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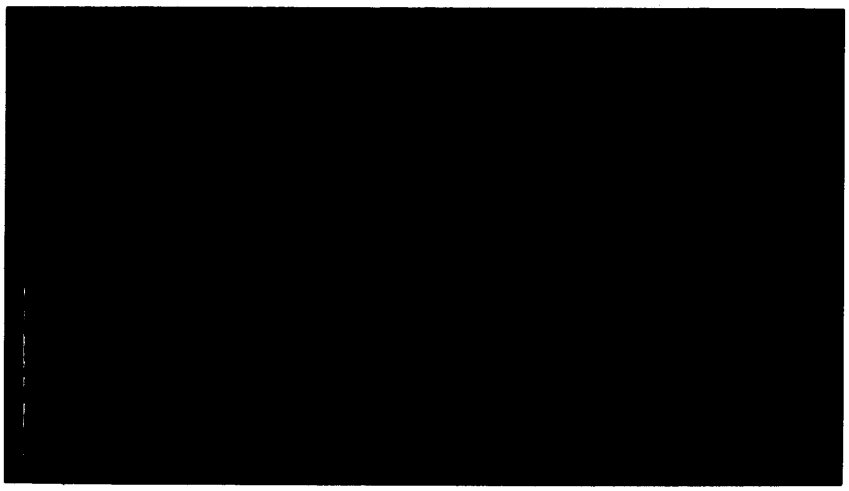
– COUNTRY STUDIES –



COUNTRY STUDIES*

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Denmark

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EXECUTIVE SUMMARY

The country study on Denmark focuses on a few key issues which are assessed in depth. Moreover, the analysis is conducted in a broader European framework making comparisons and parallels with other member countries and highlighting developments particularly relevant in the context of progress towards EMU. The study, therefore, draws a number of conclusions relevant for the conduct of policies in a wider group of countries and not just Denmark.

The most important elements of the study may be summarized as follows:

Firstly, the study explores the principal factors behind Denmark's divergent growth performance during the 1980s. A strong acceleration in growth in the period 1983-86 occurred long before the European upswing had gathered momentum. Thereafter, growth stagnated while the European economy boomed.

This development is seen to reflect a strong expectational response to a set of policies implemented by a new government in 1982: fiscal policy was significantly tightened while the use of the exchange rate as a policy instrument was abandoned. Moreover, structural policies involving deregulation, privatization and liberalization were embarked upon.

The high credibility of the new hard currency regime was evident in sharply falling interest rate differentials vis-à-vis the DM. Lower nominal interest rates reinforced optimistic expectations on the part of investors and consumers, leading to an upward adjustment of the desired stock of capital and consumer durables. This adjustment in turn implied very high economic growth rates in 1983-86. The highly efficient and unrestricted Danish capital market played a vital role in this result, which may constitute an important lesson for the future: perfect capital markets may render the business cycle highly dependent on consumer expectations as the present discounted value of higher expected future incomes will influence consumer behaviour today.

Optimism in the economy collapsed suddenly in 1986: interest rate differentials vis-à-vis the DM rose again while economic growth despite very buoyant world trade virtually stagnated. The performance of the Danish economy since 1986 - low growth, rising unemployment, stagnant real wages and low ex-post return on the investment projects of the 1983-86 period - suggests that the optimism of that latter period to some extent was unfounded. The study concludes that despite the change in policy regime in 1982 and other structural policies embarked upon since then, there was actually little improvement in the capacity of the economy to simultaneously reduce the major economic imbalances in the period 1982-86. This may have been an important factor behind the breakdown of expectations experienced in 1986. Developments since 1986, however, point to some improvement in supply conditions - even beyond those recorded for most other high-income member countries. The apparent change of behaviour of agents may be ascribed to the hard currency stance, the tight fiscal policy (both reducing inflationary expectations) and the tax reform of 1987, which facilitated more efficient allocation of resources.

Secondly, the study discusses the question as to whether a different macroeconomic policy setting would have produced a better ex-post set of results i.e. would have avoided the overheating of 1985-86 and the subsequent stagnation and rising unemployment. It is concluded that little could have been done given the overall policy setting. This conclusion may be given a more general dimension indicating that economic upswings fuelled by expected structural improvements may inevitably lead to overheating, given constraints and the limited effectiveness of economic policies. In Denmark, monetary policy was significantly constrained by the ERM commitments. The high credibility of the hard currency stance combined with the high mobility of capital narrowed the scope for independent monetary policy action. Fiscal policy is shown by the Danish experience to have severe limitations - even the sign of its policy impact may at times be difficult to predict. Finally, incomes policies often work pro-cyclically by maintaining a level of competitiveness that initially contributes to overheating and widening profit margins, but subsequently leads to tight labour market conditions and a "catch-up" in wages as was, once again, the case in Denmark.

Thirdly, the study examines the principal factors behind the huge external debt accumulated notably during the 1970s and the beginning of the 1980s. A very important factor appears to be excessive housing investment induced by the unlimited tax deductability for interest expenditures. The linkage between inflation and nominal interest rates combined with the tax deductability for nominal interest expenditures led to significant distortions of investment and saving decisions in the high inflation years of the 1970s and the first half of the 1980s. The study also suggests that the extension of the welfare state, notably during the 1960s and 1970s, may have led to a lower desired level of private savings. To achieve this, the private saving rate has been temporarily reduced. In the long term, however, welfare provisions may not significantly affect the private saving rate. For this reason and given a continued tight fiscal policy and low inflation (holding down i.a. the indirect subsidization of housing), this part of the study concludes that the

current account balance in the short to medium term may continue on an improving trend - attaining a significant surplus and thereby generating an important reduction of the external debt burden.

Finally, the study discusses the implications for Denmark of fiscal approximation within the Community. Due to Denmark's divergent tax structure with indirect taxes being much higher than elsewhere - most importantly higher than in Germany - some harmonization is needed before border controls are finally abolished, if excessive cross-border shopping is to be avoided. The study shows that the necessary indirect tax reductions will have significant macroeconomic effects, which cannot easily be neutralized by other economic policies. A whole range of fiscal initiatives may be called for if the important improvements in the external imbalances are not to be reversed.

Nevertheless, the Danish economy has shown a significant capacity to adjust to the best European standards e.g. with respect to inflation and public sector finances. These achievements will ultimately assist Denmark in taking the next important steps forward in the process of European integration and in reaping the full benefits of the Internal Market.

CHAPTER 1

DANISH ECONOMIC PERFORMANCE DURING THE 1980s: LESSONS FOR EUROPE

1.1.Introduction

This chapter focuses on a number of key, interlinked issues exploring Denmark's divergent growth performance relative to the Community average in the 1980s: an examination of the factors behind the strong economic upswing in 1983-86; an assessment of the significance of the increased current account deficit in 1983-86 and of structural factors holding back the economy; and an interpretation of the macroeconomic policy response to the current account. The analysis leads to a series of conclusions on the Danish economic experience and also to a set of reflections on the lessons for other Community countries, particularly in the context of progress towards EMU.

1.2 Understanding the growth cycle of the1980s

1.2.1 The strong upswing: 1983-1986

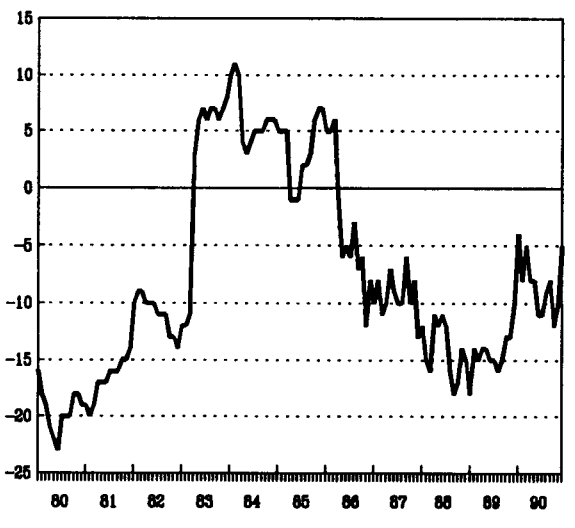
During the period 1983 to 1986, the growth record of the Danish economy was one of the best in the Community. GDP grew at 4% on average, while the unemployment rate declined from 10% to 8% and inflation dropped to 3%. To understand this very favourable development, it is not sufficient to consider only standard economic transmission mechanisms; it seems that expectations also played a major role.

The recovery started from a very low level. The recession of 1980 – 81 (related to the second oil price shock) was deeper in Denmark than in all other Community countries except for the UK. Although a series of devaluations within the EMS were carried out between 1979 and 1982 and fiscal policy was gradually relaxed, demand fell and investment virtually collapsed in both 1981 and 1982. The combination of expansionary fiscal policy and low economic activity led to a sharp rise in the public sector deficit to a record level of some 9% of GDP in 1982. On the capital market, interest rates shot upwards, responding to the gloomy state of the public finances, high inflation and expectations of further devaluations.

In the autumn of 1982, a new government substantially altered economic policies. Fiscal policy was tightened and the exchange rate was abandoned as a policy instrument. In addition, supply-side policies were introduced aiming at greater flexibility in the labour market; notably the wage indexation scheme was abolished.

For various reasons, financial markets quickly attached a high degree of credibility to the hard currency stance. Firstly, the new government had not been responsible for previous devaluations. Secondly, the tighter fiscal policy, together with a fairly healthy level of competitiveness, reduced the external constraint while the implementation of incomes policy measures further reduced medium and long-term expectations of DKR devaluations[1]. Finally, confidence was further strengthened by liberalization of capital movements which added an international dimension to the new policy discipline.

Graph 1: Consumer confidence indicator



Source: Commission services

1) The government declared a freeze on wages and profits from October 1982 to February 1983, and the price indexation of wages was suspended until 1986 and abolished thereafter. Public sector pay rises were set at a rather low level of 4 % for the period 1983-85 and the private sector was urged to follow the norm. All in all the government took an active role in wage (and price) determination

The reduction in the high risk premium as a result of the change in the economic policy regime in Denmark was reflected in a fall of more than 600 basis points in interest rates between early 1983 and early 1984. Capital inflows were substantial, producing a peak rate of increase in M2 of more than 25% in 1983. Interest rates fell ahead of inflation and measured real interest rates decreased, as inflation expectations and DKR devaluation expectations faded.

Household confidence increased considerably. Private consumer demand responded promptly and led to a substantial fall in the saving rate. Large positive wealth effects because of falling interest rates reinforced the decline in the private sector saving rate to 16% in 1986 compared to 24% in 1982[1].

The strong response of actual consumption to the change in consumer sentiments was facilitated by an efficient and unrestricted capital market. It may be an important lesson for the future that more perfect capital markets may render the business cycle highly dependent on consumer expectations as consumption will be less sensitive to changes in actual disposable income and more sensitive to changes in the present discounted value of the expected future income stream (stemming from human capital as well as from tangible assets such as houses).

The boom in output (16% rise over the four years to 1986) was driven entirely by domestic demand (growth of 19% over four years) with the external sector actually contributing negatively to growth. Investment in plant and machinery rose by a spectacular 63% over the same period. The increase in the current account deficit was the counterpart exclusively of higher investment; national saving was steadily improving. Optimism was reflected in the strength of capital inflows and a rise in foreign exchange reserves.

1.2.2 The breakdown in expectations and performance: 1986

The year 1986 marked a turning-point in Denmark's economic development in the 1980s. The 1983-86 period had largely represented an adjustment to a more optimistic set of expectations: a higher expected rate of return increased the desired capital stock, while improved household confidence and reduced interest rates had similarly increased the desired stock of consumer durables, including houses. This stock adjustment implied very fast rates of growth over a certain period. However, by 1986 the adjustment may have been largely completed, leading to downward pressure on investment in both producer and consumer durables.

Over the same period, the current account deficit had increased to 5½% of GDP. Although this increase may have been justified temporarily as it filled the gap between overall demand and production, the level of the deficit was clearly unsustainable.

The natural downward pressure on domestic demand growth as stock-adjustment was completed would in itself have begun to produce a decline in the deficit, but with negative repercussions on activity in the absence of an improvement in competitiveness. However, the very strong economic growth in the previous three years had led to severe labour market tightness. Despite falling oil prices, high pay rises in the Spring 1987 negotiations seemed to be in prospect; unit labour costs were already rising somewhat faster than those of ERM partners and competitiveness against a wider group of partners (based on unit labour costs in manufacturing) had already worsened by 3% between 1983 and 1986.

In these circumstances, the credibility of the exchange rate was eroded. Private capital flows into Denmark dried up, the foreign exchange reserves fell significantly, M2 decelerated sharply and inflation-adjusted interest rates rose.

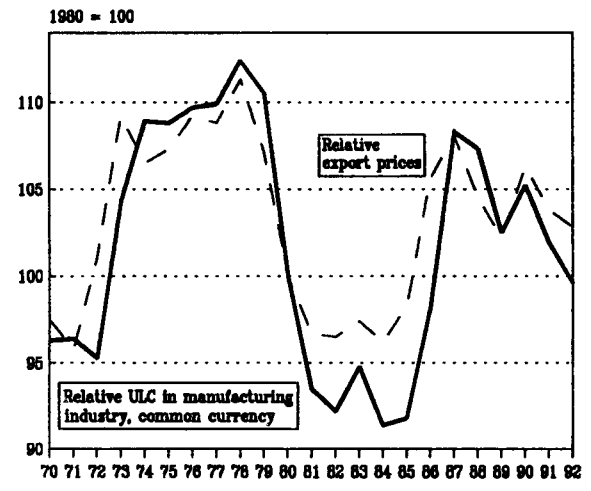
At the same time, the authorities were becoming increasingly concerned about the current account position and measures were implemented to contain private consumption: in Spring 1986, excise duties on energy products were increased substantially, and in the autumn of 1986 a surcharge on interest payments on consumer credit was implemented [2]. The stage was thus set for a cyclical downturn. The situation was worsened by high wage settlements in the 1987 two-year wage round, reflecting the persistently tight labour market conditions. Unit labour costs soared by more than 8% in 1987, further eroding competitiveness.

Against this background, measures to improve competitiveness were implemented in late 1987. Social security

1) Wealth effects have been shown to play a major role in the transmission of monetary policy, see e.g. A.M. Christensen and D. Knudsen 1989. An important element of this channel of transmission is the large gross portfolio of fixed interest rate bonds held by the private sector. Also the real market value of owner-occupied houses, forming a significant part of private sector wealth, varies inversely with nominal interest rates.

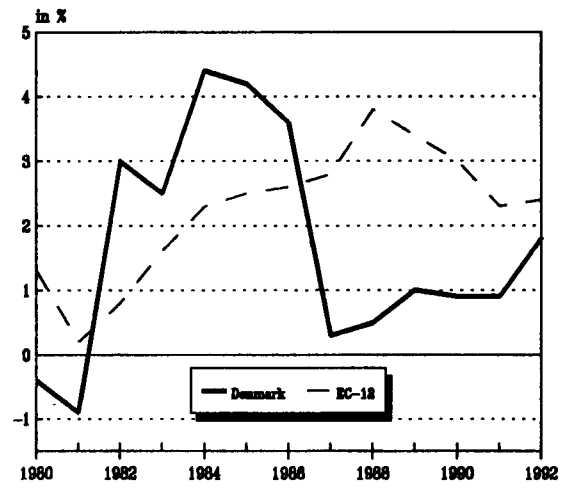
2) This was part of a wider austerity package - the so-called "potato diet" - which also contained an amendment of the mortgage payment scheme, implying higher instalments in the beginning of a loan. This had a negative impact on house prices, which were already falling.

Graph 2: International competitiveness 1970 - 1992



Source: Commission services
Commission Forecast (Nov 1990)

Graph 3: GDP growth rates Denmark - EC-12



Source: Commission services
Commission forecast (Nov. 1990)

contributions per employee were partly replaced by a tax on the VAT base [1]. As exports are exempt from VAT, this measure may be interpreted as having some aspects of a devaluation [2].

1.2.3 Stagnation and uncertain prospects

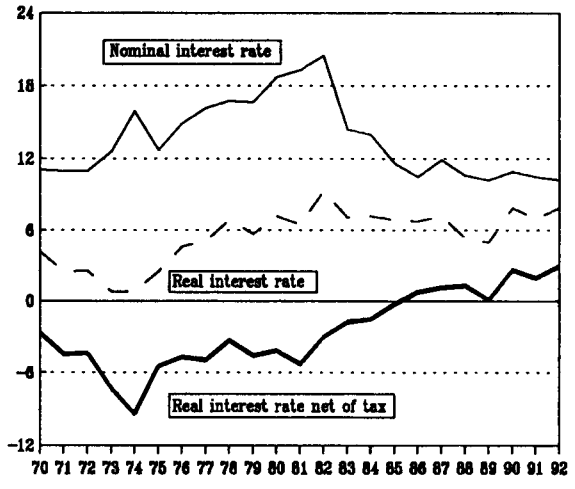
While growth accelerated strongly in the rest of the Community, the Danish economy stagnated. The gap between the growth of domestic demand and world demand led to a substantial narrowing of the current account deficit in these years despite some loss in market share. However, due to the higher excise duties on energy and accelerating wage costs, inflation rose to a level somewhat above the Community average - and significantly above the German level - in 1986-88. By 1989, the unemployment rate was back at 9 1/2%, compared with about 10% in 1982 and slightly below 8% in 1986, and pay rises had moderated substantially.

