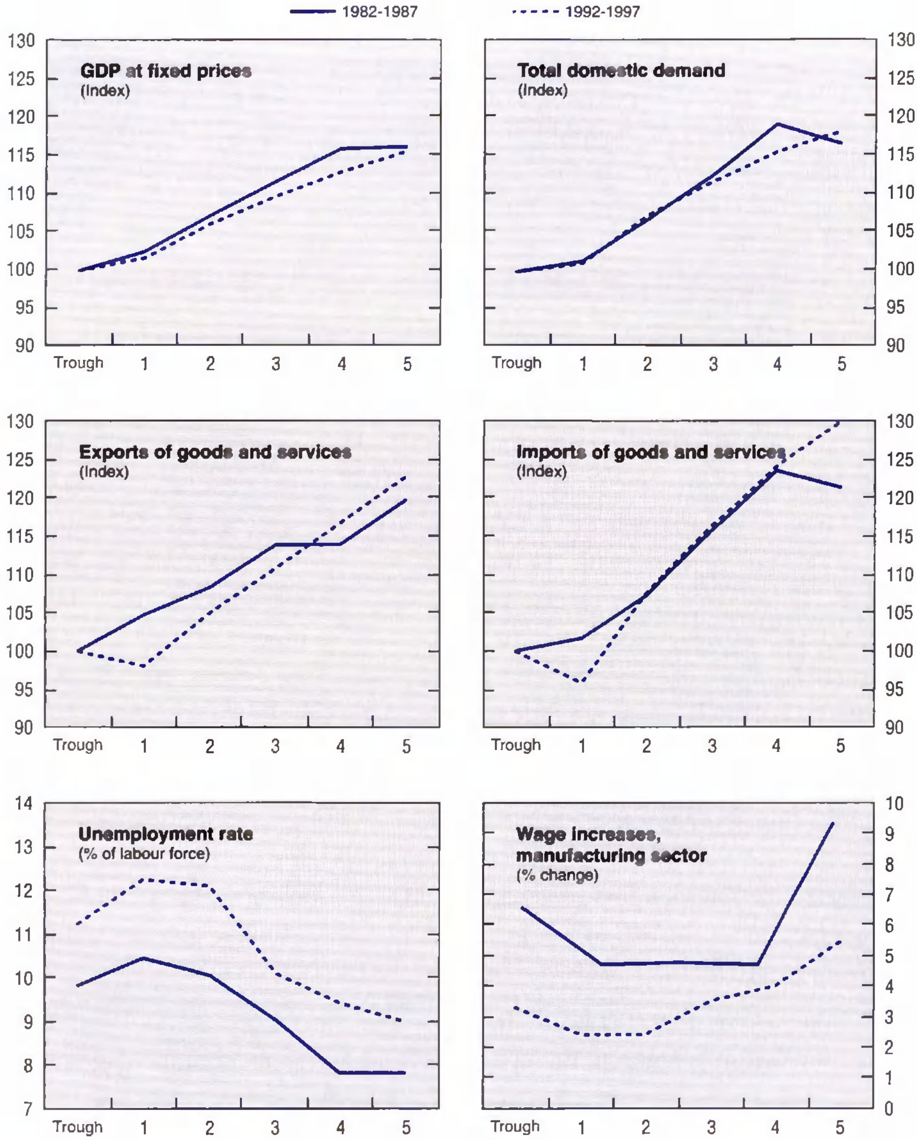
At first glance, the present cyclical upturn has some similarities to the 1982-86 expansion. In both cases, the first years of recovery brought annual GDP growth rates of around 4 per cent, primarily led by domestic demand, prompting significant reductions of unemployment (Figure 5). However, the 1980s upturn ended with a sharp wage response, a contraction of domestic demand and a reversal in the unemployment trend, followed by more than five years of depressed growth.

Although the growth in domestic demand was virtually the same during the first years of the two recoveries, the distribution among components has been somewhat different. During the first two years of the current expansion, private consumption increased by close to 11 per cent in volume compared with 8½ per cent from 1983 to 1985, and public consumption also rose more strongly.[12] Private investment growth, on the other hand, has been markedly slower in the current upturn. Business fixed investment grew by around 20 per cent from 1993 to 1995 compared with 31 per cent in the first years of the previous recovery. This slower growth rate is related to the relatively ample supply of business structures mentioned above. Also housing investment has been markedly less buoyant, a 10 per cent growth rate comparing with around 20 per cent last time. The effect of real net exports on domestic activity has been considerably more favourable during the present upturn, mainly reflecting the better starting position for the trade balance than at the outset of the mid-1980s expansion – giving a higher platform for export growth.[13] Moreover, the growth rates of both exports and imports have been considerably faster.[14] As regards exports, this has reflected the international recovery, whereas imports have been stimulated by the unusually large growth in the purchase of cars and other consumer durables not produced in Denmark.

Despite similarities between the recoveries, there are marked differences between the factors triggering the upturn in domestic demand in the two cases. In the early phases of the previous recovery, financial deregulation and the shift toward a fixed-exchange rate policy contributed to a marked decline in long-term interest rates which, in turn, boosted housing prices (Figure 5). The perceived wealth gain and easier access to credit induced households to lower their saving rates to a historical low.[15] At the same time, business sector profitability was

Figure 5*a*. **COMPARING ECONOMIC EPISODES**[1]

Beginning of period = 100

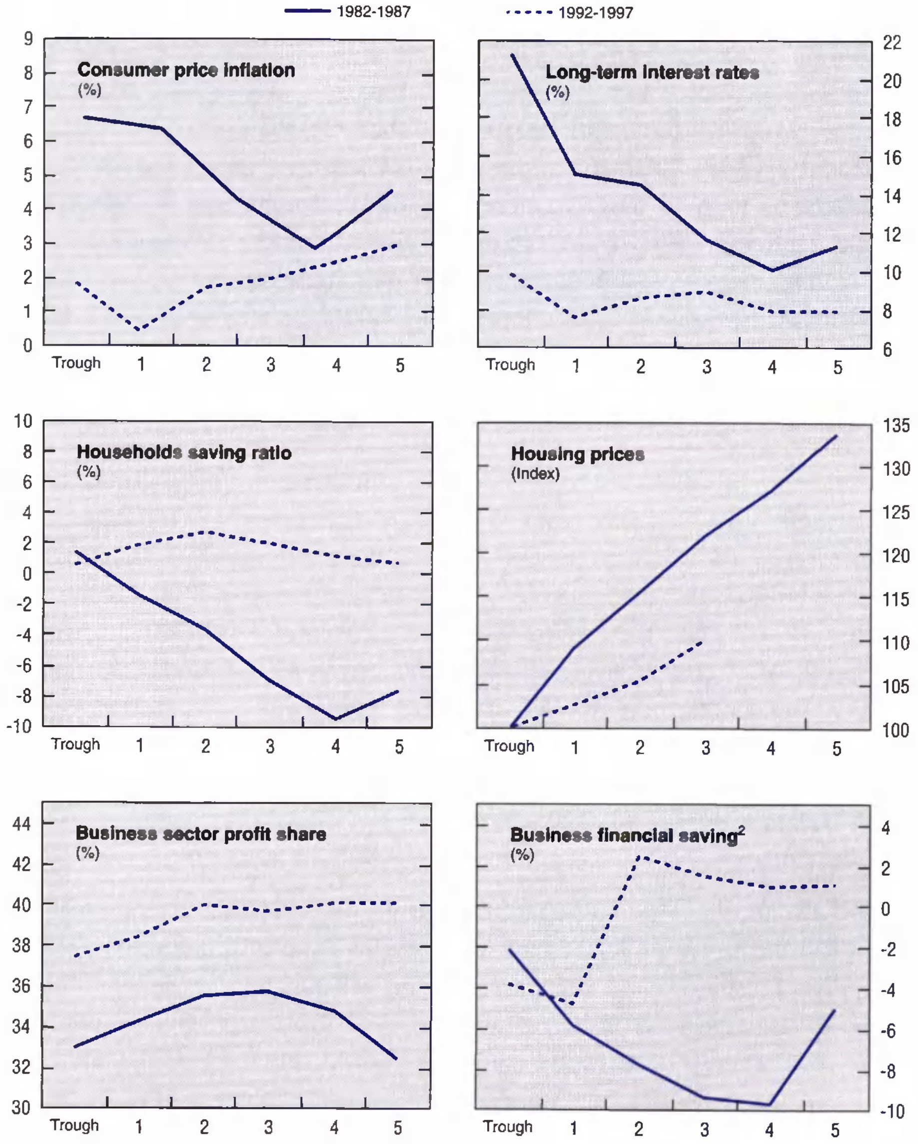


1. 1995 values are OECD estimates, 1996 and 1997 are projections.

Source: OECD.

Figure 5*b*. **COMPARING ECONOMIC EPISODES**[1]

Beginning of period = 100



1. 1995 values are OECD estimates, 1996 and 1997 are projections.
2. Net profit minus fixed investment as per cent of business sector value added.

Source: OECD.

markedly lower during the mid-1980s upturn, so that the investment boom necessitated an unsustainable increase in enterprises' recourse to borrowing. The present recovery in private consumption was also affected by the decline in long-term nominal interest rates, which allowed households to convert to lower-yielding mortgage debt and, in many cases, simultaneously increase the outstanding loan. However, the major factor was the relaxation of fiscal policies in 1993 and 1994 (see Chapter II), the 1994 tax reform temporarily adding more than 2 per cent to the disposable income of the average household. Nevertheless, with the declining value of the tax deductibility of interest expenditure private sector savings rates have thus far fallen only marginally during the recovery, and the current account balance has continued to show a healthy surplus estimated at around 1.5 per cent of GDP in 1995. This more balanced development in sectoral savings reduces the risk of a boom-to-bust cycle, and, in particular, of overheating in the real estate market.

Reflecting unusually high productivity gains in the business sector, employment growth in the first two years of the present recovery was roughly half that recorded during the previous upturn. On the other hand, because the introduction of paid leave schemes (discussed in Chapter IV) has reduced labour supply by an estimated 2½ per cent, the decline in registered unemployment has been slightly more rapid. Also, real wage growth has remained moderate, unit labour costs in manufacturing falling in both 1993 and 1994. This seemingly indicates a change in wage behaviour compared with the previous recovery when real wage increases began to exceed productivity gains in the course of the upswing and the profit share of GDP fell markedly.

Summing up, the present recovery would seem to be more sustainable than the 1982-86 upturn. The prevailing, historically high, private sector saving propensity has been instrumental in avoiding the build-up of household debt which eventually choked the last recovery. At the same time, the healthy financial balance of the enterprise sector should ensure that an expansion in productive capacity can proceed unhindered, while current account surpluses should help to ensure that the exchange rate stability necessary for inflation control does not entail a severely restrictive monetary stance. The main macroeconomic uncertainty lies with the supply response to continued increases in labour demand. If, in the medium-term, the Danish economy is to experience a "soft landing" with growth rates gradually receding toward trend as the output gap closes, labour markets must be sufficiently flexible to meet the increased labour demand without unsustainably large wage increases.

The short-term outlook

Economic policy assumptions and the external environment

Following the Budget agreement for 1996, the overall stance of macroeconomic policy is set to be mildly contractionary in the short term (Table 6). Basing fiscal policy assumptions for 1996 on the agreement and those

Table 6. **Economic policy assumptions and the external environment**

	1995	1996	1997
	Per cent of GDP		
Fiscal policy			
General government financial balance	–1.9	–1.0	–0.5
Change in general government financial balance	1.9	0.9	0.5
of which: Cyclical-adjusted	1.2	0.5	0.4
	Per cent		
Interest and exchange rates			
Effective exchange rate (Index, 1991 = 100)	110.8	111.2	111.3
Three-month German rates	4.5	3.9	3.9
Three-month domestic rates	6.1	5.2	5.1
Ten-year domestic bond yield	8.3	7.5	7.5
	Percentage change from previous year		
Export-market growth for manufactures			
World	10.4	8.5	8.7
Germany	9.6	7.9	8.3
United Kingdom	10.5	8.0	8.3
Sweden	9.6	7.8	7.9
Norway	9.3	7.9	7.7
Unit-labour cost growth in competitor countries			
Germany	0.3	1.6	0.6
United Kingdom	2.5	1.3	3.0
Sweden	2.0	3.5	3.8
Norway	1.5	2.2	2.0

Source: OECD.

for 1997 on stated policy intentions, the structural budget deficit is projected to decrease by around 3/4 per cent of GDP over the next two years from its estimated 1995 level of 1 1/4 per cent of GDP. Following the recent agreement between local authorities and the central government, the budget improvement will be concentrated on increasing revenues. With interest rate differentials *vis-à-vis* Germany projected to continue to exceed corresponding inflation differentials, the fiscal contraction could be amplified by high credit costs: real long-term interest rates, which have a far greater impact on economic activity than short-term rates, are projected to decline only hesitantly toward 4 1/2 per cent at the end of the forecast period.

Aggregate demand should be supported by buoyant growth in the world economy. OECD projections from November 1995 show export market growth for manufactures of around 8 per cent per year through the projection period, evenly distributed on Denmark's main trading partners. On the other hand, Danish exporters are expected to benefit less than the average from the increase in world demand, due to the composition of exports. Moreover, on the technical assumption of unchanged exchange rates, projected unit labour cost trends will imply that relative cost competitiveness will deteriorate somewhat. The manufacturing sector is thus likely to experience some loss of aggregate market share.

The outlook for 1996 and 1997

Continued real income growth should be sufficient to keep aggregate demand and output growth significantly above potential rates throughout the projection period (Table 7). Despite the contractionary fiscal measures outlined above, household real disposable income is projected to increase by around 1 to 2 per cent a year and since household saving ratios are likely to decline as the recovery matures, the outlook is for continued growth in private consumption. Given present indications of emerging capacity shortages in the business sector, the continued increases in private consumption and foreign demand should prompt an increase in business fixed investment, which will, however, be tempered by rather high real interest rates. Capital spending is likely to remain concentrated on equipment, as the excess supply of commercial property continues to damp expansion of business structures. As import growth returns to more sustainable levels, following the demand-driven boost at the beginning of the

Table 7. **Short-term outlook**

Percentage change from previous year

	1994	1995 [1]	1996 [2]	1997 [2]
Private consumption	7.0	3.2	3.1	2.5
Public consumption	1.1	0.9	1.1	0.9
Gross fixed investment	3.1	12.3	6.9	4.5
Business	2.9	18.3	9.5	5.0
Residential	6.4	3.9	5.0	5.0
Public	0.1	–6.0	–6.0	0.0
Final domestic demand	5.8	4.1	3.3	2.5
Changes in stockbuilding [3]	1.1	0.2	0.1	0.0
Total domestic demand	6.1	4.3	3.4	2.4
Foreign balance [3]	–0.3	–0.7	0.1	0.3
Exports	7.3	5.5	5.3	5.3
Imports	12.1	8.4	6.5	5.8
Gross domestic product	4.5	3.3	3.0	2.4
Household saving ratio [4]	4.3	3.6	1.7	1.2
Private consumption deflator	1.0	2.0	2.5	3.0
GDP deflator	2.3	1.8	2.5	3.2
Current account, per cent of GDP	1.8	1.8	1.8	1.9
Total employment	–0.2	2.4	1.1	0.9
Labour force	–0.4	0.2	0.3	0.4
Unemployment rate [5]	12.1	10.1	9.4	9.0

1. OECD estimates.
2. OECD projections.
3. As a per cent of GDP in the previous year.
4. Level, per cent of household disposable income.
5. Level, per cent of labour force.

Source: OECD.

upturn, the growth contribution from real net exports is projected to increase in 1996.

GDP is expected to grow at an annual rate of 3 per cent in volume in 1996 and 2½ per cent in 1997. The increases in economic activity over the projection period are likely to increase total employment to its highest level since 1987. The projections for the labour market are based on the assumption that 2 per cent of the labour force will on average participate in paid-leave schemes in 1996 and 1997, and thus be temporarily excluded from the labour force. The combination of reduced labour supply and growing labour demand will reduce the unemployment rate by around 1 percentage point over the projection period to 9 per cent in 1997.

Wage increases are projected to remain relatively low in 1996 when they will be predominantly determined by the outcome of the local wage bargaining rounds in early 1995. By 1997, however, there could be some pick-up in wage inflation as the slack in the labour market is gradually being used up. The risk of a general flare-up in wage inflation is tempered by the absence of a wage bargaining round in manufacturing until 1998 and by the fact that the 1996 Budget agreement should help to lower the structural unemployment rate. But there is some evidence from household surveys that there are expectations of a slight pick-up in domestic inflation (Figure 5, Panel B). Consumer price inflation is projected to remain moderate, but – in the absence of further appreciation of the krone – may rise over the projection period, mainly due to the stronger wage increase and rising import prices.

The main risk to the projection relates to wages and prices. The expansion is projected to remain broadly based and, as noted, is building on a relatively balanced foundation. However, if employment growth were to be unevenly distributed among occupational segments in the labour market, considerable relative wage flexibility would be called for to prevent sectoral wage pressures from translating into a more generalised flare-up in wage inflation. On the other hand, to the extent that wage and price expectations adapt pre-emptively to the discipline imposed by the stable exchange rate regime, competitiveness would be enhanced and interest-rate premia would fall, with positive implications for growth. The probability attaching to this more favourable outturn is discussed in the next chapter.

II. Macroeconomic policies

Although Denmark has given notification that it will not participate in the third stage of Economic and Monetary Union in Europe, the Danish authorities have strongly embraced the underlying principles involved, of fiscal discipline and exchange rate stability. The convergence criteria embodied in the Maastricht treaty remain the yardsticks against which economic policy instruments are calibrated. Hence, short-term interest rate developments have generally been in line with the requirements of keeping the exchange rate close to the central parities with core members of the Exchange Rate Mechanism of the EMS. Interest rate differentials for all maturities *vis-à-vis* Germany widened through 1994 and have typically remained in the 1 to 1½ percentage point range, imparting a dampening effect on the cyclical upturn. On the fiscal side, general government finances were allowed to deteriorate in 1993, the general government deficit exceeding the 3 per cent deficit ceiling in both 1993 and 1994. A reversal of the 1993-94 fiscal stimulus and the continued recovery are estimated to bring the general government deficit down to 1 per cent of GDP in 1996. Reflecting a history in which surpluses were registered in only three years out of the last twenty, on OECD definitions government gross and net debt in Denmark have reached respectively 80 and 46 per cent of GDP, a situation which imposes a serious constraint on fiscal policy.

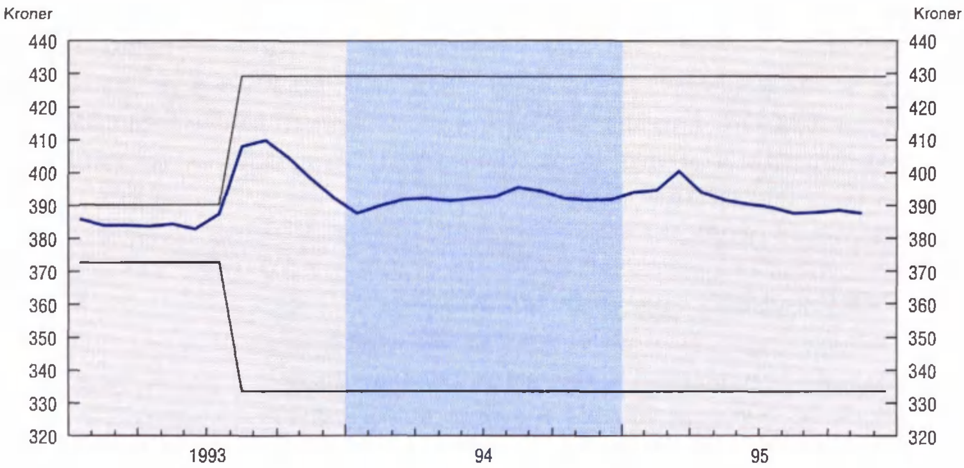
Monetary and exchange rate policy

With the abandonment of the narrow bands in the exchange-rate mechanism (ERM) of the European Monetary System in August 1993, a reformulation of Danish exchange rate policy became necessary. The new wider bands of 15 per cent against the central exchange rate parities did not provide an adequately reliable anchor. To emphasize the continuing commitment to the explicit hard currency policy pursued since 1983, the Danish authorities thus stated that the objective was to maintain a stable nominal exchange rate towards the core countries of the ERM. Consequently, monetary policy is geared towards maintaining short-term interest rates at a level that is consistent with this exchange-rate objective. In practice, the Deutschemark is the predominant anchor currency.

Implementing monetary and exchange rate policy

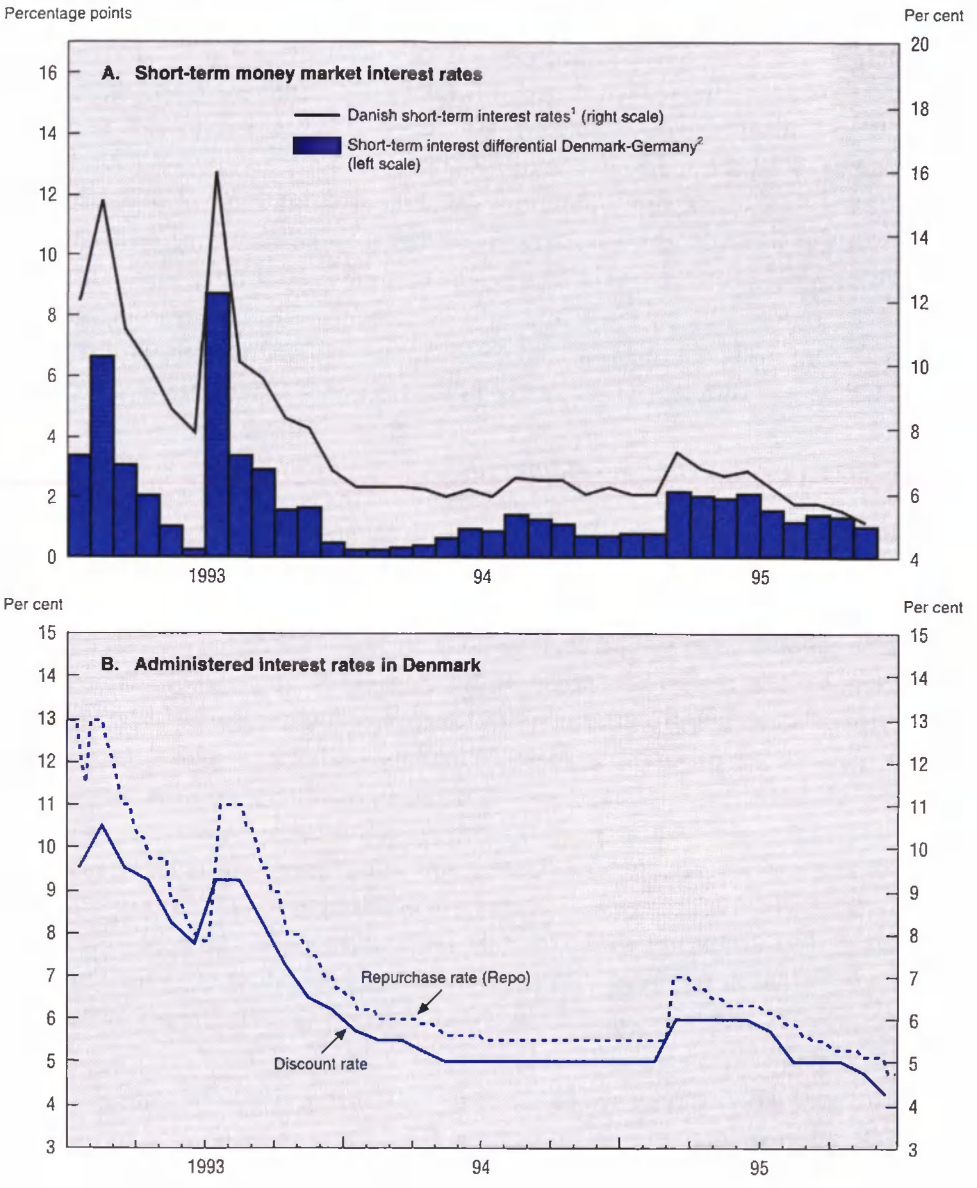
Following a period in the autumn of 1993 when it was subject to substantial downward pressure, the exchange rate appreciated (Figure 6) and Danish administered interest rates were lowered in parallel with German rates. In the first half of 1994 the exchange rate stabilised around DKr 390 per DM 100 ($2^1/_4$ per cent from the central rate) and short-term money market rates remained around 6 per cent. As German interest rates declined, the short-term interest rate differential widened to $1^1/_2$ percentage point (Figure 7). A weakening of the krone in March 1995, in the wake of the unrest in international markets leading to a devaluation of the Spanish and Portuguese currencies within the ERM, was met with an

Figure 6. **EXCHANGE RATE MOVEMENTS**
Danish kroner per 100 DM



Source: OECD, *Main Economic Indicators.*

Figure 7. **SHORT-TERM INTEREST RATE DEVELOPMENTS**



1. 3-month interbank rate.
2. 3-month Fibor.

Source: Danmarks Nationalbank and OECD, *Main Economic Indicators.*

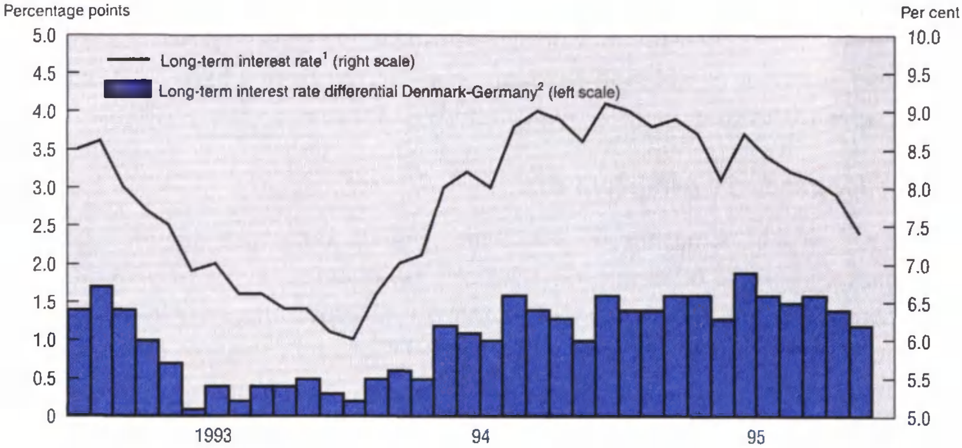
increase in administered rates. Money market rates increased sharply, raising the differential towards German market money rates to 2½ percentage points. Throughout the subsequent general easing of exchange rate pressures, brought about, in part, by the reductions in official German interest rates, the Danish central bank maintained a cautious line, lowering administered rates gradually. This emphasis on the maintenance of a stable exchange rate seems to have been rewarded with a subsequent inflow of capital, contributing to a strengthening of the krone. As a result, since late summer 1995 the exchange rate has remained around DKr 387 per DM 100 (1¾ per cent from the central rate), and the Danish central bank was able to lower the official discount rate in November and to follow the cut in the German official interest rates in December 1995, the short-term interest rate differential gradually falling to about 1 percentage point.

Long-term interest rate developments...

In line with international developments Danish long-term interest rates increased sharply in 1994, reversing more or less fully their decline of 1993. The pattern was similar for the interest rate differential *vis-à-vis* Germany, which fell sharply to about 0.3 to 0.4 percentage point in January-February 1994, but then increased to 1½ percentage point up to September (Figure 8). This placed Denmark in a median group of countries, experiencing increases in bond yields higher than those in Germany, the Netherlands, Belgium and – to a lesser degree – France, but smaller than those in Italy, Spain and Sweden. Since September 1994 the Danish yield differential *vis-à-vis* Germany has remained more or less unchanged, although yield levels have fallen from 9 to 7¼ per cent. Moreover, the parallel increase in short-term and long-term interest rate differentials *vis-à-vis* German rates implies that the Danish yield curve has moved in parallel with that of Germany. With the increased integration of capital markets, common factors would seem to be at work, influencing both Danish money and bond markets.

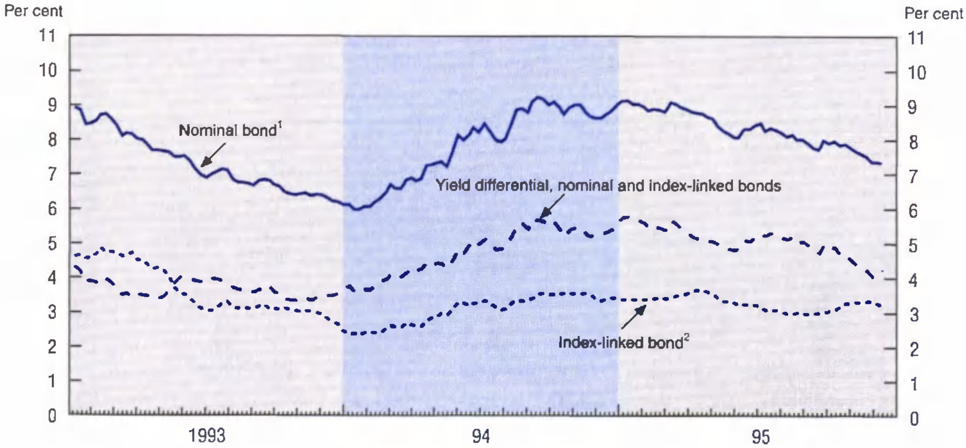
The international evidence indicates that the increase in nominal bond yields in 1994 reflected increases in both the real rate and inflationary expectations, linked to the strong upturn in world demand. This would seem to be supported by Danish evidence: yields on index-linked bonds increased by around 1 percentage point while the differential between nominal and index-linked bond yields rose by a further 2 percentage points (Figure 9). In this case, the strength of the

Figure 8. **LONG-TERM INTEREST RATE DEVELOPMENTS**



1. 10-year Central Government bonds.
2. Public sector bonds (7-15 years).
Source : OECD, *Main Economic Indicators.*

Figure 9. **YIELDS ON NOMINAL AND INDEX-LINKED BONDS**



1. 8 per cent Danish government bond 2003.
2. 2.5 per cent mortgage bond (Realkredit Danmark IS 2026).
Source: Danmarks Nationalbank.

evidence should not be overemphasized, as there seems to be a close covariation between real and nominal yields, and the yields on index-linked bonds are influenced by particular features of the Danish system of capital income taxation. However, surveys of inflation expectations, referred to in Chapter I, point to a slight upward revision of price expectations in Denmark.

...in a longer-term perspective

The present situation of somewhat higher long-term interest rates in Denmark than in the other non-German core members of the ERM is in line with experience over the last ten years.[16] The main macroeconomic factors are to be sought in a less satisfactory history on the inflation and exchange rate front than in Austria, Belgium and the Netherlands and the long time required to reduce inflation expectations durably and establish policy credibility.[17] But other variables, partly reflecting perceptions in securities markets, seem to have played a substantial role in the Danish case (Table 8).[18] Such factors attained particular importance during the years 1992-94, a period of great turbulence in foreign exchange markets, indicating that the increase in risk premia attached to Danish securities may have reflected increased volatility in exchange rates and yields themselves. However, even when the effects of these factors and of changes in

Table 8. **Accounting for long-term interest-rate differentials**

Percentage points. 10-year government bonds

	Denmark versus Germany		Denmark versus Belgium		Denmark versus France		Denmark versus the Netherlands	
	1983-94	1992-94	1983-94	1992-94	1983-94	1992-94	1983-94	1992-94
Long-term interest rates								
Interest rate differential	3.24	1.02	1.21	0.16	0.59	0.51	3.11	0.93
Effects of:								
Inflation history	0.21	–0.21	0.10	–0.08	–0.05	–0.01	0.31	0.02
Depreciation history	0.69	0.04	0.24	0.20	–0.24	0.02	0.66	0.16
Current inflation	0.31	–0.45	0.08	–0.11	–0.08	–0.04	0.46	–0.12
Current account	0.13	–0.23	0.16	0.09	0.02	–0.14	0.19	–0.01
GDP growth	–0.04	0.04	0.01	0.06	0.01	0.06	–0.01	0.04
Total of above	1.30	–0.82	0.61	0.15	–0.33	–0.12	1.62	0.08
Other factors	1.94	1.84	0.60	0.01	0.92	0.63	1.49	0.85

Source: Ministry of Finance (1995*b*).

investors' behaviour are adjusted for, the increase in the Danish risk premium seems high compared with the other ERM members. Since the main feature that separates Denmark from these countries is the decision not to participate in stage III of the Economic and Monetary Union in Europe, it seems reasonable to assume that the perceived option to conduct an exchange rate policy that at some future stage might lead to changes in exchange rate parities against European currencies, influences the required yield on Danish securities.

The domestic credit market

The Danish bond market is the largest in the world relative to the size of the economy, and thus a major source of financing. Since a large share of bonds have been issued at fixed interest rates, changes in bond market rates will, in the short run, primarily influence the domestic economy through perceived changes in the value of household assets, both real (houses) and financial, whereas the cash flow of household and enterprises will largely remain unchanged. Exceptions may, however, occur in instances such as 1993, when a large fall in market rates made it profitable for borrowers in the mortgage bond market to exercise their right to refinance their bonds.[19]

Yields on mortgage bonds closely followed government bond rates through 1994 and 1995, while lending rates of banks remained unchanged from the first quarter of 1994 to the first quarter of 1995, the increase in their short-term financing costs being partly cushioned by a fall in loan-loss provisions and partly

Table 9. **Money and credit**
Percentage year-on-year changes, end of period

	1993	1994	1994				1995		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3
Money stock	11.2	–5.4	10.4	4.3	–1.1	–5.4	–5.4	–2.3	1.2
Bank lending									
Total	–9.5	–8.1	–9.5	–7.9	–10.2	–8.1	–3.9	–2.0	2.6
Businesses	–7.9	–13.2	–16.7	–14.3	–18.0	–13.2	–7.2	–5.1	1.5
Non-businesses	–12.2	1.3	6.6	5.6	6.0	1.3	2.0	3.3	7.6
Mortgage lending	2.4	1.1	3.9	2.2	1.2	1.1	0.2	1.6	2.8

Source: Danmarks Nationalbank.

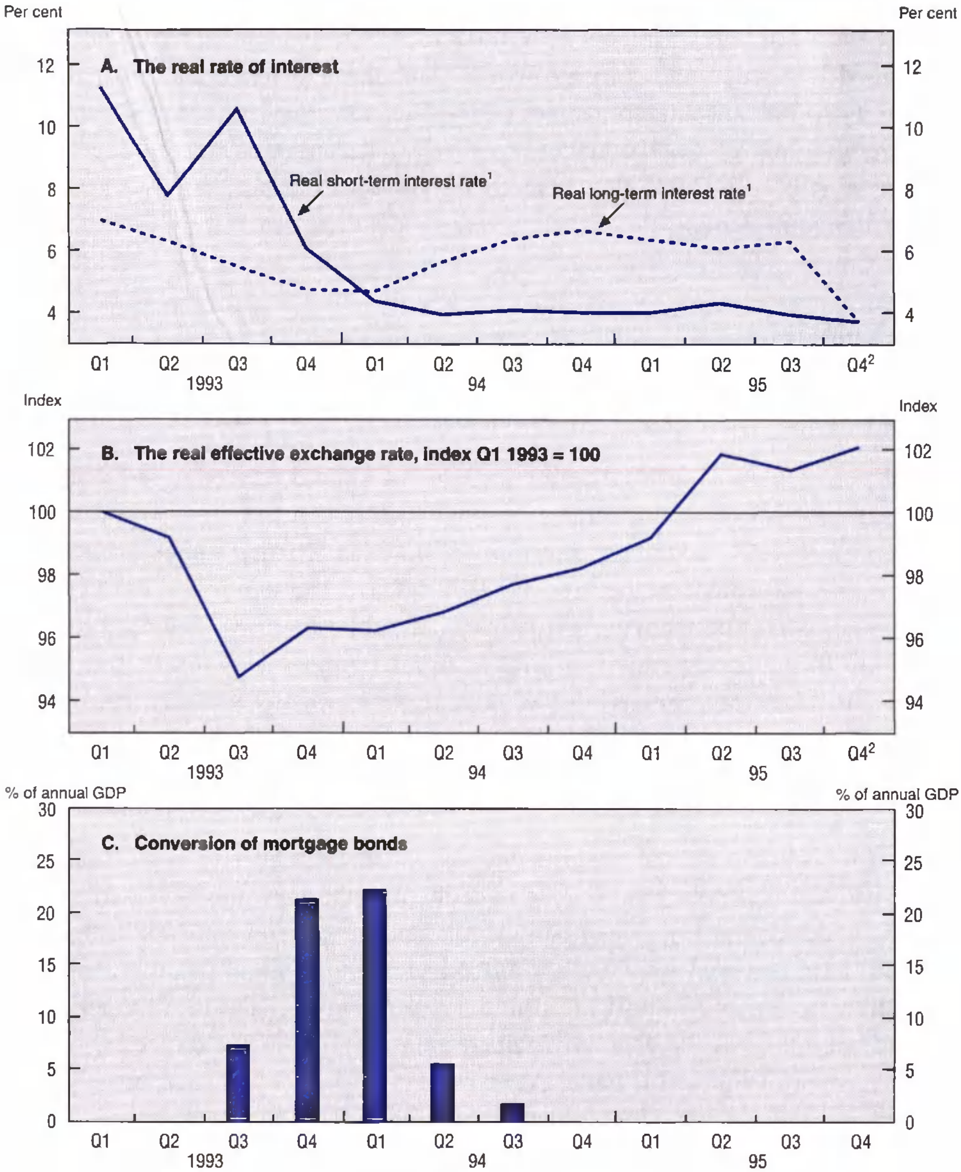
by capping deposit rates. Reflecting the high private saving that has prevailed through the present upturn in the economy, credit aggregates have remained weak (Table 9). Mortgage lending has increased slightly, reflecting higher lending for housing purposes, whereas bank lending has remained fairly constant since early 1994.

