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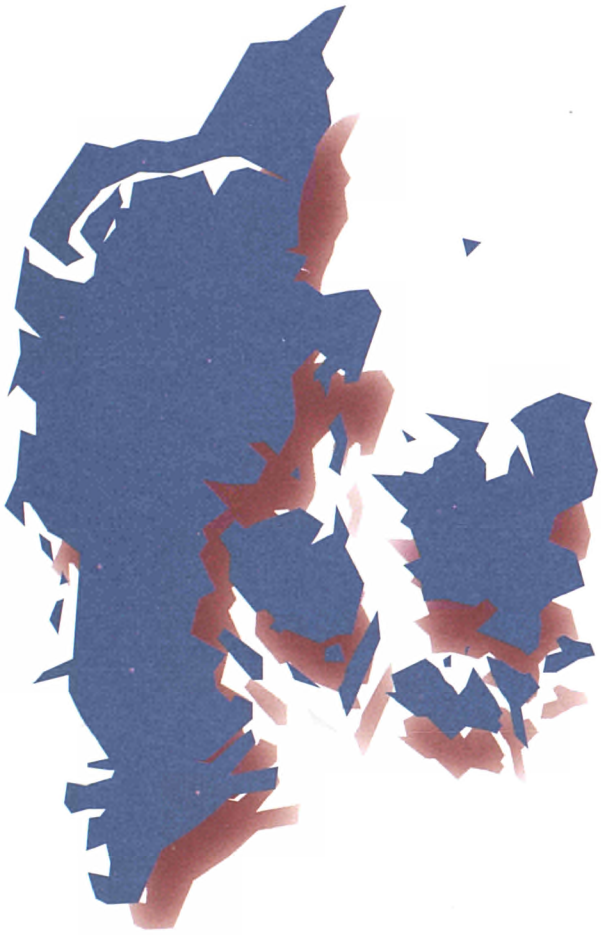

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By

PLS Consult (Jens Henrik Haahr, Helle Ørsted and Hans Henrik Hansen) and Peter Jensen

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Executive Summary

This study describes and analyzes the functioning of the Danish labour market. Unemployment has been the single most important problem which has confronted policy makers during the past two-and-a-half decades. Unemployment has remained high and has displayed an upward long-term trend ever since the early 1970s.

Against this background, the report focuses on the question of unemployment, its nature, its causes and the contents and effects of policies which seek to lower structural or registered unemployment, or which otherwise directly or indirectly affect the functioning of the labour market. The following sections summarize the conclusions of the study.

The Nature of Danish Unemployment

Danish unemployment has remained at a high level during the 1980s and the first half of the 1990s. There are clear cyclical elements in unemployment: The recession of the early 1980s resulted in an unemployment rate of 10.3 per cent of the work force in 1983, after which a brief period of economic recovery caused a drop in unemployment to 8 per cent in 1986 and 1987. In the period from 1987 to 1993, Denmark witnessed a steadily growing unemployment rate, with registered unemployment reaching a record high of 12.3 per cent in 1993. From 1993 to 1995 unemployment started to decrease again at a relatively steep rate, almost reaching 10 per cent during 1995. As of August 1996, the unemployment rate has dropped further to 8.9 per cent.

Notwithstanding the cyclical elements in unemployment, the overall trend in the unemployment rate from 1980 has been upwards, with the unemployment rate unable to return to the level attained in previous economic upswings. This was most clearly illustrated in the economic upswing in the mid-1980s where shortages of skilled labour in specific sectors caused an overheating of the economy and high inflation, even if the overall unemployment rate was never below 8 per cent.

In 1994, structural unemployment, defined as the level of unemployment which is consistent with unchanged wage and price inflation, was estimated to be as high as 8 to 10 per cent, implying that any attempt to reduce unemployment below this level would lead to accelerating inflation and hence be unsustainable.

A relatively small group of persons carry the largest burden of unemployment in Denmark. Women, young persons, low-skilled workers, and persons with little or no education exhibit higher unemployment rates than other groups: Since 1984, the unemployment rate of women has remained 2.5 to 3 percentage points above that of

men, with the result that for women a record unemployment rate in 1993 was almost 14 per cent. Persons in the age groups 20-24 and 25-29 had the highest unemployment rate of all groups in the period 1990 to 1993, the unemployment rate in 1993 reaching 16.5 per cent for 20-24 year olds and 17.3 per cent for 25-29 year olds. Persons with basic schooling only or vocational education experienced an unemployment rate of 14.2 and 14.4 per cent respectively in 1993. In contrast, the unemployment rates of persons with a short-term, medium-term or long-term higher education was between 4.9 and 6.7 per cent. The unemployment rate for blue collar workers is substantially higher than for other occupational groups. Approximately 5.5 per cent of the work force were long-term unemployed in 1993 and 1994. Persons with basic schooling only are overrepresented in this group of long-term unemployed.

The Causes of Unemployment

A number of possible explanations have been suggested for the high and persistent unemployment in Denmark during the 1980s. First, since the mid-1970s, one important cause of unemployment has been deteriorating terms of trade caused by the two oil shocks. Secondly, macroeconomic policies have since the late 1980s and until 1993 aimed a low level of inflation and build up a surplus on the balance of payments rather than reduce unemployment. There is evidence that from the late 1980s onwards there was room for traditional macroeconomic policy to reduce unemployment without spurring growth in inflation.

However, it is widely agreed today that there is an important structural component in unemployment, and that major reductions in unemployment cannot be obtained without policies aimed to affect the structure and functioning of the labour market. The following structural problems have been emphasized in the functioning of the Danish labour market as partial explanations for high and persistent unemployment:

First, the equilibrizing forces between unemployment rates and wage growth rates are weak in Denmark. This *real wage rigidity* is reflected in the fact that groups with above average unemployment rates have not experienced lower real wage growth rates than other groups. For instance, real wages for unskilled blue collar workers grew faster than for any other occupational group from 1984 to 1992, despite the fact that unemployment for this occupational group is higher than for any other occupational group.

Second, the nature of Danish unemployment, as described above, suggests that there is an *insider-outsider* problem, where the labour force is partitioned between a dominant group who practically never experience unemployment, and a smaller group with a much higher risk of unemployment. This division means that

during wage negotations, there are few incentives for the "insider"-group to consider the effects of their wage claims on the smaller, weaker group of "outsiders".

Third, the Danish labour market is characterized by a very *compressed wage structure*, as the difference between wage levels for high-wage and low-wage groups is very small by international comparison. For some groups of unskilled and low-skilled workers, there is evidence that this wage structure means that wage levels do not correspond to productivity levels. In other words, these groups are priced out of work as they cannot produce a value worth their wage.

Fourth, there is evidence of a *self-perpetuating persistence of unemployment*, the hysteresis-effect, occurring among other things as the effect of skill deterioration among the long-term unemployed. This skill deterioration may again be ascribed to passive labour market policies, to signalling and sorting mechanisms which come into play when persons become long-term unemployed or to changes in the job search behaviour of the long-term unemployed. One major factor behind all these explanations of skill deterioration is the very long duration of unemployment benefits in Denmark by international standards.

On balance, two factors seem most important in explaining the structural elements in the high and persistent Danish unemployment from 1980: Insider-outsider effects and the long duration of unemployment benefits.

Danish Labour Market Policy and its Effects

To what extent has Danish labour market policy adressed the structural causes of unemployment? In the 1970s and 1980s, Danish labour market policy was characterized by the importance of passive labour market measures: Unemployment benefits and the Post-Employment Wage scheme - an early retirement scheme introduced in 1979 to create job-openings for young unemployed - were the dominant elements. At the same time, the period until 1994 was characterized by a *de facto* growth in the duration of benefit entitlement periods. Prior to 1994, the maximum duration of unemployment benefits was 9 years when taking into account all available activation and benefit programmes. Furthermore, active elements such as subsidized employment schemes and education offers for unemployed had a "passive" nature, since in fact one of the most important informal objectives of active measures was to renew each unemployed person's unemployment benefit entitlement. On balance, Danish labour market policies until 1994 therefore contributed rather than decreased structural unemployment, as the long duration of benefits and the "passive" nature of benefits contributed to skills deterioration among unemployed persons.

The Labour Market Reforms 1994-95

From 1994, new principles have been introduced for Danish labour market policy, and a series of reforms have been enacted. These reforms can be divided into two groups: Reforms of active labour market policy and the introduction of three comprehensive leave schemes.

The *reforms of the active labour market policy* have comprized the following elements: The benefit entitlement period has been shortened to a maximum of 5 years (plus the possibility of 1 year of Child Care Leave for parents). The link between active labour market measures and benefit entitlements has been removed, creating incentives for effective active measures, i.e. measures which lead to regular employment. A possibility of establishing individually adapted activation programmes has been introduced. From 1996, young unskilled unemployed persons are required to undertake training or education after 6 months of unemployment.

Furthermore, full-time activation of unemployed persons is gradually being moved forward. From 1998, every person who has experienced more than 2 years of unemployment will be covered by a full-time activation scheme involving subsidized employment, training and education or combinations thereof. Finally, the management of active labour market policy has been decentralized, and the newly established Regional Labour Market Councils have been given the right to identify vulnerable groups of unemployed who may receive early activation and to initiate targeted training and education as well as job-rotation programmes to prevent shortages of skilled labour in the regional labour markets.

These reforms all aim to reduce structural unemployment, as they seek to lower that rate of unemployment at which shortages of skilled labour occur. This is so in two ways: First, along with the reduction in the duration of the benefit period, earlier, more comprehensive and more individually adapted activation schemes for the unemployed seek to reduce the average duration of unemployment, so as to prevent the deterioration of skills among the unemployed. Second, decentralization of labour market activation and improved possibilities of targetted training programmes and job-rotation projects seek to improve and adapt the skill levels of the workforce to the requirements of the labour market.

As for the *leave schemes*, a Child Care Leave scheme, an Educational Leave scheme and a Sabbatical Leave scheme came into force in 1994. The first two of these schemes are open to both employed and unemployed persons, the last scheme is only open to employed persons. Persons may obtain leave up to 52 weeks under specified circumstances, at the same time upholding a right to an allowance corresponding to the maximum unemployment benefit rate for the

scheme and 70 per cent of this rate for the Child Care Leave and the Sabbatical Leave scheme in 1996.

The most important objective of the leave schemes has been to reduce registered unemployment through a reduction in the supply of labour. Thus, unemployed persons obtaining leave in one of the three schemes are removed from the unemployment statistics. At the same time, employed persons who obtain leave may be replaced for the leave period by an unemployed person - indeed sabbatical leave requires that the vacant position is filled by a subsitute.

The Effects of the Labour Market Reforms

Data on the effects of the labour reforms introduced since 1993 is still relatively scarce. As to the effects of the leave schemes, these schemes have indeed reduced registered unemployment in 1994-1995. In 1994, registered unemployment fell by between 32,000 and 40,000 full year persons. In this year, registered unemployment in Denmark was approx. 340,000 full year persons. In 1995 it is calculated that the immediate drop in registered unemployment because of the leave schemes was between 60,000 and 70,000 full year persons. These figures compare to a total number of registered unemployed persons in 1995 of 285,000.