The weak recovery, which seemed to be unfolding in 1989 and the beginning of 1990, was halted by a combination of weaker world trade and a strongly appreciating currency (in the six months to April 1990 the effective exchange rate appreciated by more than 7%). At present, there seems limited prospect of an early and sustained economic recovery. Fiscal policy is relatively tight, construction activity is still slowing down, consumer sentiment seems to have changed firmly in the direction of increased savings and world trade is envisaged to grow only moderately in the short term. However, the recent two-year wage settlement implies an improvement in competitiveness and therefore gains in market shares. Therefore, economic growth could eventually pick-up in 1992.

The current account balance will remain on an improving trend towards a significant surplus. Already in 1990, current payments balanced after 26 years of deficit. The main factor behind this development is a rise in private sector saving, partly due to a steady rise in the net of tax real rate of interest combined with a downward revision of household expectations. Residential investment has been falling sharply in recent years, for similar reasons, and prospects are for a further reduction in 1991. All in all, private sector saving (net of residential investment) will increase strongly and should be capable of financing some growth in business investment. As will be argued in Chapter 2, this strong turn-round in the current account balance owes much to reduced inflation and so is largely attributable to the hard currency stance [3].

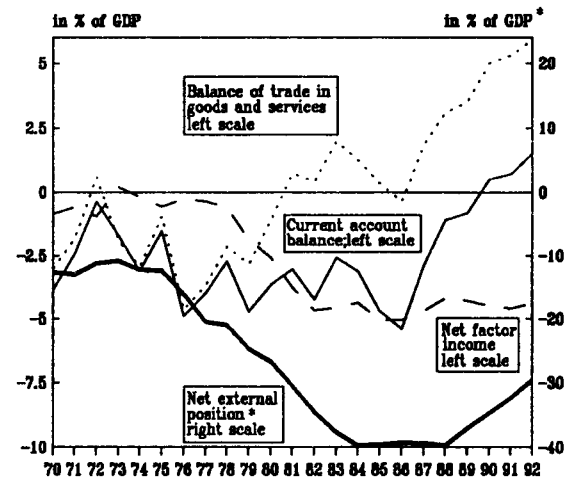
1) This tax has now been brought before the European Court of Justice as a breach of the sixth VAT directive.
2) The usual by-product of a devaluation - higher inflation - was prevented as the new taxes raised a smaller revenue than the old; thus, the package also contained an element of expansionary fiscal policy. The effect on competitiveness of this measure is not fully reflected in the graph above, which relates to per capita compensation for the whole of the manufacturing industry and not just exporting firms.
3) But also the tax-reform of 1987 played an important role: the marginal incomes tax rate was reduced from 73% to 68% and for net capital incomes even further to some 50%.

Graph 4: Nominal and real rates of interest on public bonds



Source: Commission services
Commission Forecast (Nov 1990)

Graph 5: Current account balance and external debt 1970 - 1992



Source: Commission services
Commission Forecast (Nov 1990)

Since 1989, the inflation rate has again been converging. During the first half of 1990, the rate of inflation fell particularly sharply, responding to nominal currency appreciation, wage moderation and some reduction of indirect taxes. Inflation is now below the German level (for the first time for several decades) and is likely to remain so for some years. Although this is encouraging, there are no grounds for complacency: combining an acceptable current account position with a return to growth strong enough to reduce unemployment will require an improvement in competitiveness; given the ERM constraint, this can only be achieved by maintaining a lower rate of domestic inflation than that of partner countries. How painful this process will be in terms of unemployment would to some extent depend on the impact of German unification, the implications of which are explored in Box 1.1 below.

1.3 Structural issues

One possible reason for the break-down in optimism in 1986 and the disappointing growth performance of the Danish economy over the 1980s as a whole may be that structural improvements of the Danish economy, to some extent, failed to expand the capacity of the economy to simultaneously alleviate the major economic imbalances. This was i.a. manifested in a strongly deteriorating trade balance as economic activity accelerated in the period 1983-86. Moreover, the actual implementation of structural measures may have failed to meet expectations.

1.3.1 The deficit explosion of 1983-86: justified ex-ante, but a mistake ex-post?

During the 1970s and 1980s, Denmark experienced a persistent current account deficit leading to excessive external debt and tight constraints on economic policy [1]. The dramatic widening of the Danish current account deficit during the 1983-86 boom was accounted for, on an arithmetic basis, exclusively by an increase in investment; this, however, may have been interpreted (wrongly) as a deterioration in the underlying current account deficit. The widening appears to have represented the private sector's reaction to a set of policies which were perceived as improving Denmark's medium-term economic prospects. To that extent, the widening of the deficit, i.e. the aggregate borrowing of individual firms and households to finance their investment projects in producer and consumer durables, could be seen ex-ante as rational and justifiable. Ex-post, however, the performance of the Danish economy since 1986 - a period of low growth, rising unemployment, stagnant real wages and low ex-post returns on the investment projects of the 1983-86 period - suggests that the optimism of that earlier period was unfounded.

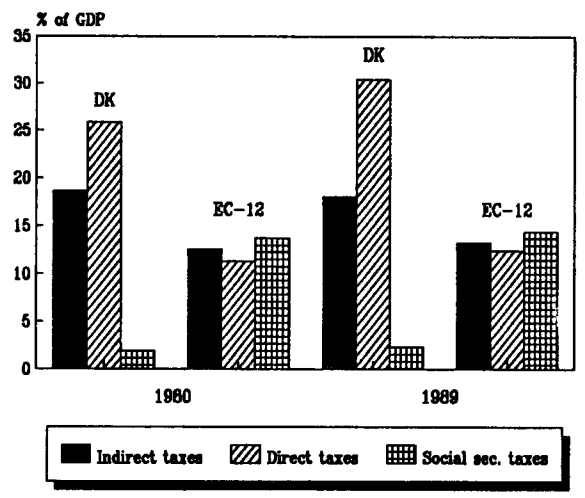
1) The reasons for the persistence of the current account deficit during the last decades are explored in Chapter 2.

1.3.2 The burden of taxation and the size of the public sector

At the beginning of the 1980s the burden of taxation in Denmark was already high in relation to that in other EC countries. By 1987, the tax burden in Denmark had increased even further, and the comparison with the rest of the Community was even more unfavourable [1]. This development may have run counter to the expectations of the early 1980s (implications of the divergent tax structure for the process of European integration are explored in Chapter 3).

The government which took office in 1982 had as a primary policy objective to reduce the share of the public sector in GDP, which may have stimulated expectations of tax cuts. On comparing the public sector expenditure figures in 1982 and 1989, however, it may be concluded that this has been only partly achieved; total current expenditures as a percentage of GDP fell by a modest 1 point between 1982 and 1989. Nevertheless, the disaggregated figures reveal some success as public consumption was reduced by some 3% 9of GDP. However, this reduction was partially offset by higher interest payments on the public debt. Transfer payments were unchanged.

Graph 6: Tax structure Denmark - EC-12



Source: Commission services
Commission forecast (Nov 1990)

The fact that the share of the public sector in GDP has not been strongly reduced can mainly be ascribed to genuine resistance among the electorate to any drastic cuts. Although preferences have moved somewhat in the direction of a reduced public sector, all the basic elements of the welfare state remain unquestioned.

1.3.3 Labour market rigidities

Post-1982 governments have taken a number of steps, including the abolition of wage indexation, to improve the flexibility of the Danish labour market. Nevertheless, important features of rigidity remain.

One indication of structural shortcomings is the uneven distribution of unemployment. Thus, the 1.5% rise in the unemployment rate between 1987 and 1989 (from 7.9% to 9.4%) occurred without any increase in the share of the labour force actually affected by unemployment. Only the average length of unemployment spells increased i.e. the long-term unemployed have born the brunt of adjustment burdens. Moreover, unemployment is also very unevenly distributed according to level of skills and sex, with women and the unskilled being most affected. This points to a serious insider-outsider problem. For the majority of the labour force, which is largely unaffected by unemployment, there is little incentive to take into account the effects of their wage claims on the minority facing a higher unemployment risk. This insider-outsider phenomenon is reinforced by the fact that the marginal economic costs of unemployment are borne by the government and not by the labour market partners.

The fact that the rate of long-term unemployment is high, especially among women and the unskilled, may be linked to the relatively high rate of minimum payment (guaranteed wage) and a high replacement ratio for the lower paid (90%) [2]. Moreover, the unemployed continue to be entitled to benefits for a very long period. Thus, the incentives to prolong search periods are higher for the lower paid than for the higher paid.

The current high rate of unemployment and the relatively generous scheme of unemployment payments comprise a significant share of public expenditure. Although spending on labour market programmes, such as training, represents only slightly above 1% of GDP (approximately the same as spent in Germany, Netherlands, Belgium and France), total expenditure on unemployment amounted to 5 ½% of GDP in 1988, by far the highest level in the Community.

1) It should be underlined that this tax increase was an important factor behind the fiscal consolidation, which contributed importantly to stabilizing the external debt.
2) Compared with other EC-countries, the Danish system combines the highest replacement ratio for the lower paid with the lowest for the highest paid.

1.3.4 Inflation, unemployment and the current account balance:evidence of changes in supply conditions

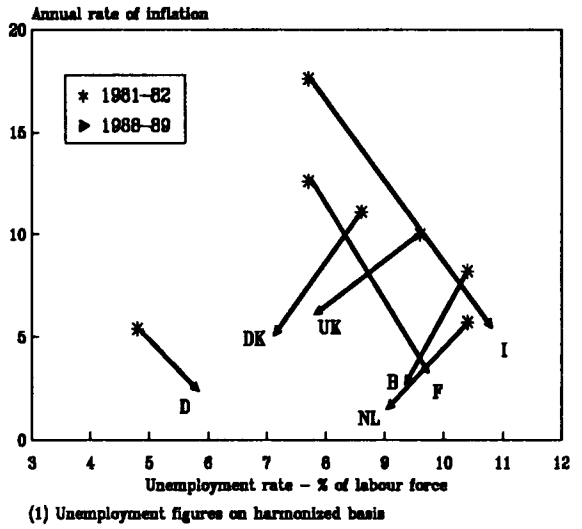
The significance of structural changes is to improve the capacity of the economy to reduce imbalances, chiefly by altering the behaviour of agents. This may be achieved directly by changing the institutional framework of the economy or indirectly by changing the macroeconomic policy regime. Of all the Danish policy initiatives taken during the 1980s, the tax reform of 1987, involving a reduction in the highest marginal income tax rates and a simultaneous broadening of the tax base, should be mentioned as an important institutional adjustment to directly influence economic behaviour [1]. However, changes in policy regime undertaken at the beginning of the 1980s, implying a hard currency stance and fiscal tightening may have been even more important.

While a formal test of structural improvements presents many difficulties, some indications of aggregate effects are provided by the simultaneous evolution of inflation, unemployment and the current account balance. Hence, in this context a structural improvement is defined as an increase in the capacity of an economy to simultaneously reduce major economic imbalances. Thus, by expanding the production potential of an economy through structural reforms, unemployment may be reduced at an unchanged current account balance and non-accelerating inflation. However, changes in the international environment may also improve the conditions for simultaneously reducing major economic imbalances at low rates of inflation. Such changes undoubtedly occurred in the course of the 1980s with falling prices of raw materials (notably oil) improving the terms of trade and accelerated world trade. The latter tended to reduce the costs in terms of unemployment of correcting a deficit in the current account balance. However, improvements of the latter type may be considered less genuine as they may not facilitate a durable rise in the productive capacity. In the following, we first inspect the simultaneous developments in unemployment and inflation and then in unemployment and the current account balance.

Inflation and unemployment

In an inflation/unemployment diagram one would expect short term demand induced movements to occur along negatively sloped lines (the short term Phillips curve trade-off). However, in the longer term, as behaviour of agents changes, the short term trade-off is likely to shift. Thus, an anti-inflationary strategy may initially lead to higher unemployment, but could subsequently moderate wage behaviour thereby causing a shift closer to the origin. Such a jump may be said to represent a policy-induced structural improvement as it simultaneously reduces major macroeconomic imbalances. The more flexible the economy the faster this process will be.

Graph 7: Inflation and unemployment (1)
Change from 1981-82 to 1988-89



(1) Unemployment figures on harmonized basis
Source: Commission services

Supply-side improvements in general are expected to show up as movements towards the origin i.e. the same level of unemployment (inflation) may be achieved at a lower level of inflation (unemployment). Therefore, if genuine structural improvements had significant effects during the 1980s we should see decisive movements towards the origin (reinforcing the effects from the more favourable international environment).

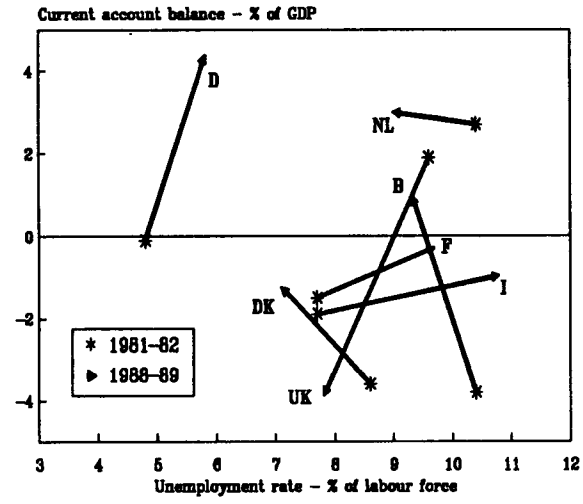
On calculating the average value of inflation and unemployment in 1981-82 - years with high oil prices and low world trade - as well as in 1988-89 - years characterized by the opposite situation - one sees a clear move towards the origin for Denmark, Benelux and the UK. Germany, France and Italy, however, are unlikely to have achieved decisive improvements beyond those given by the more favourable international environment.

Unemployment and the current account balance

In a current account/unemployment diagram, one would expect short term changes in demand to be reflected in movements along a positively sloped or vertical line. A drop in the saving propensity would reduce the current account balance (saving-investment gap) and at the same time tend to reduce unemployment. If unemployment does not fall, it could indicate that the economy operates close to its capacity limit. In this case, the economy

1) Also the abolition of the wage-indexation scheme belongs to this category.

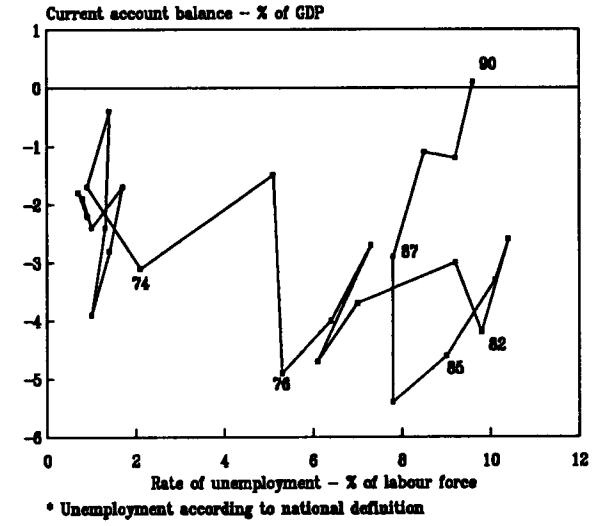
Graph 8: Current account balance and unemployment * Change from 1981-82 to 1988-89



(1) Unemployment figures on harmonized basis

Source: Commission services

Graph 9: Current account balance and unemployment * 1964-1990



* Unemployment according to national definition

Source: Commission services

would move along a vertical line as higher wage-inflation would prevent domestic production from rising.

Supply side improvements, on the other hand, will shift the "demand trade-off line" horizontally, i.e. lower unemployment could be achieved at a given current account balance.

From this analysis, also, it may be concluded that Denmark, the Netherlands and Belgium have gained relative to other high income Community countries during the 1980s - they have all moved towards the more favourable position of Germany (on the basis of the macroeconomic variables observed). It would be tempting to conclude that these structural improvements are largely the result of the hard currency strategies lately embarked upon by these countries i.e. the linkage to the D-Mark, and more importantly that the consequences of this strategy have been recognized by economic agents. In this respect, it is notable that information on pay rises in Germany has become an increasingly important input for wage negotiations in the Benelux countries and Denmark.