Interactions with the "real" economy

Monetary developments affect the domestic economy through two main channels, the long-term interest rate and the exchange rate. The long-term real interest rate,[20] although falling in recent months, is 1 percentage point higher than in early 1994, partly reflecting the increase in nominal yields. The nominal effective exchange rate has appreciated strongly, especially during the first half of 1995, reflecting the general strengthening of European currencies. While inflation in Denmark has remained somewhat below the European average, nominal appreciation has nonetheless given rise to a strong real effective appreciation of the krone since 1993, amounting to 5 per cent in terms of relative unit labour costs and 3 per cent in terms of relative export prices. The overall impression is consequently that of a negative impulse from monetary developments to both external and domestic demand since early 1994 (Figure 10),[21] although the decline in long-term nominal yields began to push up house prices towards the end of 1995. In view of the strength of the cyclical upturn and the ensuing upward pressure on wages and prices, these effects – although not explicitly an aim of policy – have contributed to a more balanced development of the economy.

Over a longer time horizon, a credible stable exchange rate regime should act as an anchor for expected nominal developments, thereby securing price and wage growth below or on a par with the anchor country without sacrificing output and employment objectives. However, while over the period 1982 to 1994 wage and price inflation in Denmark was below that in other European countries, with a particular improvement in performance in the early 1990s, the premia on long-term rates, noted above, indicates that markets do not necessarily view Danish inflation gains as permanent. Indeed, available studies of the experience of the 1980s[22] seem to indicate that no specific credibility effects of the ERM could be detected in wage developments in Denmark over this period, nor in the other members of the ERM. The experience of the past shows that Danish

Figure 10. **DEMAND EFFECTS OF MONETARY DEVELOPMENTS**



1. Nominal rates deflated by the CPI increase over the previous year.
2. October 1995.

Source: Danmarks Nationalbank and OECD, *Main Economic Indicators*.

unemployment has tended to exhibit hysteresis over successive cycles, with cyclical unemployment becoming structural (see Chapter IV).[23] The implication is that the only way to reconcile a durable lowering of unemployment and a continued low wage and price growth is through an increase in labour market flexibility to prevent unemployment persistence. Of equal importance, however, is a credible mix of macroeconomic policies, since inflation expectations – and exchange rate sustainability – tend to be correlated positively with levels of public debt and deficits.

Fiscal policy

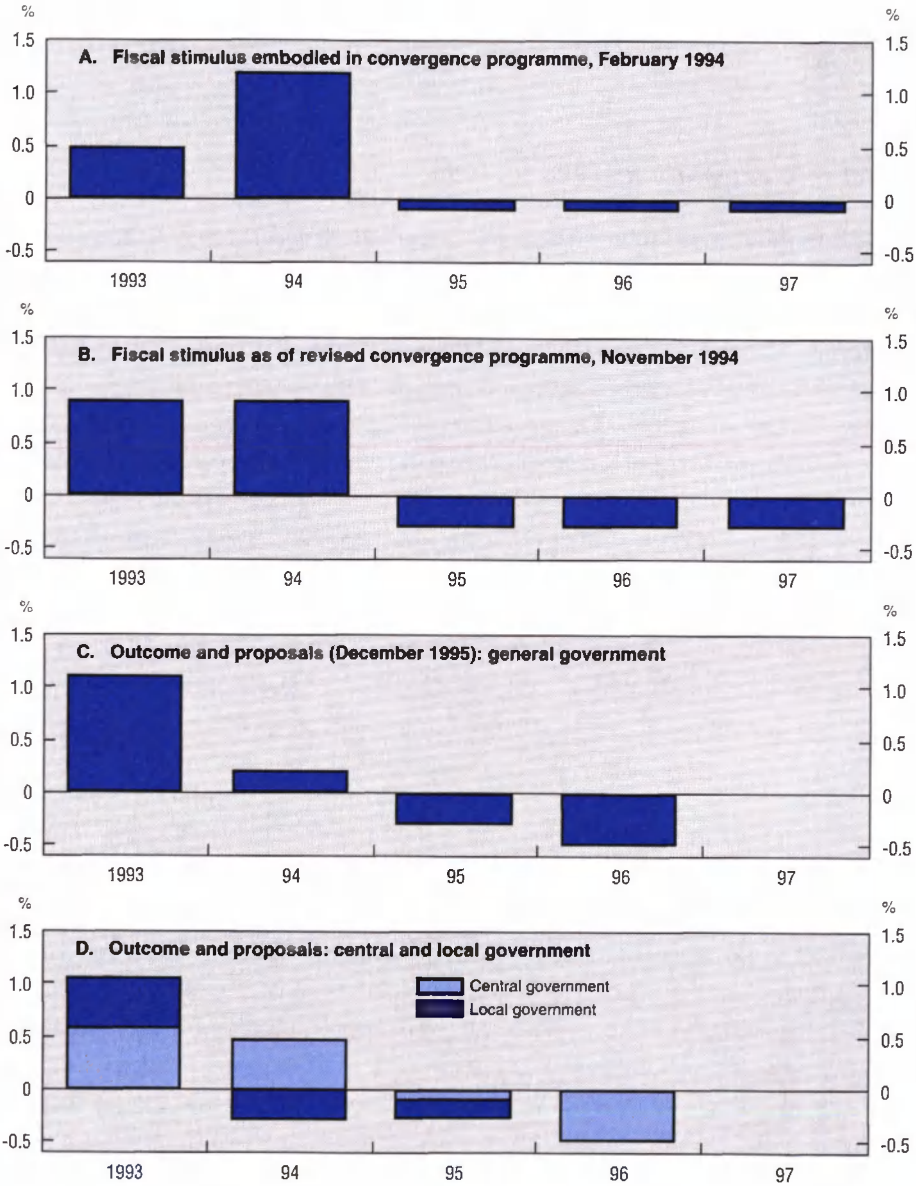
Short-term fiscal activism and the medium-term strategy

The formulation of fiscal policy in Denmark should be seen in the context of the medium-term economic strategy promulgated when the present government took office in 1993, a strategy that formed the basis for the Danish convergence programme presented to the EU in 1994.[24] Covering the years 1994-98, the strategy aims at a permanent improvement in public finances, mainly through a reduction in public expenditures relative to GDP, and is now expressed operationally in terms of eliminating the general government deficit by 1997. High marginal taxes on labour were to be reduced, the cost to be financed through a broadening of the tax base and an increase in environmentally-related ("green") taxes.

At the same time, the government has adopted a relatively active approach to the use of fiscal policy as short-term economic stabiliser. Given the stagnation of the economy and high unemployment when the government took office, the medium-term consolidation strategy embodied an initial fiscal stimulus, having a discretionary demand impact of around 1½ per cent of GDP in 1993-94, to be clawed back later as the economy gained momentum with the projected international upswing (Figure 11, Panel A).[25] The tax reform, which was to be implemented over the years 1994-98, was therefore initially underfinanced, as the reduction in marginal tax rates was frontloaded with offsetting measures being gradually phased in from 1994 onwards. In addition, public investment was brought forward, and selected temporary measures to stimulate domestically-oriented sectors, such as construction and private (home) services, were imple-

Figure 11. **SHORT-TERM DEMAND EFFECT OF FISCAL POLICY**

Per cent of GDP



Source: Ministry of Finance, *Budgetoversigt* (various issues).

mented. An integral part of the strategy was to be increased efforts to reduce the high level of structural unemployment, through reforms to the unemployment benefit system in particular, which might otherwise have derailed a sustained expansion of the economy and prevented a lasting improvement in public finances.

Budget implementation, 1994 to 1996

While the initial intention was to concentrate fiscal support to the economy in 1994, in terms of the overall effect of fiscal policy, the estimated demand impact of the 1994 budget seems to have been more limited than intended (Figure 11, Panel C). The strong expansionary impulse contained in the 1994 *central government budget* (adopted in late 1993) was predicated upon an increase in the deficit to 5.9 per cent of GDP on an administrative basis[26] (Table 10). However, the outcome was a central government budget deficit of 4.3 per cent of GDP. The lower deficit reflected both the speed of the upturn, which raised tax revenues and lowered transfers, and several one-off receipts amounting to $^3/_4$ per cent of GDP. But it also, in the event, stemmed from the rather slow implementation of several parts of the stimulatory package, particularly the activation of the unemployed, which reduced the discretionary fiscal stimulus below that intended (Figure 11, Panel D). Moreover, expenditure restraint on the part of the *municipalities* imparted a negative effect on domestic demand in 1994. While the annual agreements between central government and organisations of local authorities, covering transfers (block grants) from central to local government and incorporating guidelines for local tax rates, may give broad direction to local government spending activity, local adaptations may result in fairly large deviations from the original budget goals.

In line with the medium-term consolidation strategy, the 1995 central government budget was designed to begin the withdrawal of the fiscal stimulus. The contractionary effect seems, however, to have been minor, as higher spending on implementing active labour market measures in line with original intentions partly offsets reductions in other central government outlays and the tax increases associated with the 1994-98 tax reform. Nevertheless, expenditure restraint continued in the local government sector, albeit at a slower pace than in 1994, and this made for an overall negative fiscal impulse. With the cyclical upturn also making an impact on expenditures, the general government deficit is estimated to

Table 10. **Government budget balances: intentions and outcomes**

Per cent of GDP

	1993		1994		1995		1996
	Budget	Outcome	Budget	Preliminary outcome	Budget	Estimated outcome	Budget
Administrative basis							
Central government	–4.9	–5.5	–5.9	4.3	–4.0	–3.7	–2.8
National accounts basis							
Central government [1]	..	–4.1	–5.5	–4.0	–3.3	–3.2	–2.3
Social security funds	..	0.9	1.1	0.8	1.1	0.9	0.9
Municipalities	..	–0.7	–0.4	–0.3	–0.3	0.6	0.5
General government	–2.4	–3.9	–4.8	–3.4	–2.5	–1.7	–0.8

1. Central government budget on administrative basis adjusted for government lending transactions and adjusted from a cash basis to an accruals basis.

Source: Ministry of Finance, *Budgetoversigt* (various issues).

have fallen from 3.4 per cent in 1994 to 1.7 per cent in 1995, the improvement being reflected both in central and local government financial balances (Table 10).

With a further reduction in investment outlays and the implementation of the tax increases foreshadowed in the 1994-98 tax reform, the 1996 central government budget embodies a fiscal tightening in the area of ½ per cent of GDP, measured in demand terms (Figure 11). As far as the central budget deficit is concerned, the objective is to bring this down to 2¼ per cent of GDP on a national accounts basis (2¾ per cent of GDP in administrative terms), the upturn in the economy being the major factor in the improvement, as in 1995. The agreement with the local authorities is based on a slight reduction in the surplus of that sector, as expenditures begin to increase. Indeed, maintaining balance in local government finances is seen to be dependent on a gradual strengthening of their revenues and the 1996 agreement allows the municipalities tax increases for 1996 that take marginal tax rates above the upper level implied by the 1994-98 tax reform.

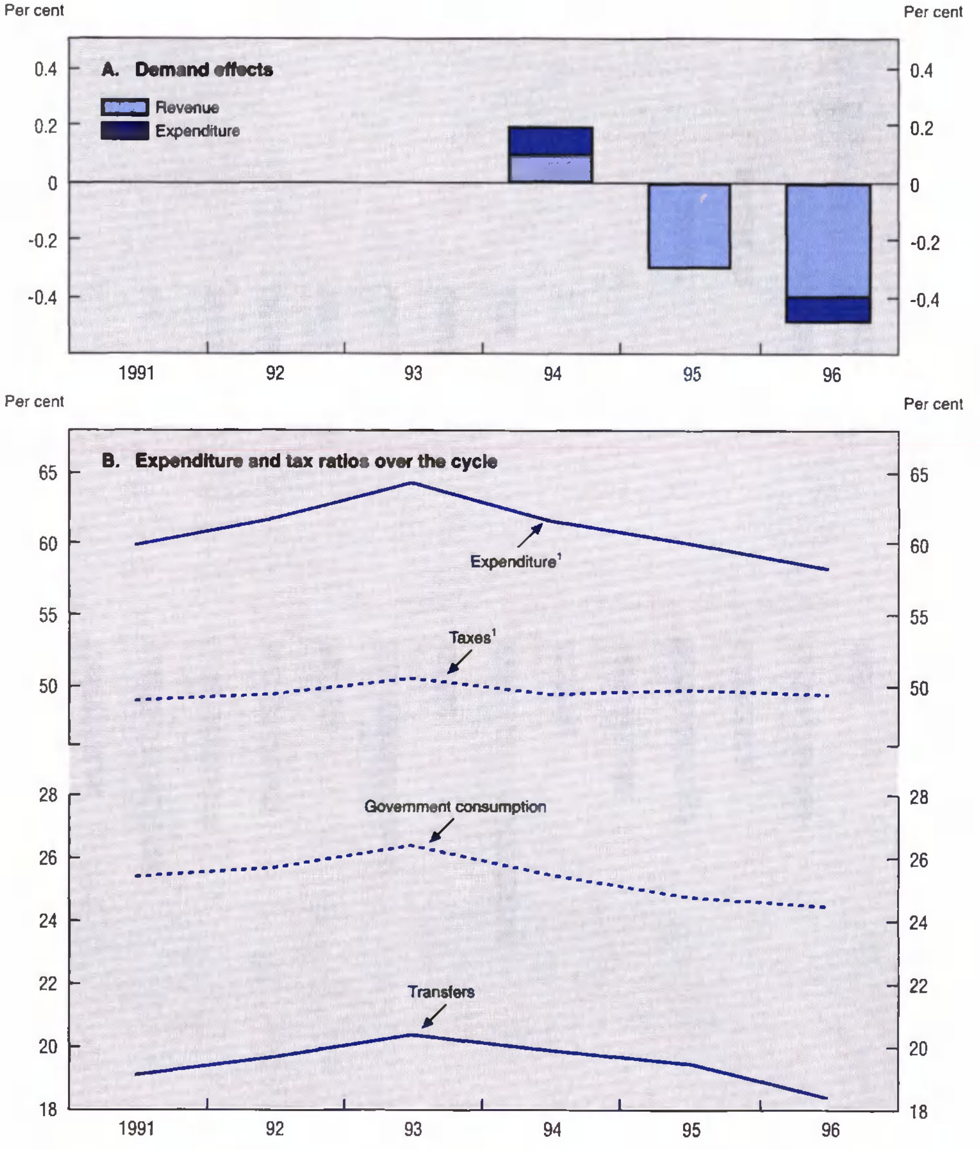
Assessing the *ex post* demand impact of fiscal policy actions over the 1993-96 period as a whole, it would appear that insofar as the economy was already growing rather more strongly than expected, the rather smaller discretionary stimulus than intended during 1994 and 1995 may have contributed to a more balanced development than would otherwise have been the case. On the other hand, a substantial part of the delayed implementation was in the area of activation of the unemployed, measures designed to reduce structural unemployment. Moreover, although fiscal policy in 1996 embodies a tighter policy stance, in line with the medium-term strategy, it remains to be seen if policy has been fully successful in avoiding bottlenecks in the labour market, particularly in view of the strong policy-induced reduction which has taken place in the labour supply in 1994 and early 1995.

Structural improvement in government finances

The discretionary implementation of tighter fiscal policy from 1995 has mainly relied on strengthening government revenue, while maintaining expenditure restraint. This is especially pronounced for 1996 where 80 per cent of the negative demand impulse is effected through tax increases (Figure 12, Panel A). In terms of actual budget numbers, however, lower interest rates and the strong cyclical fall in transfers is expected to show up in a marked reduction in the overall expenditure level[27] in national accounts terms, by close to 6 per cent of GDP over the 1993 to 1996 period (Figure 12, Panel B). At the same time, the overall tax level is falling somewhat relative to GDP, reflecting in part a distributional shift in the income and demand from more highly-taxed to lower-taxed components. The result is a decline in general government expenditure from around 64 per cent of GDP in 1993 to about 60 per cent in 1995 and a projected 58 per cent in 1996, at which point the benefits of cyclical buoyancy could be almost used up.

On OECD calculations the general government structural deficit – which nets out the impact of the cycle on the budget – worsened slightly from 1993 to 1994, despite the improvement in the actual deficit (Figure 13). It is estimated to have improved in 1995, reflecting not only the underlying fiscal tightening, but also the initial beneficial impact of paid leave schemes on public spending.[28] The assumptions embodied in the OECD projections, reflecting announced policies for 1996 and 1997, indicate a likely further fall in the structural deficit in the next two years, the estimated structural deficit of 1 per cent of GDP in 1996 ranking as one of the lowest among OECD countries. On the other hand, the commitment to sound public finances embodied in Denmark's convergence programme implies

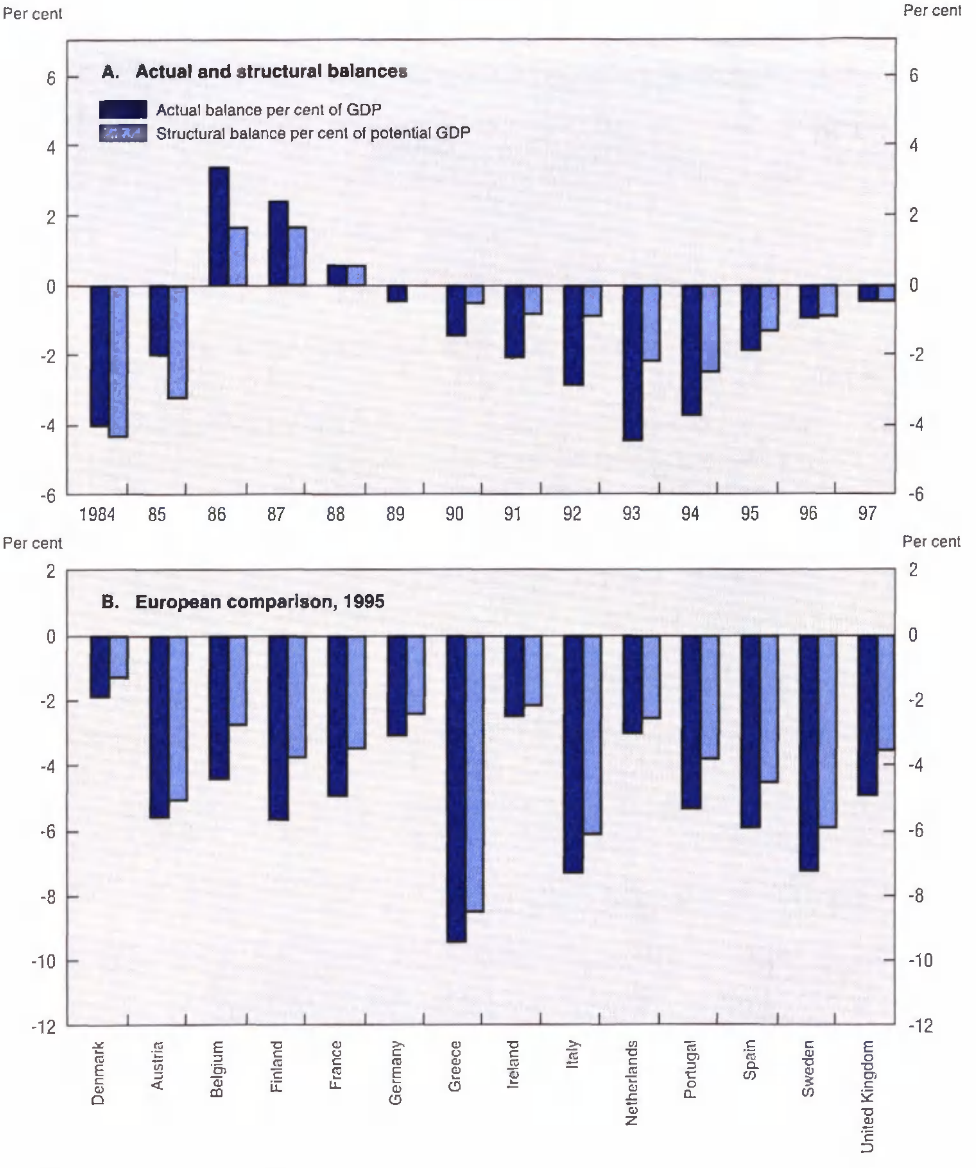
Figure 12. **PUBLIC EXPENDITURE AND REVENUE DEVELOPMENTS**
Per cent of GDP



1. 1994-96 exclusive of effects of making transfers taxable which increases gross expenditure and transfers by 2.0 per cent of GDP, taxes by 1.9 per cent of GDP.

Source: Ministry of Finance, *Budgetoversigt* (various issues).

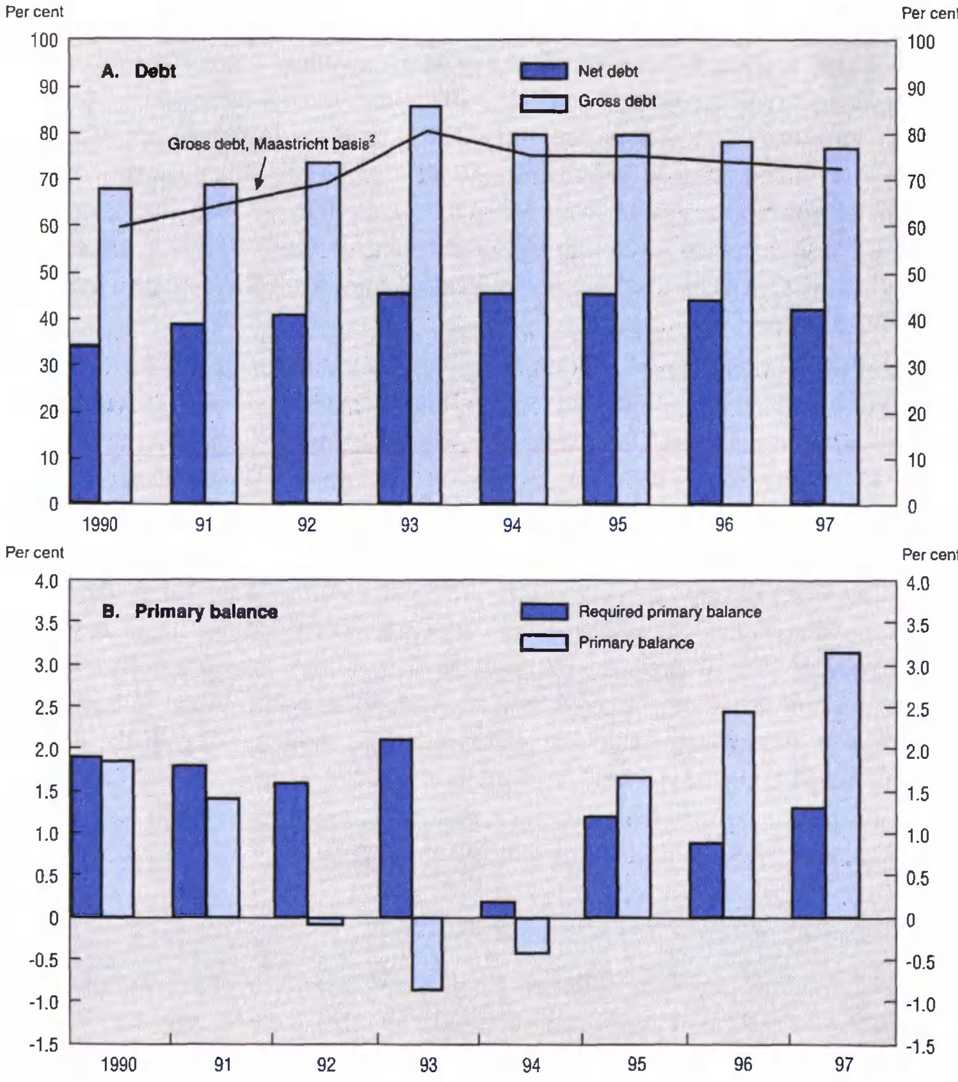
Figure 13. **GENERAL GOVERNMENT BUDGET BALANCES**[1]
Per cent of GDP



1. OECD estimates for 1995-97.
Source: OECD.

Figure 14. **GENERAL GOVERNMENT DEBT AND THE PRIMARY BALANCE**[1]

Per cent of GDP



1. OECD estimates for 1995-97.
2. Data are provided by the Commission of the European Communities for 1990 to 1994 and not adjusted for specific Danish institutional features. Estimates for 1995 to 1997 are derived by projecting forward in line with the OECD projection for general government financial balances and GDP.

Source: OECD.

that budgets should be in surplus over the economic cycle and Denmark has not yet reached this stage of financial consolidation.

Given a general government net debt/GDP ratio of around 46 per cent of GDP in 1994 (Figure 14, Panel A) net debt payments amount to more than 3½ per cent of GDP. At current GDP growth and interest-rate levels, a primary budget surplus close to 1¼ per cent of GDP is required to reduce net debt from its 1994-level and this condition is now in place (Panel B): the projections imply a primary surplus increasing from 1.7 per cent of GDP in 1995 to 3.2 per cent in 1997, with net debt declining to 42 per cent of GDP in 1997. Gross debt according to OECD definitions is projected to fall from 80 per cent of GDP in 1994 to 77 per cent in 1997.

Reflecting high government deposits with the central bank, claims on public enterprises and large holdings of private bonds, the gross debt has substantial counterparts on the asset side of the government balance sheet, leaving net debt some 35 per cent of GDP below gross debt. Also in the Danish case, the asset side might legitimately incorporate tax deferrals resulting from the build-up of occupational pension schemes.[29] These tax deferrals, calculated to have a net present value of close to 40 per cent of GDP, will stabilise when the occupational pension schemes no longer increase in coverage. On the other hand, the traditional presentation of government assets and liabilities may not fully disclose future commitments of the government. Unfunded occupational schemes for government employees, for example, represent a future liability in the area of 16 per cent of GDP. Moreover, no explicit allowance is made for the net present value of future government liabilities arising in the area of ordinary old-age pensions. An assessment of the ageing of the population is discussed below.

Medium and longer-term challenges

The framework for medium-term policy formulation recently presented by Danish authorities[30], is based upon an assumption that the economy will grow at an annual average rate of 2¾ per cent, with policies succeeding in eliminating the general government financial deficit in 1997, leading to a further improvement to a surplus of 1½ per cent of GDP in 2000, at which point the surplus is assumed to stabilise up to 2005. The growth rate is contingent upon bringing structural unemployment down to 5 per cent and, if fully implemented, the effect of the strategy would be a reduction in public expenditures relative to GDP of 13½ per cent over the period 1994-2005, while the revenue share should fall by 7 percentage points, of which 1½ percentage point relates to lower interest payments. This would result in a reduction in the government debt-to-GDP ratio by 25 percentage points. The projected improvement in public finances will, however, be harder to carry out if economic structures do not change, structural unemployment does not fall and the ambitions in welfare policy are retained.

Assessing the challenges posed by demographic developments, the Danish authorities have estimated that the net burden on public finances from transfers and services-in-kind to the elderly will increase by ½ percentage point of GDP from 1995 to 2005 and by another 3½ percentage points up to 2030, reaching a level of 15 per cent of GDP.[31] An increase in the effective retirement age from 61½ years to 63½ years would reduce the burden by 1½ per cent of GDP. A similar reduction could be achieved by an annual increase in productivity (reduced manpower requirements) in elderly care of 1 per cent. One reason for the relatively modest effect of the ageing of the population is the increasing resort to funded occupational pension schemes which is assumed to reduce the pressure on public transfer schemes. In parallel, the present negative effect on tax revenues arising from the deductibility of premium payments to such schemes, amounting to ½ per cent of GDP, should disappear as the schemes reach maturity. However, even with an increase in the effective retirement age, and allowing for the fact that the challenges posed by the ageing of the Danish population are modest compared with other countries, longer-term requirements make it advisable to implement a speedy reduction in government debt. Such an aim is embedded in the fiscal strategy adopted by the Danish government.

In determining the pace of further debt reduction, considerations of efficiency and equity come into play. Viewed in isolation, the profile of the expenditures related to the ageing of the population, requires no major adjustment of taxes and other expenditures to keep the public debt at a given level well into the next decade, but has then to be followed by a fairly strong increase in tax levels or cuts in expenditure up to 2030. A tax-smoothing argument, resting on the proposition that the welfare costs of raising taxes increases more than proportionately with the tax level, would then imply that taxes should be raised at the time the liability is accruing, rather than when it is discharged as pension payments. In effect, by reducing net debt in the short run, such a policy will make room for old age-related expenditure in the longer run by minimising net debt payments. Of more importance, however, is the effect on the intergenerational distribution arising from different profiles of debt reduction. The present high level of government debt is the result of more than 20 years of economic policy where government expenditure has not been adjusted to the prevailing tax level. The pace of debt reduction will decide to what extent that debt will repaid by those generations that incurred it or by future generations.[32]

III. The tax and transfer systems

Despite relatively sound public finances, the sustainability of the Danish welfare model has provoked recurrent public debate in Denmark. The share of the working-age population being wholly or partly dependent on public transfers has risen since the beginning of the 1970s and the financing of welfare-related spending has imposed on Danish households the highest level of taxation in the OECD area. While there is a firm public consensus in favour of a "universal" welfare model, the conjunction of high and expanding welfare spending and high taxation rates raises two issues. The first is one of sustainability: whether the increase in individuals' dependence on the public sector is in itself a result of the relative generosity of the system, and, if so, whether the rising trend can be expected to continue in the future. The second relates to efficiency, and the increasingly negative effects on private-sector incentive which can be expected if the tax and benefit burden is allowed to grow much further. In the light of these concerns, it would seem appropriate to reassess the instruments and the incentives built into the public tax and transfer systems. In particular, it may be necessary to assess the loss of economic efficiency incurred when pursuing an egalitarian strategy, and whether the current system minimises such efficiency losses.

The structure of this chapter is as follows. The first section assesses the motivation and overall design of the Danish tax and transfer systems. In the second section the main features of the system are described. In the third, its efficiency in meeting stated goals is analysed. The following section then discusses possible disincentive effects stemming from the tax and benefit structures and the final section provides an overall assessment.

The Danish welfare system: motivation and design

The basic ideas underlying the development of the "welfare state" in OECD countries in the first half of the century were twofold: that it was a

Table 11. **Public sector revenue and expenditure**[1]

Per cent of GDP at factor cost

	Denmark	Finland	France	Germany[2]	Netherlands	Norway	Sweden	United Kingdom	United States
Revenue									
Taxes on income, profits and capital gains	33.9	22.7	8.5	13.9	16.3	16.8	21.5	14.5	13.0
Personal[3]	30.6	20.7	6.8	12.2	12.9	13.1	20.2	11.5	10.7
Corporate[3]	1.9	2.0	1.7	1.7	3.4	3.7	1.4	3.0	2.3
Social security contributions	1.8	12.3	22.0	16.7	20.2	14.0	16.1	7.4	9.3
of which: Paid by employees	1.4	0.0	6.6	7.3	12.6	4.4	0.1	2.8	3.7
Taxes on property	2.3	1.2	2.6	1.2	1.9	1.6	2.0	3.1	3.6
Taxes on goods and services	18.5	16.7	13.3	11.7	13.4	19.4	14.8	14.0	5.4
Other taxes	0.5	0.1	3.1	0.0	0.3	0.4	1.4	1.7	0.0
Total taxes	57.1	52.9	49.5	43.5	52.0	52.2	56.0	40.8	31.3
Other revenue	9.3	7.2	3.0	..	7.7	8.5	10.4	3.0	2.7
Total revenue	66.4	60.1	52.5	46.1	59.7	60.7	66.4	43.8	33.9
Disbursements									
Final consumption expenditure	29.7	28.1	21.3	20.2	16.1	24.0	31.3	25.5	19.0
Interests and dividends	7.9	3.0	3.8	3.3	7.0	4.0	6.2	3.3	5.3
Subsidies	4.6	4.0	1.8	1.8	3.5	7.0	6.1	1.3	0.6
Other current transfers	25.6	29.2	28.2	24.7	34.7	24.2	28.5	18.4	14.4
Social security benefits	22.8	21.1	20.4	12.2	22.8	22.9	20.0	7.4	8.7
Social assistance grants	0.0	4.9	2.8	2.8	5.1	0.0	5.4	7.1	4.5
Other transfers n.e.c.	0.2	2.6	3.9	2.8	4.6	0.0	2.1	3.0	0.9
Transfers to the rest of the world	2.6	0.6	1.1	7.0	2.2	1.2	1.0	0.8	0.4
Total disbursements	67.9	64.3	55.2	50.0	61.3	59.2	72.2	48.5	39.4

1. In 1992. Norway 1991 disbursements.
2. All Germany for revenue. Western for disbursements and total revenue.
3. Excluding taxes not entirely allocable to either sector.

Source: OECD, *National Accounts*; OECD, *Tax and Revenue Statistics*.

responsibility of the state to alleviate absolute poverty by guaranteeing all residents a minimum standard of living; and that it should provide collective risk sharing against temporary or permanent income loss. The latter intention has been interpreted differently among the OECD countries, the "universal" welfare model of the Nordic countries providing the most extensive system of social insurance financed by the entire society. Other countries (*e.g.* Germany) have linked the availability and financing of such schemes more closely to individuals' participation on the labour market, or have adopted an approach based on means-testing of almost all benefits.[33]

The intentions of the Danish welfare system would seem, however, to go beyond these two notions, the success of welfare-related policies being assessed according to two additional criteria: that no individual should against his or her will be excluded from labour force participation; and no household should, on economic grounds, be excluded from full participation in social life. The high labour market participation of Danish women may thus be seen as a consequence of the welfare-related policies, insofar as providing relatively generous maternity benefits and publicly supported child care are necessary to fulfil the success criteria. The second criterion is embedded in the objective of combating *relative* poverty, whereby securing a more equitable income distribution becomes an independent objective of the Danish welfare state, aimed at preventing households from becoming socially marginalised because of a standard of living considerably below the average.

In pursuit of the above objectives, Danish public spending has reached almost 70 per cent of GDP, a proportion which is among the highest in the OECD area and comparable only to the other Nordic countries and the Netherlands (Table 11). In particular, the provision of public services is markedly above the international average, reflecting the public sector near-monopoly on children's day-care, health care, old people's homes and education. Social security grants and benefits transfers are also high, but not particularly so when compared with other North European countries. Income transfers to persons below ordinary pension age are almost twice the OECD average. An important reason for this is high unemployment rates, coupled with rather generous unemployment benefits. Also, the spending on early retirement is well above average, partly reflecting a deliberate use of such schemes to offer older workers the possibility of withdrawal from the labour force.

A further consequence of the strong emphasis on distribution and equity objectives is that the composition of general government revenue differs markedly from other OECD countries, in that Denmark is one of the few countries which collects more than half the total revenue through taxes on income and capital gains (Table 11). Moreover, the brunt of this taxation falls on households, corporate tax revenues as a share of GDP being close to average. Revenue from indirect taxes is also, nevertheless, among the highest in the OECD area. Social security contributions, by contrast, are at an internationally very low level, and almost exclusively paid by employees.[34] It can thus be concluded that the burden of financing the extensive public spending is to an internationally very high extent directly borne by private households, with a relatively low incidence on corporations.

The tax system: structure and progressivity

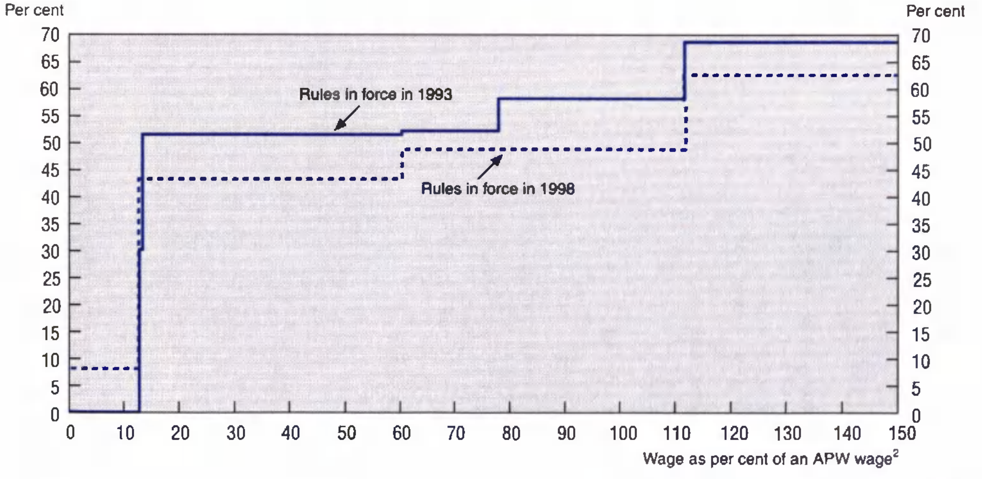
The reason for the extraordinary reliance on taxation of household income is largely historical,[35] but also to some extent linked with the universal nature of the Danish welfare system. Since the ambition is to provide social assistance and public pensions to all residents regardless of their labour market status, it would be politically difficult to finance the system other than via general taxation. In 1993, however, concerns about high marginal tax rates gave rise to a comprehensive reform of the tax system. The changes, which are being phased in gradually over the period 1994 to 1998, shift taxation from household income taxes toward "labour market contributions" (explained below) and environmentally related taxes, and widen the tax base of households and enterprises. These changes are estimated to be revenue-neutral but reduce taxes on personal incomes by around DKr 46 billion in 1993 prices (around 4½ per cent of GDP), of which almost half is recouped from the labour market contributions.[36]

Personal income-related taxes

Personal income such as wages, social transfers and fringe benefits are subject to strongly progressive central government taxes (from 8 to 29 per cent when the tax reform is fully implemented) and to local taxation (currently around 30 per cent), which is proportional except for the effect of a standard tax deduction. Taxes are calculated on the basis of "taxable income" which is, in principle, gross income minus taxpayers' expenses to obtain the income, such as transportation, work-clothes and – somewhat more disputably – trade union membership and contributions to private pension schemes. Generally, income above 14 per cent of the gross wage of an average production worker is subject to taxation. Interest payments are generally deductible at the lowest marginal tax rate of the income-tax system. Gross capital income is generally taxed at the same rate, including the imputed rent of owner-occupied housing.

