Macroeconomic Perspectives on the Danish Economy
Problems, Policies and Prospects

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MACROECONOMIC PERSPECTIVES ON THE DANISH ECONOMY: PROBLEMS, POLICIES AND PROSPECTS

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1 Macroeconomic Perspectives on the Danish Economy: Problems, Policies and Prospects[1]

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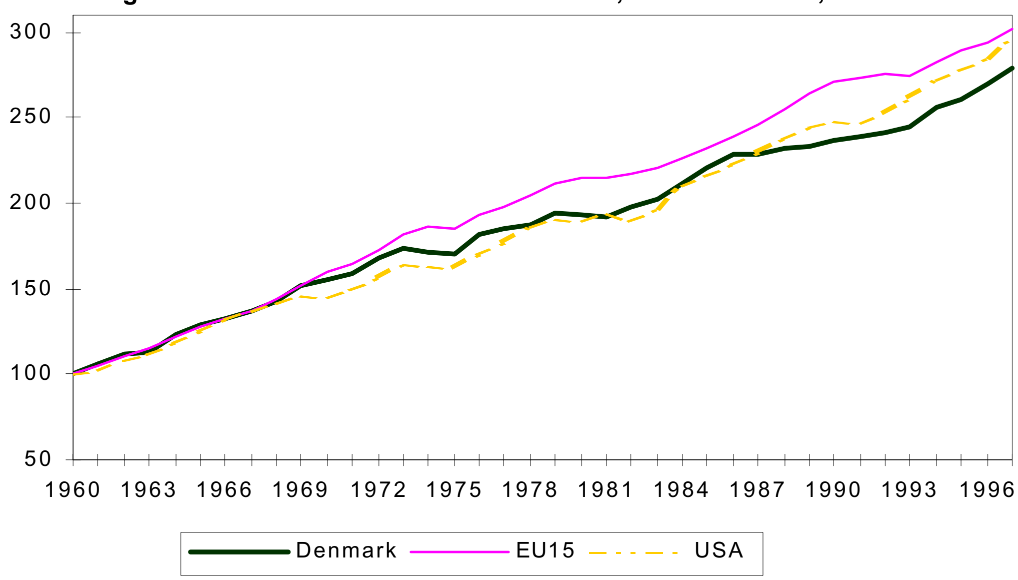
Abstract: Over the last 25 years the Danish economy has had difficulties in growing as fast as other EU countries and the United States. While the average growth difference is small, it signals that if this trend persists into the next century, Denmark will not be able to maintain its high position in the world income hierarchy. Moreover, during these years, the number of individuals living on transfer incomes have increased dramatically. Although we interpret both tendencies as signals of structural weaknesses, we are also aware that these developments may reflect that other goals in economic policy have been pursued, such as protecting the environment and/or achieving certain redistributive objectives. This paper analyzes this and other broad policy issues of importance for Denmark.

1.1 Introduction: Trends and Cycles

Countries are often ranked according to their GDP per capita, properly adjusted for differences in price levels. Based on the purchasing power parity (PPP) adjusted GDP statistics, Denmark is one of the most affluent societies in the world. Compared to the EU average and the OECD average, Denmark was, respectively, 12 and 9 per cent ahead in 1995, and only a few countries – including Luxembourg, Norway, Switzerland and the United States - had a higher GDP per capita (The Economist, 1997). The level of real GDP was in 1997 about three times as large as in 1950 and, from the perspective of economic welfare, it is also important to note that over the same time period the average annual working hours have fallen by about a third. However, Denmark's GDP growth rate has been slightly lower than in a number of other countries. Figure 1.1 shows real GDP for Denmark, (the average of) 15 EU countries and the United States; in all three cases real GDP is indexed to 100 in 1960.

Figure 1.1: Real GDP for Denmark, EU and USA, 1960-97



Note: Index numbers (1960=100).

Source: OECD.

Over the whole period 1960-97, Denmark enjoyed an average real GDP growth rate of 2.8 per cent. With the corresponding number being 3.0 per cent for both the EU and the United States (see Table 1.1), the difference in growth performance has been fairly small. However, if this difference also persists into the next century, Denmark will of course not be able to retain its high position among the world's richest countries. It is also remarkable that the two sub-periods, 1960-72 and 1973-97, respectively, are characterized by very different growth performances. Indeed, for Denmark and the EU as a whole the GDP growth rates in the second sub-period were only half as high as in the first. While US growth rates have also fallen, the decline in Europe is much more dramatic, a phenomenon sometimes referred to as 'eurosclerosis'.

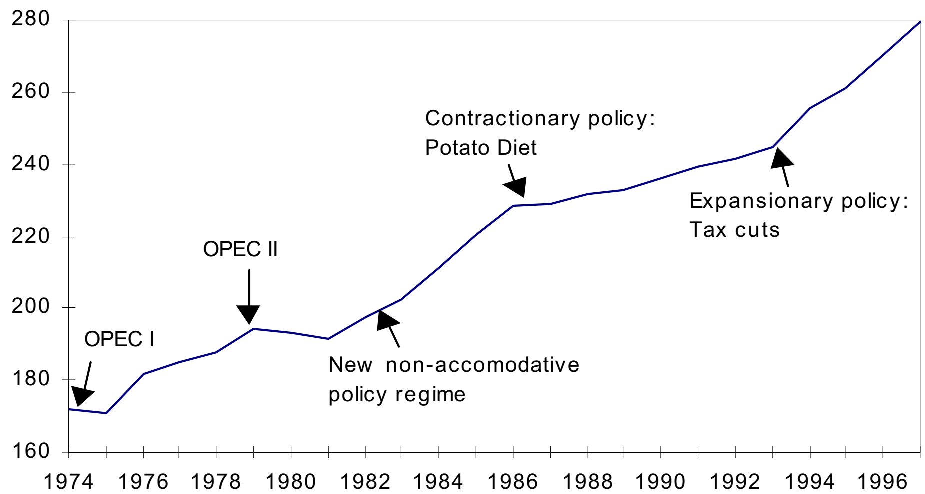
Table 1.1: Average real GDP growth in per cent, 1960-97

	1960-97	1960-72	1973-97
Denmark	2,8	4,4	2,1
EU	3,0	4,6	2,3
USA	3,0	3,8	2,6

Source: OECD

The slow growth period 1973-97 was characterized by deep recessions but also by impressive upswings. As indicated by Figure 1.2, this period saw three recessions and two expansionary periods with growth significantly below and above the mean, respectively. The first two recessionary periods occurred in the mid-1970s and at the beginning of the 1980s, and were mainly triggered by well known international events such as the two OPEC shocks and the associated economic policies adopted by the leading OECD economies. The two expansionary periods – one from 1983 to 1987, and another from 1993 until today - were, however, mainly driven by domestic factors, as we shall explain in more detail below.

Figure 1.2: Real GDP for Denmark, 1973-97



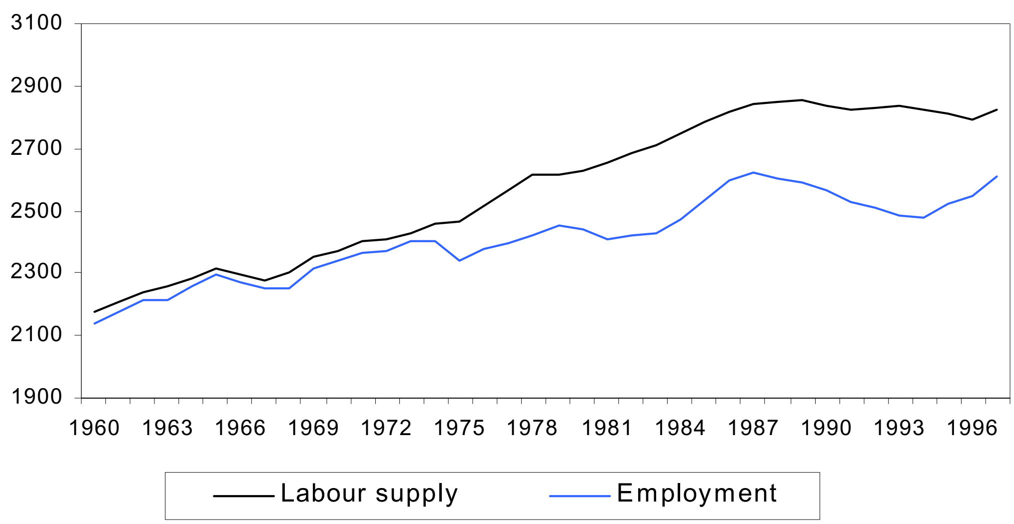
Note: Index numbers (1960=100).

Source: OECD.

In both upturns, economic policy has played an important role in triggering the upswing in the economy. Economic policy also played a role in setting off the recession that started in 1987 and continued until 1993, a period in which Denmark's major trading partners were booming, at least until the late 1980s. Hence, it is interesting to note that domestic factors and Danish economic policy in particular have played an important role in the performance of the economy.[2] However, it is also important to stress that owing to the economy's fairly high degree of openness as indicated by an export share of GDP around 35 per cent as well as strong financial linkages with the rest of the world, the economy is of course also vulnerable to international shocks.

The international recessions associated with the two OPEC shocks are cases in point. As shown by Figure 1.3, these shocks were followed by sharp declines in employment, while labour supply continued to grow, actually at an increasing rate following the first OPEC shock. The expansionary period in the mid-1980s and the current boom starting in 1993 were both associated with sharp increases in employment, but it has not so far been possible to bring the unemployment rate down to the level prevailing prior to the adverse shocks of the 1970s. Over the years, a number of measures have therefore been adopted to cope with the unemployment problem. Most of the measures have been passive in nature, aiming at reducing the registered unemployment rate by lowering labour supply through early retirement schemes, paid leave schemes and so forth. More recently, initiatives have been taken which directly aim at bringing the unemployed back to work again (see section 1.3).

Figure 1.3: Labour supply and employment in heads, 1960-97



Note: Numbers are in thousands. Figures for 1997 are preliminary.

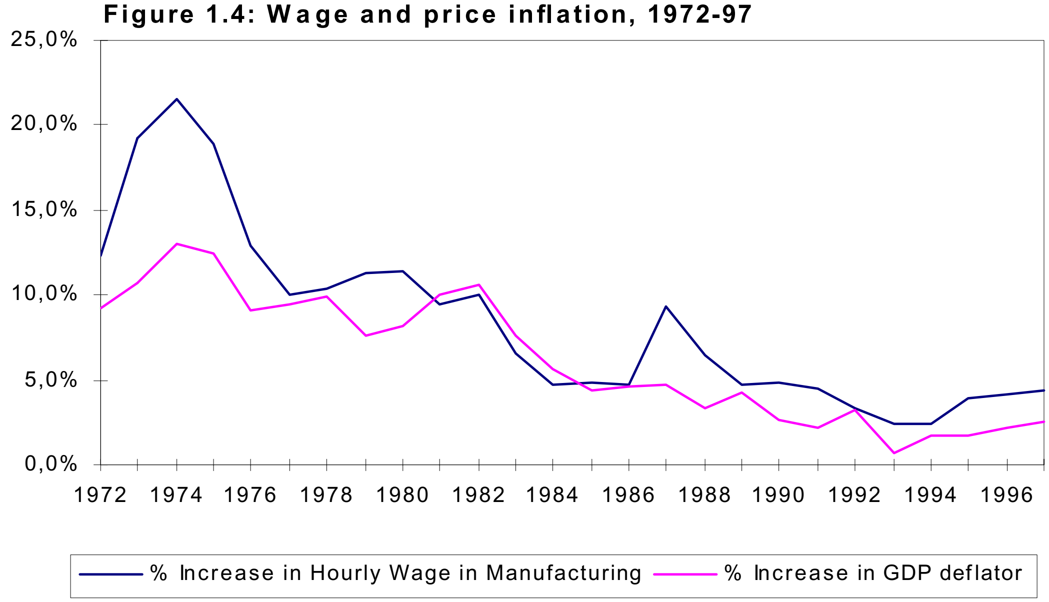
Source: Statistics Denmark and Ministry of Economics, Denmark.