A more detailed inspection of the current account/unemployment development through the 1980s in Denmark (see graph below), reveals that major structural achievements took place in the years 1986-87, presumably facilitated much by lower oil prices. Moreover, the graph shows that the short-term trade-off observed during the first half of the 1980s was not different from the one observed during the late 1970s, suggesting that no important structural improvements materialized before expectations broke down in 1986. In the late 1980s, however, the trade-off may have become slightly steeper, indicating a lower cost in terms of unemployment of an improvement in the current account balance [1].

In total, there seems to be evidence for some improvement in the underlying structure of the Danish economy in the second half of the 1980s, which could be ascribed to the important change in policy regime in the beginning of the 1980s, implying a hard currency stance and tight fiscal policy (imposing disciplined behaviour and reducing inflationary expectations). But also the tax reform of 1987 played a role as it facilitate a more efficient allocation of resources.

1.4 Macroeconomic responses to the current account

While the widening of the current account in the mid-1980s may have partly reflected initial over-optimism about supply prospects, the question of whether a different macroeconomic policy setting would have produced a better ex-post set of results cannot be avoided. From the point of view of policy to maintain internal balance, it makes little difference whether a current account disturbance and subsequent adjustment to it are intertemporally optimal or not; this is a question for fiscal and structural policies. What is important for stability-oriented policy is the extent to which the factors creating

1) For a debtor country like Denmark, a rise in international interest rates tend to push the short-term trade-off schedule rightwards. Thus, the interest rate hikes of the late seventies and the beginning of the 1980s, served to reinforce the effects of the higher oil prices in 1981-82.

such disturbances also produce successive periods of overheating and recession.

Unfortunately, Denmark suffered overheating in the deficit-widening phase (with very tight labour market conditions that inevitably, albeit with the usual lag, produced very high wage settlements in 1987), followed by a long stagnation and sharply-rising unemployment. A policy of higher interest rates during the 1983-86 period, followed by a relaxation of monetary policy thereafter might have produced an initially less dramatic but more durable economic upswing, greater selectivity in the timing of investment projects both by firms and by households and higher ex-post returns on those projects. However, in order to obtain greater disinflationary credibility, the Danish authorities had after 1982, through abandoning the exchange rate as an instrument, ruled out the possibility of significantly greater **monetary policy** flexibility.

Fiscal policy is clearly shown by the Danish experience to have severe limitations. Even the sign of the impact of fiscal policy appeared to change during the course of the 1980s (see Box 1.3 on fiscal policy). Moreover, even when it did appear to have the conventionally-expected impact (damping activity in 1986-1987) its exercise as an instrument of stabilization was inevitably constrained by the intertemporal allocation and supply-side considerations proper to the conduct of fiscal policy.

As for **income policies**, experience in a large number of countries most recently Portugal - tends to show that they can be self-defeating in an upswing (to the extent that they initially succeed in restraining wage increases, they improve or maintain competitiveness at a level that contributes to overheating, a widening of profit margins, a tightening of the labour market and ultimately a "catch-up" in wages). In the downswing, evidence on the ability of incomes policies to have an effect independent of those of other macro-economic policies, including exchange-rate policy, is mixed.

In sum, given the constraints on a limited effectiveness of macro-economic policies, the pronounced and in many ways unfortunate cyclical experience of Denmark during the 1980s may have been inevitable; in the face of an intially favourable shock to private sector expectations, the cyclical swings in performance could only have been avoided by substantial structural reforms (early implemented), e.g. aimed at greater labour market flexibility.

1.5 Conclusions and implications

Denmark's current account is at last back in surplus after 26 consecutive years in deficit; the budget, although no longer in surplus, shows a deficit below the average for the Community or even for the original members of the narrow band; and Danish inflation is, and seems likely to remain, among the lowest or even the lowest in the Community. These are indeed very important achievements. However, growth and employment performance especially during the second half of the 1980s has been somewhat les positive. This salient feature of recent experience indictes a risk in relation to the country's recent progress in convergence.

The inflation indicator, in particular, may prove to be somewhat misleading. If growth is to be restored and unemployment reduced while domestic demand remains weak relative to trend output (so as to create the current account surplus required to reduce excessive external debt) the trend in Danish costs and prices must remain **below** those in partner countries given the exchange-rate constraint.

All in all, the important achievements on inflation and the current account balance are to some extent results of low growth and high unemployment. Nevertheless, some structural improvement appears to have occurred in the late 1980s, illustrated by a relatively more favourable trade-off between inflation and the current account balance on the one hand and unemployment on the other. It is suggested that the change in the policy regime in the early 1980s, implying a hard currency stance and tighter fiscal policy as well as the 1987 tax reform played a major role in this relatively favourable development.

For other Community countries, perhaps the main lessons of the Danish experience of the 1980s - mirrored, in some respects by UK experience - concern the response of macro-economic policy management to the current account and inflation implications of initially favourable shifts in private sector confidence. The extent of the increase in domestic demand resulting from those shifts may or may not be justified. However, the primary concern of governments should not be with the current account consequences of improved private sector confidence. The first concern should be to ensure that future supply rises sufficiently to service the external debt (or reduction in external assets) and thus validate the initial increase in demand. Good supply-side policies are an essential element in responding to the emergence of, or widening in, a current account deficit. Nevertheless, stability-oriented macroeconomic policies also have a role to play. However justified an increase in private sector consumption and investment demand may be ex ante, the initial impact is likely to put additional pressure on available productive resources, as additional demand precedes additional new capacity. If policy is not sufficiently vigilant, additional pressure of demand on resources may lead to accelerating inflation. Accelerating inflation, if it is to be reversed or even contained, brings recession in its train. In other words, the phase of current-account deficit reduction will be accompanied by an **underutilization** both of labour resources and of capital, including capital newly installed as a result of the initial burst of optimism. Inevitably, aggregate real income and rate of return expectations will fail to be realized. Households will find themselves overstretched and firms will conclude that their investment resources have been wasted on unprofitable projects. Financial constraints, loss of capacity and, if hysterisis is present, permanent supply side losses may result.

Box 1.1: IMPACT OF GERMAN UNIFICATION ON THE DANISH ECONOMY

For a number of reasons German unification is likely to have a greater impact on the Danish economy than on most other EC economies:

**Denmark is the Community country geographically closest to the new länder, even closer than some of the West German länder. This may prove a vital competitiveness factor, notably for exports with a high services content. This may also prove important for tourism.*

**The industrial structure of Denmark is in some respects similar to that to which the new länder may aspire; a relatively large agricultural sector and associated industries to manufacture the agricultural products and equipment for use in the sector. During the phase of reconstruction, Denmark could be an important supplier of equipment and know-how to these industries.*

**Denmark holds a competitive advantage in a number of products which are likely to be in high demand in the new länder. These include:*

-food products

-equipment for the agricultural sector

-residential and infrastructural construction

-equipment and know-how for pollution control.

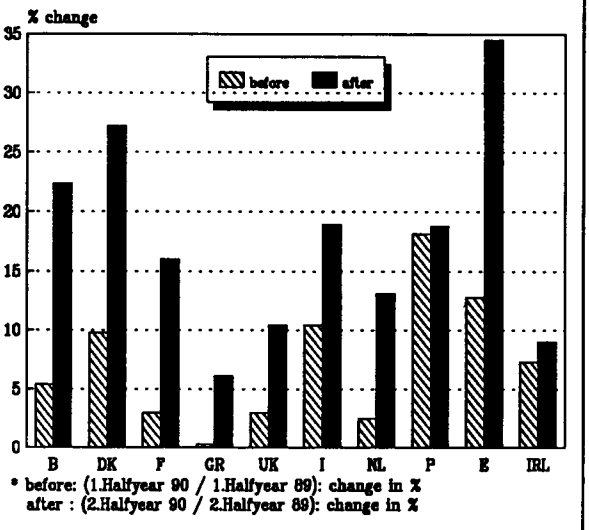
**After years of low economic growth, Denmark has substantial excess capacity within a number of sectors and industries e.g. the construction sector. Therefore, delivery time may be shorter for Denmark than from competitors. As the new länder seem to be aiming for a swift reconstruction this could prove an important advantage in competition.*

**Major effects of unification will be directly and indirectly transmitted through the former West Germany, which constitutes the single most important export market for Denmark, comprising about one fifth of all merchandise exports.*

**On the financial side, the DKR is pegged closely to the DM and capital markets are highly integrated. The increase in interest rates initiated by the unification will therefore have some negative effects on economic activity and the current account balance. The fact that Denmark has a large external debt - a substantial part of which is denominated in DM - makes this a rather important aspect of the unification process.*

The hypothesis of stronger "unification effects" for Denmark than most other countries is to some extent confirmed in the Bundesbank trade statistics up to December 1990.

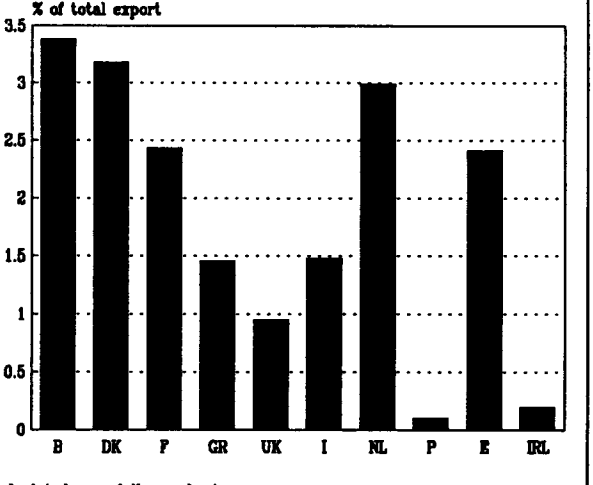
Graph 10: Growth of export to Germany before and after unification*



* before: (1.Halfyear 90 / 1.Halfyear 89): change in %
after : (2.Halfyear 90 / 2.Halfyear 89): change in %

Source: Deutsche Bundesbank

Graph 11: Additional exports to Germany after unification, as % of total exports*



* calculated on a full year basis

Source: Deutsche Bundesbank

Whereas exports to Germany grew by some 10% in nominal terms from the first half of 1989 to the same period of 1990, the growth rate was some 27% in the six months to December 1990. Such an acceleration would translate into a full year effect on total exports of more than 3%, approximately

the same effect as calculated for the Netherlands and Belgium.

On the assumption that Denmark will achieve at least the same market share in the new länder as in the former West Germany, a simulation has been run [1] to trace the principal macroeconomic effects on Denmark of German unification for the years 1990-1992. The assumed profile of the boost to exports is consistent with the latest DG-II forecast for Germany [2].

Regarding interest rates, it is assumed that long-term DM rates are some 2 percentage points higher due to German unification. For all other ERM currencies interest rates are assumed 3/4 percentage points higher. Finally non-ERM interest rates are assumed unchanged. For the average rate on the Danish foreign debt, this would mean a 3/4-1 percentage point increase assuming that the currency composition of the external debt is unchanged [3].

The effects shown in the table above indicate that German unification would not be expected to lead to any strong improvement in the current account balance. Even though the balance of trade in goods and services may improve by some 4 bn DKR (0.5% of GDP) in the three years to 1992, the current account balance could improve by less than half of this amount, due to higher interest payments on the external debt.

Economic effects on Denmark of German unification

	1990	1991	1992	1990-92
	Annual % change			
Exports	1.0	2.5	0.6	4.1
GDP	0.4	1.0	0.5	1.9
	bn DKR			
Balance of trade in goods and services	1.1	2.2	0.7	4.0
Net interest payments	1.1	1.3	–0.1	2.3
Current account balance	0.0	0.9	0.8	1.7
	1000			
Employment	5	18	14	37

Most importantly, the simulation indicates that unification may lead to higher output and employment. Thus, output could be some 2% higher in 1992 than without German unification while some 37000 additional jobs may have been created (1.3% of the labour force).

1) With the official macroeconomic model of Denmark, ADAM.
2) Due to unification, the volume of exports to Germany are assumed to increase by 5% in 1990, 12% in 1991 and 3% in 1992.
3) Recent balance of payments statistics show less acceleration in net interest payments than expected which could be due to some portfolio reallocation.

Box 1.2: MONETARY POLICY: STRATEGY, STANCE AND PROSPECTS

Strategy

In 1982, the Danish authorities opted for a hard currency **stance** *as a central element of the new economic policy regime. The primary aim of monetary policy - assuring price stability - was thought to be best served by adopting the strategy of "tying one's hands" and, to lower the adjustment costs in the process of disinflation, by borrowing the Bundesbank credibility. From 1983 to the beginning of 1987, the DKR has kept an intermediate position between the ECU and the DM (it appreciated somewhat against the ECU and depreciated somewhat against the DM); since then the DKR has been effectively pegged to the DM and fluctuations against the ECU have been accepted.*

In an environment of highly liberal capital movements, exchange-rate stability has to be guaranteed by the interest-rate differential vis-à-vis other ERM currencies, with the spread being a function of credibility of the exchange-rate commitment (leaving aside the short-term possibility of changing the liquidity position). Improving credibility has, therefore, become a primary policy aim.

Over the 1986-90 period as a whole, short and long-term interest rate differentials against the DM more than halved, indicating that markets increasingly believe in Denmark's exchange-rate commitment. The gain in confidence is also reflected in a decrease in the volatility of short term interest rates. This gain in credibility should be seen as the result of Denmark's firm exchange rate policy, particularly on occasions when markets feared that the hard currency stance would possibly not be politically bearable. From 1985 to early 1988, uncertainty about political developments appear to have dominated market feelings. During the low-credibility period, the interest-rate spread vis-à-vis Germany remained at levels above 4 percentage points, with a peak in early 1987 in the context of the last realignment in the EMS. After May 1988, when the ruling government was confirmed in power by a parliamentary election, the spread against German rates dropped sharply to below 2 percentage points. It seems likely that the short and long-term differential will narrow further in the near future: provided that the hard currency stance is continued, Danish inflation will remain below that of Germany.

However, Denmark's exchange rate credibility is far from perfect as can be seen in times of tension within the ERM. In such periods, the markets still look at the DKR as a potential candidate for depreciation. This was obviously the case early in 1989, when the Bundesbank favoured a DM revaluation and the differential increased again to some 4 percentage points with the DM by the end of the year (some 2 percentage points with the ERM). The mistrust may be explained by lingering memories of Denmark's unfavourable inflation performance and external constraint.

Since the beginning of 1989, the spread has again narrowed considerably with German rates (to some 1½ percentage points) and to virtually zero with the ERM. Inflationary pressures in Germany and uncertainty about the implication of German unification may partly explain this development, but the main contributing factor is clearly the deceleration of unit labour costs in Denmark. This deceleration is a already a great achievement; however, to convince markets that the difficulties of the past have been permanently overcome, increases in wage costs and prices will need to remain below those in Germany for some time.

Stance

The Danmarks Nationalbank has only limited room for independent monetary policy action, and policy moves are dominated by developments in the ERM and to a certain extent by the Bundesbank. However, monetary policy has not always strictly followed the Bundesbank, rather the Danish authorities have always tried to find the appropriate monetary policy response within the given constraints, which have been tested from time to time. The close link to the DM has been a problem for Danish competitiveness at times when the DM appreciated against Sterling and the USD. The question has been raised whether the DKR-DM is an optimal currency area. However, the problem has been eased by the increasing integration of the Danish economy into the Community market, the entry of Sterling into the EMS and the increased linkage of the other Scandinavian currencies with the DM.

In Denmark, as in other small open economies, the interpretation of aggregates is not easy and monetary aggregates may not necessarily be a good predictor of economic developments. The analysis here is based on market indicators: yield curve movements, interest-rate spreads and the effective exchange rate. In addition, significant reserve flows may serve as an indicator of whether Denmark is approaching its limits of independent policy action.

- *In 1985, the normally sloped yield-curve moved down quite remarkably and at the same time flattened somewhat. The interest-rate differentials from the DM and the ERM average are volatile during the first half of the year, but the overall tendency was rather flat, with spreads between 4 – 5 percentage points against the DM and around 3 percentage points against the ERM. Denmark followed the international trend towards falling interest rates. The effective DKR exchange rate appreciated significantly. Within the ERM, the DKR was appreciated by 0.15 % on 22 July and remained in the upper half of the band over the year. With the benefit of hindsight it may be said that an overall tightening of economic policy would have been appropriate in 1985: this would have cut the cyclical peak and probably have helped to prevent inflationary pressures in the following year. However, there was not much room for an independent monetary tightening, given that reserve flows were already strong and positive.*
- *In 1986, the yield curve turned upwards with interest rates at the short end virtually unchanged. The significant steepening of the yield curve indicates that markets were expecting a higher future inflation rate. While the interest-rate spread with Germany remained at its high level between 4-5 percentage points, the differential with the ERM and the USA increased sharply from levels of around 1.5 percentage points to some 4-5 percentage points. The nominal effective exchange rate appreciated significantly*

and within the ERM, the DKR appreciated by about 4% in two realignments. Given the strong reserve outflows, in particular at the beginning of the year, a further monetary tightening would have been feasible. However, the economy was already slowing and, in the context of unfavourable current account developments, a further appreciation of the DKR might have been considered too strong a burden for the exporting sector. Nevertheless, a tighter stance could possibly have deepened the coming recession but perhaps also speeded up the adjustment process.