A large part of the leave schemes' effects on registered unemployment is due to the "reclassification" of unemployed persons as persons on leave. More than half of all persons on leave in 1994 and 1995 were previously unemployed. Model calculations of the long-term effects of the leave schemes show that the effect of the schemes on unemployment approaches zero over time, as decreasing labour supply will push up wage increase rates, to the detriment of the enterprises' international competitiveness and thereby employment. However, this conclusion does not take the possible positive structural effects of the Educational Leave into account, as Educational Leave may in the long term further the productivity of the work force. On balance, the leave schemes only appear to contribute significantly to a reduction in registered unemployment in the short term, and only the Educational Leave scheme may contribute to a reduction in structural unemployment. Indeed, the Child Care Leave scheme is seen to contribute to structural unemployment, as this scheme is extensively used by unemployed women. These women risk further marginalization in the labour market, as their skills deteriorate and their connection to the labour market is further weakened.

As to the effects of the labour reforms since 1993 on structural unemployment, the number of long-term unemployed and the average duration of unemployment has dropped significantly from 1994 to 1995. As mentioned, a shortening of the duration of unemployment is indeed one of the most important means which the labour market

reforms seek to employ in preventing the deterioration of skills among unemployed. However, a significant part of the decrease in long-term unemployment from 1994 to 1995 is due to unemployed persons' utilization of the leave schemes and the Transition Benefit scheme, which was a temporary extension of the Post Employment Wage scheme allowing the long-term unemployed to retire as early as age 50. If the effects of the leave schemes and the Transition Benefit scheme are excluded, long-term unemployment did not drop faster from 1994 to 1995 than during the previous economic upswing in the mid-1980s. This suggests that apart from the leave schemes and the Transition Benefit, recent labour market reforms have so far had limited effects on the duration of unemployment.

Furthermore, compared to the most recent previous economic upswing, wage increase rates have not yet grown as rapidly as then and shortages of skilled labour have occured only in public sector areas where the effects on wage increase rates and inflation are very limited. Training and education have been given a higher priority in active Danish labour market policy from 1994 onwards, and this may have contributed to the prevention of shortages of skilled labour. However, there may be several other explanations for the lower wage increase rates in the present economic upswing than in the previous.

In summary Danish labour market policy since 1993 has been directed both towards the symptom of unemployment, that is the rate of registered unemployment, and some of the likely causes of unemployment, namely the deterioration of skills among the unemployed and the related mismatch problems of supply and demand in the labour market. In curing the symptoms, policies have been relatively successful, as labour market measures contributed significantly to a reduction in registered unemployment in 1994 and 1995.

In removing some of the causes of unemployment, results so far are mixed. There is no evidence that recent labour market measures have reduced the number of long-term unemployed in a manner which prevents skill deterioriation. Rather, many long-term unemployed have been removed from the unemployment statistics through passive measures. On the other hand it does not seem unlikely that active labour market measures have contributed to the prevention of labour shortages in 1994 and 1995 through targeted improvements in the skills of the work force, but evidence is scarce.

The question which remains to be answered is whether the labour market measures which have been adopted so far since 1993 are sufficient to ensure a significant and lasting drop in structural unemployment. Several of the most likely causes of unemployment have not been adressed by policy measures until now to

any significant extent: Real wage rigidity, the insider-outsider problem, and the compressed wage structure.

Industrial Relations and the Functioning of the Labour Market

Looking at labour market institutions, the "Danish model", a highly organized and institutionalized systems of industrial relations, remains a key characteristic of the Danish labour market. The Danish model is characterized by the integration of employee and employer organizations into a system of institutionalized balancing of opposed interests. Furthermore, the Danish labour market organizations are to a large extent self-regulating and generally play a considerable role in the management and setting of overall economic policy. However, self-regulation is constrained by the potential for government intervention and the labour market parties' own interest in and responsibility for the long-term success of the economy.

The organization of the labour market parties has been undergoing significant changes since 1989. From the traditional organization along the lines of trades structured in one comprehensive umbrella organization, industry-wide cartels are being formed, both among employer and employee organizations, gradually paving the way for a system of one enterprise-one collective agreement, but the process remains surrounded by controversy, particularly among employee organizations.

The decentralization of organizational structures in the labour market from umbrella organizations to cartels has been paralleled by a decentralization of wage formation in the labour market. The point of balance of wage formation has moved away from the central organizations to the level of individual enterprises. At the same time there are clear limits to decentralization as the central employers organization attempts to control wage formation through decrees about maximum wage increases to its member enterprises.

In this regard, the decentralization of wage formation has not increased wage flexibility discernibly. There has been little change in wage structures in recent years, and the relation between the unemployment rate and real wage growth remains very weak indeed. The Danish system of industrial relations thus holds few direct incentives for looking after the interests of the unemployed, as the system is constructed to allow for the articulation and aggregation of employed wage earners' interests. The risk that the Danish labour market will be characterized by an insider-outsider problem is therefore inherent in the system, and real wage developments since 1987 appear to support the hypothesis on the existence of this insider-outsider problem.

The Tax System and Structural Unemployment

The Danish tax system, which is characterized by a reliance on income tax and by high marginal income tax rates, among other things affects the supply of labour: High marginal income tax rates may limit labour supply as the marginal growth in disposable income earned through extra work is limited. However, decreases in the marginal income tax rates also correspond to an increase in hourly wages after tax. This may lead some to reduce their labour supply if they are content with their existing level of disposable income.

In adopting the 1994 tax reform, which cut marginal income tax rates replacing lost revenue with a gross labour market tax to be paid by all persons in work and "green" resource consumption taxes, the centre-left coalition government counted on marginal tax rate cuts to increase labour supply. One of the wider objectives of this policy was to decrease the wage pressures of the economy and thereby limit structural unemployment. However, empirical data has revealed a limited potential for increasing labour supply through income tax cuts, as many other factors than pay clearly affect the decision among Danish employees to supply or not supply additional labour.

At the same time, the 1994 tax reform exacerbated the problem of the unemployment trap: It has been demonstrated that the combination of high marginal income tax rates and high unemployment benefits for low income groups results in a less than optimal incentive structure for working in Denmark: For persons earning a gross wage less than DKK 160,000 per annum, the gain in disposable income moving from unemployment to employment is negligible. The unemployment trap was deepened with the tax reform of 1994. Thus, the introduction of a gross labour market tax of (from 1998) 8 per cent in effect serves as an 8 per cent tax on employment.

On balance, it therefore seems doubtful whether recent Danish tax reforms have facilitated a reduction in structural unemployment. At best, the tax reforms have increased labour supply only marginally, at the same time exacerbating the unemployment trap problem.

The Education System and the Functioning of the Labour Market

The education system plays an important role in satisfying the labour market's demands for skilled and well-educated labour. Where the education system cannot supply persons with the right skills, the results are mismatches in the labour market: Above average unemployment for persons with certain skills and qualifications, shortages of persons with others.

The Danish education system has produced a labour force with qualifications which to a relatively high extent match the needs of the labour market. The extent of

mismatch problems is limited. Indeed, analyses of the unemployment-vacancy relation for Denmark leads to the conclusion that the increase in unemployment since the mid-1970s cannot to any great extent be explained by increasing mismatch problems. However, one general problem of mismatch which is reflected in the unemployment statistics is the above average unemployment rates for persons with little or no education. The disparity in unemployment risk between poorly educated persons and well-educated persons has increased over the last decade and is expected to continue to do so. In this connection, the most serious problem of the Danish education systems is seen to be the fact that about one out of three youth never completes an education that qualifies him or her for the labour market, even though a steadily increasing share of each form completes a higher education. A high drop-out rate from vocational training and education programmes has been identified as a problem. One reason may be an inadequate provision of courses for students who prefer practical issues.

Although the quality of the Danish education system is generally assessed favourably, albeit on a weak basis of assessment, other problems have been emphasized in the education system's relation to the labour market. First of all, it is questionable whether adult and continuing education is targeted sufficiently precisely towards the needs of the labour market. In addition, much adult and continuing training is directed towards persons who are already well qualified, whereas fewer opportunities exist for persons with little or no education. The system of adult and continuing training may thus serve to widen the education gap with a large segment of the labour force being relatively well trained and another group with little or no education.

Industrial Policies, Employment and Unemployment

In relation to the functioning of the labour market, it is characteristic of Danish industrial policy that it has not been directed towards the preservation of jobs in threatened or declining industries to the same extent as other European countries. Rather, from its outset in traditional liberal, non-interventionist ideas, where the state intervened only minimally and non-selectively in order to facilitate business development in a context of free international trade and negligible state ownership of manufacturing industries, industrial policies since the mid-1980s have become increasingly directed towards sector-specific technological development and product development programmes.

Today, Danish industry policy - or business policy as it has been re-christened - aims to a high extent at capability development, i.e. development programmes to strengthen research, training and education and the provision of technological

services to private enterprises. By international comparison, however, the financial means available for business policy are limited.

Recent trends in Danish business policy include a growing prioritization of support for entrepreneurs and of employment opportunities for persons with little education. In the Domestic Services scheme, which was introduced in 1994 as a business development initiative aiming to create a whole new business area, a state subisidy is provided to private households' purchases of domestic services. As opposed to similar schemes which have recently been introduced in France and Belgium, the Danish Domestic Services scheme does not involve the activation of unemployed persons. Rather, it is intended as a support scheme for the development of professionalized Domestic Services enterprises as a foundation for lasting regular employment of persons with little education. However, the number of persons employed in Domestic Services enterprises is low, 2,300 in June 1995, and the overall importance of the scheme for employment and unemployment is thus very limited.

In attempting to create an overall indicator of the effects of Danish business policy, the Ministry of Business has constructed the "business policy success indicator", which measures a country's structural competitiveness, relating developments in relative wage costs to developments in OECD market shares for each country's exports. The business policy success indicator does not measure the effects of business policy on employment and unemployment. Rather it measures the extent to which competitiveness in the international markets is compatible with high wages. The business policy success indicator for Denmark has developed positively since the mid-1980s, indicating that Denmark has been able to hold on to or increase its market shares in spite of real wage levels above the OECD average.

This suggests that there is scope for employment growth in the Danish economy, even if it is - realistically - assumed that there is a strong preference for high real wage levels among wage earners. Thus, high structural competitiveness in principle opens up the possibility that future real wage increases may be traded for employment growth while upholding a high level of real wages.

The Future Direction of Policies Aimed to Lower Unemployment

On most accounts, the policies which have been implemented in recent years are not realistically sufficient to lead to any major, lasting reducting in structural unemployment. Against this background, a further number of policy reforms are being discussed in Denmark presently. In particular, two strategies are being debated: A strategy which aims to further increase the productivity of the labour force, and a

strategy which aims to lower labour costs, in particular for low-skill low-productivity groups in the labour market.