The persistent high level of unemployment has had strong effects on the government budget, as elaborated in section 1.6. This is to be expected for a welfare state like the Danish one since a key objective is to moderate the effects of recessions. There has thus been a rapid increase in public sector transfer payments, while traditional public sector activities have not increased relative to GDP since the 1970s. The number of individuals living on UI benefits and other public transfer payments has thus increased enormously (see section 1.7).

Although the tax burden also has been increasing, there has been a persistent gap between revenues and expenditures. This has, of course, led to increasing government debt over the years. While the current government debt-to-GDP ratio is below the average in the EU, it remains a fact that the debt and the burden of debt service are significant. Moreover, it may be argued that the government finances are intergenerationally imbalanced, suggesting that significant bills will be passed onto future generations. The extent to which this is the case is discussed further in section 1.8.

The high growth in the 1960s led to a gradual build-up of goods and service price inflation which culminated in the mid-1970s owing to the sharp increase in energy prices and the wage hikes (see Figure 1.4). Following these events, inflation declined but both price and wage inflation remained high until the beginning of the 1980s. In late 1982, there was a shift in economic policy towards a disinflationary policy strategy that helped bringing inflation under control. This is addressed in greater detail in section 1.4.

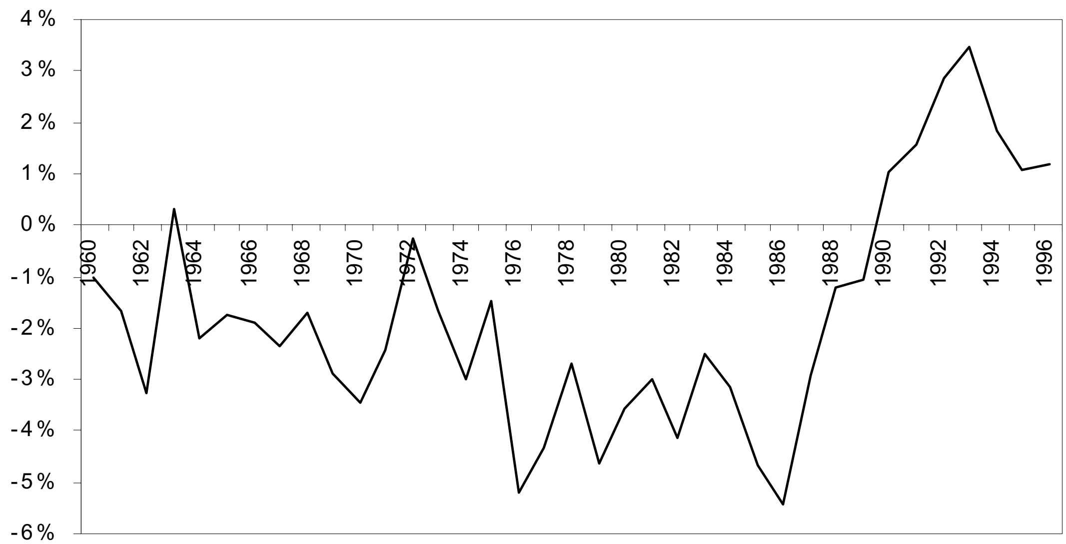
Figure 1.4: Wage and price inflation, 1972-97



Source: OECD.

An important element of this non-accommodative policy strategy was the shift towards a fixed exchange rate policy. Earlier, policy makers had quite often resorted to currency devaluations in an attempt to offset the deteriorations in competitiveness and the current account that resulted from high wage and energy price increases. Indeed, as we discuss at length in section 1.5, the external (im)balance was for long seen as the Achilles' heel in the Danish economy. This is witnessed by the fact that there was a deficit on the current account in each of the consecutive years from 1964 to 1989 (see Figure 1.5).

Figure 1.5: Current account in per cent of GDP, 1960-97



Source: Statistics Denmark.

As a background to the more detailed treatment of selected issues of importance for the macroeconomic performance of the Danish economy, section 1.2 provides a brief overview of the different economic policy strategies that have been pursued in recent decades.

1.2 General Economic Policy Strategies

The growth period in the 1960s led to an optimistic view about the possibilities for fine-tuning the macroeconomy. The subsequent developments showed that macroeconomic management was very difficult and a variety of different policy strategies were pursued in an attempt to improve upon macroeconomic performance. The initial response to the international recession and the rise in unemployment in the mid 1970s was a so-called 'bridging policy'. This policy was based on the perception that the recession was temporary and could therefore be mitigated by an expansionary demand management policy.

The perception that the recession was temporary soon proved wrong, and the overall policy strategy from the mid 1970s up to 1982 was guided by a so-called 'switching strategy' according to which the twin problems of unemployment and current account deficits could be solved by switching private demand with a high import ratio into public demand with a low import ratio. As a consequence, numerous policy packages included tax increases to curtail private demand and expansions of public demand and in particular public employment programmes. These changes did not necessarily take place simultaneously as the policy had a 'stop-go' character with tax increases in times where the current account was considered out of control and public expansion in periods with focus on the unemployment problem.

This was also the prime time for policy packages, appearing frequently in an atmosphere of acute need for intervention. A loose exchange rate policy (crawling peg) was part of this strategy since discrete devaluations were believed to undo the harms caused by excessive domestic wage increases. Underlying this policy view was an accommodative attitude towards the labour market in the sense that the government accepted a responsibility for the employment level. Accordingly, the labour market policy was fairly passive, mainly concentrating on reducing labour supply and mitigating the economic consequences for the unemployed. This policy strategy was not very successful in terms of solving the overall macro problems. The problems of current account deficits and unemployment remained un-solved, while inflation and public debt were growing.

In the autumn of 1982, a centre-right minority coalition replaced a Social Democratic minority government. The new government launched a new economic programme based on the idea that the problems underlying the Danish economy could be solved in a medium-term perspective only by an expansion of private sectors capable of facing international competition. The programme consisted of a disinflationary policy grounded in a fixed exchange rate policy and a tight fiscal policy. The policy shift signalled that the government was attempting to leave more responsibility for the determination of employment with the labour market.

This disinflationary policy was initially very successful and a change in the economic mood was observed accompanied by increases in private demand, higher GDP growth and a fall in unemployment from 1983 to 1986 (see Figure 1.7, p.18). This policy was to some extent killed by its own success (see Andersen, 1994 and Bergman and Hutchison, Chapter 8 in this volume). The tremendous upturn in the mid 1980s was associated with a substantial increase in domestic demand as both private consumption and investment soared, but it turned out that supply capacity could not match this increase.

The capacity problems applied both to the production capacity of firms and the availability of labour with the necessary qualifications. As a consequence, it led to a further deterioration of the current account and wage increases (in 1987) much in excess of the norms of the disinflationary policy. The development over this period was interesting since domestic demand was booming. Therefore, shortage of aggregate demand could be ruled out as the primary reason for the unemployment problem. The fact that substantial wage increases were released at an unemployment rate around 8 per cent was taken as strong indication that there were severe adjustment problems in the labour market.

A fairly pessimistic view on the unemployment problem developed during the late 1980s and early 1990s, and the view that 'we have to live with unemployment' and 'there is no need for so much labour' became fairly widespread. A minority coalition government led by the Social Democrats took over in 1993. Among its new initiatives was a paid leave scheme (see p.40), aiming at distributing the burden of unemployment more equally. It also launched a fiscal expansion, partly financing the transition period of a tax reform designed so as to lower marginal tax rates and broaden the tax base.

Although a shift in the business cycle was to be expected after a prolonged recession, there is little doubt that the expansionary fiscal policy had a role in triggering the boom in economic activity and the fall in unemployment. The accompanying increase in employment motivated a more active labour market policy focusing much more explicitly on the incentive effects of various labour market policies. The policy shift towards youth - involving a tightening of the incentive structure - is a prime example of this. There is some indication that the wage formation process has been affected, but it is still too early to judge how fundamental these changes are. Nonetheless, recent developments have shown that a combination of demand and active supply measures - a two-handed approach - can be successfully used to boost employment.

1.3 Wages and Structural Shifts in the Labour Market

Denmark experienced increasing wage inflation during the 1960s. In the mid-1970s, wage inflation reached a climax as nominal wages increased by more than 20 per cent, see Figure 1.4. This led to an increase in real (consumption) wages by almost 10 per cent. Since then wage inflation has gradually declined. The major downward adjustment occurred from 1982 to 1983-84, where the annual wage increases fell from around 10 to less than 5 per cent. The considerable decline in wage inflation shows that the shift towards the low-inflation, non-accommodative policy stance in late 1982 gained a fairly high degree of credibility rather quickly among the wage setters in the economy. Since then wage inflation has been fairly low. The only exception to this rule is 1987, where there was a revitalization of wage inflation primarily due to rapid growth and increasing employment, which coincided with a new round of collective wage bargaining. Due to the wage hike in 1987 and the tightening of economic policy, unemployment increased substantially whereas wage inflation declined. It is only very recently that employment has started to rise again; from the beginning of 1993 to late 1997, total employment increased by around 150,000 persons or by almost 8 per cent.

The considerable rise in employment that has taken place since 1994 has not so far led to an accelerating wage inflation, which is somewhat surprising given past experience. There are several potential explanations for this. First, it should be noted that the present employment increase is not as big as the one observed in the mid-1980s, where private sector employment grew by almost 200.000 persons. Second, the coincidence of a low and stable inflation and falling unemployment may simply reflect a learning process. Thus, the experience in the 1980s clearly demonstrates that pressing for ‘too’ high wage increases is futile as the only certain outcome is higher unemployment and very little else. Third, fierce competition in goods and service markets associated with the increased international integration process, often noted by the business community, may also have helped to hold back wage and price increases. Indeed, since the coincidence of low inflation and falling unemployment is also a world-wide phenomenon, a truly international explanation has some appeal. Fourth, the labour market reforms outlined below may also have contributed, as argued by Hansen and Tranæs in Chapter 11. These reforms, undertaken in 1994 and 1996, represent a gradual tightening of previous policies (see also Blomgren-Hansen’s comments on Chapter 11).

There are several elements in these reforms. First, there is an increased attempt to avoid mismatch and bottlenecks. Thus, regional labour market councils have been endowed with additional instruments in order to avoid the fallacies of the mid 1980s. Second, there has been a tightening of benefit eligibility requirements. Access to UI benefits now requires 52 weeks of work over the last three years as opposed to 26 weeks before. The maximum period on benefits has been reduced to five years. Third, insured unemployed persons can no longer extend their period on UI benefits through job training, and uninsured unemployed persons (outside the UI benefit system) can no longer earn their right to UI benefits through subsidized jobs provided by local authorities. The previously existing possibility of receiving UI benefits ‘for life’ thus no longer exists. Fourth, work availability requirements and enforcement have also been tightened in general and in particular as regards young unemployed workers below 25 years of age. The new rules stipulate that benefits should be activated after an unemployment spell of less than six months, and at a 50 per cent reduction of the benefit level. Finally, each unemployed is, in collaboration with the local authority, supposed to work out a plan for education or job training that eventually will lead to an exit from unemployment.