The tax reform introduced "labour market contributions" to three newly established labour market funds, based on a flat-rate contribution (in 1998, 8 per cent of the gross wage). Since individuals acquire no specific rights to benefits from these funds, the labour market contributions are essentially payroll taxes. The contributions are deducted from gross income to calculate taxable income, whereby the after-tax contribution rate actually declines with increasing income. Moreover, since income from private pensions and net capital income are not subject to labour market contributions, the payroll tax has in itself helped to reduce the progression in the tax system and to promote a redistribution from

Figure 15. **MARGINAL TAX RATES FOR A WAGE EARNER**[1]



1. Include payroll-taxes and church taxes.
2. Based on 1993-wages with an average production worker (APW) wage of 215 000 DKr.
Source: Regeringen (1993).

Table 12. **An international comparison of tax rates**

	Denmark	Belgium	Finland	France	Germany	Netherlands	Norway	United Kingdom	Sweden
Personal income tax, single persons [1]									
66 per cent of APW income	42.4	27.1	28.4	24.2	31.9	40.0	25.5	21.3	25.0
100 per cent of APW income	47.0	35.3	35.0	27.2	36.4	46.4	28.8	25.6	28.0
133 per cent of APW income	51.6	39.8	39.2	29.7	39.3	46.1	33.1	27.7	31.5
Social security contributions [2]									
Paid by employee	2.6	13.1	7.1	18.4	18.3	29.3	7.8	7.6	1.0
Paid by employer	3.7	34.2	3.8	39.0 [3]	18.3	7.2	12.8	10.4	29.8
Business income taxation [4]	34.0	39.0	25.0	33.3	45.0	35.0	28.0	33.0	28.0
Consumption tax rates	33.7	16.5	27.8	15.4	19.0	18.2	33.5	17.6	23.3

1. 1992. Average tax as per cent of taxable income.
2. 1993. Per cent of gross wage.
3. Estimate based on National Accounts.
4. 1995. Highest marginal rate.

Source: OECD, *Tax and Benefit Position of Production Workers; National Accounts.*

wage earners toward pensioners in the short term. To offset these effects, the relative progression at the highest income tax brackets was actually increased by the tax reform (Figure 15).

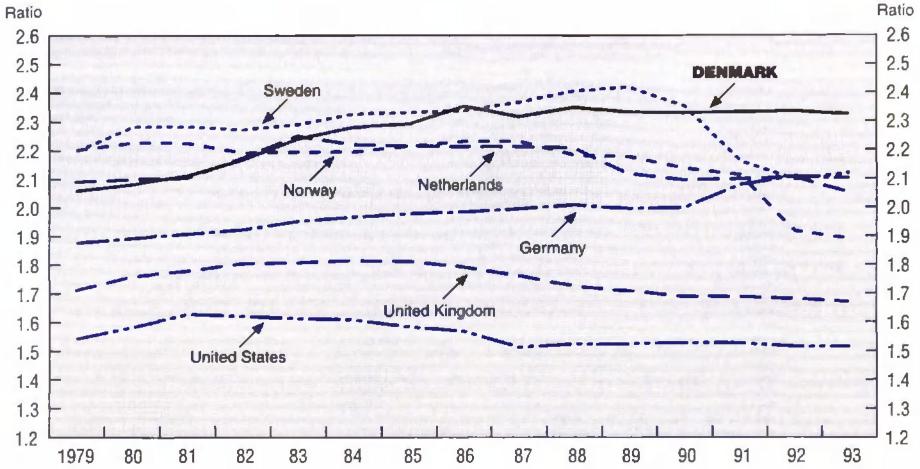
By international comparison, average tax rates on household income are very high. Moreover, in most countries, contributions to social insurance tend to be either proportional to wages or lump-sum, so that the Danish reliance on direct taxation as opposed to social insurance contributions can be said to raise the overall progression of the system. On the other hand, the progressivity of the income tax *per se*, as measured by the difference between the average tax-rates one-third above and below the average production-worker wage, is close to the north European average[37] (Table 12). The 1994 tax reform has, as mentioned above, lowered the marginal tax rates for all incomes, but has not significantly changed the relative progression.

Indirect taxes

Denmark also has one of the highest consumption tax rates in the OECD area, at around 34 per cent (Table 12). More than half the government revenue from indirect taxation derives from value-added taxes (VAT). Denmark, unlike most other OECD countries, has one general VAT rate which is applied to the purchase of virtually all goods and services.[38] The rate, at 25 per cent, is the highest in the OECD-area. Other important sources of public revenue are the so-called "poison taxes" – in principle motivated by public health considerations – on tobacco and alcoholic beverages, as well as the car-registration tax. The latter adds almost 200 per cent to the price of passenger cars and motorcycles.[39] Formerly high taxes on "luxury goods" such as household appliances and perfumes have, however, been abolished or lowered, partly as a consequence of the EU Single Market Act. Notwithstanding this, consumption tax rates remain relatively high (Table 12). Indeed, as noted above, the tax reform incorporates significant increases in the environmentally related "green" taxes. The three main elements are higher taxes on petrol and diesel fuel;[40] higher taxes on fossil fuels for room-heating and electricity; and the introduction of taxes on private households' polluting activities and use of resources. This includes taxes on waste disposal, water and shopping bags.

Due to the high direct and indirect taxes, the difference between the real after-tax wage paid to the employees and the real labour cost of the employer is

Figure 16. **AVERAGE TAX WEDGE FOR A PRODUCTION WORKER**[1]



1. Total labour costs divided by real take-home pay for an average production worker.
Source: OECD.

very large in Denmark. The tax-component of this "wedge" between real product wages for industry and the disposable real income of an average production worker is illustrated in Figure 16. During the fifteen years ending in 1993, Denmark moved from fourth rank to having the highest tax wedge in the OECD-area.[41] This is mainly due to the fact that, whereas some other North European countries have been able to reduce their tax wedges since the late 1980s, the Danish tax wedge remained virtually unchanged since 1986.

Generosity of the public transfer system

Social assistance transfers to households are normally divided into three groups: temporary income relief (unemployment benefits, cash assistance, health related benefits); permanent income relief (old age pensions, early retirement); and targeted schemes (allowances for children and housing costs, student grants). The first two categories are subject to taxation, whereas the third is generally

– with the exception of student grants – not treated as taxable income. Taxing transfers is considered more transparent than basing them on a universal net-of-tax equivalent.[42] It could, however, be argued that similar considerations should apply to the imputed value of public services to the households.

Compensation for temporary loss of income

All members of the labour force above the age of 18 (up to 1995, 16 years of age) can join the state-subsidised unemployment insurance (UI) funds, which – after an employment period of 52 weeks (formerly 26 weeks) within three years – entitle them to *unemployment benefits* immediately when entering into unemployment,[43] the first two benefit days being financed by the former employer. To remain entitled to UI benefits, individuals must be ''available to the labour market'' and report to the public employment service. Failing to accept a ''reasonable job offer'' results in one week's loss of benefit and can in case of repetition lead to exclusion by the UI fund. Moreover, contrary to the practice in most other OECD countries, self-employed persons also have access to unemployment benefits. Seventy-eight per cent of the labour force were members of UI funds in 1994, with 14 per cent being in receipt of benefits (Table 13). Members' contributions to UI funds would be sufficient to finance the outlays only if the average unemployment rate were less than 2 per cent. With present unemployment rates the state therefore finances 80 per cent of the UI benefits and carries the entire effect of fluctuations in unemployment.

A full-time employed person is, in principle, entitled to a replacement rate of 90 per cent of previous income on becoming unemployed, the statutory replacement rate being lower for part-time employed persons and for the newly educated. This is, however, subject to a monthly maximum of DKr 11 100 (1994) which is well below 90 per cent of the income of an average production worker, making for a replacement rate in this case of around 60 per cent (Table 13). Consequently, the replacement rates of the Danish UI benefits fall fairly strongly with rising incomes compared with other OECD countries.[44] The maximum benefit period is being reduced from seven to five years, and can no longer be extended through participation in the educational-leave scheme (treated in detail in Chapter IV). If benefit rights are exhausted, individuals will generally be

Table 13. **Generosity of public transfers and number of recipients**

	Monthly transfer as per cent of APWs gross wage income [1]	Number of recipients		
		As per cent of adult population [2]	Number of recipients as per cent of relevant age group [2]	Age group
Unemployment benefits (maximum)		14.3	17.9	18 to 67 years
Highest benefits	60.0			
Newly educated and transitory benefits	49.2			
Leave schemes	48.1			
Cash benefits [3, 4]		6.4	8.0	18 to 67 years
Providing for children	48.1			
Not providing for children	29.7			
Health-related benefits (maximum)		7.3	9.1	18 to 67 years
Sickness	60.0			
Maternity	60.0			
Ordinary retirement pension [3]		18.7	98.7	More than 67 years
Base amount	33.5			
Maximum singles	66.7			
Maximum others	48.2			
Early retirement pension [3]		6.9	8.6	18 to 67 years
High [5]	62.7			
Medium [5]	49.7			
Extended basic [5]	44.9			
Basic	40.0			
Early retirement benefits (maximum)		2.7	25.8	60 to 67 years
First tier	60.0			
Second tier	49.2			
Housing allowance (maximum) [6]		12.0	12.0	Adult population
Normal	11.9			
Households with more than 3 children	14.6			
Disabled persons	17.8			
Family allowance [6]		16.6	24.6	18 to 55 years
Per child 0-6 years	3.8			
Per child 7-17 years	3.0			
Child allowance [6]		2.8	4.1	18 to 55 years
First child	3.5			
Other children	1.9			
Student grant		5.3	21.9	18 to 30 years
Living alone	18.9			
Living with parents, etc.	10.8			
Memorandum item:				
Recipients of at least one type of social transfer [7]		57.8	47.7	Adult population 18 to 67 years

1. January 1994.
2. 1993.
3. Can be supplemented by tax-free allowances.
4. Excluding low benefits for certain persons under 23 years.
5. Part of the allowance is tax-free.
6. Tax-free allowance.
7. Number of persons receiving public transfers during 1993. Not including recipients of housing allowances, family and child allowance and student grants.

Source: Plovsing (1994). *Statistics Denmark*; OECD.

eligible for means-tested cash benefits, which are also available to persons not enrolled in the UI system.

Cash benefits, which are administered by local authorities, are available to unemployed persons from households with an income and wealth below certain thresholds, provided they remain available to the labour market. This means that, unlike some other OECD countries, persons who are active in the labour market but earn less than the minimum cash benefits – a group mainly comprising students and self-employed persons – are not entitled to additional benefits. Recently, the rules on cash benefits for young people were tightened to arrest a perceived abuse of the system by young people waiting to enter tertiary education. Local authorities now demand acceptance of job or education offers by benefit seekers younger than 25 years within the first three months after granting the benefits.[45] Thus, cash benefits are presently received to a large extent by unemployed persons not entitled to UI benefits.

To encourage unemployed persons to remain available to the labour market, cash benefits have been fixed at 80 per cent of the maximum UI benefits for persons with dependent children and 60 per cent for others (Table 13). However, persons with previous earnings close to the minimum wage on the manual labour market – and thus not entitled to maximum UI benefits – experience virtually no economic loss from transferring from the UI to cash benefits. Also, if a married couple both qualify for cash benefits they each receive 80 per cent of the maximum UI benefits. Since cash benefits are, in principle, only granted when other sources of income are exhausted, cash benefits are reduced by the amount of any additional household income.[46] Thus, recipients of cash benefits have limited economic incentive to accept part-time employment.

Persons on *sickness leave and maternity leave* receive a compensation equivalent to the UI benefit (Table 13). Women are allowed to take up to 24 weeks of maternity leave after giving birth, as well as four weeks prior to the estimated birth time.[47] The length of the maternity leave is quite high by OECD standards, whereas the replacement rate is not extraordinarily high. Sickness benefits are available to self-employed persons and employees not contractually entitled to a wage during illness.[48] The benefit period starts on the first day of absence and can be maintained for up to 52 weeks, the first two benefit weeks being financed by the employer. After losing sickness benefit rights a person will typically transfer to either social assistance or an early retirement pension.

The pension system

Ordinary *social pensions* are available to all persons who are at least 67 years old.[49] The monthly base amount – currently set at 33.5 per cent of the maximum unemployment benefit level (Table 13) – is independent both of wealth and past income, but is subject to means-testing for persons who retain gainful employment. Means-tested additional social pensions are also available, equivalent to approximately half the base amount for married persons and 100 per cent for single persons. Pensioners' households are further assisted through the concessionary tax-treatment of imputed rent on owner-occupied housing. In addition, several means-tested allowances are available to such households, most importantly a rather generous housing allowance. Further "personal allowances" cover extraordinary heating costs, medicine costs, eye-glasses and hearing aids – all subject to means testing. In 1994, means-tested allowances added almost 20 per cent to an average pensioners' households gross income, of which 15 per cent was due to housing allowances.

The *early retirement pension* scheme includes persons who for health or social reasons are not able to participate in the labour market. The scheme thus includes persons who would receive invalidity pensions in most other OECD countries. Persons between 18 and 59 years who are unable to work for health reasons qualify for high, medium or extended basic pension (Table 13) according to the loss of work ability. Persons between 50 and 59 years of age may be granted extended basic pensions on social grounds whereas persons between 60 and 67 years of age may receive only the basic early pension whatever the formal reason for their retirement. The most common reason for granting an early retirement pension on social grounds is that the spouse of the pension-seeker has already been granted an ordinary social pension. In 1993 14 per cent of all Danes between 55 and 59 years and 19 per cent between 60 and 67 year received early retirement pension.

Persons over 60 years old who have been members of a UI fund for 20 years and who wish to withdraw from the labour market are entitled to *early retirement benefits*. Persons entering the scheme when they are older than 63 years are entitled to full UI benefits until they reach full retirement age. Others eventually receive 82 per cent of UI benefits. The scheme has been very popular since its inception in 1979, around a third of all persons between 60 and 67 years receiving early retirement benefits in 1993.

To curb the problem of long-term unemployment among older cohorts in the labour market, *transitory benefits* have been offered to persons between 50 and 59 years old who are members of a UI fund and have been unemployed for more than a year.[50] These benefits were intended as a temporary measure and the right to claim new transitory benefits expired in early 1996. Persons on transitory benefits received 82 per cent of UI benefits. In October 1995 around 30 000 persons – 1 per cent of the labour force – received transitory benefits.

Transfers linked to household circumstances

Households with particularly low incomes – generally recipients of cash benefits and persons receiving UI benefits – and high housing costs or large families have access to additional *tax-free housing allowances*. The difference between the actual monthly housing costs and an annually fixed threshold[51] is paid by the general government, subject to the limitation that the allowance may not exceed the maximum amounts stated in Table 13. These allowances are a major reason for occasionally very high replacement rates for low-income earners.

In addition, two tax-free *family allowances* are available to households with children, neither of which is subject to means-testing.

- The *family allowance* is automatically given to households with children (Table 13).
- *Child allowances* are generally available to single parents, but can also be granted according to "household related specifics". The most common allowances are listed in Table 13, but supplementary allowances can be granted.

Subsidised day care for children is in principle open to all households. Currently, households with children in local authorities' day-care institutions are required to pay a standard price of only 30 per cent of the actual costs involved. Households with more than one child are granted a further discount. Moreover, households with particularly low incomes have access to further subsidisation. Presently, persons earning less than one third of an average production worker's (APW) wage[52] pay nothing for daycare, and only households earning more than 80 per cent of an APW wage pay the full standard price. This subsidy is particularly important for unemployed single parents – who generally keep their children in day-care in order to remain available to the labour market.

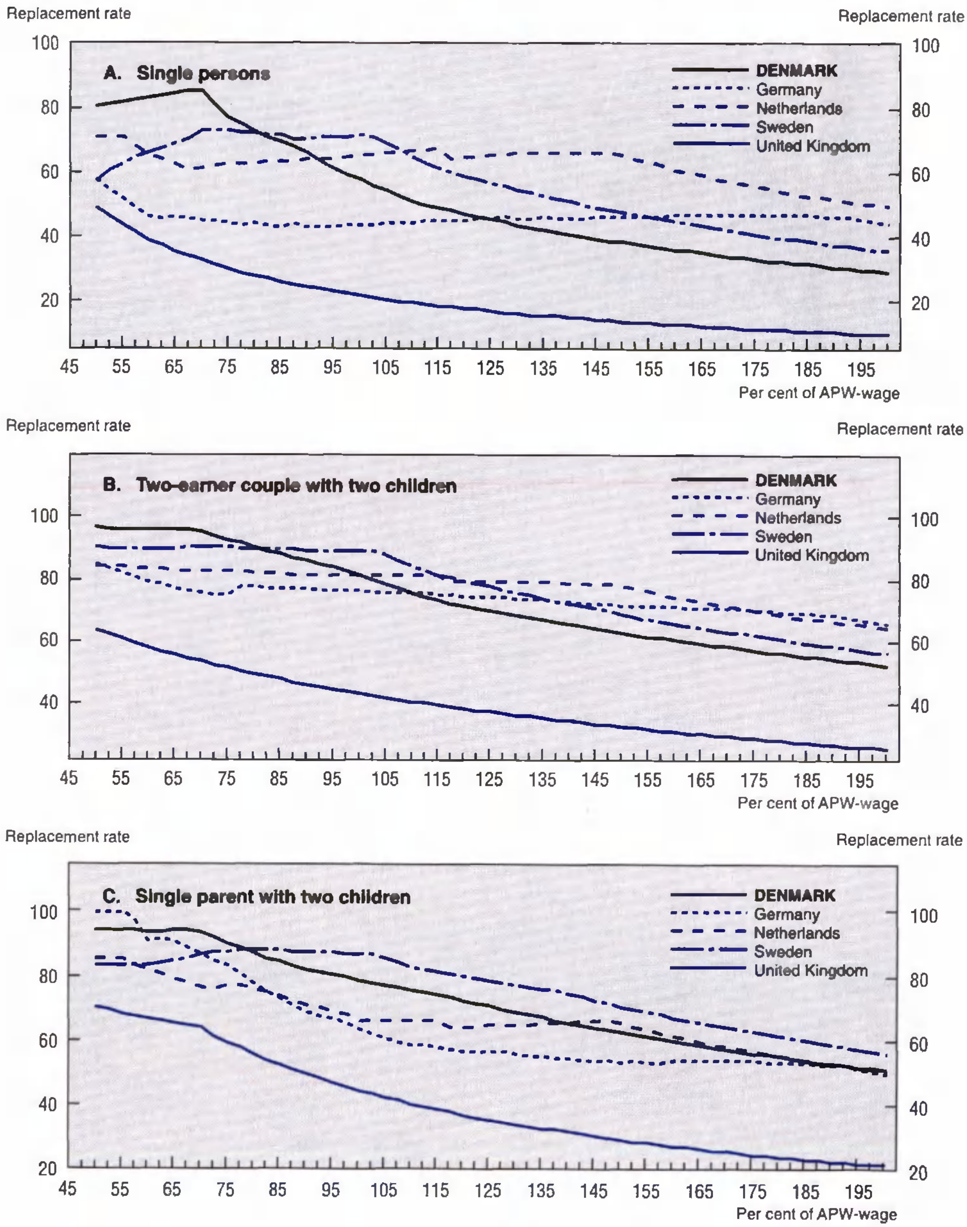
Overall net generosity of social benefits

Based on the rules in force in 1994, Figure 17 shows that the net replacement rates in the Danish UI system are comparatively high for single persons with low previous earnings. However, UI replacement rates fall as incomes rise, single persons earning a third more than the average production worker wage, recording a net replacement rate below 35 per cent. For married couples with children, moreover, the UI benefits are not particularly generous by international comparison, reflecting *inter alia* the absence of many of the means-tested child benefits and child allowances common in some other countries.

Due to the possibility of combining cash benefits with tax-free housing allowances, households with high housing costs and several children can obtain a total "social assistance" – means tested benefits other than pensions – much above the maximum UI benefits. Such a difference is possible since Denmark – unlike most other OECD countries other than Sweden – generally does not allow topping-up of low wages and UI benefits. The only restriction on total social assistance previously in force was that it might not exceed 90 per cent of a household's previous earnings. As of recently, in response to widely publicised examples of extraordinarily high benefits, the period during which total social assistance payments – excluding child-related allowances – may exceed maximum UI benefits has been limited to one year with effect from 1996.

During the first year of unemployment, couples with children and wages below the APW level generally have replacement rates of more than 100 per cent (Figure 18). If it is furthermore assumed that couples with one unemployed person do not have their children in day-care, it becomes clear that low-income couples with children have very weak immediate work incentives in Denmark. In rarer cases, such as a two-earner couple not having their children in day care while the main income-earner is unemployed, the possibility to earn more on the labour market than on income-support requires wages exceeding 150 per cent of the APW level (Table 14). On the other hand, single parents, who are usually assumed to be a group with weak work-incentives, have net replacement rates below 100 per cent throughout the wage scale. This reflects the rather generous

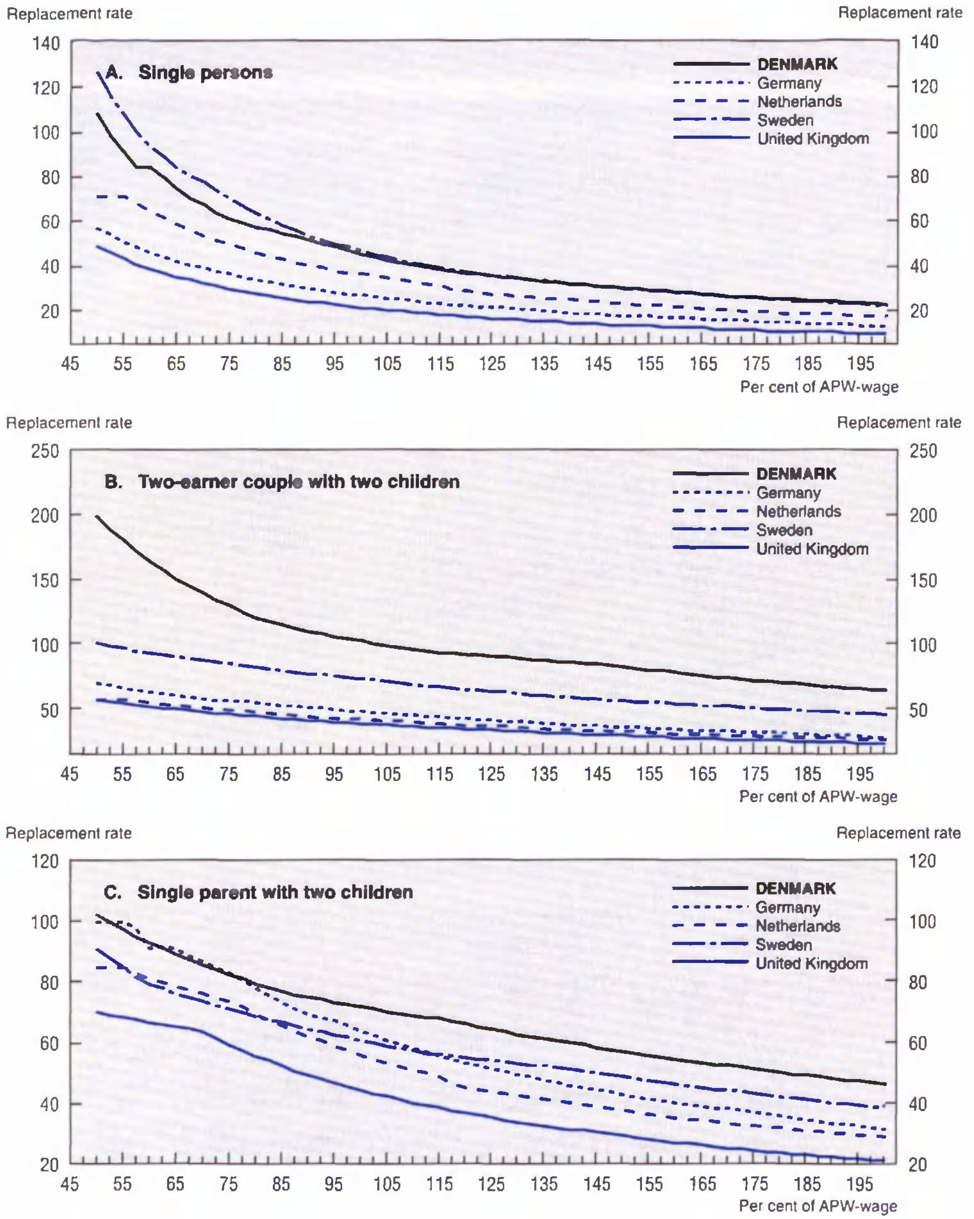
Figure 17. **NET REPLACEMENT RATES FOR UI BENEFITS**[1]



1. Based on rules in force in 1994.

Source: Ministry of Economic Affairs.

Figure 18. **NET REPLACEMENT RATES FOR SOCIAL ASSISTANCE**[1]



1. Based on rules in force in 1994 and for the first year of unemployment.
Source: Ministry of Economic Affairs.

Table 14. **Net replacement rates for households with two children**[1]

Family income as per cent of APW income	**Denmark**		Finland		Netherlands		Sweden	
	UI benefits	Social assistance	UI benefits	Social assistance	UI benefits	Social assistance	UI benefits	Social assistance
	Single parent family							
50	97	105	92	75	94	93	90	104
67.5	104	96	89	67	89	88	93	87
75	102	93	88	65	89	85	96	83
100	94	86	90	63	79	67	97	72
150	72	66	81	53	81	47	79	58
200	58	52	68	43	64	37	63	46
	Two earner couple[2]							
100	120	130	100	87	99	68	102	123
117.5	116	115	96	80	100	63	102	108
125	111	109	95	78	100	59	102	103
150	95	93	93	73	100	52	100	89
200	71	69	78	59	97	40	77	68

1. 1994. Assuming no day care when receiving benefits.
2. Assuming spouse works half-time, earning 50 per cent of an APW wage.
Source: Ministry of Economic Affairs (1995).

general child allowances given to single parents in Denmark and some other OECD-countries.

Does the system achieve the goals of the welfare state?

This section considers whether the extensive and complex system of transfers to and taxation of households is effective in fighting poverty and achieving a significant re-distribution of income. A further consideration is whether the actual re-distribution is "efficient" – *i.e.* is achieved at a minimum cost to other parts of the economy. In this context, a particularly important consideration is to what extent gross transfers and taxes fall on the same households and thus tend to drive up taxes and public spending without affecting the economic distribution.

Combating poverty and inequality

Measuring *absolute* poverty levels is notoriously difficult. Studies of developing countries suggest linking "poverty" to the maintenance of subsistence

Table 15. **Measures of relative poverty**

Population below 50 per cent of median income

	Before taxes and transfers				After taxes and transfers				Change in LIR	Change in ALG	Change in Gini (poor)	Change in Sen index
	Low income rate (LIR)	Low income gap (ALG)	Gini (poor) (GP)	Sen Index*100	Low income rate (LIR)	Low income gap (ALG)	Gini (poor) (GP)	Sen Index*100	Percentage change			
Australia	17.6	57.0	0.4361	13.33	15.7	30.7	0.1952	6.94	–10.80	–46.14	–55.24	–47.94
Austria	..	..	..	..	6.2	24.0	0.1187	2.05	..	..	..	..
Belgium	22.7	26.6	0.1619	8.74	5.4	25.0	0.1748	2.06	–76.21	–6.02	7.97	–76.43
Canada	19.0	46.5	0.3141	12.03	15.4	33.2	0.1890	7.05	–18.95	–28.60	–39.83	–41.40
Denmark[1]	**20.2**	**53.9**	**0.4034**	**14.63**	**5.7**	**38.5**	**0.2714**	**3.14**	**–71.82**	**–28.70**	**–32.72**	**–78.56**
France	20.6	37.1	0.2466	10.84	8.9	33.3	0.2185	4.26	–56.80	–10.24	–11.39	–60.70
Germany	12.4	59.5	0.4837	9.80	8.5	23.2	0.1340	2.84	–31.45	–61.01	72.30	–71.02
Ireland	26.3	57.1	0.4227	19.79	15.7	24.9	0.1730	5.94	–40.30	–56.39	–59.07	–69.98
Italy	..	..	..	..	10.1	27.3	0.1616	3.94	..	..	..	..
Luxembourg	..	..	..	..	4.5	22.4	0.1513	1.54	..	..	..	..
Netherlands	18.9	45.8	0.2965	11.70	4.7	28.8	0.1971	2.01	–75.13	–37.12	–33.52	–82.82
Norway	..	..	..	..	7.8	35.5	0.2292	3.93	..	..	..	..
Sweden	18.4	54.4	0.3865	13.25	12.1	41.0	0.2485	6.74	–34.24	–24.63	–35.71	–49.13
United Kingdom	24.0	57.1	0.4526	18.37	12.4	27.6	0.1907	5.13	–48.33	–51.66	–57.87	–72.07
United States	19.4	49.3	0.3484	12.99	18.7	39.5	0.2326	10.02	–3.61	–19.88	–33.24	–22.86
Average[2]	19.9	49.0	0.3549	13.08	10.3	30.7	0.1953	4.5	–40.70	–37.35	–44.97	–59.48

Key: Low income rate: share of persons living in families with income below 50 per cent of median income (per cent).
Low income gap: average difference in income (over the poor population) relative to the poverty limit, as a ratio of the poverty limit (per cent).
Gini coefficient: average deviation (within the poor population) from equal income distribution.
Sen index: LIR * (ALG + (1 – ALG) * GP). The values of the index lie between 0 and 1, with no poverty where Sen = 0, and rising income inequality as the index approaches 1.

1. The figures for Denmark are calculated on the basis of register data on yearly data and the demographic status at the end of that period. The register data cover the whole population. This methodology is likely to bias Danish figures upwards compared with other countries, particularly regarding the low income gap and the Gini index for the poor.
2. Excluding Denmark.

Source: Förster (1994), Ministry of Economic Affairs.

incomes – a concept which is clearly not relevant when applied to most OECD economies. Instead, *relative* poverty measures are normally used to indicate the poverty problem of individual societies, based on individuals' or households' deviation from median income and expenditure. This method of measuring poverty seems particularly appropriate when assessing the Danish system, where the objective is to avoid the situation where individuals, due to their income, are unable to participate fully in society. This is, by implication, targeting relative poverty. By applying this relative approach, however, any country with an uneven income distribution is liable to be characterised as having a poverty problem.

Table 15, which arbitrarily assumes that all households with an average personal income below 50 per cent of the national median are poor, shows that before taxes and transfers the distribution of Danish incomes is not particularly even. This finding, which runs somewhat contrary to the general perception, is based on the observation that 20 per cent of persons have incomes below 50 per cent of the median income as measured by pre-tax income distribution. However, after correcting for taxes and transfers most measures of income inequality are among the lowest of the countries included in the table. Thus, by implication, the re-distributional effects of the Danish tax and transfer system are very strong by international comparison. The reduction in relative poverty due to the tax and transfer system is especially significant for households with children (see Annex I). Single parent households, considered as a problem in many OECD countries, record virtually no relative poverty in Denmark.[53]

A study by the Ministry of Finance[54] sheds some light on the re-distributional effect of individual components of the tax and transfer system while additionally including the effect of public consumption on distribution (Table 16). Transfers, in particular, affect the income distribution by considerably increasing the income of the lowest quintile of the income earners. Direct taxes, on the other hand, have a comparatively limited effect, due to the rather flat income distribution when transfers are taken into account. Contrary to other elements of the system, indirect taxes tend to change the income distribution in favour of higher incomes, reflecting the higher propensity to consume among low-income earners. Public services are consumed in almost the same absolute amount across the income intervals, albeit with a larger weight of education provision to high-earners and of subsidised child-care to low-earners. Accord-

Table 16. **Public sector effect on income distribution**[1]

Index of average household factor income per person (average for all income earners = 100)

	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile
Factor income	31.6	75.7	98.6	121.5	172.5
Plus capital income	32.9	75.8	97.8	120.3	173.2
Plus transfers	56.8	78.1	94.3	111.7	159.1
Minus direct taxes	62.5	78.9	93.8	110.5	154.2
Minus indirect taxes	58.7	77.0	93.8	109.0	161.5
Plus public services	67.3	79.9	93.4	108.6	150.8

1. 1987.

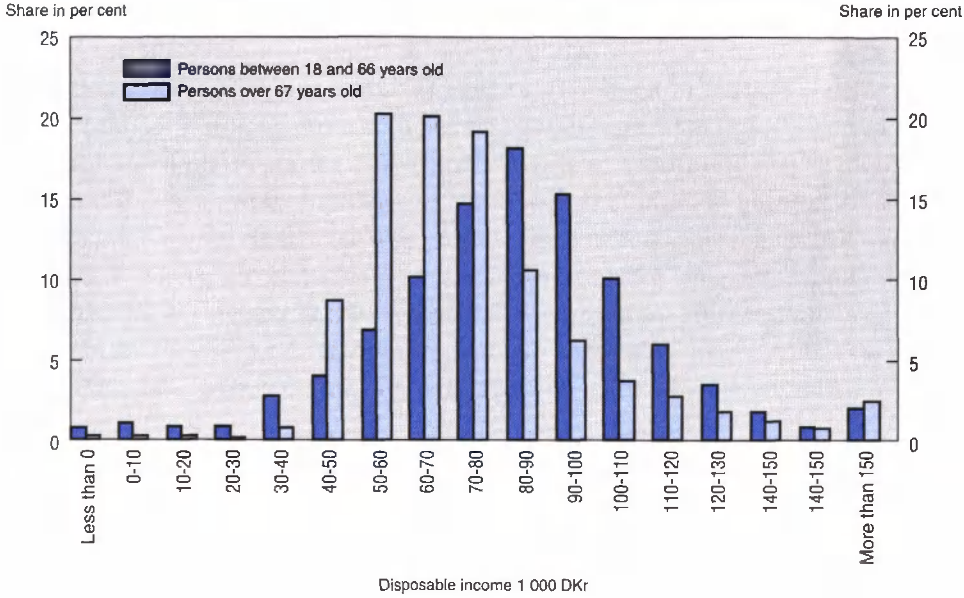
Source: Ministry of Finance.

ingly, public services can be said to contribute further to re-distribute relative income.

A question occasionally raised in Danish public debate is whether a real poverty problem persists among old-age pensioners. According to recent studies[55] the disposable income of a typical old-age pensioner is around a quarter less than the median of the working-age persons, and few pensioners fall below the 50 per cent poverty threshold (Figure 19). Around half of pensioners' gross income derives from the ordinary retirement pension, with an additional 22 per cent from other private pension schemes, for the present mainly available to the better-off part of the population but, over the next generation, pension schemes will be increasingly available to a large part of the population as a result of labour-market pensioning schemes negotiated between the social partners. In addition to the relatively favourable income position of retired persons, the net financial wealth of an old-age pensioner is more than twice the average for the working-age population. Since, moreover, old-age pensioners are exempt from a wide range of expenses incurred by the working age population – such as child-rearing, costs connected with the acquisition of a home, commuting costs – it can be concluded that the financial situation of an average old-age pensioner is rather advantageous.

When taxes and transfers are taken into account, around 6 per cent of the non-aged population remain below the poverty level. A recent study[56] shows that almost half of these persons are either students living on a combination of government grants and loans or self-employed persons with temporarily low

Figure 19. **DISTRIBUTION OF DISPOSABLE INCOME**[1]



1. In 1990.
Source: Socialkommissionen (1993*b*).

incomes, none of whom could properly be considered as poor. Further, 15 per cent of the persons below the poverty level were residents of nursing-homes, who at the time of the study received considerable free-of-charge public services not registered as income.[57] Only 1.2 per cent of all wage-earner households could, according to this study, be characterised as ''poor''. As an alternative to the relative poverty approach the Ministry of Social Affairs[58] measures the number of ''social outcasts'' – persons who for reasons not necessarily related to personal finances are unable to participate in social life. Close to 1 per cent of the adult population fall into this category, mainly alcoholics, drug abusers and mentally ill persons. There is little scope for improving the living conditions of these persons through the tax and transfer system, although they could arguably be helped via health-related public consumption.

Redistributing life-time income

Measures of income distribution over a cross-section of the population need to be supplemented by information on the distribution of life-time income in order to take account of temporary losses of income and periods of low income when human capital is being built up. Financial markets permit a reallocation of household expenditure over time to reflect individual expectations of life-time income. Analysing household or individual expenditure allows such efforts to be incorporated and using this method, a recent study finds that Denmark has unambiguously the smallest relative poverty problem in the EU area[59] (Table 17). This result obtains irrespective of whether poverty is defined as expenditures below 40, 50 or 60 per cent of the national average. It also holds for segments of the population such as families with children and single person households.

