

studies

The Danish economy

COMMISSION OF THE EUROPEAN COMMUNITIES

The Danish economy

by Anders Ølgaard
Professor of the Institute of Economics
at the University of Copenhagen

COLLECTION STUDIES
Economic and Financial Series No 14
Brussels, August 1979

Cataloguing data can be found at the end of this publication

© Copyright ECSC - EEC - EAEC, Brussels and Luxembourg, 1980

Printed in Luxembourg

Reproduction authorized, in whole or in part, provided the source is acknowledged.

ISBN: 92-825-0494-8

Catalogue number: CB-NI-79-014-EN-C

PREFACE

Following the establishment of the European Economic Community, a Committee of Experts was set up under the Chairmanship of Pierre Uri to prepare studies of the economic conditions of the member countries. The 'Report on the economic situation in the countries of the Community' was published in 1958. Following the accession in 1973 of Denmark, Ireland and the United Kingdom, the Commission of the European Communities considered that it would be valuable to supplement the Uri Report with a study on each of the new Member States. On this occasion, however, the Commission followed a somewhat different procedure and commissioned separate studies from independent experts in each of the three countries. The studies 'The United Kingdom Economy' and 'The Irish Economy' appeared in 1975, as numbers 9 and 10 of 'Economic and Financial Series', published by the Commission of the European Communities.

The present study of the Danish economy was prepared by Professor Anders Ølgaard of the Institute of Economics at the University of Copenhagen. Unfortunately, the preparation of this study has taken more time than originally envisaged because of interruptions for personal and professional reasons, including advisory work for the Danish Government.

The author would like to record his gratitude to his colleagues with whom he is teaching the subjects dealt with in the present study, to other colleagues at the Institute and to the staff of the Danish Economic Council - especially Mr. Arne Mikkelsen - for valuable comments and criticisms of draft chapters. He is indebted to Mrs. Else Haugebo for careful typing of drafts. Thanks are also due to Mr. K.I. Roberts, Principal Administrator at the Commission of the European Communities, for advice on editorial matters. The responsibility for the final version remains, however, with the author.

Contents

Chapter I: STRUCTURAL PROBLEMS OF THE DANISH ECONOMY	9
Introduction	9
Population	12
The labour force and participation rates	14
Growth rates and industrial structure, 1950-73	18
The structure of domestic demand, 1950-73	24
Unemployment	28
The balance of payments	30
Summary	30
Appendix tables	32
<u>Appendix: Real product, real income and terms of trade</u>	<u>35</u>
Introduction	35
Concepts	36
Relationships between concepts	37
A numerical example	38
Some additional comments on the Danish figures	42
Chapter II: AGRICULTURE	45
Historical background prior to the 1930s	45
Decades of crisis, war and post-war protectionism	48
From the British to the Continental system of agricultural pricing	52
Chapter III: MANUFACTURING INDUSTRIES	55
Introduction	55
The size structure of the individual enterprise	58
Markets	62
Employment	63
Wages and profits	64
Output, value-added and wages by type of industry	66

Danish proposals with respect to 'Workers' Participation'	68
Chapter IV: BUILDING AND CONSTRUCTION	71
Value-added of the building and construction industry	71
Residential construction, 1960-73	74
The stock of residential units, 1970	76
Historical trends in the structure of residential investment	80
Housing policies	81
Appendix tables	84
Chapter V: PRIVATE SERVICES	89
Chapter VI: THE GOVERNMENT SECTOR AND FISCAL POLICY	93
Government services, share of GDP	93
Number of employees in government services	94
Institutional structure of the government sector	99
Post-war trends in expenditure of the central government	100
Total public expenditure, including local authorities, 1967-1973	103
New strategies in budget management	105
Post-war trends in central government revenue	107
Total public sector revenue, including local authorities, 1965-1973	109
Prospects for future revenue from taxation of commodities and income	110
A need for new sources of revenue?	113
Overall budgetary position of the central government	117
Chapter VII: ECONOMIC POLICY 1967-1973	119
Introduction	119
Fluctuations of main economic indicators 1967-1973	119
Sector surpluses reconsidered	123
Was economic policy sufficiently tight?	125
Chapter VIII: MONETARY INSTITUTIONS AND POLICY	127
Lending institutions	127
The central bank	131
Instruments of monetary policy	132
The discount rate and other interest rates	132

Open market operations by the central bank	135
Central bank lending to private banks	137
Bond rationing	139
Private bank lending	140
The money supply	141
Problems in monetary policy	143
Appendix tables	147
<u>Appendix: Providing consistent data for monetary analysis</u>	151
Introduction	151
The monetary base	152
The money stock	153
Balance sheets of private banks	154
Sources to appendix tables	154
Chapter IX: INFLATION, INCOME DISTRIBUTION AND INCOMES POLICY	157
Introduction	157
Rates of increase in prices and money wages	158
Institutional arrangements with respect to wage agreements	159
Legislation on prices and monopolies	163
The functional income distribution	164
The distribution of personal income	165
Effects of holding assets and liabilities during periods of changing rates of inflation	167
Incomes policy, the Danish experience	168
Incomes policy, some general remarks	169
Changes in the pattern of wages as a reflection of structural economic problems	170
Have money wages increased too fast?	172
Chapter X: FOREIGN TRADE AND BALANCE OF PAYMENTS	175
Introduction	175
Current account of the balance of payments, 1950-1973	175
Exports by products	178
Exports by markets	181
Imports by products	183
Prices in foreign trade and the terms of trade	185
Balance of payments, services and transfers	186

Financing of the balance of payments deficits	187
The exchange rate	190
Chapter XI: FROM GROWTH TO RECESSION, 1973-1977	195
Population and labour force	195
Fluctuation of main economic indicators	200
The industrial pattern	203
Components of domestic demand	206
Unemployment and labour supply	208
Agriculture	210
Manufacturing industries	212
Building and construction	214
Residential investment	216
The stock of residential units	217
Fiscal policy	219
Public expenditure	220
Public revenue	224
Surpluses of the government and the private sector	226
Overall budgetary position of the central government	228
Monetary policy	230
Price and wage inflation	236
Income distribution	238
The balance of payments, summary	241
Exports	241
Imports	241
Prices in foreign trade	246
Services and transfers	246
The net foreign debt	248
The exchange rate	250
Appendix tables	252

Chapter I

STRUCTURAL PROBLEMS OF THE DANISH ECONOMY

INTRODUCTION

1. Rather frequently, the Danish economy is referred to as one based mainly on agriculture. It is, indeed, true that agricultural produce dominated export earnings until a few decades ago. During the last quarter of the 19th century, the Danish economy - like the Dutch - adjusted to the international decline in prices of grain, etc. by rapidly increasing the production of animal products such as bacon, beef, and butter. This structural change was greatly helped by the new cooperative movement. While output of grain continued to increase, it was now mainly used as input for animal products, providing the base for increasing exports of these products to the more industrialized economies of the UK, Germany, and others. From 1890 onwards, the terms of trade of agriculture improved, and just before 1930 agricultural exports accounted for 75 per cent of total exports, while well over 20 per cent of gross domestic product (GDP) was attributable to agriculture.

Before the First World War, Danish manufacturing industry started to develop slowly, mainly in the field of small-scale import substitution, following the pattern typical of the first phases of industrialization. However, a few export industries did emerge, one of which was ship-building.

2. During the 1930s, declining export possibilities mainly hit agriculture, the largest exporting sector, and from the early 1930s onwards, the share of agriculture in exports - and employment - started to decline, the latter even in absolute terms.

As in other European countries, quantitative import restrictions were introduced in order to stimulate employment in manufacturing, the unemployment rate being substantial - reaching a peak of 32 per cent (average) in 1932. With the benefit of hindsight, it is doubtful whether this policy formed part of an industrial strategy designed to shift the basis of the economy from primary to secondary industries. Be this as it may, the outcome was very much along these lines. At the beginning of the 1950s, manufacturing industry was ready for, and able to accomplish, a major expansion of industrial exports, covering a wide range of products.

It has been argued that the development of manufacturing industry from the early 1930s onwards represents an example of a successful 'infant industry' policy. The fact that the reconstruction problems after the German occupation during the Second World War were rather small, at least compared with those of most of our neighbouring countries, probably contributed to this success. Thus, Danish exporters of manufactured goods had an earlier start than their foreign competitors. Furthermore, non-agricultural money wages were comparatively low after the Second World War, as the distribution of income changed rather drastically during the war in favour of agriculture and to the disadvantage of urban workers. Finally, the Danish Krone was devaluated in line with Sterling in 1949.

3. One of the arguments against the infant industry strategy is that once introduced, protection is very difficult to eliminate. In the case of Denmark, this problem was solved from abroad. Like other Western European countries, Denmark received Marshall aid from the US - totalling 1.7 billion kroner corresponding to one third of one year's export earnings. But the aid was given on the usual condition that imports of manufactures etc. should be liberalized within the OEEC framework. Whereas - contrary to developments in most other Western European countries - liberalist thinking during the early 1950s was mainly expressed by the spokesmen for Danish agriculture, representatives of manufacturing industry still argued along protectionist lines. But with enforced liberalization of Danish imports in these fields, the protectionists in manufacturing industry had to give in.

Hence the 1950s are often referred to as the period of the second industrial revolution, with manufacturing exports increasing sharply - mainly light industries covering a large number of products in very different fields. In 1960, exports of manufactured goods exceeded those of agricultural products.

During the first half of the 1950s, the major problem of economic policy was considered to be that of the balance of payments. During the late 1940s, this problem was expected to be solved by increased agricultural exports. With minimum international liquidity - and an almost total shortage of dollars - Denmark could not afford a balance of payments deficit, hence total domestic demand had to be reduced in order to keep imports down.

However, from 1957 onwards the new majority government took a more active hand in promoting foreign borrowing. At the same time, the terms of trade were improving, and more generous rules on depreciation allowances (based on net depreciated value) were introduced.

These factors all contributed to an unprecedented boom, and in the early 1960s, urban unemployment vanished for the first time.

4. From this period onwards, economic development became more like that in neighbouring countries. While still contributing substantially - although with a declining share - to total exports, agriculture was increasingly subsidized with respect to domestic sales. The system according to which domestic prices of agricultural produce were fixed was changed from the British system (prices corresponding to world market prices) to the Continental system (prices reflecting the cost of domestic production). At the same time, the labour force engaged in agriculture declined substantially, by far the major part of the non-owners moving to urban industries.

If the 1950s could properly be labelled the second industrial revolution, the 1960s might be called the years of (uncontrolled) revolution in the size of the government sector. From 1960 to 1973, total taxes as a percentage of GDP increased from 28 per cent to well over 50 per cent. The increase in public expenditure (government and municipal) was equally strong both for purchases of goods and services and for transfers. While the public share of GDP around 1960 was not extremely high by Western European standards (low post-war reconstruction costs and modest defence expenditure), by the 1970s it was among the highest in Europe. The fact that, from the late 1960s onwards, the increase was mainly financed by higher income taxes, added substantially to political tensions, caused perhaps not so much by the high level of overall taxation as by the composition of taxes and their rapid rate of increase.

The increase in public purchases of goods and services during the 1960s took place at a time of rapidly increasing activity in the field of building and construction. The number of new dwelling units per year was doubled, leading to a very high average standard of housing as compared to that in other countries. The building boom reflected both a rapid increase of private income, and the substantial direct and indirect subsidies available in the field of housing.

The 1960s were expected to be the decade of a rapidly increasing urban labour force, partly reflecting the large number of children born during the 1940s, and partly because of the decline in rural employment, and this caused great concern about the expected rate of unemployment. Experience proved these worries to be unfounded. The rapid increase of the building and construction sector, and the even faster increase of employment in the public sector, led to labour shortages, although these sectors were able to compete successfully for the available labour resources. But the exporting industries and those competing with imports found it difficult to offer equally high increases in pay, and wages as well as profits in the balance of payments industries were squeezed.

Against this background, it was hardly surprising that the balance of payments became the predominant problem of economic policy and the question of unemployment became insignificant during most of the period 1960-73. In 1960, Denmark's foreign debts were approximately equal to its foreign assets. By 1973, net outstanding foreign debt had increased to nearly 20 billion kroner.

During the early 1960s, the balance of payments problem was mainly considered to result from domestic savings being insufficient to finance private investment. A high level of private sector investment was required in order both to increase output in manufacturing industry and to introduce more capital intensive means of production in agriculture, so as to maintain output in spite of a declining labour force.

However, it gradually became evident that the balance of payments deficit had become a more permanent aspect of the functioning of the Danish economy, and that the share of total resources employed in the balance of payments industries had become too small to provide the output necessary for any improvement. The low share of resources in these industries in turn reflected the booming demand from 'domestic industries', in particular from the public sector, and the housing industry. Hence in order to improve the balance of payments, a reallocation of resources was required.

It was hoped that the entry of Denmark into the EEC would contribute substantially to solving the balance of payments problem by improving the terms of trade, mainly because of higher agricultural export prices. The terms of trade did improve, but economic policy immediately after the EEC entry was not kept sufficiently tight to counter the effects of the increase in real income caused by the improvement of the terms of trade. Furthermore, the reallocation process started too late to take advantage of the 1972-73 boom in world trade. Hence the economy was very badly prepared to meet the serious consequences of the rapid increase in oil prices as well as the general weakening of world demand which occurred from late 1973 onwards.

5. To summarize, developments in the Danish economy from the end of the post-war reconstruction period may be divided into four sub-periods:

- a) 1950-58: Substantial unemployment, low growth rates of output, low rates of inflation, balance of payments equilibrium.
- b) 1958-66: Sharply declining unemployment, high growth rates of output, increasing - but still rather modest - rates of inflation, but balance of payments deficits.
- c) 1966-73: Full employment, slightly lower rates of growth than in the preceding period, accelerating rates of inflation, persistent balance of payments deficits.
- d) 1973-77¹: Increasing unemployment, low rates of growth, high - although declining - rates of inflation and substantial balance of payments deficits.

However, before these sub-periods are studied in more detail using national accounts statistics, the growth and composition of the population and labour force will be analysed.

POPULATION

6. Following the First World War, a referendum was held in the southern part of Jutland (Slesvig). In accordance with its outcome, the northern part of Slesvig returned to Denmark in 1920, adding 160 000 persons to the population, which in 1921 amounted to 3 270 000 inhabitants. The 4 million mark was passed in 1945, and in 1973 the population for the first time exceeded 5 million persons.

7. Changes in the age distribution of the population are shown in table I.1. The pattern is rather similar to that of many other Western European countries. On the whole, the share of children (aged below 18) has declined, except for the effect of a substantial temporary increase in the number of births during the late 1940s. With a time lag, this temporary increase also affected the proportion of young people (aged 18-24), producing a temporary increase around 1970.

¹ Developments since 1973 are summarized in chapter XI.

Table I.1
Age distribution of the population of Denmark

	1921	1930	1940	1950	1960	1970
<u>Age</u> (both sexes): 0-17	37.0	33.0	29.1	30.5	30.5	27.8
18-24	12.5	12.7	11.8	9.6	9.6	11.3
25-59	40.2	43.5	47.2	46.5	44.3	43.2
60-69	6.1	6.2	7.2	7.8	8.9	9.8
70-	4.2	4.6	4.7	5.6	6.7	7.9
TOTAL, per cent	100.0	100.0	100.0	100.0	100.0	100.0
Total population, 1 000 persons	3 268	3 551	3 844	4 281	4 585	4 938

Source: Danmarks Statistik: Befolkningsudvikling og sundhedsforhold 1901-60, S.U. No 19 and supplementary information.

At the other end of the age-scale, the proportion of people aged 60 or over has increased substantially, from 10 per cent in 1921 to no less than 18 per cent in 1970. Before the Second World War, the tendency for the proportion of children to decline exceeded that of the old to increase, hence the proportion of those contributing most to the labour force (people aged 25-59 years) was increasing. However, over the last decades, this trend has been reversed.

8. Additional key figures which help to explain changes in the population by appropriate 'flows' are shown in table I.2. The average annual increase of the population of Denmark has on the whole been about 30-40 000 persons, representing a declining percentage rate of growth as the total size of the population increases. By far the major part of the changes in the growth rate of the population is explained by the birth rate. The absolute number of deaths has been steadily increasing, the accelerating rate during the 1960s mainly reflecting the change in the age composition of the population.

The net reproduction rate has shown marked fluctuations. It exceeded that corresponding to a stationary population during most of the 1920s, but declined during the next decade. It increased subsequently and reached a peak of 1 370 during the mid 1940s. During the 1950s and 1960s it remained above 1 000, but since 1969 its level has suggested a tendency for the population of Denmark to decline in the long term.¹

¹ The lack of stability of the net reproduction rate suggests that alternative models might preferably be used for purposes of forecasting, e.g. the cohort method. Here the basic variable is the number of children born during the fertile period of a certain woman. This figure has been declining over time, but apparently according to a more predictable pattern. However, the profile of 'spacing' varies; it may, for instance, be postponed by economic recessions, improved methods of contraception, etc.

Table I.2
Births, deaths, immigration: annual averages by decades

	Increase of tot. pop.		Births	Deaths	Net immigration	Net repro- duction rate
	per cent	1 000				
1921/30	0.89	31.3	71.2	38.3	-1.6	1 104
1931/40	0.79	28.8	66.2	39.6	2.2	941
1941/50	1.12	44.2	85.3	39.4	-1.7	1 217
1951/60	0.70	31.6	76.2	40.4	-4.2	1 191
1961/70	0.75	34.9	79.2	47.0	2.7	1 135

Source: Danmarks Statistik: Statistisk Årbog 1976 and supplementary information.

9. Perhaps the most interesting figures of table I.2 are those of net immigration. Compared with other countries, the net figures are surprisingly small, only a few thousand persons per year. This order of magnitude was maintained even during most of the 1960s in spite of the high rate of growth of the economy and labour shortages. It was only from 1969 onwards that net immigration became sizeable, reaching a peak of 12 000 in 1973.

The explanation of this delayed response can probably be found partly in the attitude of the trade unions. During the 1930s, unemployment in manufacturing industry was substantial, and the situation was similar, although to a lesser extent, in the 1950s. Hence the trade unions were reluctant to let foreigners compete with domestic workers for the limited number of jobs. It was only after a period of several years of full-employment that this attitude became more relaxed.¹

THE LABOUR FORCE AND PARTICIPATION RATES

10. Labour force statistics prior to the 1970s are mainly based on figures from population censuses held every five years. However, employment surveys were introduced in 1967 and have been made frequently since 1969. In table I.3, 1970 figures from both sources are shown, but it should be pointed out that the definitions used differ slightly between the two sources.

11. The total labour force has increased roughly at the same rate as that of the population aged 15-74 years. Hence total participation rates have remained stable, and the changes in the published figures mainly reflect definitional changes.

¹ However, from 1958 onwards, free labour mobility existed in the Nordic countries (Scandinavia and Finland).

Table I.3
Danish labour force by occupation

	Census figures			Employment surveys ^a	
	1950	1960	1970	1970	1973
	1 000 persons				
Agriculture etc.	518	367	244	267	233
Trade and industry	551	613	660	687	652
Build. and construc.	134	150	211	200	202
Distribution, banking, etc.	263	294	356	381	384
Transport	132	145	153	157	167
Private services	209	197	203	216	204
Government services	169	236	416	441	564
Others	48	62	67	31	40
TOTAL LABOUR FORCE	2 024	2 064	2 310	2 380	2 446
	per cent				
Agriculture etc.	25.6	17.8	10.6	11.2	9.5
Trade and industry	27.2	29.7	28.6	28.9	26.7
Build. and construc.	6.6	7.3	9.1	8.4	8.3
Distribution, banking, etc.	13.0	14.3	15.4	16.0	15.7
Transport	6.5	7.0	6.6	6.6	6.8
Private services	10.3	9.5	8.8	9.1	8.3
Government services	8.3	11.4	18.0	18.5	23.1
Others	2.5	3.0	2.9	1.3	1.6
TOTAL	100.0	100.0	100.0	100.0	100.0
Population age 15-74, 1 000 persons	3 029	3 266	3 572	3 559	3 628
Participation rate	(66.8) ^b	63.2	64.7	66.9	67.4

^a Spring survey in 1970, autumn survey in 1973. In 1970, no autumn survey was made. However, seasonal fluctuations are not very pronounced.

^b Due to changes of definitions, this figure should be reduced before being comparable with corresponding figures for later years.

Source: Danmarks Statistik: Statistisk tiårsoversigt 1973 and 1974.

Table I.3 shows a break-down of the labour force by industries. The number of employed in agriculture has been reduced by more than half between 1950 and 1973, leaving less than ten per cent of the labour force in the agricultural sector at the end of the period. The share of employment in trade and industry has remained roughly stable at 26-29 per cent, while the substantial increase in the activities of the building and construction sector during the 1960s is reflected in an increasing share of the labour force being employed in this industry.

The most interesting part of the table, however, is that showing persons employed by the government sector. The absolute number increased from 170 000 persons in 1950 to no less than 565 000 persons in 1973. While agriculture employed a quarter of the labour force in 1950 and slightly below ten per cent in 1973, the figures for the share of government employees show almost exactly the opposite development. This dramatic expansion of the proportion of the total labour force engaged in government activities will be discussed further in chapter VI.

12. The composition of the total labour force with respect to occupational status has changed considerably since 1950. Admittedly, the proportion of skilled workers has remained at 12-14 per cent and that of unskilled workers has only declined moderately, from about 33 per cent to 29 per cent. But the proportion of self-employed (including employers) has shown a marked decline from around 22 per cent to about 13 per cent, which is more than made up for by the change in the proportion of salaried employees, which increased from 21 per cent in 1950 to 40 per cent in 1973.

13. As pointed out above, the total participation rate of the population aged 15-74 years has remained roughly constant. But behind this apparent stability are some substantial changes within groups according to age, sex etc. Table I.4 shows that the participation rate of men has declined, while that of women has increased. The increase of 7.4 percentage points for women exceeds the corresponding decline for men, but since the larger part of the labour force consists of men, the two changes result in a roughly unchanged total participation rate.

14. The decline in the participation rate of young men was not unexpected due to generalized and extended education. However, the decline for males aged 25-59 years - representing roughly two thirds of the total male labour force - has taken most experts by surprise. A partial explanation can probably be found in increased early retirement. The same may partly explain the reduced participation rate for those over 60 years old. For this group, in particular, an additional factor may be important. The process of overall growth implies structural shifts, leaving people unemployed at least temporarily. It is obviously more difficult for older people to find alternative jobs, hence early retirement is often forced upon them.

15. The increased participation rate of women as a whole is exclusively due to the trend among married women. The rate for unmarried women remained unchanged. For those aged 15-24, the participation rate declined, corresponding to the trend for men, but this was offset by an increase for the large group aged 25-59.

The participation rate for married women increased substantially between 1967 and 1973 for all groups below the age of 60 years. Any detailed analysis of

Table I.4
Participation rates, 1967 and 1973

	Men		Women		Unmarried women		Married women	
	1967	1973	1967	1973	1967	1973	1967	1973
<u>Labour force:</u> ¹								
15 - 19	123.2	96.9	81.9	72.3	78.8	70.3	3.1	2.0
20 - 24	163.5	135.7	123.9	128.7	77.4	79.6	46.5	49.1
25 - 59	998.9	1038.5	453.0	614.1	141.2	149.8	311.8	464.3
60 - 74	170.4	159.3	39.3	48.4	22.7	25.3	16.6	23.1
	1456.0	1430.4	698.1	863.5	320.1	325.0	378.0	538.5
<u>Participation rates:</u>								
15 - 19	65.2	50.4	44.8	40.1	45.4	39.8	34.1	55.0
20 - 24	77.5	70.4	61.5	69.6	79.3	73.0	44.7	64.6
25 - 59	96.5	93.8	43.4	56.0	71.0	73.3	36.9	52.1
60 - 74	60.0	50.7	12.0	13.2	12.7	15.2	11.2	11.5
	84.7	79.2	39.8	47.2	49.3	49.5	34.2	45.9

¹ 1 000 persons. Military conscripts, domestic servants and 'assisting housewives' are excluded. Part-time employees are included in the figures without reducing their weight.

Source: Employment surveys, autumns. For some of the figures, see William Scharling, Tendenser for udbudet af arbejdskraft 1973-1988, Copenhagen 1973 (unpublished).

this change would have to take into account a number of aspects, such as the distinction between married and unmarried women which is changing due to changes in family patterns. But in the present context attention will only be given to one particular aspect. As will be further discussed in chapter VI, for government employees the rate of increase has been much faster for married women than for men and unmarried women. What has probably happened is a process corresponding to that in the food processing industry. An increasing proportion of activities in both fields has moved from the home to an outside 'work place'. This in turn has permitted women to work outside their homes (something most men would do anyway), but at the same time increased participation rates presuppose facilities for taking care of children, just as they presuppose industries for producing canned food and refrigerators.¹

¹ The implicit consequences for using the size of GNP as an expression of the standard of living of a given population, if this hypothesis holds, should be kept in mind, but will not be elaborated here.

GROWTH RATES AND INDUSTRIAL STRUCTURE, 1950-73

16. In the final part of the introduction above, three sub-periods with different patterns of growth were distinguished: 1950-58, 1958-66 and 1966-73. In the following, differences between these sub-periods will be analysed on the basis of national accounts data for 1950, 1958, 1966 and 1973. In all these years, economic activity was high compared with neighbouring years. Supplementary year-by-year figures are shown in appendix tables I.1 and I.2.

To some extent, the techniques applied in handling the national accounts data will differ from usual procedures, and some concepts will be introduced which differ from those used in traditional analysis. This is partly due to the fact that Danish national accounts data for 1950-73 at constant prices are calculated and presented on the basis of 1955-prices. Hence for the early 1970s, the weights applied in the constant-price figures are more than 15 years old. The implied index-number problems are therefore quite substantial. A detailed treatment of these problems can be found in the appendix (see pp. 35-44).

Table I.5

Gross domestic product at factor cost, current prices

	DKR 1 000 million			
	1950	1958	1966	1973
Agriculture etc.	4.6	5.5	7.7	12.5
Manuf., handicraft etc.	6.3	10.1	22.8	46.2
<u>of which:</u> manufacturing	4.1	6.4	14.4	30.9
handicraft	1.9	3.0	7.0	13.1
electr., gas, etc.	0.3	0.7	1.4	2.2
Building and construction	1.4	2.4	6.8	15.1
Distribution, banking, hotels etc.	4.3	6.4	14.0	28.3
Transport	1.8	3.4	7.3	14.9
Private services, incl. use dwellings	1.6	2.9	6.2	11.8
Government services	1.6	3.3	9.9	30.3
Total GDP at factor cost	21.6	34.0	74.7	159.1
- net interest payments, etc.	0.1	0.0	0.1	1.0
Total GNI at factor cost	21.5	34.0	74.6	158.1
- repair, maintenance, depreciat.	2.7	5.5	12.8	27.5
TOTAL NNI AT FACTOR COST	18.8	28.5	61.8	130.6

Sources: See sources to appendix table I.1.

Table I.6
Gross domestic product at factor cost, at constant
1955-prices (= real product)

	1950		1958		1966		1973	
	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent
Agricult. etc.	5.2	20.1	5.9	18.7	6.3	13.5	6.2	9.9
Trade and Industry	7.5	29.1	9.0	28.4	15.1	32.4	22.1	35.3
<u>of which:</u>								
manufact.	4.8	18.5	5.9	18.6	10.2	22.0	15.8	25.3
handicraft	2.4	9.4	2.6	8.3	3.8	8.1	4.2	6.7
el, gas, etc.	0.3	1.2	0.5	1.5	1.1	2.3	2.1	3.3
Building and construction	1.8	7.1	2.2	6.9	3.8	8.3	5.0	7.9
Commerce, banking, hotel etc.	4.9	18.9	6.9	19.1	9.3	19.9	12.7	20.2
Transport	2.2	8.7	3.1	10.1	4.6	9.9	6.4	10.3
Priv. serv- ices, incl. use of dwellings	2.1	8.0	2.5	7.9	3.0	6.6	3.5	5.6
Government services	2.1	8.1	2.8	8.9	4.4	9.4	6.8	10.8
Total real GDP = real prod.	25.8	100.0	31.5	100.0	46.5	100.0	62.7	100.0

Note: Percentages are calculated before rounding of the basic data.

Sources: See sources to appendix table I.1.

17. Table I.5 shows usual¹ figures for gross domestic product at factor cost by industry at current prices. However, the figures are of course affected by inflation. In order to remedy this distortion, similar figures are shown in table I.6, calculated at 1955-prices according to the technique used by the

¹ Repair and maintenance are included in the gross figures. This inflates the 'level' of the Danish figures somewhat, as compared with the similar figures for other EEC countries.

Table I.7
Real income by industries, 1955-prices

	1950		1958		1966		1973	
	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent
Agricult. ect.	5.4	21.2	5.1	16.2	5.0	10.3	5.1	7.8
Trade and industry	7.5	29.2	9.4	29.7	14.8	30.6	19.2	29.1
<u>of which:</u>								
manufact.	4.9	19.0	6.0	19.0	9.3	19.3	12.8	19.4
handicraft	2.2	8.7	2.8	8.8	4.6	9.5	5.5	8.3
el, gas, etc.	0.4	1.5	0.6	1.9	0.9	1.8	0.9	1.4
Building and construction	1.7	6.6	2.2	7.0	4.4	9.1	6.3	9.5
Distribution, banking, hotels etc.	5.1	19.8	5.9	18.7	9.0	18.7	11.8	17.8
Transport	2.1	8.3	3.2	10.1	4.7	9.7	6.2	9.4
Priv. serv- ices, incl. use of dwellings	2.0	7.6	2.7	8.5	4.0	8.3	4.9	7.4
Government services	1.9	7.3	3.1	9.8	6.4	13.3	12.6	19.0
Total real income	25.7	100.0	31.6	100.0	48.3	100.0	66.1	100.0

Sources: See sources to appendix table I.1.

Danmarks Statistik (The Danish Statistical Office). These figures will, in future, be referred to as real product figures. They are estimated on the assumption that all inputs and outputs in each year during the whole period are valued at 1955-prices, and hence relative prices are implicitly assumed to have remained constant over the whole period.

According to table I.6, the share of agriculture in total real product declined from 20 per cent in 1950 to 10 per cent in 1973, the main adjustment taking place during the period of urban expansion from 1958 onwards. The share of trade and industry remained slightly below 30 per cent during the 1950s, but subsequently increased to 35 per cent, whilst that of building and construction increased substantially from 1958 to 1966. Finally, the share of government services in total real product showed a steady, although apparently not very substantial, increase from 8.1 per cent in 1950 to 10.8 per cent in 1973.

18. Some of these findings, based on traditional procedures of deflation, are somewhat surprising. Furthermore, they are to some extent misleading because of the implied assumption of constant relative prices over the period shown.

An obvious alternative would be to retain the figures for total real GDP of the various years and subsequently use the implied deflator for total GDP to deflate figures for individual industries in a particular year. According to this procedure, the percentage distribution of real GDP by industry will of course correspond exactly to the distribution at current prices (cf. table I.5), because the same deflator is used for all industries in a given year.

In table I.7, such estimates have been made, and are labelled figures of real income of the various industries. In brief, these figures could be described as illustrating actual trends, but on the assumption that no general price increase had taken place. On the other hand, the real income figures do reflect the changes in relative prices between the various industries which have actually occurred.

One immediate conclusion from the above calculations could be that while figures of real product and real income for a certain industry in a certain year could differ a great deal because of the different methods of price deflation, the time series of total real product and total real income would be identical. When figures in the bottom rows to tables I.6 and I.7 are compared, it will be seen that this is not exactly the case. The explanation of this discrepancy is related to changes of the terms of foreign trade. Obviously, when traditional procedures of deflation are applied (cf. table I.6), such terms of trade changes cannot possibly be reflected in the figures, because relative prices are implicitly assumed to have remained constant. This issue is elaborated in the appendix.

19. Although the percentage distribution of real income by industries (cf. table I.7) is identical to that of GDP at current prices (cf. table I.5), the growth pattern of real income by industry differs substantially from that of real product (cf. table I.6). From 1950 to 1973, the share of agriculture in total real income declined at a faster rate than that of real product, whilst the share of trade and industry in total real income remained roughly constant. However, the most significant change occurs with respect to government services. From 1950 to 1973, their share of real product, only increased moderately. However, their share in total real income increased from 7.3 per cent in 1950 to 19.0 per cent in 1973 (reflecting a similar increase based on figures at current prices). According to an opportunity-cost interpretation, the figures imply that while the economy in 1950 sacrificed 7.3 per cent of alternative total output in order to obtain government services, the corresponding figure in 1973 was 19 per cent.¹

¹ As in other countries, Danish figures on contribution to GDP by government services are estimated from the input side, because no market price is obtained for such services. In this connection, no productivity increases have been assumed to take place. Many of the problems relating to GDP figures for government services are particularly difficult to solve in relation to real product estimates. In this connection it should be recalled that the figures of shares of GDP can also be obtained from national accounts at current prices.

Table I.8
Annual growth rates of real product and real income

	1950-58		1958-66		1966-73	
	Real prod.	Real inc.	Real prod.	Real inc.	Real prod.	Real inc.
Agriculture, etc.	1.6	-0.8	0.8	-0.3	-0.2	0.3
Trade and industry	2.3	2.8	6.7	5.8	5.8	3.7
<u>of which: manufacturing</u>	2.6	2.6	7.2	5.6	6.5	4.5
trade	1.0	2.7	4.6	6.5	1.5	2.5
el, gas, ect.	6.1	5.4	10.6	4.8	10.0	0.5
Building and construction	2.2	3.5	7.3	8.9	4.2	5.5
Distribution, banking, hotels etc.	2.6	1.9	5.6	5.4	4.5	4.0
Transport	4.4	5.1	4.8	5.0	4.8	4.3
Private services, inc. use of dwellings	2.3	4.1	2.6	5.1	2.0	3.0
Government services	3.6	6.5	5.7	9.5	6.8	10.0
TOTAL	2.5	2.6	5.0	5.4	4.4	4.6
Implicit price deflator of total	3.2	3.1	5.1	4.7	6.8	6.6

Sources: See sources to appendix table I.1.

20. In table I.8, findings according to tables I.5 - I.7 are summarized, expressed in terms of percentage rates of growth per year. In terms of overall growth rates, the bottom part of the table confirms the suggestions made in the final part of the introduction above. In the period 1950-58, the average overall growth rate only amounted to roughly 2.5 per cent, in 1958-66 - with declining rates of unemployment - it reached 5-5 1/2 per cent, and in the third sub-period, viz. from 1966 to 1973, the overall growth rate declined to 4 1/2 per cent, partly because as full employment had been reached in the mid-1960s, the possibilities of increasing total employment became more limited.

The bottom row of the table shows that the rate of inflation as expressed by the implicit GDP deflator was only slightly above 3 per cent per year during the period 1950-58. In the second sub-period, it increased to roughly 5 per cent and from 1966 to 1973, averaged nearly 7 per cent, maintaining an accelerating trend, (cf. the year-by-year figures of growth rates and price increases in appendix table I.1).

21. The growth rates of individual industries will be dealt with in later chapters.

Table I.9
Shares of GDP by main groups of industries

	(per cent)			
	1950	1958	1966	1973
<u>Shares of real product</u>				
Balance of payments industries (agric., manuf. ect.)	49.2	47.1	45.9	45.2
Domestic industries (building and constr., gov.t services)	15.2	15.8	17.7	18.7
Other industries	35.6	37.1	36.4	36.1
<u>Shares of GDP at current prices</u> = shares of real income				
Balance of payments industries (agric., manuf. etc.)	50.4	45.9	40.9	36.9
Domestic industries (building and constr., gov.t services)	13.9	16.8	22.4	28.5
Other industries	35.7	37.3	36.7	34.6
TOTAL	100.0	100.0	100.0	100.0

Sources: Tables I.6 and I.7.

22. Before concluding this section on the structure of industry, an important distinction should be mentioned, i.e. that between 'balance of payments industries', 'domestic industries' and 'other industries'. The persistent balance of payments deficit since 1960 suggests that the industrial pattern has not been consistent with external equilibrium. Resources employed in industries which compete with foreign firms either abroad (exports) or on the home market (mainly agriculture and manufacturing industries), have been too limited. On the other hand, domestic industries (building and construction, government services) have been able to expand too fast from the viewpoint of external equilibrium. This problem has been particularly urgent in periods of full employment. With total resources fully utilized, a dampening of the growth of domestic industries is obviously a necessary condition for the expansion of the balance of payments industries.

Table I.9 includes the additional group of 'Other industries', covering distribution, transport and private services, etc. In a more detailed analysis, some of these industries ought to be placed in the two other groups of the table.¹ However, the pattern according to table I.9 would largely remain

¹ E.g., foreign shipping, tourist industries etc. should be considered balance of payments industries whereas banking should be grouped with domestic industries.

Table I.10
GDP and domestic demand, current prices

(DKR 1 000 million)

	1950	1958	1966	1973
GDP, factor cost	21.6	34.0	74.7	159.1
+ indir. taxes, net	1.5	3.2	9.0	21.9
GDP, market prices	23.1	37.2	83.7	181.0
+ imp. goods and services	6.8	10.9	23.9	55.9
Total	29.9	48.1	107.6	236.9
- exp. goods and services	6.0	11.9	22.9	52.9
Domestic demand	23.9	36.2	84.7	184.0
<u>of which</u> : consumption	18.0	27.7	61.1	130.9
fixed investm.	3.4	5.9	16.6	38.1
stockbuilding	0.9	-0.2	0.5	1.4
repair and maint.	1.6	2.8	6.5	13.6

Sources: See sources to appendix table I.1.

unaffected by such adjustments, and the share of 'Other industries' would remain stable anyway.

The upper part of the table shows that, the share of the balance of payments industries, measured on a real-product basis, declined slightly from 1950 to 1973, while that of domestic industries increased correspondingly. However, in order to illustrate the problem of resource allocation, shares of real income (equal to shares of GDP at current prices) provide the proper background, and such figures are shown in the lower part of the table. According to these figures, resource allocation has changed substantially from 1950 to 1973, the share of balance of payments industries having declined from 50 to 37 per cent and that of domestic industries having increased from 14 per cent to no less than 28 per cent. Against this background, it is hardly surprising that there have been persistent balance of payments deficits.

THE STRUCTURE OF DOMESTIC DEMAND, 1950-73

23. In this section, patterns of growth and structural changes of domestic demand will be analysed on the basis of national accounts data, applying techniques similar to those which were used in the preceding section in connection with the supply side.

Table I.11
Domestic demand, 1955-prices (constant relative prices over time)

	1950		1958		1966		1973	
	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent
<u>Consumption</u>								
private	16.3	66.7	18.9	67.3	27.9	60.6	36.3	56.3
public	2.9	11.7	3.9	13.8	6.0	13.2	9.6	14.8
TOTAL	19.2	78.4	22.8	81.1	33.9	73.8	45.9	71.1
<u>Fixed invest.</u>								
housing	0.8	3.1	0.8	2.9	1.9	4.1	3.5	5.4
other priv.	2.3	9.5	3.4	11.9	7.0	15.2	10.9	16.8
public	1.0	4.0	1.3	4.8	2.7	6.0	3.4	5.3
TOTAL	4.1	16.6	5.5	19.6	11.6	25.3	17.8	27.5
<u>Stockbuilding</u>	1.2	5.0	-0.2	-0.7	0.4	0.9	0.9	1.4
TOTAL DOMESTIC DEMAND	24.5	100.0	28.1	100.0	45.9	100.0	64.6	100.0
<u>of which:</u>								
public	3.8	15.7	5.2	18.6	8.7	19.2	13.0	20.1
housing inv.	0.8	3.1	0.8	2.9	1.9	4.1	3.5	5.4
public + housing	4.6	18.8	6.0	21.5	10.6	23.3	16.5	25.5

Note: Techniques of deflation correspond to those applied in table I.6.
Sources: See sources to appendix table I.1.

24. Standard¹ national accounts data at current prices are shown in table I.10, but the figures are to a large extent affected by accelerating rates of inflation.

¹ Contrary to what could be done when figures for GDP by industries were shown above, it is possible to separate figures on repair and maintenance when demand components are illustrated. In the following, this has been done, and in tables I.11 and I.12 this item is completely disregarded. The purpose has been to provide for better comparability with similar figures for other EEC countries.

(cont'd on page 26)

Table I.12
Domestic demand, 1955-prices
 (same deflator of all components in a given year)

	1950		1958		1966		1973	
	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent	DKR 1 000 million	per cent
<u>Consumption</u>								
private	16.8	68.6	18.6	66.1	26.3	57.3	31.6	49.6
public	2.6	10.6	4.2	14.8	8.3	18.0	15.8	24.4
TOTAL	19.4	79.2	22.8	80.9	34.6	75.3	47.4	73.4
<u>Fixed inv.</u>								
housing	0.7	2.9	0.8	2.9	2.1	4.5	4.5	7.0
other priv.	2.3	9.6	3.4	11.9	6.0	13.1	8.1	12.6
public	1.0	3.8	1.3	4.8	2.9	6.4	4.0	6.1
TOTAL	4.0	16.3	5.5	19.6	11.0	24.0	16.6	25.7
<u>Stockbuild- ing</u>	1.1	4.5	-0.2	-0.5	0.3	0.7	0.6	0.9
TOTAL DOMES- TIC DEMAND	24.5	100.0	28.1	100.0	45.9	100.0	64.6	100.0
<u>of which:</u>								
public	3.6	14.4	5.5	19.6	11.2	24.4	19.8	30.5
housing inv.	0.7	2.9	0.8	2.9	2.1	4.5	4.5	7.0
public + housing	4.3	17.3	6.3	22.5	13.3	28.9	24.3	37.5

Note: Techniques of deflation are similar to those applied in table I.7.
 Sources: See sources to appendix table I.1.

In table I.11, demand components at constant prices are presented, assuming that relative prices have remained constant over the period 1950 to 1973.

(cont'd of note 1 on page 25)

Furthermore, all figures at 1955-prices are indicated at factor cost. In this way, the effects of indirect taxation are excluded. The adjustment has been made on the assumption that net indirect taxes affect prices of private consumption only. While this is not completely true, the discrepancies are insignificant and do not affect the main pattern according to the figures.

According to the table, the share of total consumption (at factor cost) in total domestic demand has declined from roughly 80 per cent during the 1950s to slightly above 70 per cent during the last part of the period, while the share of total fixed investment has increased correspondingly. Furthermore, the composition of total consumption has changed. While the share of private consumption has shown a substantial decline, that of public consumption has increased, although only moderately - from 11.7 per cent in 1950 to 14.8 per cent in 1973.

25. In table I.12, a different method of deflation is used, applying the same deflator for all demand components in a given year. Hence the percentage distribution according to table I.12 is identical to a percentage distribution based on corresponding figures at current prices.¹

26. The shares of total consumption and total investment in total domestic demand are very similar according to the two tables, but this is not true for the components of each of these totals. The share of private consumption in total domestic demand according to table I.12 declines even more than that in table I.11. At the same time, the share of public consumption in table I.12 shows a more dramatic increase, from 10.6 per cent in 1950 to 24.4 per cent in 1973. The discrepancy between the two tables with respect to the share of public consumption mainly reflects the fact that public consumption is very labour intensive and, furthermore, not subject to significant increases in labour productivity. Hence costs in this field, largely reflecting wage rates for government employees, have tended to show a faster rate of increase than most other costs and prices. For private consumption, the implication is that prices have shown a comparative decline, probably partly due to increases in productivity.

27. Turning to the components of total investment, the share of 'other private investment' (excluding residential investment) in total domestic demand shows a smaller increase in table I.12 than in table I.11. As with private consumption, goods incorporated in 'other private investment' have become comparatively less expensive over time, probably due also to substantial increases in productivity.

Apparently, the opposite has been true for residential investment and public investment. On the whole, the shares of both show a significant increase, measured at constant relative prices (cf. table I.11), but the increase is even larger according to table I.12.

28. The share of total public demand for goods and services including total investment in housing is shown separately in the bottom part of tables I.11 and I.12. The reason for including residential investment at this point is partly that this demand is primarily directed towards 'domestic industries', and partly that private residential investment has been subject to direct government regulations, restrictions, and subsidies to such an extent as may

¹ In order not to complicate the presentation too much, the deflator applied in table I.12 is simply the deflator of total domestic demand. Therefore, the figures of total domestic demand in DKR 1 000 million are identical in table I.11 and I.12. Thus, the technique in the present context is simpler than the corresponding one applied in table I.7.

justify it being treated in the same way as direct public purchases of goods and services.

According to the bottom row of table I.11, the share of public demand including residential investment increased from below 20 per cent in 1950 to slightly above 25 per cent in 1973. However, including the effect of changes in relative prices, the increase becomes much more pronounced: from 17.3 per cent to no less than 37.5 per cent (cf. the bottom row of table I.12). These figures imply that the total share of private consumption and business investment in total domestic demand has fallen from well over 75 per cent in 1950 to 60 per cent in 1973.

29. In brief, one of the main results of the above analysis is that the share of total demand which is under (direct) government control has increased substantially, partly because of increased levels of activity, and partly because of increases in relative prices, especially in the field of public consumption.

In this connection, an additional comment should be made on the demand management by government with respect to public expenditures and residential investment. As has been pointed out, overall real growth rates declined from the second to the third sub-period, viz. from 1958-66 to 1966-73, the main reason being that full employment was reached in the mid 1960s. However, in spite of scarcities of resources and lower overall growth rates during the third sub-period, the growth of public demand in real terms continued at about 10 per cent per year. The consequences of this policy for the balance of payments hardly need elaboration.

UNEMPLOYMENT

30. As stated previously, unemployment was substantial during most of the 1950s. From the late 1950s to the mid 1960s, it declined and, subsequently, almost disappeared. During most of the period from 1966 to 1973, full employment prevailed.

In the following section, this summary will be elaborated, based on figures for 1950, 1958, 1966 and 1973 (cf. table I.13). Supplementary year-by-year figures for the overall rate of unemployment are given in appendix table I.2.

31. From 1950 to 1973, the number of employees covered by the unemployment-insurance scheme, under which the major part of unemployment-relief payments is financed by government transfers and only a minor part by contributions from members, increased from 630 000 to 830 000. Thus only one third of the labour force was covered by the scheme. Even when the self-employed (including owners) are deducted from the labour force, only half of the total number of employees were insured, and percentages of unemployment according to table I.13 only refer to this group. As unemployment among the non-insured employees has, at least until recently, been insignificant, the percentages shown in the table should be reduced substantially to make them comparable with corresponding figures for most other countries.

32. During most of the 1950s, the overall rate of unemployment among insured employees remained at a level of roughly ten per cent (cf. also appendix ta-

ble I.2). Although unemployment rates had been even higher during the 1930s, such a level was clearly not acceptable. However, during most of the 1950s a shortage of foreign exchange was an important problem, and expansionist policies in order to reduce unemployment would necessarily have aggravated the balance of payments problem, the more so because quantitative import restrictions were being dismantled within the OEEC framework.

Table I.13
Unemployment

	1950	1958	1966	1973
	<u>1 000 persons</u>			
Total labour force (cf. table I.3)	2 024	-	-	2 446
Number of persons with unemployment insurance	633	709	797	833
<u>of which:</u> men	504	555	595	652
women	129	154	202	181
	<u>per cent</u>			
Unemployment as % of insured employees				
Men	9.7	10.9	2.7	2.4
Women	4.6	5.5	1.0	2.4
TOTAL	8.7	9.6	2.3	2.4
February } Not seasonally adjusted	14.7	17.8	6.3	3.6
June } Not seasonally adjusted	3.9	4.1	0.5	1.2
November }	7.6	6.7	1.7	2.2
Trade and industry	5.7	6.8	1.8	1.9
Building and construction	15.2	19.8	6.0	5.0
Unskilled workers	14.4	16.9	4.8	3.4
Northern Jutland, all industries	16.6	16.9	6.5	5.8

Note: For coverage, see text.

Sources: Danmarks Statistik: Statistisk tiårsoversigt 1950-60, 1970 and 1975.

However, these high average annual rates of unemployment conceal substantial seasonal variations (cf. the figures for February, June and November in table I.13). During the 1960s and the first part of the 1970s, seasonal unemployment was reduced substantially, partly because of the declining importance of some industries with large seasonal variations (e.g. agriculture), and partly because of new techniques allowing activities to continue throughout the winter months (e.g. in building and construction). From the mid

1960s onwards, overall unemployment became insignificant, at least when short term unemployment, e.g. in connection with change of job, is disregarded.

33. In addition, regional unemployment problems were reduced. Being a small country with reasonably good means of transportation, regional problems are small compared with those of most other countries.¹ But of course regional differences do exist. Thus a high share of the population - roughly 25 per cent - lives in the area around Copenhagen, on the eastern outskirts of Denmark. In Jutland most activities take place along the east coast, but western Jutland is less densely populated. Finally, unemployment rates are usually highest in northern Jutland, although, as is shown in table I.13, progress was made in the 1960s in this area.

THE BALANCE OF PAYMENTS

34. As shown in the previous section, economic growth during the main part of the 1960s contributed substantially to solving the unemployment problem of the 1950s. A price for this achievement was, however, paid in the form of a persistent and increasing balance of payments deficit. This issue will be more fully discussed in chapter X, and the main figures are presented in table X.1. However, a chapter on the structural problems of the economy cannot avoid at least mentioning this subject.

Whereas the external goods and services account showed surpluses during most of the 1950s, a series of increasing deficits has been recorded since 1960 (cf. appendix table I.2). Consequently, foreign debt has been increasing, and so have foreign interest payments. Hence the deficits on the current account as a whole have increasingly exceeded those for goods and services.

SUMMARY

35. In brief, Danish basic economic problems from 1950 to 1973 may be summarized as follows:

- a) During the main part of the 1950s the important constraint for economic policy was related to shortages of foreign exchange. Balance of payments deficits had to be avoided - and so they were. Manufacturing industries expanded in spite of increasing foreign competition. In particular, exports of manufactured goods increased rapidly. But unemployment remained substantial.
- b) From the late 1950s to the mid 1960s, unemployment was declining and full employment was subsequently achieved. However, rates of inflation increased, and became higher than in many neighbouring countries. Balance of payments deficits became a persistent feature of the Danish economy.

¹ However, it has become increasingly difficult for the smaller Danish islands to retain their inhabitants. This problem is partly industrial, but is also related to difficulties with respect to social facilities, e.g. schools.

c) From the mid 1960s to 1973, full employment was largely maintained, but problems with respect to inflation and the balance of payments were aggravated. As shown in the analysis above, one of the most important factors behind this development is to be found in changes in the structure of total demand, with domestic industries being allowed to expand too fast. This policy in the field of public expenditure etc. gave rise to serious problems for the balance of payments industries.

36. Against this general background, the most important Danish industries will be examined in the following chapters.

Appendix table I.1

Total GDP, real product, real income etc., 1949-1973

	GDP, current prices, DKR 1000 million	GDP deflator 1955 = 100	Terms of trade, 1955 = 100	Real product, 1955-prices		Real income, 1955-prices	
				DKR 1000 million	per cent increase	DKR 1000 million	per cent increase
1949	18.9	78.6	107	24.0		24.4	
1950	21.6	83.6	98	25.8	7.6	25.7	5.3
1951	23.4	90.2	89	25.9	0.4	25.1	- 2.3
1952	25.0	95.1	94	26.3	1.2	25.8	2.9
1953	26.5	95.3	97	27.8	5.9	27.6	6.8
1954	27.6	96.8	99	28.5	2.5	28.5	3.3
1955	28.7	100.0	100	28.7	0.1	28.7	0.8
1956	30.6	104.7	101	29.3	1.9	29.4	2.4
1957	32.7	106.0	98	30.8	5.4	30.6	4.2
1958	34.0	107.8	100	31.5	2.3	31.6	3.1
1959	37.4	111.9	106	33.4	6.1	34.2	8.4
1960	40.5	113.8	103	35.6	6.5	36.1	5.4
1961	45.4	120.7	102	37.6	5.6	37.8	4.8
1962	50.8	127.9	104	39.7	5.6	40.3	6.6
1963	53.5	134.2	105	39.9	0.4	40.6	0.9
1964	61.1	140.9	107	43.4	8.8	44.6	9.7
1965	68.3	150.0	107	45.5	5.0	47.0	5.3
1966	74.7	160.7	109	46.5	2.2	48.3	2.8
1967	81.9	169.1	107	48.4	4.1	49.8	3.2
1968	89.3	176.4	104	50.6	4.5	51.6	3.6
1969	101.1	184.5	106	54.8	8.2	56.3	9.1
1970	112.6	200.2	106	56.3	2.6	57.9	2.8
1971	123.5	211.9	106	58.3	3.6	60.0	3.6
1972	138.9	227.7	109	61.0	4.6	63.9	6.4
1973	159.1	253.7	110	62.7	2.8	66.1	3.5

Note: The terms of trade figures in the third column are calculated from the implicit deflators of exports and imports of goods and services according to the national accounting data. On the whole, they are very similar to the unit-value indices, published by Danmarks Statistik, the latter covering trade of goods only. The main exception is that the figures above show a smaller deterioration from 1949 to 1951 (from 107 to 89) than figures derived from the unit-value data (from 112 to 86). It should be added that real-income figures are calculated before rounding of the terms of trade figures above. In fact the terms of trade improved slightly in 1965 and in 1970.

Sources: Danmarks Statistik: Nationalregnskabsstatistik 1947-1960, S.U. No 7 and Statistisk tiårsoversigt 1970 and 1975.

Appendix table I.2
External balance, GDP, unemployment, 1949-1973

	Exports	Imports	Export surplus	Domes- tic demand	GDP market prices	Indi- rect taxes net	GDP factor cost	Percent- age rate of unem- ploidment ¹
	Goods and services							
	DKR 1 000 million, current prices							
1949	4.7	4.9	-0.2	20.4	20.2	1.3	18.9	9.6
1950	6.0	6.8	-0.8	23.9	23.1	1.5	21.6	8.7
1951	7.8	8.0	-0.2	25.3	25.1	1.7	23.4	9.7
1952	8.0	7.8	0.2	26.5	26.7	1.7	25.0	12.5
1953	8.2	8.0	0.2	28.4	28.6	2.1	26.5	9.2
1954	8.8	9.2	-0.4	30.3	29.9	2.3	27.6	8.0
1955	9.8	9.5	0.3	31.0	31.3	2.6	28.7	9.7
1956	10.5	10.5	0.0	33.4	33.4	2.8	30.6	11.1
1957	11.4	11.1	0.3	35.2	35.5	2.8	32.7	10.2
1958	11.9	10.9	1.0	36.2	37.2	3.2	34.0	9.6
1959	12.9	12.7	0.2	40.9	41.1	3.7	37.4	5.9
1960	13.8	14.2	-0.4	44.8	44.4	3.9	40.5	4.2
1961	14.3	14.9	-0.6	50.0	49.4	4.0	45.4	3.3
1962	15.3	16.8	-1.5	57.2	55.7	4.9	50.8	3.0
1963	17.3	17.0	0.3	58.9	59.2	5.7	53.5	4.2
1964	19.4	20.5	-1.1	68.8	67.7	6.6	61.1	2.4
1965	21.4	22.3	-0.9	77.0	76.1	7.8	68.3	2.0
1966	22.9	23.9	-1.0	84.7	83.7	9.0	74.7	2.3
1967	24.2	25.7	-1.5	93.3	91.8	9.9	81.9	2.7
1968	27.2	28.3	-1.1	102.3	101.2	11.9	89.3	5.0
1969	30.7	32.9	-2.2	117.4	115.2	14.1	101.1	3.9
1970	34.6	37.8	-3.2	131.1	127.9	15.3	112.6	2.9
1971	39.2	41.0	-1.8	142.4	140.5	17.0	123.5	3.7
1972	44.1	42.7	1.4	157.3	158.7	19.8	138.9	3.6
1973	52.9	55.9	-3.0	184.0	181.0	21.9	159.1	2.4

¹ Calculation techniques were slightly changed in 1959. The effect on the figures is, however, not substantial.

Sources: See sources to appendix table I.1 supplemented by additional information (cf. sources to table I.13).

Appendix table I.3

Indice of real income, real product etc. by industry;
1958, 1966 and 1973 (1950 = 100)

	1950	1958	1966	1973
<u>Agriculture, etc.</u>				
real income	100	94	92	95
real product	100	114	121	120
real inc./real product	100	83	76	79
<u>Manufacturing</u>				
real income	100	123	191	263
real product	100	123	215	332
real inc./real product	100	100	89	79
<u>Handicraft</u>				
real income	100	124	205	245
real product	100	108	155	174
real inc./real product	100	115	132	140
<u>Electricity, gas, ect.</u>				
real income	100	152	221	228
real product	100	160	360	680
real inc./real product	100	95	62	34
<u>Building and construction</u>				
real income	100	131	259	369
real product	100	119	209	272
real inc./real product	100	110	124	136
<u>Distribution, banking, etc.</u>				
real income	100	116	178	231
real product	100	123	190	259
real inc./real product	100	95	94	89
<u>Transport</u>				
real income	100	148	220	289
real product	100	141	204	285
real inc./real product	100	106	108	101
<u>Private services</u>				
real income	100	137	205	252
real product	100	120	147	168
real inc./real product	100	115	140	149
<u>Government services</u>				
real income	100	166	343	670
real product	100	133	208	322
real inc./real product	100	125	165	208
<u>Total value added</u>				
real income	100	123	188	257
real product	100	122	180	243
real inc./real product	100	101	104	106

Note: All figures are calculated before rounding of the basic data. For comments, see final part of appendix to chapter I.

Sources: See sources to appendix table I.1.