As for the first strategty, it aims to make employment of all categories of labour compatible with relatively high minimum wages through training and education. Thus, the Government and the labour movement continuously argues that a qualifications upgrade of the work force will reduce mismatch problems in the labour market and help the long-term unemployed gain stable employment. This strategy has the merit of being uncontroversial. The question is whether it is also a sufficient strategy to reduce structural unemployment to significantly lower levels. This has been disputed, as some segments of the work force cannot realistically be assumed to become so productive as to make them employable at the minimum wage, regardless of the amount of training they may receive.

The second strategy aims to lower labour costs, either directly or indirectly. A direct lowering of minimum wages has been presented as an efficient way to increase the demand for low skill labour, but resistance to this proposal is fierce in the labour movement and the Social Demcratic Party. Furthermore, government economists have argued that a one per cent drop in structural unemployment requires an increase in wage differentials of 10-15 per cent, implying that a bigger reduction in structural unemployment would necessitate quite considerable wage reductions for low income groups. In addition, a lower minimum wage is difficult to enforce, as wage levels are a matter for collective agreements.

A different solution which has been discussed is the introduction of tax reliefs for low income groups. It is argued that this would allow low-income labour to accept a relatively lower-paying job without losing real income. This will dampen wage demands throughout the labour market, in turn increasing the demand for labour. The problem of greater income disparities could therefore be avoided in this strategy. However, the lost revenue following from tax reliefs for low income groups will have to be compensated through significantly higher marginal income tax rates for higher income groups. This would be politically difficult to carry through.

A final proposal which has been debated is the introduction of an employment tax allowance. This allowance will increase incentives for low income groups to work rather than receive unemployment benefits, thereby increasing the supply of labour among low income groups, leading to lower wage increase rates and stronger labour demand. However, as with the proposal for low income tax reliefs, considerable tax revenue would be lost and must be compensated through higher marginal tax rates for higher income brackets.

It would appear that measures which aim to reduce labour costs share the feature that they are controversial. It follows that the most likely future course of

Danish policies aimed at lowering unemployment will be a continuation and perhaps a further development of those policy measures which have been implemented since 1993: More and earlier activation of unemployed persons, perhaps further limits to unemployment benefit eligibility, and a continued reliance on training and education are likely to constitute the most important components. It remains to be seen whether such measures will be able to secure a significantly and lasting lower rate of unemployment.

1. *Introduction*

This report concerns the Danish labour market and the functioning of the Danish labour market since 1980. It constitutes one of fifteen country labour market studies prepared for the European Commission's General Directorate for Employment, Industrial Relations and Social Affairs. The publication series aims to further the exchange of information on labour market policy and labour market practices between the Member States of the European Union and interested parties within the Member States.

One problem has overshadowed all other problems of the Danish labour market throughout the 1980s and the early 1990s: The labour market has been characterized by persistent high levels of unemployment and its causes remains the main focus throughout the report. Danish unemployment is described in Chapter 2, and various prominent explanations for the high level of unemployment are presented and discussed. The second part of the chapter presents an overview of recent macroeconomic policies in Denmark and their consequences for employment and unemployment.

There appears to be evidence that Danish unemployment is to a high extent the result of institutional characteristics of the Danish labour market. Historically, the nature of passive and active labour market policy has by most accounts contributed to structural unemployment. The same goes for the Danish system of industrial relations and of wage formation.

Consequently, Chapter 3 describes and assesses Danish labour market policy in terms of institutions and passive and active policies. Particular attention is paid to recent developments which aim to reduce structural unemployment and registered unemployment. As for registered unemployment, three comprehensive leave schemes were introduced in 1994, creating possibilities for temporary withdrawal from the labour market for both employed and unemployed persons. When unemployed persons obtain leave, they are removed from the unemployment statistics. When employed persons obtain leave, the vacant positions thereby created are frequently filled with a person who was formerly registered as unemployed. The overall impact of the leave schemes has been a considerable reduction in registered unemployment. By most accounts, however, no lasting reduction in unemployment will result from the leave schemes.

As for structural unemployment, a number of recent legislative changes aim to shorten the duration of unemployment benefit and provide for earlier activation of unemployed persons in subsidized employment schemes or training and education

programmes. This has been done with a view to lowering the duration of unemployment and preventing the related deterioration of skills. At the same time, possibilities for training and education of both employed and unemployed persons have been improved within the framework of Danish active labour market policies. These reforms have sought to decrease the risks of shortages of skilled labour in the labour market, and thereby to prevent an acceleration of wage increases to the detriment of both the competitiveness of business and employment levels.

In Chapter 4 the system of industrial relations and wage formation is presented, also with a view to assessing the present system's consequences for employment and unemployment in Denmark, as the previous highly centralised system of organization and wage formation moves towards a higher degree of decentralization. So far, the decentralization of wage formation which has occurred since the 1980s has failed to bring about greater wage flexibility in the labour market, as the central employer organisation retains ultimate control with maximum wage increases.

Chapter 5 contains a brief description and analysis of labour market legislation or regulation in Denmark as regards employment protection, the regulation of working time and minimum wage regulation. Again, a main focus is to assess the contribution of labour market regulation to employment and unemployment. The Danish labour market is characterized by a low level of legislative regulation and rather weak rules for employment protection. However, there is no evidence that liberal employment protection rules have affected employment significantly.

In Chapter 6 the Danish tax system is described with a particular view to its effects on the supply of labour. The effects of the 1994 tax reform on labour supply is discussed, as is the "unemployment trap". The unemployment trap occurs where there are no incentives for unemployed persons in low-wage areas to obtain regular employment at the minimum wage level as their disposable income decreases with the move from unemployment to employment due to high income taxes and high unemployment benefits.

Chapter 7 presents and assesses the Danish education system. Particular attention is given to the ability of the education system to meet the skills requirements of the labour market and the extent and nature of mismatch problems in the Danish labour market. The contents of recent Danish industrial policy is described and assessed in Chapter 8. Increasingly, focus in Danish industrial policy is on the strengthening of sectors where Danish enterprises already have a strong position, such as techology and product development programmes. Danish industial policy has thus avoided the defensive strategy of allocating substantial resources to the preservation of jobs in declining industries. On the contrary, Danish business policy in

recent years appears to have contributed to strong Danish structural competitiveness. This means that Denmark has retained international market shares in spite of high real wages. This opens up the possibility that future real wage growth may be traded for employment growth, even if high real wages are to be maintained.

Finally, Chapter 9 sums up the overall direction of those Danish policies which are directed towards lowering unemployment. In the second part of the chapter, the most prominent proposals for further policy reforms aimed at lower unemployment are presented. The Danish debate in this respect is broadly in line with the overall European debate, as much attention is being paid to possible ways to reduce labour costs for low income groups, either by directly reducing minimum wages or by lowering income tax rates in the lowest wage brackets.

In Appendix A, B and C, a statistical description of the Danish labour market is provided. Appendix A describes changes in the size and structure of the population and the labour force from 1980. In Appendix B, the structure of the work force is described, in terms of the development of employment and unemployment in the period from 1980 to 1994. In Appendix C, nominal and real wage developments in the labour market in the 1980s and early 1990s are described for the different occupational groups.

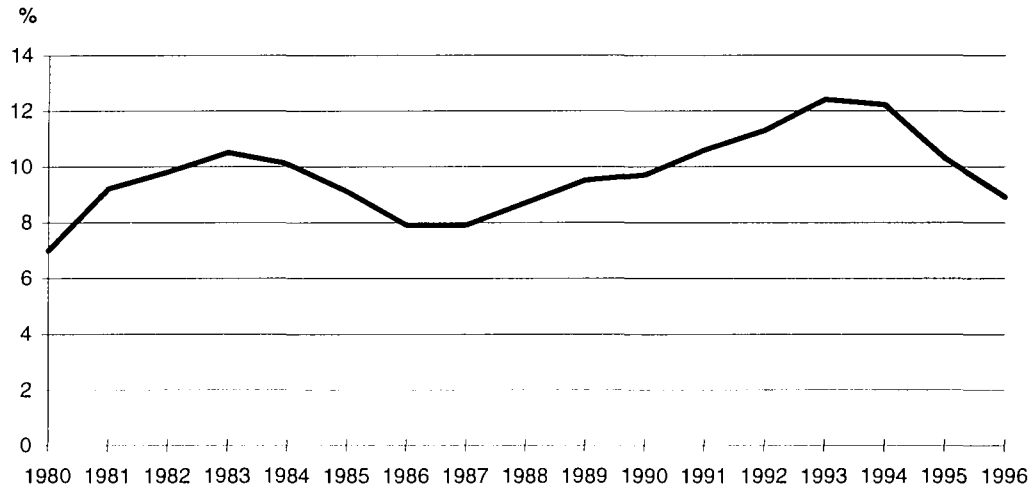
The report has been prepared by Jens Henrik Haahr of PLS Consult, Denmark, in cooperation with Associate Professor Peter Jensen, Centre for Labour Market Studies at the University of Aarhus, Denmark. Helle Ørsted Nielsen and Hans Henrik Hansen of PLS Consult also contributed to the preparation of the report.

2. *Unemployment in Denmark*

In this chapter we analyze the development of Danish unemployment. The main emphasis is on the cyclical and structural components of unemployment, as we review and assess a number of possible explanations for the development of unemployment. A detailed descriptive analysis of Danish unemployment is found in Appendix B.2.

In general, the period 1980-1996 has been characterized by high and persistent unemployment in Denmark. Cyclical variation in economic acticity resulted in a peak in 1983, where 10.3 per cent of the work force was registered as unemployed. From 1987 a gradual increase led to a record-high level of unemployment in 1993, with registered unemployment reaching 12.3 per cent. Recently, unemployment has started to decline again.

Figure 2.1. The Unemployment Rate in Denmark, 1980-1996.



Source: Statistical Ten-year Review 1991 and 1995, Monthly Review of Statistics 1996:3.

On the one hand, it is characteristic of Danish unemployment that it is very widespread in the labour force. Temporary layoffs are quite common in Denmark, and they constitute 40 per cent of all unemployment spells and 16 per cent of total unemployment. The main reason for the high volume of temporary layoff unemployment is the unemployment insurance system, which in effect subsidizes this type of unemployment.

On the other hand, unemployment is very concentrated on a small group of people: Women, young people, low-skilled workers, and those with very little or no education exhibit higher unemployment rates than other groups. The difference

between male unemployment and female unemployment increased significantly from 1980 to 1986, and female unemployment has since then remained clearly higher than male unemployment. Since 1984, the unemployment rate of women has remained 2.5 to 3 percentage points above that of men. This meant that for women the record unemployment rate in 1993 reached almost 14 per cent.