As regards the nature of the distribution and redistribution behind this equality, a 1991 study,[60] based on calculated life-time incomes through working-

Table 17. **Expenditure-based measures of household poverty**[1]

	Average expenditure per equivalent adult	Expenditure		
		Less than 40 per cent of average	Less than 50 per cent of average	Less than 60 per cent of average
	ECUs[2]	Per cent		
Belgium	12 007	1.7	6.6	14.1
Denmark[3]	**11 324**	**1.4**	**4.2**	**13.3**
France[4]	13 966	7.5	14.9	24.5
Germany	13 771	5.3	12.0	21.2
Greece	10 593	13.0	20.8	29.8
Ireland[3]	10 202	7.9	16.4	26.9
Italy	12 210	12.5	22.0	32.2
Luxembourg[3]	18 920	3.7	9.2	17.2
Netherlands	12 984	1.9	6.2	13.9
Portugal[4]	8 546	17.3	26.5	35.2
Spain	10 341	9.3	17.5	27.1
United Kingdom	14 018	7.4	17.0	28.0

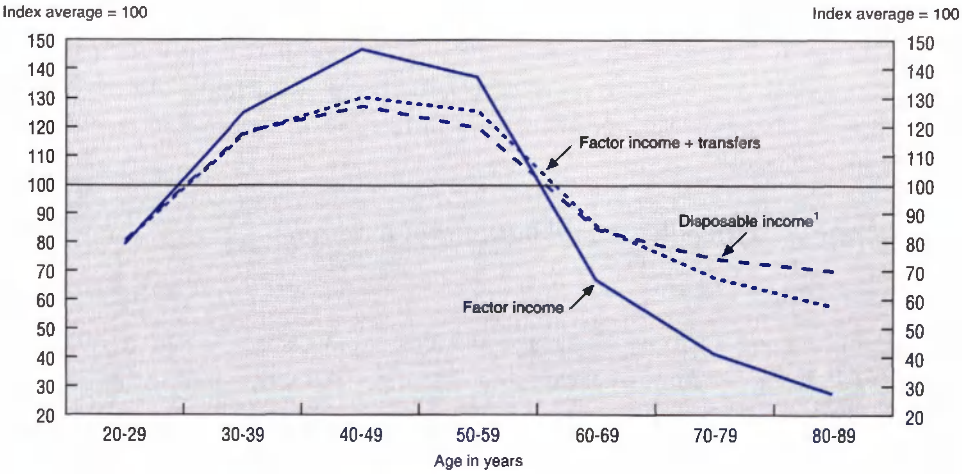
1. Poverty is defined as an annual expenditure below 40, 50 and 60 per cent of the national arithmetic average, respectively. Figures relate to 1988 unless otherwise stated. The first person in a household is given a weight 1; further persons over 14 years of age are given a weight 0.5; and persons under 14 years of age are given a weight 0.3.
2. Converted by 1988 PPP-based weights. Due to differences between the treatment of publicly subsidised services, direct comparison of average expenditure between the countries is difficult.
3. Figures relate to 1987.
4. Figures relate to 1989.

Source: Eurostat (1994).

age, concluded that much of the redistribution among households relates to transfers from persons in mid-life toward young and elderly households – a finding confirmed by Figure 20. Although among individuals of working age, the tax and transfer system does, indeed, redistribute income away from the highest educated – and thus, by implication, the best-paid – wage and salary earners, the effect is almost fully offset by a higher unemployment risk among the lower educated (Table 18).[61] Overall, however, the relative income of the unskilled employees does improve somewhat due to the tax and transfer system. But, comparing potential factor income with disposable income, it appears that the resulting redistribution does little more than make up for a higher unemployment risk and a higher – not necessarily voluntary – occurrence of early withdrawal from the labour market.

The redistributional effects of the tax and benefit systems thus principally reflect relatively generous tax-financed early retirement schemes and allowances to families with children. This might indicate that to a considerable extent the welfare system redistributes income within the life-cycle of given individuals

Figure 20. **PERSONAL INCOME BY AGE**
1993



1. Factor income plus transfers less direct taxes.
Source: Ministry of Economic Affairs.

Table 18. **Life-time incomes by education group**[1]

Index, average = 100

	Potential factor income[2]	Actual factor income[3]	Factor income plus transfers	Disposable income
No formal education	88	81	87	91
Vocational training	99	109	105	104
Short tertiary education	98	119	113	108
Medium tertiary education	121	141	131	120
Long tertiary education	149	169	156	135

1. 1988. Persons 18 to 67 years old. Excluding entrepreneurial income.
2. Assuming that individuals are fully employed through their working age except for participation in formal education.
3. Taking into account the different probabilities of unemployment and early withdrawal from the labour market.

Source: Det Økonomiske Råd (1991).

rather than between individuals. To the extent that this reflects, for example, a higher unemployment propensity in the early years, it can be seen as a consequence of the ''effective risk-sharing'' which is embedded in the definition of a welfare state. But to the extent that the effect of taxing mid-life households is to provide these same households with spending power at times in their life-cycle when their income is restricted, it is debatable how much the government is achieving that could not be achieved by individuals undertaking the risk insurances themselves. Indeed, it could be argued that financial burdens connected with retirement in particular, are foreseeable and, with increasingly sophisticated capital markets, could be borne, at least partially, by households directly. However, private insurance schemes could not in general be expected to take care of the financially weak.

Distributional efficiency in spending and taxation

Spending

Public transfers to working-age persons would seem to be a relatively efficient – in the sense of well-targeted – tool for redistributing income toward poorer households, insofar as close to 60 per cent of total transfers are paid to households with an average income below the median even after receiving the transfer (Table 19). On the other hand, reflecting the fact that couples with incomes considered as sufficient are more likely to have several children, family

Table 19. **Distribution of public transfers by household disposable income**[1]

Income: per cent of median

	Less than 33 per cent	33 to 67 per cent	67 to 100 per cent	100 to 133 per cent	More than 133 per cent
UI benefits	1.7	7.1	53.5	34.0	3.7
Cash benefits	1.3	14.3	40.3	28.6	15.6
Early retirement pension	1.3	8.8	39.6	39.6	10.7
Early retirement benefits	0.0	13.4	63.4	20.7	2.4
Illness and maternity	1.1	7.5	40.9	41.9	8.6
Family allowance	1.4	7.0	29.6	45.1	16.9
Housing allowance	0.0	4.3	21.7	56.5	17.4
Total	1.6	11.3	44.6	34.0	8.4

1. 1989. Household disposable income is per adult household member, including transfers received.
Source: Socialkommissionen (1992*a*).

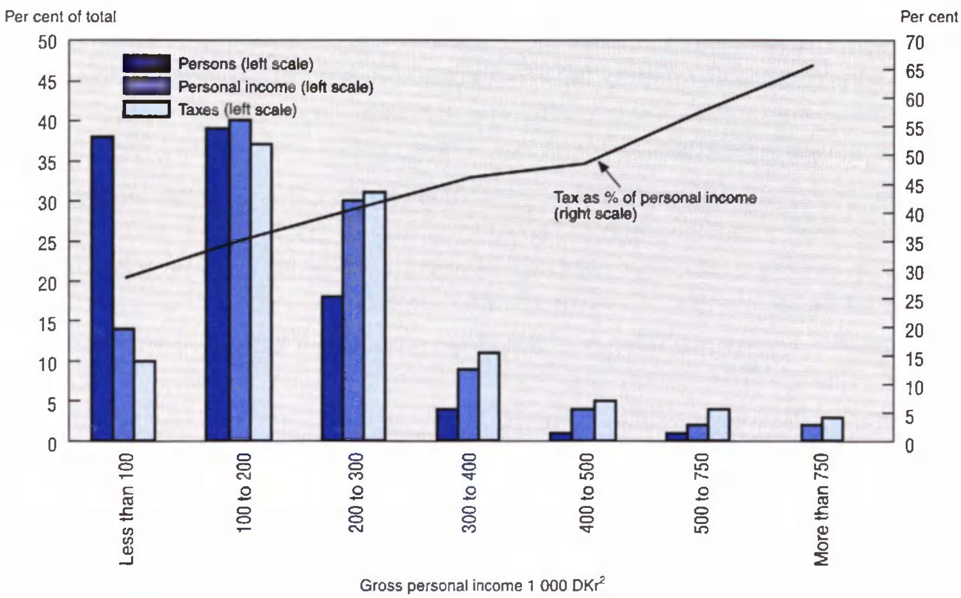
and housing allowances are mainly received by persons with an above-median disposable income. The high share of social assistance recipients among households earning more than a third above the median disposable income may also seem surprising, and reflects the generous additional social assistance in force until the new ceiling comes into effect in 1996, limiting such payments to 80 per cent of maximum UI benefits.

Furthermore, although public consumption does contribute modestly to redistribution among households, some elements of public consumption favour the better-off. Free education, in particular, seems to provide an implicit subsidy to higher income earners. A recent study demonstrates that 52 per cent of the children of parents with tertiary education complete tertiary education themselves, compared with 20 per cent for skilled workers and 8 per cent for unskilled workers.[62] In addition, public provision or subsidisation of cultural services contain an element of transfer towards better-off households, although the budgetary impact is not considerable. A recent study shows that the use of cultural facilities such as theatres, museums and libraries is significantly higher than average among high-earning households and pensioners. Moreover, in view of the relatively comfortable financial position of old-age pensioners, the provision of subsidised services to this group – such as cheap transportation and recreational offers – would seem to be based on policy choices going well beyond pure redistribution toward the poor.

Taxation

As the previous section demonstrated, the statutory progression of the Danish tax-system is comparatively steep. However, the possibility of reducing taxation by incurring debt, particularly related to the purchase of a home, or by contributing to private pension plans increases with increasing household income and this tends to reduce the effective progression. Effective tax rates are still progressive (Figure 21), but with little increase at the bottom and the middle of the income distribution due, *inter alia*, to the narrow distribution of income and the effects of taxation of married couples. Persons with an income of two-thirds of an APW wage paid an average 35 per cent of their income in tax in 1994, compared with 43 per cent for persons earning 150 per cent of an APW wage.[63] In the top income brackets, however, considerable tax-progression remains, and it

Figure 21. **WHO PAYS THE TAXES?**[1]



1. 1991. Includes income and wealth taxes and labour market contributions. Persons, personal income and taxes in per cent of national total.
2. The APW-wage amounted to 209 000 DKr.

Source: Ministry of Taxation (1994).

is thus safe to conclude that the redistributive effect of the Danish income and wealth tax system is primarily related to the curbing of high incomes.

Nevertheless, reflecting the comparatively even distribution of personal income and wealth, the amount of tax revenue generated by taxing the well-off more heavily than other income groups is not substantial (Figure 21). In 1994, the highest marginal income tax-rate was paid by 14 per cent of tax-payers, and wealth tax only by 1 per cent. Conversely, the major part of the income taxes are collected from persons close to average incomes. In 1994, an estimated 25 per cent of all income and wealth taxes were paid by persons earning less than 66 per cent of an APW wage, and 50 per cent by persons earning less than 100 per cent.[64]

Economic effects of taxes and transfers

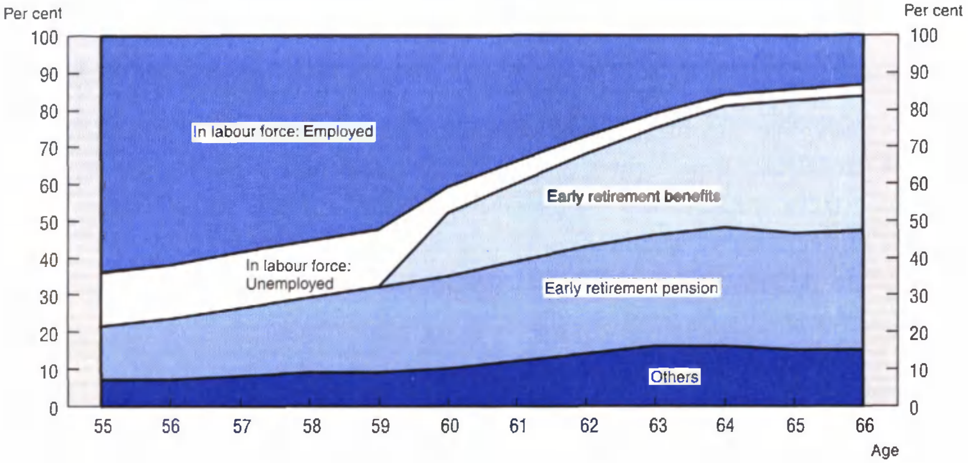
The labour market

Labour supply: participation rates

The Danish tax and benefit systems offer strong economic incentives for persons aged 18 to 55 years to enter and remain in the labour force. Generous unemployment benefits, long benefit periods and the explicit linkage between labour market participation and social assistance to younger persons have counteracted the "discouraged worker" effect visible in other OECD-countries, where unsuccessful job-seekers after a period tend to withdraw from the labour market.[65] Also, the government subsidisation of day-care for children has probably been instrumental in encouraging two-income families to remain in the labour force. Moreover, the high tax-burden has made it difficult to sustain a family on one income close to the APW wage. Non-participation in the labour force among the younger cohorts is usually linked to education or, more rarely, early retirement due to disability. In 1989, only 7 per cent of the women and 2 per cent of the men aged between 18 and 59 years received no significant personal income.

On the other hand, the easy access to paid early withdrawal from the labour force has also limited labour supply in certain segments of the population. In particular, the early retirement benefits, to which persons with a certain labour market record are unconditionally entitled (see description above), have gained huge popularity since they were introduced in 1979 (Figure 22). The motivation

Figure 22. **PERSONS AGED 55 TO 66 YEARS BY LABOUR MARKET POSITION**[1]



1. In 1990.

Source: Socialkommissionen (1993*b*).

behind this scheme was to re-distribute jobs from older members of the labour force to young unemployed persons. However, given the uptake of the scheme among previously employed persons, it would be difficult to reject the proposition that it has contributed to limiting the effective labour supply. Also the early retirement (disability) pension system would seem to have absorbed some persons who would otherwise have remained in the labour force, albeit on a much smaller scale. This concerns mainly women with older husbands already receiving ordinary retirement pensions, who, as noted, are frequently granted early retirement pensions on ''social grounds'' in the case of low family income.

Willingness to work

Persons formally participating in the labour force do not necessarily have economic incentives to work or to be actively job-seeking. As shown above, families with children with wages more than 10 per cent below the APW level have very limited economic incentive to remain in employment. In addition, unemployed persons entitled to maximum UI benefits have no short-term incentive to price themselves back into employment by accepting a low-paid job, since the maximum unemployment benefit exceeds the minimum wages on the manual labour market. Even if few people actually earn wages as low as this, it is likely that high replacement rates have acted as a wage floor for minimum wages negotiated by the social partners.[66] By leading to higher reservation wages this could arguably have contributed to the high unemployment rates among the weakest groups in the labour market.

Nevertheless, although short-term economic incentives to work seem to be weak for some social groups, individuals' life-time income will almost certainly suffer from leaving employment. UI benefits are not indefinite, and when they expire the individual is subject to the means-testing of the social assistance system, which generally excludes persons with a spouse working full time. Work-availability tests for the unemployed, as well as a certain social stigma attached to voluntary joblessness, also seem to provide non-economic incentives to remain active on the labour market. Moreover, entering employment at a wage below long-term benefits can arguably increase life-time income. An empirical study shows that the Danish labour market offers considerable wage mobility, whereby low-paid individuals generally stay in the lower wage-brackets for a rather short period of time.[67] According to another recent study taking into account the costs attached to working, such as commuting and child-care, around

Table 20. **Proportion of employees who would gain financially from unemployment**[1]

Per cent

	Men	Women
Union (UI fund)		
Self-employed	8.0	11.8
Academics	1.7	3.1
White collar (FTF)	0.8	6.0
Clerical (HK)	7.7	7.1
Technical salaried	3.2	7.4
Building and construction	2.9	..
Metal workers	2.1	..
Unskilled	4.5	11.2
Manufacturing	1.3	10.7
Others	4.3	12.8
Total	3.6	8.5

1. Proportion of employed members of UI funds whose disposable income if unemployed exceeds the disposable income when full-time employed. Only individuals aged 18-59 years are included.

Source: Pedersen and Smith (1995*a*).

Table 21. **Marginalised persons' incentives to accept work**[1]

Per cent share of income group

Effect on household disposable income of accepting an average job[2]	Household disposable income[3] (DKr 1 000)					
	< 50	50-75	75-100	100-125	125-150	> 50
Decline	0	7	16	16	15	12
No change or decline	0	8	20	18	20	15
Less than 10 per cent increase	0	11	32	43	39	40
Less than 20 per cent increase	0	19	53	51	74	68
Memorandum item:						
Share of all marginalised persons	5.1	21.2	18.7	8.9	12.6	33.5

1. 1989. Follows the Ministry of Economic Affair's definition of marginalised persons: *i.e.* persons working less than six months of the year and receiving UI benefits, cash benefits and health-related benefits.
2. Average job for the relevant employment and age-group.
3. Before accepting a job.

Source: Ministry of Economic Affairs (1992).

8½ per cent of women and 3½ per cent of men in employment could have expected a short-term income gain if they had become unemployed (Table 20). As might be expected, this is particularly significant in the comparatively low-income segments of the labour market such as less-educated persons and the self-employed.

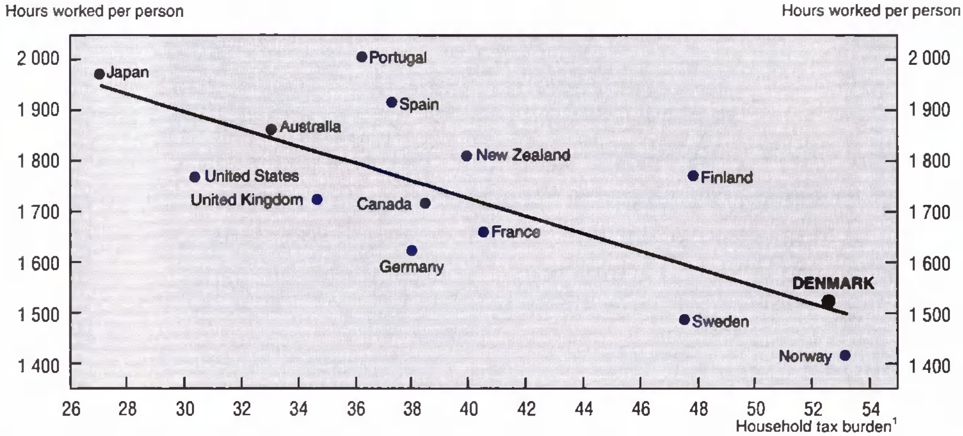
Notwithstanding the non-economic reasons for remaining active on the labour market, recent studies do indicate that long-term unemployed persons are found mainly in groups with weak economic incentives. In 1989 around 40 per cent of "marginalised" persons (having worked less than six months during the last year, while receiving temporary income-replacing benefits) would have increased their household income by less than 10 per cent by accepting a job[68] (Table 21). Moreover, a recent survey among registered unemployed persons revealed that more than 40 per cent were not actively looking for a job.[69]

Hours worked

The economic literature disagrees on the effect of taxes on labour supply defined as hours worked, since changes in take-home pay affect the relative price of labour and leisure (the "substitution effect") as well as the household income. A recent study of labour supply in various countries finds little response of male

Figure 23. **TAX BURDEN AND LABOUR SUPPLY**

1992



1. Defined as: [personal income taxes + indirect taxes + social contributions by households] / [household gross income].

Source: OECD, *National Accounts* and *Employment Outlook.*

and unmarried female labour supply to disposable income whereas married women, particularly from households with relatively high incomes, tend to increase their labour supply if their after-tax income rises. According to the findings of this study, married women's labour supply increases by around 0.5 per cent when after-tax wages increase by 1 per cent.[70] Recent Danish studies also find some positive effect on labour supply of raising disposable wages, although it is considerably weaker than suggested by studies for other countries, and significant only for male employees.[71] Nevertheless, an international comparison would seem to support the proposition that labour supply is to some extent discouraged by high income taxes (Figure 23).

The tax wedge and wage determination

According to conventional economic reasoning, the tax system distorts market mechanisms to the extent that the real after-tax wage paid to employees differs from the real labour costs of the employer. There is, however, little agreement in empirical studies on the extent to which employees have been able to compensate for higher average income taxes and indirect taxes at the bargaining table, or to what extent employers have been able to offset higher payroll taxes with lower wages. Most studies find a relatively strong effect from indirect taxes, at least insofar as they are allowed to feed into consumer prices.[72] On the other hand, the evidence of direct taxes affecting wages is more mixed. The evidence of tax-push has been found to be weak in several empirical studies, but one study from 1994 finds a significant effect of tax-wedges on structural unemployment.[73] Thus, while the magnitude of the tax-push effect is uncertain, it would be difficult to reject the proposition that higher taxes have depressed labour demand to some extent.

The business sector

The tax system does not seem to introduce significant allocative distortions to the business sector as a whole. Corporate profits are taxed at a flat rate of 34 per cent – not particularly high for a North European country (Table 12) – and the possibilities of carrying losses forward, thereby reducing future taxes, are quite generous by international standards.[74] Since, in addition, employers' mandatory contribution to social security schemes are very low compared with other countries[75] the overall taxation of the business sector is comparatively light. The 1994 tax reform aims at raising business-tax revenue by broadening the tax base. In particular, the allowances for depreciation of inventories and retained investment funds, as well as certain special allowances for companies operating foreign subsidiaries, are to be gradually abolished. The broadening of the tax base is estimated to raise the revenue from business taxation by around 1 per cent of GDP by 1998.

The business tax system aims at avoiding discrimination between incorporated and non-incorporated companies. Under the so-called "company scheme" households' income from unincorporated business activities is subject to only the corporate tax-rate, provided they keep the proceeds separate from other household financial assets. When money is extracted from the company scheme it is taxed at a rate equal to the difference between household marginal taxes and the corporate tax rate. Correspondingly, profits in incorporated companies are made subject to taxation – at a reduced income tax rate – when distributed to shareholders while realised capital gains on equity are generally taxable. Thus, there is a deliberate policy of using the tax system to encourage company-owners to retain earnings in the companies.

Equal treatment of incorporated and non-incorporated companies and of listed and unlisted incorporated companies secures a relatively "level playing field" with regard to business taxation. Also, corporate taxes do play a role in shaping the capital structure of the business sector, since taxing profits and tax-exempting interest payments inevitably shifts the financing of new investment from retained earnings and new equity toward debt. By international comparison, however, the Danish corporate taxes are not particularly distorting in this respect (Table 22). Correspondingly, the share of equity in the liabilities of Danish enterprises is above the international average.[76]

Relatively favourable treatment of debt financing generally discourages the growth of small and new enterprises, since these tend to rely more on venture capital than larger and more well-established entities. In the case of Denmark, however, many small enterprises prefer to avoid capital injections from venture

Table 22. **Corporate tax wedges and capital structure**

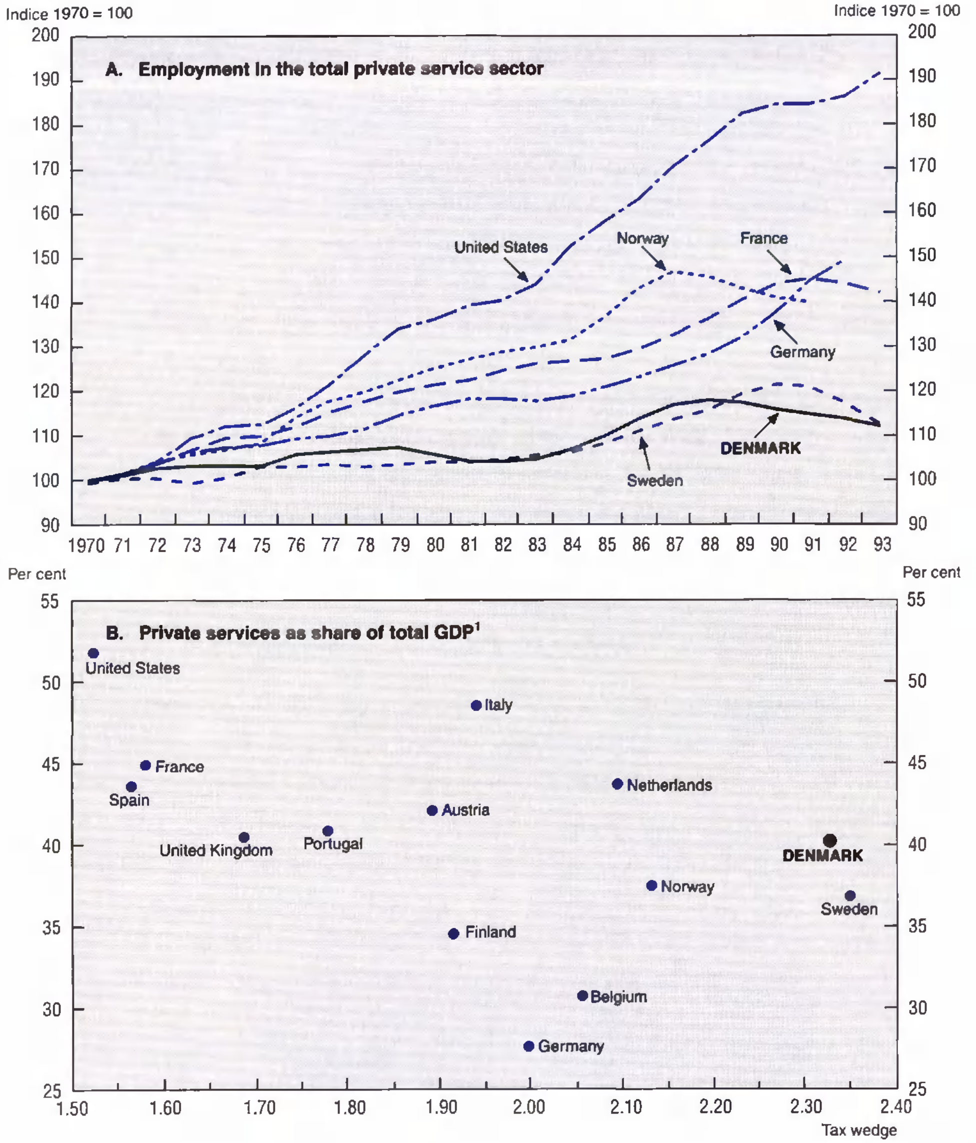
Percentage points

	Tax wedge by source of finance[1]			Equity as per cent of total liabilities[2]
	Retained earnings	New equity	Debt	
Denmark	**2.5**	**2.5**	**–2.2**	**43.9**
Belgium	2.1	2.1	–2.6	39.3
Canada	3.1	0.5	–1.5	48.9
Finland	3.0	–2.2	–2.2	36.5
France	2.3	–1.9	–1.8	42.3
Germany	4.5	–3.4	–4.4	38.6
Italy	4.1	–3.1	–3.1	23.6
Japan	4.0	4.0	–3.4	20.3
Netherlands	2.1	2.1	–2.2	44.5
Norway	5.0	–0.5	–2.6	38.4
Spain	2.8	2.8	–1.8	41.1
Sweden	1.6	–0.7	–2.3	34.7
United Kingdom	2.7	–0.4	–1.5	48.4
United States	2.6	2.6	–2.4	49.4

1. 1988 figures. Excess of pre- over post-corporate tax rates of return necessary to match the cost of capital when interest rates are at 5 per cent, and annual inflation at 4.5 per cent. A negative value indicates a tax subsidy. Personal taxes are not included.
2. 1992 figures.

Source: OECD (1991), OECD (1993*b*).

Figure 24. **TAX WEDGES AND THE PRIVATE SERVICE SECTOR**



1. The private service sector here includes wholesale and retail trade, restaurants, hotels, transport, communication, finance, insurance, real estate, business services, recreational and busines services, and personal and household services. In the cases of Belgium, Germany, Italy, Spain and United Kingdom, the last two services are not available.

Source: OECD, *National Accounts.*

capital companies as a way of retaining their operational independence. Indeed, earlier attempts to stimulate the provision of venture capital, from insurance companies and pension funds, produced limited results as the interest by the small and new enterprises was limited and investors suffered considerable losses.[77] The availability of informal venture capital, on the other hand, may be hampered by the personal income-tax system, high taxes limiting private savings. Furthermore, concessionary tax treatment of selected kinds of saving such as housing may divert funds away from the financing of business activities more generally.

The private service sector, which is the main creator of new jobs in most OECD economies, has recorded a markedly lower employment growth in Denmark than has been the case in most other OECD countries (Figure 24). This could be related to the size of the public sector. Indeed, there is an inverse international correlation between the size of the tax burden and the size of the private service sector. While this may partly reflect the fact that certain welfare services are provided by the public sector in the Nordic countries and by the private sector in other OECD countries, it is probably also the result of a high overall tax burden, tending to reduce household demand for private services. Figure 24 indicates that the provision of services which are not publicly supplied in any country tends to be lower in countries with high tax-wedges. In this respect, the use of public spending for distributional purposes is probably supply-restricting. Indeed, it may be argued that allowing increased private provision would have the dual benefit of exposing parts of the public sector to competition through tendering of selected tasks and of generating higher demands for such services.

Assessment

The transfer system in Denmark is highly effective in redirecting resources to offset temporary and permanent income loss, through publicly-funded insurance and means-tested "residual" benefits. However, the income distribution among persons in work is only weakly affected by the transfer system, since they have virtually no access to supplementary benefits. Instead, rather high replacement rates by international standards tend to act as a wage-floor, raising negotiated minimum wages to a comparatively high level, thereby compressing the wage distribution among employees.

The tax system relies strongly on taxation of household income, but reflecting, in part, the relatively even wage structure, the progressivity of the tax structure provides a limited contribution to tax revenue; the bulk of the tax-take is provided by persons receiving incomes close to the average. It can thus be concluded that re-distribution of income within the Danish system mainly relates to net transfers from recipients of ordinary incomes toward the aged population, persons enrolled in education and persons with temporary loss of income. As a result, much of the perceived re-distribution relates to the shifting of net income within the life-cycle of an average individual. A comparatively small group of well-off households cede life-time income to the benefit of persons with a particularly short in-work period through their life-cycle.

In the process, the Danish welfare model has been very efficient in alleviating relative poverty. This is in itself welfare-enhancing, and has undoubtedly contributed to the stability of social and industrial relations. Furthermore, the welfare state has enhanced the labour-market choices of women. On the more negative side, however, high social insurance replacement rates for certain groups in the labour market seem to have raised reservation wages and thereby discouraged wage flexibility, and raised structural unemployment. Also, high taxes could arguably have contributed to higher wages and lower labour supply, thereby hampering employment creation and business sector dynamism in the Danish economy.

Overall, while the Danish system amply fulfils the intention of re-distributing life-time income among households, whether it is optimal for the public sector to assume such an all-embracing role in the allocation of household income over the life-cycle depends on the efficiency losses incurred:

- The tax system has large potential efficiency losses because of the high tax wedge, such costs rising more than proportionately to the marginal tax level.
- The transfer system generates incentive structures at the initial stages of work-force participation which create a low-income trap of high reservation wages.

In the Danish case, such losses have been mitigated by a considerable willingness to work among labour market participants. High employment rates among persons with no significant financial gains from working would seem to indicate a desire to work for social rather than economic reasons, as well as the work availability tests of persons receiving temporary income replacing benefits. Nevertheless, since the Danish work force is relatively upwardly mobile as far as personal income is concerned – employed individuals moving fairly rapidly up the income scale – a policy of intra-generational income equality should take into account the fact that, to a large extent, ''poverty'' tends to be a temporary state and self-correcting.

As for the high tax wedge, this would appear to be primarily a function of the universality of benefits, where the state undertakes to insure all citizens for both temporary and permanent income loss. Contesting the principle of universality would pose difficult policy choices and a significant tightening of eligibility criteria, by imposing a stricter means-testing of benefits, could actually increase the composite tax progression. On the other hand, it is evident that an incremental shift towards actuarially-based insurance, where households used the capital market to top up state benefits, would have efficiency benefits, in terms of lower overall tax rates on labour, which would not necessarily imply costs in terms of higher income inequality. Indeed, by leaving a larger share of the financing of foreseeable events such as retirement to households, a larger part of national spending would take place on contestable markets, creating room for expansion of service sector employment and thus directly contributing to reduce the major cause of life-time income inequality, which is unemployment itself. Recent decisions by the social partners to build up labour market pension schemes may be seen as a step in this direction.

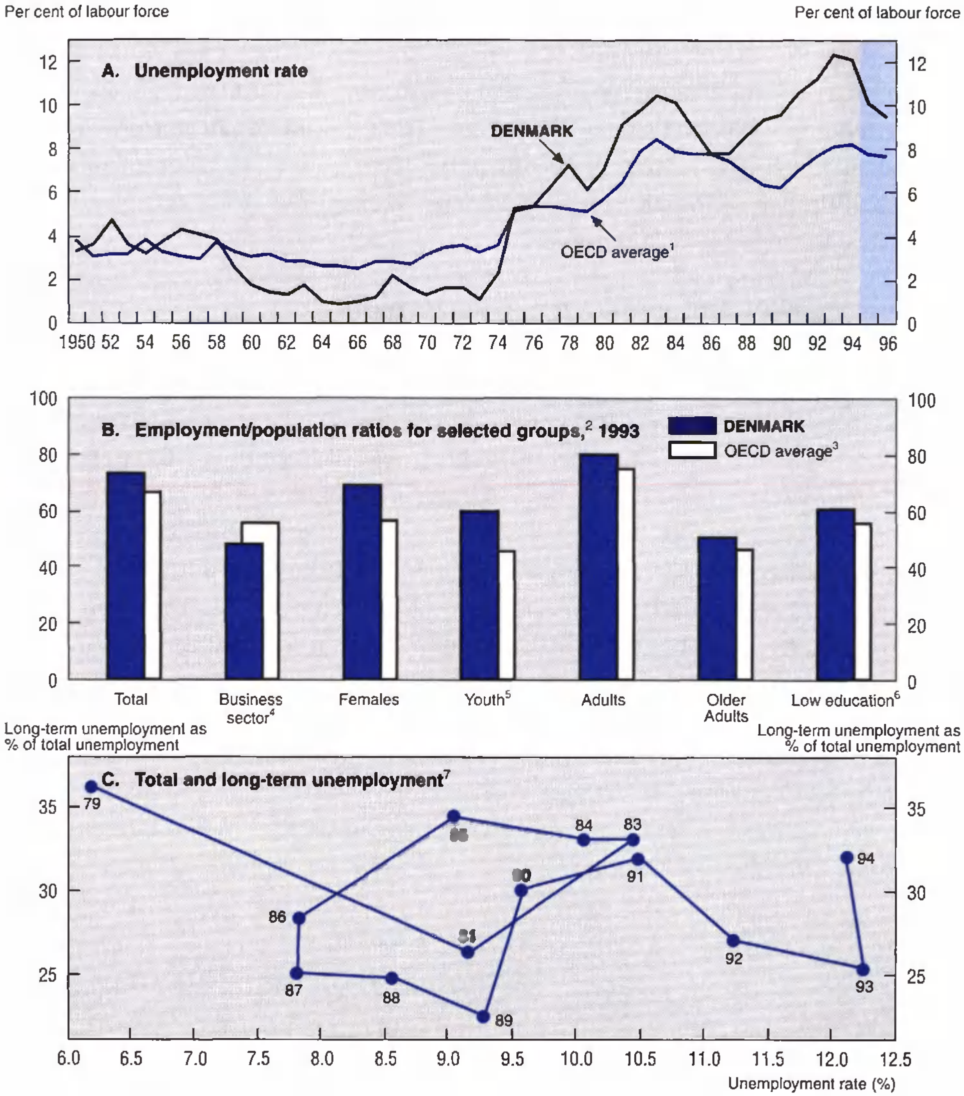
IV. Implementing the OECD Jobs Strategy

Introduction

Starting from a very favourable position in the early 1970s, the Danish labour market was up to 1994 characterised by a continuous upward trend in total unemployment. The unemployment rate has generally fallen when the economic cycle has turned upwards, but it has never reverted to the level attained in earlier upswings. Having increased to more than 10 per cent by the early 1980s, the unemployment rate fell below 8 per cent during the recovery in the mid 1980s. It then increased continuously up to 1993 when it reached 12¼ per cent. Since then unemployment has fallen and present projections indicate a further decline is probable (Figure 25). But available estimates point to a structural unemployment rate in the area of 9 to 10 per cent in 1995, implying that an economic policy seeking to reduce unemployment well below this level would need to rely on measures increasing the flexibility of labour and product markets in order not to lead to increasing wage and price inflation. Recognition of this is made in the 1996 budget and the recently-presented medium-term policy framework.

Measures to improve labour-market flexibility and reduce structural unemployment would be consistent with an improvement in the fiscal balance, contributing to the fiscal consolidation needed to create a structural surplus and hence achieve a sustained reduction in the high government debt. Continued fiscal consolidation would help to ease the pressure on monetary policy, allowing a reduction in interest-rate differentials *vis-à-vis* Germany and thus strengthen the long-term growth potential of the economy. Indeed, insofar as one of the main determinants of the structural deficit is high structural unemployment, microeconomic policy adjustment is one of the keys to better macroeconomic balance, including lower tax rates.

Figure 25. **LABOUR MARKET INDICATORS**



1. Excludes Iceland and Mexico.
2. Defined as the percentage of each population group that is employed.
3. Excludes Iceland.
4. Business sector employment divided by working-age population.
5. The minimum age for youth differs across countries (either 14, 15, or 16).
6. Completed less than upper secondary education.
7. Long-term unemployment is defined as individuals looking continuously for work for one year or more.

Source: OECD.

This chapter follows up the general structural policy recommendations of the *OECD Jobs Study* with specific recommendations for Denmark. The structure of the chapter is as follows. The first section contains an overview of the Danish labour market and employment performance over the past two decades. The policy requirements for Denmark to emerge from the Study are discussed in the second part, while a review of recent policy actions and an assessment of the scope for further action are given in the last section.

Labour market and employment performance

The increase in unemployment over the past 25 years can be accounted for by increased labour force participation in conditions where aggregate employment has been stagnant. The level of employment has been high throughout the period and in 1994 the ratio of the working-age population in employment, at 73½ per cent (Figure 25), was the highest among European OECD countries. All major age groups of the population had participation rates above the OECD average. Over the period the composition of employment has shifted strongly between sectors, an outright decline in employment in the business sector being offset by a continued increase in public sector employment. In 1994, 783 000 persons, or 31½ per cent of total employment, were employed in government services. This shift in employment between sectors has been accompanied by an increase in the female participation ratio from 62 per cent in 1973 to 78 per cent in 1994, whereas the male participation ratio has fallen by 3 percentage points over the same period.

High employment rates have contributed to a relatively even distribution of unemployment among age groups. The youth unemployment rate was 14½ per cent in 1994, 1.2 times the overall unemployment rate, and for older workers the unemployment rate was 0.7 times the overall rate. Only Austria, Germany and Switzerland, among European countries, can match the relatively low youth unemployment rate and only the other Scandinavian countries can match the relatively low unemployment rate for older workers. However, prolonged, high overall unemployment means that long-term unemployment (persons unemployed for more than a year) makes up around a quarter of the total unemployed, abstracting from variations over the cycle (Figure 25). In this respect, Denmark appears to compare favourably with other European countries, where long-term unemployment constitutes about 45 per cent of overall unemployment. This can be explained by a relatively high annual job turnover rate in the Danish labour market, estimated at nearly 30 per cent in the 1980s, which has resulted in a large number of short unemployment spells as workers move between jobs. But it should be kept in mind that active labour market policies (ALMPs) until recently have been used to restore benefit rights for unemployed persons, thus giving rise to a number of persons who alternate between benefits and participation in active labour-market programmes. The level of long-term unemployment in Denmark could thus be somewhat understated relative to other countries insofar as the available indicators do not include those moving between ALMPs and unemployment.