REAL PRODUCT, REAL INCOME AND TERMS OF TRADE

A note on concepts, methodology and techniques in deflating national-accounts data

Introduction

1. In the section above on 'Growth rates and industrial structure', the concepts of real product and real income were introduced. Both concepts reflect possible ways of deflating national-accounts data in order to obtain figures 'in real terms'. Basically, the two concepts should not be discussed from the viewpoint of trying to decide whether one of them is always superior to the other. Instead, the choice between 'real product' and 'real income' should depend on the purpose of the analysis.¹ Furthermore - but this point was not brought up in chapter I -, if the concepts are properly defined, there will be a simple relationship between the real product and the real income of a certain industry. This relationship depends on the terms of trade of the sector concerned.

2. In the following, formal proofs will be avoided.² Instead, the exposition will start out by defining the concepts of real-product, real-income and terms-of-trade. Subsequently, relationships between these concepts will be established, and will be illustrated by way of a numerical example, which at the same time indicates the lines along which formal proofs would proceed. Finally, attention will focus on the data presented in chapter I, and on the figures in appendix table I.3 in particular.

¹ Thus, real-product figures will usually provide the proper starting point for traditional analysis in the field of productivity, while real-income figures will provide the starting point for analysis of income by industries, factor remuneration, etc.

² The content of this appendix is based on chapters 13-15 in Anders Ølgaard, Growth, Productivity and Relative Prices, North-Holland Publishing Company, Amsterdam 1966. The present exposition is, however, simplified considerably. Proofs of the various relationships may be obtained from the author.

Concepts

3. Figures of real product in chapter I (cf. table I.6), correspond exactly to value-added figures at constant prices according to traditional national accounts procedures. The basic idea is that prices of all individual inputs and outputs are assumed to have remained constant over the whole period under study. On this assumption, figures of value-added at constant prices can be calculated for each industry. Obviously, since all prices are assumed to have remained constant, relative prices are implicitly assumed to have remained constant as well. However, for many purposes such an assumption is not very relevant. Therefore, the additional concept of real income is introduced.

4. Real income figures for individual industries are based on the idea that actual behaviour of relative prices should be reflected in the figures. In addition, the 'general price level' according to the figures should remain constant. Therefore, the value-added figures for all industries in a given year should be deflated by means of the same deflator. For this purpose, the common deflator actually used in table I.7 was the implicit deflator, obtained from actual figures of total real product (at current and at 1955-prices), the latter being adjusted for the effect of changes of the terms of foreign trade.

5. In a closed economy, total real product and total real income will be identical. This, however, does not generally hold for real product and real income of a certain industry in a given year. If real income exceeds real product, relative prices will have changed in favour of the industry concerned - and vice versa. However, this statement only becomes meaningful when the term 'relative prices of the sector concerned' is defined.

6. In order for the following analysis to be correct, a necessary additional assumption¹ is that, in the base year, total sales equal total purchases for each individual industry and hence for the total economy. (This in turn implies balance of payments equilibrium.)

Within a traditional input-output framework, total sales by a given industry are used, either as input in other industries, as final goods in order to meet domestic final demand, or as exports. In accordance with traditional assumptions of input-output analysis, the sales prices of a given industry in a given year are assumed to be independent of who is actually purchasing the output. Furthermore, in order to simplify the exposition, the public sector is assumed not to exist (or to behave like a private sector). In this way, the distinction between figures at factor cost and at market prices is avoided.

7. Total purchases by a given industry consist partly of inputs bought from other industries, and required in order to produce output. Obviously, such inputs will usually add up to a figure, smaller than total output, the dif-

¹ This additional assumption is required only in order to make the formal analysis consistent. Minor differences for a certain industry in the base year (implying that the industry obtains a net financial asset or liability against the rest of the world) do not invalidate the application for practical purposes.

ference representing the value-added by the industry concerned. Hence if, with respect to purchases by the industry, the analysis only includes inputs from other industries, the basic assumption of total sales equalling total purchases would give rise to considerable difficulties.

However, each industry also buys final goods - consumption as well as investment goods -, and prices of these goods do of course also affect the real income of the industry concerned. In the following, it is assumed that the total sales of each industry in the base year are exactly equal to total purchases of inputs from other industries as well as of final - consumption and investment - goods. Furthermore, in order to simplify the exposition it is assumed that all industries of the economy buy final goods in the same proportion as that of total consumption as compared with total investment for the total economy. In brief, while the composition of inputs purchased by the individual industries differs, all industries buy final goods in the same proportions. Hence we may assume that only one type of final demand exists, including consumption as well as investment. Furthermore, it is assumed that no financial savings are made by any industry in the base year.

Within this framework, the terms of trade of an industry (reflecting changes of relative prices affecting the industry) is defined as an index of prices of output divided by a price index of total purchases by the industry concerned, the latter covering inputs as well as final goods.

Relationships between concepts

8. Now the stage has been set, allowing the following conclusions to be drawn:

A. For a given industry in a given year, real income minus real product is exactly equal to the total output of the industry, multiplied by the percentage change of the terms of trade of the industry concerned.

Furthermore, the difference between the real income and the real product of a given industry will be defined as its gain from the changes in relative prices (or from changes in its terms of trade).

An alternative way of stating this relationship is the following:

B. The real income divided by the real product of a given industry in a given year is proportionate to the percentage change in the terms of trade of the industry concerned, the proportion being equal to the ratio of its output divided by its value-added.

9. In an open economy, total real income will only equal total real product, provided that the terms of foreign trade remain unchanged. In fact, corresponding to conclusions A and B we may arrive at the following conclusions for the relationship between total real income and total real product in an open economy:

C. In an open economy, the difference between total real income and total real product is equal to total exports, multiplied by the percentage change in the terms of foreign trade. Hence this difference expresses the gain (or loss) from changes in the terms of foreign trade.

Table 1
Input-output table of year 1, all prices = 1

	To industry			Final domestic demand	Exports	Total
	A	B	C			
From industry A	-	-	20	100	50	170
industry B	10	-	-	60	10	80
industry C	40	10	-	60	10	120
Imports	70	20	30	-	-	120
Value-added	50	50	70	-	-	170
TOTAL	170	80	120	220	70	-

An alternative way of stating this relationship is the following:

D. Total real income divided by total real product is proportionate to the percentage change in the terms of foreign trade, the factor of proportionality being equal to the ratio of total exports divided by total value-added.

10. Finally, it may be shown that the terms of trade of the individual industries and terms of foreign trade fit neatly into an overall pattern:

E. The gain from the terms of foreign trade - as seen from the viewpoint of the total economy - can be distributed among the individual industries, at the same time taking into account domestic changes in relative prices. In this way, the gains of the individual industries are obtained, these gains adding up exactly to the gain of the total economy from the terms of foreign trade.

A numerical example

11. In order to illustrate these relationships, a numerical example might be appropriate. General index-number problems will not be discussed. Instead, it is assumed that quantities remain unchanged from year 1 to year 2,¹ the two years to be compared.

In year 1 (cf. the input-output table shown in table 1), all prices are assumed to be equal to unity.² Total value-added is equal to 170, and total im-

¹ This, however, does not hold for the implicit distribution of final domestic demand by industries.

² Of course, this assumption is not crucial. It can always be fulfilled by using appropriate units of measurement.

Table 2
Input-output table of year 2, current prices

	To industry			Final domestic demand	Exports	Total
	A	B	C			
From industry A	-	-	20(3)	100(3)	50(3)	170(3)
industry B	10(2)	-	-	60(2)	10(2)	80(2)
industry C	40(1)	10(1)	-	60(1)	10(1)	120(1)
Imports	70(1 ¹ / ₂)	20(1 ¹ / ₂)	30(1 ¹ / ₂)	-	-	120(1 ¹ / ₂)
Value-added	345	120	15	-	-	480
TOTAL	510	160	120	480	180	-

Note: Figures in parentheses are the price multipliers.

ports equal 120. On the demand side, total domestic final demand equals 220 and total exports 70.

12. From year 1 to year 2, output prices of industry A increase from unity to 3, those of industry B increase to 2 while those of industry C remain unchanged. Import prices increase by fifty per cent. Note that, by these assumptions, export prices have been fully described.

In table 2, the input-output table of year 2 is shown at current prices, all flows (except those of value-added) being indicated as quantities multiplied by prices. Year 2 is the base year for the various price indices, which con-

Table 3
Real income, and real product in year 2

	Real income (1)	Real product (2)	Difference = (1)-(2)
Industry A	158.1	50.0	108.1
Industry B	55.0	50.0	5.0
Industry C	6.9	70.0	-63.1
TOTAL	220.0	170.0	50.0

sequently are of the Paasche type.¹ Note that, in year 2, total exports at current prices equal total imports at current prices (=180). Hence total final domestic demand equals total value-added (=480).

13. Real income and real product figures for year 2 are indicated in table 3. Real product figures follow immediately from table 1, because quantities of output and input are assumed to have remained constant. The indices are of the Laspeyres type.

Real income figures for year 2 by industries are found by deflating value-added figures at current prices (cf. table 2). The common deflator, used for all industries, is that of total final domestic demand, equal to 480 divided by $220 = 24/11$.²

As appears from table 3, industry figures of real income and real product in year 2 may differ substantially. Output prices of industry A show the largest increase from year 1 to year 2, namely from 1 to 3. Hence the substantial gain from changes of relative prices, obtained by industry A, is not surprising.

At the other extreme, output prices of industry C remained constant from year 1 to year 2, while all other prices increased. In accordance with this pattern, industry C suffered a substantial loss due to a deterioration of its terms of trade.

14. Terms of trade figures for individual industries as well as for the total economy are shown in table 4. According to the bottom row, export prices have increased by 157.1 per cent, while import prices only increased by 50

¹ This is not accidental. Value-added figures at constant prices are usually calculated as quantity indices of the Laspeyres type, so in order for the analysis to be consistent the corresponding price indices must be of the Paasche type. In the above example, quantities remain unchanged from year 1 to year 2. Hence Laspeyres and Paasche indices will usually lead to the same result. Note, however, that this is not true with respect to the implicit distribution of final domestic demand by industries. Thus, even in this example, price indices may differ according to type, and the proper price-index to use is the Paasche type.

² An alternative way of determining the common deflator, leading to the same result, but being more in line with the analysis above, is the following: In year 2, total real product equals 170. In order to arrive at total real income, an additional term must be added (cf. conclusion C above). This term is exports (in year 2 at prices of year 1, i.e. 70) multiplied by the percentage change of the terms of trade in foreign trade, the latter being equal to 71.4 per cent (cf. table 4 below). Hence the gain from changes in the terms of foreign trade is equal to 50 and total real income in year 2 equals $170+50=220$. Thus the real income deflator is equal to total value-added of year 2 at current prices (480) divided by $220 = 24/11$. Note, finally, that the ratio of total value-added in year 2 divided by total value-added in year 1 ($480/170$) represents the deflator of total real product - but not that of its components in terms of value-added by industries.

Table 4
Terms of trade in year 2

	Price index of			$\frac{\text{t.o.t.}}{100} - 1$	Total sales ¹	Gain =(4)·(5)
	sales	pur- chases	$\frac{\text{t.o.t.}}{= (1) \times 100}$ (2)			
	(1)	(2)	(3)			
Industry A	300.0	183.4	163.6	0.6360	170	108.1
Industry B	200.0	188.2	106.3	0.0625	80	5.0
Industry C	100.0	211.0	47.4	-0.5260	120	-63.1
Total economy = foreign trade	257.1	150.0	171.4	0.7143	70	50.0

¹ In year 2 at price of year 1.

Note: All figures are calculated before rounding of the basic data. Apart from the price indices of purchases, the figures should be self-explanatory, e.g. sales prices of the total economy (i.e. the index of export prices), equals $180/70 = 257.1$; correspondingly, the index of import prices is of course equal to 150.

The price index of purchases by industry B is determined as follows (those of industries A and C are found in a similar way): in year 2 at current prices, the value-added of B equals one fourth ($120/480$) of total value-added. Hence final domestic demand of B equals 25 units of the output of A, 15 units of output of B and 15 units of output of C. Furthermore, B buys inputs equal to 10 units of output of C and 20 units of imports. On the basis of all these quantities, the (Paasche) price index of total purchases by B is determined.

per cent. Hence the terms of trade improved by 71.4 per cent. Multiplying this figure by total exports (in year 2 at prices of year 1) provides the gain to the economy from changes in the terms of foreign trade. This gain is equal to 50 units. This figure, in turn, equals the difference between total real income and total real product according to table 3.

Corresponding terms of trade figures by industries are shown in table 4. Indices of sales prices by industries follow immediately; indices of prices of purchases are calculated according to the procedure, described in the note to table 4. From these indices, the terms of trade indices of the industries are easily found. When the percentage changes of these indices are multiplied by total sales (= total output of year 2 at prices of year 1) of the industry concerned, figures of gains (or losses) by industries due to changes of relative prices are finally obtained. In accordance with conclusion A above, the gains according to table 4 equal differences between real income and real product according to table 3.

15. As appears from table 4, the terms of trade in foreign trade improved by well over 70 per cent from year 1 to year 2. This result is not surprising, recalling that import prices only increased by 50 per cent, while prices of the main part of exports either trebled in industry (A) or doubled in industry (B). However, the gain from changes in the terms of foreign trade was certainly not distributed evenly among industries. Industry A had a substantial gain, while C suffered a loss.

At first sight, the result obtained by industry B - a very minor gain of only 5 units - may be surprising. After all, the total gain of the economy from the improvement in the terms of foreign trade, to be distributed among the industries, was substantial (equal to 50 units). Furthermore, output prices of industry B doubled, increasing more than import prices. In addition, apart from imports, B only uses input from industry C, and the price of the latter remained unchanged.

However, the share of input in total output of industry B is rather modest, implying that the share of value-added (and hence of final demand) in total output is comparatively high. Furthermore, average prices of final demand have increased more than the prices of industry B's output, the price index of final demand being equal to 218. Hence the modest gain by sector B in spite of low prices of its inputs in year 2 is explained by a substantial increase in the average price of final demand, the latter exceeding the price increase of industry B's own output.

16. The above type of analysis provides many interesting results, but only one of them will be briefly commented upon from a more general viewpoint. Suppose that export prices of a country increase, leading to an improvement in its terms of trade. Such a development will benefit the economy, taken as a whole, and exporting industries in particular. But from the viewpoint of the remaining industries, the price effect may be negative. This negative effect may be caused by the fact that these industries use output from export industries as input (e.g. fuel), but the explanation may also be related to their final demand. In an economy exporting agricultural products, higher prices of these products will of course give rise to improved terms of foreign trade, but may at the same time be to the disadvantage of the remaining industries, because the prices of other components of final demand (including consumers' goods) have increased.

Some additional comments on the Danish figures

17. The purpose of the technical and conceptual exercise above has been to justify the use of real-product as well as real-income figures in chapter I. The quantitative importance of this distinction from a short run viewpoint with regard to the total Danish economy appears from the year-by-year figures in appendix table I.1. In accordance with the techniques outlined above, the percentage increase of real income always exceeds that of real product, if the terms of foreign trade have improved - and vice versa. During the years of the Korean war, around 1950, the difference between percentage increases of real income and real product were in fact substantial. But such differences also occur during the last part of the period covered by the table. Thus from 1971 to 1972, total real product increased by 4.6 per cent. At the

same time, the terms of foreign trade improved by 3 per cent, and total real income increased by no less than 6.4 per cent.¹

18. From a long-term viewpoint, the difference between growth rates of total real product and real income is only modest (cf. the bottom rows of appendix table I.3). In fact, from 1950 to 1973, the ratio of total real income divided by total real product only increased by 6 per cent for the period taken as a whole, reflecting an increase in the index of the terms of foreign trade from 98 in 1950 to 110 in 1973 (cf. appendix table I.1).

However, when real income and real product figures by individual industries are compared, the differences become substantial (cf. appendix table I.3). In this table, indices of time series of real income, real product and the ratio of these two concepts are indicated for 1958, 1966 and 1973 (1950=100). Thus the table may be considered as providing a summary of tables I.6 - I.8. However, the following comments will be limited to the third row for each industry, i.e. the real income/real product ratio, reflecting changes of the terms of trade of the industry concerned (cf. paragraph 8 above, especially conclusion B).

19. One of the results according to the table is that, on the whole, the terms of trade of a certain industry tend to show the same direction and rate of change during all the three sub-periods, indicated in appendix table I.3. The sector showing the largest improvement in its terms of trade (more than a doubling from 1950 to 1973) is 'government services', whilst 'private services' have had an overall gain of nearly fifty per cent. 'Handicraft' has had a gain of forty per cent.

At the other extreme, the industry of 'electricity, gas etc.' has seen a substantial deterioration of its terms of trade, and the same is true for 'manufacturing industries', although to a much smaller extent, i.e. an overall deterioration of roughly 20 per cent.

20. Immediately, these findings suggest that the explanation of the different patterns of sector terms of trade should, at least partly, be found in an analysis of productivity by industries, a reasonable hypothesis being that deteriorating terms of trade of an industry partly reflect substantial productivity gains - and vice versa. However, such an analysis would obviously require additional data and would, furthermore, carry us too far.

While productivity differences may explain part of the findings on industry terms of trade, other factors are of importance as well. The deterioration of the terms of trade of agriculture, of about 25 per cent from 1950 to 1966, undoubtedly should be explained not only by improved productivity, but also by difficulties with respect to extending output at profitable prices during

¹ However, the difference between these rates of growth undoubtedly exaggerates the gain from the improved terms of foreign trade from 1971 to 1972. This is partly due to the fact that the implicit weights had become obsolete. Another reason is related to the fact that the assumptions, indicated above, were not fulfilled to the same extent in both years. Thus in 1971, there was a balance of payments deficit of DKR 1 800 million, while in 1972 there was a surplus of DKR 1 400 million (cf. appendix table I.2).

this period. The subsequent improvement from 1966 to 1973 of the terms of trade of agriculture is probably mainly due to higher prices of agricultural output, following the accession of Denmark to the EEC.¹

¹ These problems are discussed in chapter II. Note that the bottom rows of tables II.1 and II.4 contain figures on the real income/real product ratio of agriculture similar to those indicated in appendix table I.3.

Chapter II

AGRICULTURE

HISTORICAL BACKGROUND PRIOR TO THE 1930s

1. In order to understand the structure and the problems of Danish agriculture during recent decades, the unavoidable starting point is the Western European agricultural crisis of the 1870s, caused by a sharp decline in prices of grain due to increased supplies from abroad. The reaction of most European countries was to introduce protectionist policies, trying to maintain domestic grain prices at a level above that at which grain could be imported. This strategy was, however, not feasible from a Danish viewpoint, because nearly all Danish exports at that time consisted of agricultural produce, and particularly of grain.

Necessity is said to be the mother of invention, and invention certainly was required. The process of industrialization had only just reached the take-off point, hence the necessary structural changes had to be made inside agriculture. The resulting pattern was one of a continued increase in the output of vegetable products - grain, and later beet, - not to meet final demand, but mainly to be used as input for sharply increasing output of livestock products, mainly butter, bacon, and beef. From the 1880s onwards, Denmark became a net importer of grain.

2. An important aspect of these changes was the role of the Danish cooperative movement, and, in particular, the introduction of the 'folk high school' and the centrifugal separator. The former developed during the second half of the nineteenth century and provided the educational background for the cooperative movement to become operational; the latter - which was not invented until 1880 - was used in no less than 500 cooperative Danish dairies ten years later, and enabled even comparatively small dairy units to produce high quality butter.

3. From the 1890s onwards, conditions for Danish agriculture improved substantially. High growth rates of international trade, based on the increased output of manufacturing industries, created a substantial increase in demand, particularly for livestock products. This was especially true of the U.K. which - with a small domestic agricultural sector - became the main customer for Danish livestock products, especially butter and bacon.

Table II.1
Agriculture, share of labour force and of GDP 1875-1929

	1875	1890	1900	1913	1929
Agriculture labour force (1 000)	499	503	511	531	613
Agriculture labour force, share of total labour force, per cent	51	47	43	39	34
<u>Agriculture, share of GDP, per cent:</u>					
(a) current prices	42	35	28	28	21
(b) 1929 prices	37	31	25	23	21
(c) : (a)/(b) = Real inc./real prod.	116	115	112	124	100

Source: Figures are calculated on the basis of appendix tables in Svend Aage Hansen, Økonomisk vækst i Danmark, vol. II: 1914-1970, Copenhagen 1974.

Thus, the structure of Danish agriculture changed towards the provision of more labour intensive outputs, which were competitive abroad on markets where demand was increasing and where there were no serious trade barriers against livestock products.¹

Towards the end of the nineteenth century, relative prices as seen from the viewpoint of agriculture began to improve. From 1900 to 1913 the improvement was substantial (cf. the bottom row of table II.1),² hence Danish agriculture reaped the fruits of the structural change which had taken place from the 1880s onwards.

This favourable pattern could not prevent the share of agriculture in total GDP and in the total labour force from declining, but the decline took place at a comparatively slow rate. Whereas 50 per cent of the labour force was employed in agriculture in 1875, the share had only dropped to roughly 40 per

¹ It is, however, interesting to note that Danish exports to the U.K. of beef have remained insignificant ever since the 1880s, Germany being the main customer for Danish beef. The main explanation of this market pattern is probably that the U.K. has been particularly interested in high-quality livestock products, e.g. bacon from the 'pig sector'. With the main emphasis until recently on butter, and therefore on dairy cattle the quality of Danish beef could not match that of our overseas competitors.

² The bottom row of the table indicates the ratio of agricultural real income over agricultural real product, which in turn is proportionate to the terms of trade of agriculture (cf. appendix to chapter I).

Table II.2
Exports, 1875-1929

	1875	1890	1900	1913	1929
<u>Percentage distribution by product</u>					
Beef and cattle	15	13	7	10	5
Butter	21	38	43	31	31
Bacon and pigs	13	16	21	25	31
Eggs	1	3	6	5	5
Grain, flour etc.	28	7	3	2	1
Other agric. ¹	8	11	9	14	5
Total agric. prod.	86	88	89	87	78
Other products	14	12	11	12	22
TOTAL EXPORTS	100	100	100	100	100
<u>Percentage distribution by country</u> ²					
Great Britain	42	55	59	62	60
Germany	29	25	17	25	21
Norway and Sweden	24	13	13	4	7
Other countries	5	7	11	9	12
TOTAL EXPORTS	100	100	100	100	100
Total exports, mill. DKR	152	195	282	637	1 616

¹ Including sugar, but excluding canned food.

² The figures for 1875, 1890 and 1900 are based on data for general trade, i.e. including re-exports. For these years, the shares of Norway and Sweden are probably too high when compared with figures for the following years. The opposite is true for Great Britain.

Source: Ole Bus Henriksen and Anders Ølgaard, Danmarks Udenrigshandel 1874-1958, Copenhagen 1960.

cent prior to the First World War (cf. table II.1). Measured in absolute terms, it continued to increase until 1929, when it reached an all-time peak of 613 000 persons. Another way of stating this relationship would be to say that due to improved efficiency as compared with that of agricultural sectors of other countries, Danish agriculture was able to compete for the available resources with domestic manufacturing industries relatively more successfully, and therefore the process of industrialization in Denmark was delayed.

4. This pattern is confirmed by the development of exports (cf. table II.3). From 1875 to 1913, the share of agricultural exports remained at 85-90 per cent of the total leaving only 10-15 per cent for exports of manufactured goods. But the composition of agricultural exports changed. The share of grain declined during the early part of the period, and subsequently butter and bacon became the dominating products. In fact, in 1929 butter and bacon comprised more than 60 per cent of total exports.

Great Britain and Germany were by far the largest markets for these products, hence Danish exports were heavily concentrated during the late 1920s, not only in terms of products, but also in terms of geographical markets.

5. The rapidly increasing output of livestock products in turn required increased imports of grain, foodstuffs, fertilizers etc. In the late 1920s, imports of raw materials for agriculture amounted to roughly 25 per cent of total imports.

DECADES OF CRISIS, WAR AND POST-WAR PROTECTIONISM

6. The barriers to international trade erected in the wake of the international crisis of the early 1930s, also hit agricultural products and thus Danish agriculture. The rapid increase of output stopped due to dwindling markets, and consequently, the agricultural labour force started to decline,

Table II.3

Agriculture, share of labour force and of GDP, 1929-1958

	1929	1939	1950	1958
Agriculture labour force (1 000)	613	568	470	396
Agriculture labour force, share of total labour force, per cent	34	28	23	19
<u>Agriculture, share of GDP, per cent:</u>				
(a) current prices	21	17	19	14
(b) 1929-prices	21	20	17	15
(c):(a)/(b) = Real inc./real prod.	100	86	113	90

Source: See source to table II.1.

even in absolute terms. Those leaving agriculture were mainly young assistants - the number of farms remaining constant - and probably most of them found employment in urban industries, thus aggravating the unemployment problem for those already belonging to the urban labour force.

For some agricultural exports, e.g. butter, the pattern of the 1930s was one mainly of declining prices. However, in 1932 Denmark was guaranteed a quota for exports of bacon to the U.K. corresponding to 62 per cent of British bacon imports. With limited bacon supplies to the British market and rather low price elasticities, this arrangement led to increased export prices for Danish bacon.

7. During the German occupation of Denmark (1940-45), the obvious German interest was to encourage agriculture to maintain the highest possible output in order to maximise Danish food exports to Germany. At the same time, a general feature of Danish economic policy was to try to keep money wages down in an attempt to dampen inflation. The combined effect of these policies was a substantial change of income distribution in favour of agriculture and to the disadvantage of urban workers.

8. During the late 1940s, economic planning for the 1950s was still based on the assumption that agricultural exports would regain their earlier prominence or at least maintain their share of total exports, which had declined from 78 per cent in 1929 to 63 per cent in 1950 (cf. table II.5). It was even imagined that exports of butter to the U.S. would contribute substantially to solving the dollar-shortage problem.¹

Admittedly, the share of agriculture in the total labour force had dropped from 34 per cent in 1929 to 23 per cent in 1950 (cf. table II.3). But relative prices of agriculture had improved substantially from 1939 to 1950 (cf. the bottom row of table II.3), and it could be expected that the share of exports would again reach about two-thirds of total agricultural final output, the proportion reached prior to the crisis of the 1930s and the shortages of the 1940s. In fact, this latter expectation turned out to be the only one to come true (cf. table II.4).

Furthermore, the development of agricultural exports was one characterized by continued diversification. The share of butter and bacon in total agricultural exports declined from 78 to 57 per cent between 1929 and 1950, and there were high hopes of increasing exports of canned food, cheese, etc.

9. Against this background, it was decided to stick to the traditional Danish principle of letting home market prices reflect average export prices; this principle was maintained for roughly another decade. But it soon became clear that the liberalization of manufactures according to the OEEC scheme was not at all reflected in similar tendencies for agricultural products. The

¹ During the autumn of 1949, OEEC prepared a report on economic conditions in the European countries, providing part of the basis for distributing the Marshall Aid. This report was based on 'country reports', the Danish one being prepared in the autumn of 1948: Danmarks Langtidsprogram 1948/49-1952/53. The question of Danish exports of butter to the Western Hemisphere is discussed on pp. 17-19 and 28-30 in this report.

Table II.4
Agricultural exports, 1929-1958

	1929	1939	1950	1958
Agric. exports, mill.DKR ¹	1 262	1 156	2 899	4 291
Total exports, mill.DKR	1 616	1 578	4 592	8 608
Agric., shares of total exports	78	73	63	50
Agric., total final output, mill.DKR	1 803	1 824	5 289	6 593
Share of exp. in total final agric. output	70	63	55	65
Export, butter:				
quantity, 1 000 t	159	150	156	115
price (DKR/kg)	3,16	2,48	5,80	4,59
value, mill. DKR	502	372	906	526
Export, bacon etc.:				
quantity, 1 000 t	249	190	181	247
price (DKR/kg)	1,96	2,08	4,14	4,76
value, mill. DKR	488	394	747	1 173
Total share of butter and bacon in agricultural exp. by value	78	66	57	40

¹ Excluding sugar and canned food.

Source: See source to table II.2, supplemented by additional information.

only market which was not heavily protected was the British, and here Danish exports had to compete with subsidized surplus output from other countries, many of them traditional net importers of livestock products. Thus, the allegation that Danish agriculture had to compete mainly with the Treasuries of other countries (including that of Great Britain, where the deficiency-payments system was maintained) was not without foundation.

The tendency for the economic conditions affecting agriculture to deteriorate, which had been reversed during the 1940s, once more became obvious. Relative prices deteriorated (cf. table II.3); and this deterioration continued throughout the 1960s. Furthermore, the share of total exports originating from agriculture continued to decline (cf. table II.4).

Table II.5
Number of 'whole-year workers' in agriculture, 1949/50-1972/73

(1 000 man years)

	1949/50	1957/58	1965/66	1972/73
Owner and spouse	188.5	166.4	140.0	135.0
Children at 14 and above, other relatives	63.1	43.1	17.4	7.1
Permanently hired employees:				
without own household	98.4	72.3	23.6	} 16.4
with own household	23.4	19.6	12.2	
Day labourers etc.	23.6	16.8	4.5	2.8
TOTAL NUMBER OF MAN YEARS	397.0	318.2	197.7	161.3

Source: Danmarks Statistik: Statistisk Årbog, various years.

Table II.6
Number of farms, 1919-1973

(1 000's)

	1919	1933	1949	1959	1973
Acreage:					
0,5 - 5 hectares	} 109	56	46	38	15
5 - 10 hectares		50	56	54	26
10 - 15 hectares	25	27	31	33	22
15 - 30 hectares	43	45	50	48	41
30 - 60	23	21	20	20	23
60 - 120 hectares	4	4	3	3	5
120 - hectares	1	1	1	1	1
TOTAL NUMBER	205	204	207	197	133

Notes: (a) 1 hectare equals 2.471 acres.

(b) Danish agriculture has always been dominated by small-holders owning their own farms. Tenants have not been of major importance, and most of them have had the government as their landlord according to various laws aimed at strengthening the small-holder pattern.

Sources: Danmarks Statistik: Statistisk Årbog and Landbrugsstatistik, various years.

FROM THE BRITISH TO THE CONTINENTAL SYSTEM OF AGRICULTURAL PRICING

10. Gradually it became clear that the basic structural problems of Western European agriculture were of a more general nature. In contrast to the situation prevailing in the last part of the nineteenth century, these economies were at a stage where income elasticities for livestock products were rather low, and at the same time improvements in agricultural productivity had become imperative in most countries, because the low level of income of farmers created serious social problems. Hence, there was no longer the possibility of solving the problems of Danish agriculture by continued high rates of growth of output.

11. Consequently, part of the solution had to be found in a further reduction of the agricultural labour force, accompanied by increased labour productivity. The latter was partly brought about by a rapid introduction of mechanization in agricultural production. Thus labour input was reduced by one half between 1949/50 and 1965/66 (cf. table II.5). Subsequently the number of farms - and of farmers - had to be reduced also (cf. table II.6), and it has become increasingly widespread for small-holders to have a (part-time) job in manufacturing or in other industries.

Another aspect of this change was a decline in net imports of grain. As was mentioned above, imports of raw materials for agriculture amounted to roughly 25 per cent of total imports during the late 1920s, but with increased domestic crops and low growth rates for output of livestock products, this share declined to about 5 per cent, the main part consisting of oil cakes, etc. During the last decade, net imports of grain have become insignificant.

12. When the European Communities were established in 1957, Danish agriculture was placed in a difficult position. As Denmark was not a member of the EEC, its role as supplier of agricultural produce to the Communities diminished as there were substantial trade barriers. The basic problem was that the main markets for Danish agriculture - EEC countries and the UK - belonged to two different trade blocks. Even the development of the European Free Trade Area did little to alleviate the situation because EFTA did not include arrangements to liberalize trade in agricultural products between member countries.

13. In these circumstances, the principle of letting agricultural domestic prices be determined by export prices had to be sacrificed. This process started in the late 1950s and accelerated during the 1960s. The main idea was to let domestic prices of livestock products increase to reflect actual increases in costs. But since two-thirds of total livestock products were exported, this policy only solved one-third of the problem. Although the policy of subsidizing agriculture during the 1960s served to reduce the difficulties somewhat, it certainly did not eliminate them. Relative prices continued to deteriorate, and the labour force continued to decline.

Many economists became worried about the effects of this policy. They maintained that subsidizing agriculture, partly by higher output prices of livestock products, might unduly slow down the adjustment process with respect to the size of the agricultural labour force. As shown in table II.5, this worry turned out to be unfounded.

Table II.7
Danish livestock products, 1962/63 and 1972/73

(1 000 t)

	1962/63			1972/73		
	Output	of which		Output	of which	
		export	dom. consumpt.		export	dom. consumpt.
Butter	156	112	48	144	96	40
Cheese	116	81	41	129	76	52
Beef, veal, etc.	294	199	93	195	110	84
Bacon, pork, etc.	682	519	166	826	620	195

Note: Minor components on the supply and demand side, e.g. stock changes and imports, are disregarded. Hence the figures do not tally.

Source: Danmarks Statistik: Landbrugsstatistik 1963 and 1973 and supplementary information.

14. Another aspect of the adjustment process during the 1960s was a change in the composition of the output of livestock products. Output of the less labour intensive products (the so-called 'grain products': bacon, poultry, etc.) increased (cf. table II.7) the increase being reflected in the growing use of grain for feeding. At the same time, output in the more labour intensive sector of dairy products stagnated or even declined.

15. The entry of the UK and Denmark into the EEC solved the basic dilemma, mentioned above, from 1973 onwards. The two main groups of customers of Danish agriculture, the UK and other EEC countries, became subject to the same common agricultural policy, as did Denmark.

During the 1960s and the first part of the 1970s Danish domestic agricultural prices had roughly reached the level of the domestic prices in the EEC. Hence the main immediate current gain to Danish agriculture from entering the EEC was one of improved terms of trade, caused by higher export prices. Other effects were capital gains in the form of higher prices of farm land, partly reflecting substantial increases in grain prices. These short term gains from joining the EEC have been substantial, although partly of a once-for-all nature. But the main advantage from entering the EEC has been the establishment of free access to all the traditional European markets of Danish agriculture - for the first time since 1930.

Chapter III

MANUFACTURING INDUSTRIES

INTRODUCTION

1. Unlike the agricultural sector, the structure of Danish manufacturing industries is characterized by vast complexity. Whereas agricultural production can still, although with much less justification than a few decades ago, be considered fairly homogeneous, the composition of output in manufacturing industries is very heterogeneous. Thus, any analysis either has to go deeply into details, or be restricted to a general description with the associated risk of omissions and over-simplification. The latter method has been used here.

2. Possession of energy and raw materials is often considered to be a necessary part of a country's industrial base. If that were so, industrial production in Denmark would have been very narrow indeed. As for energy, Denmark has so far been almost 100 per cent dependent on imported fuel.¹ As far as raw materials are concerned, resources are limited to lime, chalk and clay.² These raw materials have been utilized for industrial purposes. Thus, cement manufacturing is among the important Danish industries, with the advantage obtained from the momentum of an early start. Furthermore, Denmark's comparative advantage in this field has formed the basis for a major 'downstream-industry', i.e. the manufacturing of cement-making machinery. In both fields, Danish firms, being closely interrelated, have developed into a multinational concern, apparently with strong international market positions.

The easy access to sea-transport routes has served as a substitute for domestic possession of industrial raw materials. Hence, generally speaking, the lack of such materials inside the Danish borders has not been a serious competitive disadvantage. On the contrary, the lack of raw materials may have

¹ In this respect Denmark is similar to Japan. However, in contrast to Japan, only a minor part of fuel imports is used in industry, the main part being used for heating.

² In addition, gravel from the beaches could be mentioned. This has been an export article of some importance. However, for environmental reasons this export is probably coming to an end.

brought certain advantages to manufacturing industry, because there were no (or virtually no) domestic producers of raw materials to protect. Consequently, raw materials could be imported duty-free by Danish manufacturers, whereas the prices paid by their foreign competitors were very often higher due to the existence of duties.

The importance of sea transport from the viewpoint of the Danish economy has been reflected in the fact that international shipping is a major Danish industry. This in turn has been of great importance for the development of a shipyard industry. This industry again has provided the demand for substantial production of steel plates etc., based to a large extent on scrap iron.

3. The close interrelationship between agricultural and industrial production has been an important factor in the development of the industrial sector in Denmark. To mention only a few examples, the structural changes in agriculture a hundred years ago, described in chapter II, implied among other things an increased demand for dairy machinery which thus stimulated the manufacture of such machinery. Demand from agriculture has also been of decisive importance for the development of certain chemical products viz. fertilizers. On the supply side, the same holds true for the development of an important line of pharmaceutical output, i.e. insuline for which the raw materials come from pig production. Still more obvious examples are to be found in canning and in beverage industries.

4. However, the factors mentioned can only explain part of the industrial development in Denmark. Schumpeterian entrepreneurship may remain the main explanatory factor. Apparently, Denmark has had a fair share of this very important resource. Only a few examples from recent decades will be mentioned. Some rapidly expanding firms, which might be labelled multinational firms of Danish origin, 'Danfoss' being one of them, owe their existence to the fact that the personal capacities of their founders have been of a truly Schumpeterian type. 'Danfoss' produces compressors, heating-valves and hydraulics. 'Lego' toys is a similar example in quite a different field.

5. Danish trade policies have already been mentioned in passing. Taking a secular view, the tradition has decidedly been one of free trade, but with a substantial departure during the 30 years from the early 1930s to around 1960. This was the period of import restrictions, being more prolonged in Denmark than in most other countries. During the post-war years, Denmark exclusively stuck to import restrictions¹ while in most other countries the instruments of protectionist policies were changed from quantitative restrictions to custom barriers.

¹ This raises the question as to how it was possible for Denmark to stick to quantitative restrictions on foreign trade in spite of the obligations to liberalize according to the rules laid down in the then OEEC. The answer, in short, was that it was a matter of Danish officials 'knowing their liberalization arithmetic', i.e. their ability to find mixtures of liberalization, which gave the appearance of being impressive but in fact kept alive the hard core of protectionist regulations until total abolishment when EFTA was founded. The 'trick' consisted of mainly liberalizing those goods which formed a relatively big proportion of imports, but only a small share of domestic production.

The massive use of import restrictions for a period of 30 years should be seen in the perspective of general international protectionism, especially at the beginning of the period. Also, experience with import restrictions in Denmark during the 1930s provides evidence of the usefulness of an 'infant industry' policy. The immediate purpose of introducing import restrictions was to create maximum employment opportunities with minimum balance of payments costs. The effects of this policy may be seen from the fact that, during the 1930s, the composition of imports changed, with the share of manufactured goods (excl. capital goods) being reduced from 29 per cent of total imports in 1930 to 23 per cent in 1938. At the same time, the share of deliveries of home-manufactured goods in total domestic final demand increased at the expense of producers abroad.

6. After the Second World War, there was widespread uncertainty as to which industries would be the main exporting industries of the coming decades. As was described in chapter II, high hopes with respect to agriculture turned out to be far too optimistic. On the other hand, exports of manufactured goods showed substantial increases over a wide range of products during the 1950s. But the question still remained as to whether manufacturing industry would be able to compete on the home market if the hard core of import restrictions were removed. With respect to this problem, the prospects were generally considered to be rather grim.¹

7. Fortunately it turned out that much of this fear was unfounded. One reason was that import restrictions had to a certain extent been used to promote exports, the issuing of import licenses being used as a weapon against other countries to persuade them to open up their home markets for Danish exports. Another - and more important - reason may be related to the low overall growth rate of the Danish economy - and hence of domestic demand - during most of the 1950s as compared with that of most other Western European countries. Due to balance of payments problems, domestic demand was kept rather tight during the main part of the 1950s. Markets abroad generally expanded at a faster rate, which may have made them more attractive for Danish manufacturers.

Furthermore, research by The Danish Economic Council² suggests that industry started its postwar expansion in a comfortable situation regarding the markets for its industrial exports as well as their composition by main groups of articles. In both respects, the foreign markets of manufacturing industries seem to have grown faster during the 1950s and the main part of the 1960s than was the case for the markets of most other OECD countries. In other words, the goods produced by manufacturing industries happened to be associated with the fastest expanding markets - perhaps because most export industries were comparatively 'new' and thus able to choose the right products

¹ Cf. Danmark og de europæiske markedsplaner. Nr. 1, Industrivareområdet, Copenhagen 1958. This report on the future prospects for Danish manufacturing industries carefully discusses the effects of removing import restrictions. The tone of the analysis gave the report the nickname 'The shock report'.

² Det økonomiske Råd, Udviklingen i Danmarks internationale konkurrence-evne. Copenhagen 1969.

without having to adjust an outmoded pattern of output. Actually, during the 1950s and the main part of the 1960s, industrial exports grew in volume terms, at an exceptionally high rate of around 13 per cent per year.

8. The factors which enabled manufacturing industries to expand in domestic markets as well are as follows. Firstly, as discussed in chapter I, overall economic growth suddenly started to accelerate, and of course it is always easier to survive in an expanding market. Secondly, the 'shock report' may have underestimated the importance of the fact that large parts of Danish manufacturing industries had already got accustomed to competing with foreign producers - the competition having taken place abroad. Thirdly, during the late part of the 1950s, economic policies on industrial expansion started to concentrate on manufacturing, introducing more favourable depreciation allowances, etc.

This is not to imply that no home-market industries were affected by the final abolishment of import restrictions during the late 1950s and the following years. Major examples of industries having a rough time when protection was removed are textile and clothing industries as well as the manufacture of shoes. However, some of them managed to adapt themselves exceedingly well to the changed climate of competition. This was particularly true for producers relying mainly on a comparative advantage with respect to design and quality, an aspect which was also relevant for other industries, for instance furniture.

At the same time, producers of more standardized products in the fields of textiles found it increasingly difficult to compete with foreign products, not least those originating from some less developed countries, a problem not unknown in other countries.

THE SIZE STRUCTURE OF THE INDIVIDUAL ENTERPRISE

9. The pattern of Danish manufacturing industries is characterized by small firms, a diversified - although mainly rather labour-intensive - pattern of production, and the fact that, compared with most other manufacturing industries in Western Europe, Danish manufacturing industries are 'young'.

Tables III.1 and III.2 illustrate the pattern with respect to size in 1973. In both tables, percentage distributions are indicated by type of industry and by number of employees in each enterprise. In table III.1, the relative distribution refers to the number of firms, referring to the legal unit. (A firm may in turn consist of several establishments with different geographical location.)¹ In table III.2, the distribution refers to the total number of persons employed, including workers as well as salary-earners and owners. The figures only cover firms of which the main activity is manufacturing and with a staff of at least 6 persons: hence the coverage is somewhat more limited than the labour force surveys discussed in chapter I (see e.g. table I.3).

¹ Prior to 1973, similar Danish statistics always referred to establishments, not enterprises. Hence the 1973 figures, based on enterprises, will usually not be comparable with similar figures for earlier years.

Table III.1

Number of firms in manufacturing industries

Relative distribution by type of industry and number of employees

(Per cent)

	Number of employees per firm								Total number of firms
	6-9	10-19	20-49	50-99	100 - 199	200 - 499	500 and above	Total	
Mining and quarrying	0.4	0.4	0.1	0.0	0.0	-	0.0	0.9	58
Food, beverages, tobacco ¹	1.4	2.4	3.1	1.6	1.1	0.8	0.5	10.9	617
Textiles, clothing, shoes	1.8	4.2	5.7	2.3	1.4	0.5	0.1	16.0	908
Wood and wood prod. (incl. furniture)	1.8	4.1	4.4	1.3	0.4	0.3	0.0	12.3	698
Paper, printings	2.5	4.1	2.7	1.2	0.5	0.5	0.2	11.7	660
Chemical prod. (incl. Petrol.prod.)	0.9	1.9	2.3	0.8	0.9	0.5	0.2	7.5	433
Non-metall. mineral products	1.3	2.3	1.9	0.7	0.4	0.2	0.1	6.9	396
Basic metal industr.	0.1	0.3	0.4	0.2	0.1	0.2	0.1	1.4	70
Processed metal prod., machinery etc.	3.3	8.0	9.7	4.1	2.5	1.4	0.8	29.8	1 696
Other manuf. ind.	0.4	0.9	0.8	0.4	0.1	0.0	0.0	2.6	155
TOTAL, PER CENT	13.9	28.6	31.1	12.6	7.4	4.4	2.0	100.0	-
TOTAL NUMBER OF FIRMS	794	1 526	1 768	717	421	251	114	-	5 691

¹ Excluding dairies.

Source: Danmarks Statistik: Industristatistik 1973.

Table III.2

Number of employees in manufacturing industries

Relative distribution by type of industry and number of employees per firms

(Per cent)

	Number of employees per firm								Total number of employees
	6-9	10-19	20-49	50-99	100 - 199	200 - 499	500 and above	Total	
Mining and quarrying	0.0	0.1	0.1	0.0	0.1	-	0.2	0.5	2 035
Food, beverages, tobacco	0.1	0.4	1.3	1.6	2.0	3.2	8.2	16.8	71 501
Textiles, clothing, shoes	0.2	0.8	2.4	2.0	2.5	1.8	0.6	10.3	44 102
Wood and wood prod. (incl. furniture)	0.2	0.8	1.8	1.1	0.8	1.1	0.3	6.1	25 306
Paper, printings	0.3	0.7	1.1	1.2	0.9	1.9	3.3	9.4	40 125
Chemical prod. (incl. petrol. prod.)	0.1	0.4	1.0	0.8	1.6	2.2	2.8	8.9	37 220
Non-metall. mineral products	0.1	0.4	0.7	0.6	0.7	1.0	2.5	6.0	26 066
Basic metal industr.	0.0	0.1	0.1	0.2	0.1	0.8	0.6	1.9	7 927
Processed metal prod., machinery etc.	0.3	1.5	4.0	3.8	4.7	5.8	18.2	38.3	162 231
Other manuf. ind.	0.1	0.2	0.3	0.4	0.3	0.2	0.3	1.8	7 058
TOTAL, PER CENT	1.4	5.4	12.8	11.7	13.7	18.0	37.0	100.0	-
TOTAL NUMBER OF EMPLOYEES	5989	22841	54165	49433	58116	76145	156882	-	423 571

Source: See source to table III.1.

10. By international standards, most Danish firms in manufacturing industries are small. 40-45 per cent of the firms have less than 20 employees, and an additional 30 per cent have between 20 and 50 employees. At the other end of the scale, only just over 100 firms (= 2 per cent) have 500 employees and above and hence belong to the group of really large firms by Danish standards.

The distribution of the 425 000 employees is illustrated in table III.2. Firms with less than 20 employees, representing more than 40 per cent of the total number of firms, account for less than 7 per cent of total employment, while the largest firms, only 2 per cent of the total, employ 37 per cent of the labour force in manufacturing industry. Roughly 75 per cent of the employees are wage-earners, less than 1 per cent are owners and the remaining 25 per cent are salaried employees.

According to both tables, metal processing is the dominant manufacturing industry. But again, the picture becomes blurred as soon as a closer look is taken. This industry includes ship yards, but also electric components etc., hence the structure of the industry is very heterogeneous, with some of the firms working as sub-contractors. The absence of production of 'large durable consumer goods' (cars etc.) is an important aspect of the picture.

11. Over the last decades, several attempts have been made in order to summarize the characteristics of the structure of Danish manufacturing industries. One was made in the reports published by the Danish government prior to the decision to enter the EEC. It was pointed out¹ that if the labour force had been distributed according to the pattern with respect to size existing in the Federal Republic of Germany, the total number of firms would be reduced by almost 50 per cent. In particular, the number of small firms would be reduced substantially.

This analysis was elaborated in a series of publications², in which it was shown that the relative distribution of firms with respect to size, and of the labour force between big and small firms, had remained rather stable during the 1960s. But again, according to the study, closer analysis reveals a more complicated pattern. Admittedly, the structure appears to have remained stable, when 'stock figures' of the structure from the early 1960s are compared with similar figures for 1970. But - applying techniques similar to those used in modern demography - more careful analysis requires that each individual unit (firm) is followed throughout the period. Such investigations seem to indicate that a substantial amount of change has taken place, new firms entering the scene and old dropping out, small firms becoming big and

¹ Danmark og de Europaeiske Faellesskaber, volume I, 1968, p. 75 pp, in particular p.79.

² Perspektivplan-redegørelse 1972-1987 (PP II), Copenhagen 1973, pp. 227-243 and pp. 236-38 in particular. The analysis is elaborated in appendix volume III to this report, published in February 1974.

vice versa. Furthermore, the firms dominating in manufacturing exports - and the types of products exported - change rather rapidly.¹

Thus the conclusion may be that the basic strength of Danish manufacturing is its adaptability and flexibility. New products and new firms develop very quickly at the expense of existing ones. This pattern provides a basis for substantial increases in productivity.

The pattern may be explained by the level of education and skills of workers as well as of management, and it may further be explained by the fact that Danish manufacturing industries are rather young. The ease of adjustment may be facilitated by the fact that 'components' in the broadest sense of the word play a dominating role. Hence the difficult problems of industries selling final goods on a large scale, with each unit being quite expensive (e.g. durable consumer goods) in markets where preferences change, are avoided to a larger extent than in manufacturing industries in many other countries. However, exceptions can of course be found, Danish shipyards being one of them.

MARKETS

12. The share of exports in total output (incl. sales of intermediary goods) has shown an increasing trend, and was between 25-30 per cent during the early 1970s. Around 1960, the corresponding share was only slightly above 20 per cent. In 1950, the share of exports in output of final goods was only around 19 per cent,² corresponding to an export share out of total output of roughly 15 per cent. Some of the factors explaining this development have been discussed above in connection with comments on the rapidly increasing exports by manufacturing industries during this period. Over the last decade, increasing international specialization in the field of manufacturing has probably been the most important factor.

13. Roughly 75 per cent of total exports of manufactures have been sold in Western Europe, the most important market being Sweden (18-20 per cent of total manufacturing exports) followed by the Federal Republic of Germany, Norway and the UK (10-13 per cent each). During the years of Danish membership of EFTA, the share sold to the EFTA countries increased at the expense of exports to the six members of the EEC. However, the accession of Denmark to the EEC reversed this trend.

¹ This issue was also discussed in the 'EEC-report', published in 1968. Although the figures are by now somewhat out of date, it may be worth noting some of the findings: a special investigation, covering 100 firms, showed that out of the total increase in exports of these firms from 1960 to 1965, fifty per cent came from firms having no, or virtually no, exports in 1960. An additional investigation, confined to exports of machinery etc., showed that the relative increase of exports had been greatest among smaller firms. Op.cit. pp. 83 ff.

² See Danmark og de Europaeiske Faellesskaber, vol. I, 1968, p. 81.

Table III.3
Employment and output in manufacturing industries

	1965	1967	1969	1971	1973	1973, absolute numbers
 index					
Number of workers	100	93	96	94	99	321a)
Number of salary-earners	100	101	105	107	110	106a)
Number of working hours	100	90	90	85	83	540b)
Output in manufacturing ^{c)}	100	107	129	136	153	-

a) 1 000 persons.

b) millions of hours.

c) This index is not too reliable. It is illustrating output at constant prices, but the index has been revised during the period. It may be an open question whether it actually illustrates growth of output or growth of value-added, but it aims at illustrating the former.

Source: Danmarks Statistik: Statistisk tiårsoversigt 1975.

EMPLOYMENT

14. Table III.3 illustrates main trends in employment in manufacturing industries, taken as a whole, during the period 1965-1973. The number of workers employed - 321 000 in 1973 - has remained roughly constant. However, due to shorter working hours, longer vacations etc., the total number of hours worked has nevertheless shown a significant decline - well over 15 per cent from 1965 to 1973.

During this eight-year period, output in manufacturing industries increased by well over 50 per cent. Roughly speaking, this should imply an increase in labour productivity per hour of 8 per cent per year in manufacturing industries. However, such a figure is obviously subject to many shortcomings for a variety of reasons, one of them being whether the output index properly reflects the trend in value-added.

Table III.4
Wages and profits in manufacturing industry

(Per cent)

	Share in gross value-added of		Average profit margins according to sample ¹			
			Gross profits a a per cent of total assets		Rate of return on net assets ²	Capacity to expand through earnings ³
	wages	profits	before depreciation	after depreciation		
1964	55.0	45.0	13.3	7.6	12.5	4.3
1965	56.4	43.6	12.7	7.0	10.4	3.5
1966	58.7	41.3	10.6	5.6	7.0	2.2
1967	58.0	42.0	11.6	6.8	10.5	3.3
1968	57.1	42.9	11.9	7.1	11.4	3.5
1969	56.7	43.3	12.5	7.8	13.9	4.3
1970	58.4	41.6	11.6	6.9	10.8	3.0
1971	60.2	39.8	11.1	6.2	7.5	2.1
1972	58.6	41.4	12.8	9.0	14.5	4.2
1973	57.8	42.2	13.7	9.1	18.3	5.4

¹ See text for further explanation.

² Profits after depreciation, interest payments and taxes, expressed as a percentage of net assets.

³ Same definition of profits as in the preceding note, but here related to total assets.

Sources: See text.

WAGES AND PROFITS

15. Another interesting, but complicated, issue is related to wages and profits in manufacturing industries. Some key figures are shown in table III.4. In the first column, the share of wages in value-added is indicated for the years 1964-1973. During this period, definitions have been changed, and although attempts have been made to adjust the figures, they should be interpreted with caution. Furthermore, attention should be drawn to the fact that wages are expressed as the share of gross domestic product. Hence the level of the share of wages according to the table does not provide an appropriate expression of the share of wages out of the total net income earned by labour and capital in manufacturing industry. The latter figure would be a

good deal higher than shown in the table - and the corresponding profit share correspondingly lower.¹

According to the table, the share of wages has shown an increasing trend from 1964 to 1973, or at least to 1971. This result corresponds to findings in a number of other countries. However, figures illustrating the shares of wages and profits in manufacturing industries taken as a whole are subject to many shortcomings, some of them being related to index-number problems due to inter-industry shifts of the composition of total value-added.

Still, the figures in the first two columns of table III.4 may give a rough idea of the order of magnitude of changes in the shares of wages and profits. As far as the share of profits is concerned, it is interesting to note that, according to the table, the share of profits has invariably changed in the same direction as that of the average profit margins according to the last four columns of the table. This is so in spite of the fact that the profit margin figures have been estimated on the basis of quite different data.

16. Available national accounts data hardly provide a sufficient basis for the purpose of illustrating the development of the average rate of profit in manufacturing industry. Instead, the figures in the remaining part of table III.4 have been arrived at on the basis of profit statistics, published each year by the Danish Institute for Industrial Credits. The figures are based on accounts by firms having obtained loans from the Institute. The presentation is partly due to estimates by the Danish Economic Council.² The last column shows at which rate the firms covered by the statistics - generally considered to be rather efficient ones - would be able to expand on the basis of self financing, assuming that no dividends were paid out.

Generally speaking, all the profit rate concepts indicated in table III.4 show a declining trend until the boom years of 1972 and 1973. Furthermore, the short-term fluctuation from year to year of the four different concepts invariably move in the same direction (they all increase or decline at the same time). It should, however, be kept in mind that all four profit concepts are based on calculations using historical costs for depreciation, and the value of assets. Existing information does not allow for 'inflation-account-

¹ When attempts are made in order to determine the functional income distribution, it should be maintained that wages represent net income of labour. In order to treat profits correspondingly, deductions of repair, maintenance and depreciation from gross profits should be made. Obviously, this adjustment would reduce the share of profits and hence increase the share of wages.

An additional adjustment, generally made before the functional income distribution is calculated, is to take into account the imputed wages of owners. However, in manufacturing industries this adjustment is only of minor importance due to the comparatively small number of owners.

² See Det økonomiske Råd, Dansk økonomi foråret 1972, pp. 38-45, in particular table 5 p. 44. In this publication, conceptual problems related to the table are discussed. The sample on which table III.4 is based, however, differs from the sample which provided the basis for table 5 in the 1972 report. Consequently, the level of the profit rates differs, but the short term fluctuations are very similar.

Table III.5
Gross value-added of manufacturing
industries by type of industry, 1965 and 1973

	1965		1973	
	DKR 1 000 million	per cent	DKR 1 000 million	per cent
Mining and quarrying	0.08	0.5	0.15	0.5
Food, beverages, tobacco	3.08	20.0	6.60	21.1
Textiles, clothing, shoes	1.49	9.7	2.33	7.5
Wood and wood prod. (incl. furniture)	0.78	5.1	1.53	4.9
Paper, printings	1.54	10.0	2.99	9.6
Chemical prod. (incl. petrol. prod.)	1.41	9.1	3.78	12.1
Non-metallic mineral prod.	1.03	6.7	2.42	7.8
Basic metal industr.	0.33	2.2	0.67	2.1
Processed metal prod., machinery etc.	5.01	32.5	10.32	33.1
Other manufact. industr.	0.65	4.2	0.42	1.3
TOTAL	15.40	100.0	31.21	100.0

Sources: Changes of definitions have taken place between 1965 and 1972, hence the figures are not entirely comparable. 1965 figures are taken from Danmarks Statistik, Statistisk tiårsoversigt 1975, 1973 figures from Danmarks Statistik, Industristatistik 1973. The figures are slightly higher than according to national accounts definitions, because some 'overheads' advertising, insurance etc. have not been deducted from output in order to arrive at value-added.

ing', i.e. calculations on the basis of current costs of assets. But probably such 'current-cost based' figures of profit rates would reveal a pattern similar to that found by the British Sandilands Committee with respect to manufacturing firms, namely that in periods of inflation, historical-cost accounting tends to overrate grossly the level and the rate of increase of real profits.