Another interesting feature of the wage formation process is the compression of wages that occurred until the beginning of the 1980s. To illustrate this phenomenon in a simple way, Figure 1.6 plots the relative wage between unskilled and skilled male workers over the period 1948-91. The diagram also shows the relative employment level between the two types of labour measured along the right-hand axis.

Figure 1.6: Relative wage and employment, 1948-1991

Note: Employment figures are only available until 1991 due to a new wage-employment survey method.
Source: Risager (1993) and Danish Employers' Federation.

In the period from 1964 to the beginning of the 1980s, the relative wage between unskilled and skilled labour increased -that is, wage differentials declined. Declining wage differentials were, however, also associated with declining job opportunities for the unskilled workers insofar as the relative employment level declined. As unskilled labour became more expensive in relative terms, firms reduced their demand for unskilled workers and increased their demand for skilled labour (see Risager, 1993). This study therefore lends support to the view that the concentration of high unemployment among unskilled and inexperienced workers is in part due to the compressed wage structure.

The unequal unemployment distribution is documented in Table 1.2. There is clear evidence that Denmark suffers in particular from high unemployment among low-skill groups, but it also appears that unequal unemployment distribution is an international phenomenon. It is therefore likely that there are other important explanations to which we return when we have further highlighted the role of wages.

Table 1.2: Unemployment rates for 25-64 year-olds by level of educational attainment, 1995

Countries	Below upper secundary education	Upper secondary education	Non-university tertiary education	University-level education	All levels of education
Austria	5.7	2.9	1.4	2.1	3.5
Denmark	14.6	8.3	5.3	4.3	10.0
Germany	13.3	7.9	5.2	4.7	8.1
Netherlands	7.9	4.8	a	4.1	5.6
USA	10.0	5.0	3.6	2.5	4.7

Source: OECD (1997a)

Jensen, Rosenholm and Smith (1994) also show that part of the unemployment problem in Denmark has to do with too high wages, and in particular with too high entrant wages. Their statistical analysis shows that 25 per cent of young unemployed men and 15 percent of young unemployed female workers are unable to live up to the entrant wage - that is, their productivity is not high enough - and that is why firms are unwilling to employ them. However, they also show that a fall in the entrant wage by 10 per cent will lead to a substantial increase in employment among this group of workers.

Proposals of this kind have been ‘vetoed’ by the trade unions. Our interpretation of their attitude is inspired by contemporary economic labour market theory: as a fall in entrant wages is likely also to reduce wage growth for the incumbent workers due to increased outsider competition, a fall in entrant wages is likely to lead to a loss for the majority of the incumbent workers. Against this, we have the gain associated with the increase in employment and income for those who change status from unemployed to employed. However, as the latter group is a minority amongst the members of the unions, the trade union policy stance seems clear.

Another concern has been the extent to which a reduction in entrant wages will lead to social imbalances. It is therefore of interest briefly to discuss the income distribution effects of a fall in entry wages. In the short term, income distribution among the employed workers will obviously become more unequal, whereas the distribution within the potential workforce is a more complicated matter as those workers who move from unemployment into employment will experience an increase in income, provided that UI benefits also are reduced in line with entrant wages. In order to get a feeling for the long-term effects, it is important to know something about wage dynamics - that is, the speed by which workers move up the income ladder.

Bingley, Bjørn and Westergaard-Nielsen (1994) have studied this issue by following a group of workers belonging to the lowest income decile in 1981. After five years, 75 per cent of those workers had climbed up the ladder. Hence, there were only 25 per cent left in the low wage decile. More than 55 per cent had reached the third decile or higher plateaus in the earnings hierarchy. The fairly high degree of wage mobility shows that 'low pay status' is not a life-time stigma for the vast majority of the wage earners. The introduction of low entrant wages will therefore provide opportunities to many outsiders who are unable at present to get a job. Needless to say, there will always be a small group who are unable to move up the ladder. Many of these persons are now squeezed out of the market, living on unemployment benefits or other transfer payments. Finally, as regards the functional income distribution, a stretchning of the income distribution towards a higher proportion of incomes just below the present minimum wage will of course increase the return to capital.

Because the UI system sets a maximum benefit level, UI benefits are of greater value to the low-paid than to the high-paid unemployed workers, and it is therefore also likely that the UI system is an important explanation of the narrow wage differentials (see Andersen and Risager, 1990, and Hansen, Pedersen and Sløk, 1996). Pedersen, Smith and Stephensen (Chapter 6 in this volume) estimate wage equations using panel data, and they also find that UI benefits affect workers' wage demands - as indeed any labour market model would suggest. Moreover, the effects are largest for low-income groups.

Since probably all political parties in Denmark – at least those likely to take office - seem unwilling to cut the unemployment benefit level in a significant way, as recommended by, for example, the OECD (1997b), the option 'reduce benefits-lower wages-increase employment' is not really on the policy agenda. In this context it should, however, be noted that the OECD's summary measure of benefit generosity shows that Denmark has the most generous system among all 21 countries in the OECD (1997b) study. A recent study by the Danish Economic Council (Det Økonomiske Råd, 1997) also shows that a large proportion of low-skilled/low-paid have no incentives to get employed when account is taken of taxes and transfers. Thus, more than 40 per cent of those who are unemployed for more than 80 per cent of the year, has an effective replacement ratio that exceeds 90 per cent. Moreover, there are also many low paid employed workers who have no economic incentive to work.

The philosophy of the present government is to preserve the high benefit level while at the same time increasing the demands that society puts on those who collect benefits and welfare money in general. In this context, it is interesting to note that following the tightening of the work availabilty and benefit eligibility conditions for young unemployed workers mentioned earlier, the unemployment problem for this group of workers disappeared rather quickly; it is probably important to note that the elimination of the youth unemployment problem occurred simultaneously with an upswing in the economy. Finally, it should be mentioned that the generous UI system has made it easy for firms to lay-off workers not only in recessions but also at other times where firms find it desirable to reduce the workforce. That feature of the system is one among several reasons why the Danish hiring-firing system is highly flexible in an international context (see also Emerson, 1988). The latter aspect may also help to explain why employers' federations seem to have accepted the high UI benefit level in spite of the fact that it increases firms' direct wage costs.

The concentration of unemployment among low-skill groups is likely to reflect a compressed wage structure, but other factors are probably also at play, as indicated by the simple observation that other countries like the United States, characterized by a very unequal wage distribution, also to some extent suffer from this problem. Technological progress may play a role insofar as investments in new technology may lead to an increase in the demand for skilled and highly educated persons relative to unskilled workers. Unfortunately, it is hard to measure technical progress and how it has changed over time. This clearly complicates testing this hypothesis (see, however, Economic Council, 1997).

Owing to the unwillingness to implement policies that make low-productivity workers more competitive via the (wage) price mechanism and to the view that part or probably most of the unemployment problem is caused by technical progress and an inadequate skill structure, increased emphasis has been put on making the unemployed more competitive via education and training efforts. Whether the strong emphasis on education and training is enough to bring about a substantial reduction of the structural unemployment problem is an issue that goes beyond the scope of this chapter. However, there is evidence which indicates that some of these initiatives have very little impact. For example, a statistical study of the (unemployed) individuals who participated in the so-called AMU (labour market training) programmes shows that the probability that they get a job afterwards is not higher than non-participants' probability of finding a job, controlling for a number of other factors (see Jensen and Jensen, 1996). The social return of this targeted but fairly expensive investment-in-education programme has therefore been questioned. Another policy option that has been discussed recently is to give low-income individuals better incentives to participate actively in the labour market through a so-called earned income tax credit (see Sørensen, 1997, and Economic Council, 1997).

In recent years, the Danish collective wage bargaining system has changed from being a mixture of centralized and decentralized bargaining to a predominantly decentralized system. Thus, since the beginning of the 1990s almost 90 per cent of the workers in the manual labour market have been on the so-called minimum wage system. Under this system, trade unions and their counterparts on the employer side negotiate a base wage level. The minimum wage level varies across occupations. To give some indication, the average Danish base wage level is roughly twice as high as the legislated minimum wage in the United States. On top of that, there is a supplement negotiated at the local level between management and workers. The bottom line is thus that entrant wages in firms may be considerable above the minimum wage level. The movement towards more decentralized wage bargaining has so far not led to an increase in wage differentials across workers.

In view of the fact that the public sector is a large employer, it should be noted that wage negotiations in the public sector often follow private negotiations. Moreover, the agreements usually mimic the agreements in the private market - that is, certain wage indexation clauses attempt to link wage increases in the public sector to the wage increases granted in the local private negotiations. For more than a decade, wages in the public sector have, however, declined relative to the private sector. In the public sector, there has also been an attempt to increase the element of decentralized wage negotiations and to allow for more flexibility in the pay schedule.

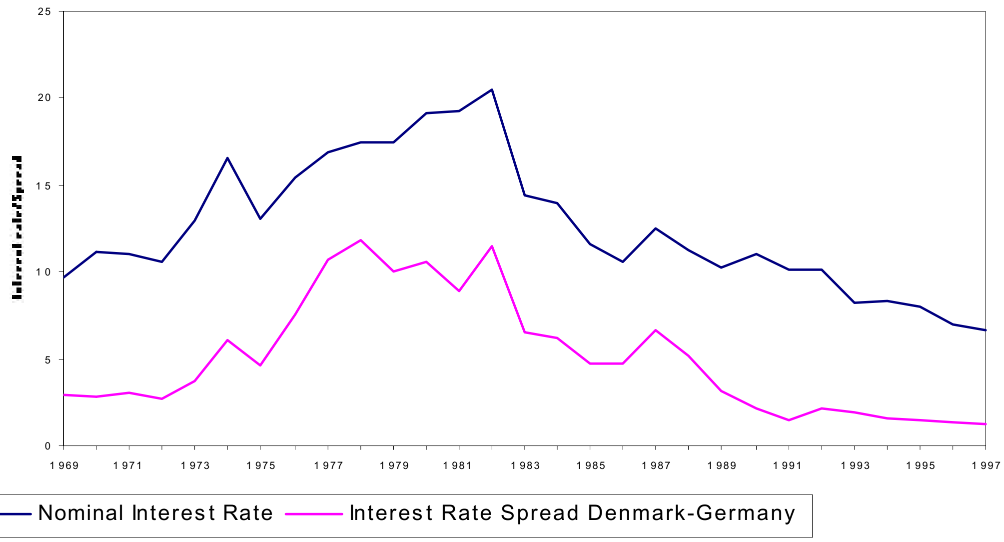
1.4 Exchange Rates, Prices and Interest Rates

Denmark has over the years taken part in various schemes for monetary cooperation in Europe, starting with the so-called 'snake' arrangement set up in 1972, and at present Denmark participates in the exchange rate mechanism (ERM) within the European Monetary System (EMS).[3] The official position has for long been that Denmark pursues a fixed exchange rate policy, but what that really means has changed over the years. In particular in the late 1970s a crawling peg policy was effectively followed as the Danish government undertook four discrete devaluations in the period 1979-82.

The crawling peg era was abandoned in late 1982 when the new government declared a fixed exchange rate policy as an integral part of its disinflationary policy. This policy remains in force and enjoys broad political support. Although the precise meaning of the fixed exchange rate policy has never been explicitly defined it is understood to have the D-mark as its reference point.

The shifts in exchange rate policy are clearly mirrored in the development of inflation (Figure 1.5) and in nominal interest rates (Figure 1.7). Indeed, nominal interest rates peaked in 1982 and fell fairly rapidly after the initiation of the disinflationary policy based on a fixed exchange rate policy (see Andersen and Risager, 1988). Since then inflation has remained at a low level below the European average.