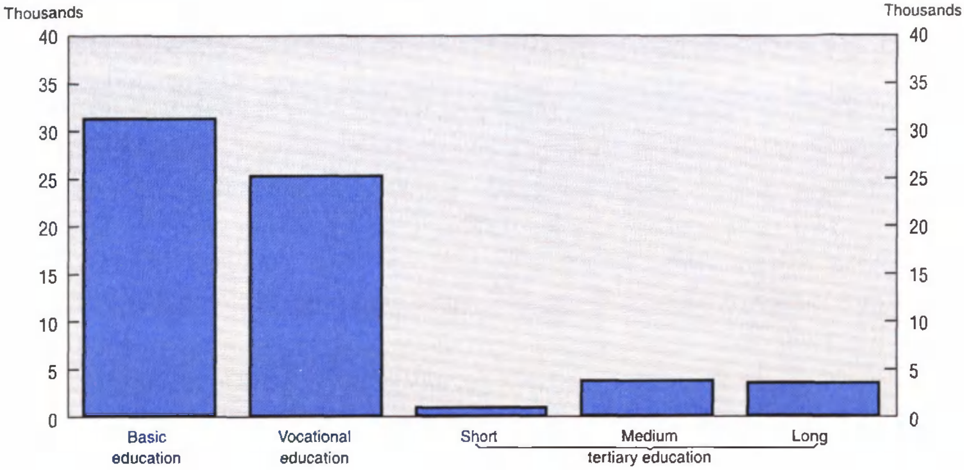
The unemployment profile across groups with different educational attainments is similar to that of other OECD countries. The unemployment rate for both male and female workers with lower secondary education is generally 1.5 to 2.5 times higher than for those having completed an upper secondary education and the differential becomes even more pronounced if comparison is made for a higher level of educational attainment (Table 23). Danish enrolment rates in higher secondary education are close to the OECD average: about 73 per cent of

Table 23. **Unemployment rates by age and level of educational attainment**[1]

Level of education	Males						
	20-24	25-29	30-34	35-44	45-54	55-64	25-64
Total	14.0	12.5	10.0	7.9	7.1	8.6	8.8
Basic	23.0	23.2	18.1	12.6	9.7	9.8	13.0
Upper secondary	11.7	9.9	7.9	6.8	6.7	9.3	7.9
Shorter tertiary	14.7	7.5	4.8	4.6	4.6	6.3	5.2
Longer tertiary	9.5	9.6	5.8	3.8	3.1	3.4	4.6
	Females						
Total	17.5	16.6	13.2	8.8	8.6	12.6	11.1
Basic	33.9	30.4	22.3	13.3	11.6	14.6	15.3
Upper secondary	14.8	14.9	12.1	7.7	7.6	12.9	10.6
Shorter tertiary	14.6	8.4	6.8	5.2	5.1	7.9	6.1
Longer tertiary	12.3	9.9	6.1	3.6	2.7	3.0	4.7

1. 1991.
Source: OECD (1994*d*).

Figure 26. **COMPOSITION OF MARGINAL LABOUR FORCE**[1]



1. Defined as the registered unemployed with average unemployment ratio above 70 per cent over the three years 1992-94, according to educational attainment.

Source: Ministry of Finance (1995*b*).

17 year olds and 68 per cent of 18 year olds take part in education.[78] A relatively high number of students, however, leave school without attaining upper secondary qualifications. This is a cause for concern given the concentration of unemployment among persons with limited formal education or with low skills. Of those 80 000 unemployed (2½ per cent of the labour force) who can be characterised as ''marginalised'',[79] two-fifths had not completed secondary education and a further third had only lower secondary education (Figure 26).

Policy requirements

A strategy for a sustained reduction of unemployment has to comprise a broad range of measures aimed at improving long and short-term flexibility. High standards in the education system, adequate training of the work force and activation of the unemployed to prevent loss of human capital are basic elements in a long-term strategy to foster economic growth and secure rising living standards. But short-term flexibility is also called for to prevent workers from falling into unemployment – and to avoid their remaining in unemployment. To a large degree this has to be provided by greater adaptability in wages, both as regards the aggregate wage level and relative wages, so as to ensure that wages correspond to productivity levels. Most importantly, labour market institutions need to be flexible enough to allow people to re-enter employment once unemployed. An overall strategy to foster flexibility thus calls for a reassessment of the interaction between the wage formation process, the incentives built into the tax and benefit systems and rigidities entailed by labour- and product-market regulations.

In these respects, the principal concern for Denmark is that the employment-generating capacity of the private sector has been weak, reflecting the growth of the public sector and the rising tax burden as well as a compressed wage structure. The wage structure has its basis in the strong interaction between transfer schemes and minimum wages set in wage bargaining, whereby high replacement ratios in transfer schemes increase reservation wages more generally. These problems have been exacerbated in the Danish case by wide access to transfer schemes, combined with weak enforcement of eligibility criteria and job availability tests, leading to high utilisation of these schemes. However, the ability of enterprises to vary their overall payroll costs in the short run is also important and in this respect the Danish system is already highly flexible and non-wage labour costs low. As elsewhere in Europe, however, issues related to over-regulation on product markets, as well as obstacles to the development of small firms, come into play in explaining slow employment creation in the private sector. A synopsis of the recommendations made below can be found in Box 1.

Enhancing the ability to adjust and adapt

The wage-formation system

The initial rise in unemployment was triggered by the two oil price shocks in the early and late 1970s. The high level of unemployment was then prolonged by weak demand conditions in the early 1980s and an insufficient response of real wages to the high unemployment level. At the aggregate level some real wage response was evident during the periods of weak labour demand in the early 1980s and early 1990s and during the upturn in the labour market in the mid 1980s. However, no major and lasting inroads into unemployment were

Box 1. **The OECD Jobs Strategy: synopsis of recommendations for Denmark**

The *OECD Jobs Study* sets out a strategy based on nine recommendations for improving the ability of OECD economies to cope with structural change, through enhancing the ability to adjust and to adapt, and increasing the capacity to innovate and be creative. The nine distinct policy areas covered included the macroeconomic policy framework and the creation and diffusion of technological know-how. With respect to labour and product market flexibility it identified the need for initiatives in the following areas: working-time flexibility, the entrepreneurial climate, wage and labour cost flexibility, employment security provisions, active labour market policies, labour force skills and competences, and unemployment and related benefits systems.

With the labour market reforms of 1994 and the measures embodied in the 1996 budget the Danish authorities have taken important steps to redress the causes leading to a weak labour market performance. Of particular importance is the abolishment of the possibility of using ALMP participation to renew unemployment insurance entitlements, the intensified efforts to activate long-term unemployed and the emphasis on activating youths at an early stage of their unemployment spells.

However, the Danish unemployment insurance scheme is still one of the most generous in the OECD area, in particular for low-skilled workers. With the maximum benefit period of five years and with high replacement rates (up to 90 per cent) for low-income workers, the scheme still gives marked disincentives to active job search on the part of some unemployed and leads to a compression of the wage structure, thus pricing low-skilled workers out of jobs. For workers on average incomes and above, the replacement rate is, however, in line with the European average, and the scheme does not embody the same disincentive effects for workers in this part of the income distribution.

Following from the detailed review of labour market and employment performance and the assessment of policy requirements below, this chapter identifies the need for Denmark to move ahead in the following areas:

Increase wage and labour cost flexibility

- *High marginal tax rates and generous benefits should be reduced*, since these combine to increase reservation wages, thereby reducing incentives to seek ordinary work rather than remaining on benefits, while also weakening incentives to seek out higher paid jobs and to increase the amount of work offered.
- Benefit schemes have a direct bearing on *minimum wages* bargained by the organisations of employers and employees, which *should be adjusted downwards*, to achieve an adjustment of relative wages.
- While recognising that *employment protection legislation is liberal*, and allows Danish firms a high degree of flexibility in adjusting aggregate wage costs, the labour market would benefit from moving further away from financing lay-offs and retraining through public revenues, towards *greater use of corporate user fees in training and a waiting period for benefits.*

(continued on next page)

(continued)

Improve the efficiency of active labour market policies

- Although almost 2 per cent of GDP is devoted to active labour market policies, these schemes often made little contribution to enhancing the employability of job seekers, as they often served as a vehicle for restoring benefits rights. A central feature of the 1994 labour market reform and the 1996 budget is the activation of the long-term unemployed through compulsory participation in job training or education offers. The implementation of the 1994 reform, with its focus on activation of the unemployed, has not proceeded as fast as planned. *With a further advancement of the activation period, now to start after two years of unemployment, further efforts are needed to follow through this change of emphasis.*

Reform of the Unemployment Insurance and related benefit systems

- Even with the reform implemented in 1994 and the budget agreement for 1996, unemployment benefits can still be retained for as much as five years, whereas early retirement is possible from 60 years of age. *A further reduction of the duration of unemployment benefits and the scope for early withdrawal could be considered as stricter eligibility criteria and enforcement of job availability criteria take effect.*
- Paid-leave schemes, which so far have been implemented without bottlenecks emerging, reduce labour supply and thus act as an impediment to long-term growth. *These schemes should be the financial responsibility of the social partners to be assessed against other improvements in welfare through higher real wages.*

Improve labour force skills and competences

- Greater access to employment requires a continuous improvement in human capital, with an emphasis on *reducing the high drop-out rate during formal education.*

Increase product market competition

- The recent proposal for *a new Competition Act* represents an important potential step away from the "abuse" principle, towards the "prohibition" principle in force in the EU, and *should be enacted.*
- The *deregulation of public utilities should be completed* and activities of public enterprises which are not natural monopolies should be exposed to competition. The *private sector should be allowed to compete with the government sector* in the supply of public services.

made up to 1994. It would thus appear that the Danish labour market exhibits only *moderate or low real wage flexibility*, a characteristic borne out by earlier OECD estimates.[80] This is especially pronounced with respect to long-term flexibility where the record of the 1980s puts Denmark in the low range of OECD economies with respect to total wage flexibility. Taking into account the uneven distribution of unemployment across different group of workers, underlying structures in the Danish labour market seem to act as an impediment to employment growth.

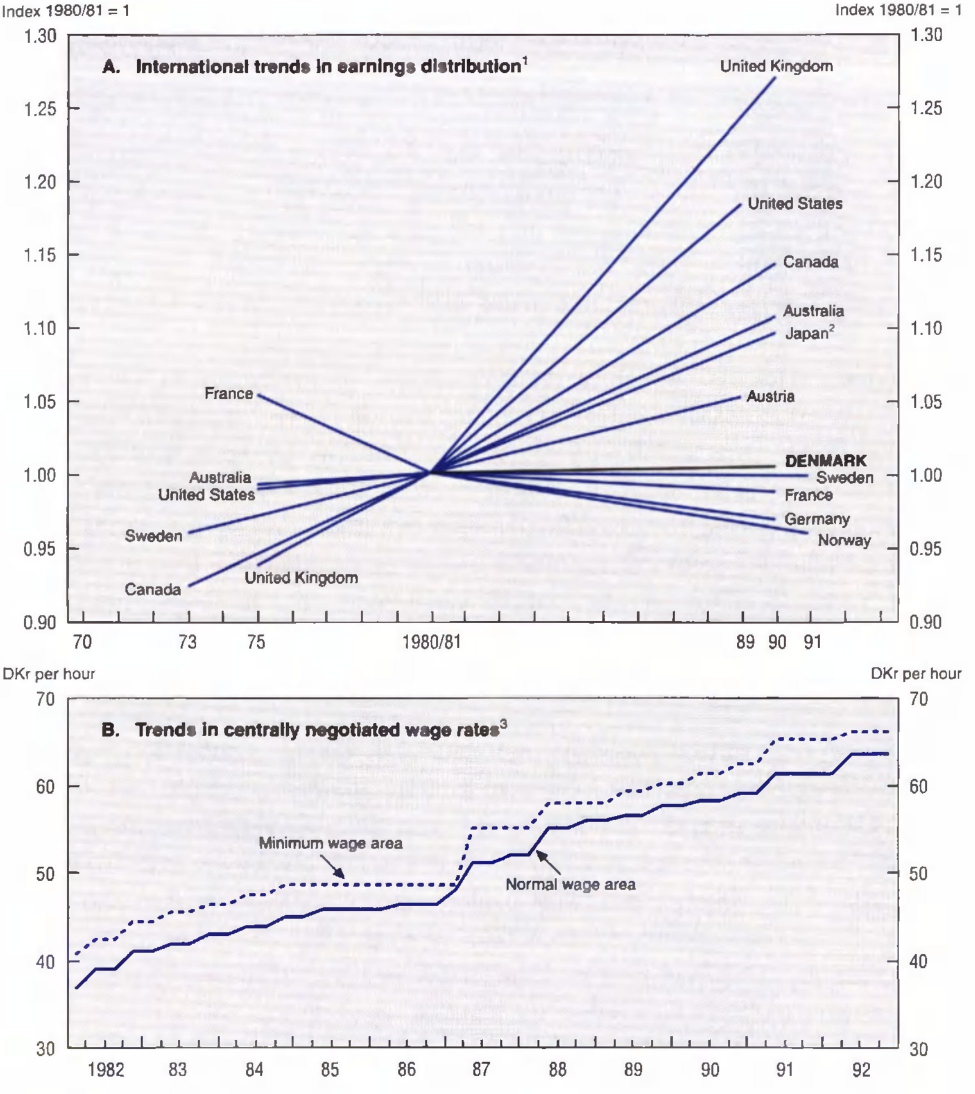
The Danish labour market was for a long time characterised by a high degree of *formal centralisation* with the settlements at central level between Landsorganisationen i Danmark (LO – the trade union congress) and Dansk Arbejdsgiverforening (DA – the Employers Confederation) giving strong signals both to local negotiations and other parts of business. Within this framework wage systems in the private sector have developed along two lines: either a "normal wage" system, where wage increases negotiated centrally are reflected directly into the final wage with the possibility of locally negotiated additions, or a "minimum wage" system where the central bargaining only sets the floor for final wages, which otherwise are fully determined at the local level. At present the bargained minimum wage is on average about 60 per cent of the wage of an adult worker and it is effective for workers 18 years of age or older, parameters that are determined through bargaining and not influenced by legal statutes.

Through the 1980s these two systems had more or less equal coverage, but from the late 1980s onwards the "minimum wage" system has gained the upper hand and its coverage has increased to 70 per cent (1993), in principle giving market forces more influence in wage determination. Wage formation thus gradually became more decentralised during the 1980s, but nevertheless maintained a strong degree of co-ordination, generally with manufacturing industries acting as the front-runner in the wage bargaining rounds.[81] Actual labour market outcomes in the 1980s, noted above, were more in line with that experienced in countries with an intermediate degree of decentralisation, a system generally held to lead to higher real wages at the expense of a lower growth in employment compared with either more centralised or more decentralised systems.[82]

For wages negotiated centrally it would seem that *minimum wages* have developed more or less in parallel with normal wages. This was the case through the 1980s and it has continued into the 1990s. Also in terms of actual wages paid, a fairly *constant wage structure* is evident through the 1980s, at an aggregated level and within sectors and across skill levels. The Danish experience thus resembles that of other continental European countries, but differs from that of most other OECD countries where wage differentials increased through the 1980s[83] (Figure 27). This may, to some extent, reflect underlying changes in the labour market: the relative unemployment of low-skilled workers actually fell during the decade, reflecting, *inter alia*, the increased number of persons on early retirement, and high youth participation in ALMP. However, in view of the continuing differences in unemployment between different labour force groups, it seems fair to conclude that wage differentials to a large degree are influenced by institutional factors and, consequently, do not primarily reflect the balance between supply and demand in the labour market. Even though the bargained minimum wage directly affects only a small minority of workers, estimated at around 5 per cent in the early 1980s, it acts as a reference point for setting beginners' wages, thereby providing an effective floor for wages. One reason for this is the high degree of unionisation: trade union membership, though falling, is above 70 per cent for all wage and salary earners. The tendency through the 1980s seems to have been an increase in the actual wage paid to low-wage earners relative to the negotiated minimum.[84]

Small wage differentials are motivated by income distribution concerns. Non-employment, especially long-term non-employment is probably the most serious source of inequality, while at the same time individual income mobility greatly reduces the social consequences of a relatively low starting wage. In Denmark, of the 10 per cent lowest paid at a given stage, more than half of the group advances to higher echelons within one year. Only 20 per cent of the group remain among the lower paid in a longer perspective[85] (Figure 28). This strong upward wage mobility may reflect the fact that wage earners with a relatively low potential for improving their productivity either do not get employment at all or leave employment. Even taking this into account, however, it seems safe to conclude that access to a job is likely to entail a crucial improvement in life-time income for the vast majority of workers, a proposition borne out by Danish longitudinal studies which confirm that the experience of longer spells of unemployment upon entry to the labour market is reflected in lower earnings capacity through the work career.[86] In this perspective, therefore, it is particularly crucial

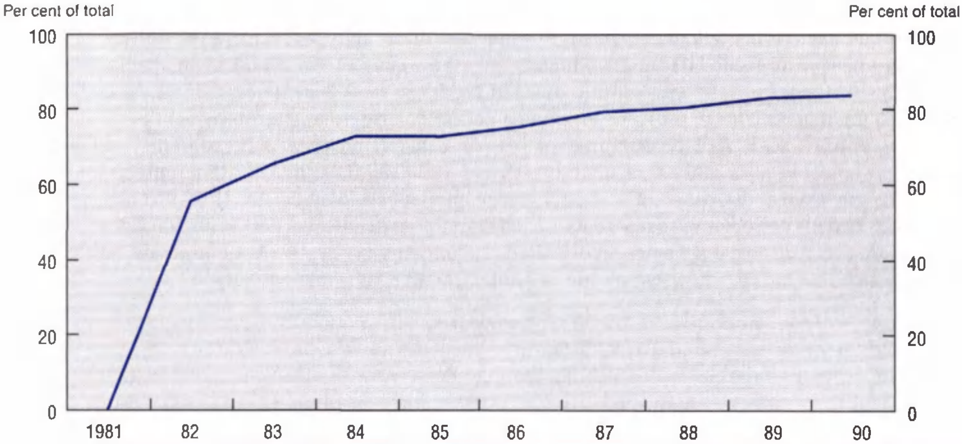
Figure 27. **WAGE DEVELOPMENTS**



1. As measured by the ratio of the lower limit of earnings received by the top 10 per cent (9th decile) of all male workers (both sexes for Denmark and Norway) relative to the upper limit of earnings received by the bottom 10 per cent (1st decile).
2. 1979 = 1.
3. For the normal wage area, only a base amount, which is exclusive of enterprise and individual additions is negotiated at central level.

Source: OECD (1994*c*); Ministry of Finance (1994).

Figure 28. **WAGE MOBILITY OVER TIME**
Percentage of persons having left the low-wage group[1]



1. The low-wage group comprises the 10 per cent of wage earners with the lowest hourly wages in 1981.
Source: Danish Economic Council (1994).

to tackle the problem of wage rigidities at the stage of entry into the workforce, particularly with respect to the high minimum wage embodied in the bargaining structure.

Taxes and transfers

Among the institutional factors having a strong impact on wage formation, particularly at entry levels, are the high reservation wages generated by the *generosity of Danish income maintenance schemes.* Assessed in detail in chapter III, the main features of these are summarised in Box 2. Unemployment benefit is available to members of an insurance fund after a qualifying period of 52 weeks of work and membership (26 weeks of work prior to 1996). For youths with an education of at least eighteen months a qualifying period is not required. Easy access has been combined with a high level of support for incomes at the bottom of the pay scale, with a replacement rate in such cases of up to 90 per cent; and even though duration up to 1994 was formally limited to 2½ years, participation in job offers schemes implied a *de facto* duration of the benefit of up to eight or

Box 2. **Income replacement schemes**

All members of the labour force can, from the age of 18, join government subsidised unemployment insurance (UI) funds, which – after 52 weeks of work and membership (26 weeks of work up to 1995) – entitle them to *unemployment benefits* as soon as they enter into unemployment. A full-time employed person entering into unemployment is in principle entitled to a replacement rate of 90 per cent of previous income. This is, however, subject to a monthly maximum of DKr 11 100 (1994), equivalent to a replacement rate of around 60 per cent for an average production worker. In 1994-95, the maximum benefit period was seven years which could be extended by two years through participation in paid-leave schemes. From 1996, the maximum effective benefit period is being reduced to five years of which the last three involve full-time activation.

Cash benefits, administered by local authorities, are available to persons from households with an income and wealth below certain thresholds, provided they do not work but remain available to the labour market. Persons with labour-market related income less than minimum cash benefits – a group mainly encompassing students and self-employed persons – are not entitled to additional benefits. Local authorities are encouraged to demand a work effort by benefit seekers younger than 25 years within the first three months after granting the benefits. The maximum cash benefits are fixed at 80 per cent of the maximum UI benefits for persons with dependent children and 60 per cent for others. Since cash benefits in principle are only granted when other sources of income are exhausted, cash benefits are reduced by the amount of any additional household income.

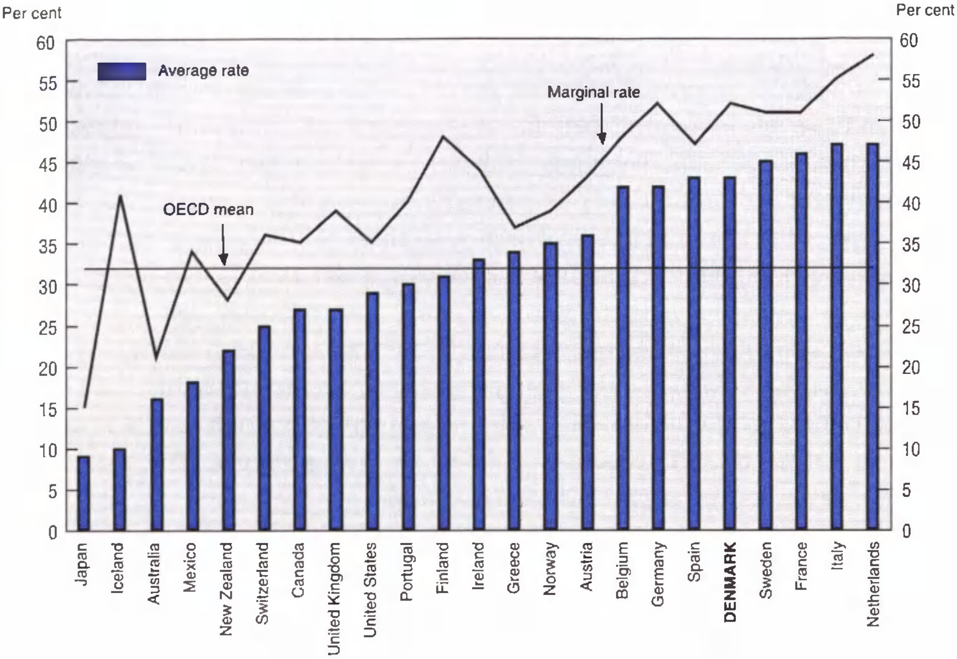
The *early retirement pension* scheme includes persons who for health or social reasons are unable to participate on the labour market, and who would thus receive invalidity pensions in most other OECD countries. Persons between 18 and 59 years who are unable to work for health reasons qualify for high, medium or extended basic pension according to the loss of work ability. In addition, persons between 50 and 59 years of age may be granted extended basic pensions on social grounds. Persons aged between 60 and 67 years may receive only the basic pension whatever the formal reason for their retirement. The most common reason to grant early retirement pension on social grounds is that the spouse of the pension-seeker has already been granted an ordinary old-age pension.

Persons over 60 years old who have been members of a UI fund for 20 years and who wish to withdraw from the labour market are entitled to *early retirement benefits*. Persons entering the scheme when they are older than 63 years are entitled to full UI benefits until they retire. Others eventually receive 82 per cent of UI benefits. Additionally, to curb the problem of long-term unemployment among older cohorts in the labour market, *transitory benefits* have been offered to persons aged between 50 and 59 years who are members of a UI fund and have been unemployed for more than a year. Persons on transitory benefits receive 82 per cent of UI benefits. These benefits were introduced as a temporary measure, and the right to go on transitory benefits expired in early 1996.

nine years.[87] Consequently low-skilled workers, in particular young people seeking to gain work experience, have had scant economic incentives and – reflecting the impact of high benefits on the bargained minimum wage – few possibilities for pricing themselves into jobs. To ensure an adequate income for older workers being laid off, an improved possibility for early retirement was introduced in 1979 and the unemployment benefit scheme has been temporarily adjusted to furnish more longer-time permanent support for older unemployed who do not yet qualify for early retirement. Accordingly, downward pressure on wages also in this part of the labour market has been weakened. Not only does the high level of support lead to high reservation wages for low-paid workers, but the generous duration also weakens incentives for effective and intensive job search. The extensive possibilities effectively available for the long-term unemployed to withdraw from the labour force from 50 years of age and upwards – a choice limited to those over 60 from early 1996 – has implied not only a cost to public finances, but an overall reduction in effective labour supply. The paid leave schemes, reviewed below, have the same effects.

Disincentive problems have been compounded by the *high marginal taxation of labour income* and fairly stringent means-testing applied in several transfer schemes, documented in more detail in the previous chapter, giving rise to high effective (composite) marginal rates of taxation, particularly on low income levels. As a result, policy needs to focus on the unemployment trap and the low-income trap that the Danish tax and transfer system imposes (Figure 29). To improve economic incentives to move out of unemployment and to seek out higher paid employment, a reappraisal of the combined effects of the high marginal tax and benefit rates for the low-skilled seems necessary. In a longer-term perspective, a reform in this area would increase the labour supply, leading to higher economic growth, and a transfer of activities from the underground to the formal economy. A combined approach, covering both taxes and transfers, is necessary for several reasons. A reduction in taxes for the low-paid alone would lead to higher effective tax rates on higher income groups, with consequent detrimental effects on their incentives. In order to avoid a deterioration of public finances, a reduction in the general level of taxation would thus have to be accompanied in particular by a general reduction in the support levels in transfer schemes as well as by an overall reduction in the general level of public expenditure.

Figure 29. **AVERAGE AND MARGINAL TAX WEDGES**[1]
Single person receiving 66% of an APW's income



1. In 1992, except Italy 1991. The average wedge is the sum of employees' and employers' social security contributions and personal income tax as a percentage of gross labour costs, *i.e.* gross wages plus employers' social security contributions. The marginal tax wedge is the increase in employees' and employers' social security contributions and personal income tax relative to the increase in gross wages.

Source: OECD, *The OECD Jobs Study: Implementing the Strategy, 1995.*

Active labour market policies

Like most other OECD countries, Denmark has tried to shift the emphasis of labour market policies from passive income support to *active labour market measures* in order to maintain the competence and motivation of the unemployed. Compared with other countries, ALMPs in Denmark have a strong emphasis on training, reflecting a long-standing tradition where training for those already employed is regarded as a public responsibility. This is predicated on a high job turnover, which tends to increase the externalities associated with training. This gives rise to a high number of participants in such schemes: the annual inflow of participants constitutes at present around 18 per cent of the labour force, almost evenly divided between unemployed and those in employment. The overall number of participants is thus far above other countries, but the average duration of a training spell lower. From 1986 to 1993, unemployment increased by 4½ percentage points, whereas spending on active labour market policies increased by 0.9 per cent of GDP.[88] By 1994 expenditure on ALMPs constituted close to 1.8 per cent of GDP, a level surpassed only by Sweden; and a central feature of recent initiatives in Danish labour market policy has been to increase further the emphasis on the activation of the unemployed. Indeed, initiatives in this area were a major ingredient of the 1992 Commission report on the structural problems in the labour market.[89]

This report highlighted a number of institutional features. Denmark combines a decentralised approach giving wide responsibilities to the local public employment service with a high level of influence for the social partners. Administrative responsibilities are divided between union-based insurance funds, responsible for benefit payments, and the Public Employment Service which is responsible for placement services and the administration of the ALMPs. These features may arguably lead to neglect of the weaker part of the labour force, as unions oppose stronger measures to force the long-term unemployed to seek jobs below their aspirations, while the employers tend to focus training efforts on those already employed or on job seekers employable in the short-term.[90] The efforts of the public employment service to secure a more intensive follow-up of the long-term unemployed may thus for a long time have been frustrated, resulting in lax administration of job search requirements and availability conditions. Their efforts may also have been frustrated by a lack of information on the actual duration of benefit claims by job seekers. Consequently, improved co-ordination between UI funds and the public employment service is a feature of the present reform of labour market policy.

Until 1994 labour market policy measures (in the form of job offers) were used to reinstate benefit rights, effectively extending the maximum duration of the unemployment benefit period. Thus, there was an inherent tendency for the system to produce a relatively high number of *de facto* long-term unemployed, with non-employment spells lasting several years and the overall effect of ALMP measures in raising the probability of re-entering jobs was negligible.[91] This underlines the importance of an integrated approach to improving the re-entry of the long-term unemployed into the ordinary labour market, an approach introduced in 1994. A central element was a refocusing of the activities of the bodies involved towards "activation" of the long-term unemployed and participation in either job offers, training or education was made compulsory after four years of unemployment. At the same time, an explicit upper limit of seven years was set for the combined duration of unemployment benefits and participation in active measures, a limit which, pursuant to the 1996 budget agreement, will be gradually reduced to five years by 1998. Even with these reforms, however, the Danish unemployment benefit system is still among the most generous in the OECD area in terms of duration.

As a part of the 1994 reform, the *paid leave schemes* were extended. The schemes were designed to encourage skill acquisition both on the part of employees and unemployed who would fill the positions vacated. Both employed and unemployed going on leave became entitled to up to one year's paid leave for either further education, child-minding or as a sabbatical. The compensation level is between 70 and 100 per cent of the maximum unemployment benefit, thus making paid leave particularly attractive for low-paid workers. So far it seems that these schemes, although comprising as many as 80 000 full-time participants or 2½ per cent of the labour force (Table 24), have not given rise to

Table 24. **Overview of paid-leave arrangements**[1]

	Maximum length		Percentage of maximum unemployment insurance benefits		Participants 1995, monthly averages
	At implementation	Later revision	At implementation	Later revision	
Education leave	1 year		100[2]	100	25 000
Child-minding leave	1 year per child	13 weeks[3]	80[4]	70[5]	45 000
Sabbatical leave	1 year		80	70[5]	5 000

1. With the exception of the child-minding leave, participants have to be members of UI funds, be above 25 years of age and have a record of 3 years of paid employment. From 1996 access of the unemployed to these schemes will be restricted.
2. Originally to be reduced to 80 per cent from April 1995.
3. 26 weeks if the child is less than 1 year of age. Contingent upon agreement with the employer, the leave may be extended to 52 weeks.
4. Local authorities can provide supplements of up to DKr 35 000.
5. To be reduced to 60 per cent in 1997.

Source: Ministry of Finance, *Budgetredegørelse* (various issues).

significant short-term pressures in the economy. This reflects, to a large extent, the composition of participants, who have been either women or the long-term unemployed taking education leave. Nevertheless these schemes might have negative long-term effects, due to the reduction of labour supply. In this respect the schemes share the negative features of a traditional transfer arrangement. Indeed, given the wide array of educational choices that are allowed to participants on educational leave, the benefits in terms of improvement of individuals' possibilities of entering an ordinary job remain to be proven.

Flexibility of employment and working time

The negative impact of the rather rigid wage costs and the narrow wage dispersion have been counterbalanced to some extent by the high level of short-term flexibility given to enterprises to adjust to changes in demand and production. *Permissive employment protection legislation* leaves it to the social partners through their agreements to decide upon the desired level of protection (Table 25). At the same time employers can resort to temporary lay-offs whereby the employees receive unemployment benefits, thus allowing enterprises to vary their overall wage bill. Access to this scheme was tightened in 1989 and again in 1991, whereby the first two days of unemployment now have to be financed by the employer. But enterprises still have ample scope to use temporary lay-offs in response to short-term fluctuations in demand. Consequently, hiring and firing costs are at a very low level in Denmark.

Together with the fact that low payroll taxes levied on enterprises have made for *low non-wage labour costs*, this flexibility has allowed profits in the business sector to be maintained in the short run, even in the face of rapid changes in external circumstances. Over the longer run, the wage level in manufacturing industry has fallen relative to trading partners, with a corresponding tendency for the profit share in business value added to increase, reflecting that productivity growth has outstripped growth in real compensation of employees since 1987 (Figure 30). This reflects a fall in business-sector employment, as a result of the ensuing pressure to reduce overall costs in the face of high real interest rates, a pressure that might have been alleviated with a somewhat larger response of the wage level to high unemployment.

While the *OECD Jobs Study* argues the general case for reducing employers' and employees' social security contributions, a central part of the report of the 1992 Commission was that wage formation would be more sensitive to increases in unemployment if the social partners were made more responsible for the financing of unemployment-related expenditures. At present, contributions from employees and employers cover only a minor part of unemployment benefits, whereas the government contribution is both the largest and – more important in terms of economic incentives – the sole marginal source of financing. Expenditure on active labour market policies is wholly borne by the government.

The idea of making the social partners the source of marginal financing, while desirable on theoretical grounds, was in the view of the Commission impracticable, since any extra contributions stemming from a given increase in unemployment would be fairly small. There would also be problems in assessing the respective contributions of wage developments and cyclical developments on unemployment. In addition, the model assumes a close correspondence between the structure of wage bargaining systems and the organisation of the Unemployment Insurance funds, a correspondence that may not exist as wage bargaining becomes more decentralised. Nevertheless, some changes in financing have been made: the 1994 tax reform, for example, includes an increase in payroll taxes to finance labour market policy. The employees' contributions are to be increased from 5 to 8 per cent over the years 1994 to 1998, and an employers' contribution of 0.3 per cent will be introduced in 1997, increasing to 0.6 per cent in 1998.

This still leaves open the feasibility of continuing with the present division of financing, which gives the government the main responsibility for providing and financing the training for those already employed from general revenues. Adults in training comprised the equivalent of 137 000 full-time students in 1993: 90 000 were already employed and close to 60 per cent of these received their training during working hours. After the introduction of explicit contributions to labour market policies in 1994, it is estimated that 70 per cent of the expenditures on adult training are covered through collective forms of financing, while 30 per cent are covered by payments from the enterprises concerned (user fees)[92] (Table 26). The argument for such an arrangement is the high social benefits accruing from the training of the work force, especially for an economy with a large number of small and medium-sized enterprises which would not have incentives to undertake this investment without a public subsidy. On the other hand, it may be argued that the combination of public training schemes and

Table 25. **Labour market regulations**

Values of the indicators[1]

A. Indicators of job protection legislation

Key[2]	Regular procedural inconveniences		Notice and severance pay for no-fault individual dismissals						Difficulty of dismissal			
	Procedures	Delay to start of notice	Notice period after			Severance pay after			Definition of unfair dismissal	Trial period	At 20 years	Rein-statement
			9 months	4 years	20 years	9 months	4 years	20 years				
	Scale 0 to 3	Days	Months						Scale 0 to 3	Months		Scale 0 to 3
EU												
Belgium	1.0	3.0	2.0	3.6	11.4	0.0	0.0	0.0	0.0	3.3	12.5	0.0
Denmark	0.5	0.0	1.6	2.8	5.0	0.0	0.0	1.5	0.0	3.0	9.0	1.0
France	1.5	12.0	1.0	2.0	2.0	0.0	0.4	2.7	0.0	1.2	15.0	0.0
Germany	3.0	10.0	1.0	1.0	4.5	0.0	0.0	0.0	2.0	6.0	18.0	2.0
Greece	2.0	1.0	0.6	1.7	9.0	0.3	0.9	4.6	1.0	2.0	9.0	2.0
Ireland	1.5	3.0	0.2	0.5	2.0	0.0	0.5	3.9	0.0	12.0	24.0	1.0
Italy	1.5	0.0	0.3	1.1	2.2	0.7	3.5	18.0	0.0	0.8	32.5	3.0
Netherlands	3.0	35.0	0.6	1.0	5.3	0.0	0.0	0.0	1.0	2.0	5.3	1.0
Portugal	2.0	17.0	0.8	2.0	9.1	0.2	1.7	9.3	3.0	1.0	20.0	3.0
Spain	2.25	40.0	1.0	3.0	3.0	0.2	1.3	6.0	2.0	1.7	35.0	0.0
United Kingdom	1.0	3.0	0.2	0.7	2.8	0.0	0.9	4.6	0.0	24.0	10.8	0.0
EFTA												
Austria	2.0	5.0	0.8	1.2	2.5	0.0	2.0	9.0	1.0	1.0	9.0	1.0
Finland	2.0	56.0	2.0	2.0	6.0	0.0	0.0	0.0	0.0	4.0	20.0	0.0
Norway	1.5	3.0	1.0	2.0	5.0	0.0	0.0	0.0	2.0	1.0	15.0	2.0
Sweden	2.0	7.0	1.0	4.0	6.0	0.0	0.0	0.0	1.0	6.0	32.0	0.0
Switzerland	0.5	1.0	1.0	2.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0

1. Situation in the late 1980s. The definitions of the indicators shown here are listed in note 2, and some underlying assumptions are described in more detail in Grubb and Wells, (1993). Information in this table relates to *individual* dismissals (provisions applying to large-scale plant closures may differ) and relates, where relevant, to an average across provisions for manual and non-manual workers and an average across provisions for personal (individual) reasons and provisions for technical (economic) reasons.
2. The variables tabulated under each key are as follows:
   Procedures: procedures to be followed when issuing a regular dismissal notice: 1 for a statement in writing to the employee of reasons for dismissal, 2 for notification to a third party (works council or local employment exchange), and 3 when prior permission for dismissal must be obtained from the third party.
   Delay to start of notice: the delay between a decision to dismiss and the time that notice can become effective after following required procedures in days (*e.g.* notification by registered letter is assumed to involve 3 days).
   Definition of unfair dismissal: scored 0 when worker capability or redundance of the job are adequate grounds for dismissal, 1 when social considerations, age or job tenure must, when possible, influence the choice of which worker(s) to dismiss, 2 when retraining to adapt the worker to different work must be attempted prior to dismissal and 3 when worker capability can never be a basis for dismissal.
   Compensation at 20 years: the compensation payable to a worker who has been unfairly dismissed after 20 years with the employer.
   Reinstatement: scored 0 if, following a court judgement of unfair dismissal, reinstatement is never granted, 1 if reinstatement is "rare", 2 if reinstatement is "possible", and 3 if the employee always has the option of reinstatement.