OUTPUT, VALUE-ADDED AND WAGES BY TYPE OF INDUSTRY

17. It was stated earlier that the distribution of Danish manufacturing firms according to size had not changed, on average, very much over the last

Table III.6
Indices of output and gross value-added, by industry, 1973

	Output	Raw materi- als, etc.	Gross val- ue-added	Wages	Residual ¹
Mining and quarrying	119	19	100	36	64
Food, beverages, tobacco	353	253	100	49	51
Textiles, cloth- ing, shoes	210	110	100	61	39
Wood and wood prod. (incl. furniture)	199	99	100	55	45
Paper, printings	161	61	100	63	37
Chemical prod. (incl. petrol prod.)	226	126	100	45	55
Non-metallic mineral prod.	150	50	100	50	50
Basic metal industries	227	127	100	56	44
Processed metal prod., machinery etc.	189	89	100	65	35
Other manufact. industries	159	59	100	56	44
TOTAL	225	125	100	57	43

¹ Includes profits, repairs and maintenance and depreciation.
 Source: Danmarks Statistiks, Industristatistik 1973.

decade, although this did not take into account the position of the individual firms. This conclusion also holds with respect to the composition of the GDP of manufacturing industry analysed by individual industries, cf. table III.5.

As appears from the table, the industrial pattern, measured at this level of aggregation, has remained largely unchanged from 1965 to 1973, the major exceptions being a relative decline of the textile and clothing industry and a relative growth of the chemical industry. The dominating manufacturing industrial activities are in the field of machinery, metal processing etc., i.e. the same result as that shown in tables III.1 and III.2. This industry accounts for one-third of the total value-added of Danish manufacturing industries. Next comes the food-processing industry, accounting for 20 per cent.

18. As may be seen from table III.6, the structure of the individual industries varies a great deal. The industry receiving the largest share of output in the form of input of raw materials etc. is food processing, taking advantage of the produce of Danish agriculture. Next comes 'Basic metal industries' (iron and steel works) and 'Chemical industries' (including petroleum refineries).

More interesting, perhaps, is the size of the share of gross value-added being paid as wages to the employees of the industry concerned. According to table III.6, the share varies from 36 per cent (in 'Mining and quarrying') to 65 per cent in metal processing etc., but of course the figures would vary much more if measured at the level of the individual firm.

For manufacturing industries, taken as a whole, wages account for 57 per cent of total gross value-added (cf. table III.4). It must be emphasized that the share of 'residual income' cannot be considered to truly reflect the share of profits in manufacturing industries, as the 'residual' (in 1973 equal to 43 per cent of gross value-added) includes repair, maintenance and depreciation. Hence the share of wages would be a good deal higher (and the share of profits correspondingly lower), if the figures had taken 'net value-added' as their starting point.

Nevertheless, table III.6 may be interpreted as providing confirmation of the suggestion, made above, that Danish manufacturing industries are, on the whole, rather labour intensive, although this varies from industry to industry (and also between enterprises inside each industry). Therefore, the ability of Danish manufacturing industries to compete with foreign firms depends not only on the prospects for increased productivity (including design, innovations, quality etc.), but also to a large extent on the comparative rate of growth of money wages (assuming exchange rates to be fixed).

DANISH PROPOSALS WITH RESPECT TO 'WORKERS' PARTICIPATION'

19. Around 1970, a number of proposals were presented, mainly by Danish trade unions, on 'Workers' Participation', i.e. compulsory schemes according to which the workers would gradually own an increasing share of joint stock companies, - and possibly of other enterprises as well. It is outside the scope of the present volume to discuss these proposals in detail, but a few aspects of the proposal made by the Association of Danish Trade Unions should be mentioned because they are related to the differences with respect to the share of wages shown in table III.6.

The proposal put forward in 1971¹ by the Association of Danish Trade Unions² provided for compulsory contributions to be paid in the form of a certain

¹ An earlier proposal, see Viggo Kampmann, Økonomisk Demokrati, et forslag, published by the trade union of the workers in the metal processing industry, Copenhagen 1969, was based on the idea that the total profits of each enterprise should be shared between the owners and the workers. The (compulsory) share being allotted to the labour force would be used to buy shares in the enterprise concerned; these shares would be jointly owned by

(cont'd on page 69)

percentage of the total wage bill of each enterprise. These revenues would be used in order to buy shares in Danish companies. On the additional assumption that the board of the fund receiving the revenues would be dominated by representatives of workers' associations - trade unions and others - the obvious objection to the proposal would be that it really implied that Danish enterprises would soon become socialized.

In order to meet this objection to some extent, two additional suggestions were included in the proposal. Firstly, although the shares would formally be owned by the central fund, the right to vote on the basis of the shares in a certain enterprise would not belong to the fund, but to the workers of the enterprise concerned. Secondly, in order to limit the power of the board of the fund to decide where to invest the revenues, it was suggested that each enterprise would be entitled to require that the contribution by the enterprise concerned (or at least part of it) be invested in that particular enterprise. But this proposal obviously implies a very fundamental dilemma: if the funds were recycled back to the enterprise making the contributions, problems would arise because enterprises making comparatively large contributions - i.e. with high shares of wages in value-added - would be the labour intensive ones and, therefore, would not need as much finance as the capital intensive enterprises. However, the latter would only contribute very modestly to the fund because of their relatively small wage bill.

For reasons of resource allocation, therefore, 'compulsory recycling' should be avoided. But the implication of this conclusion is that the powers of the board of the fund with respect to investment might have to be increased, and this in turn reinforces the argument that the whole scheme really represented a kind of 'disguised socialization'.

No solution has yet been found with respect to these problems. However, the debate on these issues is still going on, and Parliament has not yet passed any legislation in this field. This debate may also be of importance with respect to the possibilities of changing the structure of the revenues of the Danish government sector, a question which will be reconsidered in chapter VI.

(cont'd of note 1 on page 68)

the workers of the enterprise or perhaps by a board representing the interests of larger groups of workers.

² Økonomisk Demokrati, report to the congress of the Association of Danish Trade Unions 1971.

Chapter IV

BUILDING AND CONSTRUCTION

VALUE-ADDED, OF THE BUILDING AND CONSTRUCTION INDUSTRY

1. As was pointed out in chapter I (see tables I.6 - I.8), the share of building and construction in total added-value (GDP) remained roughly stable at about 7 per cent during most of the 1950s. At the same time, unemployment in this sector was substantial (cf. table I.13), although the figures partly reflect seasonal unemployment. In this period, the building and construction sector could not be accused of making it difficult for the balance of payments industries to expand.

However, from the late 1950s onwards the picture changed completely. Overall growth rates increased substantially and unemployment almost disappeared. One of the main factors in this upswing was the increased activity of the building and construction sector. In the period 1958-66, the real growth rate of this sector far exceeded that of the economy as a whole (cf. table I.8). Furthermore, the proportion of the total labour force engaged in building and construction increased (cf. table I.3).

From 1966 to 1973, the share of building and construction in total value added and in the total labour force remained roughly constant. However, the economy operated at full capacity, and the problems of resource allocation by industries remained.

2. Supplementary year-by-year figures are shown in the first two columns of table IV.1. The figures indicate very clearly that short-term fluctuations of growth rates have been much larger in the building and construction sector than for the total economy, but that the fluctuations of the two series generally move in the same direction. Hence it can hardly be claimed that stabilization policies - in particular counter-cyclical policies - have been very successful with respect to the building and construction sector.

3. Further analysis of the output of the building and construction industry is not possible as the required data is practically non-existent. A more detailed description must therefore be based on the demand side of the national accounts, i.e. on figures for fixed investment in buildings. The principal components are shown in the last three columns of table IV.1 for the period 1960-73.

Table IV.1
Building and construction, main indicators

	GDP ¹		Investm. in buildings, etc.		
	Total	of which build. and constr.	gov.t etc.	industrial and agri- cultural	residen- tial ²
1960 (mill. DKR, 1955-prices)	35 614	2 605	400	900	1 095
Percentage vol- ume growth rates as compared with preceding year:					
1961	5.6	10.6	15.0	5.6	18.3
1962	5.6	5.2	17.4	3.7	8.5
1963	0.4	- 1.0	- 8.3	- 0.5	- 4.3
1964	8.8	17.7	12.1	19.4	28.6
1965	5.0	6.5	18.9	10.3	7.5
1966	2.2	2.0	12.9	- 7.4	2.2
1967	4.1	9.4	18.1	- 1.7	19.5
1968	4.5	- 3.5	14.2	-14.0	- 9.5
1969	8.2	8.6	19.9	11.9	26.0
1970	2.6	3.5	17.4	7.1	0.0
1971	3.6	2.6	10.2	2.9	- 1.4
1972	4.6	5.3	- 4.5	- 1.2	27.8
1973	2.8	1.1	17.4	26.8	6.4
1973 (mill. DKR, 1955-prices)	62 709	4 980	1 230	1 560	3 475
1973, when 1960 = 100:	176	191	308	173	317

¹ Real product, cf. table I.6.

² Excluding residential buildings in agriculture.

Sources: See sources to appendix table I.1.

Investment by government (including local authorities) in construction has - with the exception of 1963 - shown a remarkably high and stable rate of growth until 1972. Hence it has not been used as a counter-cyclical instrument.

Table IV.2
Starts of new buildings by floorage

	Floor area started				Number of residential units started
	total	gov.t etc.	industrial and agricultural	residential	
1960 (1000 m ²)	5 399	454	2 209	2 676	29 956
Index, 1960 = 100:					
1961	116	193	93	123	116
1962	126	147	114	133	122
1963	114	102	105	124	114
1964	164	152	152	176	153
1965	151	150	138	163	139
1966	172	235	127	198	167
1967	172	270	127	192	152
1968	159	279	99	188	148
1969	193	243	114	250	180
1970	180	332	111	212	148
1971	189	279	112	237	157
1972	249	260	121	353	213
1973	243	263	172	299	168
1973	12 972	1 191	3 790	7 991	50 399

Sources: Danmarks Statistik: Statistisk tiårsoversigt 1970 and 1975.

Building investment by private sector firms has fluctuated, mainly reflecting expectations with respect to future sales possibilities. The very substantial increase - more than 25 per cent - between 1972 and 1973 is probably due to the effect on confidence of the result of the referendum on Danish EEC-membership in October 1972.

Investment in residential buildings has shown an increase for the period as a whole of the same order of magnitude as that of government investment, but fluctuations have been much more pronounced.

4. While the figures in table IV.1 use national accounts data, table IV.2 (and the following tables) use non-monetary quantitative terms. The table shows the total floor area of new buildings started in the years from 1960 to

1973. In principle, the figures of table IV.2 - mainly presented in terms of index numbers rather than growth rates - illustrate the same development as that shown in the last three columns of table IV.1. However, there are several differences with respect to definitions. Furthermore, the figures in table IV.2 fluctuate even more than those shown in table IV.1.

Perhaps the most interesting finding from table IV.2 is related to industrial and agricultural investment in buildings. Such investment has only shown a moderate increase, if any, during most of the period, especially if certain boom-years - in particular 1973 - are disregarded. From the mid 1960s onwards, the proportion of total building investment destined for industrial purposes (factories, office buildings, etc.) has shown a clear downward trend.

RESIDENTIAL CONSTRUCTION, 1960-73

5. The last two columns of table IV.2 illustrate developments in residential construction. In 1960, roughly 30 000 new residential units were started; in 1973 the corresponding figure was 50 000, i.e. an increase by roughly 70 per cent. In terms of floor area, the increase was much larger, roughly a trebling. Hence new residential units have become larger, mainly because an increasing share of the new housing units are one-family houses rather than apartments.

6. Table IV.3 shows the number of residential units completed. Apart from some problems with respect to definitions (see note to table IV.3), the first column of table IV.3 is based on the same basic statistics as the last column of table IV.2. Not surprisingly, the figures on residential units completed show a much smoother development than the corresponding figures for residential units started, the period used in order to build a unit being flexible and partly depending on capacity utilization in the building industry.

The first column of table IV.3 confirms the main conclusion mentioned earlier: a rapid increase of investment in residential buildings until 1967-68 and subsequently a rather stable level. In 1973, the number of new residential units reached an all-time peak of 55 000.

In addition, table IV.3 provides two different analyses: by physical type of unit and by ownership. As far as the first analysis is concerned, the number of one-family houses completed in 1973 was roughly 38 000, while the corresponding number in the form of apartments only amounted to 17 000. From 1960 to 1969, roughly half of all new residential units were apartments and the other half one-family houses,¹ both categories increasing at roughly the same rate. But in 1972 and 1973, one-family houses increasingly predominated.

To a certain extent, this pattern is reflected in the break-down by type of ownership in the last column of table IV.3. Of the 55 000 new residential units in 1973, 42 000 were owned by private persons and 13 000 by housing societies. The activities of the latter have almost exclusively been in the

¹ Prior to 1969, some rural areas dominated by one-family houses were not covered by the figures, cf. note to table IV.3.

Table IV.3
Residential units completed
 (Indices, 1960 = 100)

	Total	of which			of which owned by		
		one-family houses	apartment buildings	others	private	housing societies	others
1960	100	100	100	100	100	100	100
1961	108	106	111	118	118	93	70
1962	116	114	118	117	118	119	66
1963	114	115	115	101	107	144	41
1964	143	152	136	118	135	175	68
1965	144	167	116	175	149	142	94
1966	146	156	134	148	141	167	85
1967	163	179	151	112	166	175	49
1968	169	154	195	83	154	225	64
1969	182	185	189	93	177	215	75
1970	185	189	190	104	180	217	78
1971	184	187	193	84	175	220	100
1972	183	214	154	62	186	192	74
1973	204	246	161	57	214	203	26
1973, number of units	55 566	37 935	16 848	783	42 304	12 902	360

Note: Prior to 1969, certain rural areas were not included. For 1969, data are published according to both sets of definitions. Hence a procedure of 'chaining' is used in connecting figures prior to and after 1969. The extended coverage amounted to roughly 9 000 new residential units, mainly one-family houses owned by private persons. - The fact that the coverage was extended in 1969 explains why absolute 1960-figures are not given; they would not be comparable with the 1973-figures of the last row.

Source: See sources to table IV.2.

Table IV.4
Starts of new residential units by numbers
 Geographical distribution

(Per cent)

	Metropolitan zone		Jutland	Other parts	Denmark total
	metro. area	other			
1966	27	15	43	15	100
1967	24	16	42	18	100
1968	22	11	49	18	100
1969	19	15	49	17	100
1970	21	21	42	16	100
1971	18	15	49	18	100
1972	17	16	48	19	100
1973	13	16	50	21	100

Note: In Danish statistics, a distinction is made between the 'metropolitan area' (including Copenhagen and 19 adjacent municipalities) and the 'metropolitan zone' (covering North Sealand, i.e. roughly the area north of a line from Copenhagen to Roskilde). The corresponding names in Danish are 'Hovedstadsområdet' and 'Hovedstadsregionen'.

Source: Danmarks Statistik: Statistisk tiårsoversigt 1975.

field of apartments, in fact they dominated the supply of new apartment buildings during most of the period 1960-73. The declining share of apartments during the early 1970s reflects increasing difficulties for the housing societies.

7. The geographical distribution of new residential units during the period 1966 to 1973 is shown in table IV.4. The declining share of new residential units in the metropolitan area might partly be due to the fact that building land is becoming increasingly scarce. This could lead one to conclude that further expansion around Copenhagen would take place in the remaining parts of the metropolitan zone. (For definitions, see note to table IV.4). However, such an expansion has apparently not taken place, and the main conclusion to be drawn from table IV.4 is that an increasing share of new residential units have been built outside the metropolitan zone, defined in the broadest sense.

THE STOCK OF RESIDENTIAL UNITS, 1970

8. Compared with other Western European countries, Danish standards of housing are very high. This result is partly due to the accelerating activity in

Table IV.5
Number of residential units and inhabitants per unit, 1970

	Number of units, 1 000					Inhabitants per unit				
	farms	one- fami- ly hous- es	apart- ment build.	oth- ers	total	farms	one- fami- ly hous- es	apart- ment build.	oth- ers	total
1 room	0.3	1.3	58.9	4.1	64.6	1.68	1.58	1.11	1.20	1.13
2 rooms	8.3	36.9	281.1	38.6	364.9	2.36	2.14	1.84	1.81	1.88
3 rooms	33.5	163.6	240.0	51.8	488.9	2.73	2.57	2.64	2.30	2.59
4 rooms	41.7	260.0	107.0	22.5	431.2	3.22	3.17	3.10	2.81	3.14
5 rooms	31.3	133.6	21.3	9.7	195.9	3.59	3.44	3.09	3.11	3.41
6 rooms and above ¹	60.1	117.0	10.4	9.8	197.3	-	-	-	-	-
TOTAL	175.2	712.4	718.7	136.5	1 742.8	-	-	-	-	-

¹ Including units with number of rooms unknow (13 600).

Source: Danmarks Statistik: Bolingen, Statistisk Tabelvaerk 1975, C 2.

the field of residential construction during the 1960s. The increase from 30 000 to 50 000 in the number of new residential units built per year from 1960 to 1973 compares with an annual increase in population of by some 40 000 persons¹ over the same period.

In 1970, the total number of residential units amounted to 1 743 000, inhabited by 4 776 000 persons. In table IV.5, the total number of residential units are shown by number of rooms and by type (one-family houses, apartments, etc.). Roughly 40 per cent of the total number of residential units were one-family houses, a similar number were apartments, 10 per cent were farm houses, the remaining 10 per cent covering other types. Most of the one-family houses have 3-5 rooms, most apartments 2-3 rooms.

Roughly speaking, the total number of residential rooms amounted to 6.2 million or 1.25 rooms per head, a very high figure by international comparison.

¹ Of course, such a comparison ought to take into account the number of residential units dismantled. Reliable figures are rather scarce; most recent estimates imply that the figure has been increasing. During the 1960s and early 1970s, the number of residential units dismantled was probably about 10 000 units per year.

Table IV.6
Geographical distribution of total residential
units in 1970 by type of dwelling

(1 000 units)

	Owner occupied dwellings	of which		Rented units	Others	Total
		farms	one family houses			
Metropolitan area	116	1	97	406	20	542
Other urban areas	201	3	161	307	20	528
Rural areas	529	157	348	104	40	673
TOTAL	846	161	606	817	80	1 743

Source: See appendix tables IV.2 - IV.4.

Table IV.7
Number of residential units by type and by year of construction, 1970

(1 000 units)

	Occupied by owner			Units rented			Others	Total
	total	of which		total	of which owned by			
		farms	one-family houses		priv.	housing societies		
Year of construction:								
Prior to 1919	314	117	156	265	242	7	32	611
1919-1940	164	31	105	202	158	28	16	382
1941-1960	160	9	142	195	61	125	21	376
1961-1965	100	2	97	72	29	42	6	178
1966-1970	108	2	105	82	29	51	6	196
TOTAL	846	161	605	816	519	253	81	1 743

Source: See appendix table IV.1.

Furthermore, Danish residential units are very well equipped: 83 per cent of all units had central heating, 99 per cent their own kitchen, 73 per cent bathing facilities and 90 per cent their own toilet.

9. The comparatively even distribution of rooms by inhabitants according to the last column of table IV.5 should not conceal the fact that there are still substantial housing problems for part of the population, in particular in urban areas. It has been estimated that roughly 10 per cent of the urban population live in residential units with less than one room per person, and that roughly 18-19 per cent of the total number of rooms would need to be re-distributed in order to obtain a completely even distribution of rooms by inhabitants in urban areas.¹

10. Roughly speaking, just below one-third of total residential units are located in the metropolitan area, a similar proportion in other urban areas and somewhat above one-third in rural areas. Not surprisingly, owner-occupied dwellings predominate in rural areas, whereas rented units - mainly apartments - have an equally dominating role in the metropolitan area.

Table IV.6 summarizes the more detailed information given in appendix tables IV.2-IV.4. It is often tempting to discuss economic policies in a certain field from the viewpoint of the economy as a whole. However, such an approach is particularly dangerous in the field of housing problems. As appears from the appendix tables, the distribution of residential units by age and by type of ownership is very different in the three types of areas. Most of the problems are particularly difficult to solve in the larger cities, including the Copenhagen area.

11. About half the 1.7 million residential units in 1970 were owned by their occupants, when farm houses are included in this category, cf. table IV.7.² Roughly two-thirds of the apartments - mainly old ones - were owned by private persons etc., while the remaining third (slightly more than 250 000 apartments) was owned by housing societies.

Roughly one-third of the total number of residential units were built prior to 1919, slightly more than 20 per cent originated in the twenty inter-war years 1919-40 and a similar share in the twenty (war and post-war) years 1941-60, and finally, 21 per cent were built during the 1960s. Hence this last decade contributed as many new dwellings to the total stock of residential units as earlier periods of two decades.

¹ Estimates by Christen Sørensen. The latter figure results from a technique, familiar from illustrations of personal income distribution, which produces the so-called Lorenz-curves.

² In the first three columns of table IV.7, farms and one-family houses are only counted if they are actually occupied by their owner; houses not so occupied are included under 'units rented'.

Table IV.8
Main groups of residential units in 1970 by year of construction

	Owner-occupied		Rented apartments owned by		Total of groups shown
	Farm houses	one-family houses	private	housing societies	
	<u>1 000 units</u>				
<u>Year of construction</u>					
Prior to 1919	117	156	242	7	522
1919-1940	31	105	158	28	322
1941-1960	9	142	61	125	337
1961-1970	4	202	58	93	357
	<u>Per cent</u>				
<u>Year of construction</u>					
Prior to 1919	23	30	46	1	100
1919-1940	10	32	49	9	100
1941-1960	3	42	18	37	100
1961-1970	1	57	16	26	100

Source: See appendix table IV.1.

HISTORICAL TRENDS IN THE STRUCTURE OF RESIDENTIAL INVESTMENT

12. Definitions are frequently changed in basic statistics on residential units (cf. e.g. note to table IV.3); hence comparable figures covering several decades are difficult to obtain. However, the 1970 census of the stock of residential units by year of construction as well as by other criteria (cf. appendix tables IV.1-IV.4), provides an alternative basis for obtaining historical data, although the description is bound to be very broad. The bottom part of table IV.8 shows the pattern of residential units, originating from each period, with respect to type of unit and ownership, and provides a rough impression of the composition of residential construction during the period concerned.

One of the problems related to this interpretation is that demolition is implicitly disregarded. Therefore, the figures for earlier periods are less reliable than those for 1961-70. Nevertheless, it is worth noting that most farm-houses were built in the period prior to 1919. Rural residential areas were dominated by owner-occupied houses (cf. appendix table IV.4), while urban residential units - and those of the metropolitan area in particular -

Table IV.9
Geographical distribution of total residential
units in 1970 by year of construction

(Per cent)

	Metropolitan area	Other urban area	Rural areas	Total
<u>Year of construction</u>				
Prior to 1919	27	21	52	100
1919-1940	42	29	29	100
1941-1960	35	38	27	100
1961-1970	23	38	39	100

Source: See appendix tables IV.2 - IV.4.

mainly consisted of apartments, owned by private landlords (cf. appendix tables IV.2 and IV.3). The role of housing societies was still insignificant.

During the inter-war years 1919-1940, urbanization became more widespread. The share of apartments in the total of new residential units increased, and a growing proportion were built by housing societies, in the metropolitan area in particular.

Since the Second World War, almost no new farm houses have been built. The share of total apartments built by private landlords has been declining. The 1940s, and in particular the 1950s, were the decades of the housing societies, erecting over 33 per cent of all new residential units.

However, during the 1960s the pattern changed, the most important feature being the increasing share of owner-occupied one-family houses, accounting for more than half of the total number of new residential units. The proportion of new apartments in total new dwellings continued to decline, with the housing societies following the trend established earlier by private landlords.

13. The importance of agriculture prior to the First World War is reflected in the figures in the first row of table IV.9. During the inter-war years the growth of building activity in the metropolitan area was comparatively large, more than 40 per cent of all new residential units being erected in this area. After the Second World War, the metropolitan area declined in importance.

HOUSING POLICIES

14. One of the main features according to table IV.8 is the increasing importance of housing societies in the construction of apartments, starting

during the inter-war years and reaching a peak during the 1950s. From the 1960s onwards, owner-occupied one-family houses started to predominate not only at the expense of apartments built by private landlords, but subsequently also at the expense of housing societies. To a large extent, this picture reflects the development of housing policies, including tax treatment of owners of one-family houses.

15. Housing societies are non-profit organizations. In principle, they have provided residential units - mainly apartments - for middle- and low-income groups. To a large extent their activities have been based on government subsidies, mainly in the form of reduced interest rates paid on loans to finance residential construction. Occasionally, an additional purpose of subsidies in this field has been of importance, namely to prevent the level of activity in residential construction from declining too much. Hence the role of the housing societies has not been limited to that of providing residential facilities from the existing stock of apartments; they have also played an important role as contractors in the industry of building and construction.

16. At the beginning of the Second World War, a system of rent control was introduced, which lasted until 1973,¹ at least in the larger cities. The basic idea was that rents should be fixed according to historical costs of construction and financing. Obviously, such a system gives rise to problems in periods of inflation, which was an important feature of the Danish economy, not only during the Second World War, but also later on - and increasingly so during the late 1960s and the early 1970s (cf. chapter I). Hence rents to be paid for old apartments have been much lower than those for new apartments of the same size and quality.

Such policies, maintained over decades, had several effects, not all of them being advantageous. Old - and therefore cheap - apartments would always be occupied. But landlords would not be induced to maintain - or even improve - the standard of the apartments. Furthermore, since rents could only be increased to a limited extent and in an unpredictable way, depending on new legislation, new apartment buildings were not attractive objects for private investors. They would have to compete with housing societies, the latter having access to cheaper financing because of subsidized interest rates. Frequently, it was difficult to have new apartments, built by private investors, occupied immediately after their construction at rents covering costs, and the investor did not know when, nor by how much, rents would be allowed to increase. It is hardly surprising, therefore, that housing societies played an increasingly dominating role with respect to investment in new apartments and other residential units to be let.

¹ In 1966, political agreement was reached on long-term housing policies, covering eight years: 1966-74. Basically, the underlying assumption was that the general price level would not increase during this period. Consequently, the long-term interest rate was expected to decline substantially. On these assumptions, rents, etc. were fixed for the entire eight years, with some increase over the period for residential units with comparatively low rents. Had the assumptions been fulfilled, many housing problems would have been solved in 1974.

However, the general tendency was for inflation to accelerate rather than to disappear. Hence new problems had arisen, and new policies had to be decided upon in 1974.

17. In Denmark, the finance for investment in residential units is obtained through a mortgage-bond system.¹ Since about 1960, this system has been used by all types of owner. The effective interest rate has been above 10 per cent since 1969, and in 1973 it was roughly 13 per cent.

18. Even new owner-occupied houses, which accounted for more than half the total of new residential units during the 1960s, have been financed at these apparently rather high interest rates. At first sight, this makes it somewhat surprising that new owner-occupied houses are taking an increasing share of the market. However, these interest payments lower the taxable income of the owner, and with high and increasing marginal tax rates, the after-tax interest rate is considerably lower than indicated above. Furthermore, in periods of inflation, the real interest rate becomes even lower. In fact, during the latter part of the 1960s, the real after-tax interest rate was quite low, and occasionally even negative.

As interest payments rank fully for tax relief, it might be expected that the corresponding benefits from occupying the house should be included at market value as part of taxable income. However, political attempts to achieve this aim have not been very popular among owner-occupiers. These owners represent an increasing share of the electorate (in 1973 probably at least half of it) and the possibility of treating them in a less generous way with respect to taxation has not been considered very promising.

¹ Further details of the bond-system - the use of which is not limited to house-purchase - are given in chapter VIII. Housing societies also finance residential investment through this mortgage system. From 1966 onwards, they have received a current government subsidy corresponding to the difference between the actual effective interest rate to be paid and an interest rate of 6-7 per cent. The subsidy is, however, only paid for a limited period.

Appendix table IV.1

Number of residential units in 1970 by year of construction

(number of units)

Year of construction	Owner occupied total	of which			Rented apartments total	of which owned by			Other dwellings	Total
		farms	one-family houses	others		priv.	housing societies	others		
Prior to 1919	313 982	116 625	156 294	41 063	265 203	242 461	6 408	16 334	32 213	611 398 ^a
1919-1940	164 175	30 866	105 111	28 198	201 635	158 352	28 126	15 157	15 839	381 649
1941-1960	159 693	9 204	142 334	8 155	195 349	61 238	125 231	8 880	20 681	375 723
1961-1965	100 079	2 201	96 481	1 397	71 921	28 727	42 065	1 129	6 385	178 385
1966-1970	108 230	1 907	105 037	1 286	82 221	28 702	51 294	2 225	5 168	195 619
TOTAL	846 159	160 803	605 257	80 099	816 329	519 480	253 124	43 725	80 286	1742 774

a) Including roughly 100 000 units with unknow year of construction.

Source: Danmarks Statistik: Boligen, Statistisk Tabelvaerk 1975, C 2.

Appendix table IV.2

Number of residential units in metropolitan area¹ in 1970 by year of construction

(Number of units)

	Owner occupied total	of which			Rented apartments total	of which owned by			Other dwellings	Total
		farms	one-family houses	others		priv.	housing societies	others		
<u>Year of construction</u>										
Prior to 1919	19 134	536	10 454	8 144	137 602	122 121	5 624	9 857	7 246	163 982
1919-1940	33 317	123	26 544	6 650	121 085	85 611	23 055	12 419	4 666	159 068
1941-1960	35 630	96	33 144	2 390	90 144	28 598	56 610	4 936	6 905	132 679
1961-1965	13 744	45	13 171	528	28 509	11 071	16 585	853	635	42 888
1966-1970	14 098	19	13 519	560	28 171	9 734	16 693	1 744	778	43 047
TOTAL	115 923	819	96 832	18 272	405 511	257 135	118 567	29 809	20 230	541 664

¹ Copenhagen and 19 adjacent municipalities.

Source: See source to appendix table IV.1.

Appendix table IV.3
Number of residential units in other urban areas
(10 000 inhabitants and above) in 1970 by year of construction

(Number of units)

	Owner occu- pied total	of which			Rented apart- ments total	of which owned by			Other dwell- ings	Total
		farms	one- family houses	others		priv.	housing socie- ties	others		
<u>Year of construction</u>										
Prior to 1919	46 537	1 863	26 384	18 290	78 360	73 358	615	4 387	5 249	130 146
1919-1940	42 922	537	27 291	15 094	64 560	57 447	4 930	2 183	5 070	112 552
1941-1960	48 439	235	44 667	3 537	87 260	23 394	60 455	3 411	6 931	142 630
1961-1965	31 711	52	31 330	329	34 392	12 410	21 898	84	1 696	67 799
1966-1970	31 323	51	31 016	256	42 124	13 024	28 844	256	1 595	75 042
TOTAL	200 932	2 738	160 688	37 506	306 696	179 633	116 742	10 321	20 541	528 169

Source: See source to appendix table IV.1.

Appendix table IV.4

Number of residential units in rural areas in 1970 by year of construction

(Number of units)

	Owner occu- pied total	of which			Rented apart- ments total	of which owned by			Other dwell- ings	Total
		farms	one- family houses	others		priv.	housing socie- ties	others		
<u>Year of construction</u>										
Prior to 1919	248 311	114 226	119 456	14 629	49 241	46 982	169	2 090	19 718	317 270
1919-1940	87 936	30 206	51 276	6 454	15 990	15 294	141	555	6 103	110 029
1941-1960	75 624	8 873	64 523	2 228	17 945	9 246	8 166	533	6 845	100 414
1961-1965	54 624	2 104	51 980	540	9 020	5 246	3 582	192	4 054	67 698
1966-1970	62 809	1 837	60 502	470	11 926	5 944	5 757	225	2 795	77 530
TOTAL	529 304	157 246	347 737	24 321	104 122	82 712	17 815	3 595	39 515	672 941

Source: See source to appendix table IV.1.

Chapter V

PRIVATE SERVICES

1. In chapters II, III and IV, the most important Danish industries have been discussed at some detail. The increasing role of government services will be dealt with in the first part of chapter VI on 'Public finance'. The present chapter comments on the remaining industries, mainly private services. The chapter will be brief as the subject is rather heterogeneous, and there are rather few general observations to be made.

2. The contribution to GDP of private services amounts to roughly 35 per cent of total GDP (cf. table V.1). In fact, the industries discussed in the present chapter almost exactly correspond to those labelled 'Other industries' in table I.9. Thus they represent what is left when the mainly balance of payments industries (agriculture, manufacturing etc.) as well as the predominantly domestic industries (building and construction, government services etc.) have been excluded.

3. Although the share of private services as a whole in total GDP has remained roughly constant at the 35 per cent level, the various components show different trends. The share of the distributive trades has shown a continuous decline. This is due to increasingly large scale operations at the whole-sale as well as at the retail level. The declining share at the retail level reflects a number of factors: increased participation rates of certain types of customers, in particular married women, increased use of individual means of transportation (cars - not bicycles any more), etc. Of course, these factors are of importance in most Western European countries, but the very rapid overall growth in Denmark during the 1960s and the fact that distances are, on the whole, rather small, may have made it particularly difficult for the 'small retailer' to survive in competition with supermarkets, etc.

4. While the share of the distributive trades in GDP has been declining, the opposite holds for the types of services characteristic of an industrialized and increasingly specialized economy. Thus, the share of banking and insurance has increased from 2.2 per cent in 1950 to 3.6 per cent in 1973. A similar development is shown for the various professions (lawyers, accountants, architects, etc.). Unfortunately, this can only be illustrated for the period 1950-1966, because definitions were changed in 1970 (see note to table V.1).

It will carry us too far to comment on the importance of the other - mainly minor - service industries, but it should be noted that domestic servants

Table V.1
Contribution by private service industries to gross
domestic product at factor prices, current prices

	1950		1958		1966		1973	
	DKR 1 000 mil- lion	per cent	DKR 1 000 mil- lion	per cent	DKR 1 000 mil- lion	per cent	DKR 1 000 mil- lion	per cent
Distribution trades	3.4	16.0	5.0	14.8	10.7	14.3	20.5	12.9
Banking and insurance	0.5	2.2	0.8	2.5	2.1	2.9	5.7	3.6
Professions ¹	0.4	1.9	0.8	2.4	2.0	2.6	2.6	1.6
Foreign shipping	0.4	2.0	1.0	2.9	1.5	2.0	3.3	2.1
Other transport	1.1	5.0	1.9	5.4	4.1	5.5	8.4	5.3
Communication	0.3	1.4	0.6	1.8	1.7	2.2	3.2	2.0
Hotels, restaurants, etc.	0.3	1.3	0.4	1.2	1.0	1.3	1.9	1.2
Cinemas, theatres, etc.	0.1	0.2	0.1	0.3	0.2	0.2	0.3	0.2
Domestic servants	0.3	1.3	0.3	0.9	0.4	0.6	0.3	0.2
Use of Dwellings	0.9	4.4	1.8	5.1	3.8	5.1	8.8	5.5
Private services, total ¹	7.7	35.7	12.7	37.3	27.5	36.7	55.0	34.6
Government services ¹	1.6	7.3	3.3	9.8	9.9	13.3	30.3	19.0
Other industries	12.3	57.0	18.0	52.9	37.3	50.0	73.8	46.4
GDP, TOTAL	21.6	100.0	34.0	100.0	74.7	100.0	159.1	100.0

¹ From 1969 to 1970, the distinction between 'Government services' and 'Professions' (Lawyers, accountants, architects etc.) was changed. According to the new set of national accounts definitions, the coverage of 'Government services' was extended at the expense of 'Professions'. Hence these figures for 1966 are not fully comparable with the 1973 figures in the table.

Sources: See sources to appendix table I.1.

have almost disappeared. Such labour intensive services with few possibilities for the use of technological progress, are bound to become increasingly expensive as compared with other prices. On the supply side, the increasing interest shown by younger women to get jobs in industries - as illustrated by the increasing participation rates - makes the job of domestic servant less attractive from an educational viewpoint.

Finally, the increasing share of GDP attributed to 'use of dwellings' is rather difficult to interpret, as the figures are bound to be very uncertain. This is so partly because of problems related to restrictions and regulations with respect to rents, and partly because an increasing proportion of the contribution to GDP by this sector must be imputed, since the share of owner-occupied dwellings has been increasing (cf. chapter IV).

5. The trends revealed by table V.1 are confirmed by labour force statistics on the basis of surveys undertaken since 1967 (cf. table V.2). Thus employment in the retail trades has been declining; as a share of total employment and also in absolute terms. One of the implications of this development is that some of the activities, earlier undertaken at the retail level, have now been moved to the wholesale level in connection with the creation of 'chains' etc. The share of wholesale trade in total employment has remained rather stable - showing, if anything, a slight increase.

Employment in banking and insurance increased rapidly from 1967 to 1970, but subsequently stagnated as increasingly advanced technical devices were introduced.

The possibilities of introducing such devices may be less obvious in the field of professions; at least the share of total employment in these fields has been increasing steadily. The opposite has held for 'other services', including hotels, etc.

Finally, according to table V.2 only 16 000 domestic servants remained in 1973.

6. The share of employment by the private service industries, taken as a whole, declined slightly from 1967 (32 per cent) to 1973 (31 per cent). This development is in sharp contrast to the share of employment in government services, which will be discussed in the next chapter.

7. Finally a few supplementary comments on the composition of the labour force in private services. Because of the heterogeneous structure of this sector, general trends are difficult to establish. But it should be noted that the number of 'owners' (including self-employed) in the distributive trades declined from slightly below 80 000 in 1967 to slightly below 60 000 in 1973. This decline mainly reflects developments in retail trade. For obvious reasons, the mobility problem in connection with sectors of declining importance will often be most serious for owners of small units with a fixed location. Hence the above figures confirm the similarity of the problem facing small-holders in agriculture and the owners of small retail shops. The latter may even be worse off than the former, partly because they are less well organized, partly because the real assets on which their activities have been based will usually be more difficult to sell in case of a discontinuation of their traditional activities.

8. Table V.3 shows the composition by sex and marital status of the main service industries in 1967 and 1973. The most general feature according to the table is the tendency for the share of married women in the labour force to increase at the expense of unmarried women. The increasing importance of married women in services from 1967 to 1973 fits well with the marked rise in the participation rates of this group from 1967 to 1973 (cf. table I.4). Among the groups listed in table V.3, the tendency is especially strong for the professions.

Table V.2
Labour force in private services

	1967 (autumn)		1970 (spring)		1973 (autumn)	
	1 000 pers.	per cent	1 000 pers.	per cent	1 000 pers.	per cent
Retail distribution	201	8.6	193	8.1	186	7.6
Wholesale distribution	114	4.9	117	4.9	125	5.1
Banking and insurance	59	2.5	71	3.0	72	3.0
Professions	50	2.1	61	2.6	68	2.8
Transport, communication, etc.	161	6.9	156	6.6	167	6.8
Other services, incl. hotels, theatres, etc.	130	5.6	124	5.2	121	4.9
Domestic servants	41	1.7	32	1.3	16	0.7
Private services, total	756	32.3	754	31.7	755	30.9
Government services	368	15.7	441	18.5	564	23.1
Other industries	1 216	52.0	1 185	49.8	1 127	46.0
TOTAL LABOUR FORCE	2 340	100.0	2 380	100.0	2 446	100.0

Note: The definitions correspond to those of table I.3.

Source: Danmarks Statistik: Statistisk tiårsoversigt 1974.

Table V.3
Analysis by sex and marital status of labour force in private services

(Per cent)

	men		unmarried women		married women	
	1967	1973	1967	1973	1967	1973
Distribution, banking, etc.	55	53	20	16	25	31
Professions	58	56	23	17	19	27
Transport, communication, etc.	79	78	9	8	12	14
Other services	32	35	26	23	42	42
Domestic servants	-	-	89	90	11	10
TOTAL	53	55	23	17	24	28

Sources: Danmarks Statistik: Statistiske Efterretninger 1968 No 15 and 1974 No 39.

Chapter VI

THE GOVERNMENT SECTOR AND FISCAL POLICY

GOVERNMENT SERVICES, SHARE OF GDP

1. The rapidly expanding role of the public sector (including central government, local government, social security systems etc.) will be a recurrent theme in this chapter. Although the supply side of the national accounts does not provide detailed break-downs, at least it provides an important starting point. The figures have already been shown in chapter I; they are summarized in table VI.1. Measured at constant (1955) prices as real product (cf. table I.6), the share of government services in total GDP has only increased moderately, although the increase was accelerating somewhat over the last part of the period covered by table VI.1.

Table VI.1

Government services according to national accounts figures

	1950		1958		1966		1973	
	DKR 1 000 mil- lion	per cent of total GDP	DKR 1 000 mil- lion	per cent of total GDP	DKR 1 000 mil- lion	per cent of total GDP	DKR 1 000 mil- lion	per cent of total GDP
Real product	2.1	8.1	2.8	8.9	4.4	9.4	6.8	10.8
Real income	1.9	7.3	3.1	9.8	6.4	13.3	12.6	19.0
Current prices	1.6	7.3	3.3	9.8	9.9	13.3	30.3	19.0

Note: As the coverage of 'Government services' was extended somewhat in 1970 (see note to table VI.1), the increase from 1966 to 1973 shown in the above table is slightly exaggerated.

Source: See appendix table I.1.

Table VI.2
Labour force in government services etc.

	1967 (autumn)		1970 (spring)		1973 (autumn)		1973 (1967 =100)
	1 000 pers.	per cent	1 000 pers.	per cent	1 000 pers.	per cent	
Admin., police, defence	95	4.1	108	4.5	125	5.1	131
Education etc.	115	4.9	133	5.6	167	6.9	146
Health and social services	158	6.7	200	8.4	272	11.1	172
Government serv- ices, total	368	15.7	441	18.5	564	23.1	153
Professions ¹	50	2.1	61	2.6	68	2.8	135
Other occupations	1 922	82.2	1 878	78.9	1 814	74.1	94
TOTAL LABOUR FORCE	2 340	100.0	2 380	100.0	2 446	100.0	105

¹ Lawyers, accountants, architects, etc.

Source: Danmarks Statistik: Statistisk tiårsoversigt 1974.

However, if the share of government services is measured as the share of real income or - what amounts to the same - on the basis of figures at current prices, the increase becomes dramatic: from 7.3 per cent in 1950 to 13.3 per cent in 1966 and to no less than 19.0 per cent in 1973. As discussed in chapter I, the increasing share is to a large extent explained by the fact that government services, mainly consisting of labour services, have become relatively more expensive as compared with the prices of other goods - and perhaps also as compared with other wage rates. However, the number of government employees has increased as well, in particular over the last decade, as shown by the employment surveys.

NUMBER OF EMPLOYEES IN GOVERNMENT SERVICES

2. Table VI.2 provides an analysis of the labour force according to employment surveys. From 1967 to 1973, the number of government employees has increased by more than 50 per cent. The only other group showing a somewhat similar increase is the professions, which over the same period increased by 35 per cent. Most other industries have had a declining labour force over the period 1967 to 1973.

Table VI.3

Labour force in government services converted to full-time employees

	1967 (autumn)		1970 (spring)		1973 (autumn)		1973 (1967 =100)
	1 000 pers.	per cent of un- adjust.	1 000 pers.	per cent of un- adjust.	1 000 pers.	per cent of un- adjust.	
Admin., police, defence	91	96	102	95	118	94	129
Education etc.	99	86	113	85	137	82	138
Health and social services	137	87	169	84	220	81	161
Government services, total	327	89	384	87	475	84	145
Professions	47	94	57	93	61	91	131
Other occupations	1 800	94	1 753	93	1 681	93	93
TOTAL LABOUR FORCE	2 174	93	2 194	92	2 217	91	102
Total labour force, unadjusted	2 340	100	2 380	100	2 446	100	105

Sources: Employment surveys, see e.g. Danmarks Statistik: Statistisk tiårs-
oversigt 1974, supplemented by estimates in William Scharling, Ten-
denser for udbudet af arbejdskraft 1973-1988, Copenhagen 1973 (un-
published) and additional information received from William Schar-
ling.

The increase by type of government activity was, however, not evenly distrib-
uted. Employment in 'administration, police and defence' increased by 31 per
cent, in 'education etc.' by 46 per cent and in the sector 'health and social
services' by no less than 72 per cent. Hence in 1973, almost half of the la-
bour force in government services was employed in the 'health and social
services' sector.

3. The figures in table VI.2 give part-time employees the same weight as
those working full-time. The information from respondents to the sample sur-
veys, on which the labour force estimates are based, does not provide a com-
plete basis for converting the figures to corresponding figures of full-time
employees. Still, such figures, (cf. table VI.3), provide a useful supplemen-
tary information despite their lower degree of reliability.

According to the table VI.3, part-time working has increased in importance al-
though, for the total labour force, the extent is still limited. Conversion

Table VI.4
Composition by sex and marital status of labour
force in government services (unadjusted data)

	Men		Unmarried women		Married women		Total	
	1967	1973	1967	1973	1967	1973	1967	1973
	<u>1 000 persons</u>							
Admin., police, defence	65	77	15	19	15	29	95	125
Education etc.	52	70	21	26	42	71	115	167
Health, soc. services	24	37	69	94	65	141	158	272
Government services, total	141	184	105	139	122	241	368	564
Professions	29	38	11	12	10	18	50	68
Other occupations	1 308	1 232	247	188	367	394	1 922	1 814
TOTAL LABOUR FORCE	1 478	1 454	363	339	499	653	2 340	2 446
	<u>Per cent</u>							
Admin., police, defence	68	62	16	15	16	23	100	100
Education etc.	45	42	18	16	37	42	100	100
Health, soc. services	16	13	43	35	41	52	100	100
Government services, total	38	33	29	25	33	42	100	100
Professions	58	56	23	17	19	27	100	100
Other occupations	68	68	13	10	19	22	100	100
TOTAL LABOUR FORCE	63	59	16	14	21	27	100	100

Sources: See sources to table IV.3.

of part-time workers to equivalent full-time employees implies a reduction of the total labour force by 7 per cent in 1967 and by 9 per cent in 1973.

However, in government services part-time work is of comparatively greater importance, in particular in the areas of education and social services etc. Here, conversion to full-time implies a reduction of 13-14 per cent in 1967 and of nearly 20 per cent in 1973. Consequently, on a full-time equivalence basis the share of government services in the total labour force only increased from 15 per cent in 1967 to 21 in 1973, as compared with an increase from 16 to 23 per cent according to the unadjusted figures in table VI.2.

4. The differences with respect to part-time employment are related to the composition of the labour force by sex and marital status (cf. table VI.4), which is based on unadjusted labour force figures. The share of married women increased rapidly between 1967 and 1973. In government services, this pattern is very clearly reflected in 'administration, police, defence', where - for obvious reasons - men constitute the dominant part of the labour force.

However, in the field of education - and even more so for social services etc. - the share of men was small in 1967 and has declined, while that of married women was high and has increased. Thus in 1973, the male labour force in the

Table VI.5

Index (1973 compared with 1967) of labour force in government services by sex and marital status, both unadjusted and when converted to equivalent full-time employment

1967 = 100

	Men		Unmarried women		Married women		Total	
	unad-justed	ad-justed	unad-justed	ad-justed	unad-justed	ad-justed	unad-justed	ad-justed
Admin., police, defence	119	121	126	126	190	177	131	129
Education etc.	135	133	124	118	169	159	146	138
Health, social services	152	152	138	131	217	204	172	161
Government services	131	131	133	128	197	185	153	145
TOTAL LABOUR FORCE	98	99	93	90	131	122	105	102

Sources: See sources to table VI.3.

Table VI.6

Central government expenditure, current and capital account. Fiscal years, current prices

	1938/39		1950/51		1958/59		1966/67		1973/74	
	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent
<u>Current account</u>										
Social expenditure:										
Pensions, etc.	93	14	403	15	1 082	19	3 321	20	12 505	27
Health and social insur.	72	10	248	10	583	10	2 102	12	6 304	13
Others (incl. unempl. benefits)	87	12	309	12	542	10	1 385	8	5 461	12
Social expend., total	252	36	960	37	2 207	39	6 808	40	24 270	52
<u>Education</u>										
Schools	67	9	181	7	449	8	1 411	8	2 602	6
Further education	27	4	98	4	272	5	1 449	9	4 649	10
Education, total	94	13	279	11	721	13	2 860	17	7 251	16
Other curr. expend.	174	25	690	26	1 058	18	3 334	19	8 561	18
Current expend., total	520	74	1 929	74	3 986	70	13 002	76	40 082	86
Gov.t investm. excl. defence	104	15	294	11	653	12	1 935	11	2 385	5
Defence	63	9	349	14	965	17	2 025	12	3 544	8
Public utilities	17	2	27	1	63	1	178	1	515	1
TOTAL EXPENDITURE	704	100	2 599	100	5 667	100	17 140	100	46 526	100
Total NNI at factor cost, DKR 1 000 million	6.5		18.8		28.5		61.8		130.6	
Gov.t expenditure, per cent of NNI		10.8		13.8		19.9		27.7		35.6

Note: The fiscal year is from April 1st to March 31st. NNI figures refer to calendar years, three quarters of which are covered by the corresponding fiscal year.

Source: Det økonomiske Sekretariat, Statsfinanserne 1973-74, Copenhagen 1975, and earlier years. For reasons explained in the text, this yearly publication has not been published since 1974.

field of health and social services only represented 13 per cent, while the proportion of married women reached no less than 52 per cent.

5. According to tables VI.2 and VI.3, viz. the growth rates of various sectors of the labour force, differed when unadjusted and when converted to full-time employees. These differences are illustrated in table VI.5, indicating growth rates from 1967 to 1973 for main types of employment in government services by sex, etc. While growth rates for the male labour force are very similar whether adjusted or not, indices for non-married women mainly show lower growth rates, when they are based on adjusted figures, and the same trend is even clearer for married women. The latter not only constitute an increasing share of the total labour force in government services (cf. table VI.4), but at the same time they are employed on a part-time basis to a much larger extent than in the other groups.

INSTITUTIONAL STRUCTURE OF THE GOVERNMENT SECTOR

6. The usual distinction between central government, local government, and the social security systems also holds for the public sector. However, direct contributions to social security schemes from employers and employees are insignificant. Most public expenditure in the form of social transfers is financed by the central government. This pattern has important consequences for the tax structure.

7. In Denmark, there are two levels of local government, 'amter' (or 'amtskommuner') and 'kommuner' (or 'primaerkommuner'). Around 1960, there were 22 'amtskommuner' and roughly 1 400 'primaerkommuner'. During the 1960s, the number of 'amtskommuner' was reduced to 14 and that of 'primaerkommuner' to 277.¹

The main purpose of this change of structure was to create local units large enough to take over certain responsibilities in a decentralized system. The reason for maintaining both types of 'kommuner' was mainly that some functions (e.g. hospitals and larger roads) would require a rather large basis in terms of population, area etc., and there became the responsibility of the 'amtskommuner', whereas other activities were well suited for smaller units, and were referred to the 'primaerkommuner'. Thus the distinction between 'amtskommuner' and 'primaerkommuner' mainly refers to types of functions. In principle, the 'primaerkommuner' are not subordinated to the 'amtskommuner'. In the following, a distinction between the two types will not be made, and both will be covered by the label: local authorities.

8. The original intention of the reorganization of local government was that it should be followed by a delegation of functions from the central government. Substantial changes in this field were made during the early 1970s. Therefore, it is difficult to obtain a long series of comparable figures by type of expenditure for the total government sector. In some of the following tables, reasonably reliable time series in this field are presented from 1967 onwards, based on information from the Economic Secretariat of the govern-

¹ In the metropolitan area, some special arrangements were made. They are not covered by the above description.

ment. In order to provide a somewhat longer perspective, these figures are supplemented by tables, showing expenditures and revenues of the central government only. However, the coverage of the latter figures may - in particular for the last decade - be affected by the changes in the institutional pattern.

POST-WAR TRENDS IN EXPENDITURE OF THE CENTRAL GOVERNMENT

9. Before the development of public expenditure during the last decade are examined at some detail, it may be worth-while looking at long-term trends. For this purpose, figures are only available at current prices and only for the central government (cf. table VI.6). Because of the increasing activities of local authorities, the figures show somewhat lower levels and lower growth rates as compared with the corresponding figures for the total public sector. However, amounts spent by the central government in order to refund expenditure undertaken by local governments are included in the figures under the relevant category. It might be added that, during the period covered by the table, the fiscal year refers to the twelve months from April 1st to March 31st.

The most striking figures are those indicating the total expenditure of the central government as a per cent of net national income (NNI).¹ In 1938/39, this share was slightly below 11 per cent, in 1973/74 well over 35 per cent. The increase mainly took place during the latter part of the period.

An increasing share of total central government expenditure has been used for current expenditure. The share of civil investment declined during the early 1970s. Defence expenditure increased sharply up to the late 1950s, following our entry into NATO, but subsequently its share in total government expenditure declined.

10. The two most important categories of central government current expenditure are the social services and education. The share of social services increased from 36 per cent in 1938/39 to 40 per cent in 1966/67 and to no less than 52 per cent in 1973/74, a development which calls for some explanation.

The Danish social security system differs from that of other EEC-countries to the extent that the greater part of expenditure - and pensions in particular - are paid by the central government. Private and semi-private insurance arrangements are only of limited importance. Thus, most allowances, including pensions, are financed by the tax-payers, a system which was established during the early 1930s. This basic pattern remained unchanged until recently. Thus, until the early 1970s most payments to doctors by their patients were

¹ Obviously, the choice of net national income (at factor cost) as 'numeraire' implies that the shares will appear large, because the numeraire is the smallest conceivable expression in the national accounts. Still, it is the author's view that net concepts are the relevant ones (cf. the section on wages and profits in chapter III), and, therefore, the most appropriate expression of national income (or product) is the one used in table VI.6 and in subsequent tables.

Table VI.7
Total public expenditure by broad category
Fiscal years 1967/68 - 1973-74, current prices

	1967/68		1969/70		1971/72		1973/74	
	DKR 1 000 mill	per cent NNI	DKR 1 000 mill	per cent NNI	DKR 1 000 mill	per cent NNI	DKR 1 000 mill	per cent NNI
Transfer payments	10.1	15	13.9	16	20.0	20	24.4	19
Purchases of goods and services:								
Current account ¹	14.6	22	19.0	23	27.0	26	35.2	27
Capital account	4.8	7	6.5	8	8.1	8	8.2	6
TOTAL PUBLIC EXPEND.	29.5	44	39.4	47	55.1	54	67.8	52
Net national income, corresponding cal- endar year	67.7	100	84.0	100	101.5	100	130.6	100

¹ Including all defence expenditure.

Source: Information received from the Economic Secretariat of the government (Det økonomiske Sekretariat).

refunded according to an insurance system (sick-benefit association) mainly financed by contributions by the individual members. However, this arrangement was taken over by the government, adding to the traditional tax burden.

The problems arising from such a system have become obvious as social expenditures have increased. Until the mid 1960s, old age pensions were mainly paid to low income groups, but since 1970 every citizen over the qualifying age became entitled to receive such pensions. In addition, most expenditure in connection with the health services are paid - directly or indirectly - by the central government, and the same holds for the major part of unemployment benefits. With increased levels of benefit and with an increasing number of persons entitled to these benefits (e.g. old age pension), expenditure on social services was bound to increase very rapidly.

11. The other large item shown in table VI.6 is education, which accounted for 11 per cent of total government expenditure in 1950/51 and 16 per cent in 1973/74. The share devoted to public schools has, however, generally been on a downward trend although it should be kept in mind that, in this field, the role of the local authorities (which are not covered by the table) is rather important - and has been increasing.

Other expenditure on education mainly covers a variety of higher education, including universities. These activities are almost exclusively financed by the central government. During the 1960s, expenditure in this field increased

Table VI.8

Total public expenditure, current and capital account

Fiscal years 1967/68 - 1973/74, current prices

	1967/68		1969/70		1971/72		1973/74	
	DKR 1 000 mill	per cent NNI	DKR 1 000 mill	per cent NNI	DKR 1 000 mill	per cent NNI	DKR 1 000 mill	per cent NNI
<u>Current account</u>								
Social expenditure:								
Pensions, etc.	4.7	7	6.3	8	9.9	10	13.3	10
Health and social insurance	4.5	7	6.1	7	8.4	8	11.4	9
Others (incl. un- employment benefits)	3.0	4	3.7	4	6.0	6	7.4	6
Social expend., total	12.2	18	16.1	19	24.3	24	32.1	25
Education	4.3	6	5.8	7	8.4	8	10.8	8
Various transfers	2.4	4	4.0	5	4.9	5	5.1	4
Other current expend.	4.1	6	5.4	6	7.2	7	9.1	7
Current expend., total	23.0	34	31.3	37	44.8	44	57.1	44
Public investment, excl. defence	4.1	6	5.5	7	7.1	7	7.1	5
Defence	2.4	4	2.6	3	3.2	3	3.6	3
TOTAL EXPENDITURE	29.5	44	39.4	47	55.1	54	67.8	52
Net national income, correspond. calendar year	67.7	100	84.0	100	101.5	100	130.6	100

Source: See source to table VI.7.

dramatically; in 1958/59 it amounted to 5 per cent of total expenditure by the central government, but had increased to 9 per cent by 1966/67.

TOTAL PUBLIC EXPENDITURE, INCLUDING LOCAL AUTHORITIES, 1967-1973

12. For the period 1967-1973, an analysis of public expenditure is available on a more comprehensive basis, covering not only expenditure financed by the central government, but also that financed by local authorities as well as by contributions to semi-official insurance schemes. In table VI.7, total public expenditure is shown by broad category. In order to eliminate the effect of inflation, additional figures are shown (in brackets) indicating for each category its share of total net national income of the corresponding calendar year.

According to table VI.7, the share of total public expenditure increased from 44 per cent of national income in 1967/68 to 52 per cent in 1973/74. The very sharp increase in transfer payments around 1970 was due to the introduction of a general old-age pension scheme, mentioned earlier.

Purchases of goods and services also increased as a share of - a rapidly increasing - national income. Such expenditure on current account amounted to 22 per cent of national income in 1967/68 and to 27 per cent in 1973/74. These figures are not inconsistent with the labour force figures in tables VI.2 and VI.3, as it must be borne in mind that prices of goods purchased by the public sector have increased more slowly than the prices of services (= salary rates to government employees).