Figure 1.7: Nominal Interest Rate and Interest Rate Spread to Germany, 1969-1997

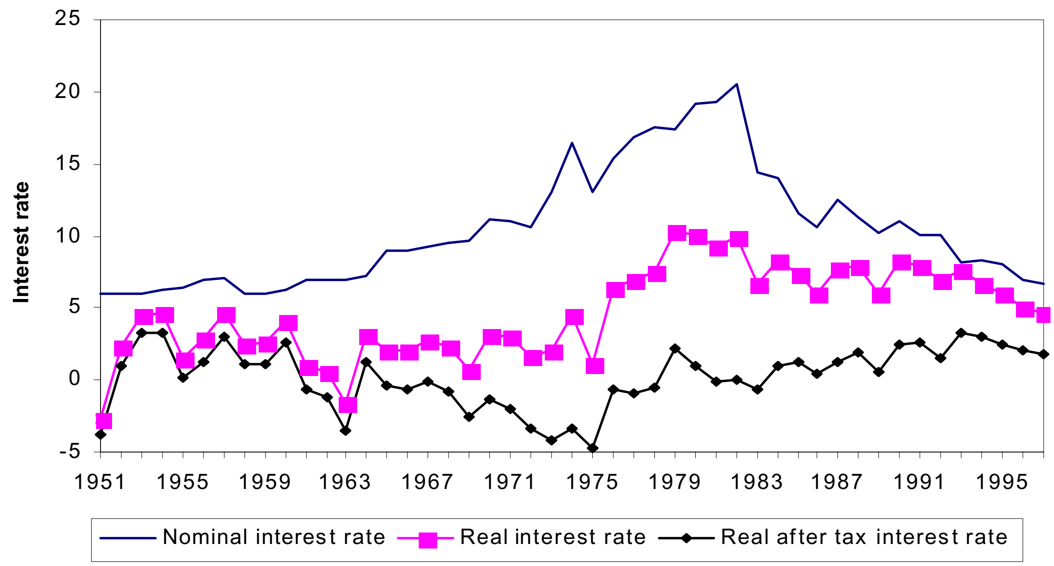


Note: Nominal interest rate: effective rate of return on bonds (iwbz), interest spread: nominal interest rate less effectove rate of return on long-term bonds in Germany (iwbdm).
Sources: ADAM-Databank and Statistics Denmark.

That the fall in nominal interest rates is tightly related to the exchange rate policy is also seen from Figure 1.7, which shows the interest rate spread between Denmark and Germany. It is apparent that along with the establishment of a credible fixed exchange rate policy and, accordingly, an inflation convergence to the German standard, the interest rate spread has diminished dramatically. The fact that there in periods has been a moderate interest rate spread between Denmark and Germany can be taken to reflect the fact that financial markets do not rule out the possibility of a return to a more inflationary policy, in particular given the Danish opt-out position on Economic and Monetary Union (EMU).

Although nominal interest rates have fallen rapidly, this is not the case for real interest rates, as revealed by Figure 1.8. The real after-tax interest rate is still fairly high, but has nevertheless fallen since 1993. The fairly high interest rates that have prevailed since the late 1970s is an important explanation why the excess return on stocks relative to bonds has been modest. However, in the last 30 years, the market portfolio of stocks has outperformed bonds, but not by as much as in many other countries (see Nielsen and Risager, Chapter 3 in this volume, and the comments by Björn Hansson).

Figure 1.8: Nominal and Real Rates of Interest, 1951-1997



Note: Nominal interest rate: effectiv rate of return on bonds (iwbz), real rate of interest: nominal interest rate less actual inflation measured by the GDP-deflator, real after tax interest rate: nominal interest rate after tax (tsa0u) less actual inflation.

Sources: ADAM-Databank and Statistics Denmark.

The shift towards greater 'fixity' in the conduct of exchange rate policy has gone hand in hand with initiatives to deregulate capital markets. Thus, capital markets have been gradually liberalized since the late 1950s, both domestically and towards the international capital markets. These reforms were completed in the early 1980s when practically all legal restrictions on international capital mobility (in and out of Denmark) were eliminated. Rules and regulations for financial intermediaries have also been liberalized, implying that binding credit constraints for private households have been eased. These liberalizations were important for not only the reduction in the interest rate spread but also for the fall in interest rates. As the interest rate spread is primarily determined by exchange rate expectations, there would be no spread with fully liberalized capital movements and a credible fixed exchange rate.

Financial factors have been important for the expansionary period in both the 1980s and the 1990s. In both periods there was a tremendous increase in loan-financed consumption. In the latter period house-owners had an opportunity to make loan conversions to exploit the falling nominal interest rates, and this clearly contributed to fuelling private consumption. The development in the real estate market is very important in this respect, because the value of owner-occupied houses constitutes by far the most dominant wealth item for most households.

Moreover, in both of these periods substantial increases - in the order of 20-30 per cent - in the real price of houses have been observed. This has caused large wealth increases which in turn have boosted private consumption. Capital market liberalizations have clearly contributed to strengthen this channel, and empirical evidence shows now a closer relationship between changes in consumption and changes in wealth than previously (see, for example, Christensen, 1987, and Callesen, 1997).

As is well known, the Maastricht Treaty implies three nominal convergence criteria and two fiscal convergence criteria. A broad political spectrum in Denmark remains committed to the underlying principles of nominal convergence and fiscal discipline. Based on 1997 figures Denmark fulfils all the economic criteria for entering EMU. Also, Denmark is at the forefront of implementing the directives behind the EU's Internal Market programme. Despite these tendencies to play the role as Europe's 'top boy', Denmark has stated that it will not participate in the third stage of EMU in Europe. Indeed, Denmark has already exercised its right to opt out through the so-called Edinburgh Agreement in the European Council in December 1992. Denmark may reverse that position, but this would be subject to a positive outcome of a referendum. Currently, it seems difficult to predict the chances of full Danish participation in EMU.

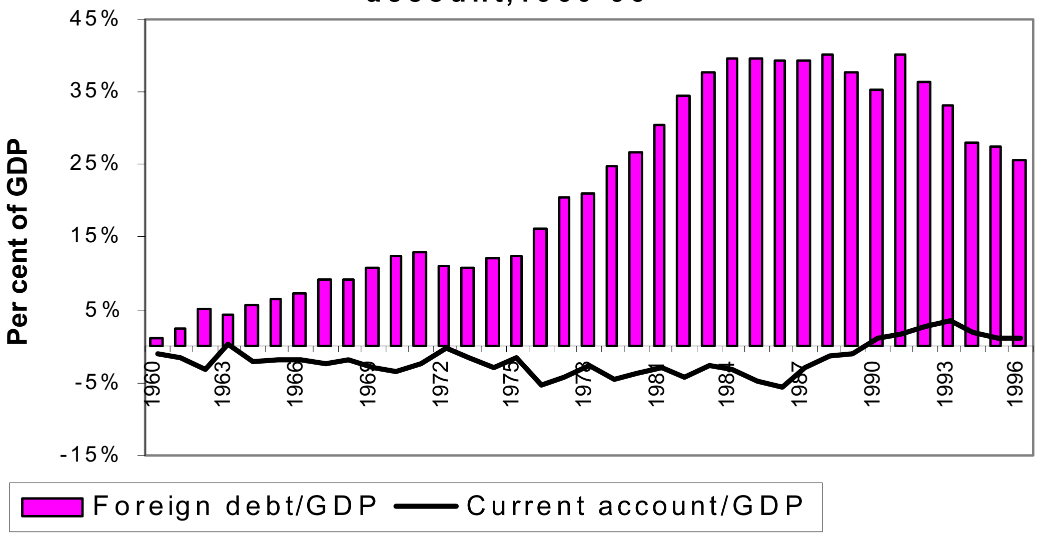
The official Danish position is clearly to seek the closest possible arrangement with EMU participants. Since it now turns out that the euro will become a reality from the beginning of 1999, a likely approach to be followed by Denmark is one of a unilateral peg vis-à-vis the euro. This would be an arrangement similar to that pursued by Austria of pegging to the D-mark for about two decades before Austria joined the EU and the EMS (see Thygesen, 1996, and his discussion in this volume of the relationship between insiders and outsiders in EMU). Indeed, such an arrangement might provide an adequate defence for the krone, as long as macroeconomic policies remain closely aligned with those of the EMU countries.

1.5 Saving, Investment, the Current Account and Foreign Debt

The current account of the balance of payments is the difference between national saving and investment. Any gap between national saving and investment is thus filled by foreign saving - that is, by foreign lending/financing of domestic private or public investments. Hence, the current account leads by definition to a change in a country's net foreign asset position by a figure that is equal to the current account itself. On top of that, the net foreign asset position may change due to re(de)valuations or asset price changes in general, which alter the value of assets and liabilities denominated in foreign currency. Below, we outline both the trend and the cyclical movement of the current account.

The Danish current account was in deficit every single year in the period 1963-90. The persistent deficits have, of course, led to a gradual build up of the country's foreign debt position (see Figure 1.9).

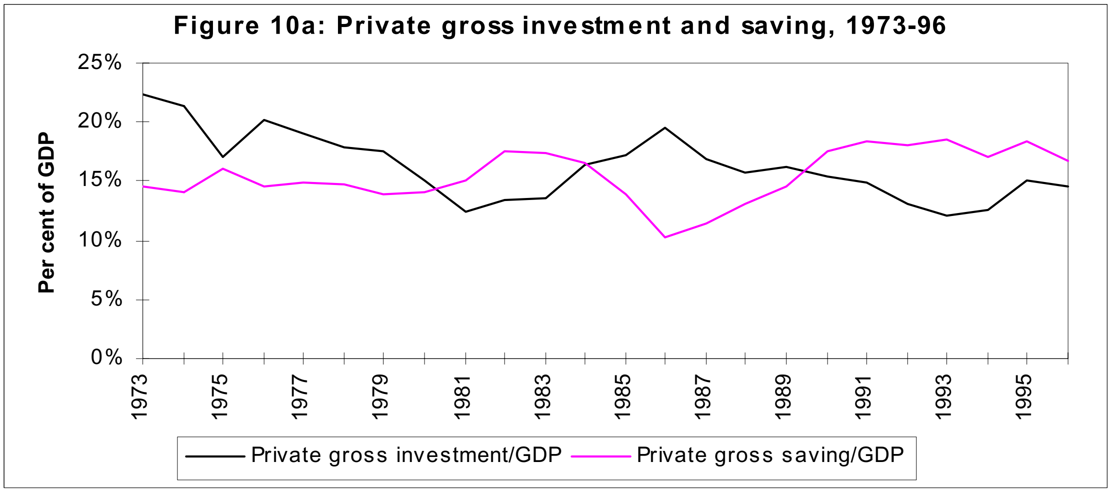
Figure 1.9: Foreign debt and current account,1960-96



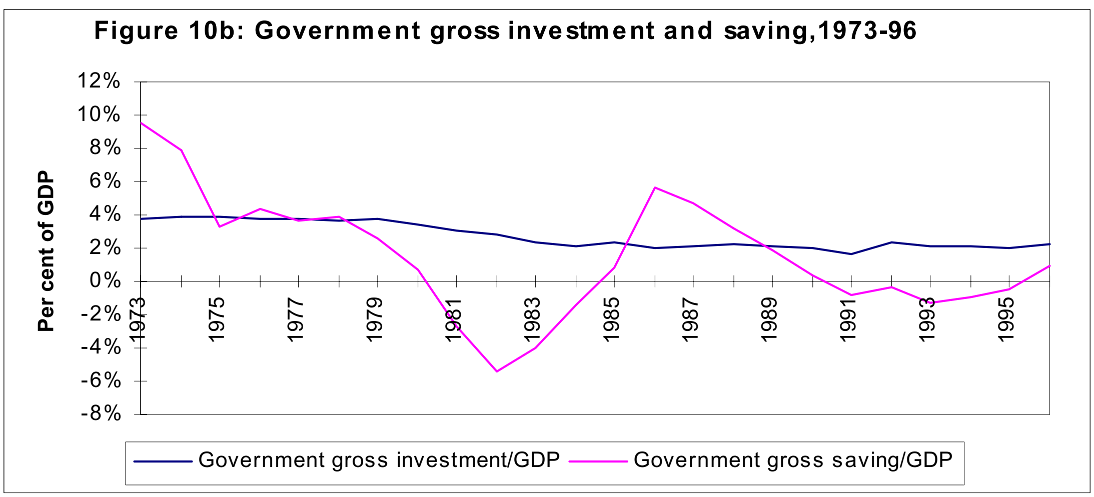
Source: Statistics Denmark.