Table 25. **Labour market regulations** *(cont'd)*

Indicator values and country rankings[1]

B. Regulation of temporary forms of employment contracts

Key[2]	Fixed-term contracts: Valid cases other than the usual "objective"	Fixed-term contracts: Maximum number of successive contracts	Fixed-term contracts: Maximum cumulated duration	Fixed-term contracts: Overall strictness	Temporary work agency (TWA) employment: Types of work for which TWA is legal	Temporary work agency (TWA) employment: Restrictions on number of renewels	Temporary work agency (TWA) employment: Maximum cumulated duration	Temporary work agency (TWA) employment: Can final user terminate at any moment?	Temporary work agency (TWA) employment: Overall[1] strictness
	Scale 0-2 or all	Number	Months	Rank[3]	Scale 0-3 or general	Yes/No	Months	No = 0, Yes = 1	Rank[3]
EU									
Belgium	0.0	1.0	24.0	16.0	2.0	Yes	2.0	0.0	8.0
Denmark	All	No limit	No limit	2.5	2.0	Yes	3.0	1.0	4.0
France	1.0	3.0	24.0	13.0	3.0	No	24.0	0.0	3.0
Germany	1.0	1.0	18.0	14.5	2.0	Yes	6.0	0.5	6.0
Greece	0.0	3.0	No limit	10.0	0.0	n.a.	n.a.	n.a.	10.0
Ireland	All	No limit	No limit	2.5	General	No	No limit	1.0	1.5
Italy	0.5	1.5	4.5	14.5	0.0	n.a.	n.a.	n.a.	10.0
Netherlands	All	1.0	No limit	7.5	3.0[4]	Yes	6.0	0.5	5.0
Portugal	2.0	3.0	30.0[5]	9.0	1.0	Yes	9.0	0.0	7.0
Spain	2.0	6.0	36.0	7.5	0.0	n.a.	n.a.	n.a.	10.0
United Kingdom	All	No limit	No limit	2.5	General	No	No limit	1.0	1.5
EFTA									
Austria	All	1.5	No limit	5.0	General	No	No limit	Yes	
Finland	1.0	1.5	No limit	11.5	General	Not known	Not known	Not known	
Norway	1.0	1.5	No limit	11.5	1.5	Not known	Not known	Not known	
Sweden	2.0	2.0	No limit	6.0	0.0	n.a.	n.a.	n.a.	
Switzerland	All	No limit	No limit	2.5	General	No	No limit	Yes	

n.a. = not applicable.

1. Situation in the late 1980s. Definitions of the indicators shown here are listed in the next note, and some assumptions underlying them are described in more detail in Grubb and Wells (1993).
2. The variables tabulated under each key are as follows:
Valid cases other than the usual "objective": scored 0 if fixed-term contracts are permitted only in "objective" cases (*i.e.* to perform a task which itself is of fixed duration); 1 if specific exemptions apply to situations of employer need (*e.g.* launching a new activity) or employee need (*e.g.* workers in search of their first jobs); 2 when exemptions exist on both the employer and the employee side; "all" when there are no restrictions on the use of fixed-term contracts.

Maximum number of successive contracts: refers to limits on the number of successive fixed-term contracts that an employee can have with a given employer (1 when no renewals are permitted).

Maximum cumulated duration: the maximum cumulated duration of successive fixed-term contracts or TWA assignments with a given employer (and without a break in the employment spell).

Types of work for which TWA is legal: scored on a scale with 0 where TWAs are never legal, 1 to 3 when legal only for certain work situations (*e.g.* not for permanent posts) or industries, and general where no work-situation or industry restrictions apply.

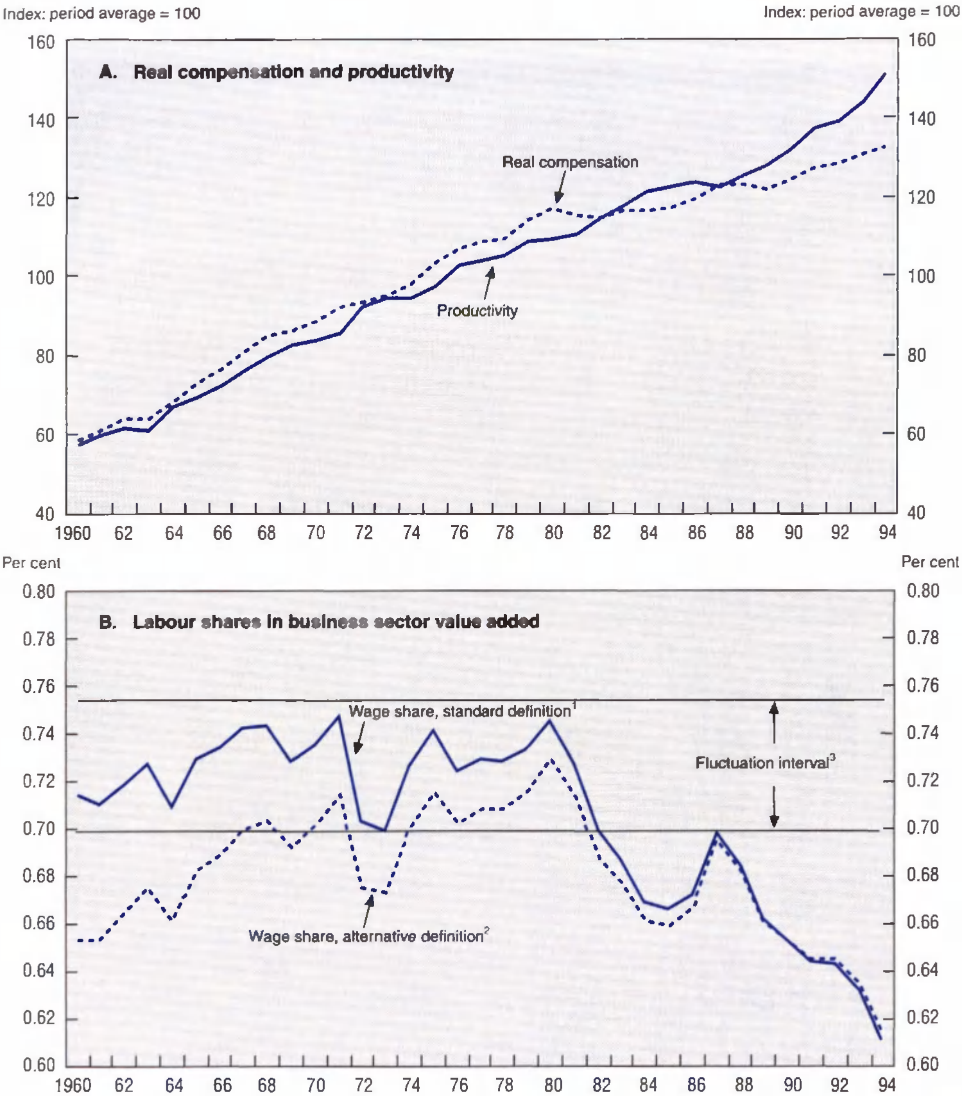
Can final user terminate at any moment?: In some countries notice requirements apply to termination of the assignment of an employee hired through a TWA agency or TWA agency work takes the form of a fixed-term contract. Scored 0.5 if the TWA contract has a fixed term but can be terminated at a few days' notice.

Overall strictness: see the following note.

3. The rankings for "overall strictness" are ranks of the unweighted average of the ranks of the variables in the preceding columns under the same heading. EFTA countries are not ranked for regulation of TWA employment because certain information for Finland and Norway was lacking.
4. Netherlands: TWAs are forbidden in the building sector (classification revised from D. Grubb and W. Wells, "Employment Regulation and Patterns of Work in EC Countries", *OECD Economic Studies*, 21, Winter, 1993).
5. Portugal: maximum cumulated duration is 24 months for a new activity or enterprise, 36 months for other cases.

Source: OECD (1994*c*).

Figure 30. **REAL COMPENSATION, PRODUCTIVITY AND WAGE SHARES IN THE BUSINESS SECTOR**



1. Calculated by assuming compensation of the self-employed is equal to average compensation for wage earners.
2. Calculated by assuming compensation of the self-employed rises from 70 per cent of average compensation in 1964 to 100 per cent in 1995.
3. Calculated as the mean wage share, based on the standard definition, +/- twice its standard deviation.

Source: OECD.

Table 26. **Education and training indicators**

A. Overview of adult education and training

	Full-time equivalents
Provided by public administration	102 900
Provided by private sector	34 100
Total	137 000
of which:	
Employed	90 400
Unemployed	23 300
Outside labour force	23 300
Memorandum items:	
Employed	
During working hours	51 500
Outside working hours	38 900

B. Financing of adult vocational education and training, 1994

	DKr billion				
	Collectively provided		Participants	Enterprises	Total
	General taxation	Earmarked contributions			
Publicly provided, current cost	3.0	2.1	0.2	0.6	6.0
Privately provided, current cost	1.3	..	..	2.7	4.0
Public income support	1.7	4.9	..	..	6.6
Private income support	1.3	..	..	2.7	4.0
Total	7.3	7.0	0.2	6.0	20.6
Per cent	35	35	1	29	100

Source: Ministry of Finance (1994*b*).

the ease of resort to temporary lay-offs, means that enterprises have few incentives to use periods of slack for in-plant training.

Increasing the knowledge base, efficiency and innovation capacity

Upgrading skills and competences

For the majority of young people, the school-to-work transition generally proceeds more smoothly in Denmark than in most other countries. One reason for this is the extensive apprenticeship scheme that offers vocational training well suited to the needs of industry, with wage costs amounting to around 40 per cent of the ordinary adult wage. At present 40 per cent of a cohort can be expected to complete vocational education, while 30 per cent will complete higher education (Table 27). But this still leaves 30 per cent of each cohort who will either drop out of vocational or higher education (25 per cent) or stop with basic education (5 per cent). The relative concentration of labour market problems among this segment of the youth population would seem to be exacerbated by the high beginners' wage – outside the apprenticeship scheme – which enters into force at an early stage (18 years of age), making it difficult for youths to gain access to ordinary jobs. As a result, participation in government-sponsored schemes has become a fairly normal path into the labour market for young people with only basic education. At present, a disproportionate number of all participants in active labour-market measures come from this group.

A lasting reduction in unemployment among this segment of the low-skilled is, *inter alia*, dependent upon a reduction in the minimum wage, which in turn depends on a shift in attitudes and priorities of the social partners. Moreover, it depends on upgrading the qualifications of this part of the cohort. In a recent review of Danish education policies,[93] emphasis was laid on ensuring that youths are prepared to enter a labour market which makes increasing demands on their skills. A key priority must be to reduce the large number of drop-outs at all stages

Table 27. **Educational profile**[1]

Percentage distribution

	1981/1982	1986/1987	1990/1991
Total	100	100	100
Vocationally qualifying education	65	70	70
Vocational education	40	45	39
Higher education	25	25	31
Non-vocationally qualifying education	35	30	30
Basic school	12	8	6
General upper secondary education[2]	5	4	4
Uncompleted vocational education	13	12	14
Uncompleted higher education	6	6	6

1. Expected total educational profile of a given cohort about to enter the education system if it conforms to the latest information available on educational choice, drop-out etc. up to the selected years.
2. Of which two-thirds are qualified for admission into higher education.

Source: Ministry of Education (1994).

during formal education. Broadly supporting recent Danish initiatives, the report points to an uneasy balance between central guidelines and local autonomy in education. Greater institutional autonomy – within a broad national regulatory framework – would, in the view of the report, enable local authorities to respond more readily to the needs of the students themselves and local employment possibilities. While vocational education and training have, to a large degree, moved in this direction, basic education still does not prepare many students sufficiently for the transition from compulsory general to vocational education.

Product-market competition

Small and medium-sized enterprises are a large source of economic activity in Denmark, enterprises with fewer than 500 employees accounting for around 60 per cent of private sector employment in 1993. Also, there is some evidence that a disproportionately large share of net employment creation relates to the establishment and growth of small enterprises, which – according to recent empirical studies – takes place at broadly the same pace in Denmark as in other North European countries.[94] Overall, the manufacturing sector's share of total private employment has declined over recent decades, whereas the private service sector's share has increased – although with some signs of a reversal during the latest recession. Partly due to sectoral shifts within these sectors, the share of skilled employment in both manufacturing and the private sector as a whole has shown an increasing trend in recent decades.[95]

Since job creation can be linked to the growth of new and small enterprises, *product market imperfections* can hamper employment growth insofar as they shield existing enterprises or discourage new business activities. Lack of competition will generally entail higher prices and lower employment in the short run, while in the long run reducing economic growth by allocating resources in an inefficient way. Moreover, sectors reaping economic rents due to weak competition are more likely to offer above-average wages. In the absence of sufficient relative wage flexibility, this tends to push up the general wage level in the economy, thus curbing aggregate labour demand. Regarding product market competition, an earlier *OECD Economic Survey of Denmark* found evidence that retail prices for selected goods and services in Denmark are significantly higher than in comparable countries.[96] By raising costs of living – and thus, by implication, reservation wages – this could damage the international competitiveness of the business sector and, to the extent it points to more fundamental flaws in competition, be an indication of insufficient flexibility in the relevant sectors. There is little empirical evidence to support abnormal mark-ups in the manufacturing sector but limited competition in the distribution sector could have negative effects on the functioning of the economy.

Efforts to boost competition in the business sector are under consideration. The draft bill included in the recently-published report of the committee set up to review the Danish Competition Act would represent, if enacted, an important step away from the prevailing "abuse principle", allowing collusive agreements where no abuse can be demonstrated, toward the "prohibition principle" generally in force in the EU. Also, a recent deregulation of shop-opening hours can be expected to sharpen competition in retailing.[97] Thus, the major outstanding questions in this area relate to the deregulation of public utilities and other public participation in business activities. Tele Danmark, the national provider of telecommunication services is scheduled to be exposed to competition along the lines of EU's Telecommunication Directive. As a first step toward liberalisation, the company's monopoly on operating the network was curtailed in mid-1995. Remaining questions, however, relate to the possibility that regional electricity companies and concessioned providers of public transport are cross-subsidising loss-making activities but also to the wider issue of splitting the natural monopoly parts of their activities from the areas where they could be exposed to private competition. Furthermore, the Competition Council – the regulatory body overseeing competition policy – is barred from issuing binding decrees to public and publicly regulated entities. This may prove increasingly problematic in light of the government's stated policy of allowing strategic partnerships between public bodies and private enterprises.[98]

With government services providing about 22 per cent of total GDP, deployment of resources in these areas will have a direct bearing on competition and job-creation in the service sector at large. In this respect, since 1992 state institutions have been required to subject all activities, where competition from external suppliers is possible, to market tests, aiming at an increase in the use of contracting-out of government expenditures. Further resort to contracting-out, particularly in the area of welfare services, would both help to ensure continued efficiency gains and encourage the expansion of private services in areas where there is unsatisfied demand. Furthermore, access to public sector jobs often lays down the need for professional skills beyond what would seem to be required by the type of service provided. Reversing this process of "professionalisation" would result in efficiency gains not only in the provision of government services, but also in liberal services which are heavily influenced by public authorisation and operational controls.

To encourage the growth of small and medium-sized enterprises, a government committee in mid-1995 proposed an easing of the *access to venture capital* for such companies. Judged by international standards, Danish small and medium-sized enterprises have an unusually low capital base. This could, in particular, reflect the comparatively high marginal income tax rates (see Chapter III), which limit household savings and direct them toward tax-favoured savings schemes such as pension plans. According to the presented proposals, insurance companies should be allowed to invest a larger share of their assets in equity, and individual pension schemes should be allowed to invest in unlisted equity. Furthermore, banks' capacity to undertake venture capital investment could be strengthened by changes to accounting regulations as banks' holdings of unlisted equity at present are allowed to enter their balance sheets only at an artificially low valuation.

Another factor which is occasionally mentioned as an indication of a lack of business sector dynamism is the *comparatively low private R&D investment*, which accounted for 1 per cent of GDP in 1993, compared with around 1½ per cent for the OECD as a whole. It could, however, also be related to the structure of the business sector, where a strong concentration of relatively small enterprises within low- and medium-technology sectors could explain the lack of registered R&D effort. There is furthermore some evidence that Danish enterprises are comparatively quick at implementing new production technologies and thus retaining profitability in slow-growing sectors. Overall, therefore, the policy implications in this area are ambivalent and any more activist stance would need to be judged against two criteria: *i)* the presence of market failures; and *ii)* the ability of the authorities to correct them in a cost-effective manner.

Recent policy actions

Policies to reduce structural unemployment were a central feature of the medium-term strategy covering the years 1994-98 which was presented in 1993.

As documented in the last *Economic Survey of Denmark*, implementation of this strategy began during the phase of expansionary fiscal policy in 1994. Policy initiatives impinging on the labour market have included:

- The *Labour market reform* which included a formal limit on the duration of unemployment benefits to seven years, with participation in labour market policy measures counted as part of that period. A central feature of the reform was measures to *reintegrate the long-term unemployed* via "individual action plans" based on intensified counselling and job-broking, with efforts graduated according to whether the unemployed is in "period one" of an unemployment spell (first four years) or "period two" (last three years). The reform is set out in detail in Box 3.
- *Extended paid leave arrangements*, covering education, child rearing and sabbaticals with compensation levels set at 100 per cent of maximum unemployment benefits for educational leave and at 80 per cent for the two other schemes, and targeting both persons employed and unemployed (see above). Designed to encourage skill acquisition, but with potential adverse short-term labour supply effects, the arrangements were originally scheduled to be in force for a trial period of three years, up to (and including) 1996, except for sabbatical leave which would be discontinued at the end of 1995. In 1994, child-rearing leave was made contingent upon the approval of the employer who could postpone the leave for up to 26 weeks.
- *A tax reform* reducing marginal tax rates on personal income taxes by 8 to 14 percentage points over the period 1994-98. In order to secure revenue-neutrality the tax base was broadened and payroll taxes to finance labour market policy measures were increased together with "green taxes". For most employees, the reform implies a reduction in the overall marginal tax rate of between 6 and 9 percentage points.

The 1995 budget did not lead to major further changes in structural policies. However, the educational and the child-rearing leaves were both made permanent and the sabbatical leave was extended to March 1999. The compensation rate for educational leave was retained at 100 per cent of maximum unemployment benefit, while for the two other arrangements the compensation rate will be reduced gradually from 80 to 60 per cent (Table 24). The duration of child-rearing leave will be reduced (to 26 or 13 weeks depending on the age of the

Box 3. **The Danish labour market reforms of 1994 and 1996**

I. The 1994 measures

Activation of the unemployed

- After three months of unemployment: individual action plan to be formulated.
- All unemployed are entitled to one year of education, job training or grant to start own enterprise, to be started not later than after two years of unemployment.
- The unemployment benefit period is divided into two (four plus three years), full-time activation through job offers, training and education is obligatory in the second period.
- Benefits during education and job training are not to fall below unemployment benefits.
- Efforts to activate UI benefit recipients have been extended to cover the uninsured unemployed.

In the area of administrative reorganisation

- Decentralisation of work directed towards insured unemployed.
- Regional authorities have been allowed to dispose freely of certain allocations, to be used for targeted groups, in the end reaching 30 per cent of the overall allocation.

Limiting the period of unemployment benefits

- Unemployment benefits can be obtained for a maximum of seven years. Job offers and activation cannot be used to restore benefit entitlements. However, participation on paid-leave schemes comes in addition to the UI benefit period.
- The unemployed are authorised to combine an annual income from ordinary work up to DKr 27 500 with 80 per cent of maximum UI benefit.

II. The 1996 extensions

Activation of the unemployed

- Compulsory full-time activation is advanced by two years to take effect after two years of unemployment.
- Advancement of training (lasting eighteen months) for low-skilled youths to take effect after six months of unemployment.

Stricter eligibility criteria for unemployment benefits

- Access to unemployment benefit requires 52 weeks of non-subsidised work (formerly 26 weeks) over the last three years.
- Unemployment benefits can be accessed from the age of 19, as the minimum age for membership of UI funds is increased by two years.

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(continued)

Limiting the period of unemployment benefits

- Unemployment benefits can be obtained for a maximum of five years. Paid leave for education can no longer prolong the benefit period.

Enforcing job availability criteria

- Creation of a supervisory unit to oversee the UI funds.

child) although it may still be extended to one year with the permission of the employer. At the same time, there is to be intensified screening of the practices of the unemployment insurance funds with stronger sanctions being applied to those unemployed who fail to follow up offers for jobs or participation in labour market measures brokered by the public employment services.

Based upon experience gained through 1994 and 1995 and consultation with the social partners, the adopted 1996 budget extends and modifies the 1994 labour market reform in several directions (see Box 3):

- Young people on UI benefits but with no vocationally qualifying education will be obliged to accept an offer for eighteen months education with benefits at half the normal level after six months of unemployment. Rejection of the offer will result in loss of UI benefits and transfer to social assistance.
- The second UI benefit period with intensified counselling and activation will from 1998 enter into force after two years (four years at present), implying a total UI benefit period of five years. Education offers will count as part of the UI benefit period, and paid leave for education can no longer extend the benefit period.
- The eligibility criteria for UI benefit are to be tightened, unemployment benefit being made accessible only to those having 52 weeks of non-subsidised work (formerly 26 weeks) within the last three years and the lowest age at which UI benefit can be obtained being increased to 19 years.

- Early withdrawal from the labour force for workers aged 50 or more with UI benefit will be discontinued in early 1996, while the early retirement scheme from 60 years of age is kept unchanged. The use of paid-leave schemes by the unemployed is restricted.

Assessment and scope for further action

The Danish authorities have put forward ambitious goals for the overall development of the economy. After more than two decades of trend increases in unemployment, bringing it up to a peak of 12¼ per cent in 1993, the aim is to reduce unemployment to 5 per cent over a period of ten years. According to the calculations of the authorities this would require an increase in the overall employment ratio from less than 71 per cent in 1995 to 79 per cent in 2005, allowing for an increase in the participation rate of 2½ percentage points. Furthermore, active labour market and education policies are assumed to be strengthened to secure a virtual elimination of long-term unemployment. The major elements of structural policies to achieve these results are developed under four heads: *i)* improvements in labour mobility, via initiatives in education and job availability; *ii)* efforts to prevent unemployment persistence, through programmes to preserve and enhance labour force skills; *iii)* lower taxes and improved product market competition; and *iv)* a reduction in transfers, especially in respect to supplementary UI and early-retirement benefits (Table 28).

With significant policy steps having already been taken, a principal policy requirement is that the objectives set out be realised in full. Further progress is, however, needed in the following areas:

Table 28. **Contributions to reductions in structural unemployment**

Per cent of labour force

1993 level	10
Contributions	
Mobility (education and job availability)	–2
Preventive efforts (education and activation of unemployed)	–1
Lower taxes and improved product market competition	–1
Reduced transfers (supplementary UI benefits, early retirement)	–1
2005 level	5

Source: Ministry of Finance (1995*b*).

- The implementation of the 1994-98 tax reform should be reinforced by further cuts in the taxation of labour income.
- Eligibility criteria for unemployment benefits and job-search criteria will need to be more strictly enforced, while the use of unemployment insurance benefits for temporary lay-offs, partial unemployment, for education etc. needs to be reduced in scope.
- The public employment service follow-up of the long-term unemployed should be monitored closely. The advancement of the start of "period 2", with its wide range of job-placement efforts, from the end of the fourth to the end of the second year of unemployment, should help to tackle the problem of long-term unemployment, but it has to be evaluated systematically.
- The high replacement rate for low-income workers in the UI benefit and other related schemes should be reconsidered.
- A further reduction in the duration of unemployment benefits may be required as the Danish unemployment benefit scheme – even after the major alterations now put in place – is relatively generous, particularly for low-paid workers.
- The effective retirement age needs to be increased. Particular efforts should be made to reduce the inflow into early retirement and to make public sector jobs more accessible for older workers.
- The vocational content of the educational system needs to be strengthened together with efforts to reduce the high drop-out rate.
- Competition in product markets should be further strengthened, reducing the effect of rigidities in wage formation and lowering the general price level, in turn reducing reservation wages.

Implementing all the above proposed policy actions will be difficult, but in many areas public opinion is coalescing on the need for further change, since the objectives of social equality are not capable of being effectively achieved when persistent unemployment among certain groups is one of the major causes of lifetime inequality.

There is broad agreement on the need to wean youths away from the dependency mentality associated with current and past practices in the area of income maintenance. There is a recognition – most recently expressed in the agreement on labour market policy measures for 1996 – that youths' access to these schemes should be restricted and the level of support reduced relative to other groups. Also, there are proposals for a so-called social clause within the overall wage agreements in the private sector, whereby a number of jobs will be specifically allocated to the long-term unemployed (and other less employable persons). Presumably, these jobs will receive a remuneration below the prevailing ordinary wage, the implications being that wage differentials for low-skilled workers are presently out of line with productivity differentials and that an alignment of these differentials will stimulate employment of the workers concerned. The effectiveness of the apprenticeship scheme, where initial wage levels are low and increases are related to productivity improvements, supports the case for a widening of this approach. A reduction in current high replacement rates for low-skilled workers in the unemployment insurance benefit and associated schemes could be followed up by allowing the minimum wages embodied in the wage agreements to be adjusted down, while raising the 18-year age threshold at which adult wages begin to apply. Arguably, such reforms would give low-skilled workers an incentive as well as an opportunity to compete more effectively for jobs and, more importantly, give them access to work experience that can lead to further improvement of life-time income. However, there still may be a trade-off involved, and reflecting the fact that lower minimum wages would leave certain workers with a lower income, both in the short and longer run, the Danish authorities have opted for an alternative strategy whereby education and upgrading of the qualification of low-skilled workers are the key instruments in reducing unemployment for this group.

Favourable macroeconomic developments would help to lower the overall unemployment level and to make inroads into long-term unemployment and the high number of early retirees. In such an environment, tightening of access to the unemployment benefit and early retirement schemes would be easier to accomplish. Nevertheless, the Danish experience indicates that control over the inflow into such schemes and strict enforcement of job availability tests are necessary, even with less favourable macroeconomic conditions. Thus, the present moves should not be contingent upon overall economic developments, but should rather be seen as a precondition for improving labour market flexibility and for reducing benefit dependence.

The financing of the paid-leave schemes should be transferred to the private sector since – as is the case with other working-time arrangements, such as extended holidays and shorter working hours – these programmes need to be compensated for by long-term increases in productivity and their terms should be negotiated, and paid for, by the social partners. While the increased emphasis on educational leave points in the direction of continued public participation, the resources allocated to this scheme should be viewed against those required for the planned build-up in vocational education and training capacity needed to reduce the drop-out rate in the education system to the target of 10 per cent.

In addition to the actions needed to make the labour market more efficient, there are several areas both in manufacturing and private and public services where there is still a clear need to strengthen competition. Implementation of the proposal for a new Competition Act may prove beneficial in this respect, especially if the Competition Council were to be given wider authority to operate in the area of public service provision, in which the government sector often occupies a monopoly position. In particular, the emphasis on security of supply seems to have resulted in discriminating against new entrants in areas which are likely to be large potential employment creators in the future.

V. Conclusions

The economic upturn, having been initially fuelled by expansionary fiscal policy and falling interest rates and led by private consumption, has moderated and become more broadly based. GDP growth of around 3 per cent is expected for 1995, compared with the 4½ per cent registered in 1994. As the macroeconomic stimulus has been withdrawn, and against the background of a favourable international environment and increasing capacity utilisation, business investment has replaced consumption as the principal vehicle of demand growth. However, reflecting both the soundness of the private sector financial situation and continued gains in real disposable income, private consumption should continue to increase by 2½ to 3 per cent per year in 1996 and 1997. This, with continued expansion of investment, should sustain GDP growth of between 2½ and 3 per cent per annum over the next two years.

While projected demand growth should allow unemployment to decline, increases in labour demand have so far been attenuated by strong productivity gains. The number of employed has increased and the unemployment rate has fallen from above 12 to below 10 per cent of the labour force but this fall is also attributable to the fact that the underlying rise in labour supply has been offset by the implementation of paid-leave schemes, covering more than 2 per cent of the labour force. So far, no significant bottlenecks have emerged in the labour market, and wage rises have remained subdued, at around 3½ per cent in 1994. With employment gradually responding to the upturn in the economy, the slack in the labour market may be used up by 1997, leading to somewhat higher wage growth. But since the share of profits in value added is historically high, the increase in wages should feed into domestic prices only with a considerable lag, and consumer price inflation is not expected to exceed 3 per cent. The circumstances which accompanied the resurgence of inflation and subsequent recession during the 1983-87 upturn seem to be absent this time, particularly the financial conditions that could fuel asset-price inflation in the housing sector, with associated household dissaving and severe balance of payments disequilibrium. The current account is projected to remain in surplus of around 1½ to 2 per cent of GDP.

Monetary developments have been a moderating force during the expansion. Reflecting the commitment to exchange rate stability *vis-à-vis* the core members of the ERM, the krone/Deutschemark rate has remained within a narrow range, allowing the currency to appreciate in effective terms. This has resulted in a real exchange rate appreciation of 5 per cent over the past two years, with consequent short-term loss of international competitiveness. Long- and short-term interest rates have moved more or less in phase with German rates, increasing markedly through 1994, before falling back somewhat in 1995. However, differentials *vis-à-vis* Germany have risen from a low of 0.3 to 0.4 percentage point in early 1994 to 1 to 1½ percentage points. They may be expected, over the next few years, to remain influenced by a risk premium related to the decision of Denmark not to take part in stage III of Economic and Monetary Union and an underlying rise in inflation expectations. In this respect, the credibility of the fixed exchange rate regime has yet to be fully reflected in financial market expectations. It should be kept in mind, however, that the benefits of anchoring expectations via a fixed exchange rate policy generally accrue gradually over the medium term and that international experience indicates that a country's interest-rate differential *vis-à-vis* the anchor country – in this case, Germany – is usually closely correlated with past history of exchange rate variability. Against this background, and insofar as the monetary policy requirements stemming from the pursuit of currency stability have generally been consistent with the conjunctural needs of the economy, it is apparent that the current exchange rate regime has served Denmark well. Continuity and consistency in policy-making thus remains the most secure way of achieving medium-term stabilisation objectives.

Establishing policy credibility is especially dependent on domestic policy consistency, particularly with respect to the mix of monetary and fiscal policies, and in this respect, the medium-term fiscal strategy adopted in 1993, initially covering the years up to 1998 and now extended to the year 2005, has provided an essential framework for implementation of the annual budgets and the achievement of long-term fiscal and stabilisation goals. The initial relaxation of fiscal policy in 1993-94, having turned out to be, in fact, smaller than envisaged

– in part due to a lower contribution than expected from local government – is being reined in through 1995 and 1996, in effect adjusting fiscal policy to the strong upturn in the economy. In the course of 1995, the general government deficit was restored to a level significantly below the Maastricht limit of 3 per cent of GDP, while that projected for 1996 (1 per cent of GDP) is among the lowest in the OECD area. The objective is to achieve balance in 1997. However, with government gross liabilities (OECD definitions) of around 80 per cent of GDP, net debt at 46 per cent of GDP and net interest payments amounting to 3½ per cent of GDP, the stated aim of Danish authorities is to achieve a surplus in government finances over the economic cycle, thus allowing a gradual repayment of government debt. Achieving balance in the general government accounts at the peak of the economic cycle approaches, but does not achieve, this aim, and in view of the present strength of the economy, it should have been possible to reach a position of debt repayment earlier than 1998. Indeed, although no precise norm can be set for the desirable longer-run level of public deficits and debt, achieving a surplus on the fiscal budget during the upswing would seem to have warranted a higher priority.

The case for further budgetary retrenchment is all the more pressing since existing public transfer commitments involve important future government liabilities contingent upon future demographic trends. Longer-range projections indicate an adverse effect on public finances from the ageing of the population, taking effect primarily after 2005. Although relatively modest in comparison with that facing other European countries, the effect of ageing on government disbursements nevertheless amounts to the equivalent of a tax increase of 4 per cent of GDP over a 35 year horizon. Given the already high level of taxation, it would be difficult to meet these obligations without cutting back on public expenditure. The most efficient way of providing for future contingent liabilities would thus be to build up a better starting position, before demographic pressures mount, rather than respond later, as the pressure develops.

Furthermore, both public expenditure and taxation levels remain very high in Denmark, so that deficit reduction needs to be accompanied by lower tax rates. An important element of the medium-term strategy was a tax reform aimed at lowering marginal tax rates on labour income, the revenue effects to be gradually offset by a broadening of the tax base and higher environmental (green) taxes. As developments unfold, there are, however, indications that the tightening of fiscal policy has relied to a greater extent than expected on tax increases rather than expenditure cuts, as a result of which marginal tax rates are about to exceed the levels envisaged by the tax reform. By the same token, the Danish government commitment of keeping the rate of increase in public spending significantly below GDP growth – a policy permitting a slow but steady reduction in the overall tax burden – has so far been met only because of the strong cyclical recovery of GDP. Permanently reducing current high levels of public spending, and hence paving the way for a reduction in the tax burden and its associated allocative distortions, remains an important policy imperative.

The design of the tax and transfer system in Denmark is closely linked with the objectives of the Scandinavian universal welfare model. This welfare state concept differs from other OECD countries insofar as benefit entitlements are linked to social aims as well as demonstrated financial needs, and benefit rights are generally not accumulated through contributions to insurance schemes or a person's employment record. To combat relative poverty, a whole range of social insurances, offering rather generous replacement rates in the case of either temporary or permanent loss of income, are provided by the public sector. To allow all citizens full labour market participation, subsidised public services related to the care of children and aged persons are provided. The extensive welfare-related spending is, to an internationally high degree, financed by taxing households, through progressive income taxes and consumption taxes, while contributions to social insurance schemes are small, and business taxation remains comparatively moderate. It is largely as a consequence of the universality of the Danish welfare system that the tax burden on Danish households is among the highest in the OECD area.

The Danish welfare model has been very effective in alleviating absolute and relative poverty. This is in itself welfare-enhancing and has undoubtedly contributed to the stability of social and industrial relations. On the other hand, the redistribution of income within the Danish system mainly relates to net transfers from recipients of ordinary incomes toward the aged population, persons enrolled in education and persons with temporary loss of income. It may be argued that much of the redistribution relates to the shifting of net income within the life-cycle of the average individual. In this respect, it would seem that high taxes and public spending could be addressed, to some extent, by allowing capital markets to play a larger role in redistributing life-time income in the future, without putting the present redistributional objectives at risk, or moving the Danish system away from the principle of universality. Indeed, it is evident that the state is achieving, at the cost of a relatively high tax wedge, what many individuals could in principle themselves achieve given efficient capital markets, and in this respect financial liberalisation now offers greater potential for private sector involvement. A gradual shift towards supplementary private insurance would help to relieve the pressure on pensions and other transfer spending and would have efficiency benefits in terms of lower overall tax rates on labour. While acknowledging that private insurance schemes cannot be expected to take care of the financially weak, it would seem that leaving a larger share of the financing of foreseeable events, such as retirement, to households would have benefits in terms of the expansion of the private service sector and related employment opportunities.

An important element in the distributional system relates to the compensation of lower-educated groups in the labour market for a higher unemployment risk, an implication being that more evenly distributed employment possibilities (and hence unemployment risks) might reduce the unevenness of life-time income more effectively than income redistribution policies are able to do. Indeed, distributional objectives can hardly be achieved effectively without addressing the unemployment problem directly. Unemployment in Denmark was on an upward trend for more than twenty years until the early 1990s, resulting in a level of unemployment above the OECD average and a structural level of unemployment which for 1995 was estimated at between 9 and 10 per cent of the labour force. At the same time, it should be noted that structural budget imbalances and imbalances in the labour market are closely related, so that a sustained improvement in public finances is in part dependent on a reduction of the high level of structural unemployment.

Reducing the high overall rate of unemployment should thus be one of the main priorities of economic policy, requiring measures covering a wide array of policies with effects both in the short run and over the medium term. Applied to the Danish case, the *OECD Jobs Strategy* would call, in particular, for: *i)* increased aggregate *wage flexibility* and wage dispersion, to ensure that wage differentials reflect, to a larger extent, the balance between demand and supply in the labour market; *ii)* efforts to improve *work incentives* to promote job search and prevent unemployment persistence; *iii)* a further strengthening of the effectiveness of *activation measures* to deal with long-term unemployment; *iv)* higher investment in *human capital* among certain segments of the population, to enhance the matching of demand and supply in the labour market; and *v)* a continuing improvement in *product market competition* to underwrite greater service sector job creation. Achieving these objectives requires reforms, many of which have already been set in train, in the area of tax and benefit rates, benefit administration systems, and initiatives with respect both to education and training policies and to deregulation and competition policy.

The high Danish tax burden has contributed to an internationally high labour market participation rate, most households needing two incomes to sustain a family, while the generosity and ready availability of social benefits, linked to being available for work, would seem to have further encouraged participation. But there is some evidence that the generosity of transfer programmes, reflected in long-lasting and internationally-high replacement rates in social insurance schemes, has reduced economic incentives for active job-seeking, resulting in high reservation wages and a fairly rigid and compressed wage structure. Such effects are at work for low skilled workers generally and for youths and older workers in particular. Because the replacement rate in the Unemployment Insurance scheme is structured so that the highest rates pertain to lower incomes, and since benefits can be maintained for a relatively long period, the forces that should have acted to adjust wage relativities are impeded.