Finally, capital expenditure increased slightly faster than national income until the early 1970s, when the importance of this expenditure started to decline. Since 1970, a growing proportion of this expenditure has been undertaken by the local authorities. However, 'ceilings' on such expenditure have been imposed by the central government, partly in order to dampen the general boom of the early 1970s.

13. Table VI.8 provides a more detailed analysis of total public expenditure over the period 1967/68 - 1973/74 and corresponds to table VI.6 except that it covers all public expenditure and not only those financed by the central government.

14. Current expenditure on social services is by far the biggest - and the fastest expanding - category of total public expenditure. In 1967/68, it amounted to 18 per cent of NNI; in 1973/74 this share had increased to 25 per cent of NNI or slightly below half of total public expenditure.¹

¹ If a number of transfers had been included, actually shown under 'Various transfers' in table VI.8, but paid for reasons similar to those used for certain social expenditure, the share of social expenditure in total public expenditure would easily exceed 50 per cent.

This increase is reflected in all categories of expenditure. The share of pensions¹ increased from 7 per cent in 1967/68 to 10 per cent in 1973/74, mainly because of the introduction of the new scheme of old-age pensions in 1970. The figures for pensions do not include pensions paid to government employees as part of their employment conditions;² the latter amounted to roughly DKR 1 000 million in the early 1970s.

One of the factors explaining the increased expenditure in the field of health, and social insurances, is the introduction, in 1972 and 1973, of a scheme according to which those who are unable to work due to illness receive compensation in the form of current payments, the rates being fixed by law. Again, the underlying principle is not one of insurance, but of government transfers.

With respect to other social expenditure, it might be mentioned that the total amount paid by public sources in connection with unemployment did not exceed DKR 1 000 million in any of the years indicated in table VI.8.

15. Current expenditure in the field of education has also increased at a rate faster than the rate of growth of national income. In 1967/68, this expenditure corresponded to 6 per cent of NNI, and to 8 per cent in 1973/74. The increase partly reflects current transfers in the form of grants to students, but the main part consists of salaries to teachers and other employees.

As was mentioned above in relation to the figures of central government expenditure on education, the figures in table VI.6 only provide an incomplete picture, because a substantial part of total current expenditure in this field is financed by local authorities. In particular, this is true for expenditure related to schools etc. For the period 1967/68 - 1973/74, it is estimated that the share of total current public expenditure on education that is devoted to schools, was around 60 per cent with a slightly declining trend, leaving the remainder (about 40 per cent and increasing) attributable to further education.

16. As appears from the previous comments, the expenditure figures for social services and education according to table VI.8 include transfers in these areas. All other transfers are included under the heading of 'Various transfers'. These transfers include assistance to developing countries (DKR 1 500 million in 1973/74), and subsidies in the field of housing (well over DKR 2 000 million in 1973/74) in order to keep down rents (cf. chapter IV). The reason why the relative importance of these transfers declined from 1971/72 to 1973/74 is that Danish public transfers to agriculture disappeared in 1973/74 due to entry into the EEC. According to the figures on which table VI.8 is based, expenditure in this field amounted to well over DKR 1 000 million in 1971/72.

¹ Expenditure on pensions includes a minor, but rapidly increasing amount (DKR 2 600 million in 1973/74 out of a total of DKR 13 300 million, cf. table VI.8), covering current expenditure relating to institutions with dwellings and facilities for the aged.

² However, to the extent that government employees have such special arrangements with respect to pensions, their pensions under the general scheme may be reduced.

17. Turning from current civil expenditure to expenditure on capital account - including public loans for investment purposes - table VI.8 confirms earlier findings, in particular that the share of public investment in total public expenditure declined during the early 1970s. This may partly reflect a counter-cyclical policy, but there is also a more fundamental explanation. Even prior to 1973 it was realized that the rate of growth of total public expenditure had to be reduced for structural reasons. The decline of public investment during the early 1970s may be interpreted as reflecting this new political attitude. Actually, the share of total public expenditure in national income did decline from 1971/72 to 1973/74, viz. from 54 per cent to 52 per cent (cf. tables VI.7 and VI.8), the first reduction for many years.

NEW STRATEGIES IN BUDGET MANAGEMENT

18. During the first part of the 1970s, new methods were gradually introduced with respect to budget management. As was mentioned above, one of the purposes was to provide for the decentralization of decision making by increasing the powers of the local authorities. Another was to try to create a system, which would allow the central government to control the level of total public expenditure. Obviously, these two purposes might easily conflict.

Conceptually, the distribution of the various functions of the public sector was clarified, with local authorities assuming responsibility for many activities in the social sector. The system of refunding by the central government of certain types of expenditure incurred by local authorities was abolished. Instead, block grants from the central government to the local units were introduced.

A similar strategy was introduced with respect to a number of expenditure areas where responsibility remained with the central government. For each such area, total expenditure may be limited by 'budget ceilings', which may also be used as fiscal-policy instruments.

However, in other fields, rates of expenditure per person are specified by law. This is true, for instance, with respect to pensions and many other social transfers. Here total public expenditure will depend, partly on the level of benefits and partly on the number of persons entitled to receive the transfer concerned. Usually, the number of recipients will not be under the direct control of the authorities, and so variations in the levels of benefit will become the fiscal-policy instrument.

19. The effects of this new system cannot yet be fully evaluated. Nevertheless, certain effects are worth mentioning. One is the advantage related to abolition of the system of automatic refunding by the central government of expenditure incurred by local authorities. Although the old system only implied refunding of a certain percentage of local expenditure, the effect was still damaging from the viewpoint of the allocation of resources. Local authorities were tempted to allow expenditure to increase in areas where the percentage to be refunded was substantial. Hence the very fact that the system has been abolished - at least in part - may have contributed to dampening the rate of increase of total public expenditure.

Table VI.9
Central government revenue. Fiscal years, current prices

	1938/39		1950/51		1958/59		1966/67		1973/74	
	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent
Specefic sales taxes	315	43	1 563	51	2 798	44	7 323	39	12 808	24
Import duties	99	14	116	4	279	4	594	3	780	1
General sales taxes, including VAT	-	-	23	1	289	5	2 297	12	12 832	24
<u>Commodity taxes, total</u>	414	57	1 702	56	3 366	53	10 214	54	26 420	49
<u>Income taxes</u>										
Persons	219	30	1 060	35	2 441	38	7 453	39	24 656	46
Companies	63	8	207	7	363	6	729	4	1 872	4
Taxes, total	696	95	2 969	98	6 170	97	18 396	97	52 948	99
Other revenues	34	5	47	2	170	3	509	3	629	1
Central government revenue, total	730	100	3 016	100	6 340	100	18 905	100	53 577	100
Total NNI, factor cost, DKR 1 000 million	6.5		18.8		28.5		61.8		130.6	
Government revenue, per cent of NNI		11.2		16.1		22.3		30.6		41.0

Note: See note to table VI.6.

Source: See source to table VI.6.

20. Another aspect of the new system of budget management is more fundamental, related to the basic purpose of increasing the powers of the local authorities. In order to achieve this aim, the system may imply a reversal of the traditional Danish method of handling individual cases of 'unforeseen social events'. Previously, help to the individual hit by such an event has to a large extent taken the form of a right to a particular benefit at the rate fixed by law. But according to the new system, a larger share of the expenditure on social services will be left to the judgement of each local authority in each individual case. However, the size of the 'block grants' is fixed by the central government on the basis of negotiations with the local authorities' organizations. Therefore, the role of these organizations will be increasing, implying - among other things - much closer contact between individual local authorities. Against this background it is still an open question whether the new system, aiming - in principle - at decentralizing the powers of public authorities, will in fact lead to different decisions - and thus to differences with respect to standards and patterns of resource allocation - among the various local authorities.

An additional reason for doubts as to whether the new system of decentralization will lead in practice to different decisions is the fact that the organizations of government employees (teachers, librarians, etc.) are strongly opposed to any variation in standards in different local authority areas, and the influence of these organizations should not be underestimated.

POST-WAR TRENDS IN CENTRAL GOVERNMENT REVENUE

21. Turning to the revenue side, long-term trends in central government revenues are shown in table VI.9, for the same years as for the expenditure figures in table VI.6.

As a percentage of NNI, total revenues have increased somewhat faster than total expenditure, (cf. the bottom rows of tables VI.6 and VI.9). However, central government has usually had an overall surplus (even after including expenditure on capital account among total expenditure).

22. The share of commodity taxes - including import duties and value-added taxes, - in total central government revenue has, on the whole, shown a declining trend. This development has taken place in spite of the fact that general sales taxes, which were not in use in 1938/39 and hardly in 1950/51, accounted for nearly one fourth of total revenue in 1973/74. However, the role of import duties has been declining and was almost insignificant in 1973/74 (partly due to our entry into the EEC). Furthermore, specific sales taxes accounted for half of total revenues in 1950/51, but in 1973/74 the share had dropped to one quarter.

Income taxes are now almost exclusively paid by persons. The share paid by companies has declined, partly reflecting improved depreciation allowances. The share of total central government revenue originating from personal income taxes has shown an opposite tendency, increasing from 30 per cent in 1938/39 to 46 per cent in 1973/74.

Table VI.10
Total public revenue, Calendar years 1965-73, current prices

	1965		1967		1969		1971		1973	
	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI
Specific sales taxes, incl. import duties etc.	6.5	12	7.8	12	9.0	11	9.8	10	12.9	10
General sales taxes, incl. VAT	1.9	3	3.5	5	7.7	9	10.4	10	13.2	10
Indirect taxes, total	8.4	15	11.3	17	16.7	20	20.2	20	26.1	20
Income taxes, persons	8.7	15	12.0	18	16.4	20	30.0	30	39.7	30
Income taxes, companies	1.0	2	0.9	1	1.1	1	1.3	1	2.3	2
Income taxes, total	9.7	17	12.9	19	17.5	21	31.3	31	42.0	32
Property taxes, inheritance duties, etc.	2.0	3	2.6	4	2.8	3	4.0	4	4.5	4
Contrib. to social insurance schemes	1.1	2	1.4	2	1.6	2	2.1	2	1.4	1
Total revenues	21.2	37	28.2	42	38.6	46	57.6	57	74.0	57
Net national income	56.8	100	67.7	100	84.0	100	101.5	100	130.6	100
Revenues collected by:		% of total revenue		% of total revenue		% of total revenue		% of total revenue		% of total revenue
Centr. government	15.9	75	20.7	74	28.4	74	40.6	71	51.4	69
Municipalities	4.2	20	6.1	21	8.6	22	15.0	26	21.3	29
Social insurance schemes	1.1	5	1.4	5	1.6	4	2.0	3	1.3	2

Source: Danmarks Statistik, Statistisk tiårsoversigt 1976.

TOTAL PUBLIC SECTOR REVENUE, INCLUDING LOCAL AUTHORITIES, 1965-1973

23. Obviously, revenue figures covering the total public sector are more interesting than those of the central government only. Furthermore, they are easier to estimate than the expenditure figures shown in table VI.8. For the period 1965-73, total revenue figures are shown in table VI.10 for selected calendar years.

In recent years, specific sales taxes accounted for somewhat above 10 per cent of national income, but with a slightly declining trend. In 1973, total revenue in this field amounted to nearly DKR 13 000 million. Of this amount, more than DKR 4 000 million was collected in connection with sales of cars and petrol,¹ DKR 2 500 million was paid by smokers (cigarettes, etc.) and well over DKR 2 000 million was collected from taxes on spirits, wine and beer. The remaining DKR 4 000 million originated from a variety of other sources, including import duties of nearly DKR 1 000 million.

The increasing share of commodity taxes in national income is due to the substantial growth of general sales taxes. In the early 1960s, a general sales tax was introduced at the wholesale level. In 1967, it was replaced by a general value-added tax (VAT), at a rate of 10 per cent; by 1973 it had reached 15 per cent.² At this rate, total revenue from VAT, etc. corresponded to 10 per cent of NNI, roughly the same share as total specific sales taxes. It should, however, be noted that commodity taxes are almost exclusively paid to the central government and do not provide revenue for local authorities.

24. During the period from 1965 to 1973, revenues from personal income taxes almost exploded and they became an increasingly important source of revenue for local authorities. In 1965, they were equivalent to 15 per cent of NNI, and by 1973 the share had increased to no less than 30 per cent. This doubling apparently took everybody by surprise and could probably not have been realized if the tax system had remained unchanged. However, during the late 1960s several structural changes took place.

For decades, income tax actually paid in the preceding year was deductible from gross income of the current year.³ This system was abolished in 1967. Furthermore, until 1970 actual income tax in any particular year was based on the previous year's income. From 1970 onwards, a new income-tax system was introduced on a 'pay-as-you-go' basis.

¹ In addition, owners of cars paid taxes - depending on the size of the car - amounting to about DKR 1 000 million in 1973. In table VI.10, this amount is included among 'property taxes, etc.'

² In April 1968, the rate was increased to 12.5 per cent and in June 1970 an additional increase to 15 per cent took place. See Danmarks Statistik: Skatter og afgifter. Oversigt 1977. Statistisk tabelværk 1977. V.

³ This peculiarity of the Danish tax system implied that, even at tax rates at 100 per cent, average taxes could not exceed 50 per cent of total income before taxes.

With these structural changes, it was rather difficult for taxpayers to calculate in advance the effects of the new system with respect to the amount of tax they would have to pay. As it turned out, the imagination of most people did not suffice, and the question of reducing personal income tax rates became a recurrent issue in the Danish debate on taxes.

As compared with personal income taxes, revenue from income taxes paid by companies have been insignificant, the latter amounting only to roughly 5 per cent of the former during the early 1970s. The rate of taxation of company incomes, 36 per cent, was relatively low as compared with most other Western European countries, and the procedures followed (including depreciation allowances) in order to determine taxable company income were rather favourable to companies.

25. Total revenue from property taxes, etc. have only amounted to 3-4 per cent of national income. In 1973, out of total revenue for this category of DKR 4 500 million, roughly DKR 1 000 million were paid by car-owners. Inheritance duties only provided DKR 300 million, and revenue from taxes on net wealth (based on information supplied on income-tax returns) were of the same order of magnitude. These taxes are all collected by the central government.

Taxes on land and real property are mainly paid to local authorities. The old 'Georgeist' idea that land should be taxed in order to avoid increases in land prices, at least as compared with other prices, has a long tradition in Danish politics. In 1957, a majority government was formed by the labour party, assisted among others by the Georgeist party. The program of this government included the introduction of taxes on real property, and the relevant legislation was actually enacted. But at the next election, the Georgeist party dropped out of parliament. With important groups of voters, viz. farmers and owner-occupiers, not particularly enthusiastic about these taxes, their importance has gradually declined.¹

26. One of the most interesting results according to table VI.10 is the very low level of government revenue arising from contributions to social insurance schemes. They only corresponded to 1-2 per cent of national income. From 1971 to 1973 the share even declined, because contributions by members to sick-benefit associations were abolished, the activities of these associations being taken over by central government and the local authorities.

PROSPECTS FOR FUTURE REVENUE FROM TAXATION OF COMMODITIES AND INCOME

27. It is a familiar experience that most statements with respect to the possible maximum share of total public revenue out of total national income have turned out to be wrong. The size of the public sector in many countries has often increased beyond any 'ceiling', suggested by economists, politicians, etc.

¹ When Denmark joined the EEC, a land-tax system was re-introduced with the aim of enabling the country as a whole to obtain part of the capital gains related to increased prices of land due to higher grain prices in the EEC.

Table VI.11

Public revenues as a per cent of gross national income 1966 and 1973

International comparison

		Commod- ity taxes	Income taxes	Property taxes etc.	Contrib. soc. insur. schemes	Total
Denmark	1966	13.2	14.3	2.8	2.8	33.1
	1973	15.1	24.0	2.7	2.3	44.1
Norway	1966	13.9	12.3	1.3	7.3	34.8
	1973	17.6	13.4	1.4	13.5	45.9
Sweden	1966	12.3	18.1	0.6	5.9	36.9
	1973	13.0	19.4	2.4	8.7	43.5
Fed. Republic of Germany	1966	10.3	10.9	2.0	10.0	33.2
	1973	9.9	12.8	1.7	12.9	37.3
UK	1966	9.9	11.7	5.1	4.8	31.5
	1973	9.2	13.3	4.8	5.5	32.8
France	1966	13.1	5.4	3.8	13.4	35.7
	1973	12.5	6.3	2.9	15.2	36.9
Netherlands	1966	10.0	13.0	1.7	11.4	36.1
	1973	11.2	15.1	1.5	16.0	43.8

Note: Data relating to Denmark in table VI.11 differ somewhat from similar figures in table VI.10. Differences are partly due to problems related to definitions, but the main reason is that, in table VI.11, the numeraire is gross national income at market prices. Hence figures in table VI.11 will be lower than corresponding figures in table VI.10.

Source: Danmarks Statistik: Statistisk tiårsoverigt 1976 (based on OECD statistics).

Still, it may be worthwhile reconsidering the issue, taking the starting point in the suggestion that there is a ceiling of total revenue to be obtained from any single type of taxation, the ceiling being defined as total revenues from a certain kind of taxation measured as their share of national income (cf. table VI.10).

It might be asserted that this issue is not specific to Denmark, but such an assertion would only be part of the truth. In order to illustrate this, table VI.11 provides an international comparison of levels of taxation. Admittedly, the table is an exception to the general rule, adhered to in the present volume, that contents of tables are limited to Danish figures. However, it may be justified by the fact that the Danish tax pattern differs from that of most other countries and that the issue of levels of taxation is one of the most important in the Danish economic debate.

28. Specific sales taxes have, since the mid-1960s, remained slightly above 10 per cent of NNI (cf. table VI.10). In fact, even including import duties, they have never exceeded 13 per cent since records began and up to 1973. As was mentioned above, in Denmark, these taxes are concentrated on a few products related to car driving, smoking and drinking, and there may be an upper limit for the burden of taxation which these products are able to carry. This limit depends partly on elasticities of demand, partly on the possibility of buying the products in adjacent countries. The latter argument of course refers to Danish tax rates as compared with those of e.g. the German Federal Republic. Although harmonization of specific tax rates has not taken place in the EEC, increasing liberalization of the German-Danish 'border traffic' will affect the possibilities of keeping Danish tax rates particularly on alcohol and tobacco goods substantially above German rates. Finally, the problem of evasion should be kept in mind. In the field of specific sales taxes, smuggling is a case in point.

29. Bearing these factors in mind, it is tempting to conclude that it was no accident that general sales taxes were introduced during the early 1960s. On the contrary, at that time, Danish politicians might well have realized that revenues from specific sales taxes were close to their ceiling, and that new sources of revenues were required.

However, there is probably also a ceiling on the amount of revenue obtainable from value-added taxes and other general sales taxes. With increased tax rates in this field, the evasion problem will be of major importance. In addition, increased rates may induce people to 'do things themselves'. This may be considered a positive factor from other viewpoints, but it certainly does not contribute to the amount of tax revenue.

30. According to table VI.10, total revenue from commodity taxes in 1973 amounted to 20 per cent of net national income. This was a high share by international standards (cf. table VI.11), although revenue from commodity taxes took an even larger share of national income in Norway.

In brief, the contention, implicit in the preceding argument, is that it will be extremely difficult to obtain revenue from commodity taxes exceeding, say, 25 per cent of net national income.

31. While revenue from commodity taxes in Denmark are high by international standards, the same is even more true for revenue from personal income taxes.¹ As was shown in table VI.10, the latter increased from 15 per cent of NNI in 1965 to 30 per cent in 1973. This increase is reflected in table VI.11, which at the same time suggests that revenue from income tax in Denmark is at a record level by international standards.

At present levels of tax rates, the evasion problem is substantial for income taxes - far greater than for other taxes, at least in the short run. Furthermore, the effects of high marginal income-tax rates are bound to give rise to

¹ The following comments will refer to personal income tax only. For companies, special evasion problems, related to the possibility that they will move to other countries with lower company tax rates, are becoming increasingly important.

dissatisfaction, in particular when a large part of the population is hit by these marginal tax rates. In 1973, the (gross) marginal tax rate for average income groups was 55 per cent or more.

In this connection, the problem of 'net marginal tax rates' should be mentioned. Social transfer payments to low-income groups may depend on the income of the individual person concerned. Two examples are subsidies to families living in expensive apartments and additional transfer payments to old people with low incomes, receiving pensions. Where the amount transferred increases, as the income of the recipient decreases, any increase in the income of the person concerned will not only give rise to higher income taxes, but also to a reduction in the subsidies received. Hence the sum of these two marginal rates, i.e. the 'net marginal tax rate', may become substantial, even for individuals with low or average incomes.¹

Two conclusions emerge from these considerations. One is that, even if one has great sympathy for the idea of contributing to a more even distribution of personal income by fiscal-policy measures, in Denmark it is simply not feasible to take any further steps in this direction by traditional policies because the result will be to increase net marginal tax rates even further.²

The other conclusion is that revenue from personal income tax had effectively reached a ceiling in 1973, corresponding to roughly 30 per cent of net national income.

32. Summarizing the arguments of the present section, the main conclusion is that, for a variety of reasons, it is difficult to envisage revenue from commodity taxes and income taxes exceeding, say, 55-60 per cent of net national income. In 1973, revenue from these sources was already close to this ceiling.

A NEED FOR NEW SOURCES OF REVENUE?

33. Whether this conclusion - or contention - implies that there is a need for new sources of revenue depends, of course, on prospects with respect to future government expenditure. This issue has been dealt with earlier in the present chapter as well as in chapter I. Still, a few summarizing comments on the subject may be appropriate.

¹ Of course, the same effect arises to the extent that payments for social and other services, provided by the public sector, depend on the income of the person receiving the services. Payments by parents with children in the kindergarten provide an example in this field.

² With marginal income tax rates, even for average income groups, of the order of magnitude indicated above, the question arises as to whether the income tax system can be claimed to reflect 'progressiveness'. The higher the revenue to be obtained from income tax, the more difficult it becomes to maintain the progressiveness except for low-income groups. Instead, the system tends to become one of proportionate taxation.

There are several arguments in favour of the viewpoint that the structural tendency for total government expenditure to increase faster than national income (reflected in table VI.8), will continue in the future.¹ One important factor is that activities in the fields of social services and education are not easily mechanized.² Furthermore, the effect of each specific cut-in expenditure will only be very marginal (in terms of corresponding tax reductions) for those who do not receive the benefit involved - usually the majority of the voters. But the effect will be substantial for those affected by the expenditure cut, hence the latter are more likely to react in the political debate than the former.³

To these arguments should be added the fact (discussed in chapter I), that there is a tendency for the prices of services bought by the public sector - i.e. wage rates to government employees - to increase faster than the general price level. The same tendency can be observed in the rates of transfer payments to some of the large groups in this area, pensions being one example.

34. The conclusion seems to be, therefore, that there is an obvious need for new sources of revenue. Of course, this need will be even more obvious to the extent that existing sources of revenue, e.g. income taxes, are collected at reduced rates.

Three suggestions appear immediately:

- 1) Abandonment - at least partly - of the principle that government services should be free of charge.
- 2) Increased taxation of real property, capital gains, etc.
- 3) Payroll taxes.

35. The principle of government services being free of charge is deeply rooted in Danish political tradition. No direct fees are usually paid in connection with the use of highways, libraries, education facilities, social institutions, etc., and their introduction is a hot political issue. So far, there has been no sign of a new strategy in this field,⁴ although the problem

¹ The following arguments do not take account of the additional factors arising in an economy with substantial unemployment. Here, social transfers will become of increasing importance. At the same time, the base of taxation will be lower (and increase at slower rates) than in a full-employment economy.

² In this connection it should not be forgotten that government employees in these sectors are very well organized and quite able to make their viewpoints known through TV and the press. Also, these organizations are not likely to let the voters overlook that less labour-intensive ways of providing services by the public sector may imply lower levels of standards.

³ Another aspect of this mechanism is that it is very difficult for the public sector continuously to adjust its 'pattern of output' to new patterns in the economy. The reasons for introducing a certain type of expenditure many years ago may have disappeared in the meantime, but the public expenditure itself may still continue.

⁴ On the contrary: suggestions have been made from time to time that TV and radio should, in the future, be financed from the government budget.

has often been emphasized by economists in the debate on fiscal policy. As this issue is largely political, no further comments will be made in the present context, except that it might be worth-while once more mentioning that the possible solution of letting the beneficiary pay, but at rates depending on his income, is not feasible because of the 'net marginal tax' problem.

36. The question of taxing real property and capital gains, and increasing inheritance duties, etc. is no less controversial. The issue was discussed above in connection with property taxes, and some of the aspects were mentioned in chapter IV in connection with the increasing share of the population owning their own homes. Again, the issue is mainly a political one, but those being in principle in favour of these kind of taxes - and the author is one of them - should not overlook the problems involved. These problems may be reflected in the fact that, according to table VI.11, revenue from these taxes does not exceed 3 per cent of gross national income in any of the countries, listed in the table, except in the UK.

First of all, it should be kept in mind that revenues from these sources are mainly related to land and buildings, no matter how such taxes are specified. If owner-occupied houses and farm land are excluded, the revenues are bound to become very small. Furthermore, taxation of capital gains is bound to give rise to many technical problems, and evasion is very difficult to avoid. Still it can hardly be denied that much social tension is created by the fact that, whilst current income (including interest payments) is taxed at high marginal tax rates, other types of income, arising e.g. from capital gains, are not taxed at all. However, the fundamental problem in this field may be of a more general nature, namely to reduce the rate of inflation rather than to try to remedy some of the effects caused by inflation.

37. These considerations seem to lead to the conclusion that the only remaining candidate as an additional source of revenue is some form of payroll tax. This conclusion is supported by the fact that such taxes are of much greater importance in most other EEC-countries, although they may be labelled 'contributions to social funds, insurance schemes, pension funds', etc. This difference is brought out by table VI.11, which seems to suggest that the basic tax problem is not that total taxation is extremely high, but that payroll taxes in the form of contributions by employers and employees are extremely low by international standards.

It would, however, be premature to expect additional payroll taxes at significant rates to be introduced in Denmark in the near future. There are several arguments for this contention, but only one will be mentioned. As was pointed out in the last part of chapter III, the proposal of the Association of Danish Trade Unions with respect to the introduction of 'Workers' Participation' is based on the idea that the scheme should be financed by contributions which, for all practical purposes, equal payroll taxes. Hence it may not be an easy task to introduce further payroll taxes without introducing the rest of the scheme. So far, the majority in parliament has not been too enthusiastic about the scheme as a whole.

Table VI.12

Total accounts of central government: selected fiscal years, current prices

(DKR 1 000 million)

	1967/68	1969/70	1971/72	1973/74
Current revenues	21.0	27.6	39.5	53.6
Expenditure: current, investm. and defence	20.4	26.6	37.2	46.5
Balance on current and invest. accounts	0.6	1.0	2.3	7.1
Various receipts, captial account	0.4	0.2	0.3	0.4
Lending and other expenditures, capital account	1.3	0.8	2.9	3.7
Net lending (+) or borrowing (-)	- 0.3	0.4	- 0.3	3.8
of which deposited in central bank	- 0.2	1.3	1.5	4.2

Source: Det økonomiske Sekretariat, Statsfinanserne 1973-74.

Table VI.13

Net position of central government, loans and debt. 31 March 1968-74

(DKR 1 000 million)

	31 March			
	1968	1970	1972	1974
<u>Loans</u>				
Housing	5.0	4.9	4.8	4.8
Others	3.9	5.1	6.3	7.6
LOANS TOTAL	8.9	10.0	11.1	12.4
<u>Debt</u>				
Domestic:				
Bonds etc.	3.9	3.3	2.9	2.7
Central bank etc.	- 1.1	- 2.9	- 8.3	- 15.4
Total domestic debt	2.8	0.4	- 5.4	- 12.7
Foreign debt	1.7	3.2	5.3	6.5
DEBT, TOTAL	4.5	3.6	- 0.1	- 6.2

Source: Det økonomiske Sekretariat, Statsfinanserne 1973-74.

OVERALL BUDGETARY POSITION OF THE CENTRAL GOVERNMENT

38. Total accounts of the central government during the period 1967/68 - 1973/74 are shown in table VI.12. Concepts are the same as those in tables VI.6 and VI.9.

As appears from the table, central government revenues have exceeded expenditure, even when government investment is included on the expenditure side. In fact, this has been the case in every year from the Second World War to 1973.

A certain amount of domestic government lending has taken place,¹ but still the net result has typically been one of fiscal policy reducing the money supply,² with net government deposits in the central bank showing a persistent increase.

39. Finally, the obvious point should be made that, with persisting surpluses, the central government has to an increasing extent become a net creditor.

Domestic government loans were provided to finance residential investment during the 1950s. The system came to an end around 1960, but loans amounting to some DKR 5 000 million still remain outstanding. Over the last decade, government loans have been granted for a variety of purposes. In early 1974, total government domestic loans, mainly in the form of bonds, amounted to DKR 12 000 million.

Furthermore, large government surpluses during the early 1970s changed the situation into one where the government became a net creditor instead of a net debtor. However, in order to finance the persistent balance of payments deficits, the government borrowed heavily abroad, hence the improved overall position mainly turned up as substantial increases of domestic short-term assets, in particular in the form of deposits in the central bank.

¹ Part of the lending has taken the form of government purchases of bonds. Furthermore, loans have been given to electric power stations, partly in the form of re-lending of amounts borrowed abroad by the central government. Foreign borrowing provides part of the explanation of the difference between the figures of net lending (or borrowing) and those of net deposits in the central bank in table VI.12.

² Local authorities keep their accounts in private banks, hence their surpluses or deficits do not affect money supply.

Chapter VII

ECONOMIC POLICY 1967-1973

INTRODUCTION

1. In chapter VI, fiscal policy was mainly described from a structural viewpoint, by analysing components of government expenditure and revenues. However, in order to evaluate the effects of economic policy in general on the development of the Danish economy, a year-by-year analysis might be appropriate. In the present chapter, such a description is given for the period 1967-73. Contrary to earlier chapters, tables will include figures for all the years of the period covered.

FLUCTUATIONS OF MAIN ECONOMIC INDICATORS 1967-1973

2. In table VII.1, key figures are provided for growth rates of main components according to national accounts. The figures are real product figures, hence they do not reflect changes in relative prices; for instance, changes in the terms of trade are not apparent.¹

One of the purposes of economic policy is to contribute to stable rates of growth. In this field, Danish economic policy has not been successful with respect to rates of growth of domestic demand. These have fluctuated considerably, from slightly above 1 per cent in 1971 to over ten per cent in 1969.

It is frequently claimed that the openness of the Danish economy makes it particularly difficult to successfully pursue a stabilization policy. However, it is worth noting that growth rates of exports have been much more stable than those of domestic demand. Hence differences in growth rates of the latter also show up in growth rates of total demand.

¹ Actually, the terms of trade did not fluctuate much (cf. appendix table I.1). The deteriorated somewhat from 1966 to 1968, but remained stable in the following years. From 1971 to 1973 they improved. This is specially true when EAGGF payments are included (cf. chapter X).

Table VII.1
Annual growth rates of main national-accounts components, 1967-73
 Real-product figures

	(Per cent)						
	1967	1968	1969	1970	1971	1972	1973
Domestic demand	3.9	2.5	10.5	3.9	1.3	2.3	8.3
Exp., goods and serv.	6.4	8.8	9.4	5.8	7.0	8.3	8.0
Total demand	4.6	4.3	10.2	4.4	3.0	4.1	8.2
Imp., goods and serv.	6.1	4.3	14.5	7.9	2.0	3.3	19.0
Gross nat. prod., market prices	3.9	4.3	8.2	2.2	3.5	4.5	2.8

Note: The growth rates refer to changes over the preceding year.
 Source: Danmarks Statistik: Statistisk tiårsoversigt 1975.

Table VII.2
Main yearly economic indicators, 1967-73

	1967	1968	1969	1970	1971	1972	1973
Average rate of unemployment ¹	2.7	5.0	3.9	2.9	3.7	3.6	2.4
Average price increase according to GDP deflator ²	5.3	4.3	4.6	8.5	5.8	7.5	11.4
Balance of payments, current accounts ³	- 2.0	- 1.6	- 3.1	- 4.1	- 3.2	- 0.4	- 2.9
equal to surplus of Government sector	1.0	1.6	2.6	2.9	4.2	5.7	10.4
Private sector ⁴	- 3.0	- 3.2	- 5.7	- 7.0	- 7.4	- 6.1	-13.3

¹ The figures only cover insured persons (cf. chapter I).

² Percentage price increase as compared with preceding year.

³ DKR 1 000 million, current prices.

⁴ Roughly corresponding to figures in table VII.4.

Sources: Danmarks Statistik: Statistisk tiårsoversigt 1975 and Det økonomiske Sekretariat, Økonomisk Oversigt, March 1973, November 1974 and March 1976.

Growth rates of imports etc. have fluctuated even more sharply than those of domestic demand, with peaks in 1969 and in 1973. During the first period there was still unused domestic capacity, and national product increased by 8 per cent. However, the starting point of the 1972-73 upswing was an economy already working at full capacity. Hence national product was only able to increase by 3 per cent. Most of the increase of demand, including rebuilding of stocks, was diverted into imports. In 1973, imports of goods and services showed an increase of no less than 19 per cent.

3. With the possible exception of 1968, the objective of maintaining full employment was achieved during the years 1967-73 (cf. table VII.2). The unemployment rates only refer to insured persons and are higher than other unemployment rates that refer to the total number of employees. In 1973 - and probably also in 1970 - full employment was accompanied by substantial labour shortages.

However, the aims of maintaining price stability and balance of payments equilibrium were sacrificed, especially in 1970 and in 1973. In 1973, in spite of improved terms of trade and favourable export conditions, the balance of payments deficit was of the order of DKR 3 000 million. But probably the most disquieting feature of table VII.2 is that the balance of payments deficit was substantial and persistent for virtually the whole of the period from 1967 to 1973.¹

The balance of payments deficit was maintained in spite of the fact that the government sector had a substantial and increasing surplus during the period from 1967 to 1973, with public savings exceeding public investment. However, it should be kept in mind that the size of the government sector was increasing rapidly. The expansionary effect of increased purchases of goods and services usually exceeds the contractionary effect of increased taxation of a similar amount. Hence the combined overall effect on domestic demand may be expansionary in spite of increased government surpluses.

4. Danish national accounts figures are only published on an annual basis, hence the figures in tables VII.1 and VII.2 refer to calendar years. However, turning points have mainly occurred in mid-years. In order to cover this aspect without going into too much detail, a brief summary of short-term fluctuations will be given, based on reports by the main Danish institutions publishing analyses of the economy.² Such a summary shows the following pattern:

(1) Mid 1967 - mid 1968: Some slack in total demand.

¹ The low deficit in 1972 is explained by the introduction, in the autumn of 1971, of a temporary import duty (see chapter X). At the same time, stocks were reduced substantially in 1972.

² Main sources are Det økonomiske Sekretariat, Økonomisk Oversigt (Economic Surveys by the Economic Secretariat of the government), published once or twice per year; Det økonomiske Råds formandskab, Dansk Økonomi (Economic Reports by the chairmanship of The Economic Council) usually published twice per year; and finally Danmarks Nationalbank, Beretning og Regnskab (Report and accounts of the Danish central bank) published annually.

Table VII.3
Half-yearly economic indicators, 1967-73
 Indices, 1968 = 100

	Home sales of new machines (constant prices) ^{a)}	Number of employees in urban industries ^{a)}	Total retail sales at constant prices ^{b)}
1967,1.	102	101	102
1967,2.	95	99	93
1968,1.	94	99	98
1968,2.	106	101	101
1969,1.	109	103	105
1969,2.	122	105	110
1970,1.	128	110	113
1970,2.	128	110	114
1971,1.	126	108	116
1971,2.	126	106	119
1972,1.	126	108	120
1972,2.	133	110	123
1973,1.	143	111	125
1973,2.	149	113	127

Sources: a) Det økonomiske Sekretariat, Økonomisk Oversigt, Konjunkturindikatorer.

b) Danmarks Statistik: (published currently). 1967 figures are estimated. The figures are seasonally adjusted.

- (2) Mid 1968 - mid 1970: A strong and persistent upswing, leading to very low unemployment figures and increased balance of payments deficits.
- (3) Mid 1970 - mid 1972: Another period of lower growth rates, but at a high - although declining - degree of capacity utilization.
- (4) Autumn 1972 - end of 1973: A significant boom, the demand pressure leading to shortage of domestic resources.

It is not an easy task to find current economic indicators, published on a half-year basis, which reflect the pattern just described; however, three examples of such indicators are shown in table VII.3. None of them are affected by price changes. The first two are selected from the current economic indicators, published by the Economic Secretariat of the government.

SECTOR SURPLUSES RECONSIDERED

5. According to the above comments, the main failure of Danish economic policy during 1967-73 was the lack of success in eliminating the balance of payments deficit. By definition, a balance of payments deficit is equivalent to domestic investment exceeding domestic savings. With the balance of payments deficit during the late 1960s and the early 1970s being of the order of magnitude of 1-4 per cent of NNI (cf. table VII.4), it might be argued that such a deficit could easily be eliminated, simply by providing for a corresponding increase of domestic savings. This argument might have been of some relevance had the deficit been a temporary one. However, keeping the permanent nature of the deficits in mind, it must be admitted that the problem is much more complex, even during the full-employment years up to 1973. Basically, an explanation must include reference to the allocation of resources in the Danish economy, this pattern having been incompatible with balance of payments equilibrium. That the structure of the economy was not adjusted during this period - with the purpose of eliminating the balance of payments deficit in mind - may be illustrated in several ways, table VII.4 being one of them. The table indicates the balance of payments deficit in the bottom row, measured as a per cent of NNI (as is the case for all the figures of the table). This balance of payments deficit by definition equals the surplus of the government sector plus the (negative) surplus of the private sector (cf. the bottom part of table VII.2).¹

6. During 1967-1972, total private investment amounted to roughly 20 per cent of NNI, increasing to 24 per cent in 1973. But while residential investment showed an increasing trend, almost booming during 1972 and 1973, business fixed investment declined, slowly but steadily, from 15.6 per cent of NNI in 1967 to 14.3 per cent in 1972. Even the 1973-upswing did not bring this share back to its 1967 level.

Savings by financial and semi-government institutions (shown as 'other institutions' in table VII.4) increased steadily, but company savings showed a declining trend - again with the exception of the later part of the period covered by table VII.4. Perhaps the most interesting result according to the table is that the share of personal savings - including savings of unincorporated businesses - declined sharply, from 10 per cent of NNI in 1967 to 5.5 per cent in 1973.

Total savings during 1967-73 showed a declining trend. The private sector not only recorded a financial deficit, but this deficit increased, from 5 per cent of NNI in 1967 to 10 per cent in 1973. Hence private investment had to be financed, to an increasing extent, by borrowing from other sectors.

7. The increasing financial surplus of the government sector has already been mentioned in connection with table VII.2. Table VII.4 brings out the declining share of public investment during 1972 and 1973. Still, government investment plus residential investment - roughly corresponding to investment

¹ Whereas the figures in table VII.2 were expressed in DKR 1 000 million, the figures in table VII.4 are expressed as shares of NNI.

Table VII.4

Investment, savings and financial balance: Private, public and foreign sectors. Gross figures indicated as percentages of net national income

	(Per cent of NNI)						
	1967	1968	1969	1970	1971	1972	1973
<u>Private sector</u>							
<u>A. Investment</u>							
Residential	5.9	5.3	6.3	6.2	6.1	7.2	8.3
Business fixed	15.6	14.8	14.8	14.8	14.4	14.3	15.1
Change in stocks	- 0.6	-	0.9	0.2	- 0.1	- 1.4	1.0
Investment, total	20.9	20.1	22.0	21.2	19.5	20.1	24.4
<u>B. Savings</u>							
Joint stock comp.	4.0	3.9	3.7	3.7	3.5	3.8	4.9
Other institutions	2.5	2.7	3.1	3.0	3.1	3.6	3.9
Personal	10.0	9.1	8.4	7.0	5.6	7.3	5.5
Savings, total	16.5	15.7	15.2	13.7	12.2	14.7	14.3
Financial balance	- 4.4	- 4.4	- 6.8	- 7.5	- 7.3	- 5.4	-10.1
<u>Government sector</u>							
Investment	6.2	6.6	6.6	7.2	7.2	6.8	6.1
Savings	7.7	8.8	9.7	10.3	11.3	11.8	14.1
Government surplus	1.5	2.2	3.1	3.1	4.1	5.0	8.0
Balance of payments, current account	- 2.9	- 2.2	- 3.7	- 4.4	- 3.2	- 0.4	- 2.1
NNI, DKR 1 000 mill. current prices	67.7	73.6	84.0	93.0	101.5	113.9	130.6

Sources: See sources to table VII.2.

by domestic industries - increased from 12 per cent of NNI in 1967 to 14.0 and 14.4 per cent in 1972 and 1973, respectively. As compared with this impressive development, business fixed investment - roughly corresponding to investment by balance of payments industries - showed a much more sluggish performance.

8. Since the private sector financial deficit persistently exceeded the government savings surplus, the balance of payments deficit became a permanent feature of the period under study. Although the balance of payments deficit showed substantial fluctuations, if it is adjusted for increases of stocks according to table VII.4, the resulting deficit becomes more stable, and even shows a tendency to decline during the full-employment years 1972 and 1973. However, the main point to be made in this connection is that, even in those years, the deficit was not eliminated.

WAS ECONOMIC POLICY SUFFICIENTLY TIGHT?

9. The above analysis gives support to the conclusion that the persistent balance of payments deficit during the late 1960s and early 1970s reflected the increasingly dominant role of domestic industries, investment in these industries increasing at the expense of the balance of payments industries. Furthermore, the latter had to finance their investment by borrowing to an increasing extent.

The period being, on the whole, one of full employment, it ought to have been possible for economic policy to produce an adjustment to this pattern by reducing growth rates of domestic demand towards domestic industries. With a tight labour market, such policies would probably not have given rise to major unemployment problems. To the extent that they would have led to lower growth rates of government expenditure, tax rates could have been increased less than was actually the case, and the problems of these rates getting close to the ceilings mentioned in chapter VI, would have been easier to handle.

Finally, if employment in government services as well as in building and construction industries had increased at rates lower than was actually the case, the increase of money wage rates in these sectors would probably also have been lower. Hence the rate of inflation could have been reduced, and more resources would have been available for the balance of payments industries, providing for the reallocation so urgently needed. Furthermore, the latter industries would not have seen their income squeezed as compared with those of domestic industries, and they would probably have been more able and willing to expand investment and output.

10. Finally, let us examine the role of fiscal policy, as a counter-cyclical instrument, during the substantial booms of domestic demand in 1969-70 and 1972-73. On the expenditure side, rather little was done during 1969-70 in spite of the fact that, in early 1968, a liberal-conservative government had taken over, which was probably well aware of the structural problems described above. However, action was not taken until 1971, the result being reflected in declining government investment in 1972. On the whole, the government's current expenditure was not reduced. In 1972-73, when the labour government was back in power, the efforts on the investment side were continued. But again, no major attempts were made to dampen domestic demand by reducing the growth rates of current expenditure.

11. This policy probably reflects a fundamental philosophy, according to which counter-cyclical fiscal policy should mainly be pursued by adjusting

revenue. When assessing - with the benefit of hindsight - fiscal policies during 1969-70, it should be kept in mind that the 1969 upswing was much stronger than anticipated, as the expansionist effects of 1969 being a 'tax-free' year were underestimated.¹ Furthermore, it was recognized that the introduction of the new income-tax system on a 'pay-as-you-go' basis would imply a substantial tightening of fiscal policy from early 1970 onwards. The increase of the rate of value-added tax from 12 1/2 to 15 per cent, in June 1970, was therefore too late.

During the 1972-73 upswing, tax rates were not increased. In 1972, this may be explained by uncertainty with respect to the outcome of the EEC-referendum in October 1972. When the latter had resulted in support for Danish membership of the EEC, the political climate was not favourable to acceptance of increased tax rates, because this could be interpreted as attempts to deprive the population of the economic benefits to be obtained from joining the EEC. Instead, in 1973 specific measures were taken in order to dampen the boom in building and construction, and in residential investment in particular.

12. Hence, while the ex-post verdict on the use of fiscal instruments as part of stabilization policy during the period 1967-1973 can hardly be very positive, it should be kept in mind that large structural changes with respect to the institutional framework took place during these years. In the later part of the period, the main change was external (EEC-membership), but during the preceding years the income tax system had gradually undergone considerable change, and so had the responsibilities attributed to - and the revenues to be collected by - the local authorities. With such major institutional changes, the possibilities of using fiscal policy, in order to affect total demand were not as good as would otherwise have been the case.

¹ Until 1969, income tax had been based on last year's income. The system of income taxes being collected on a pay-as-you-go basis was introduced in 1970. Hence 1969 became a 'tax-free' year in the sense that 1969 incomes never provided a direct basis for taxation.

Chapter VIII

MONETARY INSTITUTIONS AND POLICY

LENDING INSTITUTIONS

1. The first savings banks in Denmark were established early in the 19th century, mainly in order to cater for savers making small deposits. Around 1850, the first commercial banks were founded, organized as joint stock companies, the immediate purpose being to provide loans for industry and commerce at a time when manufacturing industries slowly began to develop.

Although the historical background of the two types of banks are very different, their roles as financial intermediaries have become increasingly similar over time. Traditionally, lending by savings banks has to a larger extent been in the form of long-term loans, partly in order to finance residential investment and partly as loans for agriculture, local authorities, etc.

Loans by commercial banks have mainly been provided as short-term industrial loans (cf. table VIII.1), although they have also provided a special type of loan, a 'building loan', for financing investment in buildings (including residential investment) during the period of construction.¹ The increasing share of such loans from 1967 to 1973 according to table VIII.1 reflects the building boom during the early 1970s (cf. the first part of chapter IV).

During the late 1960s and the early 1970s, total lending by savings banks roughly amounted to half of commercial bank lending. As a consequence of the fact that their activities were becoming increasingly similar, the latest law in this field, passed in April 1974, covered, for the first time, commercial banks as well as savings banks. In most of the present chapter, and in the appendix tables in particular, no distinction will be made between the two types of banks. Both will be covered by the label 'private banks'.

2. An additional lending facility for households and enterprises, is the bond market, more easily accessible than similar arrangements in most other countries. In principle, the borrower receives the equivalent of his loan in terms of long-term bonds, issued by one of several mortgage associations.

¹ On the long-term financing of such investment, see below the reference to bonds issued by mortgage associations.

Table VIII.1

Percentage distribution by industries of commercial bank lending

	April 30th	
	1967	1973
Manufacturing industries	20.6	15.1
Trade, wholesale and retail	23.4	17.3
Other industries	24.8	24.8
Building loans	16.6	21.4
Other loans ¹	14.6	21.4
Total, per cent	100.0	100.0
Total, DKR 1 000 million	22.0	37.4

¹ Including personal loans.

Source: Danmarks Nationalbank, Beretning of regnskab 1973, appendix table 19.

Table VIII.2

Growth of net lending, by banks
and in the form of mortgage bonds

(DKR 1 000 million, current prices)

	1968 and 1969	1970 and 1971	1972 and 1973
Commercial banks	6.4	2.6	8.9
Savings banks	2.2	2.3	5.5
Private banks	8.6	4.9	14.4
Bond loans ¹	14.8	16.7	29.5
TOTAL	23.4	21.6	43.9

¹ Net supply of mortgage at market values.

Source: Danmarks Nationalbank, Monetary Review August 1976.

If the loan is to finance residential investment, the repayment period may be 30-40 years. However, the repayment conditions, including the nominal rate of interest, are fixed for the whole period at the time the bonds are issued. These conditions usually involve the borrower making annuity payments (part interest and part capital repayment) based on the nominal value of the bonds.

Subsequently, the borrower sells the bonds on the market at rates which are quoted daily on the stock exchange, and which vary according to market conditions. As the borrower sells at a discount, the effective interest rate is higher than the nominal rate. Because of the fluctuations of the market, the timing of the sale of the bonds is very important as it establishes the effective interest rate for the whole period of the loan, and therefore has a considerable effect on the total cost of the investment.

No previous savings are required in order to obtain a bond loan. In principle, the only requirement is that the borrower owns fixed property. On the basis of such fixed property, a mortgage is issued by the borrower to the mortgage association, providing safeguard to the latter for the interest and capital repayments.

3. Table VIII.2 shows the increase of net lending by banks, commercial as well as savings banks, and by mortgage associations in the form of bonds, indicated for two-year periods.

Figures for the latter item indicate the net supply at market rates of mortgage bonds. During the years 1968-73, the central government had overall surpluses, (cf. the last part of chapter VI), and no government bonds were issued. Hence the amounts of increased net lending in terms of bonds can be interpreted as loans obtained by debtors in the private sector. As appears from the table, increased lending in the form of bond loans amounted to roughly DKR 60 000 million during the six-year period 1968-73, corresponding to twice the increase of bank lending during the same period.

4. Private mortgages have to be issued as a condition for obtaining bond loans, and they may be issued by debtors in order to obtain loans in private banks. However, private mortgages may also be issued as a direct basis for loans, not using private banks or mortgage-bond associations as financial intermediaries. For example, when existing real property is sold, the buyer may obtain a mortgage loan in terms of bonds, but in addition to such a loan he may, as part of his total payments, issue a transferable mortgage directly to the seller. Such direct mortgage loans outside traditional financial intermediaries (the latter consisting of private banks as well as mortgage-bond associations) have become of increasing importance.

Unfortunately, statistical information relating to the amount of direct private mortgage loans is rather scarce.¹ Figures indicated in table VIII.3 only

¹ Figures on the gross supply of private mortgages at nominal value are available, but the major part of these mortgages provide the basis for lending by traditional financial intermediaries. Furthermore, their market value will usually be substantially below par. It has been estimated that, around 1970, new direct mortgage loans amounted to roughly DKR 4 000 million per year (nominal value), and that total remaining debt on such loans, end of 1970, was about DKR 20 000 - 25 000 million. See Betaenkning om en statistisk belysning af pantepantebrevsmarkedet, Betaenkning nr. 616, Copenhagen 1971, chapter II.2.

Table VIII.3

Increased holdings of mortgage bonds by type of institution

(DKR 1 000 million, current prices)

	1968 and 1969	1970 and 1971	1972 and 1973
Central bank	3.8	1.5	0.9
Private banks	1.0	3.0	4.3
Pension funds, etc. ¹	1.3	2.2	4.1
Insurance companies	2.3	2.6	5.6
Others ²	6.4	7.4	14.6
TOTAL INCREASE ³	14.8	16.7	29.5

¹ Including the Post Giro, see appendix to the present chapter.

² Estimated as a residual.

³ Net supply at market values, cf. corresponding figures in table VIII.2.

Source: Danmarks Nationalbank, Monetary Review August 1976, p. 32.

cover loans where traditional financial intermediaries have been involved. The same was true for the figures in the bottom row of table VIII.2. Hence the latter cannot be claimed to express 'total domestic credit expansion', because additional credit facilities, for example, direct private mortgage loans are available. To the extent that total lending by traditional financial intermediaries is restricted as part of a tight monetary policy, such additional lending facilities will probably be used and institutionalized to an increasing extent in order to by-pass credit ceilings imposed on lending by traditional financial intermediaries.

5. Table VIII.3 illustrates changes of the creditor pattern with respect to bond holdings, the figures in the bottom row being equal to corresponding figures in table VIII.2. Hence table VIII.3 shows how the net increase of bonds at market values during the years 1968-73 was met by increased holdings of creditors.

The group 'Others', i.e. non-financial enterprises and households, have increased their bond holdings during the period 1968-73 by an amount corresponding roughly to half of the total increase, while insurance companies and pension funds have bought the larger part of the remaining half, presumably in order to keep these bonds as a long-term, financial investment. The remaining creditors are private banks and the central bank itself. However, private banks may consider their bond holdings as being assets which under certain circumstances could be sold; the same to some extent holds for 'Others'. Hence the problems related to open market operations in bonds by the central bank are quite complex. This is particularly true because by far the major part of the bonds are long-term bonds. Thus, if the central bank were to consider it important to prevent long-term interest rates from increasing, perhaps because of a given political target with respect to residential investment, the result might become a substantial increase of the monetary base.

Table VIII.4

Balance sheet of the central bank, end of selected years 1967-73

(DKR 1 000 million, current prices)

	1967	1969	1971	1973
<u>Assets</u>				
Central Government	- 1.4	- 3.2	- 6.3	-10.7
Official foreign exchange reserves ¹	3.8	3.2	4.8	8.0
Bond holdings etc.	3.7	6.9	8.1	8.2
Lending, etc.	1.4	1.8	2.1	4.3
Assets = liabilities	7.5	8.7	8.7	9.8
<u>Liabilities</u>				
Notes and coin	5.1	5.8	5.4	6.5
Deposits, mainly from banks	0.7	1.9	1.9	1.2
Other amounts, net	1.7	1.0	1.4	2.1

¹ Net of certain short-term liabilities.

Source: Danmarks Nationalbank, Monetary Review August 1976, p.5. However, figures of official reserves are taken from a different table, see same source, p.6.

THE CENTRAL BANK

6. The central bank keeps the accounts of the central government. In table VIII.4, balance sheets of the central bank at the end of selected years between 1967 and 1973 are presented in a condensed form, liabilities mainly representing parts of the monetary base. Hence the accounts of the central government are shown on the asset side, expressing a steady increase of net deposits by the central government. This increase is due partly to overall surpluses on domestic accounts, partly to foreign borrowing by the central government (cf. the last part of chapter VI).

7. In addition, the central bank holds the official reserves of gold and foreign exchange. During the period 1968-73, in spite of persistent balance of payments deficits, foreign exchange reserves held by the central bank increased due to heavy foreign borrowing (cf. chapter X). It should be recalled that foreign exchange holdings by private banks should be added to those of the central bank in order to arrive at total international reserves.

8. Finally, the central bank acts as the 'banker of the private banks'. On the liabilities side in table VIII.4, this is reflected by the 'Deposit' item. On the asset side, the items of 'Bond holdings' and 'Lending, etc.' (mainly lending to private banks) reflect monetary-policy decisions by the central bank.

INSTRUMENTS OF MONETARY POLICY

9. The aims of monetary policy during the period from the mid 1960s and up to 1973 may be summarized as follows: up to the spring of 1969, the aim of keeping long-term interest rates stable was given high priority. However, open market operations in the form of bond purchases, amounting to 6 thousand million DKR led to an increase of the monetary base, which gave rise to problems when the foreign-exchange crisis developed in April-May 1969. In May, substantial speculation took place, based on the possible devaluation of the Danish krone. However, the parity of the krone was successfully maintained, but the event led to new priorities in monetary policy. The aim of keeping the monetary base under control was given higher priority, even if this implied higher and less stable interest rates - as was actually the case.

As the balance of payments deficits continued, and even increased, the aim of keeping domestic interest rates high in order to induce the non-bank private sector to borrow abroad - and hence to contribute to the financing of the increasing foreign debt - was given increasing priority.

On the whole, the frequently expressed basic aim of the central bank at least from 1969 onwards was to keep monetary policy tight.

10. The main instruments used by the central bank in order to achieve these aims were adjustments of the discount rate, open market operations, the imposition of conditions limiting private banks borrowing from the central bank. But a characteristic feature of the conduct of monetary policy has been that the design of the various instruments has been changing, and additional instruments have been introduced. Hence the following comments only describe the main features - at the risk of some over-simplification.¹

THE DISCOUNT RATE AND OTHER INTEREST RATES

11. Adjustments of the official discount rate of the central bank have been used as signals, indicating changes to be implemented with respect to the 'tightness' of monetary policy. Discount rates at the end of each half year from the beginning of 1968 to the end of 1973 are shown in the first column of table VIII.5.

The discount rate remained stable at 6.5 per cent from June 1964 to December 1967, when it was increased to 7.5 per cent. The background for this increase - quite dramatic at the time it occurred - was that parliament could not pro-

¹ A more detailed description of monetary instruments (as well as an outline of the institutional set-up in the field of banking and financing) is given in Danmarks Nationalbank, De penge- og valutapolitiske instrumenter i Danmark. Report to the Monetary Committee of the EEC, Copenhagen, December 1972.

Table VIII.5
Danish interest rates 1968-73
 End of half-year periods

(Per cent)

	Discount rate, central bank	Private banks		Yield of 5 per cent gov.t bond (S 2007) ¹
		Highest lending rate	Time deposits, 3 months	
1967,2.	7.5	9.5	6.25	9.7
1968,1.	6.5	9.0	5.25	8.7
1968,2.	6.0	8.5	4.75	8.8
1969,1.	9.0	11.5	7.0	9.6
1969,2.	9.0	11.5	7.0	10.7
1970,1.	9.0	11.5	8.0	11.1
1970,2.	9.0	11.5	8.0	10.7
1971,1.	7.5	10.0	6.5	10.4
1971,2.	7.5	10.0	6.5	10.7
1972,1.	8.0	10.5	7.0	10.4
1972,2.	7.0	9.5	6.0	10.7
1973,1.	7.0	9.5	6.0	10.9
1973,2.	9.0	11.5	8.0	12.7

¹ Issued during the 1950s. Same amount redeemed every year. Redemption will be completed by the year 2007. Figures indicate effective yield.
Source: Danmarks Nationalbank, Monetary Review August 1972 and February 1974.

vide a majority in order to pass laws on incomes-policy measures in the wake of the devaluation of the Danish krone in November 1967.¹

Subsequently, the discount rate was reduced three times during 1968 to 6 per cent. These reductions can be seen as part of a concerted action of tightening fiscal policy in order to dampen private consumption (the value added tax rate had been increased in April 1968), at the same time easing monetary policy in order to stimulate private investment, an increase of the latter being needed as a basis for increased domestic demand in order to reduce unemployment.

¹ These events are further discussed in the sections on incomes policy in chapter IX.