The magnitude of the debt burden measured in terms of annual GDP culminated in 1988, where the debt-GDP ratio was around 40 per cent. Owing to the persistent current account surpluses since 1990 and to the growth in GDP, the debt-GDP ratio has now fallen to about 20 percent - that is, there has been a significant reduction of the country's foreign indebtedness. There are of course many reasons underlying the persistent historical tendency to run deficits, and the turning around of this trend which took place in 1990 (see Nielsen and Søndergaard, 1991). Below, we concentrate mainly on the most important explanations of the recent surplus trend.

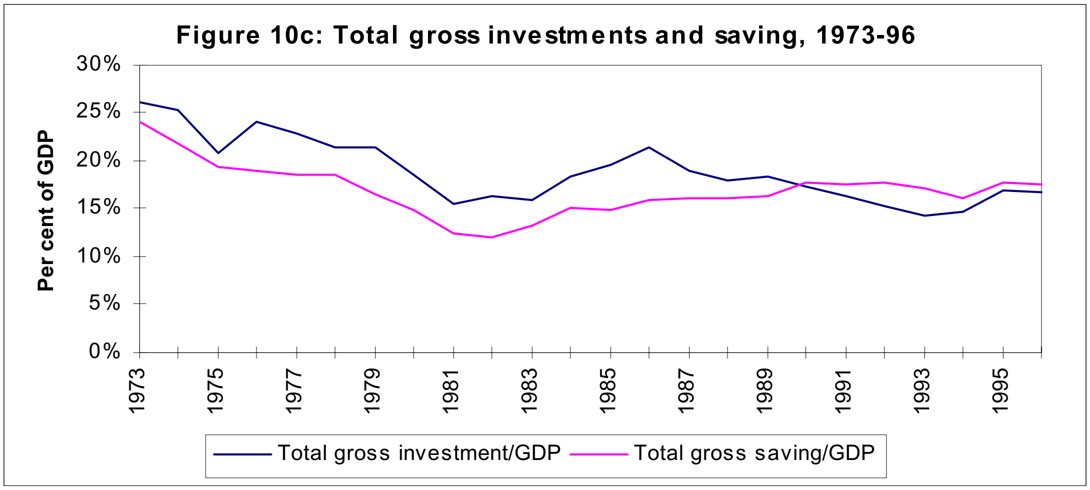
To this end it is useful to consider the private and public saving-investment diagrams, which show two important things. First, there was a considerable increase in private sector saving after 1986. Secondly, the investment share was low, in particular in the private sector until the mid 1990s. Both tendencies contribute to the turning around of the current account balance.



Source: Statistics Denmark.



Source: Statistics Denmark.



Source: Statistics Denmark.

The private sector is now a net creditor vis-à-vis the rest of the world. In an accounting sense, the entire foreign debt is therefore a liability of the public sector, and mainly the government. The two most important explanations of the considerable increase in private saving are the so-called 'potato diet' (credit market tightenings) introduced in late 1986 and the tax reform in 1987. The latter led to a drastic rise in the after-tax interest rate. As the nominal interest rate was around 10 per cent in 1987, the after-tax interest rate increased from 2.8 per cent to 5 per cent for many private citizens. Because the private sector at that time was a net debtor, not only the substitution effect (it became more costly to borrow) but also the income effect (the debt service burden increased) worked in the direction of an increase in saving. The rise in private saving has more than offset the fall in public saving. Hence, the national saving rate has gone up.

Since 1987, the investment share has been low, and it is only very recently that the investment share has reached previous heights. New national account figures have led to a considerable upward revision of investment figures, partly because IT expenditures now are classified as investments and not as intermediate inputs. In 1996, the new estimate for the investment share is 0.21. Likewise, savings figures have also been revised in an upward direction. Due to the appearance of the new national account figures for the period 1988-96[4], earlier worries about too low thrift and business capital investment have faded somewhat.

The movement of the current account is closely related to the business cycle. The general picture is that high growth is accompanied by a weaker current account, and vice versa. The last three business cycles clearly illustrate this phenomenon. The boom from 1983-7, driven by high growth in consumption and investment, caused a big deficit in 1986 of nearly 6 per cent of GDP. This motivated a tightening of economic policy in general and a change in the tax treatment of interest payments in particular, and this marked the beginning of a long period of low growth from 1987 to 1993. As a consequence the external account improved. Following the economic recovery in 1993, the current account has gradually become weaker as anticipated, but the new tendency is that the current account has remained in a surplus. However, as the current account plays a key role for Danish macroeconomic policy making, a considerable weakening is also the signal that may lead the present government to tighten policy.

The role of the current account as a discipline device on macroeconomic policy making has been criticized in recent years (see Corden ,l994, Lund ,1989, and Nielsen, l988). The point of departure of this criticism is the intertemporal approach. According to this line of thinking households and firms make their saving and investment decisions such that they fulfil their intertemporal budget constraints, which is basically saying that over their whole life-time agents do not spend more than they earn. When that is the case they do not pass burdens onto future generations - that is, there is no risk of free-riding on future generations. Hence, households consumption-saving decisions are what they should be and firms' investment decisions are also optimal. Now since the current account is essentially the difference between saving and investment, the current account is what the current account should be. Thus, if households decide to have very high consumption for a decade, say, and hence supply very little savings to finance firms' investment projects, then that is perfectly acceptable because firms can then get the finance via international sources. According to this so-called 'new view', the associated current account deficit should be of no concern for policy makers.

The only snag here is the public sector. Because it is not clear what the public sector is optimizing, the public sector may have a tendency to run too large deficits, reflecting the fact that politicians have an incentive to give presents rather than taxing individuals in order to be popular and get reelected. Hence, according to the 'new view', the current account is only a political problem if the public sector is imbalanced.

In order briefly to discuss the 'new view', it is important first to note that it is certainly true that a deficit may be perfectly sensible insofar as it may simply reflect high domestic profitability (above the foreign level) and investment. In such a situation it will of course be foolish to run surpluses because it is more profitable to channel domestic saving into domestic than into foreign investments. The underlying view that private saving-investment decisions should not be of any concern is, however, problematic for many reasons; only a few will be discussed here.

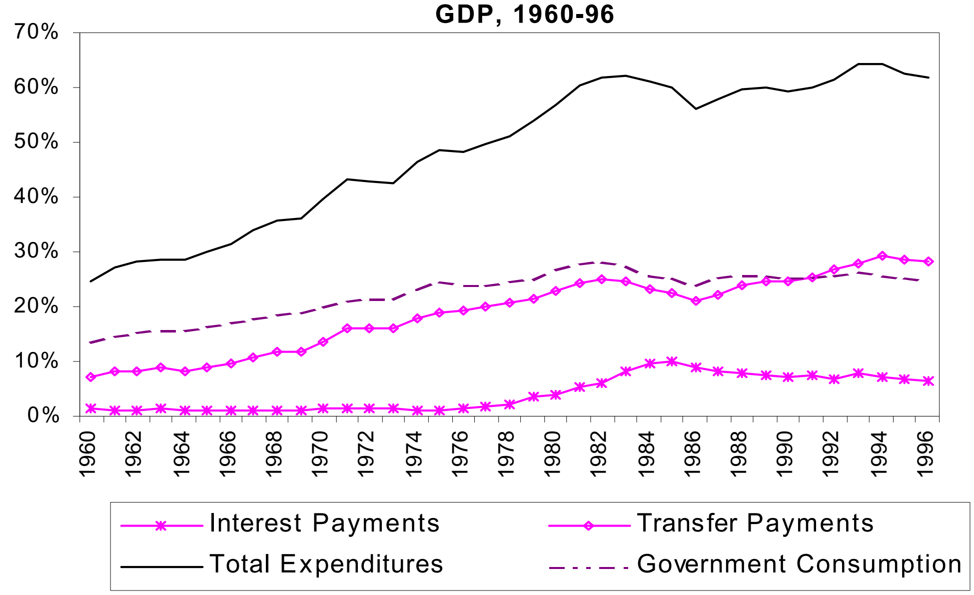
Although frequently assumed in text-books, international capital markets are by no means 'perfect'. Country risk is a well known and important practical phenomenon. Thus, if a country runs large deficits and accumulates high foreign debt, it becomes more costly and difficult for otherwise sound investment projects to get finance in the international markets. Hence, there is an externality (negative) from the country's outstanding debt to individual loan conditions, and the aggregate debt is thus a figure that policy makers should be concerned with as they should be concerned with other externalities in the economy. Many examples in history also show that persistent current account deficits tend to make countries more vulnerable to speculative currency attacks, in which case foreign investors pull their money out of the country, which in turn may lead to turmoil and impede a sensible development of the economy. This may also reflect capital market imperfections, but it may also reflect the fact that markets rationally discount that high debt is associated with a positive probability that countries will renege on their payback promises[5] in which case foreign investors may prefer not to park their capital in that particular country or region of the world. Again, policy makers should care about the current account to avoid too large deficits.

Besides capital market imperfections, deviations from rationality may also justify some current account targeting. Thus, if agents over several years behave as if it is cheap to borrow just because nominal interest rates are low, whereas real interest rates are actually high, governments and central banks with a highly professional staff may also try to correct such false beliefs, and in practice this may result in, for example, interventions against private consumption because announcements in themselves may have little credibility and hence impact on the private sector. The 'new view' has had little effect on policy making in Denmark, but the school's emphasis on finding the reasons underlying a(ny) particular current account figure is certainly valuable.

1.6 Public Expenditures and Taxation

The government has been increasingly involved in the Danish economy over the last 35 years (see Figure 1.11). The ratio of general government expenditures to GDP has more than doubled, from 25 per cent in 1960 to 62 per cent in 1997.

Figure 1.11: General government expenditures in per cent of GDP, 1960-96



Sources: ADAM-Databank, Statistical Yearbook (1962, 1968, 1972), Ministry of Finance.

It is mainly within the 'core' areas of the welfare state that outlays have increased (see also Andersen and Schmidt, Chapter 9 in this volume). The most expanding area has thus been transfer payments, which have increased fourfold. Government consumption, including health and education costs, grew rapidly in the 1960s, but has grown more or less in line with GDP since the mid 1970s. Government investment, on the other hand, has been in decline as a share of GDP. Reflecting the steady increase in public debt since the early 1970s, interest expenditures have also risen.