A further reassessment of the effects of transfer schemes, following up the first steps taken in the 1994 labour market reform, is an integral part of any strategy to reduce structural unemployment. Adjustments in such arrangements, with a consequent downward pressure upon the minimum wages agreed to in wage bargaining, would give the unemployed the possibility to compete for ordinary work on more equal terms with the employed. Combined with a further cut in marginal tax rates on labour income, such reform could be expected to improve incentives and thus pave the way for a moderate widening of the earnings dispersion in the bottom deciles, creating better employment prospects for the low-educated. Some studies of wage mobility suggest that a lowering of minimum wages could have a positive effect on life-time income among the weakest groups in the labour market. However, in the view of the Danish authorities large reductions in minimum wages would be needed in order to reduce structural unemployment significantly, with unacceptable implications for the incomes of the low skilled.

Greater aggregate short-term wage flexibility would mute the employment response to negative shocks to labour demand, thus moderating cyclical unemployment fluctuations. The wage-bargaining system is gradually developing in the direction of more decentralisation. However, certain institutional features of the Danish industrial system have led employers to favour quantity (*i.e.* employment) adjustment over gross wage adjustment. The Danish authorities have taken on wide responsibility for providing enterprises with short-term flexibility of the work force, not just through public provision of training facilities for the work force, covering both the unemployed and persons employed, but also through easy access to unemployment benefits during temporary lay-offs. Together with negligible payroll taxes levied on enterprises, this flexibility increases employers' hiring incentives. Moreover, social externalities in the area of vocational training, in an economy with mainly small and medium-sized enterprises, justify an active government role in this area. But the economy could well benefit from a move away from financing lay-offs and retraining through taxation, towards stronger emphasis on corporate user fees for training services and a waiting period for unemployment benefits. The public financing of paid-leave schemes is a particular case in point. With a view to strengthening the educational attainment of the work force and promote more flexible work patterns, allowing parents more time with their children, the government has assumed functions which might more properly belong in the bargaining sphere between employees and employers (at a cost to the public purse which in the longer run must be set against other expenditure, *inter alia*, in the area of general education). The paid-leave schemes are being scaled down, but more of their cost could be transferred to the private sector

Insofar as the ambitions of the welfare state will continue to place a reliance on relatively generous replacement rates and wide access to income maintenance schemes in the event of income loss, the formulation of eligibility criteria and the administration of these become of utmost importance in providing incentives to effective work search and in restraining public expenditure. As developments over the 1980s and early 1990s indicate, there is a clear danger of welfare dependency becoming ingrained in society, particular when such arrangements are easily accessed by youths. The measures taken to limit the access of youths to unemployment benefits and other income support, combined with the general tightening of eligibility rules, are steps in the right direction, following as they do upon the general strengthening of activation of the unemployed embodied in the 1994 labour market reform. With the formulation of an individual action plan fairly early in an unemployment period, the activation should be seen both as a synchronised effort of the bodies involved to ensure a speedy return to ordinary work and as a test of the availability of the unemployed for jobs in the labour market. Now that the administrative routines needed to implement the system of continuous follow-up of the long-term unemployed with job, training and education offers are fully operational, a foundation has been established for reducing the duration of unemployment benefits on a sustainable basis.

Greater access to employment would also result from a continuous improvement of human capital as a result of higher standards in the education system and better training of the work force. The high relative unemployment rate for low-skilled workers indicates that the high drop-out rate during formal education, where as much as 30 per cent of a cohort does not complete vocationally qualifying education, contributes strongly to the high rate of structural unemployment. Improving the education system to provide students with skills matching the demand of business and industry, in particular through a lowering of the high drop-out rate, would enable workers to cope with changes in work requirements, thereby securing long-term flexibility of the work force. Incentives would be particularly increased if such an improvement was combined with lower relative wages and less generous unemployment benefits for younger workers.

Further labour market reform was a central feature of the final agreement on the 1996 budget and, building upon the framework set up by the 1994 labour market reform, the measures now adopted by the Danish authorities address many of the concerns that motivate the recommendations following from the *OECD Jobs Strategy*. The emphasis has been placed on education and upgrading of qualifications, as well as tighter eligibility and job availability requirements as the key instruments in reducing the relatively high unemployment risk of low-skilled workers. Consequently, active measures to provide the unemployed, and unemployed youth in particular, with job, training and education offers will be brought in at a much earlier stage of unemployment, while for low-skilled youths obligatory education and training is to be introduced after unemployment spells of only six months. These measures are reinforced by a reduction in the effective duration of unemployment benefit to a maximum of five years. They take effect in the course of 1996 and 1997 and should, according to the calculations of the Danish authorities, reduce structural unemployment to 8-8½ per cent by 1997. However, further reforms will be required if the medium-term aim of reducing structural unemployment to 5 per cent is to be achievable.

Small and medium-sized enterprises are a large source of economic activity in Denmark, enterprises with fewer than 500 employees accounting for around 60 per cent of private sector employment in 1993. However, product market imperfections can hamper employment growth insofar as they shield existing enterprises or discourage new business activities. In this respect, an earlier *OECD Economic Survey of Denmark* found evidence that retail prices on selected goods and services in Denmark are significantly higher than in comparable countries. By raising costs of living – and thus, by implication, input costs – this could damage the international competitiveness of the business sector and, to the extent it points to more fundamental flaws in competition, be an indication of insufficient flexibility in selected sectors. Recent policy changes would seem to have increased the efforts to boost competition in the private sector. The recent proposal for a new Competition Act represents a potentially important step from the prevailing "abuse principle", allowing collusive agreements where no abuse can be demonstrated, toward the "prohibition principle" generally in force in the EU. Also, a recent deregulation of shop-opening hours can be expected to sharpen competition in retailing. However, major outstanding questions relate to the deregulation of public utilities, the contestability of the markets in which they operate and possibilities (for regional electricity companies and concessioned providers of public transport for example) to cross-subsidise loss-making activities.

In sum, the Danish economy has over the last few years been characterised by a strong improvement in economic performance. The cyclical upturn has reduced the deficit in government finances and unemployment has been falling, partly as a result of the measures to reduce labour supply, but also reflecting increases in labour demand. However, further efforts are necessary, firstly to ensure that government debt is repaid over the economic cycle, and, secondly, to reverse the long-term upward trend in structural unemployment. To make permanent inroads into unemployment the implementation of the broad-based strategy aimed at increasing labour- and product-market flexibility, as recently adopted by the Danish authorities, needs to proceed with vigour, drawing upon the international experience incorporated in the *OECD Jobs Strategy*. Combined with a review of the distributional effectiveness of the tax and transfer system, this would ensure that the observed improvement in economic performance is maintained.

Notes

1. However, at the time of preparing this report, no wage data were available for the period after 1994.
2. The fall in savings ratio was particularly associated with the large-scale conversion of mortgage bonds (see below).
3. For a discussion, see OECD (1994*a*).
4. According to the Danish definition, repair and maintenance is investment if it increases the value of the house to a degree necessitating a new tax-assessment.
5. The market price of an average existing single-family dwelling remains an estimated 10 to 15 per cent below the construction costs.
6. For a discussion of the commodity composition of Danish industries, see OECD (1994*a*).
7. The continued growth in value added of the construction sector in 1995 was mainly linked to activities not classified as investment.
8. This was a reversal of the 1993 experience. There is, however, a considerable risk that official statistics for that year underestimate Danish imports from other EU countries, due to problems of implementing the Intrastat.
9. When bonds are traded between two due-dates, the purchaser is obliged to pay accrued interest to the seller, thus affecting transactions registered as interest payments in the balance of payments. Large net purchases of Danish bonds by foreigners thus triggered an immediate improvement of net investment income.
10. At the time of preparing this report, no wage data were available for 1995.
11. For a discussion of consumer price decomposition, see Danmarks Nationalbank (1994) and (1995).
12. This was, however, particularly the case in late 1993.
13. The surplus in the trade of goods and services amounted to 2 per cent of GDP in 1983 and 7 per cent of GDP in 1993.
14. A decline in registered imports and exports in 1993 would seem to be linked to a statistical under-representation of intra-EU trade after the introduction of the Single Market.
15. There is also evidence that households underestimated the reduction in inflation at the time, and thus wrongly perceived real interest rates as having fallen.
16. Ministry of Finance (1995*b*).

17. See OECD (1995*d*), pp. 25-26. The interest rate premium paid by Denmark only began to fall after the inflation differential was eliminated.

18. Ministry of Finance (1995*b*). In the interpretation of the evidence this study points out that fiscal policy affects the interest-rate differential in an indirect way through its effects on GDP growth, inflation and the current account. In the underlying study, however, using time-series evidence for 17 OECD countries, it is shown that, *ceteris paribus*, differences in budget deficits will over the long term show up directly in different real interest rate levels. See Orr *et al.* (1995).

19. See further description in OECD (1994*a*).

20. Nominal government bond yields deflated by the coincident twelve-month rate of inflation.

21. Countries estimating so-called Monetary Conditions Indices have typically found weights that equate the effect on GDP of a 1 percentage point in real interest rates with a 3 to 4 per cent increase in the real effective exchange rate. If this were the case also in Denmark, interest and exchange rate developments have more or less the same effect over the period. Refinancing (conversions) of mortgage bonds due to lower interest rates subsided strongly during 1994, no longer influencing households' cash flow.

22. See Egebo and Englander (1992). The study covers developments up to, and including, 1991.

23. See also Ministry of Finance (1995*b*). Using an econometric model encompassing the entire structure of the Danish economy – thus taking into account rigidities both in factor and product markets – the current level of unemployment consistent with a stable 3 per cent inflation has been calculated at 9 per cent.

24. The convergence programme was presented in February 1994. A revised programme integrating accounts for 1993 and the fiscal policy proposals for 1995 was presented in November 1994.

25. The stance of fiscal policy in this context is the estimated impact of the budget as measured by the Danish Ministry of Finance, which summarizes the first-year impact on GDP of changes in revenues and expenditures relative to a base-line with unchanged taxes, unchanged public employment and constant real expenditures on goods and services. The base-line also assumes parallel wage developments in the private and public sector and transfers to be regulated in line with wages.

26. The administrative central government budget is cash-based and includes loan transactions. This set-up reflects the administrative procedures and the decision process in the Danish parliament. The national accounts-based deficit for the central government is normally ½ to 1 per cent of GDP lower than the corresponding deficit on the administrative budget, reflecting *i.a.* the difference between taxes paid and taxes accrued. The one exception is 1994 when large capital gains on bond holdings boosted the revenues of the cash-based administrative budget.

27. The 1994-98 tax reform also included a change in the taxation of pension incomes and other transfers in which the general tax schedule was applied to these incomes as well. This was compensated for by an increase in transfers. The effect was a simultaneous increase in tax and expenditure levels of 2 per cent of GDP. The changes referred to are net of this change.

28. The impact on the fiscal balance reflects the fact that these schemes are mainly used by unemployed or public employees. The first group of participants would in the absence of such schemes have been taking part in more expensive training schemes, whereas the second group are replaced by less senior persons with lower wages and to some extent not replaced at all.
29. In the Danish case, premium payments to occupational pension schemes are tax-deductible whereas pension payments under the scheme – arriving 20 to 30 years after the premium payments – are taxable. This gives rise to a general tax credit, though in some cases also to a tax reduction as marginal tax rates are typically lower for pensioners than for wage earners.
30. See Ministry of Finance (1995*b*).
31. Ministry of Finance (1995*c*).
32. The choice both of the time horizon for fiscal tightening and of the tax instruments or expenditure cuts by which it is implemented may lead to redistribution between generations. Taxation of wage income means that the age groups up to retirement age will carry the burden. Consumption taxes will affect pensioners as well. See Hougaard Jensen (1995).
33. For an overview of the main welfare-state models, see Esping-Andersen (1990).
34. This is in part historically founded. As the universal welfare state developed in the 1960s and 1970s social security schemes linked to labour market participation and financed by direct contributions were gradually replaced by government financing through general taxation.
35. The foundations of the present tax system were laid when Danish economy was still dominated by agriculture. Later, persistent balance of payments-problems in the 1960s and 1970s made policy-makers unwilling to impose further costs on the business sector. For a history of the Danish welfare state, see Ploug and Kvist (1994).
36. For a discussion, see Regeringen (1993).
37. On the other hand, unlike many other OECD countries, personal income within married or cohabiting couples is taxed individually.
38. The only commodities completely exempted are newspapers, aircraft and ships. Medical and financial services do not charge VAT on their turnover but have to pay VAT on input goods.
39. The high taxes on motor vehicles are presently perceived as appropriate on environmental grounds.
40. It has been decided that the excise duty on petrol will be increased in order to approach the German level by 1998 and that the excise on diesel fuel will become equivalent to that in Germany.
41. The 1994 Danish tax reform and recent Swedish tax hikes are, however, returning Denmark to second position.
42. The system does, however, make comparison of tax-burdens with countries not taxing social benefits notoriously difficult. According to some estimates, the measured Danish tax-burden would be around 3 percentage points lower if benefits were untaxed.
43. Persons entering unemployment immediately after finishing vocational education, being exempted from the 52 weeks-rule, are entitled to benefits after one months membership of an UI fund (for an overview of the recent tightening of UI benefit entitlements, see Chapter IV).

44. For a discussion see OECD (1993*a*).

45. At the same time the cash benefits for persons younger than 23 years were lowered toward the level of study grants.

46. Certain kinds of income are, however, exempted from the means testing.

47. The last ten weeks of leave can be shared freely between father and mother.

48. White collar workers and persons employed by the public sector are generally entitled to their pay during illness. Furthermore, this is gradually being included in collective contracts of the blue collar workers.

49. Individuals have to apply for social pensions. The take-up rate is however almost 100 per cent.

50. In addition, to receive the benefits the persons shall – under current rules – be entitled to early retirement benefits at the age of 60 years.

51. In 1994 the threshold was DKr 1 200 per month for persons with no dependent children, DKr 2 500 per month for single parents and DKr 4 000 per month for married couples.

52. Generally, only one-person students' households will have an income of one third of the APW level.

53. The same is the case for Sweden. This reflects generous child allowances to single-parent households, which are further increased if the single parent enters into employment.

54. Ministry of Finance (1994*a*).

55. See Socialkommisionen (1992*c*) and Ministry of Labour *et al.* (1995).

56. Ministry of Economic Affairs (1993).

57. In order to increase transparency, pensions are now paid in cash to the residents nursing-homes who are in turn requested to pay for the services of the institution.

58. See Ministry of Social Affairs (1994).

59. Eurostat (1994). Due to the date of the study, however, the comparison group does not include Sweden, Finland and Austria.

60. See Det Økonomiske Råd (1991).

61. If the analysis in Table 18 were extended to cover persons older than 67 years the redistribution would further diminish, since highly educated persons generally have private pension plans.

62. See Hansen (1995).

63. Ministry of Taxation (1994). It may be argued that the APW wage is not a relevant comparison since personal incomes are reduced by the contribution to private pension plans. Such pension plans are, however, most common among persons with incomes above the APW level.

64. Ministry of Taxation (1994). It should, however, be noted that an average production worker's wage is significantly above average wages for persons with less than tertiary education.

65. Also, unlike some other North European countries, replacement rates in passive income-replacing schemes tend to be significantly lower than for persons available to the labour market.

66. Denmark has no statutory minimum wage (see chapter IV), but around 70 per cent of the labour market is subject to minimum wages negotiated between the social partners. There are no legal extensions of negotiated minimum wage contracts to other labour-market segments.

67. Bingley *et al.* (1995). This study demonstrates that less than one-third of the persons earning wages in the first wage decile at a given point in time remain in this decile for more than two years.

68. For a study of marginalisation and economic incentives, see Ministry of Economic Affairs (1992).

69. Asked for the reasons for not being actively job-seeking, one third responded that they had given up while another third stated that they did not want a job. In addition to this, 64 per cent considering themselves as actively job-seeking responded that they were unwilling to accept a job with a daily commuting time longer than 60 minutes. See Pedersen and Smith (1995*b*).

70. OECD (1994*d*). This implies that the substitution effect dominates the income effect.

71. Smith (1990) and Pedersen and Smith (1995*a*). The latter study found a significant effect only for married or cohabiting men.

72. See for example Andersen (1992).

73. Binder (1994). According to empirical evidence, the increases in the average Danish tax-wedge from 1971 to 1991 have raised structural unemployment by 2½ percentage points. This study, however, also argues that for a given average tax-rate rising progression in the tax system is a moderating factor on wage increases. According to the argumentation, reducing the after-tax value of a given gross wage increase shifts employees' preference from gross wage increases toward lower unemployment.

74. OECD (1991). Generally, any negative profit may be used to reduce taxable profits in the following five years.

75. The tax-reform, when fully implemented in 1998, imposes an additional labour market contribution of 0.6 per cent of the wage sum on employers.

76. However, corporate tax wedges may be less important for the capital structure than aspects of corporate governance, such as ownership structure (Fukao, 1995).

77. OECD (1994*a*) argues that, since loan-financing seems more readily available to large and well-established companies, venture capital may be more important as a source of financing to small and new enterprises.

78. OECD (1994*d*).

79. Estimates are based on the unemployment career of all persons undergoing an unemployment spell during the period September 1991 to August 1994. Those persons who were unemployed for more than 70 per cent of the time over those three years are considered to be marginal labour force participants insofar as their experience of ordinary work is very limited.

80. OECD (1990).

81. The wage system in the public sector can be characterised as a "normal wage" system, however, with small bargained increments but with clauses adjusting wage growth in light of actual wage growth in the private sector.

82. It has been argued that in intermediate systems with wage bargaining at industry level rather than at enterprise or national level, wage increases at industry level are set on the assumption that they will be shifted forwards into prices but with only minor repercussions on real wages and with small effects on employment levels in the industry. Enterprise bargaining takes into account the employment effect of loss of market shares to competitors, whereas national bargaining is assumed to take into account the full effect on prices of general wage increases and the consequence for overall employment in the business sector. The negative effects of industry-wide bargaining may be compounded if a few industry-based unions are fighting for dominance. The theory and empirical investigations are set out in full in L. Calmfors (1994).

83. OECD (1994*c*), Chapter 1.

84. Westergaard Nielsen (1993). Furthermore, in 1992 around 25 to 30 per cent of enterprises in the DA area actually set (for one person or more) beginners' wages at the level of the bargained minimum whereas 40 per cent of enterprises operated with beginners wages 15 per cent or more above the negotiated minimum. The rise in actual wages paid relative to the negotiated minimum reflects all the factors creating insider-outsider mechanisms in the Danish labour market. Including youths and the low-skilled workers on active labour-market programmes, Jensen, Rosholm and Smith (1994) estimate that over the period 1984-90 workers having qualifications below those associated with the actual minimum wage represented about 1½ per cent of the labour force, compared with an overall unemployment rate of 9 per cent.

85. Det Økonomiske Råd (1994), *cf.* also Chapter III.

86. See references in Det Økonomiske Råd (1994).

87. See previous chapter for a more detailed description.

88. OECD (1992*b*), and OECD (1995*a*).

89. Udredningsudvalget (1992).

90. OECD (1996). See also OECD (1995*a*) Chapter 3.

91. OECD (1993*a*).

92. Ministry of Finance (1994*b*).

93. OECD (1995*c*).

94. For a discussion, see OECD (1994*a*).

95. In 1993, the share of skilled employment in manufacturing was 49 per cent compared with an OECD average of 46 per cent.

96. OECD (1992*a*). This finding holds even if the effect of high Danish indirect taxes is disregarded.

97. Opening hours are now, in principle, unregulated from 8.00 a.m. Monday to 5.00 p.m. Saturday. Shops with a particularly low turnover (at present, DKr 12.5 million per year) are furthermore allowed to stay open on Sundays.

98. For a discussion, see OECD (1994*a*).

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Annex I

Supplementary material to Chapter III

Table A1. **Measures of system generosity, efficiency and effectiveness of income transfers: all families with children**

Population below 50 per cent of median income

	Before taxes and transfers				After taxes and transfers							
	Low income rate LIR	Low income gap ALG	Gini (poor) GP	Sen Index*100	Low income rate LIR	Low income gap ALG	Gini (poor) GP	Sen Index*100	Reduction in LIR	Reduction in ALG	Reduction in Gini (poor)	Reduction in Sen index
United States	23.3	51.2	0.4	16.0	21.0	32.9	0.2	9.5	2.3	18.3	0.2	6.5
Germany	9.7	51.7	0.4	6.9	3.8	23.4	0.2	1.3	5.9	28.3	0.2	5.6
France	24.7	36.1	0.2	12.7	5.7	28.9	0.2	2.4	19.0	7.2	0.1	10.3
United Kingdom	29.5	54.6	0.4	22.0	7.3	37.6	0.3	4.0	22.2	17.0	0.2	18.0
Canada	18.4	46.1	0.3	11.7	12.6	27.3	0.2	4.9	5.8	18.8	0.2	6.8
Australia	17.5	56.6	0.4	13.2	12.0	33.7	0.2	5.9	5.5	22.9	0.2	7.2
Belgium	21.8	25.9	0.2	8.4	3.6	24.4	0.2	1.3	18.2	1.5	0.0	7.1
Denmark	20.2	47.4	0.3	13.2	4.3	24.6	0.1	1.5	15.9	22.8	0.2	11.7
Ireland	29.3	57.7	0.4	22.4	7.6	38.9	0.3	4.3	21.7	18.8	0.2	18.1
Netherlands	14.3	46.0	0.3	9.1	4.1	26.1	0.2	1.8	10.2	19.9	0.1	7.3
Sweden	13.1	48.6	0.4	8.8	3.7	24.6	0.1	1.3	9.4	24.0	0.2	7.5
Average	20.2	47.4	0.3	13.1	7.8	29.3	0.2	3.5	12.4	18.1	0.2	9.6

Source: Förster (1994) and Danish Ministry of Economic Affairs.

Table A2. **Measures of system generosity, efficiency and effectiveness of income transfers: single parent families**

Population below 50 per cent of median income

	Before taxes and transfers				After taxes and transfers							
	Low income rate LIR	Low income gap ALG	Gini (poor) GP	Sen Index*100	Low income rate LIR	Low income gap ALG	Gini (poor) GP	Sen Index*100	Reduction in LIR	Reduction in ALG	Reduction in Gini (poor)	Reduction in Sen index
United States	57.5	56.3	0.4	42.9	54.8	41.8	0.2	29.9	2.7	14.5	0.2	13.0
Germany	46.5	56.8	0.5	37.1	33.3	25.1	0.2	12.8	13.2	31.7	0.4	24.3
France	44.4	44.6	0.3	27.8	18.6	32.2	0.2	8.5	25.8	12.4	0.1	19.4
United Kingdom	75.1	62.4	0.5	61.2	28.3	21.4	0.1	9.0	46.8	41.0	0.4	52.2
Canada	57.1	59.9	0.4	43.6	48.6	32.1	0.2	21.0	8.5	27.8	0.2	22.6
Australia	62.5	69.4	0.5	53.7	55.6	33.2	0.2	24.7	6.9	36.2	0.4	28.9
Belgium	63.3	29.3	0.2	27.2	19.4	27.6	0.2	8.0	43.9	1.7	0.0	19.2
Denmark	38.2	55.1	0.4	28.5	2.7	26.3	0.1	1.0	35.5	28.8	0.3	27.5
Ireland	56.6	51.6	0.3	38.1	32.6	29.5	0.2	13.8	24.0	22.1	0.1	24.3
Netherlands	73.9	41.7	0.3	44.5	12.0	33.7	0.3	6.6	61.9	8.0	0.0	37.9
Sweden	38.3	55.4	0.4	28.2	5.9	25.6	0.1	2.0	32.4	29.8	0.3	26.3
Average	55.8	53.0	0.4	39.3	28.3	29.9	0.2	12.5	27.4	23.1	0.2	26.9

Source: Förster (1994) and Danish Ministry of Economic Affairs.

Annex II

Chronology of main economic events

1994

January

The official discount rate is lowered from 6.25 to 5.75 per cent.

February

The official discount rate is lowered from 5.75 to 5.50 per cent.

March

Legal limitations on consumer credit, imposed as part of the 1986 ''potato diet'' package, are abolished.

April

The official discount rate is lowered from 5.50 to 5.25 per cent.

May

The official discount rate is lowered from 5.25 to 5.00 per cent.

The seventh EU VAT-directive is implemented in national legislation. Several laws regarding customs and other forms of indirect taxation are changed accordingly.

September

Following parliamentary elections, a Social Democrat-led centre-left coalition takes office as a minority government. The government comprises three of the four parties in the previous government.

October

The government presents a blue-print of its policy intentions. Among the elements are administrative tightening in the implementation of labour market policies; environmental taxes on the business sector and a liberalisation of the telecommunications sector.

November

The Government and the main opposition parties reach an agreement about the Budget for 1995. The main elements are: a reduction of the replacement rates for persons on paid leave of absence from the labour market; mandatory job offers to young recipients of social assistance; abolishing public support to repair and maintenance of owner-occupied houses; and converting the postal service to a publicly owned commercial enterprise. Expenditures are set at DKr 390.2 billion (DKr 386.7 billion in 1994) and revenues are set at DKr 350.2 (DKr 342.6 in 1994). This implies a modest tightening of the fiscal stance, the Budget's impact on GDP estimated at 0.3 per cent.

1995

February

A two-year collective wage agreement is agreed between the main trade unions and the public employer. The main elements are: general wage increases of 2¼ per cent over the two-year period; increased non-wage compensation, such as employer-paid pension, corresponding to 1¼ per cent of the wage sum; and a general regulation clause related to the wage development on the private labour market.

A three-year collective wage agreement is agreed between the Confederation of Danish Industries and the main trade unions. During the three-year period, negotiated minimum hourly wages are set to increase by DKr 6.70. Other elements of the agreement include increasing employer contributions to private pension plans, improved access to wage during illness and higher compensation for uncomfortable work.

March

The official discount rate is increased from 5.00 to 6.00 per cent.

May

A committee on future employment and business environment (the "Welfare" committee) recommends an effort to increase the educational attainment of the low-educated echelons of the labour market. Further recommendations include improving the economic incentives to seek work or education, by addressing high marginal taxation and high replacement rates in parts of the social assistance system.

June

Effective from 1996, taxes on gasoline are increased by DKr 0.17 per litre. Taxes on the emission of sulphur, carbon dioxide and other pollutants to be phased in gradually from 1996 to 2000 are approved by parliament. Inheritance taxes are reduced.

An agreement on local authorities' 1996 budget is reached between government and local authorities. According to the agreement, the growth in local authority spending shall be limited, whereas they are set to raise income taxes by an average 0.5 percentage points in 1996.

July

The official discount rate is lowered from 6.00 to 5.75 per cent.

August

The official discount rate is lowered from 5.75 to 5.00 per cent.

November

The official discount rate is lowered from 5.00 to 4.75 per cent.

The government reaches agreement with a major opposition party on the 1996 budget. The main elements are: a tightening of the unemployment benefit system, the mandatory activation of long-term unemployed and unemployed youths takes effect at an earlier stage of their unemployment spells, and a strengthening of vocational training. The authorities estimate the general government deficit to be reduced to just below 1 per cent of GDP. This implies a tightening of the overall fiscal policy stance of ½ percentage point of GDP.

December

The official discount rate is lowered from 4.75 to 4.25 per cent.

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STATISTICAL ANNEX AND STRUCTURAL INDICATORS

Table A. **Selected background statistics**

	Average 1985-1994	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
A. Percentage changes from previous year at constant 1980 prices											
Private consumption	2.0	5.0	5.7	–1.5	–1.0	–0.4	0.0	1.2	1.1	2.4	7.6
Gross fixed capital formation	0.6	12.5	17.1	–3.8	–6.6	1.0	–1.7	–5.7	–7.2	–2.3	3.1
Residential	–2.9	–2.1	21.3	–3.2	–9.4	–8.9	–13.7	–11.7	–5.0	–3.0	6.4
Non-residential	1.7	17.6	15.9	–3.9	–5.8	3.9	1.3	–4.4	–7.7	–2.1	2.4
GDP	1.9	4.3	3.6	0.3	1.2	0.6	1.4	1.3	0.8	1.5	4.4
GDP price deflator	3.2	4.3	4.6	4.7	3.4	4.2	2.7	2.2	2.0	1.1	2.3
Industrial production	2.4	3.7	7.4	–3.1	1.9	2.5	0.1	2.8	2.8	2.8	2.8
Employment	0.1	2.5	2.6	0.9	–0.6	–0.6	–1.0	–1.5	–0.4	–0.7	–0.2
Compensation of employees (current prices)	8.0	8.1	7.7	9.2	4.7	3.6	4.1	3.1	3.4	1.2	3.1
Productivity (GDP/employment)	1.9	2.6	1.7	1.0	–0.6	1.8	1.1	2.5	2.9	1.2	4.7
Unit labour costs (compensation/GDP)	2.8	3.6	4.0	8.9	3.5	3.0	2.6	1.7	2.6	–0.3	–1.3
B. Percentage ratios											
Gross fixed capital formation as % of GDP at constant prices	17.6	18.5	20.9	20.0	18.5	18.6	18.0	16.7	15.4	14.8	14.6
Stockbuilding as % of GDP at constant prices	0.0	1.0	0.6	–0.6	–0.1	0.6	0.0	0.1	–0.1	–0.8	–0.6
Foreign balance as % of GDP at constant prices	4.9	1.2	–1.1	1.4	3.6	3.7	5.9	7.6	8.8	9.3	8.6
Compensation of employees as % of GDP at current prices	54.5	53.8	53.5	55.6	55.6	55.0	55.0	54.7	55.0	54.3	52.4
Unemployment as % of total labour force	9.9	9.0	7.8	7.8	8.7	9.5	9.7	10.6	11.3	12.4	12.2
C. Other indicator											
Current balance (US$ billion)	0.5	–2.7	–4.5	–3.0	–1.3	–1.1	1.3	2.2	4.8	5.5	3.5

Source: Danmarks Statistik, Nyt Fra Danmarks Statistik; OECD, *National Accounts*.

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

Kr million, current prices

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Consumers' expenditure on goods and services	366 747	377 878	388 806	403 894	415 032	430 202	442 968	457 904	497 529
General government expenditure on goods and services	159 359	176 214	188 487	196 546	202 504	211 201	219 128	229 808	235 948
Gross fixed capital formation	138 370	138 033	132 226	138 953	139 357	136 693	130 513	131 668	137 778
Change in stocks	5 016	–5 075	–1 488	1 885	–917	–667	–893	–7 271	1 891
Domestic expenditure	669 492	687 050	708 031	741 278	755 976	777 429	791 716	812 109	873 146
Exports of goods and services (non-factor)	213 559	220 084	238 915	264 909	283 575	306 006	310 677	299 863	326 038
Imports of goods and services (non-factor)	216 555	207 226	214 892	238 936	240 442	255 567	251 141	238 735	265 999
Gross domestic product in purchasers' values	666 496	699 908	732 054	767 251	799 109	827 868	851 252	873 237	933 185
Indirect taxes	130 880	135 974	139 551	140 201	141 523	144 462	148 593	153 351	168 428
Subsidies	20 060	22 011	25 340	26 955	28 354	28 726	34 227	34 875	35 187
Gross domestic product at factor cost	555 676	585 945	617 843	654 005	685 940	712 132	736 886	754 761	799 944

Source: Denmark's Statistik, Statistiske Efterretninger, Nyt Fra Danmarks Statistik.

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

Kr million, 1980 prices

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Consumers' expenditure on goods and services	243 583	239 929	237 481	236 539	236 644	239 429	242 060	247 775	266 549
General government expenditure on goods and services	108 205	110 873	111 920	111 234	110 752	110 588	112 100	115 212	116 459
Gross fixed capital formation	92 176	88 703	82 808	83 639	82 179	77 511	71 896	70 260	72 433
Changes in stocks	2 506	–2 771	–603	2 559	139	292	–498	–3 558	–3 204
Domestic expenditure	446 470	436 734	431 606	433 971	429 714	427 820	425 558	429 689	452 237
Exports of goods and services (non-factor)	154 454	162 295	174 922	182 193	194 833	209 791	215 532	211 276	227 450
Imports of goods and services (non-factor)	159 457	156 265	158 606	165 718	167 669	174 594	174 257	167 157	184 881
Gross domestic product in purchasers' values	441 467	442 764	447 922	450 446	456 878	463 017	466 833	473 808	494 806

Source: Danmarks Statistik, Statistiske Efterretninger, Nyt Fra Danmarks Statistik.

Table D. **General government expenditure and revenue**

Kr billion

	1986	1987	1988	1989	1990	1991	1992	1993	1994
I. Expenditure									
Wages and salaries	114.4	125.8	136.3	142.2	146.8	152.4	158.0	163.9	166.5
Purchases of goods and services	54.9	61.1	64.0	67.0	69.6	75.0	76.3	76.3	76.3
Sales of goods and services	15.4	16.6	18.3	19.7	21.4	24.1	23.7	19.4	16.4
Consumption of fixed capital	5.4	6.0	6.4	7.0	7.5	7.9	8.6	9.1	9.5
Total consumption	159.3	176.2	188.5	196.5	202.5	211.2	219.1	229.8	235.9
Interest, etc.	58.7	57.7	58.3	57.5	58.5	61.1	58.5	67.8	66.0
Subsidies	20.1	22.0	25.3	27.0	28.4	28.7	34.2	34.9	35.2
Other transfers	117.8	129.0	144.3	158.6	164.6	178.4	188.5	201.4	228.7
Total transfers	196.6	208.7	227.9	243.0	251.5	268.2	281.2	304.1	329.9
Total current expenditure	355.9	384.9	416.4	439.6	454.0	479.4	500.4	533.9	565.9
Fixed investment	13.9	15.6	16.8	16.6	15.6	13.0	19.6	19.2	20.0
Change in stocks	–0.7	–0.8	–0.8	–0.5	0.4	0.2	0.1	0.1	0.6
Purchases of land and royalties, net	–2.4	–2.2	–2.4	–2.9	–3.2	–2.8	–2.4	–1.9	–1.8
Capital expenditure	10.8	12.6	13.6	13.2	12.8	10.3	17.3	17.4	18.9
Capital outlays for public enterprises	4.7	4.4	5.2	4.4	3.7	3.7	4.1	4.5	3.7
Other capital transfers	2.3	2.0	2.6	3.2	3.4	3.3	4.2	5.4	5.9
Total capital transfers	7.0	6.4	7.8	7.6	7.1	7.0	8.3	9.9	9.6
Total capital expenditure	17.8	19.0	21.4	20.8	19.9	17.3	25.6	27.3	28.5
Total current and capital expenditure	373.7	403.9	437.8	460.3	473.9	496.7	526.0	561.3	594.4
II. Revenue									
Surplus of public enterprises, etc.	7.4	4.5	6.0	9.1	6.1	5.4	10.9	8.7	7.6
Interest, etc.	24.5	26.4	27.6	28.3	31.7	31.8	34.1	36.3	34.9
Revenue from land and royalties	0.8	0.5	0.5	0.5	0.7	0.7	0.7	0.8	0.8
Indirect taxes	130.9	136.0	139.6	140.2	141.5	144.5	148.6	153.4	168.4
Direct taxes	195.5	208.9	226.2	235.4	233.3	245.2	256.0	265.9	289.8
Fees, fines, etc.	0.8	0.9	1.2	1.3	1.4	1.3	1.3	1.5	1.5
Social security contributions	10.6	13.8	10.2	10.8	12.3	12.6	13.6	14.5	15.9
Imputed social security contributions	6.3	7.1	7.7	8.2	8.4	9.0	9.6	10.2	10.4
Other income transfers	11.9	13.7	14.0	12.6	13.7	14.4	14.3	17.5	16.3
Total current revenue	388.6	411.7	433.0	446.5	449.0	464.9	489.1	508.8	545.6
Gift and inheritance duties	1.7	2.2	2.1	2.1	2.2	2.1	2.3	2.5	2.2
Other capital receipts	6.1	6.8	7.1	7.7	10.7	12.1	10.0	10.8	11.3
Total capital revenue	7.8	9.0	9.2	9.7	12.9	14.3	12.3	13.2	13.5
Total current and capital revenue	396.4	420.7	442.2	456.2	461.8	479.2	501.4	522.0	559.1
Current surplus = gross saving	38.0	32.8	23.0	14.0	2.5	–6.6	–2.7	–16.1	–10.8
Current and capital surplus = net financial saving	22.7	16.9	4.3	–4.1	–12.1	–17.5	–24.6	–39.3	–35.3

Source: Danmarks Statistik, Statistisk Årbog 1995.