Persons in the age groups 20-24 and 25-29 had the highest unemployment rate of all groups in the period 1990 to 1993, the unemployment rate in 1993 reaching 16.5 per cent for 20-24 year olds and 17.3 per cent for 25-29 year olds. Persons with basic schooling only or vocational education experienced an unemployment rate of 14.2 and 14.4 respectively in 1993. In contrast, the unemployment rates of persons with low, medium and high levels of education was between 4.9 and 6.7 per cent. The unemployment rate for blue collar workers is substantially higher than for other occupational groups. In addition, approximately 5.5 per cent of the work force were long-term unemployed (12 months or more) in 1993 and 1994. Thus, almost half of all unemployment may be considered long-term unemployment. Persons with basic schooling only are overrepresented in this group of long-term unemployed.

Finally, it is characteristic of Danish unemployment that the unemployment rate of the 60-66 age group has been kept down artificially during the 1980s by an early retirement scheme. This indicates that there is a considerable amount of hidden unemployment. Recently this age group as well as the 55-59 age group have had a remarkable increase in unemployment rates.

2.1. Unemployment and its Causes 1980-1995

In this section, estimates of the structural rate of unemployment for Denmark are presented and discussed, and the most prominent possible explanations for the high and persistent structural unemployment in Denmark are analyzed: Deteriorating terms of trade since the first oil crisis, tight macroeconomic policies, real wage rigidity, the hysteresis phenomenon, the insider-outsider problem, a compressed wage structure, and skills deterioration among unemployed in connection with the long duration of unemployment benefits.

2.1.1. Cyclical and Structural Unemployment 1980-1995

As mentioned, the development of the unemployment rate over the period 1980-1995 shows clear cyclical movements. The unemployment rate fell during the two cyclical upturns in the mid-1980s and from 1993 to the present. However, the overall picture

shows an upward trend in the level of unemployment, with the unemployment rate unable to return to the level attained in previous upswings. This development indicates that unemployment has become more persistent, or in other words that the structural rate of unemployment has increased over the period.

This change in the character of Danish unemployment also means that the available policy measures addressing unemployment have changed. During the 1980s it was realised that high unemployment was not merely a temporary cyclical phenomenon, but a permanent change in the level of unemployment. Hence, it has become widely agreed that the structural component of unemployment is high and that major reductions in unemployment cannot be obtained without structural policies.

The initial rise in unemployment from 1980 was caused by the second oil price shock in 1979-1980 that had a highly unfavourable impact on the Danish economy. Unemployment increased until 1983 when the upswing caused it to start decreasing, at first slowly but from 1984 to 1986 with a rather sharp decline. As is described in detail in Appendix B.1 this was due to a very high growth in employment.

The upswing in the mid-1980s was followed by overheating of the economy and shortages of skilled labour in specific segments of the labour market, with high wage inflation resulting. Private consumption also increased strongly, mainly as a result of a marked decline in long-term interest rates which caused house prices to go up. This overheating in the real estate market gave rise to a credit-financed increase in private consumption which, in turn, aggravated the balance of payments problems.

During the period from 1988 to 1993 Denmark was hit by a deeper recession than at the international level. This was largely due to domestic economic policy, which was directed towards an improvement of the balance of payments. Economic policy was tightened with the purpose of decreasing private consumption and encouraging savings. Consequently, the economic growth was quite low in Denmark, resulting in increasing unemployment.

The present cyclical upturn has prompted a fall in unemployment, from 1993 first slowly since labour productivity increased instead of employment, but from 1994 a large drop in unemployment occurred. The main reason behind this drop in unemployment is, however, a reduction in the size of the labour force due to the large number of persons temporarily taking part in active labour market measures or leave schemes.

From 1980 and onwards, the cyclical movements in Denmark have been out of phase with international cyclical movements. The balance problems already present in 1980 might have been the main factors behind this shift in phases. The current upswing is characterized by the fact that the two imbalances that existed previously, inflation and the deficit on the balance of payments, had been removed

before the upswing started. It was partly spurred by an expansionary fiscal policy with an explicit goal of reducing unemployment.

In summary, the development of unemployment shows cyclical movements but also a clear structural component, most clearly illustrated by the situation in 1986-1987 when high wage inflation occurred although the level of unemployment was around 8 per cent. In addition, the upward trend in unemployment indicates that there is a problem of persistence of unemployment.

2.1.2. Assessments of the Structural Rate of Unemployment in Denmark

Structural unemployment has received considerable attention in Danish economic policy recently. Structural unemployment can be defined as the level of unemployment that is consistent with an unchanged wage and price inflation. The structural rate of unemployment reflects among other things the degree of mismatch between supply and demand for labour and the degree of relative wage flexibility between occupational groups and regions.

If actual unemployment is reduced below the structural rate of unemployment, then there will be an upward pressure on wage and price inflation. In a fixed-exchange rate system, as in Denmark, this will cause a deterioration of competitiveness, resulting in increased unemployment which reduces the inflationary pressure. The structural rate of unemployment thus reflects an equilibrium level of unemployment.

Definitions of Structural Unemployment

The structural rate of unemployment cannot be measured directly, but an indicator has to be estimated based on the development of actual unemployment and wage and price inflation. There are several definitions of an indicator for the structural unemployment. One basic assumption relates to the formation of expectations about the inflation.

At present, the Ministry of Finance (1995) uses two different definitions for the estimation of the structural unemployment: NAIRU (Non Accelerating Inflation Rate of Unemployment) and ITRU (Inflation Target Rate of Unemployment).

Binder (1994) uses a slightly more advanced definition of structural unemployment that also takes into account the open economy restriction implied by trade balance. His definition of structural unemployment is thus that level of unemployment that is consistent with trade balance and unchanged inflation.

Estimates of Structural Unemployment in Denmark

Available estimates of the structural unemployment rate (from OECD and the Ministry of Finance) indicate that this is as high as between 8 and 10 per cent in 1994. The implication of these estimates is that any attempt to reduce unemployment below this level will lead to increasing inflation unless it is combined with structural policies that increase wage flexibility and reduce other structural problems in the labour market. This is widely recognized in economic policy in Denmark. Inflation in Denmark has been almost constant since 1990 around 2-2.5 per cent.

Structural employment defined as the non-accelerating inflation rate of unmployment, NAIRU, was almost constant around 8 per cent during the 1980s. During the beginning of the 1980s the NAIRU was thus significantly lower than actual unemployment. At the end of the 1980s and the beginning of the 1990s the NAIRU increased to almost 11 per cent, but it decreased to 10 per cent in 1994. The ITRU has only been calculated by the Ministry of Finance for the period from 1987 and it has been rather constant around a level of 9 per cent.

An analysis by the OECD (1990) supports this view in its estimate of the NAIRU for Denmark. This structural rate of unemployment has been steadily increasing ever since the mid-1970s, while the actual unemployment rate has not exceeded the NAIRU by more than a few percentage points. In fact, the results show that the NAIRU was higher than the actual unemployment rate in 1985-1987. During this period considerable mismatch problems occurred in the Danish labour market, leading to bottle-neck problems and overheating despite an unemployment rate as high as 8 per cent. Much of Denmark's unemployment is thus structural and frictional in its nature.

The OECD survey observes that high structural unemployment can obviously have many causes. It is pointed out, for instance, that the unemployment measure includes temporary layoffs (as a result of the structure of the unemployment insurance system), that a compressed wage structure and the unemployment insurance system result in an uneven distribution of unemployment across skill and educational categories, and that the general wage level is a factor behind the high unemployment level.

The analysis by Binder (1994) shows that structural unemployment (consistent with trade balance) has been below actual unemployment since the beginning of the 1980s. This indicates that traditional macroeconomic policy may be able to reduce unemployment without creating balance problems. The size of this reduction is estimated to be around 2-3 percentage points. Since the end of the 1980s this leeway has instead been exploited to build up a surplus on the trade balance. The analysis also points to a number of factors behind the increase in structural unemployment.

Since the mid-1960s the main factor has been the change in terms of trade caused by the two oil price shocks. In addition, the international real interest rate and the increase in the compensation level of the unemployment insurance benefits have also contributed to the increase in the structural unemployment. The tax system has not played any role in the increasing structural unemployment.

The Unemployment-Vacancy Relation

Another indication of the type of change that occurred during the 1980s can be obtained by considering the UV-curve. This curve shows the relationship between the unemployment rate and the vacancy rate. Since the vacancy rate may be regarded as an indicator of aggregate demand, the curve can be used to distinguish between cyclical and structural variations in the unemployment rate. Movements along the curve are traditionally interpreted as representing cyclical variations, whereas shifts in the curve may be taken as an indication of structural changes in the labour market.

Jackman et al. (1990) present UV-curves for most of the OECD countries. For Denmark their figures show that an outward shift occurred in its UV-curve during the 1980s.[1] It is remarkable, however, that the vacancy rate is much lower in Denmark than in the other OECD countries, including the other Nordic countries. The low vacancy rate suggests that the high unemployment is to some extent due to adverse demand shocks, but at the same time the shift in the UV-curve for Denmark suggests that part of the increased unemployment of the 1980s was due to structural factors that have caused a growing mismatch in the labour market.[2]

2.1.3. Real Wage Rigidity

The Economic Council (1995) points out that the real wage increases in the 1990s have been higher than the increases in the late 1970s even though the level of unemployment has almost doubled since then.[3] Increases in real wages do not seem to be very sensitive to a high level of unemployment.

A number of macroeconomic studies have analyzed the causes behind the high and persistent unemployment in Denmark. Andersen and Overgaard (1990) present results which point to a high growth rate in wages as an explanation of the high unemployment rates. Andersen and Risager (1990) conclude that unemployment

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[1] We return to the Unemployment-Vacancy relation in Chapter 7 below in connection with the demand and supply of skills in the Danish labour market.

[2] As was also noted by Jackman et al. (1990), there are several problems in measuring vacancies, and these may at least partly explain the low level of the vacancy rate in Denmark in comparison with the other countries.

[3] The Economic Council is an independent, government financed, advisory board of economists.

exerts little pressure on wages, which in their view supports an explanation of the high unemployment as a result of wage rigidities.[4] Wage rigidities are again to a high degree attributed to the unemployment insurance system.

A model of the Danish economy has been developed in a recent study (Economic Council, 1990). The analysis of this model shows that a permanent rise in employment requires structural policy measures, such as measures to increase labour market flexibility. Greater flexibility means a greater responsiveness to unemployment in wage formation. Furthermore, an improved international wage competitiveness will have significantly positive employment effects, and will thus bring about a reduction in unemployment. However, a lasting effect again requires greater labour market flexibility, for instance by creating stronger incentives to reduce wage claims in the wage bargaining. The consequences of this would be that those already employed would experience a fall in their real wage, while the unemployed who get work would experience a rising real wage. This illustrates that the problem of labour market flexibility is of an insider-outsider nature.

2.1.4. Hysteresis - the Persistence of Unemployment

The development of unemployment in Denmark over the last 15 years shows symptoms of the phenomenon which has been called "hysteresis". This refers to the situation whereby persistent unemployment occurs because adverse shocks on unemployment have very prolonged effects. In other words current unemployment is highly dependent on past unemployment.