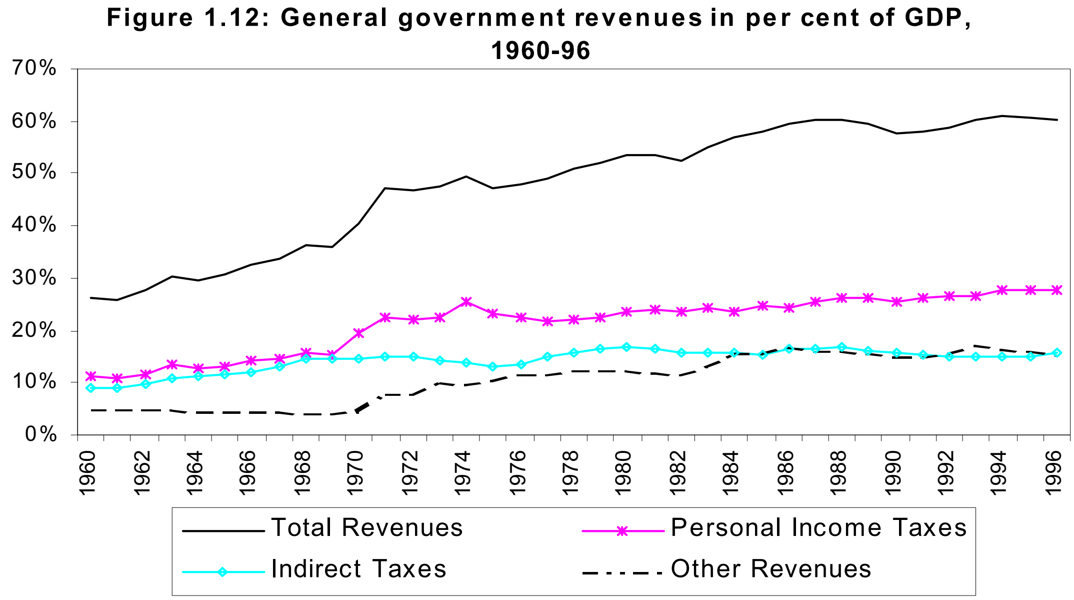
The rise in transfer payments is to a large extent attributable to the rise in (the structural rate of) unemployment. Not only has the registered rate of unemployment increased substantially, but there has also been a rise in the number of working-age persons depending on some sort of income-compensating public transfer payment other than unemployment benefits. In particular, two tendencies can be identified: the workforce is retiring earlier, and a larger number of (mainly low-skilled) workers have been expelled from the labour market. These developments have clearly had budgetary effects: the costs of benefits for the unemployed and retirees have increased and tax revenues have fallen.

Although a rising share of government spending to GDP is a phenomenon that has been observed in most industrial countries (see Masson and Mussa, 1995), Denmark has, like other Scandinavian countries, undoubtedly carried the welfare state further than most other European countries, both in terms of coverage and generosity (see Hagen et al., 1998). For example, safety nets have not only been provided for the less fortunate in society, but as a result of the so-called 'universalist' approach to the welfare state, relatively generous social programmes have been extended to the general population.

The generosity of the Danish welfare programmes may also be reflected in the way many transfer payments have been indexed. For example, in the area of public pensions to the elderly, evidence shows that the purchasing power of public pensions increased by more than real wages of blue-collar workers over the period 1970-92 (see Socialkommissionen, 1993).

A certain 'sense of entitlement' may also have become particularly widespread in Denmark and other Scandinavian welfare states. An example is early retirement benefits which were introduced in 1979 as a temporary measure to improve job opportunities for young workers by stimulating elderly workers to leave the workforce. However, most people now feel themselves entitled to receive public retirement benefits at the age of 60, regardless of their health status (or other conditions). It has, therefore, become difficult to scale back these benefits.

The extent of public sector involvement in the Danish economy may also be assessed from the revenue side of the (general) government budget (see Figure 1.12).



Sources: ADAM-Databank, Statistical Yearbook (1962, 1968, 1972), Ministry of Finance.

While the total revenue share is above 60 per cent, the revenue from taxes constitutes about 50 per cent of GDP. Against an EU (average) and US comparison, these numbers may appear very high (see table 1.3). Indeed, it is remarkable that the total revenue to GDP ratio in Denmark is almost twice as high as the corresponding US figure, with the EU average being somewhere in between. However, when comparing the Danish tax burden with that of other European countries, it should be kept in mind that most EU countries, unlike Denmark, pay transfers on a net-of-tax basis. Another difference has to do with the way households are supported: in some countries this takes the form of deductions from the tax base, whereas in Denmark this is done through direct transfer payments. These factors have been found to account for almost five percentage points of the difference in the gross tax rate between Denmark and Germany (see Ministry of Finance, 1994, and Lassen and Nielsen, 1996).

From a public finance perspective it is not only the level but also the structure of taxation which is of interest. Table 1.3 compares the relative importance of the major tax sources in Denmark, the EU (average) and the United States.

Table 1.3: The structure of the tax system in Denmark, EU and USA, 1994

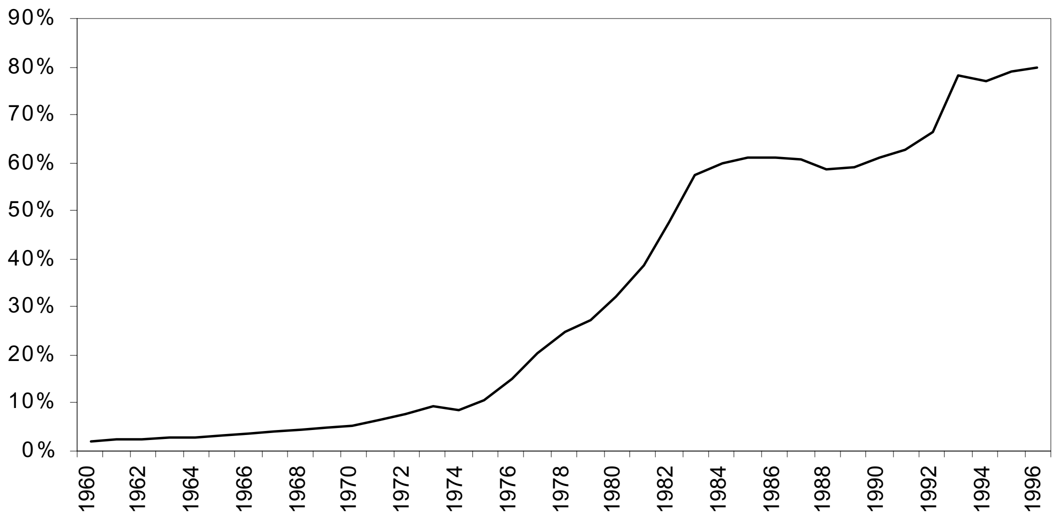
	Denmark	EU	USA
	(% of total tax receipts)		
Social Security contributions			
Employees'	2.5	10.2	10.8
Employers'	0.7	8.1	13.3
Personal income taxes	53.8	26.5	35.7
Corporate taxes	3.7	6.4	8.9
Taxes on goods and services	32.0	31.4	17.9
Other taxes	7.3	9.2	13.3
Total tax receipts (% of GDP)	51.6	42.5	27.6

Source: OECD (1998).

There are several notable differences between Denmark and the rest of the world. First, the earmarked contributions (payroll taxes to social security) of employers and employees count relatively more in the EU and, especially, in the United States. Indeed, while such payroll taxes only constitute about 4 per cent of total taxes in Denmark, they constitute about a fifth in the EU as a whole and even higher in the United States. The tendency in Denmark is, however, to give a higher priority to such taxes in the future, see below. Second, personal income taxes make up a significantly larger share of the tax revenue in Denmark than in Europe in general and in the United States. More precisely, while the revenue from personal income taxes constitutes more than a half of the total tax revenue in Denmark, the corresponding figures for the EU and the United States are only about a quarter and a third, respectively. Third, corporate taxes are used on a relatively smaller scale in Denmark than in the rest of the OECD, notably in the United States. Fourth, the revenue collected from taxes on goods and services has in recent years converged on the European average, now amounting to about a third of the total revenue. In the United States, however, indirect taxes count much less. VAT is by far the most important indirect tax in Denmark, accounting for more than 50 per cent of the total indirect tax revenue. Fifth, since much of private sector interest income benefits from special tax concessions, while interest payments are fully deductible from taxable income, capital income tax in Denmark yields a negative net revenue.[6] This fact partly explains why the residual category ‘other taxes’ is substantially lower in Denmark than in other parts of the world.

Although the share of government revenues has risen strongly in this period, increases have not been sufficient to balance government budgets. As a result of persistent deficits, primarily since the mid-1970s, there has been a substantial increase in the (gross) government debt to GDP ratio, from 5 per cent in 1970 to almost 80 per cent in 1996 (see Figure 1.13). Apart from the falling debt ratios in the mid 1980s, and again more recently under the current upturn, the ratio has been steadily increasing.

Figure 1.13: Gross government debt in per cent of GDP, 1960-96



Sources: ADAM-Databank, Statistical Yearbook (1962, 1968, 1972), Ministry of Finance.

Although the government budget thus displays a cyclical pattern, an important asymmetry can be identified: the surplus in ‘good’ years (<u>if</u> a surplus) is significantly smaller than the deficit in ‘bad’ years. For example, while the Danish economy is currently experiencing a strong boom, the government only ran a small budget surplus in absolute amount in 1997. The major contribution to the falling debt to GDP ratio currently observed is thus the high GDP growth rates ('the denominator') rather than big surpluses on the government budget ('the numerator'). However, according to official projections the government is expected to run more substantial budget surpluses, thereby supporting the official debt target of the government which is a debt to GDP ratio of 40 per cent by year 2005.[7]

It should also be noted that since the late 1970s inflation has increasingly been anticipated, so inflation has become a less powerful device for eroding the real value of government debt. The more recent phenomenon of low (expected and actual) inflation, which has led to low nominal interest rates, has clearly diminished the burden of existing government debt in nominal terms.

While the public sector has grown larger in the Scandinavian countries than elsewhere in the OECD, this is not the case as regards the size of public debt. When looking for reasons behind the substantial growth in public debt to GDP rates after 1973, Denmark does not, therefore, constitute a 'special case'. New theories based on various political-economy models of government behaviour have offered some explanations why public debt has increased so much in many countries. For example, it has been found that in countries with a frequent turn over of government power, each government is likely to overspend when in power, thereby leaving a higher public debt to its successor (see Alesina and Tabellini, 1989). In particular, as demonstrated by Roubini and Sachs (1989), coalition governments tend to have the largest deficits, thus suggesting that if the government is formed by parties of different colour it is difficult to agree on painful measures to keep the budget balanced. Since Denmark for most of the period since 1973 has had minority governments made up of more than one party, the record of public debt in Denmark is not inconsistent with the explanation of the deficit bias in fiscal policy as offered here.

Since the convergence criteria for EMU qualification became guidelines for the conduct of macro policy in Europe, Denmark has like other EU countries – despite its reservations for

EMU participation – steered its fiscal policy with a view to the public debt to GDP targets implied by the debt and deficit criteria. It would, however, take us far beyond the scope of this chapter to seriously discuss the role of the Maastricht Treaty as an appropriate device for enhancing fiscal responsibility.

Two tax reforms have been enacted within the last decade or so.[8] The first reform was introduced in 1987 and had as its prime objective stimulating saving, with the ultimate goal of bringing the ongoing foreign debt accumulation to a halt. In particular, although the reform did not attack the right to deduct all interest expenses from taxable income, the tax value of interest expenses was cut, corresponding to the lowest marginal tax rate of the income tax system (see section 1.5).

Tax reform was also a key ingredient in the policy package of the new centre-left government taking office in January 1993. That reform largely followed the recommendations put forward in the report from the Tax Reform Committee (1992). It was designed in the same spirit as most other tax reforms introduced in the OECD area in recent years, namely cuts in marginal income tax rates financed through various measures to broaden the tax base. Also in line with most other tax reforms in the OECD area, the Danish reform has led to a drop in the degree of tax progressivity. Detailed examinations of the 1993 tax reform include Lange, Pedersen and Sørensen (Chapter 5 in this volume) and Knudsen et al. (1997).