12. During the first half of 1969, monetary policy was tightened once more, the discount rate being increased from 6 to no less than 9 per cent. The main part of this upward adjustment was attributable to speculation against the Danish krone in May 1969. However, the shift to a higher discount-rate level probably also reflected increasing rates of inflation as well as concern with respect to the balance of payments deficit. The discount rate was maintained at 9 per cent until early 1971.

13. As noted in the first part of chapter VII, overall growth rates started to decline from mid-1970. In the circumstances, the discount rate was reduced three times during 1971 and early 1972, bringing it down to 7 per cent. This rate was maintained until the summer of 1973 in spite of booming demand and shortage of domestic resources. Finally, in July 1973 the discount rate was increased to 8 per cent. An additional increase, to 9 per cent, took place in December 1973, reflecting the international and domestic problems arising in the wake of the oil crisis.¹

14. It is not co-incidental that, according to table VIII.5, lending and deposit rates by private banks show a pattern over time very similar to that of the discount rate.² For decades, the private banks had an agreement, according to which the participants would hold the same interest rates for deposits. Changes of the discount rate by the central bank would normally be reflected immediately in the deposit rates of the private banks. This pattern is brought out by the three first columns of table VIII.5.

The agreement between the private banks on interest rates on deposits was supported by the central bank; in fact it provided part of the basis of the framework for the conduct of monetary policy. The agreement was finally brought to an end in 1973.

15. In table VIII.5, the trend in bond yields (effective interest rates) is illustrated by yields of a government bond with a nominal interest rate of 5 per cent, the redemption to be completed in year 2007. Issuing of new bonds of this type took place during the 1950s and the series was 'closed' prior to 1960. Hence the yields according to the table are not fully representative of the yields of newly-issued bonds. On the whole, yields of bonds in 'open' series will be somewhat higher and will tend to fluctuate more.

Although the pattern of yields of different types of bonds is changing, an attempt to provide a brief description of main trends may be appropriate. During the years 1965-67, the yield on long-term bonds remained rather stable at an effective interest rate of 9-10 per cent. In the first half of 1968 it declined by 1-2 percentage points. However, during the spring of 1969 the discount rate was increased substantially, as mentioned above, and this increase was reflected in bond yields. From the summer of 1969 onwards, yields on bonds in 'open' series remained above 10 per cent, fluctuating considerably more than the bond yields shown in table VIII.5. For instance, as part of a

¹ In January 1974, the discount rate was further increased to 10 per cent.

² In fact, from early 1970 onwards, the interest rate on 3 months deposits is exactly 1 per cent below the discount rate according to table VIII.5

tightening of monetary policy during the summer and autumn of 1970, yields of bonds in open series were allowed to increase to 12 per cent. Such fluctuations reflected the revised priorities of the central bank in the conduct of open market operations.

OPEN MARKET OPERATIONS BY THE CENTRAL BANK

16. During the period from the mid-1960s up to 1973, the conduct of open market operations gave rise to substantial problems from the viewpoint of the central bank. These problems were related to the fact that the Danish bond market mainly consists of long-term mortgage bonds and, furthermore, that long-term financing of residential investment takes place at interest rates determined in the bond market. Hence, in carrying through open market operations the central bank would necessarily affect conditions (= effective interest rates to be paid) in connection with residential investment and other investment in buildings.

17. However, in assessing the need for open market operations the central bank would also have to include considerations related to the liquidity of the private sector, i.e. on the development of the monetary base.

In monetary analysis, it is usually rather difficult to obtain consistency with respect to the figures to be used. This problem has also - although only to a limited extent - affected figures in the preceding tables. However, since consistency is always desirable, a comprehensive set of figures covering the field of monetary analysis has been established; they are shown in appendix tables VIII.1 - VIII.3. These figures fulfill the requirement of consistency. Concepts and techniques which have been used are explained in an appendix to the present chapter,¹ to which reference should be made. In the following, technical comments will be avoided to the largest possible extent.

Appendix table VIII.1 contains figures showing the size of the total monetary base and its components, end of years 1965-1973. In table VIII.6, changes of the monetary base are shown in the bottom row, with the body of the table showing the extent to which the various factors have contributed to these changes.

18. During the years 1966 to 1973, the current account of the balance of payments exerted a persistent contractionary influence on the monetary base. However, this effect was partly offset by net foreign capital imports, and during the last part of the period - and particularly in 1973, after the Danish entry into the EEC - private foreign borrowing exceeded the deficit on the current accounts of the balance of payments. This heavy foreign borrowing was partly a deliberate result of monetary policy, which kept domestic interest rates high in order to stimulate borrowing abroad.

¹ As is explained in the final part of the appendix, figures in the appendix tables are based exclusively on publications by the central bank. Reference is made to these sources with respect to further details on the coverage of the basic figures.

Table VIII.6
Factors affecting the monetary base, 1966-73

(DKR 1 000 million, current prices)

	1966 and 1967	1968 and 1969	1970 and 1971	1972 and 1973
Balance of paym., curr. acc.	- 3.5	- 4.7	- 7.3	- 3.2
Net foreign capital imp., excl. central government	+ 3.5	+ 3.5	+ 6.4	+ 6.1
Central gov.t, domestic deficit	- 0.8	+ 0.1	- 1.3	- 3.9
Other factors	- 0.3	- 1.1	- 0.1	+ 0.7
TOTAL	- 1.1	- 2.2	- 2.3	- 0.3
Increased bond holdings by central bank	+ 2.1	+ 3.8	+ 1.5	+ 0.9
Increased central bank lending	+ 0.4	+ 0.3	+ 0.1	+ 2.3
Total increase of monetary base	+ 1.4	+ 1.9	- 0.9	+ 2.9

Source: Danmarks Nationalbank; Monetary Review August 1976 and Beretning og Regnskab 1971, 1973 and 1975. See appendix table VIII.1.

During most of the period 1966-73, the central government had an overall domestic surplus, which also had a negative effect on the monetary base. This effect was especially strong during boom years, and in 1973 in particular.

The combined effect of these factors was to reduce the monetary base (cf. the fifth row in table VIII.6). As is illustrated in appendix table VIII.1, this reduction was particularly pronounced in boom years, thus reflecting the 'built-in stabilizer' - boom years leading to balance of payments deficits as well as to overall domestic surpluses of the central government, both tending to reduce the monetary base.

19. However, this tendency was offset by the central bank. During the period up to 1969, the central bank mainly increased the monetary base by buying bonds (cf. table VIII.6), while central bank lending played a larger role during the final part of the period. From mid-1965 to the spring of 1969, net bond purchases by the central bank amounted to roughly DKR 5 000 - 6 000 million. However, these open market operations should be seen in the light of a bond rationing scheme, introduced in 1965, the latter in turn reflecting a similar arrangement on compulsory deposits by private banks. These issues will be reconsidered later.

CENTRAL BANK LENDING TO PRIVATE BANKS

20. Conditions of central bank lending to private banks are partly reflected in the discount rate as far as the 'price' to be paid by the private banks is concerned. Another aspect - and probably a potentially much more powerful one, in particular during periods when the central bank wants private banks to reduce the rate of growth of their lending in order to dampen demand - is the amount which private banks may borrow from the central bank. Up to 1975,¹ the ceilings on private banks' borrowing from the central bank were determined in terms of specified percentages of the holdings of various assets of each private bank.² However, these percentages have not usually been used as monetary-policy instruments by the central bank to any significant extent. Therefore, the possibilities for the private banks to borrow from the central bank were substantial, even during the 1972-73 boom, and the private banks actually took advantage of this opportunity. As appears from table VIII.6, borrowing from the central bank by private banks increased by well over DKR 2 000 million during 1972 and 1973, and at the end of 1973, the indebtedness of the private banks to the central bank amounted to roughly DKR 4 000 million.³

21. The fundamental philosophy of monetary policy has been one of 'persuasion', the central bank coming to terms with the private banks on the basis of confidential negotiations.⁴ Requirements by the central bank with respect to reserve ratios of the private banks (i.e. liquid assets of the private banks as a percentage of their deposits) have not been used as an instrument in monetary policy with the purpose of affecting lending by the private banks.⁵ Instead, in 1965 a system of compulsory deposits with the central

¹ From 1 May 1975, the criteria for private bank borrowing from the central bank were changed. New ceilings were introduced, depending exclusively on the 'owned capital' of each private bank.

² For details, see e.g. Danmarks Nationalbank, De penge- og valutapolitiske instrumenter i Danmark, Copenhagen 1972, pp. 28 ff.

³ The discrepancy between the figure according to table VIII.4 (DKR 4 300 million) and appendix table VIII.3 (DKR 3 800 million) is due to differences with respect to coverage, see the sources mentioned in the final part of the appendix.

⁴ Until early 1973, part of the institutional background for this arrangement was the agreement on interest rates on deposits, mentioned above. In January 1973, the agreement was cancelled, see Danmarks Nationalbank, Beretning og regnskab 1972, p. 55.

From the autumn 1973 onwards, a new basis was provided by a law of 17 October 1973 on 'Kreditformidling' (monetary management). However, the new powers given to monetary-policy institutions (government and the central bank) were not actually used, but the law may have made it easier for the central bank to persuade the private banks to follow its requirements.

⁵ Until 1973, there was no legal basis for the central bank to use reserve requirements as a unilateral monetary-policy instrument. However, § 2 in the 1973 law on monetary management, mentioned in the preceding footnote provided such a basis. But this possibility was not used.

bank was introduced, the size of the deposits required depending on the growth of deposits in the private banks. The formal basis of this scheme was an agreement between the central bank and the private banks in early 1965.

However, this deposit scheme can hardly be said to have been a powerful monetary-policy instrument from the viewpoint of the central bank. One reason is that, during periods when monetary policy was tightened, the private banks could still borrow from the central bank - and this borrowing might even be used by the private banks in order to fulfill their deposit requirement.¹ Another reason is that an increasing number of types of assets of the private banks were made eligible as 'liquid assets'. For instance, the banks were allowed to deposit bonds as part of their 'compulsory deposits'. The deposit scheme was abolished, for all practical purposes, in the autumn of 1971.²

22. Instead, a new instrument was introduced in 1970, namely a ceiling on total credits granted by each private bank. Originally, this instrument was planned to be a temporary one, but actually it is still in existence. The idea is that, from time to time, the central bank and the private banks agree on the extent to which each bank may increase its credits, expressed as a certain overall percentage increase of the ceiling. Usually, the same percentage holds for all banks, hence the possibilities for anyone bank to increase its 'market share' of total bank lending is reduced substantially by the scheme.³

An interesting aspect of this arrangement is that the ceiling does not refer to actual bank lending, but to credit lines granted. Hence a substantial amount of information had to be gathered on this issue. Obviously, the arrangement implies that actual bank lending may increase, even at a constant ceiling, namely to the extent that actual lending by the private banks as a per cent of the total credit lines granted by them, may increase.⁴

¹ See, e.g., statement by the Governor of the central bank at the Annual Meeting of the Association of Provincial Banks in May 1967.

² Total amounts deposited reached a maximum at the end of 1970 of DKR 3 300 million. However, less than DKR 200 million were actually directly deposited in the central bank, the larger part of the total deposit requirements being fulfilled by the private banks depositing bonds in the central bank. Furthermore, commercial banks might include some foreign assets (DKR 800 million at the end of 1970) as part of 'compulsory deposits'. See appendix table 11 in Danmarks Nationalbank, Beretning og regnskab 1970.

³ This consequence was one of the reasons why the ceilings were considered to be useful only as a temporary instrument, see Danmarks Nationalbank, Beretning og regnskab 1970, pp. 35-36.

⁴ During 1970-1972, the percentage 'capacity utilization' for commercial banks was 65 per cent (= actual loans as a per cent of credits granted). However, by mid-1974 the percentage had increased to 80 per cent of total credits granted (roughly DKR 55 000 million). At the same time, actual lending by savings banks has reached 90 per cent of total credits granted (slightly below DKR 25 000 million).

A special problem arising from this arrangement should be mentioned in passing. Suppose that deposits in private banks increase substantially, but that bank lending cannot be increased to the same extent because of the ceiling. What, then, can the banks do with the remaining amounts? Obviously, as long as the private banks were deeply indebted to the central bank at expensive interest rates, these debts could be repaid. But if no such debts exist, an additional possibility would be for the banks to buy long-term bonds. However, from many viewpoints the effects of such purchases are similar to those arising from increased bank lending, for example, with respect to the effect on the money stock, unless the bonds are bought from the central bank.

BOND RATIONING

23. The agreement in 1965 between the central bank and the private banks on compulsory deposits by the latter was supplemented by a scheme in order to bring lending in the form of new mortgage bonds under control as well.

In 1965, a scheme of 'bond rationing' was introduced, the idea being to put a ceiling on the total amount of new bonds to be issued.¹ In June 1965, a bill with this aim was presented by the government in parliament, but was not actually passed. Instead, in order to limit the supply of bonds, a system of agreements between the central bank and the institutions issuing bonds was established, i.e. the same type of arrangement as the one favoured by the central bank when dealing with private banks.

Given this limited supply of bonds, the central bank felt free to enter into open-market operations, and in the period up to the spring of 1969, the central bank bought substantial amounts of bonds. As a result, the yield of long-term bonds remained rather stable at 10 per cent from 1965 to 1967, and during 1968 it even declined.

However, the arrangement was not considered to be a complete success. The combined effect of the bond-rationing scheme and the stabilizing of the long-term interest rates by the central bank was not reflected in stability of residential investment. Furthermore, the effects from a monetary-policy viewpoint were not satisfactory. The bond-rationing scheme had the effect of causing queues of debtors to be established from time to time, waiting for bonds to be issued to them. These debtors might feel cheated if bond prices declined while they were queueing up, so the central bank had a strong incentive to keep bond prices stable. However, the amount of open-market purchases by the central bank required in order to obtain this result - and hence the increase of the monetary base -, was probably larger than was expected when the system was introduced.

Admittedly, the bond rationing scheme reduced the supply of new bonds. But investors who wanted to borrow more than they could get under the rationing scheme might find alternative ways of doing so, e.g. on the basis of direct private mortgage loans. To the extent that these attempts were successful,

¹

See Danmarks Nationalbank, Beretning og regnskab 1965, pp. 29 ff.

the demand for traditional bonds would be reduced as well. Hence the effect of reducing the supply of traditional bonds on bond prices would become smaller than was originally envisaged. This argument, of course, simply reflects the general point that the effect of rationing with respect to certain types of lending is reduced to the extent that possibilities of substitution exist, in the form of alternative - and unrestricted - means of finance.

24. The traditional system of long-term financing through the bond market implies that the effective interest rate to be paid by the debtor is not determined until the long-term bonds are sold, i.e. after the investment has been completed. Hence the interest rate actually to be paid may turn out to be much higher than envisaged by the debtor at the time when the investment decision was originally made. In order to reduce uncertainty on this point, arrangements, which have been in force for some decades, exist by which the debtor might sell part of the bonds prior to the completion of the investment concerned. However, when the liquidity of the private banks was tight, they required the investor to sell his bonds as soon as possible as a condition of granting the 'building loan'. In this way, lending in the form of building loans would not reduce the liquid assets of each private bank to the same extent as if the bonds had been sold by the investor after the completion of the investment. Obviously, such requirements by the private banks were not in accordance with the original intentions behind the scheme for the early sale of bonds, and during 1968 and early 1969, the scheme was abolished completely.

25. On the whole, open market purchases by the central bank up to the spring of 1969 were not as successful as was envisaged, and there was a substantial increase in the monetary base. This problem was amply demonstrated during the foreign-exchange crisis in April-May 1969 and - as was mentioned above - from the summer 1969 onwards, increased priority was given to the balance of payments problem and to the exchange-rate aspects. Hence the monetary base was, at least in principle, kept comparatively tight, and the levels of interest rates were to a large extent determined in the light of the levels of interest rates in other countries, with the objective of making it comparatively less expensive to borrow abroad and hence stimulating capital imports.

PRIVATE BANK LENDING

26. Changes of main components in the balance sheets of private banks during the years 1966-1973 are shown in table VIII.7. This table is based on appendix table VIII.3, the latter providing, in addition, corresponding stock figures at the end of calendar years.

Lending by private banks showed a strongly increasing trend over the period, covered by the table. The increase of net lending was especially pronounced in boom years, i.e. in 1969 (DKR 5 600 million), in 1972 (DKR 5 900 million) and in 1973 (DKR 8 500 million), (cf. appendix table VIII.3). In addition, bond holdings by private banks increased, although by much smaller amounts. According to appendix table VIII.3, total bond holdings, at the end of 1973, amounted to DKR 13 200 million.¹

¹ Actually, figures on bond holdings, taken directly from the balance sheets of private banks, as at the end of 1973, are somewhat higher. This technical issue is further discussed in the appendix.

Table VIII.7
Changes of main items in the balance sheets of
private banks during the years 1966-1973

(DKR 1 000 million, current prices)

	1966 and 1967	1968 and 1969	1970 and 1971	1972 and 1973
<u>Change in assets</u>				
Monetary base held by banks	+ 0.4	+ 0.8	- 0.4	+ 1.0
Private banks, lending	+ 7.0	+ 8.6	+ 4.9	+14.4
Private banks, bond holdings	+ 0.4	+ 1.0	+ 3.0	+ 4.3
Increase of assets = liabilities	+ 7.8	+10.4	+ 7.5	+19.7
<u>Change in liabilities</u>				
Deposits, incl. time deposits	+ 7.4	+10.4	+ 7.1	+16.3
Borrowing in central bank	+ 0.4	+ 0.3	- 0.1	+ 2.3
Other accounts, net	+ 0.0	- 0.3	+ 0.5	+ 1.1

Source: See appendix table VIII.3.

On the liabilities side, it should be noted that the private banks were indebted to the central bank during the whole period, the debt amounting to DKR 3 800 million at the end of 1973 according to appendix table VIII.3. Net borrowing in the central bank by the private banks was especially large in the boom years when the private banks expanded their own lending, i.e. in 1969, 1972 and 1973. With this in mind it seems obvious that the central bank would have been able to persuade the private banks to dampen the rate of increase of their lending, especially during the 1972-73 boom, had it really wanted to conduct a tight monetary policy during these years.

THE MONEY SUPPLY

27. In table VIII.8, the factors affecting changes of the money supply are spelled out.¹ Corresponding stock figures, end of calendar years, are shown in appendix table VIII.2.

¹ The terms 'money stock' and 'money supply' are used synonymously, both representing M_2 (cf. the appendix).

Table VIII.8
Factors affecting the money stock, 1966-73

(DKR 1 000 million, current prices)

	1966 and 1967	1968 and 1969	1970 and 1971	1972 and 1973
Balance of payments, curr. acc.	- 3.5	- 4.7	- 7.3	- 3.2
Net foreign capital imp., excl. central government	+ 3.5	+ 3.5	+ 6.4	+ 6.1
Central gov.t, domestic deficit	- 0.8	+ 0.1	- 1.3	- 3.9
Other factors	- 0.3	- 0.8	- 0.6	- 0.4
TOTAL	- 1.1	- 1.9	- 2.8	- 1.4
Increased bond holdings by central bank	+ 2.1	+ 3.8	+ 1.5	+ 0.9
Increased bond holdings by private banks	+ 0.4	+ 1.0	+ 3.0	+ 4.3
Increased private bank lending	+ 7.0	+ 8.6	+ 4.9	+14.4
TOTAL INCREASE OF MONEY STOCK	+ 8.4	+11.5	+ 6.6	+18.2

Source: See appendix page 154 (same source as table VIII.6.)

Table VIII.9
The monetary base and the money stock as per cent
of net national income, end of years 1965-73

(Per cent)

	1965	1967	1969	1971	1973
<u>Monetary base:</u> held by banks	2.8	2.9	3.3	2.4	2.6
held outside banks	9.2	9.2	8.7	6.7	6.7
MONETARY BASE, TOTAL	12.0	12.1	12.0	9.1	9.3
<u>Money stock:</u>					
Monetary base held outside banks	9.2	9.2	8.7	6.7	6.7
Deposits, excl. time deposits	22.9	24.5	27.0	24.7	24.8
Time deposits	29.5	30.4	29.7	29.2	29.5
MONEY STOCK, TOTAL	61.6	64.1	65.4	60.6	61.0
NNI, thousand million DKR, current prices	56.8	67.7	84.0	101.5	130.6

Source: See appendix tables VIII.1 and VIII.2. NNI figures are taken from Danmarks Statistik, Statistisk tiårsoversigt 1975.

Apart from some minor differences due to technical problems with respect to definitions,¹ the totals according to the fifth row of table VIII.8 correspond to those in the similar row of table VIII.6. They show that, during the whole period, the combined effect from the balance of payments and from the central government accounts has been one of reducing the money supply. However, bond holdings by the central bank and by private banks have increased, and the same has been true - to a very substantial extent - for the increase in net private bank lending, especially during boom years. During 1972 and 1973, the money supply increased by DKR 18 000 million to nearly DKR 80 000 million, at the end of 1973 (cf. appendix table VIII.2).

28. The figures in the preceding tables have been indicated at current prices. However, prices have increased during the period under study, and so have the amounts of transactions to be financed. In order to include these aspects, table VIII.9 expresses the monetary base as well as the money supply - and their components - as shares of net national income at current prices, i.e. the same technique as has been used in previous chapters.

29. As appears from the upper part of table VIII.9, the total monetary base has declined in relation to NNI. This is true, in particular, for the monetary base held outside banks. This decline probably reflects a gradual change of payments habits, favouring cheques, etc. at the expense of notes. However, the substantial decline from end-1969 to end-1971 calls for a more specific explanation. Undoubtedly, it reflects the introduction, from the beginning of 1970, of a new income-tax system on a pay-as-you-go basis (cf. chapter VI), under which income-tax payments by wage earners are withheld by their employers. Hence the new system reduced the demand for liquid assets by wage earners for transaction purposes.

30. According to the bottom part of table VIII.9, the total money supply (including time deposits) amounted to slightly more than 60 per cent of NNI at the end of 1965. The share increased to 65 per cent in 1969, but subsequently declined to 61 per cent in 1973. This decline mainly reflects smaller holdings of the more liquid parts of the money stock. Time deposits remained stable at slightly below 30 per cent of NNI.

PROBLEMS IN MONETARY POLICY

31. In order to assess the conduct of monetary policy during the period from the mid-1960s up to 1973, an appropriate starting point is provided in table VIII.6. As will be recalled, the main conclusion to be derived from the table is that, during the whole period, the overall effect from the balance of payments and the accounts of the central government was to reduce the monetary base. This contractionary effect provided the best possible background for the central bank to keep monetary policy tight.

¹ These technical problems are reflected in the figures for 'Other factors', being estimated as residuals in both tables (cf. the appendix).

However, during the period up to the spring of 1969, the central bank, in fact, gave higher priority to stabilizing interest rates in the long-term bond market which, as noted earlier, led to a corresponding increase of the monetary base.

32. From the spring of 1969 onwards, the balance of payments deficits gave rise to increasing concern, and the declared aim of the central bank became one of keeping monetary policy tight¹. This was stated, year by year, in the annual reports of the central bank.

However, it may be questioned whether the aim of keeping monetary policy tight was actually achieved. The main weakness in this context was that borrowing by the private banks from the central bank was allowed to increase by substantial amounts, even during the boom years 1972 and 1973 when the private banks were already indebted to the central bank (cf. table VIII.6 and appendix table VIII.3). This borrowing by the private banks in the central bank was accompanied by substantial increases in lending by the private banks to the non-bank private sector.

33. One way of conducting monetary policy is for the central bank unilaterally to fix conditions governing the behaviour of the private banks, which can be used as monetary-policy instruments. However, as noted earlier, the fundamental philosophy of the central bank has been a different one, namely one of 'persuasion', in the form of confidential negotiations. However, whenever this framework was really put to test, i.e. when the private banks had strong incentives to act in a way inconsistent with the priorities of the central bank, the private banks would, in fact, usually act in the way that was most profitable from their own viewpoint. This was particularly true during boom years, when the central bank was concerned about the rate of increase of total domestic demand.

This raises the question as to the appropriateness of the fundamental philosophy of monetary policy, i.e. that monetary policy can be carried out more successfully by using carrots than sticks, viz. that mutual agreement between the central bank on the one side, and private banks and other financial intermediaries on the other, is a better arrangement than unilateral action by the central bank.

34. It should, however, be admitted that the task of the central bank has not been an easy one, because monetary policy during boom years has usually had to be conducted in the context of a fiscal policy which has not been sufficiently tight either (cf. chapter VII). Therefore, it would have been dif-

¹ 1969 report, p. 10: 'It will not be possible to undertake any significant easing of monetary policy'. 1970 report, p. 10-11: Early 1970, monetary policy was tightened substantially ... The reduction of the discount rate from 9 to 8 per cent ... should not be taken as an indication that the tight monetary policy will be relaxed'. 1971 report, p. 11: 'As a consequence of the balance of payments deficit, the tight monetary policy, introduced in 1969, had to be maintained'. 1972 report, p. 13: 'A further deterioration of the balance of payments must be expected in 1973. Therefore, it is not possible to relax monetary policy'. 1973 report, p. 16: 'The tight monetary policy must be maintained during 1974, partly in order to finance the balance of payments deficit.'

difficult for the central bank to act with vigour, even if more ambitious attempts had been made in order to tighten monetary policy.

More fundamentally, it should be emphasized that the role to be played by monetary policy is bound to be rather modest in a small, open economy like that of Denmark. For private investors, competing or having other contacts abroad, the alternative of borrowing abroad will usually exist. If the money supply is used as an indicator of the liquidity of the non-bank private sector, such additional possibilities of borrowing abroad should always be kept in mind.

This openness of the economy may give rise to a special dilemma during periods of tight monetary policy designed to reduce (the increase of) total private borrowing, whilst at the same time difficulties exist with respect to financing a substantial balance of payments deficit. Obviously, these two aims call for exactly opposite conclusions with respect to the desired amount of private foreign borrowing. However, private investors able to take advantage of the possibilities of foreign borrowing may often belong to the balance of payments industries and hence to the industries which, from a long-term balance of payments viewpoint, should be encouraged. Hence the dilemma may not necessarily be as serious as originally imagined.

35. Still, the conclusion remains that the central bank ought to have been able to act with more vigour in order to achieve the declared aim of keeping monetary policy tight. But an additional observation should be made in this context, namely the difficulties in conducting open market operations in the form of bond purchases in a market almost exclusively consisting of long-term bonds. As far as this is concerned, the situation has changed since 1974, with the overall surpluses of the central government being turned into overall deficits, partly financed by issuing short-term government bonds. In this way, a short-term bond market was finally established (cf. chapter XI).

36. An additional problem is of a more fundamental nature, namely the appropriateness of the present system of obtaining finance by long-term bonds during periods of inflation and - even more so - during periods when prices and price expectations are changing substantially.

As was explained in the first part of the present chapter, the basic idea behind the traditional Danish bond system is that the bond yield (= the effective interest rate) is fixed in money terms for the whole period of the loan at the time the debtor sells the bonds. However, for those creditors (the bond holders) with high marginal tax rates, even high bond yields may result in negative real interest rates after tax. Furthermore, a system according to which interest payments are not adjusted to take account of changes in the general price trend is bound to create tensions from the viewpoint of personal income distribution (cf. chapter IX).

Of course, the same mechanisms affect the debtor. As interest rate payments are fully deductible on his income-tax return, the real after tax interest rate to be paid by him may also become negative. Still, the burden of servicing the debt may be quite heavy for the debtor during the first part of the period of redemption of the loan, i.e. during the years when inflation has not yet eroded the remaining debt in real terms (the so-called 'time-profile problem'). Even so, if inflation is expected to continue, investment in one's own home (house or apartment) will be a rather profitable undertaking.

37. But the problem is not limited to the residential sector. As long as inflation continues at constant, or perhaps even at increasing rates, most real investment will turn out to have been profitable. However, if investment is based on loans at 15 per cent or more, reflecting expectations of continued inflation, and subsequently the rate of inflation is reduced substantially, the profitability of the investment could easily be endangered. It is against this background that the heated debate on index-linked bonds (and other types of index-linked loans and deposits) should be seen.¹

¹ See, e.g., the report from a 'working group' on indexation of claims and debts. Betaenkning nr. 732, Copenhagen 1975.

Appendix table VIII.1

The monetary base

(DKR 1 000 million, current prices)

	End of 1965	1966	End of 1966	1967	End of 1967	1968	End of 1968	1969	End of 1969	1970	End of 1970	1971	End of 1971	1972	End of 1972	1973	End of 1973
(1) Notes, Post Giro etc.	6.0	+0.7	6.7	+0.4	7.1	+0.7	7.8	+0.8	8.6	-0.4	8.2	-0.2	8.0	+1.2	9.2	+1.2	10.4
(2) Deposits in central bk	0.9	-0.2	0.7	+0.2	0.9	+0.1	1.0	+0.1	1.1	-0.3	0.8	+0.3	1.1	+0.4	1.5	-1.0	0.5
(3) Net foreign ass. of priv. banks	-0.1	+0.2	0.1	+0.1	0.2	+0.7	0.9	-0.5	0.4	-0.1	0.3	-0.2	0.1	+1.1	1.2	+0.0	1.2
(4) Total monetary base	6.8	+0.7	7.5	+0.7	8.2	+1.5	9.7	+0.4	10.1	-0.8	9.3	-0.1	9.2	+2.7	11.9	+0.2	12.1
<u>which held:</u>																	
(5) by private banks	1.6	+0.1	1.7	+0.3	2.0	+1.0	3.0	-0.2	2.8	-0.5	2.3	+0.1	2.4	+1.4	3.8	-0.4	3.4
(6) outside banks	5.2	+0.6	5.8	+0.4	6.2	+0.5	6.7	+0.6	7.3	-0.3	7.0	-0.2	6.8	+1.3	8.1	+0.6	8.7
<u>Changes explained by:</u>																	
(7) Balance of paym., current account		-1.5		-2.0		-1.6		-3.1		-4.1		-3.2		-0.4		-2.8	
(8) Net foreign cap. imp. ¹		+1.8		+1.7		+1.3		+2.2		+3.8		+2.6		+0.7		+5.4	
(9) Central government domestic deficit ¹		-0.9		+0.1		+0.9		-0.8		-1.7		+0.4		-0.5		-3.4	
(10) Central bank, in- creased bond holdings		+0.8		+1.3		+2.2		+1.6		+0.4		+1.1		+0.4		+0.5	
(11) Central bank, in- creased lending		+0.7		-0.3		-0.4		+0.7		-0.0		-0.1		+1.7		+0.6	
(12) Other factors		-0.2		-0.1		-0.9		-0.2		+0.8		-0.9		+0.8		-0.1	

¹ Excluding central government net foreign borrowing.

Sources: See appendix to chapter VIII.

Appendix table VIII.2

The money stock

(DKR 1 000 million, current prices)

	End of 1965	1966	End of 1966	1967	End of 1967	1968	End of 1968	1969	End of 1969	1970	End of 1970	1971	End of 1971	1972	End of 1972	1973	End of 1973
(13) Monetary base held outside banks	5.2	+0.6	5.8	+0.4	6.2	+0.5	6.7	+0.6	7.3	-0.3	7.0	-0.2	6.8	+1.3	8.1	+0.6	8.7
(14) Deposits, includ. time deposits	29.8	+3.9	33.7	+3.5	37.2	+5.8	43.0	+4.6	47.6	+1.9	49.5	+5.2	54.7	+7.9	62.6	+8.4	71.0
(15) Total money stock	35.0	+4.5	39.5	+3.9	43.4	+6.3	49.7	+5.2	54.9	+1.6	56.5	+5.0	61.5	+9.2	70.7	+9.0	79.7
<u>Changes explained by:</u>																	
(16) Balance of paym., current account		-1.5		-2.0		-1.6		-3.1		-4.1		-3.2		-0.4		-2.8	
(17) Net foreign cap. imp. ¹		+1.8		+1.7		+1.3		+2.2		+3.8		+2.6		+0.7		+5.4	
(18) Central government domestic deficit ¹		-0.9		+0.1		+0.9		-0.8		-1.7		+0.4		-0.5		-3.4	
(19) Central bank, in- creased bond holdings		+0.8		+1.3		+2.2		+1.6		+0.4		+1.1		+0.4		+0.5	
(20) Priv. banks, increased bond holdings		+0.5		-0.1		+0.7		+0.3		+0.6		+2.4		+2.4		+1.9	
(21) Private banks, increased lending		+4.1		+2.9		+3.0		+5.6		+2.9		+2.0		+5.9		+8.5	
(22) Other factors		-0.3		-0.0		-0.2		-0.6		-0.3		-0.3		+0.7		-1.1	

¹ Excluding central government net foreign borrowing.

Sources: See appendix to chapter VIII.

Appendix table VIII.3
Balance sheets of private banks

(DKR 1 000 million, current prices)

	End of 1965	1966	End of 1966	1967	End of 1967	1968	End of 1968	1969	End of 1969	1970	End of 1970	1971	End of 1971	1972	End of 1972	1973	End of 1973
<u>Assets</u>																	
(23) Monetary base held by banks	1.6	+0.1	1.7	+0.3	2.0	+1.0	3.0	-0.2	2.8	-0.5	2.3	+0.1	2.4	+1.4	3.8	-0.4	3.4
(24) Private banks, in- creased lending	27.5	+4.1	31.6	+2.9	34.5	+3.0	37.5	+5.6	43.1	+2.9	46.0	+2.0	48.0	+5.9	53.9	+8.5	62.4
(25) Private banks, in- creased bond holding	4.5	+0.5	5.0	-0.1	4.9	+0.7	5.6	+0.3	5.9	+0.6	6.5	+2.4	8.9	+2.4	11.3	+1.9	13.2
(26) Assets = liabilities	33.6	+4.7	38.3	+3.1	41.4	+4.7	46.1	+5.7	51.8	+3.0	54.8	+4.5	59.3	+9.7	69.0	+0.0	79.0
<u>Liabilities</u>																	
(27) Deposits, incl. time deposits	29.8	+3.9	33.7	+3.5	37.2	+5.8	43.0	+4.6	47.6	+1.9	49.5	+5.2	54.7	+7.9	62.6	+8.4	71.0
(28) Borrowing in central bank	0.9	+0.7	1.6	-0.3	1.3	-0.4	0.9	+0.7	1.6	-0.0	1.6	-0.1	1.5	+1.7	3.2	+0.6	3.8
(29) Other accounts, net	2.9	+0.1	3.0	-0.1	2.9	-0.7	2.2	+0.4	2.6	+1.1	3.7	-0.6	3.1	+0.1	3.2	+1.0	4.2

Sources: See appendix to chapter VIII.

PROVIDING CONSISTENT DATA FOR MONETARY ANALYSIS

A note on concepts and techniques

Introduction

1. In this appendix, explanations will be given of the definitions of the concepts of 'the monetary base', 'the money stock' etc., used in appendix tables VIII.1 - VIII.3. These definitions have been determined so as to provide the largest possible degree of consistency between different tables. Consistency is obtained in the following ways:

- a) Figures on stocks and flows of each item tally.¹
- b) Increases of the monetary base and of the money stock are explained in terms of the following two types of factors: 1) Surplus on the balance of payments, including net private foreign borrowing, as well as the 'domestic' deficit of the central government. (These factors immediately affect the monetary base and the money stock to the same extent). 2) Increased lending from domestic financial institutions, including increased bond holdings by these institutions.
- c) Figures for balance sheets of private banks (cf. appendix table VIII.3), are obtained from appendix tables VIII.1 and VIII.2 exclusively. 'Private banks' include commercial banks as well as savings banks.

2. As will be further discussed below, the figures are obtained from two sources only, i.e. from a standard table in the annual report of the central bank and from the quarterly Monetary Review by the central bank. In order to contribute to consistency, the rule has been followed as soon as data for a certain item have been obtained, based either on stock or flow figures, such data have been retained as the appropriate description through all the tables.²

¹ Roundings of figures have been made, keeping this in mind.

² This point may appear trivial. However, monetary statistics are frequently subject to adjustments and rearranging to a substantial extent. Hence these problems are not easy to deal with in practice.

This technique has also been used for items where substantial changes of prices have taken place, bonds being the most obvious example. In the present context, the most relevant concept is amounts actually used by banks in order to buy (or sell) bonds. Hence appropriate flow figures have provided the basis for time series in this field. Corresponding stock figures have been obtained, taking the starting point in actual stock figures at the end of 1965. Stock figures for the ends of years are not obtained from balance sheets of subsequent years, but are determined from the stock figure, end of 1965, adjusted by the subsequent flow figures, showing amounts used in order to buy (or sell) bonds.¹

3. As was mentioned above, stock and flow figures describing a certain item always tally. Stock figures (assets and liabilities, end of calendar years) are indicated without brackets and the corresponding flow figures (covering changes during a certain calendar year) are always shown in brackets.

The monetary base

4. The total monetary base is shown in the upper part of appendix table VIII.1. It covers liquid assets of the private sector, including banks, and is split between the amount held by banks and that held by the non-bank private sector.

Assets included are notes and coins. Furthermore, deposits on 'Post Giro' accounts are included under this item. The Danish Post Giro system is part of the central government accounts. Deposits are short-term deposits exclusively; the Danish Post Giro system has not been developed in the direction of a 'post savings bank' to the same extent as in some other countries. A large part of the assets of the Post Giro is held as bonds.

Deposits in the central bank cover short-term deposits, mainly by private banks.

Net foreign assets of private banks provide the final part of the monetary base.² It might be argued that gross foreign assets would be a more appropriate concept. This problem can only be decided upon on the basis of more detailed studies of behaviour. It should, however, be kept in mind that if a gross concept has been chosen, changes of foreign liabilities of the banks would have had to be included among the explanatory factors.

¹ The resulting figure for holdings of bonds by private banks, end of 1973, i.e. DKR 13 200 million according to appendix table VIII.3, actually is somewhat lower than the corresponding figure, to be obtained directly from balance sheets, end of 1973. Probably, the main explanation of this discrepancy is that prices (below par) of bonds held by a certain creditor will increase and approach par, as the time of maturity approaches.

² In principle, enterprises and private persons are not allowed to hold foreign exchange, but must sell it to their banks. Hence foreign exchange holdings of the private sector are assumed to be held by the private banks exclusively.

5. In the lower part of appendix table VIII.1, factors explaining changes of the monetary base are listed. The first items are the surplus on the balance of payments current accounts and net foreign capital import, the latter excluding foreign borrowing by the central government. The reason for excluding central government foreign borrowing is that such amounts do not affect domestic money supply, because the central government keeps its accounts with the central bank. However, the implication of this viewpoint is that an improvement of the position of the accounts of the central government in the central bank should not be interpreted as reflecting a reduction of money supply to the extent that the improvement is caused by foreign borrowing by the central government. Therefore, the deficit of central government, i.e. the third explanatory factor, is indicated net of changes due to foreign borrowing by the central government.

The two last specific explanatory factors are under the direct control of the central bank, i.e. increased bond holdings and increased lending by the central bank itself.

The last item, i.e. 'other factors', is determined as a residual.

The money stock

6. The money stock, held by the non-bank private sector, consists partly of the share of the total monetary base which is held outside banks, and partly of deposits in private banks. In appendix table VIII.2, time deposits are included, hence the coverage of 'deposits' is very broad, corresponding to the wider definition of the money supply (M_2 in Denmark). If deposits had been defined in a more narrow way, an additional explanatory factor would have been required in the bottom part of the table.¹

7. The first three explanatory factors, listed in the lower part of appendix table VIII.2, refer to the balance of payments and to central government accounts. They are identical with the first three items in the lower part of appendix table VIII.1. The same is true for the fourth item, i.e. increased bond holdings by the central bank which is taken from the accounts of the central bank, and so show total net bond purchases. Therefore, the fifth item, i.e. increased bond holdings by private banks, also illustrate their total net purchases of bonds.²

¹ From a conceptual viewpoint, arguments on this point are similar to those discussed above in connection with the net foreign assets of the private banks.

² Above, foreign borrowing by the central government and the corresponding increase of government deposits in the central bank were eliminated from the figures. Applying similar reasoning, it could be argued that net bond sales (and corresponding purchases) between the central bank and private banks should be eliminated as well, because these transactions take place entirely outside the sphere of the non-bank private sector. However, mainly for reasons of convenience the opposite solution has been chosen in the present context. Therefore, the figures in appendix table VIII.2 should in principle be interpreted as if net sales (purchases) of bonds by the central

The sixth explanatory factor according to appendix table VIII.2 is increased bank lending, the last item, i.e. 'Other factors', being determined as a residual.

Balance sheets of private banks

8. Usually, figures illustrating the main items of the balance sheets of private banks are taken directly from such balance sheets of different years. It is, however, important to notice that, having already constructed appendix tables VIII.1 and VIII.2 in the way explained above, an alternative procedure is immediately available: figures relating to the balance sheets of private banks can be obtained simply by deducting figures in appendix table VIII.2 from the figures in appendix table VIII.1.¹ Using this procedure, the figures according to appendix table VIII.3 will of course be completely consistent with the figures in appendix tables VIII.1 and VIII.2.

The figures according to appendix table VIII.3 will be similar to those obtained according to traditional procedures except for the figures relating to bond purchases and bond holdings by the private banks. The discrepancy on this point was discussed above in the section on consistency. In fact, the way in which appendix table VIII.3 is arrived at represents the optimal procedure from the viewpoint of consistency. No additional information is required in order to obtain figures describing changes of the various items of the balance sheets of private banks over the period in question (in brackets).

Sources to appendix tables

9. All the figures in the appendix tables are based on the following two sources:

A. Danmarks Nationalbank, Monetary Review August 1976.

B. Danmarks Nationalbank, Beretning og regnskab 1971, pp. 40-41 (figures for 1966-69), Beretning og regnskab 1973, pp. 54-55 (figures for 1970 and 1971) and Beretning og regnskab 1975, pp.66-67 (figures for 1972 and 1973)

10. Appendix table VIII.1:

Rows (1) - (6): Source A, p. 26.

Rows (7) - (10): Source B.

(cont'd of note 2 on preceding page)

bank and by the private banks had taken place in the non-bank private market.

However, in the period covered by appendix table VIII.2 this point is not important as a background for interpreting the figures, because the central bank and the private banks have been acting in the same way: they have both been buying bonds.

¹ Alternatively, this relationship can be expressed by noting that appendix table VIII.1 may be obtained by consolidating appendix tables VIII.2 and VIII.3

Row (11): Source A, p. 27.

Row (12): Residual.

11. Appendix table VIII.2:

Row (13) = (6).

Rows (14) - (15): Source A, p. 28.

Rows (16) - (19) = (7) - (10).

Rows (20) - (21): Source B.

Row (22): Residual.

12. Appendix table VIII.3:

Row (23) = (5).

Row (24) = (21). End-1965 figure from source A, pp. 22-23.

Row (25) = (20). End-1965 figure from source A, pp. 22-23.

Row (26) = (23) + (24) + (25).

Row (27) = (14).

Row (28) = (11). End-figure from source A, p. 19.

Row (29): Residual.

Chapter IX

INFLATION, INCOME DISTRIBUTION AND INCOMES POLICY

INTRODUCTION

1. The present chapter will start out by briefly reviewing inflationary trends during the period up to 1973, giving special attention to the latest part of this period. The description will be based on indicators of prices as well as of money wages. Subsequently, a summary will be given of the institutional framework with respect to the determination of wages and legislation on prices and monopolies will also be discussed.

The effects of the interrelationship between increases in money wages and in prices partly influence income distribution, which will be discussed from a functional as well as from a personal viewpoint. Arguments on this issue play an important part in any debate on wages policy. In this connection, developments in the field of incomes policy will be briefly discussed.

As the Danish economy is a very open one, the issue of inflation has usually been debated largely from the viewpoint of comparing rates of domestic inflation with rates of inflation abroad, the implicit political assumption being that fixed exchange rates of the Danish krone were very much to be preferred. However, it should not be forgotten that, in addition to questions related to relative rates of inflation abroad and in Denmark, changes in the rate of inflation are bound to have important domestic consequences. Some of them affect income distribution, because assets and liabilities are not held to the same extent by different groups of the population. In particular, the distinction between those who own their own homes and those who live in rented apartments becomes of decisive importance. These questions will be considered in more detail at a later stage.

2. One of the most important aspects of the inflation problem is closely related to the ability of Danish producers to compete with foreign competitors, abroad and on the home market, and hence is related to the balance of payments problem. The question of relative increases of costs of Danish producers and those of their foreign competitors will be discussed in the final part of the present chapter.

Table IX.1
Indicators of price increases

	National-account deflators				con- sumer pric. ¹	Wage-regulation price index ²	
	GDP	Priv. con- sumpt.	Public con- sumpt.	Fixed inv.		excl. resi- den- tial costs	incl. resi- den- tial costs
<u>Indices</u>							
1958, 1950 = 100	128.8	126.6	150.7	134.2	-	-	-
1966, 1958 = 100	149.1	141.5	177.9	142.3	-	-	-
1973, 1966 = 100	158.0	150.2	184.1	156.3	156.1	144.1	148.1
<u>Per. cent increase over preceding year</u>							
1967	5.3	5.4	7.4	4.8	7.0	4.6	4.8
1968	4.3	7.5	8.8	6.1	8.2	3.9	5.2
1969	4.6	3.4	3.9	4.5	3.0	2.4	3.2
1970	8.5	5.6	13.2	7.1	5.9	5.9	6.1
1971	5.8	5.2	9.9	5.5	5.6	4.9	5.7
1972	7.5	6.3	8.5	8.4	6.6	6.9	6.9
1973	11.4	8.6	12.2	9.8	9.9	9.0	8.7

¹ Excluding residential costs, including indirect taxes.

² Excluding indirect taxes.

Sources: Danmarks Statistik, Nationalregnskabsstatistik 1947-1960, S.U. No 7 and Statistisk tiårsoversigt 1971 and 1975.

RATES OF INCREASE IN PRICES AND MONEY WAGES

3. As was already pointed out in chapter I, the rate of inflation as measured by the implicit national accounts deflators has shown a long-term trend of accelerating price increases. This point is confirmed by the figures in table IX.1. The first four columns indicate rates of price increases according to some selected national accounts deflators.

As appears from the upper part of the table, the rate of inflation has, on the whole, been increasing. In this connection it should be kept in mind that while the first two sub-periods cover eight years each, the last sub-period covers seven years only. Year-by-year figures of the last sub-period are in-

licated in the bottom part of the table. According to these figures, the 1969-70 boom was accompanied by accelerating prices. Subsequently, rates of inflation were temporarily reduced, but in 1972-73 price increases were substantial, the GDP deflator increasing by more than 10 per cent from 1972 to 1973.

4. In the last three columns, rates of inflation according to consumer price indices are indicated.¹ The index of consumer prices includes indirect taxes. This fact explains the substantial price increases in 1967 and 1968 according to the table. During these years, the value-added tax was introduced and subsequently increased (cf. chapter VI).

The last two columns indicate price increases according to the so-called wage-regulation price index, which excludes indirect taxes.² On the whole, price increases are somewhat smaller according to the latter index, but the main pattern is rather similar to that according to the other indices, taking the conceptual differences into account.

5. Table IX.2 indicates rates of increase of money wages. Not surprisingly, the pattern of accelerating trends of wage increases according to table IX.2 is rather similar to that of price increases according to table IX.1. Wage rates for female workers - usually substantially lower than rates for their male colleagues - have increased relatively more than rates for male workers. When increases of rates for skilled and unskilled male workers are compared, a similar tendency for wage differentials between higher and lower-paid workers to disappear is not evident, at least not during the first two sub-periods.

INSTITUTIONAL ARRANGEMENTS WITH RESPECT TO WAGE AGREEMENTS

6. In principle, wage negotiations take place at a very aggregated level. 'General Agreements' are concluded between the Association of Danish Trade Unions and the Danish Employers' Union. From 1961 onwards, such agreements have been concluded for two-year periods, the date of expiration always being March 1. The basic philosophy underlying these general negotiations are that they reflect the bargaining powers of the two organizations and are based on what is called the 'free right of the two parties to negotiate' without interference from outside. However, in practice the system is much more complicated.

¹ These indices are published including as well as excluding residential costs. Those excluding residential costs are probably the most reliable because of difficulties of providing appropriate expressions of price increases related to residential expenditure.

² Residential expenditure is included when the index is used for the purpose of adjusting wage rates. Whether this is an appropriate procedure, taking the difficulties in this field into account, is another question.

Table IX.2
Money wage rates for different categories of worker

	Total	Male workers, skilled	Male workers, unskilled	Female workers
<u>Wage rates, kroner</u>				
1950	3.27	3.91	3.28	2.32
1973	24.85	27.99	24.10	20.64
<u>Indices of wage increases during sub-period</u>				
1958, 1950 = 100	162.4	160.6	158.8	164.7
1966, 1958 = 100	208.3	208.4	205.0	219.4
1973, 1966 = 100	224.7	213.8	225.7	246.3
<u>Per cent increase over preceding year</u>				
1967	9.4	8.6	9.5	10.1
1968	11.8	10.7	12.1	12.5
1969	11.5	11.5	11.5	11.4
1970	11.2	10.8	11.4	11.6
1971	15.1	13.5	15.0	16.5
1972	11.6	11.1	11.7	14.0
1973	15.4	14.2	15.2	20.5

Sources: Danmarks Statistik, Statistisk tiårsoversigt 1960, 1970 and 1975.

7. It is important to notice that the results of the general negotiations are always expressed in terms of increases in actual wage rates. This implies that, to the extent that certain groups have succeeded in getting their wage rates increased during the two-year period, this advantage is maintained at the conclusion of a new two-year agreement.

This aspect is of special importance because the possibilities of obtaining 'in-between' increases of wages differ between different groups of wage earners. For many trade unionists - usually those not belonging to the lower-paid groups - a system of 'minimum wages' is used. According to this arrangement, wage rates in each individual firm may be re-negotiated during the two-year period, hence the system provides a legal basis for wages drift. However, for most unskilled workers the system is one of 'normal wages', which in principle excludes the possibility of additional wages negotiations. This institu-

tional framework provides part of the background for the so-called wages-wages spirals, the pattern being the following: during general negotiations on new agreements, the trade unions will often concentrate on getting wage increases for the low-wage groups, the aim being one of so-called 'wage policy of solidarity'. The low-wage groups are usually paid according to the 'normal wages' system. However, during the period covered by the agreement, the other groups, paid according to the 'minimum wages' system, often manage to get 'individual' wage increases to such an extent that wage relativities between the higher and lower paid (male) workers are re-established (cf. table IX.2).

8. Therefore, while the importance of the biennial negotiations between the trade unions and the employers' unions should not be underestimated - and this is especially true with respect to working hours and other working conditions - it should be recalled that as far as negotiations on money wages are concerned, the result should in many cases be considered a floor for wage increases, on top of which wage drift may take place. This is particularly true not only during periods of labour shortage, but also in periods when especially large wage increases have been given to some (low-income) groups according to the previous general agreement.

9. A peculiar aspect of the general agreements on wages is the 'escalator clause', which provides for an automatic adjustment of money wages when price increases take place during the two-year period covered by the agreement. The size of such price increases is indicated by the so-called wage-regulation price index, in principle excluding indirect taxes¹ and subsidies. Price increases according to this index were shown in the last column of table IX.1. Usually, around two-thirds of the price increase is compensated, taking the total wage bill as a basis. However, the pattern of compensation may vary and has been changed from time to time.

10. In order to give an impression of the relative importance of increases of wage rates according to (1) the escalator clause, (2) wage increases according to the general agreements and (3) wages drift, the share of the total increase of wage rates according to each of these three factors is indicated in table IX.3 for different types of workers for sub-periods during 1955-1974. The pattern according to the table corresponds fairly well to the hypotheses mentioned above. In particular, wage drift is by far the most important factor in wage increases for skilled male workers: as appears from the table, more than half of the total increase of wages of this group is explained by wages drift. For the lowest paid group, i.e. female workers, the corresponding share is less than 30 per cent. For female workers the major factor in their wage increases has been the escalator-clause adjustment.

11. As was mentioned earlier, the biennial negotiations take place at a very centralized level. This, at least, is true for the final stages of the negotiations. This phase is, however, preceded by decentralized negotiations on 'special issues' related to the problems of each individual trade union.

1

The reason for excluding price increases caused by indirect taxes is that such increases may represent part of a general counter-cyclical fiscal policy. Such increases of indirect tax rates in order to reduce disposable real income should not, according to the argument, give rise to compensation for wage earners.

Table IX.3
Increase of money wage rates, by causal factor

	Total increase		of which caused by		
	øre/ hour	per cent	esca- lator clause	general agreem.	wages drift
	<u>Male workers, skilled</u>				
1955-1960	187	100	30	20	50
1960-1965	380	100	23	18	59
1965-1969	491	100	29	25	46
1969-1974	1 315	100	32	13	55
1955-1974, TOTAL	2 373	100	30	17	53
	<u>Male workers, unskilled</u>				
1955-1960	136	100	41	24	35
1960-1965	317	100	27	34	39
1965-1969	435	100	32	33	35
1969-1974	1 161	100	36	20	44
1955-1974, TOTAL	2 049	100	34	26	40
	<u>Female workers</u>				
1955-1960	108	100	51	22	27
1960-1965	269	100	40	33	27
1965-1969	368	100	43	34	23
1969-1974	1 150	100	37	32	31
1955-1974, TOTAL	1 895	100	40	32	28

Source: The table, based on information from the Danish Employers' Union, has been taken from Steen Leth Jeppesen, Løn og Priser, Copenhagen 1975, p. 20.

Hence the whole pattern of negotiations is a time-consuming one, covering several months or perhaps even half a year prior to the date of March 1, when the old agreements expire.

In order to contribute to the negotiations leading to some kind of an agreement, an official arbitrator is appointed according to a special law, originating as far back as 1910. The purpose of the arbitrator is solely to find a solution, acceptable to both parties, irrespective of whether the solution is in accordance with targets of the government with respect to permissible rates of inflation, etc.

12. In practice, the arbitrator may or may not be able to find a basis for presenting a proposal, acceptable to both parties, as to how the problem could be settled. If the arbitrator does present a proposal, and this is subsequently rejected by votes of one of the parties, the final result may be that the proposal, perhaps with certain amendments, is transformed into law by parliament.

LEGISLATION ON PRICES AND MONOPOLIES

13. Legislation on prices and monopolies takes as its starting point the premise that 'unjust prices and conditions of sales are prohibited'. In order to deal with problems in this field, an authority to control monopolies has been established. Business agreements which substantially limit competition, are not prohibited as a general principle. However, they must be registered with the monopolies authority. The authority is empowered to negotiate with business firms if certain agreements are considered by the authority to limit competition to a substantial extent. If these negotiations do not lead to a positive result, the authority may order that such business agreements be cancelled.

14. In principle, producers are not allowed to fix the retail prices for their products, but such prices cannot be binding on the retailer, and should only be considered as a recommendation. If they are to be considered as binding, prior acceptance of the prices by the monopolies authority is required. Furthermore, several rules on the procedures to be followed in calculating prices have been established. But, as with similar problems in other countries, it is easier to establish authorities and procedures in this field than it is to make sure that the intentions are met in practice by businesses.

15. With these factors in mind, it may be more appropriate to mention some 'basic viewpoints' in this field rather than to discuss the legislation in detail.

Firstly, as has been frequently stressed, the Danish economy is a small and open one. Hence competition from abroad plays an important role in determining the degree of competition on the domestic market. In this connection, multinational firms are often criticized in the debate on these issues, because establishments in Denmark that are owned by a multinational firm may be subject to comparatively little competition from abroad (and, furthermore, bearing in mind the high rates of taxation in Denmark, they are unlikely to account for all of their profits in their Danish balance sheets).

16. The limited involvement in business activities of the government sector probably contributes quite substantially to the degree of competition in Denmark. Of course, several activities in the field of infrastructure, etc. are under government ownership, railways being owned by the central government and electricity works by associations of local authorities. But apart from such fields, government ownership in business is rather rare in spite of the fact that labour party governments have been in power during most of the last 4-5 decades.

The explanation of this state of affairs may be found in some of the observations made in earlier chapters. The liberal tradition of the Danish economy, dominated by the agricultural sector until a few decades ago, was very strong. Furthermore, the industries expanding during the late 1950s and the 1960s acquired a liberal way of reasoning in connection with the OEEC liberalization, the creation of EFTA, etc. Finally, manufacturing enterprises are usually rather new, rather small and not too capital intensive. In such fields, a policy of direct government involvement is not an obvious strategy.

THE FUNCTIONAL INCOME DISTRIBUTION

17. The starting point for estimates of the functional income distribution is the total wage bill actually paid. The corresponding concept of profits should be defined 'net', i.e. net domestic product (excluding depreciation, etc.) should provide the total to be distributed. A starting point for such estimates is shown in table IX.4.

According to the table, the share of wages has shown a strongly increasing trend, and the share of 'other income' has declined correspondingly, from 41 per cent in 1962 to 32 per cent in 1973. However, the table is based on total domestic product,¹ hence a substantial part of 'other income' must be interpreted as imputed wages and should be shifted from 'other income' to 'wages' in order to obtain the distribution between wages (including imputed wages for owners, and the self-employed) and profits.²

Such an adjustment obviously would change the picture according to table IX.4, because the number of owners, and the self-employed has shown a persistent decline. Hence the importance of the imputed wages has been declining, and consequently the share of profits has not been declining to the same

¹ This is different from table III.4. Furthermore, the latter table was based on gross figures.

² Other problems with respect to such estimates will not be elaborated. One is how contributions to social funds, e.g. by employers, should be handled. In table IX.4, they are considered as part of total profits but, as mentioned in chapter VI, in Denmark such contributions are insignificant. Another problem is whether government services, use of dwellings and some other components of domestic product should be excluded, before the functional incomes distribution is estimated. Such adjustments have not been made in table IX.4.