The dynamics and the concentration of unemployment in Denmark points to an insider-outsider explanation of the hysteresis phenomenon, cf. Blanchard and Summers (1986). When wage negotiations are limited to employers and insiders, and the insiders disregard the question of outsider employment, temporary shocks can have permanent effects on the level of unemployment. Adverse demand shocks will swell the numbers of outsiders, but the reduced insider corps will ignore this in the wage bargaining process, thereby giving rise to hysteresis. This could explain why the structural rate of unemployment, or NAIRU, has been increasing along with the actual unemployment rate.[5] In this connection, the degree of unionization and the size of government are factors that tend to increase persistence in economies lacking a centralized structure of wage bargaining, seems to be relevant for Denmark during the 1980s (Barro, 1988). As it is described in more detail in Chapter 4, wage

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[4] However, they are unable to rule out the possibility that the demand for labour is insensitive to changes in wages.

[5] However, Alogoskoufis and Manning (1988) point instead to persistence in wage aspirations and a slow rate of adjusting employment as the main sources of persisting unemployment.

bargaining in Denmark became less centralized during the 1980s, which may have contributed to the persistence of unemployment.

The persistence effects may also have arisen as a result of various other mechanisms. One explanation which cannot be ruled out in the Danish case is that the persistence of unemployment is due to skill deterioration among the long-term unemployed. The very concentrated distribution of unemployment in Denmark is consistent with a more or less permanent mismatch between the capabilities and desires of workers and the available employment opportunities. The passive labour market policy of the late 1970s and early 1980s may have led to a depreciation of human capital among the long-term unemployed, thereby becoming responsible for hysteresis effects. The persistence of unemployment may also have been encouraged by signalling and sorting effects of long-term unemployment or by changes in the job search behaviour of the long-term unemployed. A major factor underpinning all these explanations is the *long duration of benefits* in Denmark. During the 1980s this allowed the unemployed to receive unemployment insurance benefits for an almost indefinite period (in combination with participation in various employment programmes).

2.1.5. Other Explanations of the Rise in Unemployment

Several other possible explanations have been suggested for the high and persistent unemployment in Denmark during the 1980s.[6] As mentioned, and as is demonstrated in detail in Appendix B, Danish unemployment is unevenly distributed across various labour market categories, just as it is concentrated to a relatively small group of people. The labour force is thus divided into a dominant group of insiders who practically never experience unemployment, and a smaller group of outsiders with a much higher risk of unemployment. This split in the Danish labour market means that during wage negotiations there is little or no incentive for the dominant group of insiders to consider the effects of their high wage claims on the smaller, weaker group of outsiders.

Furthermore, because of the way the unemployment insurance system is financed, the cost of marginal unemployment is borne not by the labour market participants but by the State. This means that any additional costs (in terms of unemployment insurance benefits) caused by increased unemployment are completely financed by the State through its general tax-revenue. Hence, the labour market participants may ignore these costs during wage bargaining.

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[6] A discussion and analysis of the structural problems in the Danish labour market including a detailed analysis of the explanations offered below is provided by Jensen et al. (1992).

The outsider group consists mainly of unskilled and low-skilled workers, many of whom are women or young people. One of the main reasons for this is the compressed wage structure, which does not allow differences in productivity to be reflected in wage differences, and especially not for the low-skill and low-education levels.

The compressed wage structure is a consequence of a number of institutional elements in the Danish labour market including the minimum wage and the unemployment insurance system, and of the wage bargaining process during the 1960s and 1970s. During this period the labour unions adopted a wage policy of solidarity specifically with a view to reducing wage differences. As will also be shown in Chapter 3, the compensation structure of the unemployment insurance system has contributed to the compressed wage structure, since benefits are relatively more valuable to the lowest paid workers. This wage effect of the unemployment insurance system has been empirically demonstrated in the analysis of the wage formation in Denmark (Andersen and Risager, 1990).[7]

2.1.6. Conclusions and Assessments

In sum, several possible explanations have been suggested for the high and persistent unemployment in Denmark during the 1980s:

- *Deteriorating terms of trade.* Since the mid-1970s one important cause of unemployment has been the change in terms of trade caused by the two oil price shocks.
- *Macroeconomic policies.* Structural unemployment (consistent with trade balance) has been below the actual unemployment since the beginning of the 1980s. This indicates that traditional macroeconomic policy may be able to reduce unemployment without creating balance problems. Since the end of the 1980s this leeway has instead been exploited to build up a surplus on the trade balance.
- *Real wage rigidity* where a high growth rate in wages explain the high unemployment rates. Thus, the equilibrating forces between unemployment and wage growth rates appears to be weak in Denmark.
- *An insider-outsider problem*, where the labour force is thus partitioned between a dominant group who practically never experience unemployment, and a smaller group with a much higher risk of unemployment. This split means that during wage

[7] Andersen and Hylleberg (1993) test whether insider-outsider effects can be found in the wage formation and the employment relation for Denmark. They are not able to reject the existence of insider-outsider effects.

negotiations there is little incentive for the dominant group to consider the effects of their high wage claims on the smaller, weaker group of outsiders. A more decentralized wage formation structure may have contributed to this problem during the 1980s.

- *A compressed wage structure*, where wage levels do not correspond to productivity levels for some categories of unskilled and low-skilled workers, causing high unemployment for these groups.
- *A self-perpetuating persistence of unemployment (hysteresis)* due to skill deterioration among the long-term unemployed. This skill deterioration may again be ascribed to the passive labour market policy of the late 1970s and early 1980s, to signalling and sorting effects of long-term unemployment or to changes in the job search behaviour of the long-term unemployed. A major factor behind all these explanations is the *long duration of unemployment benefits* in Denmark.

No single explanation can account for all aspects of unemployment, and it is very difficult to draw any definite conclusions about the reasons for the Danish unemployment experience. Furthermore, the explanations above are to a very high extent complementary and not competing explanations.

In conclusion, it is clear that some structural problems do exist in the Danish labour market and that they play a significant role in explaining the high and persistent unemployment. Aggregate demand shocks also play a part in explaining the rise in unemployment, but since NAIRU has also increased they cannot be the whole story. There seems to be a propagation mechanism whereby the shocks of the past have a lasting impact. However, in light of the conflicting evidence and the uncertainty of any conclusions which can be drawn, it is not possible to give any definite answers about the mechanisms which are responsible for the persistence of unemployment in Denmark. Even though much remains unexplained, it seems warranted to conclude that two of the most important factors in explaining Denmark's adverse unemployment experience are *insider-outsider effects* and *the long duration of benefits*.

2.2. Macroeconomic Policies and Forecasts

During the last 10-15 years macroeconomic policy has succeeded in fulfilling two major goals: Reducing inflation to a very low level and creating a surplus on the current account. Public finances have also been improved, whereas the price for reaching these goals has been a high and persistent unemployment. This section

takes a closer look at macroeconomic policies with a special view towards the impact on the labour market.

2.2.1. Current Macroeconomic Policies in Denmark

In recent years macroeconomic policy has been characterized by an expansionary fiscal policy in order to ignite the recovery and reduce unemployment after the long recession. Both in 1993 and in 1994 fiscal policy was eased, but it is now gradually being tightened. In 1995 the contractionary effects were around 0.25 per cent of GDP and in 1996 it is forecast according to the budget agreement to be 0.5 per cent of GDP. The Government's aim is to continue the tightening in 1997. The Government expects the current low growth rate to be only temporary and it expects a revival during late 1996.

It is a declared target of fiscal policy that the budget should be balanced in 1997, and thereafter it should be well in surplus such that the public debt can be reduced. The Government wants the public debt to be removed around 2010-2015. This should, among other things, be seen in relation to the increased burden that can be expected from ageing of the population (see appendix A).

The Government has defined the current challenge for macroeconomic policy in Denmark to be to create high employment growth, while at the same time keeping inflation low, reducing the public and foreign debts, and retaining a socially acceptable income distribution.

It is realized that there is a trade-off between continued reductions in unemployment and consolidation of public finances, and this trade-off might become more important if the moderate international growth does not pick up again in the near future. There is a clear recognition of the need to engage in structural reforms in product and labour markets, with the purpose of easing this trade-off, and thus paving the road ahead for simultaneous improvements in unemployment and public fiscal balances.

The 1996 budget agreement also contains measures aimed at ensuring more flexibility in the labour market and reducing structural unemployment. Several of the specific elements of these labour market initiatives are described in more detail in Chapter 3. The Government expects these measures together with the 1994 labour market reform to bring down the level of structural unemployment from estimated above 10 per cent in 1993 to 8-8.5 per cent in 1997. The long-term goal is a level of structural unemployment around 5 per cent.

The main purposes of the monetary policy are to maintain a stable exchange rate vis-a-vis the EU core currencies and a low inflation. The Danish Central Bank has

continuously been lowering short-term official interest rates during the last years. This is a consequence of the strong inclination to maintain short-term interest rates at a level that is consistent with the exchange rate objective. In practice, the DM is used as the anchor currency, which means that changes in the German interest rate are followed closely by the Central Bank. However, an interest rate differential remains between Denmark and Germany.

During the first half of 1995 the Danish krone first weakened, due to unrest in the international markets, and then strengthened again as a consequence of the monetary policy geared towards maintenance of a stable exchange rate. The real appreciation of the Danish krone in 1995 is an important factor behind the dampening in economic growth. So far, no tendencies have been discovered for inflation to increase.

2.2.2. Macroeconomic Targets in Relation to the EMU Criteria

Denmark has decided not to participate in the third stage of Economic and Monetary Union and has notified the EU about this decision. Nevertheless, the Danish Government strongly relies on the underlying principles of the convergence criteria to create a healthy economic situation. Macroeconomic targets are to a very high degree set according to the EMU criteria. The Government thus pursues a macro-economic policy of fiscal discipline and exchange rate stability.

In 1995 Denmark already satisfied most of the EMU criteria: low inflation, low interest rates, stable exchange rates, and near-balance on the public budget. The main problem for Denmark is the EMU criterion on public debt which was not met.

Inflation is around 2 per cent which satisfies the EMU criterion. The Government expects inflation to remain at this level in the coming years. Its view is that the structural improvements in the labour market and the temporary growth pause have removed the risk that actual unemployment will fall below the structural employment, hence no inflationary pressure will build up. Regarding interest rates and the exchange rate, the EMU criteria are also satisfied and the monetary and fiscal policies are expected to be able to maintain this situation.