The reform has been phased in over a period of five years. By 1998, the reform promised a maximum marginal tax rate on labour income of 58 per cent, to be compared to the pre-reform maximum marginal tax rate of 68 per cent. However, due to the introduction of so-called 'labour market contributions' - which are virtually payroll taxes, amounting to 8 per cent of gross labour income - the fall in the effective marginal tax rates is relatively modest. Specifically, since the personal income tax is levied on labour income net of payroll taxes, the effective marginal tax rate for high levels of personal income (above 234,900 kroner) is 61.4 per cent. The revenues from the payroll taxes are earmarked for various labour market initiatives, including unemployment insurance, active labour market programmes - and sickness and maternity benefits. It has been estimated that the reform will lead to a fall in the ratio of income tax revenue-GDP from 26 per cent in 1993 to 21 per cent in 1998.

From an international perspective a novelty of the reform is the introduction of environmental fees. The so-called ‘green taxes’ are levied on households (most important is the tax on water consumption), but the emission of carbon dioxides from the business sector is also subject to taxation. Since Denmark was among the first countries in the world to impose green taxes on the business sector, there has been a lively debate on what impact it would have on Danish companies exposed to international competition, particularly the most energy-intensive part of industry (see Jensen, 1998).

Overall, the 1993 reform is regarded as a revenue neutral broadening of the tax base, and the introduction of payroll taxes has been motivated by the need to harmonize Denmark's tax structure with the rest of the EU. The reformed tax structure is also relevant to the domestic debate about the need for welfare reforms. Indeed, the tax system may have crucial effects on incentives to work and hire, savings behaviour, the ‘black’ economy, do-it-yourself activities and so on. Finally, it should be noted that the introduction of payroll taxes and other earmarked budget items represent a departure from the principle of centrally pooled public finances.

Current debates on future tax reforms centre around the question of whether wage taxes can be replaced by green taxes to an even larger extent than has already taken place, thereby reaping a so-called ‘double dividend’ in the sense of <u>both</u> improving labour market structures <u>and</u> helping the environment. Also, the issue of making further cuts in the taxation of capital income (including corporate taxes) and (imputed) returns to owner-occupied housing has been put on the agenda. If implemented, this would be accompanied by initiatives to limit the deductability of interest expenses.

While such initiatives can be seen as natural extensions of the tax reforms of the 1980s and the 1990s, a more radical approach to tax reform has also been heard, namely the so-called ‘flat tax’ (FT) (Hall and Rabushka, 1985, and Nielsen, Frederiksen and Lassen, Chapter 4 in this volume). Basically, as suggested by its name, the FT proposal involves giving up the progression built into the tax system currently prevailing in Denmark, and placing instead a single fixed tax on wages and cash flows in domestic firms. Nielsen et al. have calculated that a flat tax rate of 44 per cent would suffice to generate the same revenue as the current tax system generated in Denmark in 1992, even under an ’no change in behaviour’ assumption. If allowing for efficiency gains likely to accompany a reform of that kind, such as increases in labour supply and saving, the FT rate might be even lower.

Compared to current tax system, the FT system would thus have the advantages of (a) reducing the administrative burden, (b) generating a given revenue at lower marginal tax rates and (c) removing some asymmetries. On the negative side, however, a switch towards a FT system would involve some adverse distributive effects which eventually might render it undesirable. The ’traditional’ trade-off between efficiency and distribution thus also seems to be present here. Nevertheless, if supplemented by initiatives to preserve the redistributive properties of the current tax and transfer system, a future tax reform along the lines suggested by the FT system might be worth considering.

1.7 The Welfare State and Marginalization

The redistributive capacity of the Danish tax and transfer system is quite significant. Although the distribution of incomes between ‘rich’ and ‘poor’ is not particularly equal, even <u>before</u> taxes and transfers, the distribution of <u>disposable</u> incomes has been found to be much more equal (see Førster, 1994). Unlike what has been found in several other OECD countries, the redistributive effects of taxes and transfers seem to be enhanced by the provision of public services, such as education and subsidized child-care (see OECD, 1996).

While this would normally be regarded as attractive properties of the tax and transfer system, the question is whether the extensive welfare system in Denmark has a negative impact on the microeconomic balance of the economy, such as providing disincentives to work. This question appears to be an important one as there has, over the past three decades or so, been a rather sharp increase in the number of working-age persons being dependent on income transfers from the public sector, now amounting to about a quarter of the working-age population.

Table 1.4 summarizes some facts about the total number of working-age (15-66) persons, persons in employment, recipients of public transfers (divided into various categories) and, as a residual, the number of 'non-recipients' within that age-group.

Table 1.4: Working-age population, employment and recipients of public transfer payments, 1960-97

	1960	1970	1975	1980	1990	1995	1997
	(thousands of persons aged 15 - 66)						
A. Working-age population	2,968	3,232	3,329	3,427	3,596	3,682	3,721
B. Employment	2,137	2,341	2,338	2,442	2,564	2,521	2,603
C. Recipients of public transfers	184	307	496	634	784	961	908
Unemployment benefits	31	24	108	159	217	238	183
Cash benefits	39	41	77	107	116	138	129
- hereof unempl.	8	5	23	25	55	51	37
Rehabilitation benefits	-	-	-	9	22	16	16
Early retirement benefits	-	-	-	54	104	120	136
Transitory benefits	-	-	-	-	-	23	43
Leave benefits	-	-	-	-	-	77	46
- hereof education	-	-	-	-	-	28	22
Early retirement pension	103	205	259	236	251	271	272
Sickness benefits	10	29	37	54	43	42	49
Maternity benefits	3	9	16	16	32	36	35
D. Non-recipients (A - B - C)	647	584	495	351	248	200	210
	(% of persons aged 15-66)						
E. Employment ratio (B/A*100)	72.0	72.4	70.2	71.3	71.3	68.5	70.0
F. Recipient ratio (C/A*100)	6.2	9.5	14.9	18.6	21.8	26.1	24.4
G. Non-recipient ratio (D/A*100)	21.8	18.1	14.9	10.2	6.9	5.4	5.6

Source: Ministry of Finance (1997), own calculations.

Between 1960 and 1997, the population of working-age (15-66) has increased by 750.000 persons. While total employment has increased by 460.000 persons, largely concentrated within the public sector, unemployment has over the same period risen by 150.000 persons. In addition to the rise in unemployment, there has been a steep growth in the number of recipients of other public transfer payments - that is, benefits not explicitly related to unemployment; for more details (see Søndergaard, Chapter 10 in this volume).

This phenomenon is strongly associated with developments in the public pension system. In particular, there has been a sharp rise in the number of recipients of early retirement pension, from 103.000 in 1960 to 272.000 in 1997. This scheme includes persons who for health or social reasons are unable to participate in the labour market. Likewise, the number of recipients of early retirement benefits has increased greatly since the inception of this scheme in 1979. These benefits are available to persons aged 60 and above provided they have been members of an unemployment insurance fund for at least 20 years. As a more recent phenomenon, arrangements have been introduced which enable members of the labour force to take paid leave up to one year, either for child-minding or for participation in education and training programmes. On their introduction the leave schemes proved rather popular, as reflected by the fact that about 80.000 persons (more than 2 per cent of the labour force) participated by the end of 1995, but as a result of various tightenings thereafter the number of participants in 1997 had fallen to about 40.000 persons. See Andersen, Appeldorn and Weise (1996) for a detailed study of the leave schemes.

A large number of persons also receive cash benefits, available to uninsured unemployed persons from households with an income and wealth below a certain threshold. In principle, cash benefits are granted on the condition that the recipients are available to the labour market. However, the numbers show that less than a third of those receiving cash benefits are actually registered as unemployed. The rest would normally be regarded as permanently excluded from the labour market.

The upshot of these developments is that the so-called ‘recipient ratio’ (the number of recipients of public transfers as a percentage of the total number of working-age persons) has risen dramatically over the years, from 6.2 per cent in 1960 to 27.7 per cent in 1995. The good news, however, is that the ratio has actually been falling since 1995, albeit only on a small scale.

Against this, it would be relevant to know how many of those recipients actually have the ability to work. Indeed, some critics have interpreted the above numbers as evidence that the ‘true’ rate of unemployment is much higher than the registered rate. For example, Ølgaard (1995) has argued that about 18 per cent of all working-age persons are non-employed but should in principle have the ability to work. While many recipients of public transfers have their status because of disabilities of various kinds, and hence are unable to participate actively in the labour market, it is undoubtedly true that others could, if offered, take a job. From a social viewpoint, it would count as an enormous success if marginalized people could change their status from a passive life on welfare money to a more active and independent life. From a broader economic perspective such a process would not only help in improving government finances, but would also ease the current pressure on the labour market in Denmark where some sectors now appear to be operating at the margin of full capacity utlilization.

Less pessimistic conclusions have also been drawn from this evidence. For example, as Table 1.4 shows, it has been noticed that the employment rate (the share of of working-age people in employment) has proved very stable since the early 1960s. Hence, the rise in unemployment is closely related to the rise in the labour force. In particular, the phenomenon must be seen in the light of the significant increase in the labour market participation rate among women. While this is true, it could be said that a well functioning labour market should be capable of absorbing such an influx to the labour market.

It has also been argued that rather than associating the enormous rise in the number of recipients of public transfers with a dramatic increase in de facto unemployment, it simply reflects a change in political priorities in favour of granting public benefits to persons who previously would have been provided for by family or other ‘local’ safety nets, if provided for at all (see Callesen, 1995) . Hence it is a result of the expansion of the welfare state, as indicated by the dramatic fall in the so-called ‘non-recipient’ ratio in Table 1.4. In other words, a person of working-age who is not working and who is not a recipient of welfare money is today almost a non-existing phenomenon. It is difficult to judge the impact of this development on social welfare.

From a social viewpoint, the perhaps most important problem facing today's society is the number of truly marginalized persons or social outcasts. These individuals are typically concentrated in certain inner-city areas and many of them are second-generation immigrants. The real challenge to the welfare system in the coming years is to bring this marginalization process to a halt. While basically a matter of definition, the question about the ‘true’ number of marginalized individuals has become subject to controversy among different policy-creating communities in Denmark. For example, the so-called Welfare Commission (1995) found that 250.000 persons were truly marginalized in 1995, a number also reported by the Social Research Instititute. Using an alternative definition, the Ministry of Finance (1995, 1997) reports a much lower number for 1994, namely 104.000, a number projected to fall to 40.000 by 1999.

Since it is the rise in public transfer payments which explain why public expenditures have risen over the years, the following question often arises: 'can we really afford to pay these transfers?' It is certainly true that the rise in expenditures allocated to public transfers has not only led to higher (marginal) tax rates, but it may also have crowded out expenditures which might otherwise have been allocated to public consumption, including the provision of various services and investments in infrastructure etc. While high marginal tax rates are well known to have distortionary effects, a continuous fall in the share of expenditures to public service production and infrastructure relative to public transfer payments may in the longer term threaten the legitimacy of the welfare state (see Ingerslev and Ploug, 1996). The point is that many so-called middle-class persons/families may find it increasingly difficult to see their tax money being spent on transfer payments - from which they themselves may derive only little utility - instead of being spent on public services - from which they are likely to derive a lot more utility.