- *In 1987, short-term rates jumped at the beginning of the year when the Nationalbank raised rates in the money market in conjunction with foreign exchange unrest. Markets had expected a significant depreciation of the DKR, which turned out to be only minor at -0.45 % in the last realignment in the EMS on 12 January. Interest-rate differentials to Germany and the ERM peaked at 7 and 5.5 percentage points respectively. During the year, spreads came down again towards the levels of the previous years. The international reaction to the October fall in share prices also influenced Denmark's interest rates. Massive reserve inflows gave the Nationalbank some degree of freedom to induce money market rates to fall faster than abroad. The general monetary loosening in the last quarter of 1987 was welcome at a time when the Danish economy was in recession.*

- *In 1988, Denmark's interest-rate pattern deviated from the international one: short-term rates were rather stable while long-term rates were falling in the second half of the year, the yield curve moved downwards and flattened. The differential with Germany halved to a level of some 2.5 percentage points and vanished with respect to the ERM. These developments were due to the continuing stagnation of the Danish economy, while there was an upswing abroad. Considerable net Krone bond sales (to non-residents) supported the drop in interest rates and the country's external liquidity situation improved further. The effective exchange rate continued to fall over the year. Overall, monetary conditions were expansionary and there may even have been some room for further easing. Given the weak economy the easing was welcome and made possible by continuing wage moderation and a tight fiscal policy.*

- *In 1989, a steep rise in short-term rates led to an inverted yield curve for the first time in the 1980s. The general international monetary policy tightening had only a very weak impact on the Danish bond market, confirming that the market expected the inflationary trend to be only temporary. The limits of independent monetary policy were tested twice in 1989. The DKR reached the lower intervention point before Easter and on 13 October. In both cases speculation against the DKR (initiated by rumours about a realignment, in response to political pressures for a DM appreciation by the Bundesbank and significant reserve losses, in particular in October when Denmark's net international liquidity reached a bottom level of 38.6 bn Kroner) forced the Nationalbank to tighten even more than in other countries. The interest-rate spreads widened again, from some 1.5 to near 4 percentage points against the DM and from virtually zero to 1.5 percentage points against the ERM.*

After three years of prolonged stagnation in the economy ,there were signs of a weak recovery. However, the stance of monetary policy was probably too tight from the viewpoint of national economic development and the significant appreciation of the effective DKR rate was detrimental to the country's external performance. Given the slow growth of unit labour costs, which came down from 4½% in 1988 to 2 % in 1989, inflationary pressures were already on a declining trend.

Prospects

Denmark may have little **control** *over monetary aggregates, but their movements may still be significant although a simple direct causal link between growth in money supply and inflation cannot be established. In the early 1980s, various rounds of speculation took place against the DKR, which was generally expected to be devalued, and there were important capital flows out of the country. Instead of devaluing the currency, however, the government adopted a draconian program of fiscal retrenchment and non-accommodating monetary policy, as described above. At the same time, exchange controls were removed; restrictions on capital inflows were abolished immediately, and controls on outflows were phased out over two years. The result of all this was a reversal of the expectations and a renewal of confidence, and hence, large capital inflows. Consequently, the M2 monetary aggregate grew at a rapid pace in the subsequent years, with a 25.4% increase in 1983 and a 17.8% increase in 1984. The speed of money growth and the extent of the fall in interest rates undoubtedly cushioned the impact of fiscal contraction, but overall the exchange rate commitment in this period probably contributed to easier monetary conditions than desirable. In 1986, the sign of the external constraint was reversed in the sense that maintaining equilibrium in the foreign exchange market would have required a tighter monetary policy stance than was desirable for domestic reasons. A similar dilemma may have occurred in 1991.*

The increased credibility in the hard currency stance and the possible move of the EMS towards irrevocably fixed exchange rates, may diminish the role of expectations about the risk of exchange-rate adjustments. In view of this future, Denmark has committed itself to **target domestic money creation**. *Targeting a monetary aggregate in a small open economy with free capital movements and internationally integrated markets is justified in the framework of a common European monetary policy. The aggregates monitored so far include DKR as well as foreign currency deposits and are thus not appropriate. However, the Nationalbank has recently compiled an appropriate aggregate that could be targeted.*

Although targeting the domestic counterparts of money creation may become crucial in the cooperative setting of monetary policy in Stage 1 of EMU, such targeting will have to be applied flexibly and does not of course itself increase the limited scope for using monetary policy for domestic stabilization policies.

Box 1.3: FISCAL POLICY: MEASURES AND IMPACT

Fiscal policy was tightened substantially from 1983 to 1986 both by cutting expenditures and by increasing taxes [1]. *The share of expenditures in GDP fell by some 4½ percentage points, partly due to cyclical effects, but also because public consumption as a fraction of GDP was reduced. In 1984, public consumption even fell in real terms (for the first time for decades). In the same period government total receipts rose by some 5% of GDP as both direct taxes and indirect taxes increased.*

From 1983 to 1986, corporate taxes rose more than threefold reflecting strong profits. For financial institutions, capital gains (or losses) on stocks are put up front immediately. Hence as long-term interest rates fell substantially in the mid-1980s, important capital gains were recorded, boosting profits.

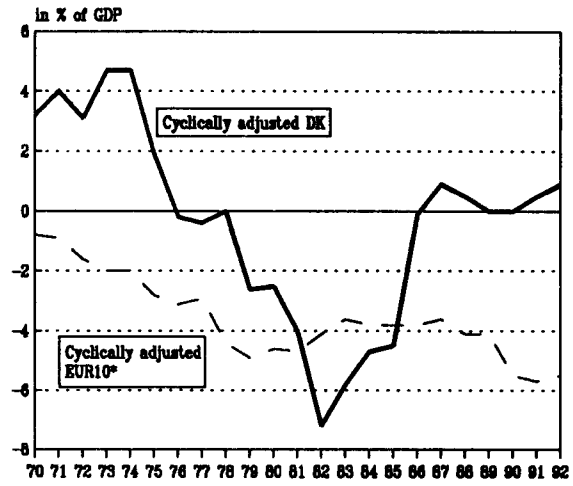
Another important source of increasing revenue was the tax on real interest incomes introduced in 1984 [2]. *Already in 1986, the "real interest-rate tax" raised a net revenue of more than 1% of GDP. This tax is very interesting for two reasons. Firstly, it explains a significant part of the improvement of the public finances. Secondly, it is unlikely to have influenced private sector behaviour substantially. The tax collection is administered by the pension funds and banks and many pension savers are not even aware that they pay the tax.*

The revenue from indirect taxes rose somewhat in 1986. Against the background of a strongly deteriorating current account balance in the spring of 1986, it was decided to counterbalance the boost to real disposable incomes of the falling oil prices by increasing energy excise duties.

The experience with fiscal policy during the first half of the 1980s has been quite remarkable as the significant fiscal tightening of 1983-1986 did not depress demand. On the contrary, economic growth accelerated strongly from some 2½% in 1983 to more than 4% in 1985. The combination of tight fiscal policy and strong economic growth led to an exceptional turn around in the public sector balance from a deficit of 7% of GDP in 1983 to a surplus of 3½% of GDP in 1986.

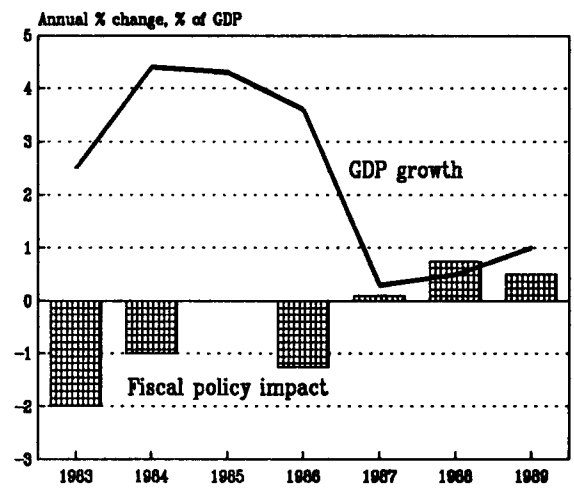
Fiscal policy was somewhat more lax in 1987-1989 than in the previous three-year period [3]. *The looser fiscal policy could primarily be ascribed to increased transfer payments and compensation of employees (the wage accord of 1987 gave public employees an extra payment due to* **deferred** *salary increases from the previous period). The combination of lower economic activity and fiscal loosening caused the public sector balance to move back into deficit in 1989.*

Graph 12: Cyclically adjusted public sector balance



Source: Commission services * EUR10 = EUR12 excl. GR and P
Commission Forecast (Nov 1990)

Graph 13: Fiscal policy impact on GDP 1983 - 1989



Source: Commission services,
Finansredegoerelsen, 1990

1) The direct negative impact on GDP of fiscal policy may be assessed to have been of the order of some 4.5 % from 1983-1986, Finansredegoerelsen 1990.
2) This tax allows pension savers to get a return of 3.5 % plus the annual rate of inflation with the government "creaming off" anything which is left.
3) The cumulative impact on GDP may be estimated at some 1%, Finansredegoerelsen, 1990.

From the Danish experience with fiscal policy in the 1980s it may be deduced - as is the case also for the UK - that one cannot easily predict the overall effect of fiscal policy on economic activity. When fiscal policy was tightened substantially in 1983-84, contrary to conventional wisdom, GDP growth accelerated strongly to above 4%. However, when fiscal policy was further tightened in 1986 the annual growth of GDP decelerated and even showed a negative figure in 1987.

To understand this development one has to look at changes in monetary conditions which might have been induced by fiscal policy. In 1982, the government abandoned the use of the exchange rate as a policy instrument and thereafter embarked upon a policy of liberalizing capital movements. This meant that any change in exchange rate expectations would have stronger repercussions on capital movements and interest rates than before. In 1983-84, the interest rate spread against the DM narrowed substantially indicating higher exchange rate credibility. To the extent that this change in expectations was triggered by the fiscal tightening, the overall effect on economic activity of the latter was positive. By contrast in 1986-87, the interest rate spread against DM widened again signalling fading exchange rate credibility, reinforcing the conventional fiscal policy effects. Therefore, even the sign of the fiscal policy effects may at times be difficult to estimate.

By changing rules and/or the structure of taxes, fiscal policy may change incentives to save and invest and thereby affect economic activity. The exact effects may be difficult to estimate in advance. The chief element of the tax reform of 1987 was a lower tax rate on net interest incomes; the marginal tax rate was reduced from about 70% to about 50%. This reduction diminished the incentives to purchase consumer durables on credit. Also it had a negative effect on residential investment by reducing the effective subsidy on housing. Taxation on nominal interest rates leads to an increasing tax burden on real interest incomes, at higher rates of inflation. However, as inflation had been reduced substantially from two digit figures in the beginning of the 1980s to some 3-5% in the mid 1980s, real rates after tax had already increased substantially before the tax reform was implemented; in this respect the tax reform was of secondary importance [1]. Nevertheless, the signal effect was strong and may have persuaded households that the rewards from saving had actually increased considerably. This effect was reinforced by the 20% surcharge on interest payments on consumer credit, introduced in the autumn of 1986, but abolished at the end of 1989. Undoubtedly, these are major contributing factors to the low growth rates of the years 1987-89.

1) Apart from reducing the tax burden on real interest rates, the tax reform also reduced the marginal tax rate on labour incomes from 73% to 68%, while broadening the tax base. Therefore, the reform also had important effects on the allocation of labour.

CHAPTER 2

CURRENT ACCOUNT PERFORMANCE AND EXTERNAL DEBT

Introduction

The external deficit has been one of the most debated issues in Danish economic policy for decades and external targets have strongly influenced macroeconomic policies. Nevertheless, a significant current account deficit has persisted for a quarter of a century leading to a mounting external debt, which, although the current account balance has at last moved into surplus, will continue to constrain economic policies in the medium term.

The present chapter sets out to explore the persistence of the current account deficit during the 1970s and 1980s from various angles and is organised as follows. In the first section, the development of the current account balance is assessed by exploring its main elements, notably exports and imports. This conventional assessment tends to set the policy focus chiefly on external competitiveness which is defined broadly as comprising relative factor costs as well as the composition of products and markets. In the second section the relevance of monitoring the current account balance is discussed. We conclude that special attention should be given to the effects of the fiscal system on the investment and saving decisions of the private sector. Thus, in the third section, saving and investment behaviour is analysed at a sectorally disaggregated level. Finally, section four gives a brief description of the current account balance and the accumulation of external debt during the last two decades. This section aims at assessing the requirements for, and costs of, stabilizing and reducing the external debt.

2.1 External performance: a conventional assessment

2.1.1 Pattern of trade

After entering the Community in 1973, the direction of Danish exports changed in favour of the EC countries. Nevertheless, the share of non-Community trade in total trade remains important. Whereas some 45% of exports went to EC countries in 1973-74, the share was some 50% in 1980 and was unchanged in 1989. Germany is by far the most important single market for exports with a share of about one fifth of total. Until the late 1970s, the UK enjoyed this position.

While the Community increased in importance as an export market for Denmark, the other two Scandinavian countries, Sweden and Norway, decreased in importance. But, Scandinavia remains very important for Danish exports, with a share of slightly less than one fifth of the total in 1989. In the Community context, Denmark is unusual in having relatively large and increasing export shares in Japan (some 4% of total exports). In fact, a bilateral trade surplus was recorded with Japan in 1988 and 1989.

Regarding product composition, Denmark stands out as a very important food exporter. Agricultural exports comprise one quarter of all goods exported and manufactured food products almost 30% of all industrial exports. This heavy specialization in food products is often considered to be disadvantageous as the growth of markets for these products is relatively low and food production does not involve high technology.

Other important export products are agricultural and industrial machinery (13%), chemicals (10%) and wood & furniture (7%).

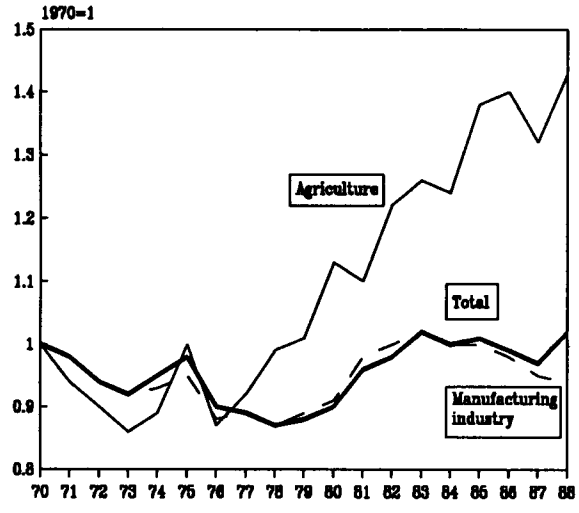
Exports of services are also very significant in Denmark, which has the second largest merchant fleet in the Community (after Greece). Although the revenue from shipping has declined in importance, it still represented some 10% of total exports of goods and services in 1989.

2.1.2 Overall export performance

The 1970s saw substantial changes in the (weighted) market shares [1] of Danish industry and agriculture. While accession to the Community in 1973 led to a strong rise in market share for agricultural exports, industry suffered market share losses of some 10% during the decade. Declining competitiveness was a direct contributory factor, while an expansionary fiscal policy reduced the economy's export capacity.

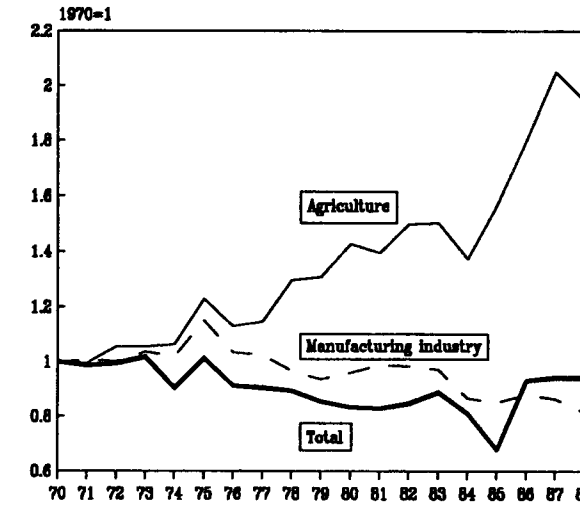
1) i.e. market shares in volume terms given constant weights of exports as regards countries and products. In contrast, unweighted market shares denote the actual share of exports in world imports, both in current prices. The term "weighted market shares" is important because even though all Danish exporters had performed well in their particular markets, overall Denmark could still lose market shares if the particular markets of Danish exporters were growing slower than other markets.