Table IX.4
The functional income distribution

	Share of			Net domestic product, DKR 1 000 million current prices
	Wages	Other incomes	Total	
1962	58.5	41.5	100.0	42.5
1965	60.4	39.6	100.0	56.9
1966	61.9	38.1	100.0	62.0
1967	62.3	37.7	100.0	67.8
1968	63.5	36.5	100.0	73.9
1969	63.0	37.0	100.0	84.3
1970	65.1	34.9	100.0	93.3
1971	67.4	32.6	100.0	102.0
1972	67.1	32.9	100.0	114.8
1973	67.6	32.4	100.0	131.6

Source: Danmarks Statistik, Statistisk tiårsoversigt 1975.

extent as the share of 'other incomes' according to table IX.4. Still, this adjustment would only eliminate the substantial decline of the share of 'other incomes' to a limited extent.

18. The interpretation of changes in the functional income distribution is far from obvious. A persistent decline in the share of profits may not be compatible with increased private investment, the latter being urgently needed in order to improve the performance of the balance of payments industries.

Furthermore, it should be recalled that wages are not necessarily earned by low-income groups, nor are profits necessarily received by the rich. As was discussed in chapters II and V, certain large groups have not been able to benefit from the high overall growth rates of the last decades. This has been true for small-holders in agriculture and a substantial part of the owners and the self-employed in retail trades and in handicrafts. Therefore, from the viewpoint of equality of the income distribution, the personal income distribution may provide a better analytical framework.

THE DISTRIBUTION OF PERSONAL INCOME

19. Information on the distribution of personal income can mainly be found from income-tax returns. However, these figures are not very suitable for the

purpose of illustrating trends in personal income distribution. There are several reasons for this viewpoint. Firstly, as discussed in chapter VI, the income tax system has changed completely during the last decade. These changes have affected the comparability of information according to the income-tax returns. Furthermore, the way in which taxable income has been affected for a person owning his own home has undergone substantial changes with respect to the share of taxable income, because of changes in the 'imputed income' from living in one's own home. At the same time, interest payments - at increasing interest rates - have been fully tax-deductible. Therefore, persons who have recently bought their own home will usually belong to the low-income groups (on the basis of taxable income) according to statistics based on income-tax returns, although their standard of living does not exactly correspond to that of traditional low-income groups. Additional problems occur related to the use of depreciation allowances, etc.

Therefore, while statistics based on income-tax returns usually suggest that personal income distribution has become more and more even over the last decades,¹ this conclusion may just as well reflect the increased possibilities, and greater efforts by high income groups, for reducing their taxable income.

Other difficulties with respect to the personal income distribution are related to the interpretation of the figures. For instance, changes of the age distribution of the population should be taken into account. Furthermore, to the extent that higher education (delaying the time of entering the 'active' labour force) becomes more widespread, this will lead to a larger part of the population (the students) belonging to the low income groups, although the problems of the latter are not similar to those of traditional low-income groups.

It is hardly surprising, therefore, that attempts have been made to find alternative ways of illustrating trends in the personal income distribution. One of the most promising is based on the concept of 'life income'.

20. The idea behind statistics on life incomes is the following: for many occupations, information on wages by age in a certain year is available. Using this information, the starting point is assumptions as to the age at which the employee with a certain education enters the labour force, how he is promoted and at what age he retires. Given this 'time profile' and information on wages at each age, the life income of the employee may be estimated. Obviously, such estimates are not very meaningful for employers or self-employed, hence they are mainly useful in order to illustrate wage differentials between different kinds of wage-earners, where detailed information on wage rates is available, usually based on wage agreements.

In table IX.5, life wages for different kinds of employees are indicated on the basis of wage statistics by ages for 1970. Wages are indicated 'before tax', and life wages are shown both using simple summation and capitalized

1

See Det økonomiske Råd, Den personlige indkomstfordeling og indkomstudjævningen over de offentlige finanser, Copenhagen 1967. For more recent figures, see Statistisk tiårsoversigt.

Table IX.5

Life wages for selected types of wage earners, based on 1970 wage rates

	Simple summation		5 per cent discount rate	
	mill. DKR	Metal worker = 100	mill. DKR	Metal worker = 100
Female worker, textiles	1.412	68	0.459	75
Clerk, gov.t admin.	1.953	95	0.573	94
Metal worker	2.067	100	0.611	100
Unskilled bricklayer	2.567	124	0.812	133
Economist, civil serv.	3.822	185	0.859	141
High school teacher	3.922	190	0.867	142

Source: Det økonomiske Råd, Dansk økonomi foråret 1972, pp. 61 and 66.

at a 5 per cent discount factor. The latter rate of discount probably is very much on the high side.¹

Differences with respect to life wages are quite substantial, even if the longer periods of education of the highly paid groups are taken into consideration, as is the case in the table. Thus, using undiscounted figures, the life wage of a high school teacher was almost three times as high as that of a female textile worker.²

EFFECTS OF HOLDING ASSETS AND LIABILITIES DURING PERIODS OF CHANGING RATES OF INFLATION

21. While estimates of life wages provide a useful supplement to traditional statistical information on personal income distribution, further data is still needed. Perhaps the major factor which has affected personal income distribution over recent years which have been marked by increasing rates of inflation, is differences with respect to the balance sheets of the persons concerned, the pertinent feature being whether they own land (perhaps with a

¹ On these issues, see Erik Gørtz and J. Vibe-Pedersen, 'Livsindkomstberegninger og deres betydning', Nationaløkonomisk Tidsskrift 1973, pp. 25-59.

² If the pension arrangements of the high school teacher are taken into account, the difference becomes even larger.

holiday home) and for larger buildings (perhaps their own houses), which are financed by loans. As it has turned out, prices of land and real property have increased more than the general price level, thus giving rise to capital gains which have, in practice, usually not been subject to taxation. Furthermore, as noted in the previous chapter, increasing rates of inflation have reduced the real burden of the loans obtained in order to finance this investment. Finally, imputed income from living in one's own home is included in the income-tax returns at very low rates.

22. Most of these effects, which have led to advantages for owners of own homes as compared with those living in rented apartments, are at least partly due to rules of taxation, etc., established by parliament. With increasing rates of income taxation and with increasing rates of inflation, these problems have been increasingly difficult to handle from a political viewpoint. The result has been that income distribution between the different groups, mentioned above, has been affected substantially, the relevant concept being income after tax, after current housing expenditures and after adjustment for the real net value of 'owned capital'.

Obviously, a possible permanent reduction of the future rate of inflation will give rise to new - although different - problems, some of them being related to those who have invested (in new houses) at high interest rates on the assumption that inflation would continue. Nevertheless, it is true to say that, in the longer run, low and stable rates of general price increases represent the only way of avoiding most of the distribution problems discussed above. It may be seen, therefore, that the need for policies to dampen and stabilize rates of inflation is not only due to problems with respect to the ability of the balance of payment industries to compete, but is also due to problems related to demand management.

INCOMES POLICY, THE DANISH EXPERIENCE

23. 'Incomes policy' became a key word, for the first time, in 1962-63. During this winter, general wage negotiations were taken place with unemployment increasing and a balance of payments deficit in 1962 of more than DKR 1 500 million - the biggest deficit ever recorded at that time. Prospects for reaching agreement between the Association of Trade Unions and the Employers' Union were not very promising and the labour party held a majority - although a small one - in parliament.

Actually, the negotiations were never brought to an end, and the official arbitrator was never really involved. Instead, parliament took over and new wage rates were established by law. The immediate result was very successful with respect to the balance of payments. The modest increases of money wages according to the solution passed by parliament probably contributed to this development, but an additional factor undoubtedly was the international upswing in 1963. The rate of unemployment was not reduced until 1964. However, on the whole the 1963 'package solution' was considered to be a success.

24. Incomes policy again became a live issue in November 1967, when the Danish krone followed sterling half way, when the latter was devalued by 15 per cent. The Danish devaluation reflected the Danish dependence at that time on

the British market for its agricultural exports. Subsequently, in order to avoid the krone devaluation simply leading to corresponding domestic price increases, the labour government suggested that the automatic escalator clause should be suspended. However, the majority in parliament on which the government was based at that time included a party to the left of the labour party, and some of the members of that party were opposed to the suspension of the escalator clause. Therefore, the majority in parliament was no longer controlled by the government. In this situation, the liberal and conservative parties, having been in opposition for 14 years, could not resist the temptation of voting against the government, even if at least some of them had been in favour of suspending the escalator clause. Therefore, the government had to call for an election, and after the election the liberal-conservative parties obtained a majority in parliament. They actually formed a new government, but this government was obviously not in a strong position to implement an incomes policy.

INCOMES POLICY, SOME GENERAL REMARKS

25. During the early 1960s, incomes policy in Denmark as well as in other industrialized countries, consisted principally of guidelines for the permissible increase of money wages, assuming prices remained stable. With relatively stable rates of capacity utilization and terms of trade, such guidelines would usually be for an increase of about 3 per cent. However, while pretending to indicate the total increase in money wages, this figure was frequently interpreted as indicating the permissible wage increase according to the general agreements, which of course is a very different - and much more narrow - concept (cf. table IX.3 above).

In order to avoid misunderstandings, the guidelines subsequently became more and more detailed, and hence more and more controversial. From 1968 onwards, the idea of publishing guidelines was abolished. The main reason was the lack of success in implementing the guidelines, when compared with what actually happened. A special factor of some importance in this connection was that, with guidelines established prior to the general negotiations, the trade unions were likely to consider such guidelines as a 'floor' with respect to future wage increases, i.e. as minimum increases from which the negotiations would start.

26. During the 1960s, another aspect of the debate on incomes policy was whether the issue was solely - or at least mainly - one of wages policy, in other words to what extent it made sense, in a market economy, to put up guidelines for other types of incomes as well.

The latter question might, however, more appropriately be reversed, asking whether it is possible to affect even the rate of increase of money wages, taking the Danish system of wage fixing into account and recalling, in particular, the substantial amount of wages drift. A consensus of opinion was gradually reached in the debate, according to which incomes policy could at most be considered to be a modest supplement to fiscal and monetary policy, at least as long as capacity utilization was high with labour shortage in several areas. It is, therefore, hardly surprising that questions related to incomes policy played a rather insignificant role, until unemployment once again became a major problem after the oil crisis of 1973-74.

27. So far, the term 'wages' has frequently been used without qualifications, perhaps implying that an increase in money wages would lead to an increase in real wages. While the latter result may be true, provided that the wage increase is obtained only by a small group of workers, experience from the late 1960s and early 1970s has amply demonstrated that, for large groups, relative wages are likely to be re-established to a large extent. Hence the main effect of substantially increased money wages will be one of increased prices.

The dilemma of the trade unions under present arrangements is obvious: during the centralized negotiations, the instrument being negotiated by the trade unions is money wages, but the object of the trade unions is to affect real wages - or perhaps even real net wages. Unfortunately, changes in money wages are not a very good instrument for reaching the latter objectives.

So far, the concept of real disposable income has only been mentioned in passing. This concept represents the after tax purchasing power of a person's income. Hence it disregards the amount of services obtained from the government sector. Even with this shortcoming, real disposable income seems to play a significant role in the minds of an increasing number of wage earners.

28. To the extent that this is true, one obvious way of trying to solve the dilemma of the trade unions is somehow to include the future level of taxation and other factors affecting real disposable income among the issues to be discussed during the general wage negotiations. Such a framework would imply that the majority in parliament should somehow be currently involved during the whole period of negotiations, so that the trade unions as well as the employers' union know the kind of reactions to be expected from parliament, assuming various outcomes of the wage negotiations.

CHANGES IN THE PATTERN OF WAGES AS A REFLECTION OF STRUCTURAL ECONOMIC PROBLEMS

29. The distinction between balance of payments industries and domestic industries was already introduced in chapter I (see table I.9). It is based on research, originating in Norway and Sweden.¹ The conclusion to be drawn from this analysis with respect to wages policy, assuming relatively full employment, may be summarized as follows:

- a) If structural problems are to be avoided, any increase in money wage rates should - at fixed exchange rates - reflect price increases abroad and the rate of increase of productivity in the balance of payments industries, both factors being largely exogenous from the viewpoint of domestic economic policy.

1

Originally, the ideas were presented by the Norwegian Aukrust Committee, see Innstilling fra Utredningsutvalget for inntektsoppgjørene 1966 I - and in particular - II, January and October 1966. The analysis was extended and refined in Edgren, Faxén and Odhner, Wage Formation and the Economy, Allen & Unwin, 1973.

Table IX.6
Life wages for selected types of wage earners,
based on wage rates in 1960 and 1970

	1960 mill. DKR	1970 mill. DKR	1970, 1960 = 100
Female worker, textiles	0.510	1.412	277
Clerk, government adm.	0.721	1.953	271
Metal worker	0.864	2.067	239
Unskilled bricklayer	0.961	2.567	267
Economist, civil serv.	1.307	3.822	293
High school teacher	1.284	3.922	306

Note: Figures are obtained by simple summation, see table IX.5.

Source: Det økonomiske Råd, Dansk økonomi foråret 1972, p. 70.

- b) It is therefore important that conditions in the balance of payments industries should determine the rate of increase of money wages. Wage rates in these industries should 'set the pace' for wage increases in other industries as well. In order to obtain this result, demand pressure on the capacity of domestic industries should be avoided.
- c) Serious consequences will, however, emerge if domestic industries are in a better position than the balance of payments industries to increase output and income. If the increase of total demand is mainly directed towards domestic industries - by definition implying that shortages of domestic supply cannot be met by increased imports - wages and profits in domestic industries will increase. Of course, attempts will be made by the workers in the balance of payments industries to obtain similar wage increases, but they are only likely to succeed to a limited extent, because prices of the output of the balance of payments industries are imposed from outside. Hence wages in the balance of payments industries will lag behind, and at the same time profits of the balance of payments industries will be squeezed. Obviously, such a development will not provide the best background for the balance of payments industries to expand.

30. The pattern according to c) in the preceding paragraph may provide an appropriate description of economic developments during the 1960s and the early 1970s. Changes in the pattern of wages according to this description can actually be shown to have taken place (cf. table IX.6). The table illustrates life incomes - as in table IX.5 - for some well defined, smaller groups of wage earners in 1970 as compared with 1960.

Several trends are indicated by the table. Firstly, the relative increase in wages of female workers, indicated in table IX.2, is illustrated by developments in the life wages of a female textile worker. The explanation of this new pattern¹ can partly be found in fields outside the narrow economic ones, including a gradually more widespread recognition that male and female workers should have the same working conditions, including wage rates. Nevertheless, the hypothesis cannot be neglected that the comparatively large wage increases for female workers in balance of payments industries, which to a large extent have a female labour force (e.g. textiles), may have contributed to the economic difficulties of these industries.

Another interesting result is the comparatively low wage increase for male workers in the balance of payments industries, exemplified by the metal workers. This is in accordance with the analysis in the preceding paragraph.

The male workers in domestic industries, which were booming during the 1960s, have been able to obtain much higher wage increases, as is shown by the figures for the unskilled bricklayer.

However, the big winners apparently were government employees, in particular those employed in posts requiring higher education. As was discussed in chapter VI, a large expansion in the number of employees in this field took place during the 1960s, with the demand for employees with university degrees far exceeding supply. However, this was not only a problem in those areas of the government sector where higher education was required. Clerks in government service also had high wage increases - probably much higher than their colleagues in the private sector. Bearing in mind that the share of the total labour force employed in the government sector grew rapidly during the 1960s, this result should not be surprising.

HAVE MONEY WAGES INCREASED TOO FAST?

31. In the above argument, it has been implied that the structural problems of the economy would have been less serious if the general level of money wages had shown smaller increases during the 1960s and the early 1970s. Table IX.7 provides a comparison of year-by-year increases in wage costs in Denmark with similar figures for groups of countries. The figures include indirect wage costs in connection with contributions to social funds, etc. Furthermore, they are adjusted for exchange-rate changes of the individual countries. As it turns out, Danish wage costs have, on the whole, increased more than the average increases in Western Europe and in OECD-countries as a whole.

Admittedly, the ability of Danish producers to compete with foreign competitors does not depend on wages costs exclusively. The development of relative prices of goods - and in particular output prices of Danish manufactured

¹ As appears from table IX.2, female wages increased more than male wages during 1950-1966, but the difference was not very impressive. It was not until 1966-1973 that female wages really started to catch up with male wages.

Table IX.7
Increases of wage costs in manufacturing industries
of different countries, 1965-1973

	Total wage costs per hour, percentage increase as compared with previous year								
	1965	1966	1967	1968	1969	1970	1971	1972	1973
Denmark	12.5	12.9	8.2	12.5	9.7	11.9	15.0	12.5	18.8
Western Europe	8.2	7.5	6.2	11.6	10.6	16.6	15.3	12.4	10.7
OECD countries	6.2	5.6	7.0	13.5	9.9	11.7	11.1	8.2	3.2
Difference between Denmark and Western Europe	+4.3	+5.4	+2.0	+0.9	-0.9	-4.7	-0.3	+0.1	+8.1
Difference between Denmark and OECD countries	+6.3	+7.3	+1.2	-1.0	-0.2	+0.2	+3.9	+4.3	+15.6

Note: For coverage and concepts, see text.

Source: Det økonomiske Råd, *Dansk økonomi* April 1976, p. 18.

goods as compared with those of other countries - also play an important role. Here it should be recalled that the table refers to wage costs of all manufacturing industries in the various countries. Furthermore, differences with respect to productivity increases will affect levels of profits. However, comparable figures covering these aspects are difficult to obtain. In particular, figures on increases in productivity in different countries give rise to conceptual problems which have not yet been solved in a satisfactory way.

32. Although the figures in table IX.7 cannot be claimed to provide decisive evidence on the issue of the ability of Danish industries to compete, they still cover the important aspects which can be quantified without going into controversial - or unsettled - issues. The immediate conclusion to be drawn from the table is that, during the period up to 1973, wage costs of Danish manufacturing industries increased to an extent which made it increasingly difficult for the Danish balance of payments industries to compete. The findings of the present chapter may be considered as confirming the viewpoint that, up to 1973, too much attention was given to the aim of reducing short-term unemployment and too little attention was given to problems which had to be solved if full employment in the long run was to be maintained. These problems included the dampening of demand for output from domestic industries in order to restructure the economy, giving higher priority to the expansion of the balance of payments industries and thus contributing to the elimination of the balance of payments deficit.

Chapter X

FOREIGN TRADE AND BALANCE OF PAYMENTS

INTRODUCTION

1. In many of the preceding chapters, economic trends have been illustrated by data for selected years. However, when discussing balance of payments deficits, this form of presentation has a number of disadvantages. In order to provide a comprehensive survey, this chapter begins by indicating the size of, and discussing the trends in, the main items on the current account of the balance of payments on a year-by-year basis since 1950. The reason for going back that far should be obvious: the balance of payments issue has been one of the most troublesome in Danish economic policy ever since the Second World War. The persistent balance of payments deficits since 1960 have led to permanent problems of financing the steadily increasing foreign debt. How these problems have been handled is discussed in subsequent sections. Finally, problems related to the exchange rate will be discussed.

CURRENT ACCOUNT OF THE BALANCE OF PAYMENTS, 1950-1973

2. As appears from table X.1, the balance of payments was rather badly hit by the Korean crisis and the consequent substantial deterioration of the terms of trade. In 1950, the deficit on goods and services amounted to DKR 800 million, the largest deficit to be experienced for more than a decade. The deficit occurred in spite of the fact that the Danish krone had followed sterling, when the latter was devalued in 1949, thus maintaining the sterling rate of DKR 19.34 established when the Danish krone was revalued during the Second World War.

Fortunately, in 1950 and 1951 Denmark still received Marshall aid, of slightly below DKR 500 million per year. Nevertheless, the foreign exchange holdings at that time were so small - and the possibilities of foreign borrowing so limited - that deficits on the current accounts of the balance of payments could not be afforded. This constraint explains why the current account was virtually in balance during most of the 1950s - accompanied by substantial unemployment (cf. chapter I).

Table X.1

Main items on the current account of the balance of payments, 1950-1973

(DKR 1 000 million, current prices)

	Goods and services			Interest payments, transfers etc.	Balance of payments, current account
	Exports	Imports	Export surplus		
1950	6.0	6.8	- 0.8	0.4	- 0.4
1951	7.8	8.0	- 0.2	0.4	0.2
1952	8.0	7.8	0.2	-	0.2
1953	8.2	8.0	0.2	0.1	0.3
1954	8.8	9.2	- 0.4	- 0.1	- 0.5
1955	9.8	9.5	0.3	- 0.1	0.2
1956	10.5	10.5	0.0	- 0.1	- 0.1
1957	11.4	11.1	0.3	-	0.3
1958	11.9	10.9	1.0	- 0.1	0.9
1959	12.9	12.7	0.2	- 0.1	0.1
1960	13.8	14.2	- 0.4	-	- 0.4
1961	14.3	14.9	- 0.6	- 0.2	- 0.8
1962	15.3	16.8	- 1.5	- 0.2	- 1.7
1963	17.3	17.0	0.3	- 0.1	0.2
1964	19.4	20.5	- 1.1	- 0.3	- 1.4
1965	21.4	22.3	- 0.9	- 0.3	- 1.2
1966	22.9	23.9	- 1.0	- 0.5	- 1.5
1967	24.2	25.7	- 1.5	- 0.5	- 2.0
1968	27.2	28.3	- 1.1	- 0.5	- 1.6
1969	30.7	32.9	- 2.2	- 0.9	- 3.1
1970	34.6	37.8	- 3.2	- 0.9	- 4.1
1971	39.2	41.0	- 1.8	- 1.4	- 3.2
1972	44.1	42.7	1.4	- 1.8	- 0.4
1973	52.9	55.9	- 3.0	0.1	- 2.9

Source: Danmarks Statistik, Statistisk tiårsoversigt 1963, 1970 and 1975.

However, after the deterioration in connection with the Suez crisis in late 1956, the terms of trade again improved,¹ and so did the possibilities - and willingness - to borrow abroad. In 1958, the largest balance of payments surplus of the post-war period occurred, of slightly below DKR 1 000 million. Admittedly, this surplus partly reflected a running down of stocks, but in the following years exports - in particular of manufactures - increased at an unexpectedly rapid rate, providing for a satisfactory balance of payments position at declining rates of unemployment. At the end of 1960, the total net foreign debt amounted to less than DKR 500 million.

3. However, in the spring of 1961, following a new 'General Agreement' for the labour market, government expenditure increased substantially. The implied expansionist fiscal policy led to a record balance of payments deficit in 1962, accompanied by domestic price increases. As a result, the 'package solution', described in chapter IX, was passed in parliament in the spring of 1963, fixing money wage conditions for the following two-year period. In 1963, there was a surplus on the current account of the balance of payments - a situation that has not been repeated since. The surplus mainly reflected a reduction of stocks, leading to low import figures.

4. From 1964 onwards, the goods and services account of the balance of payments has shown a persistent deficit. Consequently, foreign debt has increased - as have the interest payments related to the foreign debt. This has caused the deficit on the current account to increase even more.

During most of the 1960s, the main philosophy was that the deficit should - apart from short-term changes of general business conditions - be seen as reflecting the difficulties of agriculture, and of agricultural exports in particular. However, even after most of the reduction of the labour force in agriculture had taken place, the balance of payments deficit continued. Nevertheless, optimism was renewed by the expected advantages to be obtained from future Danish membership of the EEC. In 1971,² temporary import duties were imposed in order to protect the balance of payments and the foreign exchange reserves during the year when the question of Danish EEC-membership was to be decided. Actually, imports slowed down in 1972, and a surplus occurred on the goods and services account. However, as net interest paid abroad had increased, the result for 1972 was a deficit, although a small one, on current account.

In 1973, after Denmark's accession to the EEC, the economy was booming. The advantages from the EEC membership actually showed up, partly in the form of payments to Denmark from EAGGF of around DKR 2 000 million (cf. the 'transfer' column in table X.1). However, increasing demand led to a substantial increase of imports, in particular because stocks had been reduced in 1972. Hence the balance of payments deficit returned to the DKR 3 000 million level.

¹ The terms of trade during the 1950s are shown in appendix table I.1.

² Legislation was passed in October 1971. According to the scheme, temporary general import duties were introduced at the rate of 10 per cent, to be reduced to 7 per cent in July 1972, to 4 per cent in January 1973 and to be abolished completely in April 1973.

Table X.2
Exports by commodities, 1950, 1958 and 1964
 current prices

	1950		1958		1964	
	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent
Beef and cattle	297	6	752	9	931	6
Bacon and pigs	747	16	1 249	14	2 048	14
Butter and cheese	1 056	23	805	9	1 126	8
Canned food	249	5	655	8	941	7
Other agric. exports	932	21	1 533	18	1 715	12
AGRIC. EXPORTS, TOTAL	3 281	71	4 994	58	6 761	47
Food, beverages, etc.	135	3	173	2	299	2
Machines, instruments, etc.	341	7	1 237	14	2 398	17
Metal products, etc.	215	5	614	7	1 072	8
Chemical products	174	4	488	6	906	6
Textiles and clothing	86	2	210	2	580	4
Wood, wooden prod., furniture	26	0	171	2	464	3
Other industrial prod.	142	3	385	5	1 045	7
INDUSTRIAL PRODUCTS, TOTAL	1 119	24	3 278	38	6 764	47
Other products	192	5	336	4	857	6
TOTAL EXPORTS	4 592	100	8 608	100	14 382	100

Note: The 1958 and 1964 figures are not completely comparable. However, this only affects the percentage distribution to a very limited extent.

Sources: 1950 and 1958 figures are from Ole Bus Henriksen and Anders Ølgaard, Danmarks Udenrigshandel 1874-1958, Copenhagen 1960. 1964 figures are from Det økonomiske Sekretariat, Økonomisk Årsoversigt March 1965.

EXPORTS BY PRODUCTS

5. The share of agricultural products in total exports continued to decline after the Second World War. In chapter II, only a few figures were shown in

Table X.3
Exports by commodities, 1964-1973
Current prices

	1964		1967		1969		1971		1973	
	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent
Beef and cattle	931	6	798	5	905	4	803	3	1 255	3
Bacon and pigs	2 048	14	2 163	12	2 129	10	2 284	9	3 229	9
Butter and cheese	1 126	8	1 141	7	986	4	1 174	4	1 402	4
Canned food	941	7	1 287	7	1 490	7	1 899	7	2 289	6
Other animal products	755	5	711	4	746	3	760	3	1 036	3
Vegetab. products	449	3	503	3	647	3	719	3	1 147	3
AGRIC. EXPORTS, TOTAL	6 250	43	6 603	38	6 903	31	7 639	29	10 358	28
Food, beverages, etc.	532	4	562	3	723	3	995	4	1 276	3
Instruments, radios, etc.	746	5	1 056	6	1 787	8	2 196	8	2 987	8
Other machines	1 614	11	2 203	13	2 985	13	3 841	14	5 061	14
Other metal prod., etc.	598	4	831	5	1 122	5	1 514	6	2 009	5
Pharmaceuticals	215	1	263	2	378	2	516	2	665	2
Other chem. prod.	718	5	1 091	6	1 648	8	1 646	6	2 175	6
Textiles and clothing	582	4	822	5	1 277	6	1 715	6	2 061	6
Furniture	256	2	329	2	452	2	554	2	897	2
Oil, etc.	121	1	188	1	266	1	453	2	699	2
Other industrial prod.	1 126	8	1 404	8	2 084	9	2 644	10	3 508	10
INDUSTRIAL PROD., TOTAL	6 508	45	8 749	51	12 722	57	16 074	60	21 338	58
New ships	452	3	544	3	712	3	772	3	849	2
Second-hand ships, etc.	221	2	228	1	348	2	370	1	1 241	4
Fish and fish prod.	706	5	837	5	1 050	5	1 462	5	2 291	6
Furs	248	2	303	2	462	2	422	2	740	2
TOTAL EXPORTS	14 385	100	17 264	100	22 197	100	26 739	100	36 817	100

Source: Det økonomiske Sekretariat, Økonomisk Oversigt, March 1972 and March 1976.

Table X.4
Agricultural exports by markets, 1965-73
 Current prices

	1965		1967		1969		1971		1973	
	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent
U.K.	2 432	49	2 607	54	2 417	51	2 493	50	2 998	44
Fed. Rep. Germany	921	19	551	12	705	15	541	11	901	13
Italy	401	8	397	8	454	10	556	11	1 245	18
Other EEC-countries	195	4	224	5	156	3	124	2	362	5
Finl., Norway, Sweden	176	4	215	4	287	6	323	6	354	5
Other EFTA-countries	188	4	181	4	109	2	198	4	162	2
U.S.A.	57	1	92	2	100	2	136	3	223	3
Other countries	547	11	546	11	538	11	650	13	677	10
TOTAL	4 917	100	4 813	100	4 766	100	5 021	100	6 922	100

Note: Figures correspond to those in table X.3, except that canned food and vegetable products are excluded.
 Source: Det økonomiske Sekretariat, Økonomisk Oversigt, March 1973 and March 1976.

order to illustrate this trend. Tables X.2 and X.3 provide a more detailed picture.¹

From 1950 to 1958, the declining share of agricultural products was to a large extent due to a marked decline in butter exports (from 156 000 tons in 1950 to 115 000 tons in 1958). Between 1958 and 1964, exports of eggs almost disappeared.

According to table X.3, the share of agricultural products in total exports continue to decline until the late 1960s, when it had been reduced to 30 per cent. During the following years, this share was roughly maintained, although with a slightly declining trend. This new pattern was mainly caused by better prospects for agricultural exports in connection with the possibility of Denmark entering the EEC.

6. Corresponding to the decline in the share of agricultural exports, that of industrial products increased during the 1950s and 1960s, reaching a level of roughly 60 per cent of total exports around 1970. The increase in exports of manufactures took place over a very wide range of products. 'Machines, etc.' remained the largest single item, but this category covers a wide range of different products.

EXPORTS BY MARKETS

7. Markets for agricultural and industrial exports differ considerably. The different patterns are illustrated in tables X.4 and X.5.

Agricultural exports are sold mainly to Western Europe, the most important markets up to 1973 being the U.K., followed by the Federal Republic of Germany and Italy, whereas exports to Sweden, Norway and Finland are quite insignificant. This fact may contribute to explaining why attempts to create close economic cooperation between the Scandinavian countries have never been successful.

The three main customers for agricultural exports accounted for no less than 75 per cent, with the U.K. buying roughly half of the total. Therefore, the obvious problem during the 1960s was that while Denmark's main customer - as

¹ Value figures for agricultural exports were already indicated in table II.5. The coverage of 'agricultural exports' in table X.2 is somewhat broader than in table II.5, hence the share of agricultural exports according to table X.2 is somewhat higher.

In 1959, the Brussels Trade Nomenclature was introduced. This gave rise to new difficulties in presenting comparable export figures. These difficulties explain why tables X.2 and X.3 differ with respect to grouping of products. A more detailed pattern is provided in table X.3 than in table X.2. At the same time, definitions were changed once more, reducing the coverage of total agricultural exports. However, figures inside table X.2 are roughly comparable, and table X.3 is not affected by problems of comparability.

Table X.5
Exports of manufactured goods by markets, 1965-73
 Current prices

	1965		1967		1969		1971		1973	
	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent	mill. DKR	per cent
Sweden	1 262	19	1 581	20	2 399	21	2 867	20	3 389	18
Norway	680	10	879	11	1 208	11	1 559	11	1 806	9
U.K.	546	8	719	9	1 089	10	1 599	11	2 471	13
Fed. Rep. Germany	959	15	901	12	1 289	11	1 723	12	2 389	13
Other EEC-countries	698	11	865	11	1 193	10	1 377	9	2 119	11
Other European countries ¹	877	13	961	12	1 415	12	1 872	13	2 441	13
U.S.A. and Canada	466	7	571	7	1 078	9	999	7	1 275	7
Other countries	1 132	17	1 427	18	1 858	16	2 389	17	3 021	16
TOTAL	6 620	100	7 904	100	11 529	100	14 385	100	18 911	100

¹ Excluding Eastern Europe.

Note: Some minor changes of definitions have taken place, but they only affect the absolute figures marginally and do not affect the percentage distributions.

Source: Det økonomiske Sekretariat, Økonomisk Oversigt 1970, March 1972 and March 1976.

well as Denmark itself - were not members of the EEC, half of the remaining agricultural exports were sold to EEC-countries, implying all the difficulties and uncertainties which suppliers of agricultural products outside the EEC have to face. When the U.K. in 1972 decided to join the EEC, it was obvious that these difficulties and uncertainties would increase substantially, unless Denmark itself became a member of the EEC.

Actually, Danish membership led to a reallocation of our agricultural exports, as is already apparent from the 1973 figures. The share of the U.K. declined, while that of Italy, the Federal Republic of Germany and other EEC-countries increased.

8. The market pattern for exports of manufactured goods remained remarkably stable during the period 1965-73 (cf. table X.5), the main exception being increased exports to the U.K. Roughly 75 per cent of manufacturing exports were sold in Western Europe, the most important market being Sweden. During the years of Danish membership of EFTA, the share sold in the EFTA countries increased at the expense of exports to the original six members of the EEC. However, Danish membership of the EEC reversed this trend. From 1971 to 1973, the share of manufacturing exports sold to the other eight EEC members increased from 32 per cent to 37 per cent.

IMPORTS BY PRODUCTS

9. The composition of imports (cf. table X.6), reflects developments in the industrial pattern, described in earlier chapters. For instance, imports of grain for feeding purposes have become of declining importance. In 1950, imports were affected by import policies at that time, for example with respect to quantitative restrictions; the same holds for the 1958 figures to some extent. Subsequently, and in particular during the early 1960s, imports of manufactured goods for consumption purposes increased substantially; a similar trend - starting somewhat earlier - is shown for the category of vehicles, ships and aircraft. The declining share of imports of fuel from 1958 to 1966 is mainly due to declining fuel prices.

10. On the whole, the figures illustrate the import pattern of an economy which is becoming gradually more industrialized with imports being increasingly liberalized. In this context, it might have been expected that, due to increased international specialization, the share of imports as a per cent of NDP would have shown an upward trend. This is, however, not the case (cf. the bottom row of table X.6), and several factors may be cited to explain this development.

First of all, short-term fluctuations in imports as a per cent of NDP reflect to a large extent changes in stockbuilding. This phenomenon explains the low 1972 figure (also affected by the temporary import duties) as well as the high 1973 figure. Furthermore, when considering the fact that total imports equalled 31-33 per cent of NDP in 1950, 1958 and 1966, the declining share of raw materials for agriculture should be borne in mind. Thirdly, it should be recalled that, whilst it may be true that the balance of payments industries, including the sector of manufacturing, have been affected by increased international division of labour, the relative size of this sector has been de-

Table X.6
Imports by commodity groups, 1950-1973
Current prices

	1950		1958		1966		1970		1972		1973	
	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent
Raw materials-agriculture	0.66	11	0.95	10	1.52	7	1.29	4	1.46	4	2.26	5
Raw materials-industry	1.79	30	2.29	24	4.26	21	7.05	21	7.14	20	9.12	20
Fuel and energy	1.00	17	1.50	16	2.18	11	3.38	10	3.77	11	4.92	10
Semi-manufactured prod.	1.30	22	1.71	18	4.18	20	7.10	22	7.91	22	10.04	21
Machines, instruments	0.36	6	0.90	10	2.96	14	5.05	15	5.23	15	6.91	15
Vehicles, ships and aircraft	0.30	5	0.94	10	2.39	12	3.51	11	3.68	11	5.46	12
Manuf. goods for consumpt.	0.15	3	0.47	5	1.84	9	3.59	11	3.91	11	5.35	11
Food, beverages, etc.	0.33	6	0.64	7	1.32	6	1.94	6	2.06	6	2.68	6
TOTAL IMPORTS	5.89	100	9.40	100	20.65	100	32.91	100	35.16	100	46.74	100
TOTAL IMPORTS AS PER CENT OF NDP		31.2		33.0		33.3		35.3		30.6		35.5

Sources: Ole Bus Henriksen and Anders Ølgaard, Danmarks Udenrigshandel 1874-1958, Copenhagen 1960, and Det økonomiske Sekretariat, Økonomisk Oversigt, various volumes.

Table X.7

Prices in foreign trade, including terms of trade, 1960-1973

Index 1960 = 100

	GDP deflator	Implicit deflators, goods and services			Foreign trade, goods		
		Exports	Imports	Terms of trade	Exports	Imports	Terms of trade
1960	100	100	100	100	100	100	100
1961	106	98	100	98	98	100	98
1962	112	101	100	101	99	99	100
1963	118	103	102	101	102	101	101
1964	124	107	103	103	105	102	103
1965	132	109	105	104	106	103	103
1966	141	112	107	105	110	104	106
1967	149	111	108	103	108	104	104
1968	155	115	114	101	110	110	100
1969	162	119	116	102	116	112	103
1970	176	126	123	103	122	119	103
1971	186	134	131	102	126	126	100
1972	200	139	132	105	132	126	105
1973	223	154	145	106	148	139	106

Source: Danmarks Statistik, Statistisk tiårsoversigt 1970 and 1975.

clining. At the same time, the relative size of domestic industries has increased, and their propensity to import is far lower than in the balance of payments industries.

PRICES IN FOREIGN TRADE AND THE TERMS OF TRADE

11. In table X.7, the pattern of prices in foreign trade is illustrated for the period 1960-1973. In the first column, the GDP deflator is shown. Price increases according to the GDP deflator substantially exceed price increases in foreign trade. This pattern may partly reflect international difficulties in marketing raw materials (Danish importers benefiting from such difficulties). An additional, and no less important, explanation is that the prices of goods exported and imported are more likely to be affected by increases of productivity than domestic services.

In chapter I, and in appendix table I.1 in particular, terms of trade figures were arrived at for goods and services, based on national accounts statistics.

Such figures are shown in columns 2-4 in table X.7. In the last three columns, corresponding figures are shown according to the usual way of presentation, covering goods only. Terms of trade figures are very similar according to the two procedures of estimation. Furthermore, they remained remarkably stable during the period 1960-73.

A larger improvement might perhaps have been expected between 1972 and 1973, reflecting improved agricultural prices due to the Danish EEC-membership. However, the latter largely showed up as EAGGF payments of about DKR 2 000 million per year. These payments were included in transfers in table X.1, and therefore are not included in table X.7.

If, instead, they had been interpreted as higher export prices, the total value of exports, which in 1973 amounted to about DKR 40 000 million, would have been increased by an additional 5 per cent - and the terms of trade would have shown an additional improvement of the same order of magnitude.

BALANCE OF PAYMENTS, SERVICES AND TRANSFERS

12. In table X.8, all the main items of the balance of payments are indicated for selected years during the period 1960-1973. Services receipts according to the table are net receipts.¹

The balance of trade has shown a persistent - and increasing - deficit. To some extent, this has been offset by net earning from foreign services. In particular, shipping has contributed with increasing net receipts, growing from DKR 1 000 million in 1960 to DKR 4 000 million in 1973, equivalent to slightly below half of the import surplus.

Tourism has also given rise to net receipts, although of a much smaller order of magnitude. Substantial difficulties are involved in defining this item in a consistent way, and in collecting relevant statistical information. It should be added that the level of gross receipts in 1960 was about DKR 700 million. In 1966, this amount had roughly been doubled. In 1973, gross receipts amounted to DKR 3 500 million, reflecting the rapid expansion of the sector of tourism.

Other services, including a variety of items, have shown steadily increasing net receipts.

¹ In order to ensure comparability with the foreign trade figures in the previous tables, but contrary to the procedures recommended by IMF and others, imports are indicated cif (and not fob). Consequently, in order to obtain consistency, freight expenditure related to foreign ships carrying imports to Denmark are not included among the service items. Furthermore, to the extent that imports are brought to Denmark on Danish ships, the corresponding freight values are included among the service credits earned by Danish shipping.

13. The main item on the transfers account is net foreign interest payments. These payments have shown an increasing deficit, reflecting the increasing net foreign debt. In late 1973 it was estimated that future interest payments on the foreign debt of the government sector at that time would amount to DKR 700-800 million per year in the following years.¹

Unilateral transfers have also shown an increasing net outflow, mainly reflecting assistance to developing countries. However, in 1973, net receipts of DKR 1 400 million were recorded, a figure which includes net payments from the EEC, in particular EAGGF payments.

FINANCING OF THE BALANCE OF PAYMENTS DEFICITS

14. In order to contribute to reducing the risk of private foreign debt leading to speculation against the Danish krone, the government sector undertook a substantial amount of foreign long-term borrowing, thus attempting to 'fund' part of the increasing foreign debt. Such borrowing was undertaken in 1971 and 1972 in particular. During these two years, the net foreign indebtedness of the government sector increased by DKR 3 500 million. Such loans at the same time implied an increase in the foreign exchange holdings of the central bank. According to the bottom part of table X.8, the net change in the foreign debt of the banking sector was, on the whole, negative, implying increased foreign-exchange holdings.

The major part of the burden of financing the increasing foreign debt fell on the private non-bank sector. This is true, in particular, for the later years of the period except for 1972, when several factors - including the slow rate of growth of imports - caused the foreign debt of the non-bank private sector to remain constant. However, this tendency was strongly reversed in 1973, when private net foreign borrowing amounted to DKR 4 500 million or substantially more than the deficit on the current account of the balance of payments for that year, the result being an increase of DKR 2 000 million in Denmark's foreign exchange holdings. This increase in private net foreign debt partly reflected the boom of imports, but may also be explained by the Danish entry into the EEC as well as by the substantial increase of private investment in 1973.

15. In 1960, total net foreign debt was insignificant - and amounted to about DKR 500 million. However, during the early 1960s balance of payments deficits started to become a permanent feature of the economy (cf. table X.1), and by the end of 1966 the net foreign debt had reached DKR 5 700 million. This figure roughly corresponded to private foreign debt, as net government debt was equal to the foreign exchange holdings of the banking system (cf. the first column of table X.9).

By the end of 1973, total net foreign debt had increased to DKR 19 000 million (cf. the last columns of table X.9). Net foreign exchange holdings of the banking system - DKR 8 000 million - nearly corresponded to the net debt

¹ See Budgetministeriet, Danske Statslån 1972-73, Copenhagen 1973, p. 87.

Table X.8
The balance of payments, 1960-73
 Current prices

(DKR 1 000 million)

	1960	1966	1968	1970	1971	1972	1973
Imports, cif	12.43	20.65	24.19	32.91	34.01	35.16	46.74
Exports, fob	10.16	16.59	19.38	24.67	26.74	30.14	36.82
BALANCE OF TRADE	- 2.27	- 4.06	- 4.81	- 8.24	- 7.27	- 5.02	- 9.92
<u>Services, net receipts</u>							
Foreign shipping ^a	+ 1.34	+ 1.92	+ 2.48	+ 3.48	+ 2.94	+ 3.40	+ 4.03
Tourism	+ 0.23	+ 0.10	+ 0.03	+ 0.31	+ 0.57	+ 0.81	+ 0.48
Other services	+ 0.26	+ 0.80	+ 0.85	+ 1.00	+ 1.52	+ 1.84	+ 2.02
GOODS AND SERVICES, NET^b	- 0.44	- 1.24	- 1.45	- 3.45	- 2.24	+ 1.03	- 3.39
<u>Transfers and factor incomes, (net)</u>							
Interest payments, etc.	+ 0.03	- 0.12	- 0.21	- 0.34	- 0.54	- 0.83	- 0.96
Transfers	c	- 0.09	+ 0.04	- 0.29	- 0.39	- 0.60	+ 1.40 ^d
CURRENT ACCOUNT BALANCE	- 0.41	- 1.45	- 1.62	- 4.08	- 3.17	- 0.40	- 2.95
<u>Net increase in foreign debt</u>							
Private non-bank sector ^e	0.91	1.68	0.96	3.47	1.86	0.09	4.57
Government sector	1.10	0.01	0.60	0.64	2.14	1.48	0.42
Banking sector	- 1.60	- 0.24	0.06	- 0.03	- 0.83	- 1.17	- 2.04
TOTAL	0.41	1.45	1.62	4.08	3.17	0.40	2.95

a) As imports of goods are on a cif basis, the figures for services include Danish shipping receipts in connection with imports to Denmark, but exclude payments to foreign ship-owners in connection with imports to Denmark.

b) Due to differences with respect to definitions as compared with table X.1, the balance according to table X.8 is lower by an amount increasing to DKR 400 million by 1973. The difference is related to the fact that table X.8 includes Greenland and the Faeroe Islands, but these areas are not included in table X.1. There is an offsetting difference on transfers account, and the current account deficits according to the two tables tally.

c) In 1960, these transfers are included among 'Other services'.

d) Including net receipts of DKR 2 000 million from the EEC, mainly EAGGF payments.

e) Including errors and omissions amounting to between DKR 300 - 700 million.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1970 and 1975.

Table X.9

Danish foreign assets and liabilities, end of 1966 - end of 1973

(DKR 1 000 million)

	Net, end of 1966	Accumulated changes of net position ac- cording to bal. of paym., cap. acc., 1967-73 ¹)	End of 1973		
			Net	of which	
				assets	liab.
Priv. non-banks sector	- 5.95	-14.31	-16.84	17.31	34.15
Government sector	- 3.51	- 6.18	-10.06	1.73	11.79
Banking sector	+ 3.72	+ 3.18	+ 8.23	13.22	4.99
TOTAL	- 5.74	-17.31	-18.67	32.26	50.93

¹ Figures are taken from the bottom part of table X.8, including figures from 1967 and 1969, not indicated in the latter table.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1975.

of the government sector - DKR 10 000 million. Thus, by far the major part of the debt was held by the non-bank private sector. It should be emphasized that this pattern was not a matter of coincidence. On the contrary: as was discussed in chapter VIII, one of the aims of monetary policy was to keep interest rates sufficiently high so as to make it profitable for Danish firms to borrow abroad.

16. By taking as a starting point the net (foreign) liabilities of a certain year (1966) and adding the accumulated increases of net debts according to the capital accounts of the balance of payments over a certain period (1967-73), the result should be equal to the net debt at the end of the period (1973). Of course, this assumes that the values (in Danish kroner) of foreign assets and liabilities do not change, e.g. as a consequence of adjustments of - Danish or foreign - exchange rates. This exercise is undertaken in the middle columns of table X.9.

According to the table, net foreign debt at the end of 1973 was lower than this method of calculation would suggest. Net foreign debt at the end of 1966 amounted to somewhat below DKR 6 000 million, and the accumulated deficits on current accounts of the balance of payments during the years 1967 through 1973 totalled well above DKR 17 000 million. However, at the end of 1973, net foreign debt did not amount to DKR 23 000 million, but only to DKR 19 000 million.

On a sector basis, the figures roughly match for the government sector. However, the net position of the banking sector at the end of 1973 was around DKR 1 000 million better than the simple calculations would indicate, mainly due to the creation of SDR's.

Perhaps the most interesting result is that, according to table X.9, the non-bank private sector made a 'capital gain' on foreign assets and liabilities during 1967-73 of about DKR 3 500 million. Probably, one of the explanations is that a substantial part of private liabilities (trade credits, etc.) had been fixed in pounds sterling, the external value of which declined substantially during the period 1967-73.

17. Finally, in the last columns of table X.9 the net foreign debt of the three sectors at the end of 1973 are divided into assets and liabilities. As appears from the figures, the government sector only holds foreign assets to a limited extent. Gross liabilities amounted to nearly DKR 12 000 million, of which roughly DKR 6 000 million were held by the central government (cf. table VI.13).

Net foreign holdings by the banking sector amounted to DKR 8 200 million at the end of 1973. The figure equals the net official reserves (including reserve position in IMF as well as SDR's) plus net foreign exchange holdings by the private banks.

The most interesting results according to the last columns of table X.9 are those referring to the non-bank private sector. This sector had a net debt of DKR 17 000 million, but its gross liabilities amounted to no less than DKR 34 000 million, of which no less than DKR 13 000 million were short-term loans. These figures provide another illustration of the vulnerable position of the Danish economy, when economic problems started to become really serious at the end of 1973.

THE EXCHANGE RATE

18. In a general international context, the Danish krone is of rather limited importance. Therefore, from a Danish viewpoint relative exchange rates between foreign currencies are to be considered exogenous. As soon as the Danish exchange rate has been decided upon in connection with one foreign currency, the whole pattern of exchange rates follows immediately.

From the beginning of the present century and up to the early 1960s, the sterling rate was considered to be the key exchange rate. On the export side, where agricultural products predominated, the main customer was Britain. Furthermore, imports - including raw materials - were to a large extent purchased in Britain¹ or at least according to contracts expressed in sterling. Therefore, any discussion of the exchange-rate invariably referred to the sterling rate.

¹ Before the change in the presentation of Danish foreign trade statistics in 1959, the geographical analysis was based on 'country of sale' (rather than final destination) and 'country of purchase' (rather than country of origin). Ever since the First World War, Britain has been both the most important market for Danish exports and the most important supplier of goods to Denmark; see figures (up to 1958) in Ole Bus Henriksen og Anders Ølgaard, Danmarks Udenrigshandel 1874-1958. Copenhagen 1960.

Table X.10
Foreign exchange rates, kroner per foreign unit of exchange

	1967, par values		Selling rates, December 31st ¹					
	Prior to de- valua- tion	After deval- uation	1968	1969	1970	1971	1972	1973
U.S. dollar	6.91	7.50	7.50	7.49	7.49	7.06	6.85	6.29
Pound sterl.	19.34	18.00	17.89	17.99	17.93	18.04	16.05	14.60
Swedish kr.	1.34	1.45	1.45	1.45	1.45	1.46	1.44	1.37
Norwegian kr.	0.97	1.05	1.05	1.05	1.05	1.05	1.03	1.10
Deutsche mark	1.73	1.88	1.88	2.03	2.05	2.16	2.14	2.33

¹ Quoted by Danmarks Nationalbank.

Source: Danmarks Nationalbank, Beretning og regnskab, various volumes. In particular, see the 1967 report.

19. The krone/sterling rate according to the gold standard prior to the First World War was DKR 18.16. During the mid-1920s, this rate was re-established, but in early 1933 the krone was devalued as part of a package of political measures. The new rate of DKR 18.16 per pound sterling was maintained until the Second World War. During the war, the krone was revalued in order to dampen inflation, the new sterling rate being 19.34. This rate was maintained until 1967. In 1949, the Danish krone followed sterling, when the latter was devalued in terms of dollars. Other exchange rates just prior to the sterling devaluation in 1967 are shown in the first column of table X.10.

20. Because the close relationship between the krone and sterling had been maintained for decades, the devaluation of sterling in 1967 by 15 per cent put the political authorities in a difficult position. The problem was complicated by the fact that Norway and Sweden did not want to adjust their parity because of the sterling devaluation. However, the Danish balance of payments deficit had increased during 1966 and 1967. Finally, it was decided to follow sterling, but only half way. The krone was revalued by 6.9 per cent against sterling and was devalued against most other currencies, by 8.6 per cent. The resulting pattern of Danish exchange rates prevailed during the following three years (cf. table X.10).

21. The exchange rate decision in 1967 represented a compromise, partly reflecting the fact that although the UK was still an important trade partner, its importance was diminishing, mainly because of the declining role of agricultural products in total exports. Furthermore, the compromise implied that the exchange rate vis-à-vis the other Scandinavian currencies was increased

by roughly 8 per cent. These countries were important markets for Danish exports of manufactures (cf. table X.5). At the same time, there was a strong political interest in maintaining fixed exchange rates between Norway, Sweden and Denmark. This object was actually achieved from 1968 up to 1972, when the value of sterling started to decline once more.

22. At that time, the Scandinavian countries abandoned the policy of keeping their currencies tied to sterling. In April 1972, i.e. prior to the Danish entry into the EEC, Denmark and Norway started negotiations with the central banks of the EEC-countries on joining the 'snake', and in March 1973 Sweden joined this arrangement.

For a variety of reasons, it is especially difficult for the currency of a 'small' economy to float independently; in practice it will usually be tied to a more important currency - or perhaps to a block. During the late 1950s, informal talks had taken place as to whether the Danish krone should join the sterling area. However, such arrangements were never formalized. By 1973, the Scandinavian currencies were certainly not linked to sterling anymore. Instead, the major currency to which they were tied was the Deutsche mark, the latter playing a dominating role in the 'snake' system.

23. Finally, some comments might be appropriate on the question of exchange-rate adjustments as an instrument of economic policy up to 1973, i.e. during a period of low unemployment, but with substantial balance of payments deficits. Actually, no independent Danish steps were taken in this field. However, when a decision was forced upon the government in November 1967, the Danish labour-party government suggested steps be taken with respect to the suspension of the escalator clause in order to avoid corresponding increases of money wages. However, the government was voted down in parliament, and at the ensuing election, a liberal-conservative government took office (cf. chapter IX).

24. The reluctance of Danish governments to use a devaluation of the Danish krone as a remedy in order to improve the balance of payments may partly reflect the political experiences of late 1967. But more fundamental economic aspects were also involved. First of all, it was recognized that a devaluation should be accompanied by steps in the field of incomes policy in order to avoid subsequent increases of domestic prices and money wages, if the devaluation were to be successful from a balance of payments viewpoint. Such steps in the field of incomes policy, however, are especially difficult to implement during periods of nearly full employment. Furthermore, introducing devaluation as a policy instrument was bound to create uncertainty as to whether additional future devaluations might take place, and hence could create additional uncertainty as to the future rate of domestic inflation.

At the same time, the problem of dampening the rate of inflation had become increasingly urgent during the late 1960s and the early 1970s (cf. chapter IX). However, one certain effect of a devaluation would be to increase the rate of domestic inflation. Therefore, the viewpoint that prevailed in the debate on these issues during the years up to 1973 was that the only appropriate policy to correct the balance of payments deficits was to reduce the pressure of domestic demand, in particular demand directed towards domestic industries.

25. In fact, the issue of a possible unilateral devaluation was only once brought up in recent years, namely during the campaign prior to the referendum on future EEC-membership. Here the government made it clear that if the proposal on Danish EEC-membership was turned down by the electorate, the Danish krone would have to be devalued substantially, perhaps by 20 per cent. However, with a positive outcome of the referendum, this possibility did not materialize.

Chapter XI

FROM GROWTH TO RECESSION, 1973-1977

POPULATION AND LABOUR FORCE

1. In 1973, the size of the Danish population passed the 5 million mark. Since then, the population has continued to increase, although at only a modest rate of about 0.3 per cent per year. This was caused by the age distribution of the population being favourable from the viewpoint of fertility.

Net immigration had been unusually large in 1973, as a result of the substantial labour shortage due to the general economic boom. During 1974 and 1975, this development was reversed and net emigration took place, roughly corresponding to the net immigration of 1973.

2. The total number of births per year showed a substantial decline, (cf. table XI.1). The net reproduction rate, which had been above 1 200 during the main part of the 1960s, remained below 1 000. In 1977 it was even below 800.

Table XI.1
Population, deaths, immigration, births

(1 000 persons)

	1973	1974	1975	1976	1977
Total population, mid-year	5 022	5 045	5 060	5 073	5 088
Deaths	50.5	51.6	50.9	54.0	50.5
Net immigration	12.2	- 6.6	- 8.7	3.3	5.8
Births	71.9	71.3	72.1	65.3	61.9
(Legal abortions)	(16.5)	(24.9)	(27.9)	(26.8)	(25.7)
NET REPRODUCTION RATE (PER 1 000)	915	908	921	829	794

Source: Danmarks Statistik, Befolkningens bevaegelser 1977.

Table XI.2
Age distribution of the population

	1973	1977	1980	1990
<u>Age (both sexes):</u>				
0 - 6	10.3	9.8	9.4	9.4
7 - 16	15.5	15.4	15.2	13.2
17 - 24	12.0	11.7	11.6	11.7
25 - 66	51.2	51.4	51.4	52.4
67 - 79	9.1	9.2	9.6	9.8
80 and over	1.9	2.5	2.8	3.5
TOTAL, PER CENT	100.0	100.0	100.0	100.0
TOTAL POPULATION, 1 000 PERSONS	5 036	5 080	5 126	5 251

Sources: 1973 figures (1 January 1974): Danmarks Statistik, Befolkningens bevaegelser 1973.
 1977-1990 figures: Danmarks Statistik, Befolkningsprognoser 1977-2000, S.U. No 36, Copenhagen 1978.

A similar development can be observed in other Western European countries. However, in Denmark the period under study was affected by an important change in the law concerning abortions in 1973.¹ During the following years, the total number of legal abortions remained around 25 000² as compared with 60 - 70 000 births per year. Short-run fluctuations in the number of abortions have been similar to fluctuations in the number of births. From 1974 to 1975 they both increased, during the following two years they both declined.

3. On the basis of this evidence, new estimates of the size and composition of the population have recently been made, (cf. table XI.2). Total population is expected to continue to grow slowly, and the share of the population with the highest rates of participation in the labour force (25-66 years) will remain constant or perhaps even increase slightly. But the share of children and youngsters (requiring kindergardens and schools, etc.) is expected to decline. It should, however, be kept in mind that these estimates are bound to be rather uncertain.

¹ According to a law, passed in June 1973, a woman became entitled to have an abortion during the first 12 weeks of her pregnancy.

² Prior to 1973, the number of legal abortions had been as follows: 1966-68 roughly 6 000 per year, 1969: 7 300, 1970: 9 400, 1971: 11 200 and 1972: 13 000.

Table XI.3
Labour force by occupation

	1973, total		1977			
			total		Full-time employed ¹	
	1 000 pers.	per cent	1 000 pers.	per cent	1 000 pers.	per cent
Agriculture etc.	233	9.5	220	8.5	203	9.3
Manufact., handicraft	652	26.7	635	24.6	551	25.2
Build. and construct.	202	8.3	209	8.1	190	8.7
Distribution, banking, etc.	384	15.7	399	15.5	342	15.6
Transport	167	6.8	171	6.6	156	7.1
Private services	204	8.3	216	8.4	174	7.9
Government services	564	23.1	678	26.3	544	24.9
Others	40	1.6	51	2.0	28	1.3
TOTAL LABOUR FORCE	2 446	100.0	2 579	100.0	2 188	100.0
Converted to full-time employed ¹	2 199	89.9	2 188	84.8		
<u>of which</u> : men	1 417		1 396			
women	782		792			

¹ The figures are adjusted for part-time work, applying the same techniques as were used in connection with table VI.3. In addition - and contrary to table VI.3 - the figures exclude the unemployed.