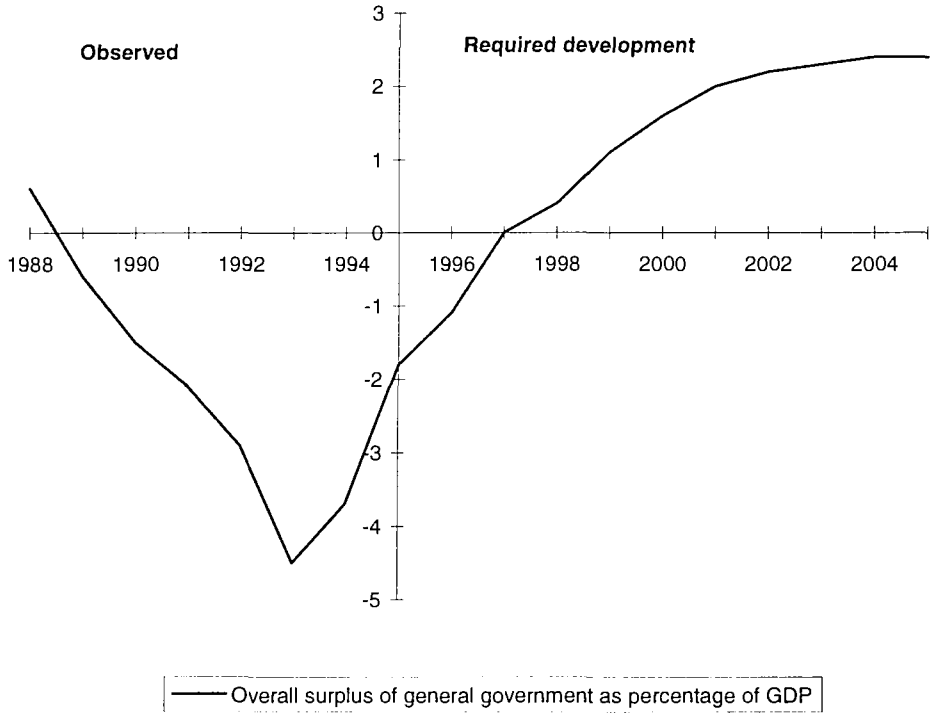
Table 2.2.2. Actual and Projected (*) Inflation Rates 1990-1998

Year	1990	1991	1992	1993	1994	1995	1996*	1997*	1998*
Inflation rate	2,6	2,4	2,1	1,0	1,2	2,0	2,6	2,4	2,4

Source: Statistical Yearbook 1995, Ministry of Finance 1995b.

Denmark already satisfies the convergence criterion on the public budget, with a deficit of 1.5 per cent of GDP in 1995 and an expected deficit of 1.0 per cent in 1996. However, the Government does not view fulfilment of the convergence criteria for the public budget as sufficient for the desired long-term development in the public debt. Fiscal policy should be designed to provide a surplus in public finances on average over the business cycle, as a prerequisite for reducing the public debt.[8]

Figure 2.2.2. Required Development in the General Government Budget Surplus as Percentage of GDP, 1988 to 2005.



Source: Ministry of Finance: Finansredegørelsen 1995.

The public debt has decreased from 80 per cent of GDP in 1993 to 72 per cent of GDP in 1995. To satisfy the EMU criterion on public debt will require a tight fiscal policy in the coming years (similar to what is the case for many other EU countries). The tightening of fiscal policy in 1996 is planned to be 0.5 per cent of GDP. The Government expects the public debt to be reduced to 60 per cent of GDP around the year 2000. In order to achieve this reduction, substantial public sector budget improvements are necessary. Figure 2.2.2 shows the required public sector balance

[8] In June 1996 the EU Council of Minsisters reversed its previous decision that Denmark was running an excessive public deficit and had an excessive public debt quote.

as a percentage of GDP if public debt is to be reduced to 60 per cent of GDP by year 2000.

2.2.3. The Impact of Present Macroeconomic Policies on Employment

The Government realizes (expressed e.g. by the budget report from the Ministry of Finance (1995)) that in the years to come continued increases in employment can primarily be attained through structural reforms on the labour market.

The main target of fiscal policy is to reduce public sector borrowing requirements. The tightening of the fiscal policy for 1996 was planned to bring about a reduction in the public deficit, but due to the drop in domestic and foreign growth rates the Economic Council now forecasts a growth in the public deficit from 1995 to 1996. The deficit is, however, expected to decrease in 1997 and 1998 as an increase in growth will lead to growing tax income.

The Economic Council has criticized the Government for not exploiting the reasonably high growth rates in the Danish economy during 1993-1995 to improve public balances sufficiently. It also finds the situation further aggravated by an increase in the structural deficit (i.e. the part of the deficit not depending on cyclical variations), due to the temporary Leave Schemes being made permanent.

According to the most recent forecasts by the Economic Council (1996), Denmark is expected to have an output growth of 0.9 per cent in 1996 and 2.2 per cent in 1997, the fall from growth of 2.6 per cent in 1995 to 0.9 per cent in 1996 being explained by both a drop in the growth rate of domestic demand and a drop in international demand. The current account surplus is expected virtually to evaporate by 1998 due to sluggish international demand.

The Economic Council expects employment to decrease slightly in 1996 and grow moderately in 1997 and 1998. In 1996 private sector employment will decrease, but public sector employment will expand slightly due an expected normalization of labour market job training in the public sector, which suffered a temporary setback at the introduction of the Labour Market reform in 1994.[9] Registered unemployment will continue to decrease in 1996, but only as a result of labour market measures such as the Leave Schemes and Job Training, and remain unchanged in 1997 and 1998.

The labour force is forecast to decrease in 1996 due to the labour market measures and increase in 1997 and 1998, with the main explanation being that a

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[9] It now seems doubtful whether the expected rise in public job training will materialise in 1996. This is due to delays and administrative problems in the implementation of the new pool-job scheme, cf. section 3.3.

decreasing number of persons will participate in the Leave Schemes, (see further below in Chapter 3 regarding the Leave Schemes).

The Labour Movement's Enterprise Council (AER) also expects the increase in employment to level off at the 1995 level. The main reason behind this is the low international growth rates, especially those of the main trade partners, which will cause exports to stagnate. It rules out the balanced budget in 1997 as unrealistic, but expects the goal to be reached instead in 1998.

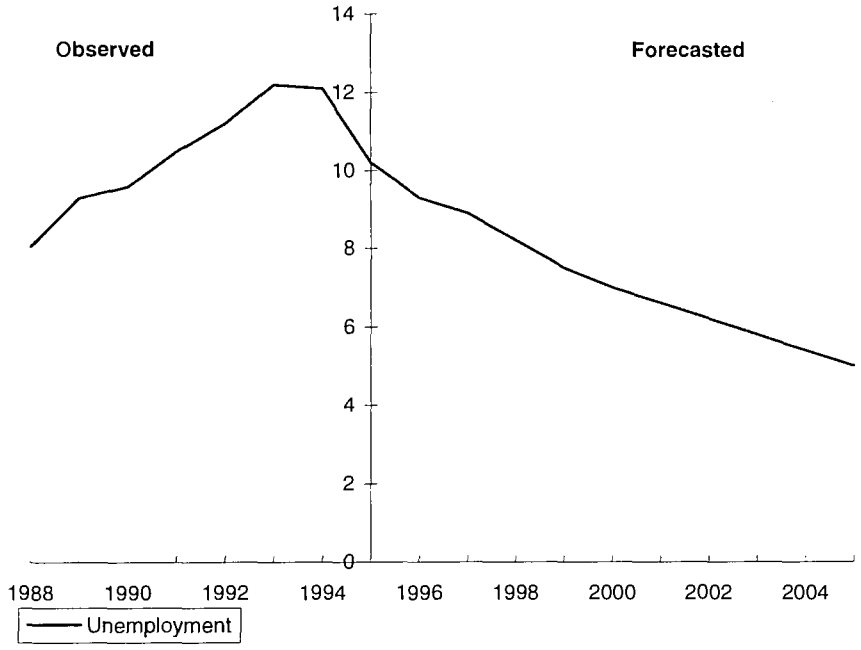
2.2.4. Forecasts for Employment and Unemployment

The Government has presented a medium-term forecast for the period until the year 2000 as part of the convergence programme for Denmark. It assumes that the structural reforms being implemented in Denmark are sufficient to reduce structural unemployment at a faster or, at least, the same rate as the reduction in actual unemployment. As a result, wage inflation in Denmark will be below foreign wage inflation. In addition, the forecast assumes that the participation rate increases during the projection period by 2 percentage points per year to a level of around 79 per cent by the year 2000. This is consistent with previous experiences and labour market measures implemented in the budget agreement for 1996.

Economic growth is expected to be slightly below 3 per cent per year during the period 1998-2000. Employment is expected to grow at an annual rate of 1 per cent. As a consequence, unemployment will fall to 7 per cent of the labour force by 2000.

The budget report from 1995 (Ministry of Finance; 1995) presents a scenario for long-term development until 2005. It is stressed, however, that it should *not* be regarded as a prognosis. Rather, it spells out the targets for the economic policy over the next 10 years. It is very ambitious and entails a highly favourable development characterized by high growth and low inflation. Unemployment is reduced, public finances are improved to a surplus, public debt is reduced significantly, the current account surplus is retained, and foreign debt is paid off. Figure 2.2.4 below shows the yearly unemployment according to the Ministry of Finance in this scenario.

Figure 2.2.4. Forecast Development in Unemployment, 1988 to 2005



Note: The Ministry of Finance expects labour force participation to rise from 78.7 per cent to 83.0 per cent in 2005.
Source: Ministry of Finance, 1995b.

The scenario implies that the employment frequency should increase from around 70 per cent of the population in the age group 15-66 years in 1995 to almost 79 per cent in 2005. This will be 5 percentage points higher than the historically highest level, of 74.3 per cent in 1987. Unemployment will be reduced to 7 per cent in 2000 and to 5 per cent in 2005, the lowest level since 1975.

2.2.5. Conclusions

Current macroeconomic policies in Denmark are primarily targeted at reducing unemployment and balancing the public budget, while at the same time keeping inflation low and the exchange rate stable. The Danish economy has over the last few years been characterized by a strong improvement in public finances and unemployment has been falling, partly as a result of the measures to reduce labour supply, but also reflecting increases in employment. Recenty, however, the continued improvement in public finances and employment, have paused due to sluggish domestic and international demand. Short-term forecasts show in general that employment will start to increase again in 1997 and 1998.

It is widely agreed that to maintain the observed improvement in economic performance, further efforts are necessary. Especially the need for ensuring the implementation of structural reforms in product and labour markets is important to

reduce structural unemployment. The budget agreement for 1996 is a step in this direction. As will be described in more detail in Chapter 3.3, it introduces changes in the institutional set-up of the labour market and presumably contains some of the elements needed to reduce structural unemployment considerably. If implemented efficiently, it will improve the structures of the labour market and reduce structural unemployment in the long run.

3. *Labour Market Policies*

This chapter describes and assesses recent Danish labour market policies. Danish labour market policy has undergone significant changes during the past few years. Decentralization and needs-orientation were the core elements in the Labour Market Reform (Arbejdsmarkedsreformen) of 1993. Both the formulation and the implementation of labour market policies were decentralized, and a greater scope was introduced for individual considerations in the activation of unemployed. At the same time, three comprehensive leave schemes were launched, making it possible for both employed and unemployed persons to obtain leave for educational or child care purposes, just as employed persons could obtain a sabbatical leave period.

In section 3.1 the Labour Market Reform is placed in a wider context. What were the most important elements in the reform and how did it change earlier principles of labour market policy? Section 3.2 provides a description of the most important institutions of public Danish labour market policy after the Labour Market Reform. Section 3.3 presents the nature of passive and active labour market measures, respectively.