Graph 14: Relative export performance: Weighted market shares



Source: Commission services

Graph 15: Relative export performance : Unweighted market shares



Source: Commission services

In 1979-1982, competitiveness improved substantially due to a series of devaluations within the EMS (see graph 2). The expansionary fiscal policy which was pursued simultaneously prevented the improved competitiveness from having full effects. Thus, only moderate gains in market share were recorded.

The upturn in economic activity in 1983-1986, fuelled by private consumption and investment, led to a tight labour market, bottlenecks and upward pressure on wages. Consequently, competitiveness was eroded in the period 1986-87 and market shares were lost.

For the two decades as a whole, the weighted market shares were almost constant as losses in industrial market shares were offset by gains in the agricultural sector.

2.1.3 Country, product and price effects

In the longer term, producers should respond to changes in market conditions and direct exports towards the more profitable markets. Therefore, it may be relevant to also look at unweighted market shares in current prices (although industrialised countries normally tend to lose shares in world markets to the fast growing developing countries).

The difference between the weighted and unweighted market shares may be broken down into a country effect, a product effect and a price effect. If unweighted market shares increase faster than the weighted market shares, it may be taken as an indication that producers have responded favourably to changes in market conditions. However, as the unweighted market shares have developed substantially less favourably than the weighted market shares for Denmark, some weakness in the overall competitive position is suggested. One reason for this is that the greater part of Danish exports is directed towards the European market, which has experienced relatively slow growth within the OECD, except for the most recent years. As to the product effect, Danish exports have a relatively high specialization in agricultural exports. Since the markets for agricultural products have shown less growth than the markets for industrial products, this has negatively affected total Danish exports, although both weighted and unweighted shares have risen in these markets.

In the second half of the 1980s, the country and product effects have been more favourable. Consequently, unweighted market shares rose despite some losses of weighted market shares. The positive product effect has mainly been due to relatively strong growth of markets for furniture and pharmaceuticals, which form a significant share of industrial exports.

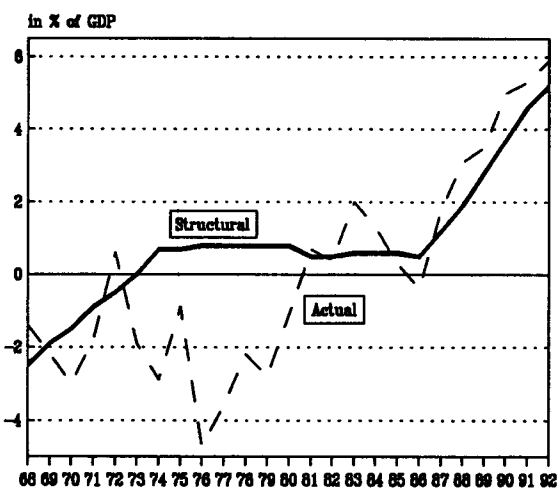
Concerning price developments, Denmark suffered a much sharper fall in the terms of trade during the 1970s than the average of the Community (together with France, Italy and Portugal). During the 1980s, when most member countries enjoyed a rise in the terms of trade (after an initial decline in 1981), Denmark enjoyed virtually no increase. As shown above, this decline in the terms of trade does not have a counterpart in improved competitiveness and strong gains in market shares. The reason for this apparently unfavourable development is that prices of agricultural products (in particular animal products) rose much less than prices of industrial products. Although this lends support to the thesis that Denmark is disadvantaged by its specialization in agricultural products, it overlooks the fact that productivity in the agricultural sector rose much faster than productivity in industry in the past two decades.

2.1.4 The structural trade balance

Exports and imports are not only affected by competitiveness, but also by fluctuations in world demand, domestic demand and terms of trade. Thus, a deficit may be caused by a combination of high domestic demand and low world market growth. In order to separate short term effects on the trade balance stemming from fluctuations in world demand, domestic demand and terms of trade, a small model for the trade balance has been estimated. The structural balance of trade in goods and services is then defined by trended values of these exogenous variables [1]. As shown in Graph 16, the deviation between the structural and the actual balance was quite substantial in the second half of the 1970s. Thus, due to high domestic demand relative to world demand, the trade balance deteriorated by some 3% of GDP. On top of this, the terms of trade shock in 1973-74 caused a deterioration of some 3.5% of GDP [2].

It may be argued that there is no long-term trend in the exogenous variables and in particular the terms of trade. Therefore, one should not attribute too much emphasis to long-term development of the structural balance; instead attention should focus on short-term deviations of the actual balance from the structural balance of trade and services. The analysis underlines that a major reason for the sharp deterioration in the external balance in the second half of the 1970s was strong domestic demand caused by an expansionary fiscal policy. The terms of trade shock of 1973-74, weak world demand and deteriorating competitiveness (indirectly linked to the lax fiscal policy) aggravated the situation. Finally, the increase in real interest rates of the 1980s increased the costs of the fiscal policy stance in terms of necessary future adjustments.

Graph 16: Structural balance of trade and services



Source: Commission services
Commission Forecast (Nov 1990)

2.2 Current account equilibrium: an assessment of its appropriateness

This section provides an assessment of the relevance of external equilibrium - i.e. a balanced current account - as a target for economic policy.

Assuming economies with efficient markets where private agents have perfect foresight and public sector activites are neutral, current account imbalances simply reflect the difference between the optimal intertemporal saving and investment decisions of the private sector. Current account imbalances would mainly result from cross-country asymmetries in:

a. the time preferences of consumers
b. demographic composition
c. growth rates
d. investment opportunities
e. external shocks

In this context all current account imbalances would be equilibrium phenomena and easily financed at the international real rate of interest.

An alternative way of viewing the saving-investment relationship would be to specify saving as the sum of investments and the balance of current transactions. Given the time preferences of consumers in a specific country, aggregate saving may be directed towards domestic investments and/or overseas (financial) investments (or disinvestments). The more is invested overseas, the better will the current account balance perform. Therefore, a current account imbalance may be taken to reflect a preferred way of capital accumulation. This also highlights that a current account deficit need not indicate a deterioration of the total wealth position of a country; and total wealth could easily improve while the current account balance is in deficit.

By collecting taxes and spending the revenues, public sectors most often distort private sector behaviour. To the extent that the fiscal systems differ across countries, current account balances are affected. Key elements in

1) The method has been first used by Otto Eckstein, "The Great Recession with a Postcript on Stagflation", North-Holland, 1978.
2) For the terms-of-trade adjustments, the normalized values are estimated by dummies in order to capture the three important terms of trade shocks (1973-74, 1980 and 1986). Adjustments for these major shocks are then linearly reduced from the initial shock effect to zero over five years. It is this assumption which causes the kinks in the structural balance in 1973 and 1986.

the fiscal system which might lead to current account imbalances would be asymmetries in:

f. taxation of capital

g. business subsidies

h. social security systems, notably the pension system

i. succession duties

By altering the cost as well as the yield of capital, taxation of capital incomes as well as business subsidies tend to distort equilibrium investments. Taxation of capital incomes may in addition change the time profile of consumption over the life-cycle, by affecting consumers' intertemporal rate of substitution. Finally, social security systems and succession duties may, by eliminating motives for saving (i.e. precautionary, pension and bequest motives), not only change the time profile of saving, but the whole level of life time saving. Therefore, the assessment of whether or not specific current account imbalances should be of major concern in economic policy would involve examination of distortionary effects of public sector activities on private sector behaviour. If such distortions are substantial, this could lead to persistent and detrimental imbalances.

The assumptions of perfect foresight and efficient markets may, however, be unrealistic [1]. In particular, the capital market may be unable to assess the default risk of single enterprises properly; and the current account balance is therefore often used as an indicator of supply problems. Thus, the rate of interest at which the single firm or the government can borrow depends on the size of the external debt (over which the single firm exercises no control). A current account deficit, therefore, could be a negative externality for the individual firm.

In summary, the current account balance conveys important information for policy makers. Furthermore, although public sector deficits may be of special relevance for the assessment of the external balance, the possibility of a sub-optimal level of private sector debt should not be excluded.

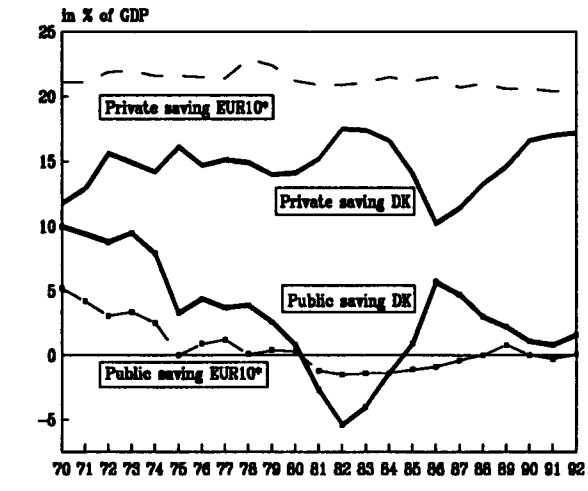
2.3 Saving-investment balance and the current account deficit

By definition the excess of export earnings over import and net factor payments must equal national saving less national investment. A study of the investment/saving balance serves to widen the policy focus with respect to the current balance as external competitiveness would no longer be seen as a unique determining factor

2.3.1 Evolution of saving and investment: an overview

The persistent current account deficit may primarily be ascribed to low national saving. Public saving has been higher than the average of the Community during both the 1970s and the 1980s except for a few years at the beginning of the 1980s. Private saving, on the other hand, has been significantly below the Community average during the whole period.

Graph 17: Gross saving on sectors 1970 - 1992



Source: Commission services Commission Forecast (Nov 1990)

* EUR10 = EUR12 excl. GR and P

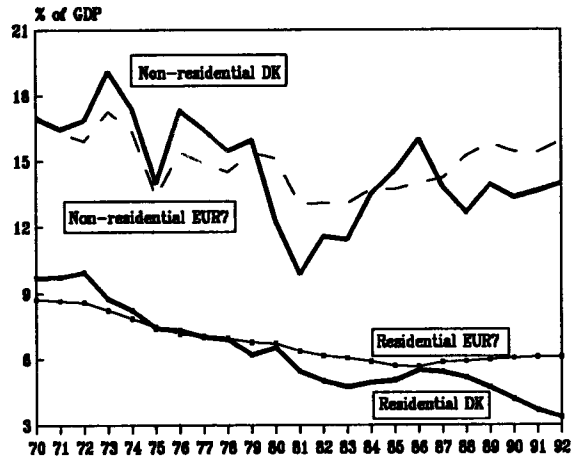
In the 1970s, the share of investment in GDP was no higher than the Community average; however, in the 1980s the share has been somewhat lower than average. A more detailed inspection of the investment data reveals that residential investment was significantly higher in Denmark until the mid-1970s, but lower in the 1980s. This should be seen in the context of much lower population growth; while the Danish population grew by a total of some 4% during the two decades, the population of EUR12 rose by some 8%.

Non-residential investment in Denmark has been slightly lower than the Community average [2] during the two

1) It might be argued that the assumption of perfect foresight and a full set of efficient markets contradicts the notion of no Ricardian equivalence underlying this analysis; if agents hold perfect foresight regarding private sector decisions, why do they not hold perfect foresight regarding public sector decisions? However, it need not be a contradiction. As private agents may be unable to assess whether current public lending will lead to higher taxes within their expected life-time or not, they may not fully discount future tax increases in their saving decisions.

2) Due to lack of data for EUR 12, Graph 18 shows EUR 7 (D + F+ I + UK + NL + B + DK).

Graph 18: Investments* 1970 - 1992



Source: Commission services
Commission forecast (Nov 1990)
EUR 7 = (D+F+I+UK+NL+B+DK)

* Residential investment : value added in sector of residential construction

decades. This is in line with expectations because the catching-up of the southern member countries is characterized by high investment.

In summary, the salient features of the saving/investment pattern during the last two decades are 1) very high residential investment during the 1970s followed by a sharp reduction in the 1980s and 2) low private saving throughout the whole period.

2.3.2 Determinants of sectoral saving/investment behaviour

The welfare state

The Danish state provides social security for its citizens to a larger extent than many other Community countries; risks, which in other countries are largely borne by individuals, are borne by the State. This reduces the motivation for precautionary savings. At the level of the individual, however, these welfare risks have not disappeared, but have merely been transformed into a risk of higher taxes. Moreover, as concluded above, individuals might underestimate this risk, and so negatively affect the level of savings. Welfare states, therefore, should seek a higher level of public savings (or a lower level of public debt) to avoid a reduction of national wealth.

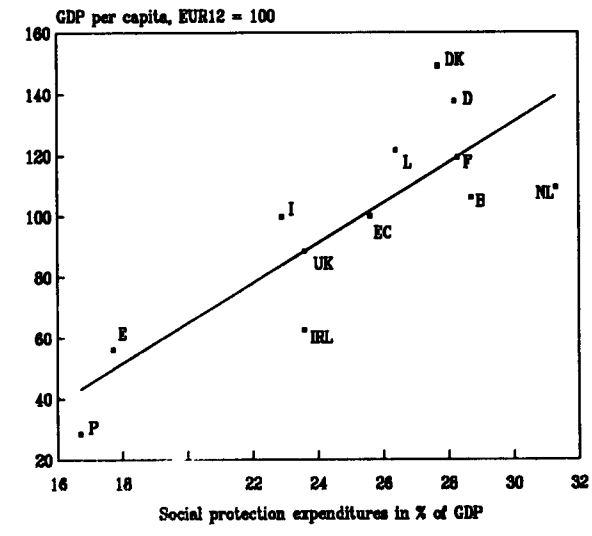
It is important to recognize that welfare provision may not by itself change the total life-time saving of individuals and therefore the long-term equilibrium private saving rate. It is rather the stock of savings which may be affected.

Old age pensions constitute an important part of all social protection expenditures. In consequence, the question of whether general provision of old age pensions affects private saving negatively has been an issue of much debate. The life-cycle hypothesis suggests that people spend less than what they earn during their working age saving up mainly for pensions; in the last part of their life the pension savings are being consumed. Implementation of a state run general pension scheme would certainly reduce the working-life savings as the primary motive for savings diminishes or disappears. However, on receiving pension payments, dissaving in the old age will also be reduced. In long term equilibrium, therefore, it is unlikely that aggregate private saving will be significantly affected by a state-run old-age pension scheme.

However, it is certain that a period of low private saving will immediately follow the implementation of a general old age pension scheme, since the desired stock of savings has been reduced; people will enter their retirement with a stock of savings lower than previously by an amount equal to the present discounted value of the state provided pension payments. In a simple simulation model, Sondergaard (1990) shows that the implied turnround in the stock of private savings given the present level of pension payments could be as high as 1 ½ times GDP or some 3 ½ times the current external debt. To the extent that public savings are not increased in compensation, the net external position would deteriorate. This deterioration would be aggravated by high domestic demand and a jump in real wages.

Graph 19 reveals that although Denmark spends a larger share of GDP on social protection than in the Community on average, this share is not larger than for other high income countries: Germany, France, Belgium and

Graph 19: Social protection expenditures and GDP per capita, 1987



Source: EUROSTAT

Netherlands. None of these countries, however, suffered from excessively low private saving during the 1970s and 1980s when welfare expenditures in general accelerated. High social protection expenditures, therefore, can hardly be the only explanation for the mounting external debt in Denmark.

Table 1: Social protection expenditures by function, 1987

	B	DK	D	F	NL
	% of GDP				
Sickness, invalidity, etc.	9.3	8.4	11.1	9.2	13.7
Old age pensions	11.8	10.1	11.3	12.1	9.6
Family-maternity benefits	2.3	3.2	1.9	2.9	2.4
Unemployment benefits, etc.	3.4	3.5	1.8	1.8	3.3
Others	0.3	1.7	1.0	0.9	1.0
Total	27.1	26.9	27.2	26.9	29.9
Total excl. old age pensions	15.3	16.8	15.9	14.8	20.3

Source: EUROSTAT

Tax on interest incomes

One of the distortionary elements of the Danish fiscal system is the taxation of net interest incomes. Nominal interest incomes form a part of the personal incomes base, which is taxed at relatively high marginal rates (even after the 1987 tax reform the tax rate remains significant at some 50%). This generates a wedge between the real rate of interest and consumers' marginal rate of intertemporal substitution. Given the positive correlation between nominal interest rates and inflation, this implies a high tax burden on the real interest rates during inflationary periods. As shown in Graph 4, the gap between pre tax and net of tax real interest rates was important in the 1970s and at the beginning of the 1980s. The combination of lower tax rates implied by the tax reform of 1987 and lower inflation from the mid-1980s onwards, however, has recently reduced the gap considerably. Looking at the real rate of interest net of tax, saving has been a rather unrewarding activity until the mid-eighties, while the advanced purchase of consumer durables has been made relatively attractive.

The deductibility for interest payments is likely to have led to excessive residential investment. As the imputed rent on owner-occupied housing has been lower than real interest rates, the yield required for making housing investment profitable has been lower than the market rate of interest. During the first half of the 1970s, residential investment constituted a substantial part of GDP (some 9%) even exceeding productive equipment investment. As shown in Graph 18, this was much higher than the average of the Community. The graph also indicates that residential investment has recently responded to lower inflation and the tax reform of 1987, where the capital tax rate was significantly reduced.