Note: For concepts, see tables I.3 and VI.3.

Sources: Danmarks Statistik, Statistisk tiårsoversigt 1978 and Statistiske Efterretninger 1978, No A 11.

The most striking aspect - and probably the most reliable too - is the increasing share of old people. In particular, the share of those at 80 and above is expected almost to double between 1973 and 1990. Obviously, this is bound to have important consequences for government expenditure in the form of pensions, the provision of institutions, etc.

4. From 1973 to 1977, the total labour force increased by roughly 5 per cent (cf. table XI.3). In 1973, 67.3 per cent of the population aged 15-74 years belonged to the labour force; in 1977 the participation rate had increased to 69.7 per cent. While the participation rate of men remained rather stable, that of women increased substantially.

Table XI.4
Labour force in government services

(1 000 persons)

	Total labour force		of which actually employed (full-time equivalent)	
	1973	1977	1973	1977
Admin., police, defence	125	136	117	124
Education etc.	167	197	137	161
Health and soc. services	272	345	219	259
GOVERNMENT SERVICES, TOTAL	564	678	473	544
Professions	68	78	60	68
Other occupations	1 814	1 823	1 666	1 576
TOTAL LABOUR FORCE	2 446	2 579	2 199	2 188

Note: For concepts, see tables VI.2, VI.3 and XI.3.

Sources: Danmarks Statistik, Statistisk tiårsoversigt 1978, Statistiske Efterretninger 1978 No A 11 and supplementary information from D.S.

5. Since 1973, the share of the labour force employed in the balance of payments industries has continued to decline, and in manufacturing industries and in agriculture, the labour force has even declined in absolute terms.

On the other hand, the share of the labour force employed in the government sector continued to grow. Out of an increase in the total labour force of 130 000 persons, more than 100 000 were accounted for by government services (cf. table XI.3). The major part of this increase, i.e. more than 70 000 persons, took place in the sector of health and social services (cf. table XI.4). Not only does this table provide a break-down of the labour force in government services, it also provides figures on actual employment, converted to equivalent full-time employment. On the latter basis, the relative increase of employment in the sector of health and social services from 1973 to 1977 becomes somewhat smaller; nevertheless it remains the fastest expanding sector of the whole labour market.

6. Concluding this summary of recent trends in the labour force, a few comments on the composition of the labour force by sex and marital status should be made. As will be recalled from table VI.4, substantial changes took place in this area from 1967 to 1973; the pattern of these changes continued from 1973 to 1977 (cf. table XI.5 which is fully comparable with table VI.4). For the ten-year period 1967-1977 as a whole, the total number of persons employed in government services increased from 368 000 to 678 000. Within this total, the number of married women rose from 122 000 in 1967 to no less than 304 000 in 1977; in 1967, 65 000 of these married women were employed in the sector of health and social services but this total had grown to no less than 188 000 by 1977.

Table XI.5
Composition by sex and marital status of labour force
in government services (unjusted data)

(1 000 persons)

	Men		Unmarried women		Married women		Total	
	1973	1977	1973	1977	1973	1977	1973	1977
Admin., police, defence	77	85	19	18	29	33	125	136
Education etc.	70	83	26	31	71	83	167	197
Health, soc. serv.	37	47	94	110	141	188	272	345
GOVERNMENT SERVICES, TOTAL	184	215	139	159	241	304	564	678
Professions	38	45	12	12	18	21	68	78
Other occupations	1 232	1 230	188	202	394	391	1 814	1 823
TOTAL LABOUR FORCE	1 454	1 490	339	373	653	716	2 446	2 579

Note: For earlier years, see table VI.4.

Sources: See sources to table XI.4.

Table XI.6
Total GDP, real product and real income

	GDP, current prices DKR 1000 million	GDP deflator 1955=100	Terms of trade, 1955=100	Real product, 1955-prices		Real income, 1955-prices	
				DKR 1000 million	per cent incr.	DKR 1000 million	per cent incr.
1973	158.9	254.6	110	62.4	2.4	65.7	2.3
1974	182.4	287.0	98	63.6	1.9	62.8	- 4.4
1975	203.8	326.6	101	62.4	- 1.8	62.8	0.0
1976	233.1	355.7	102	65.5	5.0	66.4	5.7
1977	256.8	382.2	99	67.4	2.8	67.1	1.1

Note: For concepts etc., see appendix table I.1. The figures for 1973 have been slightly revised.

Source: Danmarks Statistik, Statistikens tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

FLUCTUATION OF MAIN ECONOMIC INDICATORS

7. The oil crises of late 1973 and the subsequent increase in fuel prices caused a substantial deterioration in the terms of trade (see table XI.6) of about 10 per cent.¹ The deterioration was abrupt and the effects dramatic. It should, however, be kept in mind that the terms of trade in the period 1974-77 were roughly equal to those prevailing in the late 1960s, if the EAGGF payments to Danish agriculture are interpreted as improved export prices.

Although the Danish national accounts data have been subject to radical revision during the last years (the purpose being to introduce the SNA definitions suggested by the United Nations and, in particular, the EEC of this system,² the figures in the present chapter are based on the old definitions, partly in order to allow for comparison with figures in earlier chapters, partly because a comprehensive set of national accounts data according to the new definitions are not yet available for 1974 and following years. The national accounts figures of the present chapter should be considered preliminary, and some of the rather surprising results according to the tables may reflect shortcomings on the part of the data rather than economic realities. This is especially true with respect to disaggregated figures.

8. While total real product increased by two per cent from 1973 to 1974, the terms of trade deterioration implied that total real income declined by 4-5 per cent during the same period. From 1974 to 1975 total real product declined by two per cent while, due to some improvement in the terms of trade, total real income remained constant.³ In 1976, real product as well as real income increased by 5-6 per cent, but in 1977 the upswing faded out. Real product increased by less than 3 per cent, and real income by only 1 per cent.

9. Table XI.7 shows the main factors behind the rather unstable development of overall growth from 1973 onwards. In spite of a substantial - but probably partly involuntary - increase of stocks, domestic demand declined from 1973 to 1974, partly reflecting the decline of real income, but mainly because of a substantial reduction in fixed investment. At the same time, the volume of exports increased whilst that of imports declined, hence real product was

¹ As was explained in a note to appendix table I.1, the terms of trade figures are calculated on the basis of national accounts data. They do not include payments, cf. the section on prices in foreign trade in chapter X. If the latter payments had been included, the terms of trade would have improved by an additional 5 per cent from 1972 to 1973.

² Among other things, according to the new system, repair and maintenance will be considered as input and hence not be included in gross figures of domestic product, national income, etc. See Danmarks Statistik, Statistiske Efterretninger 1978 No A 20.

³ Actually, the discrepancy between the figures on growth rates of real product and real income in table XI.6 probably underestimates the effect of terms of trade changes. The figures are based on weights from as far back as 1955, hence the relative weight of foreign trade as compared with total national product is probably less than it ought to be.

Table XI.7

Annual growth rates of main national accounts components

Real product figures

(Per cent)

	1973	1974	1975	1976	1977
Domestic demand	7.2	- 3.7	- 2.2	11.8	- 0.2
Exp., goods and services	8.9	5.2	- 2.3	3.4	4.1
TOTAL DEMAND	7.7	- 0.9	- 2.3	9.0	1.2
Imp., goods and services	18.0	- 4.5	- 4.2	16.5	- 1.6
GROSS NAT. PROD., MARKET PRICES	2.6	1.3	- 1.2	5.1	2.8

Note: For earlier years, see table VII.1. No adjustment of the demand figures has been made with respect to indirect taxes and with respect to repair and maintenance.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

able to increase, although only moderately. However, due to the deterioration of the terms of trade, the balance of payments deficit at current prices increased.

From 1974 to 1975, all the main items in the national accounts showed a decline at constant prices (real product figures). Imports declined more than exports, hence the balance of payments position improved. This improvement should, however, be seen in the light of changes of stocks. While the latter increased by roughly DKR 1 000 million (at 1955 prices) in 1974, they declined by more than DKR 1 600 million in 1975.

10. In the autumn of 1975, a substantial - although shortlived - expansion of domestic demand occurred. It continued to the autumn of 1976, i.e. during roughly one year. From 1975 to 1976, domestic demand increased by no less than 12 per cent (cf. table XI.7). Private consumption increased, and so did private fixed investment. Furthermore, the run-down of stocks which occurred in 1975 was replaced by some positive stockbuilding during 1976.

Unfortunately, the only demand component which only showed a moderate increase was exports of goods and services. At the same time, imports increased by more than 15 per cent, and the balance of payments deficit reached record levels. As a result, economic policy was tightened, and during 1977 the upswing faded out.

11. When economic developments during the period 1973-77 are appraised from the viewpoint of whether the main objectives of economic policy have been achieved, the conclusion can hardly be claimed to be very positive (cf. table XI.8). In this connection it should, of course, be recalled that Denmark has shared this fate with most other industrialized countries.

Table XI.8
Main economic indicators

	1973	1974	1975	1976	1977
<u>Balance of payments,</u> current acc., DKR 1 000 million	- 2.8	- 5.6	- 3.0	-11.6	- 9.9
<u>Average rate of unemployed:</u>					
Persons under insurance	2.4	5.2	11.1	10.0	11.4
Total labour force	1.1	2.5	6.0	6.1	7.7
<u>Average price increase</u> according to GDP deflator	11.3	12.7	13.8	8.9	7.2

Note: For concepts and earlier years, see table VII.2.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

The balance of payments deficit has already been mentioned. It remained at roughly DKR 3 000 - 5 000 million per year during 1973-75, but subsequently increased to DKR 10 000 million per year in 1976 and 1977. Although stock fluctuations should be kept in mind, such persistent deficits - which, in 1976 and 1977, corresponded to roughly 4 per cent of GDP at current prices - were clearly quite unacceptable. Hence the balance of payments problem, which had been the major constraint on economic policy prior to 1973, has since become even more intractable.

12. In addition, the rate of unemployment increased substantially. As was discussed in the final part of chapter I, the traditional statistics on unemployment overestimate actual rates. Therefore, supplementary figures covering the whole labour force are shown in table XI.8. According to the latter, the rate of unemployment increased from 1 per cent in 1973 to 6-8 per cent in 1975-77.

On the basis of past experience, even higher rates of unemployment might have been expected, given the development of domestic product during the period from 1973 to 1977 as well as the increase of the total labour force. In particular, the 1976 upswing is hardly reflected in the unemployment figures. A variety of explanations for this pattern may be suggested, but the main conclusion to be drawn is that labour productivity must have been increasing far less than during earlier periods. One implication of this conclusion is probably that, if or when a substantial increase of total demand should occur sometime in the future, the immediate result may be increased productivity rather than a substantial decline in the rates of unemployment.

13. As far as the objective of reducing the rate of domestic inflation is concerned, at least some improvement has been made. In table XI.8, the rate of inflation is illustrated by the implicit price deflator of gross domestic

product. According to this yardstick, the rate of inflation in 1973 was 11 per cent. The subsequent deterioration in the terms of trade was of the worst possible type from the viewpoint of restoring price stability, namely a very substantial increase in import prices in a limited, but essential field, i.e. fuel. This increase in fuel prices administered a shock to the pattern of relative prices and wages, which has still not been fully absorbed.

Although output almost stagnated and unemployment increased from 1973 to 1975, the rate of inflation accelerated, reaching a peak of nearly 14 per cent in 1975. But subsequently - and in spite of the 1976 upswing - the rate of increases in prices finally began to decelerate, and the rate of inflation in 1977 was 'only' slightly above 7 per cent.

THE INDUSTRIAL PATTERN

14. For reasons explained in chapter I, changes in the industrial pattern at constant prices are best illustrated by real income figures. Such figures are shown in table XI.9, which corresponds to table I.7.¹

From 1973 to 1975, the real income of agriculture and of manufacturing industries actually declined.² During the following two years, the real income of these balance of payments industries increased. Still their share of total real income was lower in 1977 than in 1973.

In real income terms, the building and construction industry declined substantially from 1973 to 1975, but it should be recalled that the 1973 level was unusually high. From 1975 to 1976, it recovered somewhat. However, from 1974 onwards it can hardly be claimed that the expansion of this domestic industry represents a major problem from the viewpoint of providing sufficient resources for the balance of payments industries.

A similar conclusion can not be drawn with respect to the other - and in fact the major - domestic industry, i.e. government services.³ According to table XI.9 - and to the findings in the above section on the labour force - the role of government services has been increasing steadily. This is true for its 'real income' in absolute terms and is reflected by the share of government services in total real income. The latter increased from 19.2 per cent in 1973 to 21.4 per cent in 1977.

¹ Some minor differences for 1973 according to the two tables are due to revisions in the basic national accounts data.

² It should, however, be kept in mind that the real income figures for agriculture according to table XI.9 do not take into account payments from EAGGF, the latter being treated in the national accounts as transfers.

³ Obviously, with substantial overall unemployment this statement does not refer to immediate availability of labour resources. But additional aspects should be taken into account, e.g. the question of financing increasing government expenditure. Some of these aspects are discussed later in the present chapter.

Table XI.9
Real income by industries, 1955-prices

	1973	1974	1975	1976	1977	Percentage ¹ distribution	
	DKR 1 000 mil- lion	DKR 1 000 mil- lion	DKR 1 000 mil- lion	DKR 1 000 mil- lion	DKR 1 000 mil- lion	1973	1977
Agriculture, etc.	5.3	5.1	4.7	4.8	5.0	8.1	7.5
Manufact. handicraft etc.	18.8	17.4	17.2	18.4	18.4	28.6	27.3
Building and construction	6.2	5.6	5.3	5.9	5.8	9.4	8.7
Distribution, banking, hotels, etc.	11.7	11.0	11.2	11.7	11.6	17.9	17.3
Transport	6.2	6.1	6.1	6.4	6.7	9.4	10.0
Private services	4.9	4.7	4.8	5.1	5.2	7.4	7.8
Government services	12.6	12.9	13.5	14.1	14.4	19.2	21.4
TOTAL REAL INCOME	65.7	62.8	62.8	66.4	67.1	100.0	100.0

¹ The figures also express the percentage distribution of GDP at factor cost, current prices.

Note: For earlier years, see table I.7.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

Table XI.10
GDP by industries in 1977
 Index, 1973 = 100

	GDP, current prices	Real product	Real income
Agriculture etc.	152	113	95
Trade and industry	154	107	97
Building and construction	148	92	95
Distribution, banking, hotels	156	104	99
Transport	171	115	109
Private services	170	114	108
Government services	181	115	114
TOTAL	162	108	102

Note: For earlier years, see table I.8.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

15. The findings according to table XI.10 are rather difficult to summarize, unless the arguments in the appendix to chapter I - and especially the findings according to appendix table I.3 - are kept in mind. The discrepancy between the index of total real product and that of total real income reflects the deterioration in the terms of foreign trade between 1973 and 1977.

However, the loss originating from the deterioration in the terms of trade has apparently not been distributed evenly between industries. Assuming the basic national accounts data to be sufficiently reliable,¹ the sectors of 'services' have suffered a substantial loss due to a deterioration in their relative prices. Thus, while from 1950 to 1973 the real income figures of government services increased far more than the corresponding real product figures (cf. appendix table I.3), the corresponding increase from 1973 to 1977 was of the same size for both, i.e. 14-15 per cent according to table XI.10.

Table XI.11
GDP and domestic demand, current prices

(DKR 1 000 million)

	1973	1974	1975	1976	1977
GDP, factor costs	158.9	182.4	203.8	233.1	256.8
+ indirect taxes, net	21.7	21.2	24.1	29.4	35.0
GDP, MARKET PRICES					
+ imp. goods and services	55.9	71.0	71.1	88.3	95.2
TOTAL					
- exp. goods and services	53.0	66.1	69.9	77.8	86.4
DOMESTIC DEMAND					
of which:					
consumption	129.5	148.0	170.6	196.0	217.7
fixed investment	37.9	40.8	40.7	51.4	55.0
stockbuilding	2.3	2.0	- 3.3	1.4	0.5
repair and maintenance	13.8	17.7	21.1	24.2	27.4

Note: For earlier years, see table I.10.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

¹ This assumption may be somewhat doubtful, recalling that the national accounts figures in the present chapter are preliminary.

Table XI.12

Domestic demand, 1955-prices (constant relative prices over time)

	1973	1974	1975	1976	1977	Percentage distribution	
	DKR 1 000 mil- lion	DKR 1 000 mil- lion	DKR 1 000 mil- lion	DKR 1 000 mil- lion	DKR 1 000 mil- lion	1973	1977
<u>Consumption:</u>							
private	36.3	35.3	36.9	39.2	39.1	56.7	58.7
public	8.9	9.2	9.8	10.3	10.5	13.9	15.8
TOTAL	45.2	44.5	46.7	49.5	49.6	70.6	74.5
<u>Fixed investment:</u>							
housing	3.5	2.5	2.0	2.6	2.4	5.5	3.6
other priv.	10.7	10.2	9.2	11.1	11.1	16.7	16.7
public	3.3	3.2	3.2	3.3	3.2	5.2	4.8
TOTAL	17.5	15.9	14.4	17.0	16.7	27.4	25.1
Stockbuilding	1.3	1.0	- 1.7	0.6	0.3	2.0	0.4
TOTAL DOMESTIC DEMAND	64.0	61.4	59.4	67.1	66.6	100.0	100.0

Note: For concepts and earlier years, see table I.11. Note that the procedure of deflation differs from that used in table XI.9.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

COMPONENTS OF DOMESTIC DEMAND

16. Table XI.11 shows the main concepts of domestic product as well as components of domestic demand, all the figures being indicated at current prices. The figures on exports and imports of goods and services are in accordance with the figures on the balance of payments deficit, presented above.¹ In addition, table XI.11 brings out the substantial fluctuation in stockbuilding. The figures of consumption and fixed investment are of course highly affected by inflation. Corresponding figures at constant prices are shown in table

¹ However, contrary to the balance of payments figures in table XI.8, the figures in table XI.11 do not include net foreign interest payments. These payments have recently shown a substantial increase, reflecting the growing net foreign debt.

Table XI.13
Labour force and unemployment

(1 000 persons)

	1973	1974	1975	1976	1977
<u>Labour force</u>					
Men	1 454	1 464	1 463	1 480	1 490
Women	992	1 015	1 023	1 051	1 089
TOTAL	2 446	2 479	2 486	2 531	2 579
of which:					
Employers and self-employed	328	322	323	321	320
Assisting housewives	113	107	110	106	103
Employees	2 005	2 050	2 053	2 104	2 156
Number of unemployed, total	21	50	124	126	164
Rate of unemployment among employees, total ¹	1.1	2.5	6.0	6.1	7.7
<u>Employees under insurance</u>					
Men	652	664	715	777	815
Women	181	183	217	295	340
TOTAL	833	847	932	1 072	1 155
<u>Rates of unemployment:</u>					
Men ¹	2.4	5.1	10.7	9.3	10.2
Women ¹	2.4	5.9	12.5	11.8	14.4
TOTAL ¹	2.4	5.2	11.1	10.0	11.4
February	3.6	3.9	12.0	12.4	12.9
June	1.2	3.1	9.1	7.6	10.0
November	2.2	9.2	11.1	9.9	11.8

¹ Yearly averages.

Note: For some of the concepts, see table I.13.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978.

XI.12. The deflating technique used in the latter table is similar to that used in connection with table I.11. Hence the figures in these two tables are comparable.¹

17. According to table XI.12, private consumption stagnated - or even declined - until late 1975. Subsequently, a substantial increase took place, reflecting partly the increase of real income, partly changes in fiscal policy. However, from late 1976 onwards the picture again became one of stagnation.

Public consumption increased steadily over the whole period, continuing the trend prior to 1973. This result is in accordance with other evidence presented above, e.g. on the distribution of the labour force.

The various components of fixed investment showed different trends. Public fixed investment remained stable, whilst residential investment declined substantially from the extremely high levels on 1972 and 1973 (cf. tables IV.1 and IV.2).

Perhaps the most interesting finding is that other private fixed investment, including business investment, remained rather stable at the very high level of 1973. The share of this demand component out of total domestic demand was exactly the same in 1977 as in 1973.

UNEMPLOYMENT AND LABOUR SUPPLY

18. The substantial increase in the rate of unemployment, especially from 1973 to 1975, has already been mentioned above (cf. table XI.8). However, the issue deserves closer examination. Additional information is provided in table XI.13.

A somewhat confusing aspect of the unemployment situation is that, while unemployment increased, the same was true for the size of the labour force. The increase was no less than 10 per cent for the female labour force. While, from 1973 to 1977, the total labour force increased by roughly 130 000 persons, the total number of employees increased even more, i.e. by 150 000 persons, a figure corresponding almost exactly to the increase in the total number of persons unemployed. The rate of unemployment among all employees increased from 1.1 per cent in 1973 to 7.7 per cent in 1977.

19. As mentioned in the last part of chapter I, Danish unemployment statistics have traditionally been based on information covering only those persons with unemployment insurance. Table I.13 was mainly based on such data; comparable figures for the years 1973 onwards are indicated in the lower part of table XI.13.

Perhaps the most striking finding is that, from 1975 to 1976, the number of women under insurance increased by no less than 50 per cent, i.e. from

¹ Again, some revisions to the basic data have caused some minor differences with respect to the 1973 figures.

Table XI.14
Changes per year of labour supply and employment

(1 000 persons)

	Men		Women		Total	
	1967-73	1973-77	1967-73	1973-77	1967-73	1973-77
Increase of number at the age of 15-74	11.9	6.5	5.1	3.5	17.0	10.0
Change in participation rate	-15.7	2.2	12.5	15.4	- 3.2	17.6
Change of extent of part-time empl.	2.0	- 0.6	- 8.5	- 5.7	- 6.5	- 6.3
Total increase in supply, full-time equivalent	- 1.8	8.1	9.1	13.2	7.3	21.3
Total increase in employment	- 0.4	- 5.2	8.8	2.5	8.4	- 2.7
TOTAL INCREASE IN UNEMPLOYMENT	- 1.4	13.3	+ 0.3	10.7	- 1.1	24.0

Note: All figures are converted to full-time equivalents.

Source: Det økonomiske Råd, Dansk økonomi november 1978, p.51.

200 000 to 300 000. At the same time, from 1973 to 1977, the rate of unemployment for female workers accelerated faster than that of their male colleagues.

Unemployment statistics relating to persons with insurance provide a much more detailed picture than the statistics based on the total labour force. This picture seems to suggest that the unemployment problem of the 1970s is of a much more general nature than that of the 1950s. As appears from the bottom part of table XI.13, seasonal unemployment only explains a limited part of average yearly rates of unemployment. It might be added that rates of unemployment between industries differ comparatively less than for earlier periods,¹ and the same is true for the geographical distribution.²

20. In its report from November 1978, the chairmanship of the Danish Economic Council summarized the structural shift in the labour market during 1967-73 as compared with the period 1973-77 (cf. table XI.14). The figures

¹ However, rates of unemployment have clearly been lowest in 'services'.

² Unemployment did, however, remain highest in Northern Jutland (16.4 per cent in 1977).

are based on employment surveys of the labour force and are indicated in terms of 1 000 persons per year, converted to full-employment figures.

Whereas unemployment in absolute terms declined slightly from 1967 to 1973 (although with an insignificant increase for women), it increased by more than 10 000 persons per year for men as well as for women during 1973-77, leading to a total annual average increase of 24 000 persons per year. For male workers, this shift was partly the result of an absolute decline of employment during 1973-77, but apparently another important factor was that the rather substantial decline in participation rates during 1967-73 was turned into a slight increase during 1973-77. For female workers, employment in absolute terms increased during both sub-periods, but much less during the second than during the first. In addition, their participation rates continued to increase at an accelerating rate.

21. In the following sections, comments will be made on mainly private industries, i.e. agriculture, manufacturing industries and activities in the field of building and construction. As has been pointed out above, all these industries were strongly affected by the recession, in particular during 1974 and 1975 (cf. table XI.9 and table XI.3).

AGRICULTURE

22. Between 1971 and 1973, the total real income of agriculture increased by 17 per cent according to figures based on traditional national accounts data. However, on the basis of data more in line with that used in other countries - including among other things EAGGF payments in output prices - the increase becomes even larger, i.e. 27 per cent according to table XI.15.

In 1974, the harvest reached a record level. But at the same time, economic conditions of agriculture were adversely affected by the price increase of products purchased by the agricultural sector, including those of final demand. Hence the real income of agriculture declined somewhat. In 1975 - and even more so in 1976 - the harvest was rather small and the real income of agriculture declined in contrast to the improvement noted in other industries in 1976. However, the 1977 harvest was back at the 1973 level, and real income showed a substantial increase.

Of course, real income of agriculture is also affected by trends in animal output, and here the picture has not been very clear. Output of butter declined, but that of cheese increased. Output of beef increased, but that of bacon declined. For the period from 1973 to 1976 as a whole, the total quantities of animal output increased by hardly more than 2 per cent. However, an additional 3 per cent increase took place in 1977.

Table XI.15
Agriculture, main indicators

	1973	1974	1975	1976	1977
<u>Index of real income,</u> 1971 = 100					
Traditional estimates ¹	117	112	104	106	112
Revised estimates ²	127	115	99	99	105
<u>Total harvest,</u> millions tons ³	13.5	14.4	12.8	11.5	14.3
<u>Output price indices,</u> 1971 = 100					
Grain ⁴	145	162	172	202	212
Animal products ⁴	147	146	159	179	188
<u>Animal output, 1 000 t:</u>					
Butter	146	137	139	139	131
Cheese	127	150	152	157	177
Beef, veal, etc.	205	261	259	264	263
Bacon, pork, etc.	832	791	776	759	786
Number of farms	141	138	134	131	128
Number of 'whole-year workers', 1 000 man years ⁵	145	136	129	124	120

¹ Corresponding to real-income figures in table XI.9.

² Excluding repair and maintenance, including EAGGF payments.

³ All crops converted to barley-equivalent on the basis of relative fodder values.

⁴ Including EAGGF payments.

⁵ Comparable figures according to author's estimates.

Note: All figures refer to calendar years. Due to several conceptual revisions in the basic statistics, most figures are not directly comparable with similar figures shown in chapter II.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978.

The total number of farms continued to decline. Employment in terms of 'whole-year workers'¹ declined even more, suggesting a continued increase in labour productivity in agriculture.

23. Thus, the picture painted by the figures in table XI.15 is not very encouraging. It should, however, be added that a continued decline in employment and in the number of farms was not unexpected when Denmark joined the EEC in 1973. The basic problem of agriculture from 1973 onwards has probably been similar to that in the sector of owner-occupied houses, i.e. related to inflation. The value of existing real assets (including land) has increased at a faster rate than the general price level, and at the same time the real burden of the debt of agriculture has been eroded. These factors do not show up in figures such as those in table XI.15. But they are beneficial from the viewpoint of those who have been farmers for a number of years.

However, an additional aspect of this pattern of inflation is that the immediate burden of new loans is substantial, interest rates being very high. In turn, such heavy immediate burdens may explain why productive capacity has not shown a higher increase than has actually been the case. They may also contribute to explaining why existing farms are being taken over only rather slowly by young farmers.

MANUFACTURING INDUSTRIES

24. In recent years, the main balance of payments industry, i.e. manufacturing industry has been adversely affected by the deteriorating terms of trade and, in particular, by the low level of demand, both from home and overseas.² Between 1973 and 1976 the number of firms declined somewhat (cf. table XI.16), but in 1977 it increased again. The total number of employees declined by well over 10 per cent, the decline being particularly marked in 1975. Due to a shortening of the working week, the total number of hours worked declined even more, namely by 17 per cent between 1973 and 1977. Again by far the major part of the decline occurred in 1975.

The index of output in manufacturing industries showed a substantial decline between 1973 and 1975, but the 1976 upswing took output back to its 1973 level.

¹ For an explanation of this concept, see table II.6. However, several changes of definitions and procedures of estimation have taken place during the period 1973-77. This is true for the coverage, but is also true for the procedures used to estimate the number of man years of labour provided by the owner and his spouse. These figures in table XI.15 have been estimated so as to adjust for these changes. They are, however, not too reliable.

² Apparently, the share of total sales being purchased by foreign customers increased slightly, i.e. from 30.0 per cent in 1973 to 32.0 per cent in 1977.

Table XI.16
Manufacturing industries, main indicators

	1973	1974	1975	1976	1977
Number of firms, 1 000's	6.7	6.7	6.6	6.4	6.6
<u>Index, 1965 = 100:</u>					
Employment, number of:					
workers	99	95	85	86	83
salary-earners	110	111	106	104	104
EMPLOYEES, TOTAL	101	98	89	90	88
Total number of hours worked	83	81	70	71	69
Output	152	147	137	154	155
Share in gross value added of					
wages	54.8	57.3	57.8	55.0	55.9
'profits'	45.2	42.7	42.2	45.0	44.1
Rate of return on net assets	18.3	18.7	2.8	12.3	9.4
Capacity to expand through earnings	5.4	5.3	0.8	3.6	2.8

Note: Concepts in the upper part of the table correspond to those, presented in table III.3.

Concepts in the lower part of the table correspond to some of the concepts used in table III.4. 1973 figures on factor shares differ from those in table III.4 because of revisions to coverage, etc.

Sources: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik. However, figures in the two bottom rows are taken from Det økonomiske Råd, Dansk økonomi november 1976, p. 87. The latter institution has provided additional figures for the years 1976 and 1977.

25. Earlier in the present chapter the observation was made, based on figures of total real product and of total employment on a full-time basis, that the overall rate of increase in labour productivity had probably slowed down in the period 1973-77 as compared with 1967-73.¹ As has frequently been pointed

¹ This finding is discussed at great length in Det økonomiske Råd, Dansk økonomi november 1978, chapter III.

out, such productivity figures should be interpreted with great care. For instance, the lower overall rate of growth in labour productivity may be due to a change in the composition of total national product.

Still, keeping all the shortcomings of the figures in mind, it might be worth noting that output in manufacturing industries divided by the number of hours worked has continued to increase at a roughly constant rate from 1969 to 1977 - the only obvious exception being a decline in 1974.¹ This finding may suggest that, in manufacturing industries, the trend rate of increase in labour productivity has continued after the immediate set-back in 1974. In this connection the figures of fixed investment in table XI.12 should be kept in mind. The decline of fixed investment from 1973 to 1977 was entirely due to lower residential investment.

However, even if labour productivity in manufacturing industries has continued to increase, so have important cost elements - and money wage rates in particular. Hence the question of how manufacturing industries can maintain - or even improve - their ability to compete with producers in other countries has not yet been satisfactorily answered.

26. From 1973 to 1975, i.e. during the period of declining output, the share of wages, in gross value-added, increased. However, this trend was reversed in 1976.

Somewhat superior indicators of the profitability of manufacturing industries are shown in the last two rows of table XI.16. These concepts, based on sample surveys, are explained in connection with table III.4. According to the figures, earnings of manufacturing industries remained surprisingly stable from 1973 to 1974,² but the setback in 1975 was substantial. The 1976 upswing is clearly reflected in the figures, and so is the subsequent stagnation in 1977.

BUILDING AND CONSTRUCTION

27. The years 1972 and 1973, saw a boom in the building and construction industry. The total floor area of new buildings started reached a peak in 1972; but declined slightly in 1973 in spite of a substantial increase in industrial investment in buildings (cf. table IV.2).

The main factor behind this pattern was residential investment. In 1972, the number of new residential units started reached an all-time record of 64 000

¹ This observation is based on the figures in tables III.3 and XI.16, indicating indices of output in manufacturing industries as well as the total number of hours worked.

² This may partly be explained by the fact that the sample on which the figures are based consisted of exporting firms to a large extent. Exports declined later than domestic demand (cf. table XI.7),

Table XI.17
Building and construction, main indicators

	1973	1974	1975	1976	1977
<u>GDP</u> in building and construction ¹	4.97	4.48	4.07	4.59	4.55
As per cent of total GDP ¹	8.0	7.0	6.5	7.0	6.8
<u>Investment</u> in buildings, total ²	6.24	5.25	4.40	5.24	5.10
of which:					
government	1.22	1.10	1.09	1.09	1.03
industries	1.54	1.65	1.26	1.50	1.68
residential	3.48	2.50	2.05	2.65	2.39
<u>Starts</u> of new buildings by floorarea ³	12.97	8.27	8.82	10.88	10.45
of which:					
government	1.19	1.07	1.16	1.11	1.05
industries	3.79	3.25	2.36	3.79	3.76
residential	7.99	3.95	5.30	5.98	5.64

¹ Real-product figures, DKR 1 000 million.

² Real-product figures, excluding repair and maintenance, DKR 1 000 million.

³ Million m² started.

Note: For concepts, see tables IV.1 and VI.2.

Sources: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

units. Part of this shift should, of course, be seen as reflecting changes in the general economic climate, but a more specific factor is also of importance. Until 1972, residential investment was not subject to value-added taxation. However, in order to dampen residential investment, especially in owner-occupied houses, legislation was introduced so that, from late 1973 onwards, residential investment became subject to value-added taxation. During the 'transitional period', starts of new residential units were, of course, precipitated by those who had planned to become owners of their own homes. By 1974, the number of new residential units started had fallen back to 26 000 units.

As for other investment in buildings public investment declined rather steadily, while industrial investment fell substantially between 1973 and 1975. However, the 1976 upswing brought business investment back to its 1973 level.

28. It is hardly surprising, therefore, that the share of the building and construction industry in total GDP declined from 8.0 per cent in 1973 to 6.5 per cent in 1975(cf. table XI.17). The level of activity recovered somewhat in 1976, but 1977 was another year of stagnation.

Table XI.18
Number of residential units started and completed

(1 000 units)

	1973	1974	1975	1976	1977
Total number started	50.4	25.7	33.6	35.9	34.7
Total number completed	55.6	48.6	35.5	39.2	36.3
<u>of which</u> (by type of unit):					
one-family houses	37.9	34.2	25.4	29.8	30.4
apartments ¹	16.9	13.6	9.2	8.8	5.2
others	0.8	0.8	0.9	0.6	0.7
<u>of which</u> (by type of ownership):					
private	42.3	36.3	26.3	29.8	29.5
housing societies	12.9	11.4	8.7	9.0	6.4
others	0.4	0.9	0.5	0.4	0.4

¹ Including dormitories, of which the number has declined from 2 600 in 1973 to 800 in 1974, 400 in 1975, 300 in 1976 and 100 in 1977.

Note: For concepts, see tables IV.2 and VI.3.

Sources: Danmarks Statistik, Statistisk tiårsoversigt 1978.

RESIDENTIAL INVESTMENT

29. Table XI.18 provides details of residential investment. All the figures are indicated in terms of 'number of residential units', hence differences with respect to the size and quality of individual units are not indicated. In the period 1975-77, the number of residential units completed per year stabilized at a level of 35- 40 000. However, the number of new apartments continued to decline and reached an all-time low of 5 200 units in 1977. In this connection it should be recalled that, even during the 1950s when total residential investment was much lower, the number of apartments completed remained around 10 000 per year, and during the late 1960s the number was substantially higher. The number of new one-family houses remained more stable, in fact it returned to its level prior to the 1972-73 boom, i.e. roughly 30 000 new houses per year.

30. In the bottom part of table XI.18, the number of new residential units completed is distributed according to type of ownership. The figures for housing societies are rather similar to the figures relating to new apartments, mentioned above - but not completely. Apartments are also built by private investors, although only to a limited extent, and housing societies have recently started to invest in groups of one-family houses, although so far only on a modest scale.

The figures for new residential units owned by private persons, mainly consist of owner-occupied one-family houses. They include very few units built for letting. This activity is not profitable any more, taking into account

the high costs of finance. But increasing number of apartment buildings are erected in which the individual apartments are subsequently sold private owners.

31. The legal framework for establishing such individually-owned apartments was not introduced until 1966, and in the following years legal conditions for such arrangements were tightened. This was especially true with respect to the possibilities of splitting existing buildings with rented apartments into individually-owned apartments, an exercise which would usually be profitable for the owner because of the combination of rent control for existing rented apartments and free market pricing of apartments and other individually-owned residential units for sale.

From 1976 onwards, conditions for establishing individually-owned apartments within the existing stock of rented apartment buildings were liberalized once more. In 1977, legal provisions had been made for converting roughly 100 000 apartments from tenant apartments to individually-owned apartments.¹

THE STOCK OF RESIDENTIAL UNITS

32. The pattern of ownership of the stock of residential units is, of course, affected by the type of ownership of recently-built residential units (cf. the bottom part of table XI.18). However, these figures at best indicate marginal adjustments in the composition of the total stock. Comparable stock figures are shown in table XI.19, from which may be seen the remarkable shift in the pattern of ownership that has taken place during the period 1970-77 - and particularly in the later part of this period. The share of owner-occupied homes increased sharply, partly because residential investment consisted almost exclusively of owner-occupied one-family houses (cf. table XI.18), and partly because old, privately owned apartments to let were converted to individually-owned apartments.

At the same time, the number of private apartments to let started to decline, even in absolute terms. The decline was due, partly to conversion into individually-owned apartments, partly to insignificant investment in this field and partly to the fact that these buildings are comparatively old. According to appendix table VI.1, in 1970 almost half of the (slightly above 500 000) privately-owned rented apartments were erected prior to 1919.² Hence quite a few of them are becoming obsolete, in particular because the standard of maintenance has usually been lower for rented apartments than for owner-occupied homes.

33. At first glance, according to table XI.19 the position of the housing societies is not too bad. Their share of total residential units continued to

¹ However, an apartment to let cannot be sold as long as the old tenant wants to stay.

² Of these 242 000 apartments, 122 000 were situated in the metropolitan area (cf. appendix table IV.2).

Table XI.19
Total stock of residential units^a

	1960		1965		1970 ^b		1977 ^c	
	1 000 units	per cent	1 000 units	per cent	1 000 units	per cent	1 000 units	per cent
<u>Owner-occupied</u>								
farms	177	12	179	11	161	9	150	7
one-family houses	393	27	473	30	605	35	830	42
others ^d	98	7	86	6	80	5	100	5
TOTAL	668	46	738	47	846	49	1 080	54
<u>Rented apartments, owned by:</u>								
private ^e	510	35	517	33	519	30	480	24
housing societies	144	10	174	11	253	15	330	17
others	50	3	50	3	44	2	40	2
TOTAL	704	48	741	47	816	47	850	43
<u>Other dwellings</u>	91	6	99	6	81	4	60	3
TOTAL	1 463	100	1 578	100	1 743	100	1 990	100
of which individual-ly-owned apart-ments included in other owner-occu-pied units	-		-		7		40	
private rented apartments	-		-		27		63	
TOTAL	-		-		34		103	

a) Excluding certain one-room units.

b) The figures are equal to those, presented in appendix table IV.1.

c) Figures are estimated.

d) Including individually-owned apartments, actually sold (cf. the bottom part of the table).

e) Including apartments destined to be sold but currently occupied by a sitting tenant (cf. the bottom part of the table).

Sources: Danmarks Statistik, Boligen, Statistisk Tabelvaerk 1975, C 2 and various additional information.

increase between 1960 and 1977. Very few of their apartments were erected prior to 1940 (cf. appendix table IV.1), hence the problems connected with obsolescence are not yet of major importance. Furthermore, individually-owned apartments cannot be established in buildings owned by housing societies. However, recently investment in new residential units by housing societies has declined sharply (cf. table XI.18). In fact, out of the 75 000 new units erected between 1970 and 1977 by the housing societies, 50 000 were completed in the years 1971-74 and only 25 000 between 1975 and 1979.

The main problem of the housing societies is that they are not able to invest in new homes given existing financial conditions unless they are subsidized by the government. Such subsidies are only provided for a limited number of new residential units, and frequently they have only been given for a limited period of years. Hence the tenant will face increasing rents as the subsidies are reduced, and therefore they may prefer to buy a home of their own, if this is at all possible for them.

34. For these reasons - and others, mentioned in chapter IV - Denmark is increasingly becoming a nation of owner-occupiers. Much can be said for such a development, but if this trend continues, quite substantial social problems may arise for those who - for one reason or the other - cannot afford to buy a home of their own. The number of apartments to let may become too small to meet the demand from would-be tenants belonging to low-income groups. How these problems are going to be solved is still an open question.

FISCAL POLICY

35. From the mid-1960s up to 1973, the government accounts were roughly in balance (cf. table VI.12). However, with the start of the 1973/74 recession, social transfers increased, and so did other social expenditure - partly because the level of benefits was improved by legislation. In order to finance this expenditure - and to try to reduce the balance of payments deficits - indirect taxation was increased, in 1976 and especially in 1977. Nevertheless, from 1975 onwards there was a persistent overall government deficit. Hence the central government debt increased, and in order to cope with the corresponding growth of the money supply, treasury bills and short-term bonds were introduced and issued on a large scale. Hence the effects of the government deficit from the viewpoint of monetary policy became substantial. These problems are treated in the concluding part of the following sections on fiscal policy during a period of recession.

36. However, the starting point will be taken in the field of total public expenditure and revenue, covering central government as well as local authorities. Because of changes in the institutional structure of the government sector during the 1970s (see chapter VI), consistent figures for the total government sector are available only to a limited extent. The problems of recalculation have been solved for revenue figures, but disaggregated expenditure figures are not so easily produced.

A final complication must be mentioned. From January 1979 onwards, the fiscal year of the central government became the calendar year. A similar shift for

municipalities took place from January 1977 onwards.¹ Statistics of government finance are published to an increasing extent on a calendar-year basis, even for earlier years, and most of the figures in the following tables will be on this basis.

PUBLIC EXPENDITURE

37. Between 1973 and 1974, government expenditure as a proportion of net national income increased from 51 to 55 per cent, and in 1975 the share reached a level of no less than 60 per cent (cf. table XI.20). The increase was partly due to the fact that national income in real terms stagnated from 1974 onwards, but it also reflected increased government spending. In fact, most of the increase in total expenditure between 1973 and 1974 was in the field of government purchases of goods and services, and the same was true in 1975. However, from 1975 onwards, total government purchases of goods and services stabilised at a level of 37-38 per cent of net national income, reflecting attempts to cut some of these activities in volume terms - as well as a lower rate of increase in wage rates for government employees as compared with those of other wage earners.

The increase in government transfer payments as a share of net national income is almost exclusively explained by a substantial increase in unemployment benefits.

38. In table XI.20, government purchases of goods and services are not analysed by type of expenditure, the reason being the statistical difficulties mentioned above. Hence the table cannot be compared with table VI.8. Table XI.21 provides, however, the same kind of disaggregation as table IV.8 - in fact the 1973/74 figures are identical. But corresponding figures are only available for 1974/75; they confirm the picture of overall expansion, described above.

In addition, table XI.21 shows comparable figures for the calendar year of 1977. These figures are estimated on the basis of various indicators. They suggest that the policy of budget cuts - or reduced rate of increase in government expenditure - has been successful to the extent that, from 1974/75 to 1977, most types of expenditure have stagnated, as percentages of national income. The only obvious exception is social expenditure, which increased from 25 per cent of national income in 1973/74 to 28 per cent in 1974/75 - and to no less than 31 per cent in 1977, corresponding to half of total public expenditure.

To a large extent, this picture reflects a political aim of keeping social expenditure unaffected by budget cuts. But at the same time the 1977 figures amply demonstrate that a policy of budget cuts becomes increasingly difficult to pursue when half the budget is exempt.

¹ Previously, the fiscal years were from 1 April to 31 March.

Table XI.20
Total public expenditure
 Calendar years, current prices

	1973		1974		1975		1976		1977	
	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI
<u>Transfers</u>										
Pensions	11.4	9	13.2	9	15.3	10	17.3	10	19.4	10
Unemployment benefits	0.7	0	1.8	1	4.8	3	5.7	3	7.8	4
Health related transfers	3.8	3	4.3	3	5.0	3	5.6	3	6.4	3
Other domestic subsidies and transfers	6.6	5	8.4	6	8.0	5	9.6	5	9.8	5
Foreign transfers	1.4	1	1.6	1	2.1	1	2.5	1	3.1	1
TRANSFERS, TOTAL	23.9	18	29.3	20	35.2	22	40.7	22	46.5	23
<u>Purchases of goods and services</u>										
Current exp. ¹	34.7	27	41.6	29	49.8	31	55.5	30	62.3	31
Investment, incl. road exp.	8.0	6	9.6	6	11.6	7	12.8	7	14.0	7
GOODS AND SERV., TOTAL	42.7	33	51.2	35	61.4	38	68.3	37	76.3	38
TOTAL EXPENDITURE	66.6	51	80.5	55	96.6	60	109.0	59	122.8	61
NET NAT. INCOME	130.2	100	145.8	100	160.6	100	184.2	100	200.4	100

¹ Including all defence expenditure.

Source: Det økonomiske Sekretariat, Økonomisk Oversigt February 1979.

Table XI.21
Total public expenditure by function
 Fiscal and calendar years, current prices

	1973/74		1974/75		1977 ^a	
	DKR 1 000 million	per cent NNI	DKR 1 000 million	per cent NNI	DKR 1 000 million	per cent NNI
<u>Current account</u>						
Social expenditures:						
Pensions etc.	13.3	10	15.9	11	22	11
Health, social insurance etc.	11.4	9	14.1	10	22	11
Others (incl. unem- ployment benefits)	7.4	6	10.9	7	18	9
SOCIAL EXP., TOTAL	32.1	25	40.9	28	62	31
Education	10.8	8	13.0	9	18	9
Various transfers	5.1	4	7.2	5	10	5
Other current exp.	9.1	7	11.0	7	14	7
CURRENT EXP., TOTAL	57.1	44	72.1	49	104	52
Public investm., excl. defence	7.1	5	8.0	6	13	6
Defence	3.6	3	4.4	3	6	3
TOTAL EXPENDITURES	67.8	52	84.5	58	123	61
Net national income	130.2	100	145.8	100	200	100

a) Author's preliminary estimates.

Note: For comparison, see table VI.8.

Sources: 1973/74 and 1974/75 figures have been provided by Det økonomiske Sekretariat.

Table XI.22

Total public revenue, current prices

	1973		1974		1975		1976		1977	
	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI
Specific sales taxes, incl.import duties	12.9	10	12.4	9	14.5	9	18.2	10	21.2	10
General sales taxes, including VAT	13.2	10	14.8	10	15.1	9	18.5	10	22.3	11
INDIRECT TAXES, TOTAL	26.1	20	27.2	19	29.6	18	36.7	20	43.5	21
Income taxes, persons	39.7	30	49.9	34	48.4	30	56.1	30	60.9	30
Income taxes, companies	2.3	2	2.8	2	2.8	2	3.6	2	3.6	2
INCOME TAXES, TOTAL	42.0	32	52.7	36	51.2	32	59.7	32	64.5	32
Property taxes, inheritance duties, etc.	4.5	4	5.3	3	5.9	4	6.7	4	7.6	4
Contrib. to social insurance schemes	1.4	1	1.1	1	1.2	1	1.3	1	1.5	1
TOTAL REVENUES	74.0	57	86.3	59	87.9	55	104.4	57	117.1	58
NET NATIONAL INCOME	130.2	100	145.8	100	160.6	100	184.2	100	200.4	100
Revenues collected by:		% of total revenue		% of total revenue		% of total revenue		% of total revenue		% of total revenue
Centr. government	52.0	70	62.2	72	60.3	69	72.1	69	81.5	70
Local authorities	20.7	28	23.1	27	26.5	30	31.1	30	34.3	29
Social insurance schemes	1.3	2	1.0	1	1.1	1	1.2	1	1.3	1

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

PUBLIC REVENUE

39. In 1974, total government revenue increased as a percentage of national income, and was mainly caused by a substantially higher revenue from income taxes (cf. table XI.22). However, at the general election in December 1973, the electorate indicated that income taxation at prevailing rates was not very popular. Rates were, therefore reduced in 1974, affecting revenue from 1975 onwards. During the period 1975-77, revenue from income taxes on persons remained at 30 per cent of net national income, and rates of indirect taxation became the main instrument of fiscal policy.

During the summer of 1975, it was still hoped that the international recession would be a temporary one, and it was decided to fight unemployment by a temporary reduction in the rate of value-added tax. The rate of 15 per cent which had prevailed since 1970 was reduced to 9.25 per cent¹ from late September 1975 to the end of February 1976, when - as was decided in advance - it returned to 15 per cent. The effect of the reduced tax rate on private consumption was substantial, but unfortunately this was reflected in an increased demand for foreign rather than for domestic goods. The balance of payments deficit increased substantially, and from the summer of 1976 onwards there was no further room for expansionist fiscal policies. On the contrary: in the late summer of 1976, rates of specific sales taxes were increased to produce additional revenue of DKR 3 000 - 4 000 million per year.

40. However, the balance of payments deficit remained at a level of DKR 10 000 million per year, and in the late summer of 1977, commodity tax rates were increased substantially. The rate of value-added tax was increased to 18 per cent, and several specific taxes were increased as well, not least those related to car usage. The additional revenue expected was an estimated DKR 6 000 - 7 000 million per year.

At the same time, various measures were taken in order to increase employment - at least to the extent of compensating for the reduced demand caused by the increased indirect tax rates.

41. In chapter VI, revenue from various types of taxation in Denmark, shown as percentages of gross national income, were compared with similar figures for some neighbouring countries (cf. VI.11). In table XI.23, a similar comparison is made for 1973-77.

Over the period 1973 to 1977, there has been a general international tendency for total taxation as a percentage of national income to increase. In fact, this increase has been smaller in Denmark than in the other countries shown in table XI.23. The basic problem of Danish fiscal policy on the revenue side has prevailed: there is little prospect of increasing revenue as long as contributions to social insurance schemes are insignificant. Revenue from income tax has remained at a record level, and indirect taxation is probably approaching a ceiling.

¹ At first sight, this rate may appear odd, but it represents a 5 per cent reduction in the normal VAT-inclusive price of an article (i.e. 100 + 15% VAT = 115 and 115 minus 5% = 109.25).

Table XI.23
Public revenue as a percentage of gross domestic
product, at market prices: an international comparison

(Per cent)

		Indirect taxes	Income taxes	Property taxes etc.	Contrib. soc. insur. schemes	Other taxes	Total
Denmark	1973	14.9	25.9	2.7	0.5	0.8	44.8
	1974	13.9	28.8	2.7	0.5	0.9	46.8
	1975	14.3	25.2	2.6	0.5	0.9	43.5
	1976	15.0	25.7	2.5	0.5	1.0	44.7
	1977	15.8	24.9	2.6	0.5	1.4	45.2
Norway	1973	17.1	17.4	1.0	8.9	0.9	45.3
	1976	17.2	18.9	1.0	8.3	0.8	46.2
	1977 ^a	17.9	19.4	0.9	8.3	0.9	47.4
Sweden	1973	12.2	21.0	0.5	6.7	2.6	43.0
	1976	11.7	23.7	0.5	11.8	3.2	50.9
	1977 ^a	11.9	23.7	0.5	13.5	3.7	53.3
Fed. Re- public of Germany	1973	9.6	13.0	1.1	11.5	1.1	36.3
	1976	8.9	12.8	1.2	12.7	1.1	36.7
	1977 ^a	9.0	14.0	1.2	12.9	1.1	38.2
UK	1973	8.4	13.2	4.4	5.8	0.8	32.6
	1976	8.7	15.7	4.5	7.1	0.7	36.7
	1977 ^a	8.7	15.0	4.4	7.0	1.5	36.6
France	1973	12.5	6.2	1.4	13.4	2.0	35.5
	1976	12.5	7.3	1.5	15.8	2.4	39.5
	1977 ^a	11.7	7.5	1.4	16.5	2.3	39.4
Nether- lands	1973	10.5	15.0	1.4	16.1	0.8	43.8
	1976	10.6	15.7	1.5	17.5	0.9	46.2
	1977 ^a	11.2	15.5	1.8	17.3	0.9	46.7

^a Preliminary figures.

Note: The table corresponds to table VI.11, but definitions used in the two tables differ in certain details.

Source: OECD, Revenue Statistics 1965-1976, and supplementary information from Danmarks Statistik.

On the expenditure side, government expenditure outside the social sector has already been kept at a rather low - or at least at a stable - level, while expenditure on social services have expanded rapidly. It is difficult to imagine how any further increase in expenditure can be financed on the basis of existing tax instruments. Admittedly, the value-added tax rate may be in-

creased somewhat, but even here the effective ceiling may not be too far away. Finally, the substantial balance of payments deficit may require increased taxation in order to reduce domestic demand. But when the effect of existing tax instruments is exhausted, it will become increasingly difficult to tighten fiscal policy from the revenue side.

SURPLUSES OF THE GOVERNMENT AND THE PRIVATE SECTOR

42. In chapter VII it was shown that the balance of payments deficit prior to the recession reflected an increasing deficit of the private sector (private investment exceeding private savings), whereas the government sector maintained a surplus (cf. table VII.4). From 1973 onwards, the government's financial surplus gradually disappeared (cf. table XI.24). Government investment remained rather stable, but the surplus of the government sector was reduced.

As was discussed earlier (cf. table XI.12), the components of total private investment have fluctuated sharply, with reduced residential investment probably being the most permanent feature. These fluctuations are reflected in the upper part of table XI.24. For the period 1973-77 as a whole - and disregarding the extremely bad result in 1975 (cf. table XI.7) - the trend of total private investment as a proportion of national income has been one of a slight decline, from 25 per cent in 1973 to 22 per cent in 1977. At the same time, the share of private savings has, on the whole, been increasing. Hence the private sector's deficit has been diminishing.

43. These findings suggest that the substantial balance of payments deficits in 1976 and 1977 mainly reflected a declining government surplus. In this sense, it might be said that fiscal policy was not kept sufficiently tight, but of course the substantial unemployment of these years should be kept in mind before drawing any final conclusions.

44. The most discomfoting feature of recent years is that a reallocation of resources in favour of the balance of payments industries at the expense of domestic industries has not been obtained. Indeed, the trend between 1973 and 1977 has been in the opposite direction (cf. tables XI.3 and XI.9 above). Therefore, it is hardly surprising that the issue of incomes policy has played an increasing role in discussions about the economy, the aim being to reduce rates of increase of money incomes in order to improve the ability of the balance of payments industries to compete. In this way, reduced unemployment as well as an improved balance of payments position might be obtained, if such policy was successful. Unfortunately, success has not been achieved so far.

45. These problems will be reconsidered below, but a final comment should be added in the present context. This is related to the conduct of fiscal policy with these problems in mind, and particularly to the intervention in the late summer of 1977, mentioned above. In order to improve the balance of payments position, indirect taxation was increased substantially. To the extent that the balance of payments industries also sold goods on the home market, these increased taxes, of course, reduced their total sales. An additional part of the 'package' was several expansionary measures affecting

Table XI.24

Investment, savings and financial balance: Private, public and foreign sectors

(Current prices)

	1973		1974		1975		1976		1977	
	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI
<u>Private sector</u>										
<u>A. Investment</u>										
Residential	10.7	8	10.0	7	9.4	6	12.9	7	12.7	7
Business fixed	19.7	15	22.8	16	21.5	13	27.5	14	30.7	15
Increase stocks	2.3	2	2.0	1	- 3.3	- 2	1.4	1	0.4	0
INVESTMENT, TOTAL	32.7	25	34.8	24	27.6	17	41.8	22	43.8	22
<u>B. Savings</u>										
Joint stock comp.	6.4	5	6.1	4	6.9	4	-		-	
Other institutions	5.0	4	6.4	4	6.1	4	-		-	
Personal	8.1	6	7.7	6	16.2	10	-		-	
SAVINGS, TOTAL	19.5	15	20.2	14	29.2	18	30.2	16	34.0	17
Financial balance	-13.2	-10	-14.6	-10	1.6	1	-11.6	- 6	- 9.8	- 5
<u>Government sector</u>										
Investment	7.7	6	8.4	6	10.1	6	10.8	6	11.5	6
Savings	18.1	14	17.5	12	5.4	3	10.8	6	11.2	6
Surplus deficit	10.4	8	9.1	6	- 4.7	- 3	0.0	0	- 0.3	- 0
Balance of payments, current accounts	- 2.8	- 2	- 5.5	- 4	- 3.1	- 2	-11.6	- 6	-10.1	- 5
NNI, DKR 1 000 mill. current prices	130.2	100	145.8	100	160.6	100	184.2	100	200.4	100

Source: Det økonomiske Sekretariat, Økonomisk Oversigt February 1979.

government expenditure. Which, however, mainly benefited domestic industries. Hence, while the overall effect of the package might have been one of a reduced balance of payments deficit and constant - or perhaps even slightly declining - overall unemployment, the effect on employment in the balance of payments industries was probably negative. Given these results, it is very doubtful whether the Danish economy can afford similar 'packages' in the future.

Table XI.25

Total government accounts. Calendar years, current prices

(DKR 1 000 million)

	1973	1974	1975	1976	1977
Total public revenue ¹	76.1	88.7	91.6	108.4	121.4
Total public expenditure ²	66.6	80.5	96.6	109.0	122.8
Surplus	9.5	8.2	- 5.0	- 0.6	- 1.4
<u>of which:</u>					
Central government current balance	6.2	3.8	- 7.6	- 3.6	- 4.0
Central govern. net capital expenditure	3.2	4.7	3.5	6.7	7.8
Central gov.t net lending or borrowing ³	3.0	- 0.9	-11.1	10.3	-11.8

¹ The figures include some interest receipts and public-works surpluses. Hence they slightly exceed the revenue figures according to table XI.22.

² Current, investment and defence expenditures (cf. table XI.20).