Table E. **Balance of payments**

OECD basis
$ million

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Exports, fob	21 268	25 657	27 498	28 696	35 944	36 717	40 596	37 453	41 699
Imports, fob	22 322	24 847	25 620	26 283	31 089	31 981	33 415	29 407	34 190
Trade balance	–1 054	810	1 878	2 413	4 855	4 736	7 181	8 046	7 509
Services, net	–3 156	–3 575	–2 982	–3 383	–3 121	–1 682	–1 492	–1 871	–3 690
Balance on goods and services	–4 210	–2 765	–1 104	–970	1 734	3 054	5 689	6 175	3 819
Private transfers, net	–112	–55	–88	77	–46	–152	–132	–131	–91
Public transfers, net	–167	–153	–137	–221	–366	–717	–784	–495	–1 051
Current balance	–4 489	–2 973	–1 329	–1 114	1 322	2 185	4 773	5 549	2 677
Long-term capital (excluding special transactions)	3 025	8 110	2 404	–3 537	5 929	–1 674	4 488	18 943	
Private	–1 304	5 594	3 928	–2 827	5 490	3 330	3 309	10 008	
Official	4 329	2 516	–1 524	–710	439	–5 004	1 179	8 935	
Basic balance	–1 464	5 137	1 075	–4 651	7 251	511	9 261	24 492	
Non-monetary short-term capital	655	–727	128	–19	9	396	4 123	–4 243	
Errors and omissions	–276	94	–611	–339	–2 164	–2 249	–397	1 234	
Balance on non-monetary transactions	–1 085	4 504	592	–5 009	5 096	–1 342	12 987	21 483	
Private monetary institutions' short-term capital	–337	–760	745	1 208	–1 600	–1 525	–9 034	–21 696	
Assets	1 167	–4 230	–7 527	–4 290	–5 244	–2 610	–139	–15 201	
Liabilities	–1 504	3 470	8 272	5 498	3 644	1 085	–8 895	–6 495	
Balance on official settlements	–1 422	3 744	1 337	–3 801	3 496	–2 867	3 953	–213	
Use of IMF credit	–	–	–	–	–	–	–	–	
Special transactions	–	–	–	–	–	–	–	–	
Miscellaneous official accounts	–	–	–	–	–	–	–	–	
Allocations of SDRs	–	–	–	–	–	–	–	–	
Change in reserves (+ = increase)	–1 422	3 744	1 337	–3 801	3 496	–2 867	3 953	–213	
a) Gold	–	–	7	14	27	8	27	–33	
b) Current assets	–1 366	3 738	1 245	–3 900	3 602	–2 934	3 931	–326	
c) Reserve position in IMF	–91	–4	149	26	–48	38	137	–51	
d) Special Drawing Rights	33	9	–64	60	–86	19	–144	–6	

Source: Balance-of-payments submission to OECD.

Table F. **Labour market and production**

	Labour market						Industry				
	Number of insured	Registered unemployment				Unfilled vacancies[1]	Number of employed (thousands)			Monthly hours worked (wage earners) (1985 = 100)	Volume of sales 1985 = 100
	Persons thousands	Persons thousands	Per cent of labour force				Total	Wage earners	Salary earners		
			Total	Men	Women						
1985	1 898.7	251.8	9.1	7.5	11.0	1 533	398.2	280.5	117.7	100	100
1986	1 920.9	220.4	7.9	6.1	10.0	1 836	408.1	284.7	123.4	104	107
1987	1 946.9	221.9	7.9	6.4	9.6	1 750	397.9	273.3	124.6	97	104
1988	1981.3	243.9	8.7	7.2	10.3	1 180	385.9	263.0	122.9	93	106
1989	1 944.8	264.9	9.5	8.1	11.1	2 016	385.4	261.9	123.5	93	109
1990	1 957.6	271.7	9.7	8.4	11.3	3 366	386.4	261.9	124.5	92	109
1991	2 008.5	296.1	10.6	9.3	12.1	2 271	376.7	252.9	123.8	89	109
1992	2 138.1	318.3	11.4	10.0	12.9	1 583	369.2	246.7	122.5	87	112
1993	2 174.4	348.8	12.4	11.3	13.7	1 673	351.9	232.4	119.5	81	110
1994	2 198.0	343.4	12.2	11.0	13.6	..	..	..	..	..	121

1. Average of monthly figures.

Source: Danmarks Statistik, Statistik Månedsoversigt and Statistik Tiårsoversigt, 1995.

Table F. **Labour market and production** *(cont'd)*

	Building and construction, thousand m²								Agriculture	Retail trade		
	Total		Dwellings		Industrial buildings		Other industrial					
	Starts	Under construction at end period	Starts	Under construction at end period	Starts	Under construction at end period	Starts	Under construction at end period	Output, production 1990 = 100	Volume of sales 1990 = 100	Value of sales 1990 = 100	Passenger car registration
1985	9 177	9 154	3 249	2 904	4 477	4 738	1 450	1 512	99	100	87	157 632
1986	10 425	10 493	3 563	3 352	5 500	5 761	1 362	1 381	102	103	92	169 492
1987	9 688	10 919	2 751	3 078	5 705	6 365	1 230	1 476	100	101	93	124 324
1988	8 525	9 749	2 389	2 784	4 958	5 669	1 179	1 296	98	100	96	88 770
1989	7 512	8 600	2 279	2 508	4 166	4 906	1 065	1 187	98	99	98	78 453
1990	6 610	7 220	1 673	1 774	4 044	4 424	891	1 022	100	100	100	80 837
1991	5 765	6 358	1 404	1 390	3 484	4 034	877	934	103	100	101	83 828
1992	5 414	5 711	1 383	1 266	3 136	3 593	895	852	107	103	104	84 518
1993	4 038	4 970	1 136	1 147	2 132	2 971	770	852	112	101	100	82 007
1994	4 359	5 110	1 262	1 170	2 295	3 060	807	880	112	111	110	139 127

Source: Danmarks Statistik, Statistik Månedsoversigt.

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

$ million, monthly rates

	Total imports cif	Total Exports fob	Imports by area						Exports by area					
			OECD countries			Non-OECD countries			OECD countries			Non-OECD countries		
			Total	EU	Other	CEEC	OPEC	Other	Total	EU	Other	CEEC	OPEC	Other
1985	1 512.5	1 420.3	1 291.1	1 028.9	262.2	49.6	43.6	128.2	1 198.3	847.9	350.4	25.2	44.9	151.9
1986	1 906.5	1 774.5	1 669.3	1 323.8	345.5	45.2	30.3	161.7	1 518.1	1 089.2	428.9	32.3	46.4	177.7
1987	2 125.8	2 138.4	1 851.7	1 476.8	374.9	47.2	33.8	193.1	1 848.8	1 354.3	494.5	27.2	45.4	217.0
1988	2 161.7	2 261.5	1 869.7	1 476.9	392.8	45.5	37.7	208.8	1 955.5	1 467.4	488.1	33.9	48.7	223.4
1989	2 226.6	2 344.6	1 901.3	1 487.3	414.0	49.7	46.8	228.8	2 042.8	1 568.8	474.0	48.2	54.4	199.2
1990	2 647.6	2 927.7	2 290.9	1 801.2	489.7	64.1	37.5	255.1	2 540.2	2 007.1	533.1	68.1	60.8	258.6
1991	2 700.1	3 000.1	2 344.5	1 825.2	519.3	72.3	17.0	266.3	2 603.1	2 066.6	536.5	94.0	64.7	238.3
1992	2 926.8	3 416.2	2 542.1	2 028.3	513.8	95.6	15.7	273.4	2 911.0	2 316.1	594.9	100.6	71.5	333.1
1993	2 545.0	3 097.3	2 071.2	1 653.6	417.6	66.0	18.5	389.3	2 549.2	1 941.2	608.0	74.4	70.4	403.3
1994	2 965.5	3 471.5	2 393.6	1 911.3	482.3	84.3	22.4	465.2	2 798.9	2 121.1	677.8	94.7	61.0	516.9

Source: OECD, *Foreign Trade Statistics*, Series A.

Table H. **Prices and wages**

	Consumer prices[1]			Net consumer prices[2] (exc. indirect taxes)		Wholesale prices[3]			Building cost 1985 = 100	Hourly earnings in manufacturing and construction (excluding overtime pay) Kroner			
												Unskilled	
	Total	Goods and services (exc. rent)	Rent	Total (exc. rent)	Goods and services	Total	Domestic goods	Imported goods		Total	Skilled	Men	Women
1985	146.4	146.1	147	227.7	228.9	97	92	105	100	83.42	91.55	81.61	72.82
1986	151.7	151.4	154	229.3	228.4	90	89	92	104	87.89	97.34	85.78	75.68
1987	157.8	157.0	161	236.5	234.8	90	90	90	109	96.25	106.79	94.02	82.50
1988	165.0	163.6	171	248.4	246.5	93	93	93	117	102.34	113.06	100.08	88.03
1989	172.9	170.8	182	261.4	259.3	99	99	99	123	106.46	117.39	104.13	92.23
1990	177.4	174.2	192	269.6	266.6	100	100	100	130	110.65	121.74	108.42	96.03
1991	181.7	177.5	201	276.7	272.9	101	100	102	135	155.27	125.75	112.96	100.34
1992	185.5	180.6	208	282.5	278.6	100	97	99	137	118.62	128.79	116.71	103.93
1993	187.8	182.1	214	286.5	282.0	99	99	99	140	..	..	..	..
1994	191.6	185.2	220	291.2	286.6	100	100	100	143	..	..	..	..

1. 1980 = 100.
2. January 1975 = 100.
3. 1990 = 100.

Source: Danmarks Statistik, Statistisk Månedsoversigt.

Table 1. Money and credit

	Interest rates			Central Bank assets[1]				Liquid assets[1]				
									Money supply		Bank liquidity[4]	
	Marginal rate on bank's borrowing at the Central bank[2]	Money market over-night rate[2]	Average bond yield[3]	Net official reserves (incl. gold and IMF reserve position)	Discounts and advances	Holdings of securities	Government accounts, net	Monetary base	Narrow Money	Broad Money	Net liquidity position *vis-à-vis* the Central Bank	Net external assets
1986	9.09	9.10	11.61	35.9	42.9	23.9	–51.0	18.8	159.4	333.4	–34.6	–10.1
1987	9.90	9.87	11.73	64.4	18.2	24.2	–60.0	20.4	169.6	343.8	–17.7	–4.3
1988	8.74	8.32	9.78	76.2	1.7	26.9	–44.1	21.9	206.8	356.5	4.6	–8.0
1989	9.94	9.49	10.79	44.9	19.5	32.4	–34.5	23.1	210.9	367.9	–18.0	–13.4
1990	..	10.75	11.01	63.3	6.2	33.7	–38.4	23.6	226.4	391.0	–1.3	–1.5
1991	..	9.54	9.90	44.5	5.3	44.4	–16.0	24.2	248.9	379.4	14.4	7.8
1992	..	10.97	10.25	45.0	29.1	32.0	–35.1	25.0	243.5	374.6	–14.7	64.1
1993	..	12.10	7.74	74.8	81.7	41.2	–94.5	25.8	272.2	416.6	–46.8	200.5
1994	..	5.80	9.17	54.1	61.7	39.5	–56.9	28.9	272.3	394.0	–27.4	125.3

1. Kr billion end of period. End-year figures, representing annual statement values, differ from end-December figures for 1989 which represent monthly statement values.
2. Annual average.
3. End of year.
4. Commercial and savings banks.

Source: Submission from Danmarks Nationalbank; Danmarks Nationalbank, *Monetary Review*.

Table I. **Money and credit** *(cont'd)*

Kr billion

	Bank deposits[1]		Bank lending[1]		Circulating bonds (nominal value)[1]				Market for securities (market value)[2]					
												Increase in security holdings of:		
	From Residents	From Non-residents	To Residents	To Non-residents	Total	Government bonds	Mortgage bonds	Other	Net supply of bonds (market value)	Net sales by Central Bank	Net supply on the market	Private banks	Private non-bank sector	Port Office giro,etc.[3]
1986	379.5	33.1	351.3	33.1	1 003.5	351.1	608.7	43.7	54.4	–12.1	42.3	–7.4	33.0	16.7
1987	393.5	40.3	395.4	46.8	1 058.6	345.0	668.8	44.8	46.7	0.1	46.8	–33.7	67.8	12.7
1988	420.4	70.5	413.5	64.3	1 123.6	353.6	724.0	46.0	59.9	0.1	60.0	15.7	31.9	12.4
1989	423.9	91.9	445.1	80.7	1 163.6	375.8	739.3	48.5	31.1	0.3	31.4	10.5	9.3	11.5
1990	448.8	98.1	486.5	99.5	1 224.1	405.6	762.8	55.7	44.3	–2.0	42.3	–25.5	57.5	10.2
1991	460.4	55.5	491.8	99.1	1 315.4	462.0	790.3	63.1	77.1	–12.0	65.1	–0.3	56.1	9.2
1992	458.3	55.4	449.7	100.2	1 376.8	501.7	795.0	80.1	41.7	11.8	53.5	–11.0	62.5	1.9
1993	508.4	72.8	397.2	145.1	1 578.3	552.3	936.7	89.3	173.4	–6.9	166.5	–9.6	163.0	13.1
1994	477.1	75.4	357.7	116.1	1 562.5	609.0	861.5	91.9	–45.4	–1.6	–47.0	30.3	–73.4	–3.9

1. End of period.
2. During period.
3. Including Social Pension Fund.

Source: Danmarks Nationalbank, *Monetary Review.*

Table J. **Labour market indicators**

	Peak[1]	Trough[1]	1980	1990	1991	1992	1993	1994
A. Evolution of unemployment								
Unemployment rate (register based)								
Total	1993 = 12.4	1986 = 7.9	7.0	9.7	10.6	11.3	12.4	12.2
Men	1993 = 11.3	1986 = 6.1	6.6	8.4	9.3	10.0	11.3	11.0
Women	1993 = 13.7	1987 = 9.6	7.6	11.3	12.1	12.9	13.7	13.6
Youth (age group 15-24 years)	1993 = 12.0	1987 = 8.3	10.3	10.2	10.1	11.5	12.0	11.0
Unemployment rate (survey based)			6.6	8.1	9.1	9.0	10.7	..
Number of persons experiencing unemployment, per cent of labour force[2]			23.4	25.3	26.1	27.3	29.1	27.9
Average degree of unemployment for persons affected by unemployment, per cent[3]			30.1	36.9	38.9	40.0	41.4	42.0
B. Structural characteristics								
Participation rates, per cent[4]								
Total			81.0	84.1	83.8	83.5	82.6	82.3
Men			89.0	89.6	88.5	88.0	86.9	..
Women			70.0	78.4	78.9	79.0	78.3	..
Employment, per cent of population between 16 and 64 years			74.5	76.2	77.1	76.0	73.8	73.6
Self-employed, per cent of total employed			15.1	11.7	10.9	10.8	10.8	..
Part-time employed, per cent of total employed			23.2	23.3	23.1	22.5	23.3	..
Yearly working hours in manufacturing, per employee			1 650	1 542	1 535	..	..	..

1. Most recent local annual maximum and minimum of unemployment rates, respectively.
2. Persons having received unemployment benefits.
3. Per cent of normal working time unemployed.
4. Survey based.

Source: Danmarks Statistic, Statistiske Efterretninger; Eurostat; OECD.

Table K. **Public sector**

	1970	1980	1991	1992	1993	1994
Budget indicators: general government account (per cent of GDP)						
Current receipts	40.8	52.9	57.1	58.5	59.3	59.5
Non-interest expenditure	39.5	52.3	51.9	54.5	56.0	56.2
Primary budget balance	1.3	0.7	5.3	4.0	3.3	3.3
Net interest expenses	1.3	3.9	7.4	6.9	7.8	7.1
General government budget balance	0.0	–3.3	–2.1	–2.9	–4.5	–3.8
Structure of expenditure and taxation (per cent of GDP)						
Expenditure						
Economic category						
Income transfers (excluding interest payments)	10.8	18.4	21.5	22.1	23.1	24.5
Subsidies	2.7	3.2	3.5	4.0	4.0	3.8
Consumption	20.0	26.7	25.5	25.7	26.3	25.3
Gross investment	4.7	3.4	1.6	2.3	2.2	2.1
Functional category						
Education	7.1	8.2	7.2	7.7	7.8	7.2
Health	5.4	5.8	5.5	5.6	5.6	5.4
Social welfare	13.9	21.2	24.1	25.0	26.0	27.6
Housing	1.3	1.7	1.0	1.1	1.2	1.2
Economic services	6.0	6.1	5.5	6.4	6.5	5.9
Other (including interest payments)	9.1	13.9	16.6	16.0	17.1	16.3
Taxes						
Indirect taxes	17.1	18.6	17.4	17.5	17.6	18.0
Direct taxes	21.3	24.8	29.6	30.1	30.4	31.1
Capital taxes, compulsory fees, fines, etc.	0.3	0.4	0.4	0.4	0.5	0.4
Social security contributions	1.6	0.8	1.5	1.6	1.7	1.7
Total	40.3	45.6	49.0	49.6	50.1	51.2

	1992	1993	1994
Tax rates (per cent)			
Personal income tax			
Average State income tax			
Top marginal rate	40.0	40.0	36.5
Lowest marginal rate	22.0	22.0	14.5
Average rate	18.4	18.1	14.5
Average local government tax rate	29.4	29.5	29.5
Average church tax rate	0.7	0.7	0.7
Labour market contributions[1]	..	..	..
Maximum marginal income tax rate[2]	68.0	68.0	65.0
Wealth tax rate	..	1.0	1.0
Maximum combined marginal rate[3]	78.0	78.0	75.0
Social security contributions of wage sum[4]	0.6	0.6	0.6
Employers	2.3	2.4	..
Employees	22.0	25.0	25.0
VAT rate	34.0	34.0	34.0
Corporate tax rate			

1. The labour market contributions, introduced at the 1994 tax reform, are essentially payroll taxes.
2. Ceiling on the combined marginal State tax rate, local government tax rate and labour market contributions.
3. Ceiling on marginal income and wealth tax rate (of taxable income).
4. As per cent of wage sum.

Source: Danmarks Statistiks, Skatter og afgifter, Oversigt 1991, and Statistisk Tiårsoversigt 1995.

Table L. **Production structure and performance indicators**

A. Production structure

	Share of private sector value added at factor cost						Share of private sector employment					
	1966	1973	1991	1992	1993	1994	1966	1973	1991	1992	1993	1994
Tradeables												
Agriculture	10.2	8.3	5.2	4.7	4.5	4.6	17.4	12.7	8.0	7.9	8.0	7.7
Mining and quarrying	0.2	0.1	1.2	1.3	1.3	1.2	0.2	0.1	0.1	0.1	0.1	0.1
Manufacturing	25.6	24.4	23.7	24.4	24.0	24.4	31.0	30.8	29.8	29.6	29.1	29.3
of which:												
Food, beverages and tobacco	5.6	5.4	5.1	5.0	5.1	5.4	6.1	5.7	5.2	5.1	5.1	4.9
Textile, wearing apparels and leather industries	2.6	1.9	1.1	1.1	1.0	1.0	4.6	3.5	1.9	2.0	1.8	1.8
Wood and wood products, including furniture	1.5	1.4	1.3	1.5	1.5	1.7	2.4	2.3	2.2	2.3	2.2	2.4
Paper and paper products, printing and publishing	2.8	2.6	2.6	2.6	2.6	2.3	3.0	2.0	3.0	2.9	2.9	2.8
Chemicals and chemicals petroleum, coal rubber and plastic products	2.2	2.5	3.1	3.6	3.4	3.2	2.0	2.3	2.9	3.1	3.1	3.1
Non-metallic mineral products except products of petroleum and coal	1.6	1.8	1.0	1.0	1.0	1.1	1.7	1.9	1.2	1.1	1.1	1.1
Basic metal industries	0.5	0.4	0.3	0.3	0.2	0.3	0.4	0.5	0.4	0.3	0.3	0.3
Fabricated metal products, machinery and equipment	8.3	7.9	8.7	8.6	8.6	9.0	10.1	11.0	12.4	12.2	11.7	11.8
Other manufacturing industries	0.4	0.4	0.6	0.7	0.7	0.6	0.7	0.6	0.8	0.7	0.8	0.7
Non-tradeables												
Electricity, gas and water	2.0	1.7	2.6	2.2	2.6	2.4	0.7	0.8	1.0	1.0	1.0	0.9
Construction	13.2	12.1	6.8	6.9	6.7	6.9	10.5	11.5	9.3	9.7	9.7	10.3
Wholesale and retail trade, restaurants and hotels	20.7	20.1	17.6	18.0	17.4	17.4	19.6	20.4	19.4	19.5	19.6	19.4
Transport, storage and communication	10.8	9.9	11.6	11.6	11.9	12.1	8.4	8.7	10.6	10.6	10.6	10.5
Finance, insurance, real estate and business services	11.2	17.5	21.8	21.8	21.9	21.1	5.4	8.0	15.1	14.9	14.8	14.8
Community, social and personal services	6.1	5.9	6.6	6.9	6.6	6.7	6.9	7.1	8.3	8.4	8.5	8.6
	As a share of total GDP						As a share of total employment					
Private sector	86.3	82.2	77.3	77.1	76.8	77.7	83.6	77.5	67.4	67.0	66.9	66.0
Public sector	12.9	17.2	21.9	22.1	22.4	21.5	13.2	21.0	31.5	31.9	31.9	32.9
Other producers	0.8	0.6	0.7	0.8	0.8	0.8	3.2	1.5	1.1	1.1	1.1	1.1

Table L. **Production structure and performance indicators** *(cont'd)*

B. Sector performance

Constant prices

	Productivity growth (sector GDP/sector employment)					Investment As a share of total industry investment					
	1989-90	1990-91	1991-92	1992-93	1993-1994	1989	1990	1991	1992	1993	1994
Tradeables											
Agriculture	6.0	3.6	–6.0	15.9	5.8	5.1	5.8	4.5	5.0	4.1	..
Mining and quarrying	8.0	19.8	5.4	12.6	4.6	0.9	1.3	1.8	2.0	2.5	..
Manufacturing	–1.1	2.3	2.2	0.6	7.6	14.2	14.1	16.1	15.6	16.1	..
of which:											
Food, beverages and tobacco	4.6	11.1	–3.0	–2.0	5.0	2.7	2.7	3.4	..	..	..
Textile, wearing apparels and leather industries	–4.9	5.5	–1.1	–2.6	–1.8	0.7	0.5	0.4	..	..	..
Wood and wood products, including furniture	–2.9	–2.6	12.6	5.7	9.3	0.8	0.9	0.8	..	..	..
Paper and paper products, printing and publishing	–0.5	0.2	0.2	–1.2	–4.5	1.5	1.2	1.7	..	..	..
Chemicals and chemicals petroleum, coal rubber and plastic products	1.2	–3.8	0.7	0.0	20.0	2.5	2.3	3.0	..	..	..
Non-metallic mineral products except products of petroleum and coal	–1.5	–0.7	40.3	–25.7	13.6	0.7	0.9	0.8	..	..	..
Basic metal industries	–5.7	–8.1	23.4	–12.6	19.4	0.2	0.2	0.3	..	..	..
Fabricated metal products, machinery and equipment	–4.4	–1.4	–0.8	7.5	8.6	4.8	4.9	5.4	..	..	..
Other manufacturing industries	–6.1	10.2	26.4	–14.4	–0.5	0.3	0.4	0.5	..	..	..
Non-tradeables											
Electricity, gas and water	10.2	26.5	–10.8	19.1	3.0	6.3	6.7	5.6	5.7	4.9	..
Construction	–0.3	–1.1	–12.3	0.3	–0.9	2.6	2.7	2.4	2.6	2.5	..
Wholesale and retail trade, restaurants and hotels	5.2	4.2	1.3	–0.8	6.8	0.7	6.7	5.7	..	..	..
Transport, storage and communication	11.0	2.7	8.0	15.2	–2.6	17.6	18.0	20.1	..	..	..
Finance, insurance, real estate and business services	2.8	–2.0	–2.0	2.0	0.5	22.7	21.1	20.8	..	..	..
of which:											
Dwellings	6.4	4.7	0.8	–5.4	–3.0	20.6	18.2	17.1	..	..	..
Community, social and personal services	0.9	–1.1	8.3	–5.3	3.6	1.0	1.4	1.0	..	..	..
Others[1]						11.4	11.3	10.8	..	..	..
						As a share of total investment					
Private sector	2.7	3.3	3.3	2.9	0.3	88.4	89.1	88.9	86.2	85.7	85.8
Public sector	1.3	–1.9	0.2	0.6	–0.3	11.6	10.9	11.1	13.8	14.3	14.2

1. Investment in certain private service sectors are poorly covered by basic statistics and have been grouped together in this sector.

Tableau L. **Production structure and performance indicators** *(cont'd)*

C. R&D expenditure and total employment in the Business Enterprise Sector

	Share of R&D Expenditure %		Share of R&D Employment %		Average R&D/employee 1 000 SKr	
Firm size in persons, 1989						
0-50	10		23		5 000	
50-90	5		12		5 000	
100-199	9		13		800	
200-499	15		19		9 000	
500+	61		33		21 000	
	1986	1987	1988	1989	1990	1991
R&D Expenditure						
As % of domestic product	1.13	1.23	1.28	1.30	1.40	1.49

Source: OECD; *Science, Technology, and Innovation Policies, Denmark*, 1995.

BASIC STATISTICS:

INTERNATIONAL COMPARISONS

BASIC STATISTICS: INTERNATIONAL COMPARISONS

	Units	Reference period[1]	Australia	Austria	Belgium	Canada	Denmark	Finland	France	Germany
Population										
Total	Thousands	1994	17 840	8 031	10 124	29 251	5 206	5 088	57 960	81 407
Inhabitants per sq. km	Number	1994	2	96	332	3	121	15	106	228
Net average annual increase over previous 10 years	%	1994	1.4	0.6	0.3	1.6	0.2	0.4	0.5	2.9
Employment										
Total civilian employment (TCE)[2]	Thousands	1994	7 680 (93)	3 737	3 724 (92)	13 292	2 508	2 015	21 781 (93)	35 894
of which: Agriculture	% of TCE	1994	5.3 (93)	7.2	2.6 (92)	4.1	5.1	8.3	5.1 (93)	3.3
Industry	% of TCE	1994	23.7 (93)	33.2	27.7 (92)	22.6	26.8	26.8	27.7 (93)	37.6
Services	% of TCE	1994	71 (93)	59.6	69.7 (92)	73.3	68.1	64.9	67.2 (93)	59.1
Gross domestic product (GDP)										
At current prices and current exchange rates	Bill. US$	1994	331.6	198.1	227.9	544	146.7	97.2	1 328.5	1 832.3
Per capita	US$	1994	18 588	24 670	22 515	18 598	28 181	19 106	22 944	27 826
At current prices using current PPP's[3]	Bill. US$	1994	327.9	162.3	204.2	596.7	107	82.5	1 111.8	1 601.7
Per capita	US$	1994	18 382	20 210	20 166	20 401	20 546	16 208	19 201	24 325
Average annual volume growth over previous 5 years	%	1994	2.2	2.5	1.6	1.1	1.9	–1.6	1.1	2.6
Gross fixed capital formation (GFCF)	% of GDP	1994	21.4	24.8	17.4	18.7	14.8	14.3	18.1	18.5
of which: Machinery and equipment	% of GDP	1993	9.8	8.7	7.8	6.2	7.2	5.90	8.10	7.5
Residential construction	% of GDP	1993	5.2	6.3	4.6	6.1	2.9	3.7	4.9	6.5
Average annual volume growth over previous 5 years	%	1994	0.8	3.7	0.4	–0.1	–2.8	–12.9	–1	0.8
Gross saving ratio[4]	% of GDP	1994	16.8	25.3	22	16	17	16.6	19	21
General government										
Current expenditure on goods and services	% of GDP	1994	17.5	18.8	15	20.2	25.3	22.4	19.6	17.7
Current disbursements[5]	% of GDP	1993	36.9	48.4	55.3	49	61.1	58.9	51.5	45.6
Current receipts	% of GDP	1993	33.5	48.6	50.1	43	58.3	52.5	46.8	45.7
Net official development assistance	% of GNP	1993	0.34	0.31	0.41	0.46	1.03	0.76	0.66	0.44
Indicators of living standards										
Private consumption per capita using current PPP's[3]	US$	1993	10 803	10 546	12 090	11 863	10 042	8 814	11 395	10 733
Passenger cars, per 1 000 inhabitants	Number	1990	430	382	387	469	311	386	413	480[8]
Telephones, per 1 000 inhabitants	Number	1991	464	432	410	586	577	544	511	420[8]
Television sets, per 1 000 inhabitants	Number	1991	480	478	451	639	536	501	407	556[8]
Doctors, per 1 000 inhabitants	Number	1993	2.2 (91)	2.3	3.7	2.2	2.8 (92)	2.6 (92)	2.8	3.2 (92)
Infant mortality per 1 000 live births	Number		6.1	6.5	8	6.8	5.4	4.4	6.5	5.8
Wages and prices (average annual increase over previous 5 years)										
Wages (earnings or rates according to availability)	%	1994	3	5.5	3.7	3.3	3.5	4.8	3.5	5.2
Consumer prices	%	1994	3	3.4	2.8	2.8	2.1	3.3	2.5	3.3
Foreign trade										
Exports of goods, fob*	Mill. US$	1994	47 363	44 881	137 259[7]	165 358	41 850	29 514	235 337	422 243
As % of GDP	%	1994	14.3	22.7	60.2	30.4	28.5	30.4	17.7	23
Average annual increase over previous 5 years	%	1994	5	6.7	6.5	7.1	8.3	4.9	5.6	4.4
Imports of goods, cif*	Mill. US$	1994	49 731	55 071	126 006[7]	148 297	35 932	23 091	220 508	376 566
As % of GDP	%	1994	15	27.8	55.3	27.3	24.5	23.8	16.6	20.6
Average annual increase over previous 5 years	%	1994	4	7.2	5	5.4	6.1	–1.3	3.5	6.9
Total official reserves[6]	Mill. SDRs	1994	7 730	11 523	9 505[7]	8 416	6 203	7 304	17 986	52 994
As ratio of average monthly imports of goods	Ratio	1994	1.9	2.5	0.9	0.7	2.1	3.8	1	1.7

	Greece	Iceland	Ireland	Italy	Japan	Luxembourg	Mexico	Netherlands
Population								
Total	10 430	267	3 571	57 190	124 960	398	93 010	15 382
Inhabitants per sq. km	79	3	51	190	331	153	47	377
Net average annual increase over previous 10 years	0.5	1.1	0.1	0	0.4	0.8	2	0.6
Employment								
Total civilian employment (TCE)[2]	3 790	138	1 168 (93)	20 152 (93)	64 530	162 (91)	32 439	6 631
of which: Agriculture	20.8	9.4	12.7 (93)	7.5 (93)	5.8	3.7 (91)	25.8	4
Industry	23.6	26.1	27.7 (93)	33 (93)	34	31.5 (91)	22.2	23
Services	55.5	65.2	59.7 (93)	59.6 (93)	60.2	64.8 (91)	52.1	73
Gross domestic product (GDP)								
At current prices and current exchange rates	73.1 (93)	6.2	52	1 017.8	4 590	10.6 (92)	371.2	334.3
Per capita	7 051 (93)	23 199	14 550	17 796	36 732	27 073 (92)	3 991	21 733
At current prices using current PPP's[3]	118	5.1	54.3	1 068.4	2 593.7	11.7	673.3	285.9
Per capita	1 450	19 271	15 212	18 681	20 756	29 454	7 239	18 589
Average annual volume growth over previous 5 years	1.4 (93)	0.6	4.7	1	2.1	4.1 (92)	3	2.3
Gross fixed capital formation (GFCF)	17.4 (93)	15.2	15.1	16.4	28.6	20.4 (93)	20.7	19.3
of which: Machinery and equipment	7.8	3.9	6.3	7.4	11.5	..	9.4	8.6
Residential construction	3.6	4.4	4.1	5.3	5.4	..	4.9	5.1
Average annual volume growth over previous 5 years	2.7 (93)	–4	1	–2.3	1.4	6.5 (92)	7.7	0.4
Gross saving ratio[4]	15.5 (93)	16.9	19.5	18.8	31.2	60.2 (92)	15.1	24.4
General government								
Current expenditure on goods and services	19.1 (93)	20.6	16	17.1	9.8	17.1 (92)	11.8[9]	14.2
Current disbursements[5]	51.2	34.9	..	53.2	26.9	..	..	55.4
Current receipts	40.2	35.9	..	47.1	32.9	..	..	54.5
Net official development assistance	..	..	0.15	0.42	0.27	0.34 (92)	..	0.88
Indicators of living standards								
Private consumption per capita using current PPP's[3]	6 367	11 546	7 750	11 029	11 791	15 545	4 853	10 726
Passenger cars, per 1 000 inhabitants	169	464	228	478	282	470	85	356
Telephones, per 1 000 inhabitants	413	527	300	400	454	511	70	477
Television sets, per 1 000 inhabitants	197	319	276	421	613	267	148	485
Doctors, per 1 000 inhabitants	3.8 (92)	3	1.7 (92)	1.7 (91)	1.7 (92)	2.1 (92)	1	2.5 (90)
Infant mortality per 1 000 live births	8.5	4.8	5.9	7.3	4.5 (92)	8.5 (92)	18	6.3
Wages and prices (average annual increase over previous 5 years)								
Wages (earnings or rates according to availability)	14.6	..	4.6	5.9	2.4	..	5.3	3.2
Consumer prices	16.2	6.3	2.7	5.2	2	3.1	16.1	2.8
Foreign trade								
Exports of goods, fob*	8 958	1 628	34 125	189 802	396 149	..	60 882	155 084
As % of GDP	11.5 (93)	26.3	65.7	18.6	8.6	..	16.4	46.4
Average annual increase over previous 5 years	3.4	2.7	10.5	6.2	7.6	..	21.7	7.6
Imports of goods, cif*	21 111	1 464	25 812	167 690	274 916	..	79 346	139 800
As % of GDP	30.1 (93)	23.6	49.7	16.5	6	..	21.4	41.8
Average annual increase over previous 5 years	5.4	0.7	8.1	1.9	5.5	..	25.5	6.1
Total official reserves[6]	9 924	201	4 189	22 102	86 214	..	4 301	23 655
As ratio of average monthly imports of goods	5.6	1.6	1.9	1.6	3.8	..	0.7	2

	New Zealand	Norway	Portugal	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States
Population									
Total	3 526	4 337	9 900	39 150	8 781	6 994	60 573	58 375	260 651
Inhabitants per sq. km	13	13	107	78	20	169	78	238	28
Net average annual increase over previous 10 years	0.8	0.5	–0.1	0.2	0.5	0.7	2.1	0.3	1
Employment									
Total civilian employment (TCE)[2]	1 560	1970 (93)	4 372	11 760	3 926	3 772	19 664	25 044 (93)	123 060
of which: Agriculture	10.4	5.6 (93)	11.5	9.8	3.4	4	44.8	2.2 (93)	2.9
Industry	25	23.1 (93)	32.8	30.1	25	28.8	22.2	26.2 (93)	24
Services	64.6	71.3 (93)	55.7	60.2	71.6	67.2	33	71.6 (93)	73.1
Gross domestic product (GDP)									
At current prices and current exchange rates	51.2	103.4 (93)	87	482.4	196.6	257.3	130.7	1 019.5	6 649.8
Per capita	14 513	23 984 (93)	8 792	12 321	22 389	36 790	2 157	17 468	25 512
At current prices using current PPP's[3]	57.3	95.3	122	531.7	153	167.4	319.3	1 030.2	6 649.8
Per capita	16 248	21 968	12 335	13 581	17 422	23 942	5 271	17 650	25 512
Average annual volume growth over previous 5 years	2.5	2.1 (93)	1.4	1.5	–0.3	0.5	3.6	0.8	2.1
Gross fixed capital formation (GFCF)	20	22 (93)	25.7	19.8	13.7	22.8	24.5	15	17.2
of which: Machinery and equipment	9.3	..	..	5.7	5.7	7.5	10.3	7.3	7.7
Residential construction	4.9	..	..	4.1	4	14.9[10]	9.1	3.1	4
Average annual volume growth over previous 5 years	5.8	–3.93	2.7	–1.2	–7.6	–0.4	5.1	–2.1	4.6
Gross saving ratio[4]	20.7	21.9 (93)	24.2	18.8	13.7	29.3	22.5	13.5	16.2
General government									
Current expenditure on goods and services	14.7	22.1 (93)	17.2	16.9	27.3	14.1	11.7	21.6	16.4
Current disbursements[5]	..	..	..	43.7	67.3	36.7	..	42.7	35.8
Current receipts	..	..	..	40.1	59	36	..	36.8	31.7
Net official development assistance	0.22	1.23	0.36	0.32	1.33	0.49	..	0.34	0.19
Indicators of living standards									
Private consumption per capita using current PPP's[3]	9 266	9 826	7 780	8 412	9 240	13 730	3 617	10 942	16 444
Passenger cars, per 1 000 inhabitants	440	378	260	307	418	441	29	361	568
Telephones, per 1 000 inhabitants	436	515	273	340	687	603	143	445	553
Television sets, per 1 000 inhabitants	443	423	187	400	468	406	175	434	814
Doctors, per 1 000 inhabitants	2	3.2 (92)	2.9	4.1	3	3	0.9	1.5 (92)	2.3 (92)
Infant mortality per 1 000 live births	7.3	5	8.7	7.6	4.8	5.6	52.6	6.6	8.5 (92)
Wages and prices (average annual increase over previous 5 years)									
Wages (earnings or rates according to availability)	2.1	4	..	7.2	5.4	..	..	6.7	2.8
Consumer prices	2.5	2.7	9	5.6	5.7	3.9	73	4.6	3.6
Foreign trade									
Exports of goods, fob*	12 169	34 645	17 072	73 129	61 122	70 467	18 456	205 170	512 627
As % of GDP	23.8	30.9 (93)	19.6	15.2	31.1	27.4	14.1	20.1	7.7
Average annual increase over previous 5 years	6.5	5	6.1	10.5	3.4	6.4	9.5	6.1	7.1
Imports of goods, cif*	11 859	27 345	25 967	92 182	51 730	68 126	22 976	227 026	663 256
As % of GDP	23.2	23.3 (93)	29.9	19.1	26.3	26.5	17.6	22.3	10
Average annual increase over previous 5 years	6.1	2.9	6.6	5.2	1	3.2	37.9	2.8	7
Total official reserves[6]	2 540	13 033	10 627	28 475	15 929	23 790	4 911	28 094	43 350
As ratio of average monthly imports of goods	2.6	5.7	4.9	3.7	3.7	4.2	2.6	1.5	0.8

* 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. Data refer to the Belgo-Luxembourg Economic Union.
8. Data refer to western Germany.
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. I and *OECD Economic Outlook*, Historical Statistics. Indicators of living standards: Miscellaneous national publications. Wages and Prices: OECD, *Main Economic Indicators*. Foreign trade: OECD, *Monthly Foreign Trade Statistics*, series A. Total official reserves: IMF, *International Financial Statistics*.

November 1995

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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 theOECD 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.

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c) A keen interest in and extensive knowledge of policy issues, economic developments and their political/social contexts.

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