Through capitalization of the expected future stream of tax subsidies, high house prices also overstated the real estate component of national wealth [1], thus affecting consumption. All in all, therefore, the tax treatment of interest incomes and payments, by simultaneously boosting residential investment and private consumption, could explain a significant part of the low private sector saving and thus the national external debt accumulation. Moreover, high inflation considerably reinforced these distortions.

Business subsidies

Business subsidies affect investment decisions by reducing the user cost of capital. Thereby a given investment becomes profitable at a yield below the market real rate of interest (at which e.g. the foreign debt is financed). Subsidization therefore reduces the equilibrium average rate of return on the capital stock; and a country that relies heavily on subsidization will probably experience a larger investment ratio at a given GDP growth rate (consistent with a high capital/output ratio). Hence, at a given saving ratio, heavy subsidization would lead to a current account deterioration and possibly debt accumulation.

Business subsidies may be divided into direct and indirect subsidies. The latter category mainly consists of favourable accounting principles and depreciation schemes.

As shown in Table 2 the level of direct subsidies is quite low in Denmark; indeed, the lowest in the Community. Therefore, direct business subsidies should not be a vital factor in the debt accumulation.

1) S. Bo Nielsen and J. Sondergaard 1990.

Table 2: National subsidies and EC-interventions average 1986-88 (average 1981-86)

		L	B	I	GR	IRL	D	E	P	F	NL	UK	DK	EEC12
a)	Total aids as % of GDP	4.1	3.2	3.1	3.1	2.7	2.5	2.3	2.3	2.0	1.3	1.1	1.0	2.2
		(6.0)	(4.1)	(4.0)	(2.5)	(4.0)	(2.5)	(-)	(-)	(2.7)	(1.5)	(1.8)	(1.3)	(2.8)
b)	Total aids per employee in ECU	1283	1061	998	362	662	942	521	175	726	454	261	334	687
		(1620)	(1243)	(1188)	(449)	(891)	(817)	(-)	(-)	(906)	(451)	(455)	(406)	(791)

Source: Commission services

Indirect subsidies, on the other hand, may have been relatively more important in Denmark. In particular, the depreciation scheme has been relatively generous. A salient feature of the depreciation scheme is the allowance for inflation i.e. the base of depreciation may be increased according to inflation. As a result more than the original investment may be depreciated during the life-time of the investment [1]. Combined with full deductibility of interest expenditures, this leads to an increasing level of indirect subsidy at increasing levels of inflation [2]. The table below shows present values of the depreciation schemes for a 15 years equipment investment in a number of member countries (computed on 1987 data) [3].

Present value of depreciation in percent of investment:

DK	*D*	*NL*	*B*	*UK*
100	91	113	94	85

Another indirect subsidy is the possibility of depreciating inventories. This has led to a higher equilibrium stock of inventories than for most other countries.

On the other hand there is no evidence that the Danish system for depreciation on machinery, buildings and inventories produces greater distortions than in most other countries.

Preliminary results from a study taking place within OECD (Devereux and Pearson) show that the Danish tax-system does not distort investment decisions to any greater degree than tax-systems in most other OECD-countries.

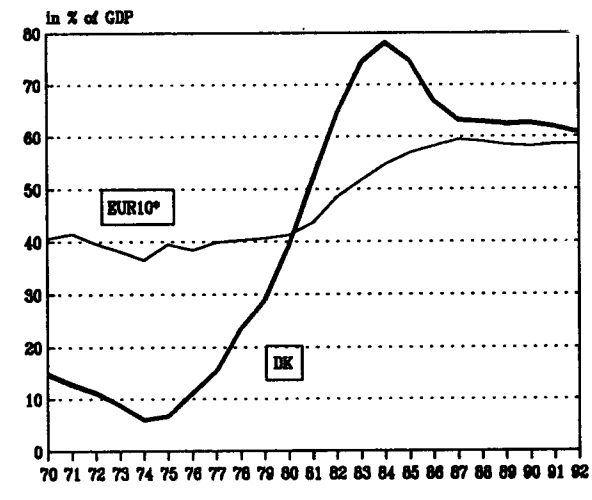
Besides, as previously shown, the investment ratio in Denmark has been realtively low for a number of years, which also suggests that both direct and indirect investment subsidies are rather modest.

Moreover, the important reduction of the corporate tax rate from 50% to 40% in 1990 (and the proposed further reduction to 38% this year) has decreased the tax value of depreciations and other allowances, and hence the possible distorting effects.

Public sector saving

Public sector saving was relatively healthy in Denmark until the mid-1970s. However, in the wake of the first two oil price shocks, fiscal policy was loosened considerably and the public sector balance deteriorated sharply. Since 1982, a tight fiscal policy has been pursued and the public sector balance has recovered somewhat. As argued above, the relatively high degree of welfare provision calls for prudent management of the public finances. Indeed, it is notable that Denmark has a higher (cyclically-adjusted) public sector balance than all other member countries (see Graph 12 in Box 1.3 on fiscal policy).

Graph 20: Public sector gross debt



Source: Commission services Commission Forecast (Nov 1990)

* EUR10 = EUR12 excl. GR and P

1) The Danish government has recently presented the parliament with a proposal to abolish the allowance for inflation which was one element of the political compromise on the Finance Bill for 1991.
2) The recent reduction of the corporate tax rate from 50% to 40% has lessened this problem stemming from a mix of a real and a nominal tax system.
3) P.B. Sorensen, Afskrivningsregler, investeringer og udlandsgaeld, Okonomi og Politik 4-1988.

However, the ability of the public sector to meet future obligations not only depends on current saving; it also depends on accumulated public debt. Denmark has a public gross debt slightly higher than the Community average [1]. However, given the high level of welfare provision, the lowest possible level of debt is required. Therefore, some further adjustments should be needed.

2.4 Stabilization of the debt

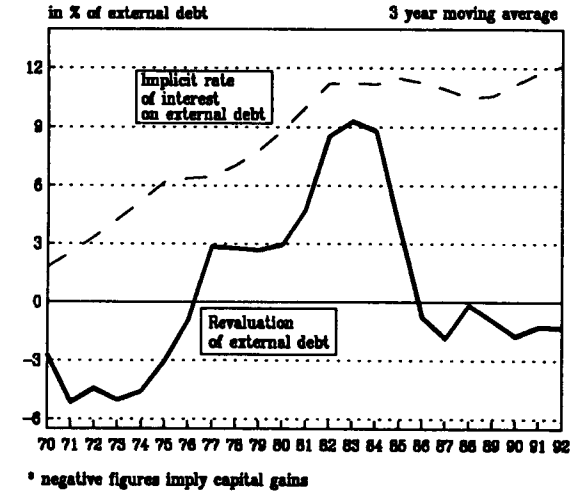
This section seeks to identify the major turning points in the development of the current account balance and the external debt during the last two decades and attempts to quantify the requirements for stabilizing or reducing the external debt.

2.4.1 The link between the current account balance and external debt accumulation

Ideally, the change in the net external position should be equal to the current account balance i.e. the absolute level of the external debt should be the sum of all previous current account deficits. In practice, however, this is not the case and in several years the current account balance has deviated substantially from the change in the external debt.

Debt accumulation deviates from the current account balance because capital gains and losses are not registered as income in the national accounts. For the net external position of Denmark, on the other hand, some effort is put into estimating capital gains and losses; in particular, changes in the market value of stocks and direct investment (both due to exchange rate changes and domestic stock market changes) are accounted. Firstly, this implies that if the currency depreciates (appreciates), the external debt would tend to grow faster (slower) than the current account deficit. Secondly, changes in the composition of assets and liabilities (among shares, bonds and direct investments) may affect the current account without influencing the change in the external debt as dividends on direct investments and shares usually are much lower than nominal interest payments on bonds. Finally, changes in the share of high (low) yielding currencies in the external position may also cause changes in the current account without necessarily affecting the growth of the external debt; the debt accumulation is unaffected because high (low) interest rates are counterparts of currency depreciation (appreciation).

Graph 21: Net interest payments and revaluation of external debt *



* negative figures imply capital gains

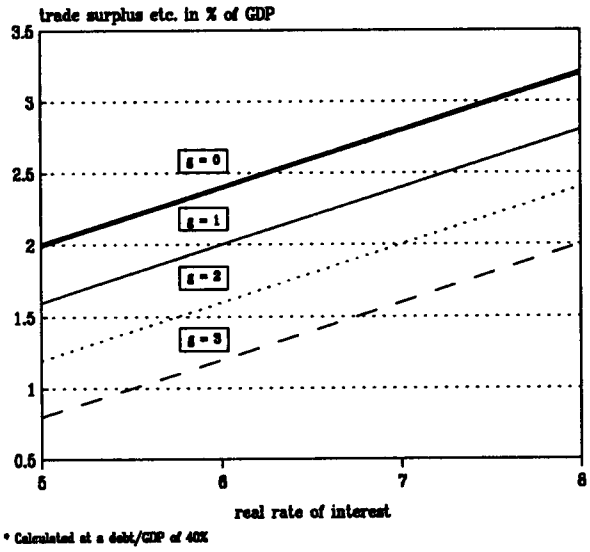
Source: Commission services
Commission Forecast (Nov 1990)

As suggested above, the difference between the change in the net external debt and the current account balance may be interpreted as income accruing to external investments other than recorded net interest payments, etc. Graph 21 shows this (residually calculated) revaluation of the external debt together with the recorded net interest payments in percent of the net external debt (the implicit rate of interest). This interest rate rose steadily during the 1970s but stabilized at a level of some 11% from 1982. Revaluation of the effective exchange rate led to substantial capital gains in the first half of the 1970s; but erosion of competitiveness during the remainder of the decade gradually weakened the DKR and a series of devaluations were carried out from 1979 to 1982. This raised the level of debt as the foreign currency debt was translated into a weaker DKR. Finally, the recent hard currency stance has facilitated a return of substantial capital gains on the external debt.

The two major components of the current account balance are the trade and services balance and net interest payments. In the period until 1975, the trade and services balance was negative to the tune of 0-3% of GDP (see Graph 5) and the external debt grew only moderately as capital gains on the external debt counterbalanced the interest payments. The major part of the external debt was accumulated in the period from 1975 to 1983, firstly due to a large deficit in the trade and services balance and later due to high interest payments and substantial capital losses on the external debt. Although the trade and services balance deteriorated somewhat from 1983 to 1986, a further increase in the debt was prevented by capital gains stemming mainly from the hard currency stance. Finally, recent improvements in

1) Denmark has a relatively large readily marketable financial asset. The figures shown may therefore to some extent overstate the true relative debt burdens.

Graph 22: Debt sustainability lines *



trade performance have led to some alleviation in the debt burden.

2.4.2 Requirements for and costs of debt stabilization

To stabilize the ratio of external debt to GDP, the current account excluding net interest payments etc. (i.e. the balance of trade and services plus income transfers), z, must satisfy the following identity [1]:

$$z = (r - g) * d$$

where:

r = the real rate of interest

g = the real growth rate of GDP

d = debt/GDP

Graph 22 shows what stabilization at a level of 40% implies for the trade balance, etc. given alternative growth rates and real interest rates. Points above (below) the lines imply increasing (decreasing) debt/GDP. Thus, at zero growth and a real rate of interest of 7-8% a trade surplus etc. of some 3% of GDP is required for debt stabilization. As pointed out above, it is important that net interest payments be consolidated taking account of the revaluation of the debt, which in recent years has led to annual gains in the order of 1% of GDP.

The actual balance of trade and services plus income transfers rose strongly from zero in the mid-1980s to some 3-4% in the late 1980s. This improvement was achieved mainly because the growth rate of GDP fell from some 4% in the mid-1980s to about 1% in 1989-90. At the present real rate of interest of about 7%, the combination of a trade surplus etc. of 3-4% and a growth rate of about 1% is consistent with stabilization of the debt. As a further widening of the trade surplus etc. is forecast, the debt level should continue on downward trend despite low growth rates (even zero growth) and high real rates of interest.

The costs of stabilization may be measured in terms of the output required to bring about a combination of growth and trade surplus etc. consistent with stabilization. Taking the period from 1985 to 1988 as the period of debt stabilization, Denmark has suffered a cumulative output loss against Germany of 1% and of almost 3% against the Community.

2.5 Concluding remarks and prospects

The root of the external debt problem has been traced back to the period between the first two oil price shocks. While the terms of trade tumbled and external demand was weak, domestic demand was high as pay rises accelerated (outpacing inflation) and fiscal policy was lax. In addition, competitiveness deteriorated mainly due to exchange rate appreciation. Nevertheless, although the current account deficit widened strongly in these years, external debt as a percentage of GDP rose only moderately. However, when real interest rates soared in the 1980s the external debt accelerated sharply despite some tightening of domestic policies and improving competitiveness. Moreover, revaluation of the external debt added substantially to the debt problem from the mid-1970s to the mid-1980s.

Although Danish exports in volume terms have maintained their share in all export markets, the overall growth of Danish exports has been somewhat below the growth of world imports as country and product effects have been relatively unfavourable. Assessed by the development of relative prices, the high share of agricultural exports in total exports appears to have been unfavourable. However, as productivity grew much faster in the agricultural sector than in industry, the relative specialization in agricultural exports may not have been so disadvantageous.

From the study of saving and investment it may be concluded that residential investment was excessive until the mid-1970s due to strong effective subsidization of housing. Likewise, private saving has been low as the tax system caused a wide gap between the real rate of interest and consumers' marginal rate of intertemporal substitution, this gap being much affected by high inflation. These are probably the most important reasons for the build-up of external debt during the 1970s and 1980s.

1) See W. Godley and G. Zezza, 1989.

The analysis suggests that structural and institutional differences between countries have implications for the appropriate level of public sector deficits and the level of public debt. As private sector savings and investment behaviour depend upon the overall institutional setting, the public sector has to take into consideration these decisions in order to define the long run equilibrium level of public sector savings.

For the medium term outlook, the analysis indicates that the current account balance will remain on a positive trend. Notably the lower rate of inflation (implied by the hard currency stance) and the 1987 tax reform has reduced distortions in private sector saving and investment decisions. As a result, saving will increase while investment projects will be subject to tighter screening, with low yielding projects being cancelled. The change in saving/investment incentives is realized only gradually by agents. Therefore, the full effects of the change may take years to materialize.

Moreover, the analysis on the welfare state concluded that by increasing social protection, the private sector saving rate will temporarily drop until a lower level of savings has been achieved. Social protection expenditures were strongly expanded in the 1960s and 1970s. As the ensuing savings adjustment is being completed, one should expect the saving rate to recover. Therefore, provided that fiscal policy remains tight, total national saving is likely to expand faster than investment, implying a sustained reduction in the external debt.

CHAPTER 3

THE DANISH TAX SYSTEM AND EUROPEAN INTEGRATION

Introduction

The structure of the Danish tax system differs strongly from the pattern of other Community countries, and in some respects is not consistent with the Internal Market Programme. In the face of European Integration, therefore, there is a need for future fiscal reform. This chapter examines the challenges, in terms of fiscal approximation, which Denmark faces in the process of European integration.

The chapter is organized as follows. Section one outlines the main characteristics of the Danish tax structure and shows the differences compared with other Community countries. Section two deals with one important issue of fiscal approximation - indirect tax harmonization. In this section, an attempt is also made to quantify the likely macroeconomic effects of compliance with the latest Commission proposal on indirect tax harmonization. It is shown that the short and medium-term effects on domestic demand of reduced indirect taxes could be quite strong and that this may jeopardize the policy objective of reducing the external debt burden. Section three, therefore, discusses various means for controlling the incipient rise in domestic demand while section four summarizes and draws some conclusions.

3.1 The tax structure in Denmark

The current receipts of government (in % of GDP) rose substantially during the 1980s, outpacing growth in all other Community countries. Whereas the level of government receipts in 1980 was only third highest in the Community, after Luxembourg and the Netherlands, and some 11 percentage-points higher than the average of the Community, the level in 1989 was second to none and some 15 percentage-points higher than the Community average [1].

Table 3: Tax structure in Denmark, Germany and EUR12, 1989 - % of GDP -

	DK	D	EUR12
1. Total current receipts	58.2	45.4	43.5
2. Indirect taxes	18.0	12.5	13.2
3. Direct taxes	30.4	12.4	12.4
4. Social security contribution	2.3	17.2	14.4
5. 3 + 4	32.7	29.6	26.8
6. Other current receipts	7.6	3.3	3.4

Direct taxes appear to explain most of the difference between the current government receipts in Denmark and the rest of the Community. However, a sharp distinction between direct taxes and social security contributions is not always appropriate. Social security contributions are taxes on labour incomes, whether paid by employers or employees. The major part of direct taxes is also levied on labour income. On taking the sum of direct taxes and social security contributions it becomes clear that a prominent feature of the tax structure in Denmark relative to other Community countries is the high level of indirect taxation. This is particularly true against bordering Germany.