In the final section of the chapter, Danish labour market policies after the Labour Market Reform are assessed. As we see it, there have been two important objectives of the Labour Market Reform and the other labour market measures which have been introduced since 1993: To reduce registered unemployment and to reduce structural unemployment. To what extent have these objectives been fulfilled in 1994 and 1995? As described in section 2.1 above, the Danish labour market is characterized by several structural problems. Danish unemployment is to a high extent structural unemployment. In the assessment, the question of contribution of labour market policy to a reduction of structural unemployment is therefore crucial.

3.1. The Historical Development of Danish Labour Market Policy

The Labour Market Reform of 1993 was an imporant new beginning in Danish labour market policy. Both in its form and in its contents the reform differed from earlier labour market legislation. Furthermore, since its adoption in 1993, the Labour Market Reform has itself undergone significant changes.

3.1.1. Labour Market Policies until 1993

Labour market policy measures until 1993 can be characterized by the following features:

Danish Labour Market Policy before the Labour Market Reform

- Detailed rule-bound regulation of all labour market activation measures and the activities of the Public Labour Exchange.
- A *de facto* gradual growth in the duration of benefit entitlement periods. Prior to 1994, the maximum duration of benefits was 9 years when taking into account all available activation and benefit programmes, cf. section 3.3.1 below.
- Incremental extension of the scope of subsidized employment schemes aimed at the prevention of long-term unemployment.
- Gradual extension of the scope of education offers for unemployed in which unemployed persons are trained or educated while receiving an allowance correponding to the unemployment benefit.
- Incremental extension of measures subsidizing exit from the labour market: the Post Employment Wage and the Transition Benefit Scheme.
- A persistent link between activation offers for unemployed and unemployment benefit entitlements. Unemployed renewed their benefit entitlements through participation in activation measures. In effect, this often meant that activation measures had a "passive" nature.

In 1971 the first subsidized employment projects were introduced. In 1978 the job-offer scheme (Arbejdstilbudsordningen) was initiated. In this scheme, the unemployed who were about to lose their benefit entitlements were given the right to a subsidized job offer of at least 9 months duration (7 months in public sector). In 1983, the unemployed were given the right to a second job offer. Education allowance schemes for the unemployed were introduced in 1984 to supplement the job offer schemes, only to be extended in 1985. In 1988 the education offer scheme (Uddannelsestilbudsordningen) introduced a general entitlement for long term unemployed to an education offer after the first subsidized job offer (Ingerslev, 1995: 86-90).

The Post Employment Wage scheme, which is an early retirement scheme allowing both unemployed and employed persons to retire at the age of 60, was introduced in 1979. From 1992 to 1995 it was supplemented by the Transition Benefit

Scheme which allowed long-term unemployed to enter an early retirement scheme at the age of 55, from 1993 from the age of 50.

The incremental extension of active labour market measures, the rule-bound nature of unemployed persons' rights to activation, and the link between activation and benefit entitlements had a number of unfortunate effects. First, since the activation the of unemployed was rule-bound, there was little scope for interaction between activation of the unemployed and the functioning of the labour market: Activation of the unemployed could not be used flexibly, for instance to prevent shortages of skilled labour or build up reserves of skilled labour. Furthermore, there was little scope for regional variations in labour market policies. The rule bound nature of activation also meant that concerns for the individual needs of the unemployed played only a minor role in the decision on the type and duration of activation.

Third, the link between activation and benefit entitlements had as a consequence that activation took place only after a long period of unemployment, thereby in effect increasing the risks of long term unemployment. Fourth, the link meant that focus in the activation of unemployed more than the employment effects of activation was the prolongation of the benefit entitlement period.

3.1.2. The Labour Market Reform of 1993

Against this background, the Labour Market Reform of 1993 was presented as a comprehensive and highly prioritized reform and a key element in the Government's highly ambitious overall reform package which was presented immediately after the 2nd Danish referendum on the Treaty on European Union.[10] The Labour Market Reform consisted of the following main elements:

[10] The reform package's various labour market measures were directed towards the supply side of the labour market. Other measures, first of all a more expansionary fiscal policy, were directed towards the demand side of the labour market.

Key Elements in the Labour Market Reform

The Management Reform

- Decentralization of authority to 14 Regional Labour Market Councils regarding the identification of target groups of unemployed for early activation, guidelines for activation instruments, guidelines for the Public Employment Service's provision of labour and approval of projects preventing labour shortages.
- Increased importance of the labour market parties, counties and municipalities in the formulation of labour market policy, though their representation in the Regional Labour Market Councils.
- The introduction of framework budgetting and management by objectives in the decentralized management system. The National Labour Market Council specifies the Regional Council's objectives and result requirements. The Labour Market Authority allocates a budget frame to each region.

The Activation Reform

- Each unemployed person's right to a binding individual action plan, directed towards the needs of the unemployed and the requirements of the labour market.
- The possibility of early activation of those unemployed with a particularly high risk of becoming long-term unemployed.
- The possibility of establishing individually adapted activation programmes. The Employment Service can choose between a range of activation measures for each unemployed person. Different measures may be combined.
- The abolishment of the link between activation and unemployment entitlement rights. Unemployed cannot prolong the entitlement period through participation in activation measures.

The key elements in the Labour Market Reform are thus *decentralization* and *needs-orientation*. In place of the earlier rule-bound system, where job-offers and education offers had to be provided to each unemployed at specific intervals according to specified rules, it was intended to enable more flexible and tailor-suit activation measures for the unemployed. At the same time the reform sought to enhance the legitimacy and anchoring of the labour market policy at the regional level, as well as to improve the utilization of the knowledge of the labour market parties in the formulation of regional labour market policies. The instrument in this respect was decentralization of authority to the 14 newly established Regional Labour Market Councils. (Winter, Haahr and Ørberg 1995: 37-38).

The underlying assumption was that these measures would improve the efficiency of labour market policy and thereby contribute to a reduction of structural unemployment: Faster activation of a higher quality would reduce long-term

unemployment and the related deterioration of skills among long-term unemployed. And decentralization and a more flexible activation system would reduce inflationary pressures of the economy, as shortages of skilled labour would be prevented more efficiently.

The reform of Danish labour market policies in 1993 was supplemented with the introduction of three comprehensive leave schemes: The Child Care Leave Scheme, the Educational Leave Scheme and the Sabbatical Leave Scheme. The leave schemes should be seen as elements in the Government's overall labour market policy, as their principal aim was to reduce registered unemployment through a reduction in the supply of labour.[11] Registered unemployment should fall as employed persons took leave and left a vacant job position behind them, hopefully to be filled by substitute labour.[12] Since the Child Care Leave Scheme and the Educational Leave Scheme are available for unemployed persons, registered unemployment should also decrease as unemployed persons were "re-classified" as persons on leave.

As another effect, the leave schemes could contribute to the reduction of long-term unemployment as the number of job-openings in the labour market would increase, depending on the degree to which employers would employ substitute labour.

In addition, the Educational Leave Scheme should serve the purpose of upgrading the qualifications of the labour force. An upgrade of the qualifications of the work force would take place directly when employed persons were granted Educational Leave. It would also take place through "learning by doing" as unemployed persons are employed as substitute labour. Where the unemployed are employed as substitute labour in subsidized "job training", a *Job Rotation project* has been established.

3.1.3. Changes in Danish Labour Market Policy 1994-1995

The Labour Market Reform was revised in certain respects already in December 1994 and more comprehensively in December 1995. The revisions were motivated by the strength of the economic upswing in 1994 which created a new situation in the labour market where shortages of skilled labour were threatening and by experiences with the functioning of the Labour Market Reform during its first years (Haahr and Winter, 1996: 108-110).

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[11] Some parts of the Government have also stressed the importance of the leave schemes as welfare benefits for the population.

[12] For the Child Care Leave and the Educational Leave, it is not required that the employer hires a substitute during the leave period, cf. section 3.3.1 below.

Main Changes in Labour Market Policy 1994-1995

- In 1994 it was specified that persons having been unemployed for more than 4 years had a right and duty to full-time activation.
- Earlier activation of unemployed. When revisions are fully implemented in 1998 unemployed will have the right and duty to full-time activation after 2 years of unemployment.
- Reduction of the benefit period to a maximum of 5 years (plus the possibility of 1 year of Child Care Leave for parents).
- The doubling to 52 weeks of full-time work of the period required to aquire unemployment entitlements.
- The introduction of a right and duty to training or education for unskilled unemployed persons below 25 years of age after 6 months of unemployment.
- The introduction of public sector "pool jobs" for unemployed. Pool jobs are comparable to ordinary jobs in certain respects, cf. section 3.3.2 below: The Employment Service has to provide suitable labour when a pool job vacancy is announced, and the unemployed with more than 2 years of unemployment cannot decline a pool job offer.
- The abolishment of the Transition Benefit scheme which allowed long-term unemployed people above the age of 50 to enter into an early retirement scheme.

It appears that the thrust of reforms from 1994 onwards has been towards earlier and more comprehensive activation of unemployed within a shortened total benefit entitlement period. At the same time, "needs orientation" of activation has been weakened as legal provisions increasingly determine the contents of activation for unemployed. This holds true for the special provisions for young unskilled unemployed, just as the utilization and scope of the public sector pool job-scheme is decided by Parliament and the various public sector institutions and not by the Regional Labour Market Councils or the Public Employment Service. The Labour Market Reform's comprehensive decentralization has therefore been followed by a period of partial re-centralization (Haahr and Winter 1996: 116-122).[13]

[13] Haahr and Winter (1996: 118-119) conclude that the partial re-centralization of labour market policy since 1995 may lead to less efficient activation of unemployed in the future, just as the limitations to the authority of the Regional Labour Market Councils threaten the regional commitment to the labour market policy. On the other hand, partial re-centralization has resulted in a Labour Market Reform which is politically more viable than previously.

3.1.4. Measures and Objectives in Recent Danish Labour Market Policy

An interpretation of the most important objectives and measures of Danish labour market policy is presented in table 3.1.4. In this interpretation, developments in recent Danish labour market policy have primarily been motivated by two not necessarily complementary objectives: To reduce structural unemployment and to reduce registered unemployment.

Table 3.1.4: Objectives and Means in the Danish Labour Reforms 1993-95

Objective	Measure
Reduce registered unemployment	**Reduce labour supply (leave schemes)**
Reduce structural unemployment (prevent labour shortages)	**A) Reduce long-term unemployment** Needs-orientation of activation leading to more effective activation (Labour Market Reform) Early activation of vulnerable groups (Labour Market Reform) Earlier and more comprehensive activation of all unemployed (Labour reforms 1994 and 1995) Reduce duration of benefit period (Labour reforms 1995). Increase the number of job-openings (Leave schemes and Labour Market Reform: Job Rotation Projects) **B) Improve and adapt skill levels of the work force** Decentralization of labour market activation leading to improved targetting of training and education of unemployed (Labour Market Reform) Improved possibilities for employed persons of continuing training/education (Educational Leave scheme) Improved possibilities of "on-the-job training" for unemployed (Leave schemes and Labour Market Reform: Job Rotation Projects) Mandatory training/education for young unskilled unemployed (Labour reforms 1995)

In the labour reforms since 1993 reductions in structural unemployment are seen to aim at a reduction in the duration of unemployment for one purpose: To prevent the deterioration of skills among long-term unemployed. Naturally, from a social point of

view the prevention of long term unemployment is also a means to prevent human distress and social marginalization.