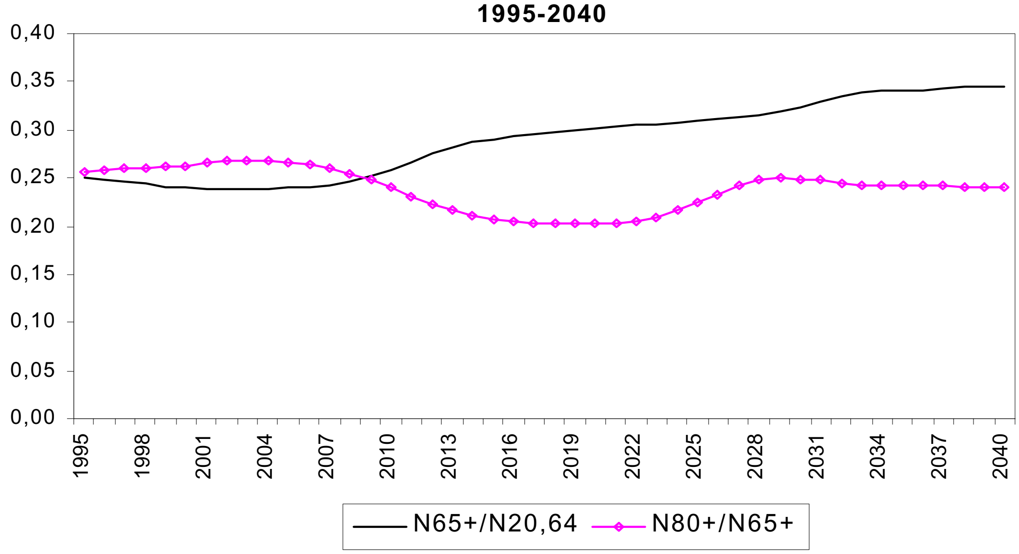
Another criticism frequently raised is this: 'it doesn't really pay to work any more!' In general, the incentives offered by the welfare system to participate in the labour market are rather mixed. On the one hand, the combination of generous unemployment benefits and relatively long benefit periods should induce people to enter the workforce. Moreover, government subsidization of daycare for children adds to this incentive. On the other hand, the early retirement benefits would typically operate in the opposite direction. Indeed, this scheme has contributed strongly to reducing the effective retirement age from nearly 66 in 1979 (the year when the early retirement benefits were introduced) to about 61 in 1997.

A recent study by Pedersen, Smith and Stephensen (1998 - and Chapter 6 this volume) shows that 20 per cent of the insured people in work in Denmark have no or only weak economic incentives to remain in employment. Similarly, unemployed persons receiving the maximum UI benefits have only little, if any, economic incentive to accept low-paid jobs, since the benefits typically exceed the minimum wage in the manual labour market (see also section 1.3).

1.8 Population Ageing and Intergenerational Redistribution

In addition to the pressure on public finances induced by the large number of working-age recipients of public transfers, the projected changes in the age structure of the population are likely to challenge the fiscal system. Indeed, the trends of modest economic growth, high real interest rates, ageing populations and high levels of (existing) public debt have led many economists to question the long term sustainability of fiscal policy as currently practised. A closely related issue is whether, and to what extent, financial burdens are passed onto future generations if current fiscal policies continue without adjustments. Since changing demographics are the major driving force behind the threats to public finances in the future, we start with a brief look at the population projections. Following standard age demarcations we may define the working age population as those between the ages of 20 and 64, the elderly population as those aged 65 and above, and the very old as those aged 80 and above. It is most interesting to look at the development in the ratio of elderly to working-age persons, $N_{65+}/N_{20,64}$, and the ratio of very old to the general population of elderly, N_{80+}/N_{65+}. While the development in the former ratio provides information about the general ageing process, the latter tells which of either the young or the old group of elderly is growing most rapidly. If both ratios are rising at the same time, we have the phenomenon often referred to as 'double ageing'. Both ratios are displayed in Figure 1.14, for a projection period ranging from 1997 to 2030.

Figure 1.14: Projected changes in demographic structures, 1995-2040



Sources: Statistics Denmark, own calculations.

The first remarkable observation is the 'J-shaped' nature of the $N_{65+}/N_{20,64}$ trajectory: over the next 10 years or so the overall demographic dependency burden is falling, whereupon it increases rather dramatically. By international comparison, the prospect of a demographic 'breathing space' is rather unique. Second, there seems to be a tendency for the two curves to move in different directions, at least over the next 25 years: during the first 10-15 years, the share of the very old is rising, and when general ageing sets in, the share of the very old is falling. From about 2020, however, there will be some ‘double ageing’ in Denmark.

From an economic perspective, the apparent absence of double ageing until 2020 may be quite important. Evidence shows, see Socialkommissionen (1993), that there is a strong positive relationship between age of the elderly and public outlays on old-age services. The point is, of course, that very old persons' need for medical care, home care, etc. is substantially higher than young elderly's need for those services.

To get a first impression of the budgetary significance of population ageing, we may treat government outlays to the elderly as if they constitute a separate government budget. Under a pay-as-you-go financing scheme, the per-period budget constraint says that current government spending on the elderly must be equal to the taxes levied on working-age persons. Recent evidence shows that, given realistic indexation schemes of per capita spending on services and income transfers to the elderly, the taxes needed to cover all old-age expenditures would rise from about 11 per cent of GDP in 1993 to about 15 per cent of GDP in 2030 (see Ministry of Finance, 1995, and Jensen and Nielsen, 1995). A more detailed analysis of the relevant issues is offered by Jensen, Hansen and Junge (Chapter 6 in this volume).

The overall effects of changing demographics may also be studied using the device of generational accounting. Recent work has studied the requirements put on fiscal policy in order to ensure that current and future generations are burdened equally (see Jensen and Raffelhüschen, 1997, 1998). Hardly surprising, the main finding is that in order to equalize the fiscal burdens on newborns and future generations, current generations would have to face tighter fiscal policies. More concretely, the required fiscal tightening is quantifed to a rise of 3.4 per cent in the revenue from all taxes; or a cut in of 4.7 per cent in all tranfer payments, or a cut in the level of government consumption of almost 10 per cent (see Jensen and Raffelhüschen, 1998).

While this might suggest that fiscal policy in Denmark is strongly intergenerationally imbalanced, it has also been demonstrated that if unemployment rates could be brought further down, this could have very positive effects on the generational stance of fiscal policy. A condition for this is of course that the additional taxes paid by current generations are spent in a sensible way - that is, to bring down existing public debt so that future generations will be burdened less. The tax reform of act of 1993 also seems to help redressing the generational imbalance, see Lange, Pedersen and Sørensen (Chapter 5 in this volume).

The question is what else can be done to temper the effects of population ageing. In view of the breathing space, Denmark seems to have a unique opportunity for improving the fiscal positions over the next decade - that is, to bring down public debt relatively fast. Also in the area of public pensions, some policy options are open. However, since for at least half of today's pensioners, and for at least a third of pensioners 30 years from now, the public pension benefit will represent the only (or certainly the most important) means of old-age security, it is difficult to think of a significant fall in the replacement rate being possible. Instead, an obvious measure would be to raise the retirement age. In particular, this would involve a reform of the so-called early retirement benefit scheme.

At a more general level, it seems that the appropriate policy response to the ageing effect would be to increase the workforce. In that respect, the apparent constancy of the employment rate over the last three decades may have serious implications for the extent to which the ageing problem can be overcome by expanding the workforce. Indeed, if it is a ‘stylized fact’ that the employment rate is virtually decoupled from the growth in the workforce, it would be pointless to induce people to postpone their retirement from the labour market. From the point of view of economic theory, however, it would be very hard to believe in such a peculiar relationship in the medium-to-long run.

1.9 CONCLUDING REMARKS

Over the last 25 years the Danish economy has had difficulties in growing as fast as other EU countries and the United States. While the average growth difference is small, it signals that if this trend persists into the next century, Denmark will not be able to maintain its high position in the world income hierarchy. Moreover, during these years, the number of individuals living on transfer incomes have increased dramatically. Although we interpret both tendencies as signals of structural weaknesses, we are also aware that these developments may reflect that other goals in economic policy have been pursued, such as protecting the environment and/or achieving certain redistributive objectives.

The Danish experience shows that economic policy has significant effects on the economy. Thus the upturns in the beginning of the 1980s and 1990s were both intimately linked to policy reforms. Similarly, the recession starting in 1987 was also to a large extent caused by economic policy. Hence, it does matter what governments do. In particular, while the scope for pursuing macroeconomic stabilisation policies in traditional sense may be limited, a lot can be done in the area of structural reform.

The current upturn in the Danish economy is of great interest since it has to some extent been underpinned by structural reforms, mainly in the labour market. Although the current business cycle situation is favourable, it is not realistic that growth can be maintained without further policy initiatives. Further labour market reforms are essential both for the direct effect on unemployment and the possibility of giving a larger group of the population a genuine chance of entering the labour market, but also for the indirect effects it has on the public budget. It is not realistic to make substantial improvements in public finances without a reduction in the number of individuals on transfers. In a longer-term perspective this will also be an important step in creating leeway to deal with the problems of an ageing population.

As part of the reform policy further tax reforms are needed both to strengthen the incentive to work and to save. It is also important to continue the deregulation process to ensure more competition in product markets and to create a more flexible and efficient public sector. For a society aiming at a high and fairly equally distributed living standard, it is essential in a world of intensified international competition that the labour force has a level and distribution of qualifications which makes it possible to attain this target on market terms. An important challenge for the future may thus be to have an efficient and flexible educational system to ensure that qualifications relevant for the labour market are provided.

Notes

1.Forthcoming in T.M. Andersen, S.E.H. Jensen and O. Risager (eds), *Macroeconomic Perspectives on the Danish Economy*, (MacMillan, London). Comments from Per Callesen, Ole Jørgensen, Jan Olesen and Peter Birch Sørensen are gratefully acknowledged. We also thank Christoffer Kok Sørensen for highly effective research assistance.

[2] The importance of economic policy for the behaviour of the economy and for welfare in general is an important motivator for this book. Thus, we believe that a better understanding lay the foundation for better policies that may improve the Danish citizens' economic well-being.

[3] Countries participating in the ERM of the EMS fix a parity relative to the ECU. The exchange rate was initially allowed to fluctuate around this parity by ±2.25 per cent, but after the European exchange rate crisis in 1993 this was widened to ±15 per cent, effectively meaning that the bands are now non-binding.

[4]Because the new National Accounts only cover the short period 1988-96, we are forced to use the old figures to get a historical perspective. However, the old figures are also likely to be more reliable the further we move back in time. IT investments were, for instance, of much less importance 10 years ago. Another difference between the two systems is the use of base year; the old system is based on 1980 which is fine in (say) 1986, but probably not in 1993, and the new system therefore uses 1990 as a base year. Finally, there has also been a sectoral redefinition.

[4] Notice that this is the case where there is a default risk usually ignored in the intertemporal deterministic approach, but nobody can afford to ignore this in the real world.

[6] As to the principles of taxation, Denmark was the first Nordic country to move away from the principle of <u>global</u> income taxation where a single progressive tax schedule is applied to the sum of the taxpayer's income from all sources toward a system of so-called *dual* income taxation where the taxation of capital income is separated from the taxation of other sources of income (see Sørensen, 1994).

[7] Discussions of public debt are often confused by the fact that several alternative definitions are offered. The debt ratio mentioned here refers to what is called 'gross government debt' which includes the government's outstanding (domestic and foreign) debt in the form of bonds. This is different from the so-called 'EMU debt', used by the EU for inter-country comparisons, and which in 1996 constituted 69.9 per cent of GDP. If some specific Danish institutional features are allowed for, including a state-owned pension fund's holdings of non-government bonds and the state's deposits in Danmarks Nationalbank, the ratio actually falls below 60 per cent.

[7] Further details on recent tax reforms in Denmark are provided by Sørensen (1990, 1994) , Matthiessen (1994) and Lange, Pedersen and Sørensen (Chapter 5 in this volume).

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