3.2 Fiscal approximation

The logic of the internal market suggests that taxation of goods should be harmonized with due respect to the mobility of the goods. The Commission has put forward

1) Total government receipts, in general, overstate the overall tax pressure - and more so for Denmark than for most other Community countries - as they i.a. include income transfers from abroad (FEOGA) as well as interest and dividend incomes on public assets. On the other hand, the denominator, GDP, serves to bias the calculation towards a too low measure. Reducing GDP for indirect taxes and net factor payments abroad (both items are more significant for Denmark than for other Community countries) yields a measure - Gross Factor Income at factor cost - which is closer to the "true potential tax base" (Skattepolitisk Redegoerelse, 1990)

proposals on indirect tax harmonization which implies substantial tax reductions on the part of Denmark. Therefore, reducing indirect taxes constitutes one of the most important policy challenges facing Denmark in the 1990s. Below we outline the budgetary impact based on the Commission's 1987-proposal of indirect tax harmonization [1]. Due to the perceived gravity of the macroeconomic consequences, this section contains a rather detailed account of the budgetary impacts, and simulations are run on the official macroeconometric model, ADAM, to explore the likely effects on key macroeconomic variables and balances.

3.2.1 Indirect tax harmonization

For simulation purposes, tax harmonization is seen to be carried out with effect from 1991. The impact effect is thus calculated on the basis of the projected composition of demand in that year. The projection is supplied by the statistical bureau in Copenhagen, Danmarks Statistik, as part of the base line scenario of the macroeconometric model.

Harmonization of the VAT rates

The Commission proposals [2] are for the introduction of a two-rate VAT system; a standard rate of no less than 14% (or 15%) and a minimum rate of 4-9%. The latter will be applied on a range of basic necessities.

This new regime would in principle allow Denmark to retain the present (unitary) rate of 22% for the major part of private consumption. For basic necessities, however, the rate would have to be reduced from 22% to 9% or less. In calculating the impact effect of this reduction, the following commodity groups are considered to be subject to the lower rate: all food products including non-alcoholic beverages, energy for light and heating, water, medicine, passenger transport, newspapers, books and magazines.

Reducing VAT on the above mentioned goods for private consumption is estimated to cause an immediate budgetary loss of the order of some 1.2% of GDP in 1991 [3]. The standard rate of 22% is assumed to be retained on the remaining VAT-base.

It could be argued that a standard rate of 22% would imply a too large gap against Germany and thus cause an intolerably high level of cross-border trade [4]. A reduction of the standard rate to 20% would lead to an additional revenue loss of some 0.5% of GDP. Moreover, it should be mentioned that the special social security tax implemented in 1988 to promote exports to a large extent resembles VAT. The revenue from this VAT-like social security contribution amounts to some 1.5% of GDP. Thus, it may be argued that the standard VAT rate is closer to 25% than 22%. Denmark has been brought before the European Court in relation to this social security contribution, as the Commission holds that it violates the VAT-directive. Against this background, the stated budgetary losses may be considered as a minimum scenario. On the other hand, recent decisions/discussions in Germany to increase its indirect taxes serves to reduce the need for adjustments in Denmark.

Table 4: Budgetary impact effect of indirect tax harmonization

	Bn. DKR	% of GDP
1. Reduced VAT	-9.9	-1.2
2. Excise duties of which:	-8.6	-1.0
a. Alcohol and tobacco	-7.8	-0.9
b. Diesel	2.5	0.3
c. HGO, HFO, LPG	-3.3	-0.4
3. Reduced VAT and excise duties = net stimulus to demand in simulation	-18.5	-2.2

As VAT is calculated on the top of excises a reduction of the latter will automatically lead to a fall in the former. This is estimated to cause an immediate budgetary loss of some 0.2% of GDP. For the model simulation, however, this is an indirect shock, since it follows immediately from the reduced excise duties.

1) The issue is not the proposal itself, but only its impact on the Danish economy i.e. the conclusions are based on the premise that Denmark actually follows the proposal. The final compromise may in some respects deviate from this proposal. However, this needs not invalidate the analysis below as Denmark in any case will have to reduce indirect taxes substantially.
2) Taken to include the amendments of the Communication to the Council of May 1989, which suggest that the upper limit on the standard rate be removed.
3) A breakdown of this budgetary loss on subgroups of private consumption is shown in box below.
4) Recent discussions within the German government suggests that the German VAT-rate will be increased in the coming years. Needless to say this may significantly reduce the need for ajudstments on the part of Denmark.

Harmonization of excise duties

On heating gas oil (HGO), heavy fuel oil (HFO) and liquified petroleum gas (LPG) the proposal sets maximum levels for excise duties well below the present Danish rates. These excises should be reduced by more than 70% on average, leading to a budgetary loss of some 0.4% of GDP [1]. Electricity and coal does not form part of the proposal. Therefore, it should not, in principle, be necessary to lower the excise duty on electricity. However, to some limited extent, electricity is used for heating. Thus, it may be wished to lower the excise duty on electricity for reasons of internal competition.

Another substitute for the above-mentioned energy sources is natural gas, which is distributed by public utilities at a price equivalent to the price of heating gas oil including excises. Any budgetary loss which may be caused by a reduction in the excise duty on heating gas oil and therefore in prices of natural gas, however, is disregarded in the present analysis, as it is not included in the proposal.

Although the excise duty on diesel is relatively high by European standards and some 15% higher than the proposed rate, the revenue from the tax on diesel is fairly low because the duty is deductible when used commercially [2]. It is assumed that this facility will be discontinued. Harmonization of this item, therefore, would not lead to a budgetary loss. On the contrary, it would lead to additional revenue, which is estimated at some 0.3% of GDP. The real economy will be affected by increased production costs in the branches concerned.

For petrol, the excises were lowered substantially in 1990 and are now in line with the proposal. Therefore, no further reduction should be necessary for petrol duties.

For tobacco and alcoholic beverages, the proposals only set minimum rates. So, in principle, Denmark could retain its present rates. To avoid a dramatic rise in border trading, however, excise rates are assumed to be reduced to a level compatible with retail prices for tobacco and spirits 10% above corresponding German prices [3]. It is assumed that Germany, for its part, will adjust excise duties with minor revenue implications. The lower excise duties on tobacco and alcoholic beverages are estimated to cause an immediate budgetary loss of some 0,9% of GDP for Denmark.

Finally, it should be mentioned that the proposals abolish tax free shopping for intra EC travelling. This is likely to increase tax revenue only marginally as, among other things, the value of the licence to sell tax free at Kastrup airport would fall.

All in all, indirect tax harmonization is estimated to cause a direct and immediate budgetary loss of some 2.2% of GDP [4]. This is slightly lower than previous estimates by the Commission services for several reasons. Firstly, in recent years, indirect tax pressure has already been reduced somewhat. Secondly, since 1986 private consumption has decreased steadily in real terms as well as in percentage of GDP. Finally, the present specification of the budgetary impact effects is made for model simulations so that only direct simulation shocks are taken into account.

Simulation results

The indirect tax changes which are applied in the simulation are shown in table 4 and the effects on the main economic variables are shown in table 5 below.

The figures shown in table 5 indicate how much the economic variables are likely to deviate from their base-run values if indirect taxes are cut.

A flow chart of the main channels of transmission is shown in graph 23. In the first place, demand is affected through a jump in private consumption. The cut in indirect taxes causes a once-off rise in real disposable incomes due to a drop in consumer prices. Much of this gain is transmitted into higher real private consumption during the first year. Other demand components, however, will add considerably to growth in the second year. Notably residential investment is seen to accelerate sharply, so that after four years residential investment should be some 28% higher than in the base run. Residential investment is in the model, mainly determined by a variant of Tobin's Q'. As the market price of existing houses rise above the replacement costs, i.e. the price for a new house, replacement becomes more interesting. The price of existing houses, in turn, is much affected by fluctuations in the real disposable incomes. Thus, due to the jump in real disposable incomes, the price of houses accelerates sharply which, in turn, triggers a surge in residential investment.

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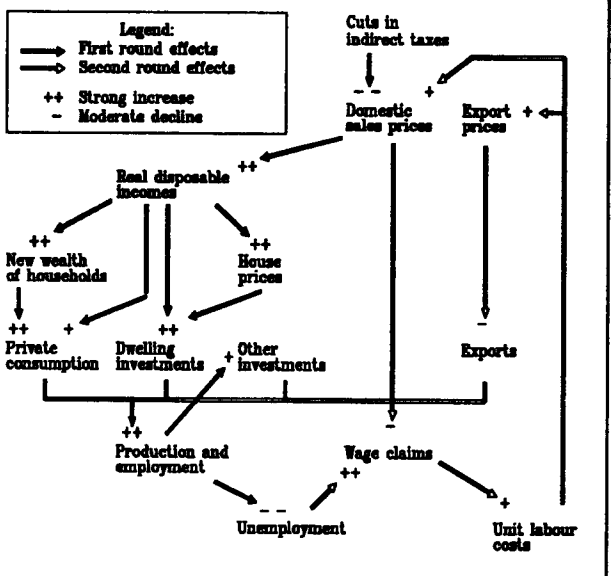
1) It is argued below that energy excise duties may be substituted by a tax levied on a meter installed at the place of consumption.
2) The branches of road transport and agriculture account for the major part of this refund, so that only these two branches have been affected in the simulations below.
3) The most recent increase in the excise duty on cigarettes in Germany (1 pfennig per cigarette) - with effect as from January 1992 - has not been taken into account.
4) If, in addition, we assume lowering of the standard VAT to 20%, abolition of the VAT-like social security contribution, reduction of excise duties on electricity as well as take into consideration the fall in VAT on excise duties, one could arrive at a figure close to 5% of GDP. This, however, would not change the general conclusion of the simulation, although the macroeconomic effects would be even more pronounced.

Table 5: Results of Simulation : indirect taxes cut by 2.2% of GDP

	1991	1992	1993	1994
	% deviation from base-run			
Main economic variables:				
1. GDP (volume)	2.7	3.7	4.8	4.9
2. Imports (volume)	2.7	3.6	5.3	5.7
3. Exports (volume)	0.3	0.7	0.8	0.7
4. Private consumption (volume)	6.6	6.5	8.5	9.1
5. Gross fixed capital form. (volume)	2.3	6.6	10.8	12.6
6. Hourly wages in industry	-0.8	-1.2	0.4	3.6
7. GDP deflator	-3.7	-3.9	-2.9	-0.8
8. Private consumption deflator	-6.2	-6.3	-5.9	-4.6
9. Export deflator	-0.8	-0.9	-0.3	0.9
10. Rate of unemployment	-0.6	-1.4	-2.0	-2.2
	% deviation from base-run (% of GDP)			
External balance:				
11. Trade balance	-1.1	-1.3	-1.6	-1.6
12. Current account	-0.9	-1.2	-1.6	-1.7
Public sector:				
13. Unemployment benefit	-0.2	-0.5	-0.7	-0.8
14. Indirect taxes	-1.7	-1.5	-1.4	-1.5
15. Current expenditures	0.3	-0.6	-1.6	-2.1
16. Current receipts	-1.3	-1.2	-1.2	-1.2
17. Public sector balance	-1.6	-0.6	0.4	0.9

(1) The various components (groups) of private consumption are affected according to their respective income and price elasticities and according to how much their retail prices have been cut. The simulation indicates that the most profound volume effects can be expected for consumption of alcohol and tobacco (up to 34%) for cars (up 22%) and for energy (up 20%). Provided that the budgetary effects will be counterbalanced by higher social security contributions and lower nominal transfer payments, however, the rise in consumption of alcohol and tobacco as well as energy can to some extent be contained.

Graph 23: Flow chart over major transmission channels



Finally, it should be noted that there is an important feedback from house prices to private consumption. Changes in the net-wealth of the households are seen to affect private consumption strongly. As house prices form a part of the wealth term, the acceleration of the former serves to augment the initial boost to private consumption.

The first round effect on the consumer price deflator mentioned above is to a large extent mechanical. Enterprises are assumed to let the indirect tax reductions be fully reflected in lower sales prices. The supply side of the model, however, produces significant second round effects on prices. Firstly, tax changes are assumed to have a direct effect on wage claims. Therefore, indirect tax-cuts via the implied lower consumer prices initiate a downward pressure on wages. This reduces unit labour costs and brings about a further decline in consumer prices as well as the GDP-deflator. Secondly, a higher level of production and employment tightens the labour market. This in turn triggers higher wage claims. The first effect dominates in the short term (the first two years) while the second dominates thereafter.

As export prices are endogenous in the model, determined as a mark-up over production costs, changes in wage claims are allowed to pass through into export prices. Thus, given the growth of export markets and nominal exchange rates, and keeping in mind the above mentioned wage scenario (implying an immediate fall due to the tax cuts), growth in the volume of exports accelerates somewhat in the first two years. In the longer term, however, as the labour market tightens due to the strong demand effects of the tax cuts, higher general wage claims pass through to export prices and put a brake on exports. The simulation shows that the

initial boost to exports is offset already by the fourth year.

As regards the labour market, the simulation highlights the risk of running into severe bottlenecks. Unemployment would be reduced by some 0.6% (of the labour force) in the first year and by some 2.2% in the course of the next three years. The rise in employment will be particularly pronounced in the construction sector, where almost 30% of total job creation within the first four years will take place. This implies a rise of some 11-12% in employment in the sector.

The strong rise in domestic demand has a powerful effect on the external current account. The trade balance shows a first year deterioration of some 1.1% of GDP. The tourist balance, however, should improve as lower consumer prices attract visitors from abroad. Therefore, the current account deteriorates by less than the trade balance, i.e. by 0.9% of GDP. As domestic demand accelerates, the current account deficit widens and leads to an accumulation of foreign debt, which in turn exacerbates the deterioration in the current account balance. In the fourth year, the current account balance may have deteriorated by some 1.7% of GDP against the base run. Assessed against the background of an already heavy burden of servicing the existing external debt, this feature of the scenario is particularly significant.

The public sector balance is shown to run a substantial deficit in the first year. However, as economic activity accelerates and real private consumption and employment rise, government receipts rebound somewhat. More importantly, however, government expenditures drop significantly during the simulation period mainly due to a substantial reduction in unemployment, a fall in prices of goods consumed by the public sector and a slight reduction in nominal wages as well as transfer payments. By the third year, the effect on the public sector balance is already positive.

This scenario should be assessed against a background of the likely state of the economy, if no policy changes occur. In particular, it is important to assess the employment/unemployment scenario against the likely labour market situation in 1991-1994, given no tax cuts. Unemployment is currently on a slightly upward trend and (according to the national definition) is likely to average some 9½-10% in 1991. As the rise in labour supply is expected to remain modest in the medium term, even low growth rates would ensure that unemployment does not accelerate. Considering that evidence points to substantial structural rigidities in the labour market, the scenario, which implies a fall in the rate of unemployment of some 2.2%, is hardly compatible with non-accelerating wages. On the contrary, the economy may rapidly run into bottlenecks and experience a vicious wage-price acceleration. Notably in residential construction wage pressures may build up strongly.

Long term effects

The simulation above showed that the negative impact on the public sector balance of indirect tax cuts will be counterbalanced by strong cyclical effects. This result, however, applies only in the short and medium term. In the longer term, higher wage claims will reduce demand firstly by crowding out net exports. Then, unemployment will rise again while domestic demand contracts. For the public sector balance this will simultaneously cause an increase in expenditure and a reduction in receipts. Drawing on the conclusions of Chapter 2, the most important long-term effect of the indirect tax cuts is likely to be higher external debt. Public services must eventually be paid for, but the private sector will not fully discount future tax increases and/or cuts in public services by higher current saving. The lower public sector net saving will therefore increase the current account deficit. It is assumed here that labour supply and the equilibrium level of unemployment will not be affected by the policy shock. The validity of this assumption is discussed below.

Tax cuts and the Laffer curve

It is generally recognized that macroeconometric simulations can be misleading when large shocks are considered, because fundamental changes may occur in the behaviour and expectations of agents (viz the Lucas critique). The shock we consider here is indeed very substantial. Therefore, we should not attribute too much significance to the actual figures. The value of the exercise lies in identifying the fundamental policy challenge.

Considering the high tax pressure in Denmark one might consider whether cutting taxes would significantly improve the supply of labour. This depends on whether the substitution effect of lowering taxes may dominate the income effect i.e. whether Denmark is situated beyond the peak of the Laffer curve [1]. Indeed, if there is any practical relevance to the Laffer curve it would prescribe tax cuts as a means of increasing tax-revenue in Denmark. However, Denmark seems to be nowhere near the peak of the Laffer curve. Thus, Nina Smith (1986) reports the elasticity of labour supply w.r.t. gross wages to be 0.8 for married women and 0.5 for married men. More recent studies by Nina Smith (1990) suggest, however, that the elasticity of the male labour supply with respect to after tax-income is higher than that of the female labour supply, but still far too low to ensure that tax reductions lead to a higher tax revenue.