³ Except for some minor adjustments, the numerical size of these figures corresponds to the figures of 'Central government domestic deficit' in appendix tables VIII.1, VIII.2, XI.1 and XI.2.

Note: The table is some extent similar to table VI.12.

Source: Most of the figures are from Det Økonomiske Sekretariat, Økonomisk Oversigt February 1979.

OVERALL BUDGETARY POSITION OF THE CENTRAL GOVERNMENT

46. The decline of the government financial surplus between 1973 and 1977 (see table XI.24) is also reflected in the figures in the upper part of table XI.25. Here, total public revenue minus total public expenditure is shown, and the resulting surplus is - except some technical discrepancies - equal to the financial surplus of the government sector according to table XI.24.

In addition, table XI.25 shows the current balance of central government. When certain net capital expenditure by the central government is deducted, the net lending capacity of the central government is obtained. As appears from the table, the actual result is one of a central government borrowing requirement in the region of 10 thousand million DKR per year during the period 1975-77.

Table XI.26

Net position of central government, loans and debt - at end - March

(DKR 1 000 million)

	1974	1975	1976	1977	1978
Total loans	12.4	13.8	14.9	16.1	17.3
<u>Debt:</u>					
Domestic:					
Long-term ¹ bonds	2.1	2.0	1.8	1.7	1.6
Short-term bonds etc.	0.5	0.5	6.5	11.3	19.9
Treasury bills	-	-	-	5.0	7.9
Central bank	-15.3	-13.0	- 8.9	-15.9	-19.5
TOTAL DOMESTIC DEBT	-12.7	-10.5	- 0.6	2.1	9.9
Foreign:					
U.S. dollars	2.5	3.4	4.3	9.5	11.6
Deutsche mark	2.0	1.9	3.3	5.6	9.7
Others	2.0	1.9	2.8	3.9	5.7
TOTAL FOREIGN DEBT	6.5	7.2	10.4	19.0	27.0
TOTAL DEBT	- 6.2	- 3.3	9.8	21.1	36.9

¹ Maturity: ten years or more.

Sources: Loan figures are from Danmarks Nationalbank, Monetary Review, February 1979. Debt figures are from Danske statslån 1977-78, Finansministeriet.

The figures on the central government net lending or borrowing may be interpreted from at least two viewpoints. First, apart from some technical adjustments they represent the 'Central government domestic deficit', which is one of the explanatory factors with respect to changes of the monetary base as well as of the money stock (cf. appendix tables VIII.1 and VIII.2 for figures for the period 1966-73 : similar figures for 1974-77 are shown in appendix table XI.1 and XI.2, see rows (9a) and (18a)). The appendix table figures are very similar to the figures for the central government net borrowing requirement in table XI.25, and will be reconsidered below in the context of monetary policy.

47. Finally, the persistent overall deficits affect, of course, the net position of the central government. Figures are shown in table XI.26 for 1974-1978. The figures refer to ends of fiscal years and thus are not completely comparable with the calendar year deficits according to table XI.25. Nevertheless, the central government net borrowing requirement at roughly DKR 30 000 million for the period 1975-77 as a whole is not too far from the figures for the total debt of the central government shown in the bottom row of table XI.26. From end of March 1975 to end of March 1978, total government debt increased by roughly DKR 40 000 million - and by roughly DKR 35 000 million when the increase in government loans is deducted.

As appears from tables XI.26, the pattern and the composition of total government debt have undergone major changes. Government borrowing abroad increased substantially, especially during 1976 and 1977. The purpose of this foreign borrowing was to finance the balance of payments deficits of these years. While, up to 1977, loans in U.S. dollars are dominated, the borrowing during the last part of the period took place to an increasing extent in Deutsche marks.

48. In addition, short-term bonds and treasury bills were introduced and sold on the domestic market in order to dampen the effects of the overall central government deficits on the money supply. According to table XI.26, the total net sales of short-term bonds as well as of treasury bills from early 1975 to early 1978 amounted to some DKR 25 000 million. (This figure is not too far from the corresponding figures for calendar years in rows 9b and 18b in appendix tables XI.1 and XI.2).

As a result of this heavy foreign and domestic borrowing, deposits by the central government in the central bank showed an increasing trend, especially during 1976 and 1977, in spite of the government borrowing requirement.

MONETARY POLICY

49. From 1973 to 1977, heavy fluctuations on the balance of payments as well as on the government accounts had substantial implications for the money supply. At the same time, the increasing balance of payments deficits became the main concern of monetary policy. The aim of keeping interest rates stable - perhaps even at a low level - which had played a major role during most of the 1960s (cf. chapter VIII), had to be sacrificed. As a result, interest rates on bonds were allowed to increase - and to fluctuate.

The issuing of short-term government bonds (cf. table XI.26), was started during 1975, but was not institutionalized in a systematic way until the spring of 1976, when a law on short-term government borrowing was passed by parliament. As a consequence of this new instrument, a short-term bond market, accessible to the non-bank private sector, was created for the first time, and was used by the monetary authorities in order to control the monetary base. An attempt was even made in order to 'twist' the structure of Danish interest rates in the bond market.

50. The main factors affecting the monetary base during the period 1973-77 are shown in table XI.27. The table - and some of the following - are based on more detailed figures in appendix tables XI.1 - XI.3. These tables, constructed in the same way as appendix tables VIII.1 - VIII.3, aim at bringing the latter up to date.

As appears from the upper part of table XI.27, the balance of payments deficits were partly financed by private foreign borrowing¹ in 1974 and 1977 (and

¹ In table XI.27 - and also in table XI.30 below - private capital imports are presented in the upper part among the factors, which are exogenous from
(cont'd on page 231)

Table XI.27

Factors affecting the monetary base

(DKR 1 000 million, current prices)

	1973	1974	1975	1976	1977
Bal. of paym., curr. acc.	- 2.8	- 5.8	- 2.9	-11.6	- 9.9
Net foreign cap. imp., excl. central government	+ 5.4	+ 4.9	+ 1.3	+ 1.9	+ 6.7
Central gov.t, domestic deficit	- 3.4	+ 0.6	+10.8	+10.0	+11.1
Other factors	- 0.1	- 0.3	+ 1.3	+ 1.0	+ 1.3
TOTAL	- 0.9	- 0.6	+10.5	+ 1.3	+ 9.2
Central gov.t, net bond sales	-	-	- 5.8	- 5.9	- 9.8
Central bank, increased bond holdings	+ 0.5	+ 2.6	+ 1.5	+ 5.6	- 1.7
Central bank, increased lending	+ 0.6	+ 0.2	- 2.7	+ 0.9	+ 2.5
Private banks, incr. of tied deposits in central bank	-	-	- 3.2	+ 0.2	+ 3.0
TOTAL INCREASE OF MONETARY BASE	+ 0.2	+ 2.2	+ 0.3	+ 2.1	+ 3.2

Note: For earlier years, see table VIII.6. Note, however, that figures in table VIII.6 cover two-year periods.

Source: See appendix tables VIII.1 and XI.1.

even more so in 1973). Hence the main effect from the balance of payments occurred in 1976, when net foreign payments caused a drain on the monetary base of some DKR 10 000 million. However, in 1976 this was offset by a domestic deficit of the central government of roughly the same size. Hence the main overall effects on the monetary base occurred in 1975 and 1977, reflecting domestic deficits by the central government of the same order of magnitude as in 1976, i.e. roughly DKR 10 000 million.

A substantial part of this expansionary effect on the monetary base was, however, counterbalanced by sales of short-term government bonds and treasury bills. These sales were undertaken by the central bank in close cooperation with the government. They amounted to nearly DKR 6 000 million in 1975, increasing to DKR 10 000 million in 1977. In 1976, the sales continued in spite of the fact that the net effect from the exogenous factors was close to zero. However, the central bank at the same time increased its bond holdings by roughly DKR 6 000 million (cf. table XI.27). As these bonds were largely

(cont'd of note 1 on page 230)

a monetary-policy viewpoint. It can be argued with some justification that this item should, instead, be shown in the lower part of the table, because private capital imports are influenced by monetary policy.

Table XI.28
Interest rates. End of half-year periods

(Per cent)

	Discount rate, central bank	Private banks, Time deposits 12 monts	Yield of gov.t bonds	
			5 per cent S 2007	10 per cent S 1976/83
1973,2.	9.0	11.0	12.7	-
1974,1.	10.0	12.0	14.8	-
1974,2.	10.0	12.0	14.4	-
1975,1.	8.0	10.0	11.9	-
1975,2.	7.5	9.5	12.6	-
1976,1.	8.5	10.5	14.0	-
1976,2.	10.0	12.1	14.6	16.6
1977,1.	9.0	11.1	15.3	16.6
1977,2.	9.0	11.1	16.6	17.1

Note: For concepts, see table VIII.5.

Source: Danmarks Nationalbank, Monetary Review February 1976, November 1977 and November 1978.

long-term bonds, this joint operation might be interpreted as an attempt to twist the interest rate structure.¹

51. Actually, from the late 1976 onwards the yield on short-term government bonds was kept above the long-term interest rate (cf. the two last columns of tables XI.28). They also illustrate the high level of effective yields on bonds during the later part of the period under study. By the end of 1977, bond yields had increased to roughly 17 per cent. Interest rates on 12 months deposits were substantially lower, reflecting the discount rate of the central bank. In fact the former remained roughly two per cent above the latter.

The discount rate of the central bank was increased from 8 to 10 per cent during late 1973 and early 1974. During 1975, it was gradually reduced to 7.5 per cent, reflecting the overall attempt to stimulate domestic demand, de-

¹ In its 1976 report (see pp. 70-71), the central bank explains why sales of short-term government bonds have been introduced. In this connection it is stated that the purpose was to keep the long-term interest rate from increasing too much, while the interest rate on short-term government bonds would be kept sufficiently high so as to stimulate private foreign capital imports.

Table XI.29

Changes of main items in the balance sheets of private banks

(DKR 1 000 million, current prices)

	1973	1974	1975	1976	1977
<u>Change in assets</u>					
Monetary base held by banks	- 0.4	+ 2.0	- 1.6	+ 1.4	+ 1.6
Priv. banks, lending	+ 8.5	+ 4.4	+ 1.8	+11.5	+ 9.4
Priv. banks, bond holdings	+ 1.9	+ 1.7	+15.3	+ 1.5	+ 5.2
Tied deposits in centr. bank	-	-	+ 3.2	- 0.2	- 3.0
INCREASE OF ASSETS = LIABILITIES	+10.0	+ 8.1	+18.7	+14.2	+13.2
<u>Change in liabilities</u>					
Short-term deposits	+ 3.2	+ 2.2	+ 9.3	+ 2.7	+ 3.7
Time deposits	+ 5.2	+ 4.7	+10.5	+ 9.0	+ 6.6
Borrowing in centr. bank	+ 0.6	+ 0.2	- 2.7	+ 0.9	+ 2.5
Other accounts, net	+ 1.0	+ 1.0	+ 1.6	+ 1.6	+ 0.4

Note: For earlier years, see table VIII.7.

Source: See appendix tables VIII.3 and XI.3.

scribed in the sections on fiscal policy above. But when, during 1976, it became clear that the recession was of a more permanent nature, the discount rate was increased to 11 per cent in the early autumn of 1976, corresponding to the tightening of fiscal policy at that time. However, in December 1976 it was reduced to 10 per cent and in March 1977 to 9 per cent.

52. One of the results of this policy is immediately clear from table XI.28: bank interest rates gradually became much lower than yields in the short-term bond market. Still, time deposits continued to increase (cf. table XI.29).

There are, however, at least two types of explanations for this phenomenon. The first is that a substantial part of time deposits is subject to arrangements which are favoured by the tax authorities, i.e. special types of long-term savings which reduce taxable income. Therefore, the effective yield (including the tax benefit) is higher than the deposit rate shown in table XI.28.

The same is true for a different type of time deposit, the so-called 'deposits subject to special agreement'. As was mentioned in chapter VIII, the agreement between the private banks on interest rates on deposits was cancelled in 1973. Therefore, competition started between individual banks for large deposits, firstly from local authorities and subsequently from firms which had excess liquidity, partly in connection with the substantial decline of stocks in 1975. Deposits rates according to table XI.28 were only indica-

tive from 1973 onwards, and much higher rates were offered by the banks in connection with the 'special-agreement' deposits.

In this connection, an additional purpose of introducing the short-term government bonds in early 1976 was to offer an alternative to 'special-agreement' deposits in the private banks. But the short-term bonds were only partly successful.¹

53. The increased deposits in the private banks in 1975 were not met by a corresponding demand for bank loans because of the sluggish overall performance of the economy at that time. Hence the bond holdings of private banks increased (cf. table XI.29). However, the 1976 upswing led to a substantial

Table XI.30
Factors affecting the money stock

(DKR 1 000 million)

	1973	1974	1975	1976	1977
Bal. of paym., curr. acc.	- 2.8	- 5.8	- 2.9	-11.6	- 9.9
Net foreign capital imp., excl. central government	+ 5.4	+ 4.9	+ 1.3	+ 1.9	+ 6.7
Central gov.t, domestic deficit	- 3.4	+ 0.6	+10.8	+10.0	+11.1
Other factors	- 1.1	- 1.3	- 0.3	- 0.6	- 0.9
TOTAL	- 1.9	- 1.6	+ 8.9	- 0.3	+ 8.8
Central gov.t, net bond sales	-	-	- 5.8	- 5.9	- 9.8
Central bank, increased bond holdings	+ 0.5	+ 2.6	+ 1.5	+ 5.6	- 1.7
Private banks, increased bond holdings	+ 1.9	+ 1.7	+15.3	+ 1.5	+ 5.2
Private banks, increased lending	+ 8.5	+ 4.4	+ 1.8	+11.5	+ 9.4
TOTAL INCREASE OF MONEY STOCK	+ 9.0	+ 7.1	+21.7	+12.4	+11.9

Note: For earlier years, see table VIII.8.

Source: See appendix tables VIII.2 and XI.2.

¹ The Danish authorities apparently favour the introduction of as many monetary policy instruments as possible. As increased interest rates in connection with 'special agreement' deposits might lead to increased lending rates, a law was passed in 1975 putting a ceiling on the difference between average lending and deposit rates as part of an incomes policy package. In early 1978, a ceiling on interest rates on 'special agreement' deposits was introduced.

increase of bank lending in spite of the fact that the system of credit ceilings, described in chapter VIII, had been retained.

54. Perhaps the most basic monetary policy change with respect to private banks was the introduction, in 1975, of specified rules on the possibilities for the private banks to borrow in the central bank. This scheme, which was already mentioned in passing in chapter VIII, sets individual ceilings for private bank borrowing at the central bank, the ceiling depending on the 'owned capital' of the bank concerned. The closer each bank comes to the ceiling, the higher the interest rate it has to pay. In connection with borrowing to a limited extent, the interest rate is related to the discount rate of the central bank, but when the borrowing approaches the ceiling, the interest to be paid depends on the effective yield in the bond market. The central bank is able to keep the monetary base under control more effectively than before, because remaining unused facilities for private bank borrowing from the central bank are now precisely defined.

55. Table XI.30 illustrates changes in the money stock (M_2) as well as factors having caused these changes. However, the money-stock² figures have become increasingly difficult to analyse in a meaningful way partly because of the introduction of near substitutes such as short-term bonds. Hence, it should only be noted that while the money stock corresponded to roughly 60 per cent of net national income in 1973 and 1974, the share increased to 65-67 per cent in 1975-77.

Table XI.31
Indicators of price increases

(Per cent)

	National-account deflators				Consumers' prices	Wage-regulation price index	
	GDP	Priv. consumpt.	Public consumpt.	Fixed inv.		excl. residential costs	incl. residential costs
1973	11.3	8.1	14.4	9.8	9.9	9.0	8.7
1974	12.7	15.3	18.1	20.7	15.7	16.3	15.2
1975	13.8	8.4	12.1	13.9	9.7	10.5	10.4
1976	8.9	9.3	6.7	6.0	8.4	7.2	8.6
1977	7.2	11.0	8.2	9.8	11.0	8.3	9.1

Note: For concepts and earlier years, see table IX.1.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

PRICE AND WAGE INFLATION

56. As was briefly mentioned in connection with table XI.8, the overall rate of inflation did not start to decline until 1975-76. Table XI.31 provides a more detailed picture in terms of year-by-year percentage increases of various price indices. These figures are fully comparable with similar figures in table XI.1.¹

As will be recalled from the latter table, rates of inflation in 1973 were at record levels as compared with previous years, but prices increased even faster in 1974. According to the wage-regulation price indices (which exclude changes of indirect taxation, etc.), the rate of overall price increase was gradually reduced from above 15 per cent in 1974 down to roughly 8 per cent in 1977.

The index of consumers' prices shows a somewhat different pattern. The discrepancies are mainly due to changes in the rate of value-added taxation² as well as in other rates of indirect taxes. These changes in indirect tax rates also affect the implicit deflator of private consumption, which shows a pattern roughly similar to that of the index of consumers' prices.

The two other series of implicit deflators in table XI.31 behave in a rather surprising way.³ The implicit deflator of fixed investment, shows an increase of no less than 20 per cent in 1974, declining sharply during the following two years. The implicit deflator of public consumption, which usually has shown larger rates of increase than other price indicators, showed very small rates of increase between 1975 and 1977. This result is in accordance with the findings on the sector of government services in table XI.10 and may, among other things, reflect the fact that wage rates for government employees have increased comparatively little since 1975.

57. Money wage rates for workers have shown a pattern roughly corresponding to that of price increases (cf. table XI.32). Again, although the rate of increase in 1973 was a record (cf. table IX.2), the increase in 1974 was even larger, reaching a rate of roughly 20 per cent. It was not until 1976 that the rate of increase in money wages was reduced substantially, and by 1977 it was down to roughly 10 per cent per year.

Apparently, the deceleration of the increase in money wages took place somewhat later than the slowing down of price increases. This may partly be due to the system of automatic adjustment of money wage rates to preceding price

¹ It should, however, be recalled that national accounts data of the early 1970s have been slightly revised.

² The rate of value-added taxation was temporarily reduced from 15 to 9.25 per cent from October 1975 to the end of February 1976, when it returned to 15 per cent. From early October 1977 onwards, the rate was increased to 18 per cent.

³ It should be recalled that national accounts data for this period are preliminary, hence the results according to the final figures may differ from those in table XI.31.

Table XI.32
Money wage rates for different groups of workers

	Total	Skilled workers	Male workers, unskilled	Female workers, unskilled
<u>Wage rates, kroner</u>				
1973	24.85	27.99	24.10	20.64
1977	43.39	47.52	42.04	38.25
<u>Per cent increase over preceding year</u>				
1973	15.4	14.2	15.2	20.5
1974	19.7	18.5	19.3	22.7
1975	19.2	17.8	18.8	20.6
1976	11.5	11.2	11.6	12.8
1977	9.8	9.3	10.3	11.0

Note: For earlier years, see table XI.2. Changes in the description of categories originate from the sources, mentioned below. They have mainly been made for the purpose of presentation. (Note that 1973 figures are identical in the two tables).

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and Statistiske Efterretninger 1978 No A 32.

increases, i.e. the escalator clause described in chapter IX. One of the implications of this mechanism is that, during a period of sharply declining prices, real wages may show a temporary sharp increase. It was partly in order to prevent this transitional increase from leading to increased private consumption, and hence to a further deterioration of the balance of payments, that indirect taxation was increased in 1976 and 1977.

58. As was pointed out in connection with table IX.2, relative wages for different groups of workers remained very stable from 1950 to around 1970. This pattern of stability has, however, not prevailed during the 1970s. The principle of 'equal pay for men and women' was pressed with increasing vigour during wage negotiations - and finally it was formalized.¹ Because of differences with respect to types of jobs, average wage rates of unskilled

¹ As a consequence of this formalization, the headings of official wage-rate tables have been changed. This is reflected in the headings of table IX.2 as compared with table XI.32. So far there are, however, only very few skilled female workers, thus the problem is mainly one of presentation.

women in 1977 were still roughly 4 DKR per hour - or 10 per cent - lower than those of their male colleagues. But in 1973 the difference in absolute terms had also been roughly 4 DKR - corresponding to 15 per cent.

In brief, wage rates for unskilled female workers have increased more than average wage rates, while those of skilled (male) workers have increased less. Rates of unskilled male workers show rates of increase roughly corresponding to those of overall average wages.

59. This pattern of increase of money wages partly reflects the outcome of the biennial wage negotiations in the Spring of 1975 and 1977. Without going into details it might be worth mentioning that neither of these negotiations were carried through in accordance with the principle of free collective bargaining.

In 1975, the trade unions and the employers' union could not agree at all. According to Danish legislation, the official arbitrator (mentioned in chapter IX) is only allowed to act if the delegations of the negotiating parties are willing to recommend his proposal. Nevertheless, in early 1975 the arbitrator presented a draft proposal, on which both parts disagreed 'to the same extent'. Such a draft proposal was hardly in complete accordance with the law on the official arbitrator,¹ but it provided an urgently needed basis on which parliament could act, and the draft was actually turned into law. It is, however, unlikely that this procedure will be used again in the immediate future.

In the autumn of 1976, it was again realized that parliament might be in need of a basis on which to act, if such action became necessary in the spring of 1977. In order to cope with this possibility, a majority in parliament agreed on guidelines aimed at keeping the increase in money incomes down to 6 per cent per year from the spring of 1977 onwards. However, in early 1977 the official arbitrator actually succeeded in finding support from both parties for a proposal, although the resulting increase in total money wage rates would probably exceed 6 per cent per year. Subsequently, the proposal was accepted by the members of the trade unions - but rejected by the members of the employers' union. However, the proposal was put into effect by parliament - and the employers' union elected a new chairman.

INCOME DISTRIBUTION

60. As will be recalled from table IX.4, the share of wages, in total net domestic product followed a rising trend from the early 1960s onwards. This trend has continued from 1973 onwards (cf. table XI.33), and has been in excess of 70 per cent since 1974. Short-term fluctuations mainly reflect general business conditions. Thus the increase in the share of 'other income' in 1976 probably reflects the 1976 upswing.

¹ Cf. Svend Auken and Jacob A. Buksti, 'Den indkomstpolitiske problematik i Danmark', Økonomi og Politik 1975, pp. 241-73 and pp. 268 in particular.

Table XI.33
The functional income distribution

	Share of			Net domestic product, DKR 1 000 million, current prices
	Wages	Other incomes	Total	
1973	67.2	32.8	100.0	131.2
1974	71.1	28.9	100.0	147.3
1975	73.1	26.9	100.0	162.5
1976	72.4	27.6	100.0	186.3

Note: For earlier years, see table IX.4. Figures for 1977 are not yet available.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

61. Data on life wages on a comparable basis to that used in table IX.6 are only available for 1975. The appropriate figures are presented in table XI.34 which, furthermore, includes additional groups of wage earners. These figures suggest that, even in 1975, the pattern of relative wages had already responded to the change in the general economic climate. The main conclusions may be summarized as follows: the tendency for wages of female workers to increase comparatively fast continued from 1970 to 1975 (cf. the figure for the female textile worker). However, while the female clerk in government enjoyed higher wage increases than her colleague in the private sector between 1960 and 1970, this situation was reversed between 1970 and 1975.

The suggested change of pattern between government and private workers is confirmed by the figures for government employees with a university education, i.e. the high school teacher and the civil servant with a degree in law or in economics. While the percentage wage increases of these groups were among the highest between 1960 and 1970, they were below average in the period 1970 to 1975. It was only from 1975 onwards that wage rates in the government sector were really kept down.

Finally, wages for metal workers (balance of payments industries) and bricklayers (domestic industries) might be compared. In both fields, wages of unskilled workers have increased comparatively faster than those of their skilled colleagues, as already noted from table XI.32. But the most interesting finding is perhaps that while wages of bricklayers increased faster than those of metal workers during the 1960s, when the balance of payments industries were on the defensive and residential investment was booming, the opposite pattern emerges between 1970 and 1975 when the building and construction industries experienced a slump.

Table XI.34
Life wages for selected types of wage earners

	1960, DKR million	1970, 1960 = 100	1975, 1970 = 100
Female worker, textiles	0.510	277	205
Female clerk, private	0.618	259	188
Female clerk, government	0.721	271	181
Metal worker, unskilled	0.741	243	199
Metal worker, skilled	0.864	239	195
Bricklayer, unskilled	0.961	267	162
Bricklayer, skilled	1.078	253	153
High school teacher	1.284	306	162
Economist, civil serv.	1.307	293	170

Note: For concepts, see table IX.6.

Sources: Det økonomiske Råd, Dansk økonomi foråret 1972, p. 70, and Dansk økonomi maj 1977.

Table XI.35

Main items on current account of the balance of payments, current prices

	Goods and services			Interest payments, transfers etc.	Balance of payments, current account
	Exports	Imports	Export surplus		
1973	53.0	55.9	- 2.9	0.1	- 2.8
1974	66.1	71.0	- 4.9	- 0.7	- 5.6
1975	69.9	71.1	- 1.2	- 1.8	- 3.0
1976	77.8	88.2	-10.4	- 1.2	-11.6
1977	86.4	95.2	- 8.8	- 1.1	- 9.9

Note: For concepts, see table X.1. Note that the figures in the first three columns, taken from national accounts statistics, are consistent with figures in appendix table I.2.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

THE BALANCE OF PAYMENTS, SUMMARY

62. As seen in table XI.8, the balance of payments deficit has persisted since 1973, and reached a record in 1976 (cf. table XI.35). This was mainly due to a substantial increase in imports which turn partly reflected a turn-round from negative to positive stockbuilding between 1975 and 1976 (cf. table XI.11). However, in 1977 imports continued to increase, in spite of the fact that the rate of stockbuilding slowed down.

Net foreign transfer payments added to the balance of payments deficit during the years 1974-1977. Higher interest payments on the Danish foreign debt (and growing transfers to developing countries) exceeded the increasing amounts received from EEC, mainly in form of EAGGF payments.

EXPORTS

63. The composition of exports by commodity groups at current prices is shown in table XI.36. The share of agricultural exports continued to decline from 1973 onwards. In particular, the share of exports of bacon etc. in total exports was reduced from 9 per cent in 1973 to 6 per cent in 1977. The pattern of exports of industrial products by commodity groups remained rather stable.

64. Trends in the markets for exports are illustrated in tables XI.37 and XI.38 for agricultural and industrial products respectively. The figures in table XI.37 are fully comparable with those in table X.4.

The share of agricultural exports sold to other EEC countries remained at around 80 per cent. However, the German market became of increasing importance, while the opposite was true for the British - the latter reflecting the declining share of exports of bacon. EFTA-countries continued to purchase 6-8 per cent of total agricultural exports. The increasing share of 'other countries' is partly due to the establishment of new markets in some of the more well-off developing countries.

Markets for manufactured goods are shown in table XI.38. The table is roughly comparable with table X.5, but the 1977 figures are preliminary. Sweden has remained the most important export market but the share of Norway has increased slightly. The share of EEC countries remained around 35 per cent, but the British market has declined in importance.

IMPORTS

65. According to table IX.39, the composition of total imports remained rather stable from 1973 to 1977. Still, the decline of fixed business investment from 1973 to 1975 is reflected in some of the figures, e.g. imports of metals and machines. But the obvious exception to the pattern of stability is, of course, to be found in imports of fuel. The share of fuel in total im-

Table XI.36
Exports by commodities

(Current prices)

	1973		1974		1975		1976		1977	
	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent
Beef and cattle	1.25	3	1.34	3	1.88	4	1.54	3	2.00	3
Bacon and pigs	3.23	9	3.22	7	4.08	8	4.00	7	3.85	6
Butter and cheese	1.40	4	1.89	4	2.23	4	2.45	4	2.59	4
Canned food	2.29	6	2.31	5	2.08	4	2.51	5	2.71	5
Other anim. prod.	1.04	3	1.13	2	1.06	2	1.17	2	1.33	2
Vegetab. prod.	1.12	3	1.70	4	1.89	4	1.94	4	2.11	4
AGRIC. EXP., TOTAL	10.33	28	11.59	25	13.22	26	13.61	25	14.59	24
Food, beverages, etc.	0.72	2	1.04	2	1.03	2	1.06	2	1.21	2
Machines, instruments etc.	7.92	22	10.67	23	11.32	23	12.76	23	13.81	23
Other metal prod.	1.93	5	2.70	6	2.87	6	3.36	6	4.04	7
Chemical prod.	2.31	6	3.39	7	3.36	7	3.85	7	4.42	7
Textiles and clothing	2.05	6	2.39	5	2.40	5	2.76	5	2.91	5
Furniture	0.90	2	1.03	2	0.99	2	1.21	2	1.38	2
Fuel and lubricants, excl. crude oil	0.71	2	1.64	4	1.54	3	1.83	4	1.61	3
Other industrial prod.	5.56	15	7.74	16	7.47	14	8.90	16	10.26	17
INDUSTRIAL PRODUCTS, TOTAL	22.10	60	30.60	65	30.98	62	35.73	65	39.64	66
New ships	0.74	2	1.34	3	1.64	3	1.55	3	1.38	2
Second-hand ships, etc.	1.16	3	0.68	2	1.36	3	0.87	2	0.82	1
Fish	1.49	4	1.62	3	1.70	3	1.91	3	2.31	4
Other prod. incl. furs	1.00	3	1.09	2	1.13	3	1.36	2	1.70	3
TOTAL EXPORTS	36.82	100	46.92	100	50.03	100	55.03	100	60.44	100

Note: Definitions differ in certain respects from those in table X.3.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978.

Table XI.37

Agricultural exports by markets

(Current prices)

	1973		1974		1975		1976		1977	
	1 000 mill. DKR	per cent	1 000 mill. DKR	per cent	1 000 mill. DKR	per cent	1 000 mill. DKR	per cent	1 000 mill. DKR	per cent
U.K.	3.00	44	3.52	47	4.14	45	3.85	42	3.50	36
Fed. Rep. Germany	0.90	13	1.07	14	1.31	14	1.47	16	1.75	18
Italy	1.25	18	1.09	14	1.62	18	1.40	15	1.77	18
Other EEC-countries	0.36	5	0.29	4	0.35	4	0.46	5	0.57	6
Finl., Norway, Sweden	0.35	5	0.42	6	0.47	5	0.52	6	0.47	5
Other EFTA-countries	0.16	2	0.12	2	0.07	1	0.06	1	0.06	1
U.S.	0.22	3	0.24	3	0.17	2	0.19	2	0.19	2
Other countries	0.68	10	0.79	10	1.08	11	1.16	13	1.40	14
TOTAL	6.92	100	7.54	100	9.21	100	9.11	100	9.71	100

Note: For concepts and earlier years, see table X.4.

Source: Det økonomiske Sekretariat, Økonomisk Oversigt, December 1977, and supplementary information from Det økonomiske Sekretariat.

Table XI.38

Exports of manufactured goods by markets

(Current prices)

	1973		1974		1975		1976		1977	
	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent
Sweden	3.39	18	4.54	18	4.87	19	5.57	19	5.61	18
Norway	1.81	9	2.22	9	2.43	10	2.83	10	3.37	11
U.K.	2.47	13	2.72	11	2.37	9	2.46	8	2.73	8
Fed. Rep. Germany	2.39	13	2.90	12	3.14	12	3.95	14	4.69	15
Other EEC-countries	2.27	12	3.16	13	2.97	12	3.82	13	4.31	13
Other European countries	2.29	12	3.04	12	2.71	11	2.88	10	3.37	10
U.S. and Canada	1.27	7	1.57	6	1.61	6	1.90	7	1.98	6
Other countries	3.04	16	4.73	19	5.41	21	5.63	19	6.08	19
TOTAL	18.93	100	24.88	100	25.51	100	29.04	100	32.14	100

Note: For concepts and earlier years, see table X.5.

Source: Det økonomiske Sekretariat, Økonomisk Oversigt December 1977, and supplementary information from Det økonomiske Sekretariat.

Table XI.39

Imports by commodity groups

(current prices)

	1973		1974		1975		1976		1977	
	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent	DKR 1 000 mill.	per cent
Raw materials-agriculture	2.17	5	2.72	5	2.54	4	3.22	4	3.84	5
Fuel and energy	4.76	10	11.12	18	10.62	18	11.75	16	12.70	16
Iron and metals	3.83	8	5.11	8	3.92	7	5.00	7	4.76	6
Chemical prod., excl. fertilizers	3.72	8	5.43	9	5.02	9	5.85	8	6.23	8
Other raw materials and semi-manufacture products	4.59	10	5.67	9	4.99	8	6.25	8	6.66	8
Machines, instruments, etc.	8.69	19	10.13	17	10.19	17	12.75	17	13.49	17
Vehicles, ships and aircrafts	4.85	10	4.42	7	6.20	10	8.50	11	7.84	10
Manufacture goods for consumption	4.89	10	5.51	9	5.53	9	7.44	10	7.80	10
Food, beverages, etc.	2.21	5	2.14	4	2.30	4	3.16	4	4.02	5
Other goods	7.02	15	8.23	14	8.40	14	11.09	15	12.30	15
TOTAL IMPORTS	46.73	100	60.48	100	59.71	100	75.01	100	79.64	100
Total imports as per cent of NDP		35.5		41.1		36.7		40.3		39.1

Note: Concepts and definitions have been changed substantially as compared with table X.6.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978.

ports increased from 10 per cent in 1973 to no less than 18 per cent in 1974. In 1973, 95 per cent of fuel imports consisted of oil etc. Gradually, imports of coal etc. has provided an increasing share of total fuel imports. However, in 1977 coal imports only amounted to slightly below 10 per cent of total fuel imports.

PRICES IN FOREIGN TRADE

66. Because of the dominating role of oil in Danish fuel imports - added to the fact that no domestic sources of fuel have been available until recently - fuel prices trebled between 1973 and 1974, causing the terms of trade to deteriorate by more than 10 per cent (cf. table XI.40), before they subsequently stabilized. When the figures in table XI.40 are compared with similar figures in table X.7, covering the period up to 1973, it should be recalled that improved agricultural prices due to membership of EEC are not reflected in the index of export prices. If adjustments are made to include EAGGF payments as representing increased prices of agricultural exports, the resulting picture is one where the terms of trade during the mid-1970s were roughly at the same level as during the late 1960s.

Table XI.40
Prices in foreign trade, including terms of trade

Index 1960 = 100

	GDP deflator	Implicit deflators, goods and services			Foreign trade, goods		
		Exports	Imports	Terms of trade	Exports	Imports	Terms of trade
1973	224	154	145	106	148	139	106
1974	252	183	193	95	174	188	93
1975	287	198	202	98	191	197	97
1976	313	213	216	99	204	210	97
1977	335	227	236	96	217	229	95

Note: For earlier years, see table X.7.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978 and supplementary information from Danmarks Statistik.

SERVICES AND TRANSFERS

67. On the services account of the balance of payments, quite substantial net receipts have usually contributed to reducing the deficit on the balance

Table XI.41
The balance of payments

(DKR 1 000 million, current prices)					
	1973	1974	1975	1976	1977
Imports, cif	46.73	60.48	59.71	75.01	79.64
Exports, fob	36.82	46.92	50.03	55.03	60.44
BALANCE OF TRADE	- 9.91	-13.56	- 9.68	-19.98	-19.20
<u>Services, net receipts</u>					
Foreign shipping	+ 4.15	+ 5.09	+ 4.55	+ 5.19	+ 6.20
Tourism	+ 0.48	+ 0.72	+ 0.57	+ 0.33	- 0.01
Other services	+ 2.02	+ 2.71	+ 2.96	+ 3.76	+ 4.07
GOODS AND SERVICES, NET	- 3.26	- 5.04	- 1.60	-10.70	- 8.94
<u>Transfers, etc., net receipts</u>					
Interest payments etc.	- 0.96	- 1.46	- 1.87	- 2.18	- 3.24
EEC	+ 2.02	+ 1.77	+ 1.43	+ 2.50	+ 3.45
Unilateral transfers etc.	- 0.62	- 0.83	- 1.01	- 1.19	- 1.15
CURRENT ACCOUNTS, NET	- 2.82	- 5.56	- 3.05	-11.57	- 9.88
<u>Net increase of foreign debt</u>					
Private non-bank sector	4.44	4.16	0.14	1.77	7.31
Government sector	0.42	0.61	0.87	10.13	8.38
Monetary sector	- 2.04	0.79	2.04	- 0.33	- 5.81
TOTAL	2.82	5.56	3.05	11.57	9.88

Note: For concepts, see table X.8.

Source: Danmarks Statistik, Statistisk tiårsoversigt 1978.

of trade,¹ and this pattern has continued in the period since 1973. However, net receipts from foreign shipping were adversely affected by a sluggish freight market. Net receipts from tourism have declined; in 1977 they were negative for the first time since the early 1950s. However, net receipts from other services have increased.

¹ In this connection it should be recalled that imports are indicated cif in table X.8 as well as in table XI.41. This presentation affects the size of net receipts from services (cf. comments in chapter X).

Table XI.42
Net foreign debt, end of years

	1973		1974		1975		1976		1977	
	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI	DKR 1 000 mill.	per cent NNI
Balance of payments, curr. acc. net	- 2.82	2	- 5.56	4	- 3.05	2	-11.57	6	- 9.88	5
Net foreign position	-18.72	14	-23.72	16	-26.82	17	-38.50	21	-48 ^a	24
<u>of which:</u>										
Government sector	-10.11	8	-10.55	7	-12.01	8	-21.90	12	-30 ^a	15
Private non-bank sector	-16.84	13	-20.62	14	-20.90	13	-23.17	13	-30 ^a	15
Monetary sector	8.23	7	7.45	5	6.09	4	6.57	4	12.57	6
Composition of net assets of the monetary sector:										
Holdings by the central bank ^b	6.24		3.96		4.21		3.55		8.18	
Net IMF ^c position	1.80		1.14		1.04		1.00		1.19	
Holdings by private banks	0.19		2.35		0.84		2.02		3.20	

^a Preliminary figures.

^b Including gold valued at about DKR 500 million.

^c Reserve position and SDR's.

Sources: Danmarks Statistik, Statistisk tiårsoversigt 1978 and Danmarks Nationalbank, Monetary Review, February 1979.

68. Among the transfer items, unilateral transfers to developing countries showed a slow, but rather steady increase. Gross receipts from the EEC, mainly representing EAGGF payments, gradually increased from DKR 2 400 million in 1973 to DKR 5 300 million in 1977. However, the Danish contribution to the EEC increased as well, from less than DKR 500 million in 1973, to DKR 1 800 million in 1977. Interest payments on the increasing foreign debt, which amounted to under DKR 1 000 million in 1973, rose to over DKR 3 000 million in 1977.

THE NET FOREIGN DEBT

69. According to the bottom part of table XI.41, most of the balance of payments deficit in 1974 was financed by borrowing by the private non-bank sector, while the comparatively small 1975 deficit was met by reduced foreign exchange holdings. However, when it was realized that substantial deficits would occur in 1976 and 1977, the government started to borrow abroad on a large scale. During these two years, net government borrowing was almost equal to the balance of payments deficits.

70. The balance of payments deficit varied from the equivalent of 2 per cent of net national income¹ in 1973 to 6 per cent of NNI in 1976 (cf. table XI.42). In 1973, total net foreign debt amounted to DKR 18 700 million or 14 per cent of NNI, but had increased to nearly DKR 50 000 million or to 24 per cent of NNI by the end of 1977.

Due to heavy foreign borrowing in 1976 and 1977, the net debt of the government sector increased from DKR 10 000 million in 1973 to DKR 30 000 million in 1977. These figures are somewhat larger than the figures of the net foreign debt of central government shown above in connection with the question of financing net expenditure of the central government. The difference is explained by foreign borrowing by local authorities and other government agencies.

The private non-bank sector increased its net foreign debt during 1974 by DKR 4 000 million. In 1975, the net debt remained stable at DKR 20 000 million, but in 1976 and in 1977 the foreign debt of the private sector increased again. This development partly reflected aims of monetary policy. Ceilings on borrowing at home and high domestic interest rates induced the private sector to borrow abroad. However, as a per cent of NNI, the foreign debt of the private sector only increased moderately between 1973 and 1977.

71. As a result of these pattern of behaviour, net foreign exchange holdings of the banking sector, remained at around DKR 6 000-8 000 million during the years 1973-75, but had increased to more than DKR 12 000 million by the end of 1977, corresponding to 6 per cent of NNI. Such comparatively large foreign exchange holdings imply a significant interest payment burden but this price is probably worth paying, because they contribute to calmer conditions on foreign exchange markets.

¹ It should be recalled that NNI is measured at current prices at factor cost.

THE EXCHANGE RATE

72. As was described in the final part of chapter X, Denmark joined the monetary system known as the 'snake' in 1972-73, and has remained a member of the 'snake family' ever since. Therefore, the Danish krone has been rather closely linked to the Deutsche mark. If these links had been very tight, i.e. if the Danish krone/Deutsche mark rate had remained stable, obvious problems would have arisen because the Danish rates of price and wage inflation have certainly exceeded rates in the Federal Republic.

This problem has been handled by occasional, but minor, adjustments of the exchange rate of the Deutsche mark in terms of Danish kroner. In November 1976, the rate was increased by 6 per cent, in April 1977 by 3 per cent and in August 1977 by an additional 5 per cent. These adjustments are shown in table XI.43.

Table XI.43
Danish foreign exchange rates

	End of year				
	1973	1974	1975	1976	1977
<u>Kroner per unit:</u>					
U.S. dollar	6.29	5.65	6.18	5.79	5.78
Pound sterling	14.60	13.29	12.51	9.86	11.02
Sweden krone	1.37	1.39	1.40	1.40	1.24
Norwegian krone	1.10	1.09	1.11	1.12	1.13
Deutsche mark	2.33	2.35	2.36	2.45	2.75
Index of 'effective exchange rate' of krone, end of 1972 = 100:	102.4	104.8	104.3	111.6	107.5
Reciprocal of 'effective exchange rate':	97.6	95.4	95.9	89.6	93.1
Value (kroner per unit) of:					
SDR	-	6.92	7.23	6.72	7.02
EUA	-	-	7.20	6.54	7.08

Note: For earlier years, see table X.10. Concepts in the lower part of the table are explained in the text.

Source: Danmarks Nationalbank, Beretning og regnskab, various years.

Whenever these adjustments occurred the exchange rate to be used in connection with the Common Agricultural Policy was adjusted accordingly. The implication of the policies of EEC member countries in this field has been that, in terms of industrial goods, Danish farmers receive lower prices than their German colleagues, whilst food prices are cheaper in Denmark than in the Federal Republic. The opposite holds for comparisons between the United Kingdom and Denmark.

73. While the Danish krone has been devalued in terms of Deutsche mark, it has appreciated vis-à-vis the U.S. dollar and sterling (cf. table XI.43). The table clearly illustrates the effects of a system of floating exchange rates.

Within such a system, the question of whether, on balance, the krone has been devalued or revalued, cannot be answered in an unambiguous way. The answer must somehow be based on the average price of a 'basket of foreign currencies'. If this basket is weighted in accordance with the composition of Danish foreign trade, the 'effective exchange rate' is obtained. According to table XI.43, this yardstick indicates that the value of the krone has increased by 7 per cent from the end of 1972 to the end of 1977 - and by 3 per cent from the end of 1975 to the end of 1977. During the latter period, the price of an SDR unit declined by 3 per cent, whereas the price of a European Unit of Account declined by slightly less than 2 per cent.

74. At first sight, these results may be surprising, recalling the substantial balance of payments deficits of 1976 and 1977. However, several factors should be kept in mind, of which the most important might - at the risk of some repetition as compared with the final part of chapter X - be summarized as follows:

Firstly, many people fear that the advantages to be obtained by the balance of payments industries from a substantial devaluation of the krone will be offset by subsequent increases in wages and prices, at least as long as the escalators clause is retained in connection with the fixing of wage rates. This in turn will create additional problems, because it will be difficult to lower interest rates. Furthermore, the redistribution effects, between those who hold financial assets and those who hold real assets financed by loans, may give rise to new social and political tensions.

Finally, in an international context, competing devaluations by different countries represent as much a 'beggar-your-neighbour' policy as did the policies of quantitative restrictions of the 1930s.

Appendix table XI.1

The monetary base

(DKR 1 000 million, current prices)

	End of 1973	1974	End of 1974	1975	End of 1975	1976	End of 1976	1977	End of 1977
(1) Notes, Post Giro etc.	10.4	+ 0.3	10.7	+ 1.7	12.4	+ 0.7	13.1	+ 1.6	14.7
(2) Deposits in central bank	0.5	- 0.3	0.2	- 0.1	0.1	+ 0.0	0.1	+ 0.0	0.1
(3) Net foreign ass. of private banks	1.2	+ 2.2	3.4	- 1.3	2.1	+ 1.4	3.5	+ 1.6	5.1
(4) Total monetary base	12.1	+ 2.2	14.3	+ 0.3	14.6	+ 2.1	16.7	+ 3.2	19.9
<u>of which held:</u>									
(5) by private banks	3.4	+ 2.0	5.4	- 1.6	3.8	+ 1.4	5.2	+ 1.6	6.8
(6) outside banks	8.7	+ 0.2	8.9	+ 1.9	10.8	+ 0.7	11.5	+ 1.6	13.1
<u>Changes explained by:</u>									
(7) Balance of payments, current account		- 5.8		- 2.9		-11.6		- 9.9	
(8) Net foreign capital inflows		+ 4.9		+ 1.3		+ 1.9		+ 6.7	
(9a) Central government domestic deficit		+ 0.6		+10.8		+10.0		+11.1	
(9b) Central govern., net bond sales		0.0		- 5.8		- 5.9		- 9.8	
(10) Central bank, incr. bond hold- ings		+ 2.6		+ 1.5		+ 5.6		- 1.7	
(11) Central bank, incr. lending		+ 0.2		- 2.7		+ 0.9		+ 2.5	
(12a) Private banks, tied depos. in central bank		0.0		- 3.2		+ 0.2		+ 3.0	
(12b) Other factors		- 0.3		+ 1.3		+ 1.0		+ 1.3	

Source notes follow the tables.

Appendix table XI.2

The money stock

(DKR 1 000 million, current prices)

	End of 1973	1974	End of 1974	1975	End of 1975	1976	End of 1976	1977	End of 1977
(13) Monetary base held outside banks	8.7	+ 0.2	8.9	+ 1.9	10.8	+ 0.7	11.5	+ 1.6	13.1
(14) Deposits, incl. time deposits	71.0	+ 6.9	77.9	+19.8	97.7	+11.7	109.4	+10.3	119.7
(15) Total money stock	79.7	+ 7.1	86.8	+21.7	108.5	+12.4	120.9	+11.9	132.8
<u>Changes explained by:</u>									
(16) Balance of payments, current account		- 5.8		- 2.9		-11.6		- 9.9	
(17) Net foreign capital import		+ 4.9		+ 1.3		+ 1.9		+ 6.7	
(18a) Central government domestic deficit		+ 0.6		+10.8		+10.0		+11.1	
(18b) Central government, net bond sales		0.0		- 5.8		- 5.9		- 9.8	
(19) Central bank, incr. bond holdings		+ 2.6		+ 1.5		+ 5.6		- 1.7	
(20) Private banks, incr. bond hold- ings		+ 1.7		+15.3		+ 1.5		+ 5.2	
(21) Private banks, incr. lending		+ 4.4		+ 1.8		+11.5		+ 9.4	
(22) Other factors		- 1.3		- 0.3		- 0.6		+ 0.9	

Source notes follow the tables.

Appendix table XI.3

Balance sheets of private banks

(DKR 1 000 million, current prices)

	End of 1973	1974	End of 1974	1975	End of 1975	1976	End of 1976	1977	End of 1977
<u>Assets:</u>									
(23) Monetary base held by banks	3.4	+ 2.0	5.4	- 1.6	3.8	+ 1.4	5.2	+ 1.6	6.8
(24) Private banks, incr. lending	62.4	+ 4.4	66.8	+ 1.8	68.6	+11.5	80.1	+ 9.4	89.5
(25a) Private banks, incr. bond holdings	13.2	+ 1.7	14.9	+15.3	30.2	+ 1.5	31.7	+ 5.2	36.9
(25b) Private banks, increase of tied deposits in central bank	0.0	0.0	0.0	+ 3.2	3.2	- 0.2	3.0	- 3.0	0.0
(26) Assets = liabilities	79.0	+ 8.1	87.1	+18.7	105.8	+14.2	120.0	+13.2	133.2
<u>Liabilities:</u>									
(27) Deposits, incl. time deposits	71.0	+ 6.9	77.9	+19.8	97.7	+11.7	109.4	+10.3	119.7
(28) Borrowing from central bank	3.8	+ 0.2	4.0	- 2.7	1.3	+ 0.9	2.2	+ 2.5	4.7
(29) Other accounts, net	4.2	+ 1.0	5.2	+ 1.6	6.8	+ 1.6	8.4	+ 0.4	8.8

Source notes follow the tables.

Sources to appendix tables XI.1 - XI.3

A. Danmarks Nationalbank, Monetary Review November 1978.

B. Danmarks Nationalbank, Beretning og regnskab 1975, pp. 66-67 (figures for 1974) and Beretning og regnskab 1977, pp. 60-61 and 65 (figures for 1975-77).

Appendix table XI.1

Rows (1)-(6): Source A, p.26.

Rows (7)-(9): Source B.

Rows (10)-(12a): Source A, p. 27.

Row (12b): Residual.

Appendix table XI.2

Row (13) = (6)

Rows (14)-(15): Source A, p. 28.

Rows (16)-(19) = (7)-(10).

Row (20): Source A, p. 32.

Row (21): Source B.

Row (22): Residual.

Appendix table XI.3

Row (23) = (5).

Row (24) = (21). End-1973 figure from appendix table VIII.3.

Row (25a) = (20). End-1973 figure from appendix table VIII.3.

Row (25b) = (12a).

Row (26) = (23) + (24) + (25).

Row (27) = (14).

Row (28) = (11). End-1973 figure from appendix table VIII.3.

Row (29): Residual.

studies

published to date in the series 'Economic and Financial' ¹:

8075* – No 1

Electricity prices in the countries of the EEC

1962, 106 pp. (DE,FR,IT,NL). UKL 1.30; USD 3.60; BFR 180.

8125* – No 2

Government revenue and expenditure in the EEC countries 1965

1965, 306 pp. (DE,FR,IT,NL). UKL 1.62½; USD 4.50; BFR 225.

8133* – No 3

Natural gas in the European Economic Community: problems and outlook

1965, 72 pp. (DE,FR,IT,NL). 62½p; USD 1.70; BFR 85.

8157* – No 4

Economic influence of the energy prices

1966, 145 pp. (DE,FR,IT,NL). 87½p; USD 2.40; BFR 120.

8179* – No 5

Study for the promotion of an industrial development pole in southern Italy (Vols. I and II)

1966, Vol. I: 220 pp.; Vol. II: 690 pp. (DE,EN,FR,IT,NL). UKL 5.75; USD 16.00; BFR 800.

8219* – No 6

The productivity of capital in 21 industries in the Federal Republic of Germany, 1950-1975

1968, 132 pp. (DE,FR). UKL 2.07½; USD 5.00; BFR 250.

8249* – No 7

Report on the contribution of pension funds to the capital markets of the EEC

1968, 70 pp. (DE,EN,FR,IT,NL). UKL 1.00; USD 2.40; BFR 120.

8291* – No 8

Development of public finance in the Member States of the European Communities

1970, 262 pp. (DE,FR,IT,NL). UKL 1.85; USD 50; BFR 225.

8461 – No 9

The United Kingdom economy

1974, 156 pp. (EN). UKL 2.00; BFR 180.

¹ The abbreviations after each title indicate the languages in which the documents have been published: DA = Danish, DE = German, EN = English, FR = French, IT = Italian, NL = Dutch.

8462 - No 10

The Irish economy

1975, 168 pp. (EN). UKL 2.20; BFR 200.

8713 — No 11

The Trend of Public Finance in the Member States of the Community from 1966 to 1970

1976, 238 pp. (DE,EN,FR). UKL 2.75; USD 6.50; BFR 225.

8854 — No 12

The impact of Rising Prices on Taxation and Social Security Contributions in the European Community

1976, 76 pp. (DE,EN,FR). UKL 1.20; USD 2; BFR 75.

CB-NI-77-A13-EN-C - No A13

**Report of the study group on the role of public finance in European integration
Volume I: General Report**

1977, 76 pp. (DA,DE,EN,FR,IT,NL). UKL 2.40; USD 4.20; BFR 150.

CB-NI-77-B13-EN-C - No B13

**Report of the study group on the role of public finance in European integration
Volume II: Individual contributions and working papers**

1977, 518 pp. (DE,EN,FR). UKL 7; USD 12.50; BFR 450.

European Communities — Commission

The Danish economy

by Anders Ølgaard

Luxembourg: Office for Official Publications of the European Communities

1980 — 255 pp., num. tab. — 17.6 × 25 cm

Collection studies: Economic and Financial Series — 1980 — 14

EN

ISBN 92-825-0494-8

Catalogue number: CB-NI-79-014-EN-C

BFR 420	DKR 81	DM 26	FF 60,60	IRL 7
LIT 12 000	HFL 28,60	UKL 6.50	USD 15	

The study is devoted to an analysis of the basic characteristics and long-term trends of the Danish economy. After an introductory chapter dealing with the principal demographic and macro-economic aggregates, the author examines in turn each broad sector of economic activity - agriculture, manufacturing, construction and the services. The structure and development of each sector is analysed and illustrated by appropriate statistical data. Other chapters in the study deal with aspects of economic policy, including public finance, monetary policy, and inflation and incomes policy. A chapter is devoted to trends in Denmark's external trade and balance of payments situation up to 1973. The study concludes with a chapter on economic developments since Denmark joined the European Communities.

**Salgs- og abonnementskontorer · Vertriebsbüros · Sales Offices
Bureaux de vente · Uffici di vendita · Verkoopkantoren**

Belgique - België

Moniteur belge - Belgisch Staatsblad

Rue de Louvain 40-42 -
Leuvensestraat 40-42
1000 Bruxelles - 1000 Brussel
Tél. 512 00 26
CCP 000-2005502-27
Postrekening 000-2005502-27

Sous-dépôts - Agentschappen:

Librairie européenne - Europese
Boekhandel
Rue de la Loi 244 - Wetstraat 244
1040 Bruxelles - 1040 Brussel

CREDOC

Rue de la Montagne 34 - Bte 11 -
Bergstraat 34 - Bus 11
1000 Bruxelles - 1000 Brussel

Danmark

J.H. Schultz - Boghandel

Møntergade 19
1116 København K
Tlf. (01) 14 11 95
Girokonto 200 1195

Underagentur:

Europa Bøger
Gammel Torv 6
Postbox 137
1004 København K
Tlf. (01) 14 54 32

BR Deutschland

Verlag Bundesanzeiger

Breite Straße - Postfach 10 80 06
5000 Köln 1
Tel. (0221) 21 03 48
(Fernschreiber: Anzeiger Bonn
8 882 595)
Postscheckkonto 834 00 Köln

France

*Service de vente en France des publica-
tions des Communautés européennes*

Journal officiel
26, rue Desaix
75732 Paris Cedex 15
Tél. (1) 578 61 39 - CCP Paris 23-96

Sous-dépôt

D.E.P.P.
Maison de l'Europe
37, rue des Francs-Bourgeois
75004 Paris
Tél. 887 96 50

Ireland

Government Publications

Sales Office
G.P.O. Arcade
Dublin 1

or by post from

Stationery Office

Dublin 4
Tel. 78 96 44

Italia

Libreria dello Stato

Piazza G. Verdi 10
00198 Roma - Tel. (6) 8508
Telex 62008
CCP 387001

Agenzia

Via XX Settembre
(Palazzo Ministero del tesoro)
00187 Roma

**Grand-Duché
de Luxembourg**

*Office des publications officielles
des Communautés européennes*

5, rue du Commerce
Boîte postale 1003 - Luxembourg
Tél. 49 00 81 - CCP 19190-81
Compte courant bancaire:
BIL 8-109/6003/300

Nederland

Staatsdrukkerij- en uitgeverijbedrijf

Christoffel Plantijnstraat, 's-Gravenhage
Tel. (070) 62 45 51
Postgiro 42 53 00

United Kingdom

H.M. Stationery Office

P.O. Box 569
London SE1 9NH
Tel. (01) 928 69 77, ext. 365
National Giro Account 582-1002

United States of America

*European Community Information
Service*

2100 M Street, N.W.
Suite 707
Washington, D.C. 20 037
Tel. (202) 862 95 00

Schweiz - Suisse - Svizzera

Librairie Payot

6, rue Grenus
1211 Genève
Tél. 31 89 50
CCP 12-236 Genève

Sverige

Librairie C.E. Fritze

2, Fredsgatan
Stockholm 16
Postgiro 193, Bankgiro 73/4015

España

Libreria Mundi-Prensa

Castelló 37
Madrid 1
Tel. 275 46 55

Andre lande · Andere Länder · Other countries · Autres pays · Altri paesi · Andere landen

Kontoret for De europæiske Fællesskabers officielle Publikationer · Amt für amtliche Veröffentlichungen der Europäischen Gemeinschaften · Office for
Official Publications of the European Communities · Office des publications officielles des Communautés européennes · Ufficio delle pubblicazioni
ufficiali delle Comunità europee · Bureau voor officiële publikaties der Europese Gemeenschappen

Luxembourg 5, rue du Commerce Boîte postale 1003 Tél. 49 00 81 · CCP 19 190-81 Compte courant bancaire BIL B-109/6003/300

BFR 420 DKR 81 DM 26 FF 60,60 IRL 7 LIT 12 000 HFL 28,60 UKL 6.50 USD 15



OFFICE FOR OFFICIAL PUBLICATIONS
OF THE EUROPEAN COMMUNITIES

ISBN 92-825-0494-8

Boîte postale 1003 – Luxembourg

Catalogue number: CB-NI-79-014-EN-C