1) A proposition that increased tax rates would only bring about a larger tax revenue up to a certain point, from where the substitution effect will dominate the income effect and generate a falling revenue.

Tax cuts and hence indirect tax harmonisation should, therefore, not be viewed as a kind of "free lunch", simultaneously alleviating most macroeconomic imbalances. Nevertheless, it cannot be ruled out that tax cuts might to some extent be self-financing and that the model simulation above may be too pessimistic in not allowing for increased labour supply and wage moderation.

Need for additional policy measures

Even though the proposed change in tax structure could be more successful in terms of increased labour supply and wage moderation than suggested by the model simulation, additional policy measures designed to dampen domestic demand are needed in order to ensure a balanced economic development. It should also be mentioned that the model scenario is the minimum tax adjustment required if the tax-harmonisation proposal is to be implemented in Denmark.

One measure which deserves particular attention (being a close substitute for proposed cuts in excise duties) is a tax on energy use. The Danish government is much concerned with energy saving and therefore worried about the increase in energy consumption, which is likely to result from lower retail prices of energy. Consideration could be given to levying an energy tax through to a meter installed at the place of consumption. Thus, private households could buy the fuel oil at the most competitive prices and be taxed later when the oil is actually used for heating. Such a tax could be set at a level corresponding to unchanged (effective) energy prices and therefore raise the same revenue as will be lost due to lower excise duties i.e. 0.4% of GDP.

A number of other possible measures are briefly discussed in the sections below.

3.3 Policy options to control domestic demand

Considering the magnitude of the demand stimulus from the indirect tax harmonisation and the gravity of the external debt problem (discussed in chapter 2), it is imperative to implement other strong measures to contain the rise in domestic demand. Lower indirect taxes lead to increased purchasing power for all incomes: labour incomes, transfer incomes and capital incomes. Neutralizing the purchasing power effect of lower indirect taxes may be achieved by reducing the after-tax value of all three incomes in line with the lower consumer prices. Transfer incomes are set centrally and may therefore be the easiest to adjust.

3.3.1 Higher social security contributions

Reducing the purchasing power of labour incomes could be accomplished by higher social security contributions. However, substituting social security taxes for indirect taxes may not be an easy task. High taxation on labour is often held to pose a problem in the context of international migration. This would suggest that the sum of income taxes and social security contributions should not be significantly higher than in surrounding countries. So far, migration flows to and from Denmark have been rather modest. Nevertheless, if social security contributions are increased significantly, this will bring total labour taxes in Denmark well above those in the surrounding countries thus increasing the risk of migration [1]. Moreover, the impact of European integration on labour migration is yet to emerge. Hence, from this point of view there are narrow limits upon the magnitude of potential increases in social security taxes.

Higher social security contributions would affect competitiveness and thereby the current account balance negatively if wage claims are not reduced simultaneously. Therefore, if revenue is to be switched from indirect taxes to social security contributions without strong negative effects on the current account balance, it is essential that lower consumer prices be reflected fully in lower wage claims. This would leave product wages unaffected.

Whether or not wage and salary earners will accept lower pay rises for lower indirect taxes can be seen as a game theoretical question. A successful outcome would depend much on the credibility of the policy. Due to the tight external constraint, there is no room for the government to start the game by reducing indirect taxes. Therefore, the labour market would have to show wage moderation before indirect taxes are cut. Wage moderation, in turn, would depend on the credibility of the government policy. A precondition would be that the policy of increasing social security contributions and cutting indirect taxes is clearly announced before wage talks. Previous experience does not provide much grounds for optimism for a successful outcome in this regard.

Clearly announcement of the indirect tax cuts (and possibly negotiation with the social partners) is a necessary but not sufficient condition for achieving wage moderation. It will also be required to phase in the tax cuts over a longer period of time: an abrupt change would probably lead to a once-off drop in the consumer price index, which is unlikely to be followed by a similar fall in nominal wages.

1) Some medium and higher income earners already seem to pay somewhat higher income-taxes and social security contributions than in other EC-countries (Skattepolitisk Redegoerelse 1990). The incentive to emigrate would therefore seem particularly high for these income groups.

3.3.2 Higher capital taxes

The tax rate on nominal interest incomes and dividends in Denmark, although recently lowered significantly, is still high by European standards and may be difficult to sustain without a Community-wide reporting system, due to increased capital mobility. Moreover, in Chapter 2 we concluded that the high tax rate on (net) nominal interest incomes may have led to low private net saving especially in inflationary times. There is, therefore, no case for a higher tax rate on capital incomes. However, other capital taxes, such as property taxes, could be increased. The logic of the internal market would suggest that the less mobile factors of production should be taxed highest. The least mobile of all production factors is land. For households, higher land taxes will squeeze their real disposable incomes as well as their net wealth. The latter is a direct consequence of the present value of taxes being affected fully in the market price of land. Hence, both by affecting disposable incomes and by affecting real wealth, higher land taxes will put downward pressure on private consumption.

For farmers higher land taxes will reduce annual incomes as well as the market price of the farms. In a transition period, therefore, special provisions may have to be made for farmers. However, for those who buy a farm after land taxes have been increased, a lower debt service burden - due to the lower market price of land - will neutralize the higher land taxes.

3.3.3 Reduced public expenditure

Public expenditure, measured against GDP, is well above the EC average and higher than in any other Community member country. A reduction in public spending thus constitutes a third alternative. A reduction of the public sector vis-à-vis the private sector would also be consistent with the aim of government policies, which e.g. include that productivity gains in the public sector materialize as lower expenditure and public employment rather than increased public service.

3.4 Summary of conclusions

The Danish tax-structure is shown to deviate strongly from the Community average. Notably, much higher indirect taxes than neighbouring Germany are shown to pose an immediate problem in the context of the Internal Market Programme. The necessary cuts in indirect taxes, partly laid down in the Commission proposal for indirect tax harmonisation, is estimated to imply a budgetary loss of more than 2% of GDP. Without accompanying measures to contain the incipient surge in domestic demand, a stimulus of this order is likely to lead to severe labour market tightness and a substantial deterioration in the current account balance. The initial deterioration in the public sector balance would in the short to medium-term be reversed due to strong cyclical effects. But in the long-term, unemployment will return to a more stable level (reflecting current structural rigidities) and the public sector balance will deteriorate. Furthermore, as lower public sector saving will not be matched by higher private sector saving, the current account balance will worsen and the external debt will accelerate. Therefore, the necessary cuts in indirect taxes should be accompanied by increases in other taxes and/or spending cuts. A number of possibilities are discussed.

Lower indirect taxes lead to increased purchasing power for all incomes: labour incomes, transfer incomes and capital incomes. Neutralizing the purchasing power effect may be achieved by reducing the after-tax value of these income categories in line with the lower consumer prices. Transfer incomes may be the least troublesome to adjust. Regarding capital taxes, the tax rate on interest incomes is already very high in the European context; but other capital taxes, such as property taxes, could in principle be increased.

Finally, higher social security contributions could serve to neutralize the purchasing power effect on labour incomes. However, substitution of social security contributions for indirect taxes may be difficult to implement without adverse effects on competitiveness. Moreover, a much higher tax burden on labour incomes could lead to emigration of especially highly skilled labour and to the extent that the marginal tax rates are increased, the overall labour market flexibility could be even further reduced and thus impede future growth prospects: these considerations serve to illustrate that the room for increasing taxes on labour incomes is narrow.

Box 3.1: BUDGETARY IMPACT OF REDUCED VAT

The consumer goods subject to reduced VAT are contained in the following private consumption groups in ADAM:

The impact effect is calculated by multiplying the forecast VAT revenue for the particular consumption group by the share of goods subject to reduced VAT and the rate-reduction (i.e. 13/22).

Group	Share of goods subject to reduced VAT	Impact effect bn. DKR	Impact effect % of GDP
CE: Energy, etc. (excl.energy for transport)	100%	2.4	0.29
CF: Food products	100%	6.4	0.77
CI: Other non-durables	17%	0.5	0.06
CK: Public transport, etc.	65%	0.4	0.05
CN: Alcohol and tobacco, etc.	8%	0.2	0.02
Total	26%	9.9	1.19

For two groups, however, the calculation parts somewhat from this simple formula:

Newspapers are currently subject to zero-VAT. According to the Commission proposal newspapers will be subject to reduced VAT. This would raise the VAT-base and therefore lead to a revenue gain. In accordance with previous calculations by the national authorities, this gain is put at 0.2 bn DKR. Newspapers form part of the ADAM-group CI: other non-durables.

Public transport is currently not subject to VAT at all. This means that VAT on input cannot be deducted and refunded. Making public transport subject to reduced VAT as proposed by the Commission would, according to previous calculations by the national authorities, lead to a negative VAT-base because sales will be multiplied by 9% whereas inputs can be deducted on the basis of a somewhat higher rate (on average). As, however, this budgetary impact should cause no real economic effect, it is excluded from the present analysis. The negative budgetary effect will show up as a reduced deficit on public transport.

The same approach is taken with regards public consumption. The negative budgetary effects of reduced VAT on public consumption is seen to have no real economic effects. Therefore, it is disregarded in the present analysis.

Statistical Annex

Table 1: Main economic indicators

	81	82	83	84	85	86	87	88	89	90	91	92
GDP at constant 1985 prices, annual % change												
Denmark	-0.9	3.0	2.5	4.4	4.3	3.6	0.3	0.5	1.2	0.9	0.9	1.8
EUR-12	0.2	0.9	1.6	2.3	2.5	2.7	2.9	4.0	3.3	2.9	2.2	2.5
GDP per head (in PPS index EUR-12=100)	107.2	109.8	111.1	113.6	115.8	117.0	114.2	110.7	108.8	107.3	106.3	106.1
Total employment, annual % change												
Denmark	-1.3	0.4	0.3	1.7	2.5	2.6	0.9	0.0	-0.6	-0.2	0.0	0.4
EUR-12	-1.2	-0.8	-0.7	0.1	0.7	1.1	1.1	1.6	1.6	1.6	0.6	0.7
GDP deflator, annual % change												
Denmark	10.1	10.6	7.6	5.7	4.3	4.6	4.7	4.5	4.3	3.0	2.3	1.8
EUR-12	10.9	10.6	8.5	6.9	6.0	5.6	4.1	4.6	5.1	5.7	5.5	4.8
Unemployment rate, % of civilian working population												
Denmark	9.2	9.8	10.5	10.1	9.1	7.9	7.9	8.7	9.4	9.6	10.0	9.9
Denmark (EUROSTAT)	8.3	8.9	9.3	8.7	7.2	5.6	5.7	6.5	7.7	8.2	8.8	8.7
EUR-12 (EUROSTAT)	7.7	9.0	9.9	10.7	10.8	10.7	10.3	9.7	8.9	8.5	8.7	8.8
Current account of the BOP, % of GDP	-3.0	-4.2	-2.6	-3.3	-4.6	-5.4	-2.9	-1.2	-1.2	0.0	0.3	1.2
General government borrowing/lending requirement, % of GDP	-6.9	-9.1	-7.2	-4.1	-2.0	3.4	2.5	0.2	-0.7	-1.4	-1.6	-1.1
Exchange rates (yearly averages)												
1 USD = ... DKR	7.1	8.3	9.1	10.3	10.6	8.1	6.8	6.7	7.3	6.2	5.7	5.7
1 ECU = ... DKR	7.9	8.2	8.1	8.1	8.0	7.9	7.9	8.0	8.0	7.9	7.9	7.9
ERM effective exchange rate (1)	98.0	95.1	96.2	96.1	97.7	99.5	100.5	99.0	97.6	100.5	100.0	100.0
19 Partners effective exchange rates (1)	92.5	88.4	87.9	84.7	85.7	91.1	95.0	93.2	90.7	97.6	98.6	98.6

(1) exchange rate mecanism, double weighted for exports; index 1980

Source: Commission services
For 1990 to 1992: Commission staff forecasts (NOV 1990)

Table 2: Analysis of GDP uses , as % - current prices

	81	82	83	84	85	86	87	88	89	90	91	92
Private consumption	56.0	55.0	54.6	54.5	54.8	55.0	54.0	53.4	52.8	52.5	52.9	52.7
Public consumption	27.8	28.2	27.4	25.9	25.3	23.9	25.2	25.6	25.1	24.8	24.4	23.8
GFCF	15.6	16.1	16.0	17.2	18.7	20.8	19.7	18.3	18.2	17.5	17.3	17.3
of which: equipment	6.2	7.0	6.9	7.8	8.8	9.7	8.1	7.4	7.8	7.8	7.9	8.1
Change in stocks	-0.2	0.2	0.0	1.2	0.8	0.8	-0.7	-0.5	0.4	0.1	0.0	0.2
Balance in goods and services	0.7	0.4	2.0	1.3	0.3	-0.4	1.8	3.1	3.5	5.0	5.4	6.0
Exports	36.5	36.4	36.4	36.7	36.7	32.0	31.4	32.3	34.3	35.0	35.9	36.9
Imports	35.8	35.9	34.4	35.5	36.3	32.5	29.6	29.2	30.8	29.9	30.5	30.9

Source: Commission services
For 1990 to 1992: Commission staff forecasts (NOV 1990)

Table 3: Change in demand components (a) and contribution to GDP growth (b), 1980 prices

	81	82	83	84	85	86	87	88	89	90	91	92
Evolution												
Private consumption	-2.3	1.4	2.6	3.4	5.0	5.7	-1.5	-0.8	-0.8	0.6	0.6	1.3
Public consumption	2.6	3.1	0.0	-0.4	2.5	0.5	2.5	0.2	-1.3	-0.6	-1.5	-1.2
GFCF	-19.2	7.1	1.9	12.9	12.6	17.1	-3.8	-6.6	0.2	-2.6	0.0	1.6
Domestic demand (including stocks)	-4.1	3.5	1.4	5.1	5.4	6.1	-2.2	-1.7	0.3	-0.8	-0.1	1.0
Exports	8.2	2.5	4.9	3.5	5.0	0.0	5.1	7.3	6.0	6.0	3.9	4.4
Imports	-1.7	3.8	1.8	5.5	8.1	6.8	-2.0	1.4	4.2	2.4	1.7	2.8
Contribution to growth (b)												
Final domestic demand (including stocks)	-4.2	3.4	1.4	5.0	5.3	6.1	-2.2	-1.7	0.3	-0.7	-0.1	0.9
Foreign balance	3.3	-0.4	1.1	-0.6	-1.0	-2.4	2.5	2.2	0.8	1.6	1.0	0.9
GDP (a)	-0.9	3.0	2.5	4.4	4.3	3.6	0.3	0.5	1.2	0.9	0.9	1.8

(a) change as % p.a.

(b) change as % of GDP of preceding year

Source: Commission services
For 1990 to 1992: Commission staff forecasts (NOV 1990)

Table 4: Balance of payments

	81	82	83	84	85	86	87	88	89	90
1. Current balance	-12.3	-19.2	-12.8	-17.8	-28.8	-36.3	-20.3	-8.4	-6.5	9.3
2. Recorded capital flows	9.9	20.4	27.6	19.3	50.5	25.3	51.6	23.3	-13.6	31.8
3. Public sector borrowing	8.9	25.6	17.4	-5.7	4.3	36.8	21.1	-5.8	-3.8	8.4
4. Private sector borrowing	1.0	-5.2	10.1	25.0	46.2	-11.5	30.5	29.1	-9.8	23.5
5. Direct investments	-0.2	0.6	0.1	-2.5	-0.9	-3.0	-3.5	-1.4	-6.9	-1.8
A. inward	0.8	1.2	0.9	0.1	1.3	1.3	0.6	3.4	7.9	7.5
B. outward	-1.0	-0.6	-0.8	-2.6	-2.2	-4.3	-4.1	-4.8	-14.8	-9.3
6. Portfolio investments	0.5	-1.2	2.9	7.4	14.3	-17.0	24.8	7.1	-19.5	17.3
A. Danish securities	0.6	-0.4	3.5	8.9	17.1	1.0	19.8	11.6	-8.4	25.4
B. foreign securities	-0.1	-0.8	-0.6	-1.5	-2.8	-18.0	5.0	-4.5	-11.1	-8.1
7. Other private sector borrowing	-0.9	-4.8	2.2	18.9	27.2	9.8	14.4	18.4	7.7	17.9
8. The banks external position	1.6	0.2	5.0	1.1	5.6	-1.1	-5.2	5.0	8.8	-9.9
9. Unrecorded capital flows	-2.5	-3.4	-2.4	-5.4	-4.5	-5.8	-1.2	-6.2	-7.5	-19.6
10. Changes in Denmarks international liquidity	-4.9	-2.2	12.4	-3.9	17.1	-16.8	30.0	8.7	-27.7	21.6

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