The other element in the strategy to reduce structural unemployment is an improvement and a flexible adaptation in the skill levels of the work force, both through improved training and education of unemployed persons, through improved possibilities of continuing training or education for employed persons, and through unemployed persons' "learning by doing" as substitute labour, in ordinary replacement jobs or in Job Rotation projects.[14]

3.2. The Institutions of Labour Market Policy

This section briefly describes the institutions which formulate, implement and administer Danish labour market policy after the Labour Market Reform in 1993. The administrative system of the active labour market policy is described, as is the unemployment insurance system.

3.2.1. The Administrative System of Active Labour Market Policy

Two sets of institutions are responsible for developing and implementing the active Danish labour market policy: The Ministry of Labour with the attached institutions and the municipalities. The municipalities are responsible for activating unemployed persons who are not eligible for unemployment insurance benefits. The system under the Ministry of Labour is responsible for the activation of insured unemployed as well as for the functioning of the Public Employment Service.

The municipal system of active labour market policy is a decentralized system in which the municipalities themselves finance the costs of activating unemployed persons. However, after the Labour Market reform the principles of municipal activation of unemployed are identical to those of the activation of insured unemployed.

In the state system for the active labour market policy the main institutions are the Ministry of Labour, the National Labour Market Agency (AMS), the Public

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[14] Evidently, other objectives or interests than the concerns for registered and structural unemployment have mattered in the making of recent Danish labour market policy. First of all public sector "pool jobs" among other things aim to satisfy a wish among counties and municipalities for cheap labour in the form of unemployed in activation. The systematic and rule-bound allocation of activated unemployed during the 1980s in effect served as an extra budget allocation to counties and municipalities. This systematic and reliable budget extension was interrupted when the Labour Market Reform introduced the principle of needs-oriented activation, setting off a continuous political pressure from the counties and the municipalities for stricter "quotas" of unemployed (Winter, Haahr and Ørberg, 1995: 137-139; Haahr and Winter, 1996: 110).

Employment Service, the National Labour Market Council and not least the 14 Regional Labour Market Councils.[15] The ultimate political and legal responsibility of state labour market policy rests with the Minister of Labour. Through the National Labour Market Agency, the Minister of Labour directs and supervises the operation of the Public Employment Service, and the Regional Directors of the Public Employment Service are directly responsible to the Minister of Labour. At the same time, the Minister of Labour has delegated considerable authority to the National Labour Market Council and the Regional Labour Market Councils in respect of the active labour market effort.

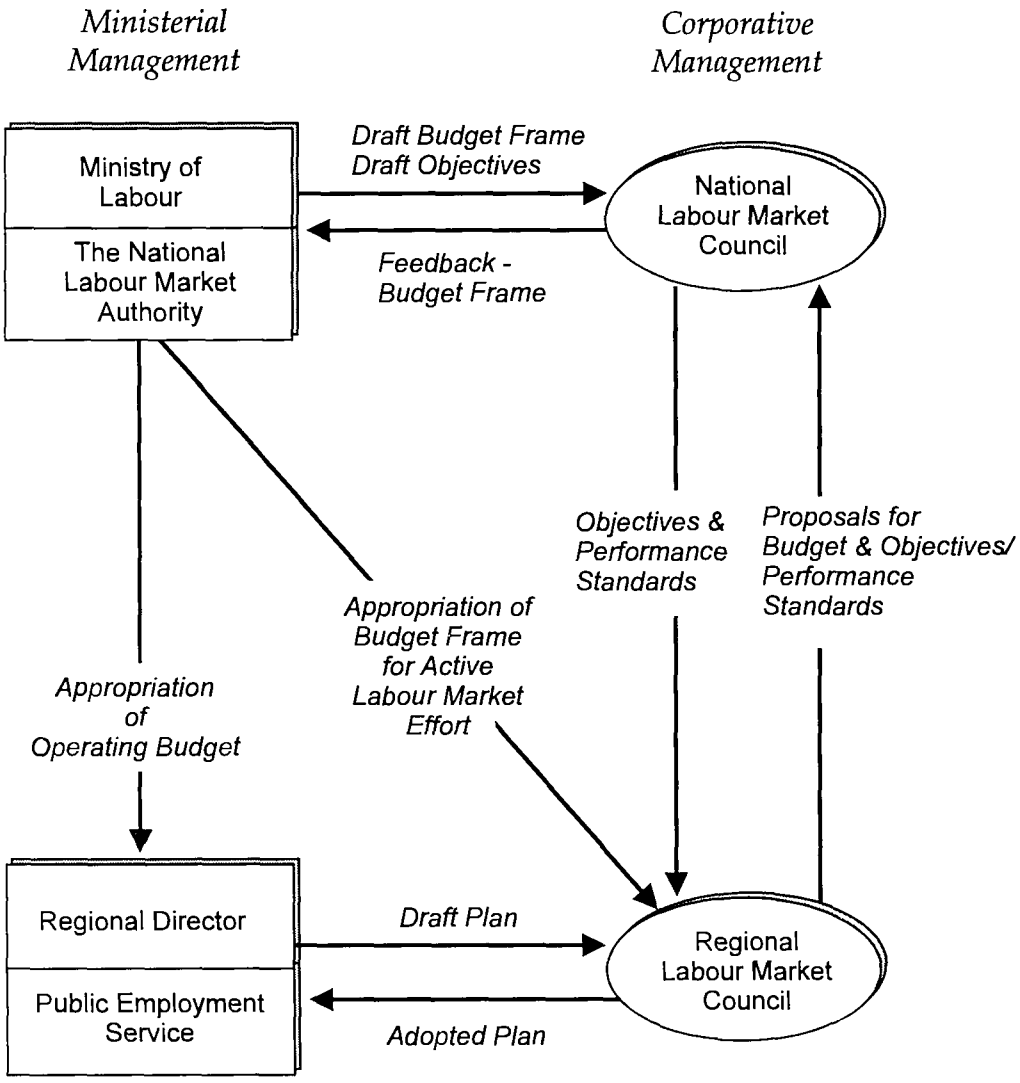

Figure 3.2.1. The Management System for Danish Labour Market Policy

[15] The Ministry of Finance also plays a key albeit informal role in setting the overall direction for the labour market policy.

Consequently, the management system of Danish labour market policy consists of two pillars. One is a politically directed pillar in which the Ministry of Labour (AM) and the National Labour Market Agency (AMS) supervises the operation of the Public Employment Service. The other is a corporative pillar consisting of the National Labour Market Council and the Regional Labour Market Councils.

Within the limits defined by legal requirements on the active labour market policy and the overall budget framework for the active labour market policy, which is determined by the Ministry of Labour and the Ministry of Finance, these two institutions formulate the contents of state labour market policy. The National Labour Market Council plays a key role in developing the objectives and performance standards which guide regional labour market policy. The Regional Labour Market Councils define and supervise the implementation of the regional labour market policy.

This means that the regional councils prioritize target groups of unemployed with a high risk of long term unemployment who may receive early activation, just as the councils prioritize and develop guidelines for the use of different activation instruments for unemployed. In addition, the Councils approve work places which may receive wage subsidies if an unemployed person is employed as part of an activation measures. The Councils also prioritize and approve job-rotation projects and projects aimed at preventing regional labour shortages, and manage and supervise the ordinary exchange of jobs. Finally, it is the responsibility of the Public Employment Service in each region to implement the policies of the Regional Labour Market Council.

3.2.2. The Unemployment Insurance System

The unemployment insurance system is separate from the administrative system of the active labour market policy. The unemployment insurance system consists of the Directorate of Unemployment Insurance (DfA), a number of independent unemployment insurance funds that are administered by the trade unions, and the Labour Market Board of Appeals which serves as final court of appeal regarding decisions and rulings issued by the insurance funds or the Directorate for Unemployment Insurance. These institutions administer unemployment benefits as well as other labour market-related transfer schemes.

The Directorate of Unemployment Insurance, structurally placed under the Ministry of Labour, supervises the insurance funds and serves as a court of first instance in complaints regarding decisions made by the insurance funds. The

directorate also participates in policy development regarding unemployment benefits and insurance.

The Insurance Funds manage unemployment benefits, determining eligibility and administering benefit payments as well as the Post Employment Wage and the Transition Benefit scheme. The funds also manage payments in relation to the various leave schemes, the Education Allowance and the Entrepreneur Allowance all of which are described in more detail below. Finally, it is the responsibility of the Insurance Funds to check whether their unemployed members are available to the labour market, as they must be in order to obtain unemployment benefits.

The unemployment insurance funds are private organizations, most of them being associated with and administered by trade unions. However, although the funds are independent, the administration of benefits is bound by detailed regulations as to the eligibility for benefits (Ministry of Labour et al, 1989). To achieve official recognition an unemployment insurance fund must have at least 5.000 members. Currently, there are 37 such funds with a total of about 2.3 million members. Two of these funds serve self-employed and count about 197,000 members. Employee insurance funds are organized along occupational lines, although there is some overlapping between funds. One insurance fund, the Christian Unemployment Insurance Fund, covers all areas of employment. Membership of a fund is voluntary, but only members are eligible for unemployment benefits. Although the funds are administered by the trade unions, union membership is not required in order to receive unemployment benefits.[16] The rate of insurance, that is the share of the labour force who are members of the insurance funds, is currently around 80 per cent (Danmarks Statistik; Directorate for Unemployment Insurance).

Unemployment benefits are financed through a benefit fund, which receives its funding from membership fees and from earmarked labour market contributions from employers, employees and self-employed. In 1994, these payments covered about 40 per cent of the total unemployment benefit payments. The remaining 60 per cent of the expenses for unemployment benefits are funded by state sales and income tax revenues (Directorate for Unemployment Insurance, 1995).

The earmarked labour market contributions were introduced as part of an overall tax reform passed in 1993. Currently, the labour market contribution takes the form of a 6 per cent gross income tax which replaced previous regular income tax. The earmarked labour market contributions are aimed at strengthening the link between

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[16] However, it is a generally recognized view that the close association between trade unions and the insurance fund helps explain why union membership rates have increased in Denmark during the past 20 years whereas it has decreased in virtually all other countries, cf. also Chapter 4.

unemployment benefit contributions and the actual level of unemployment. As mentioned in Chapter 2, state financing of the unemployment insurance system may contribute to the insider-outsider problem of the Danish labour market: The costs of increasing unemployment is borne not by the labour market participants but by the State, and the labour market participants (i.e. the insiders) may ignore these costs during wage bargaining.

However, it seems highly doubtful whether the present earmarked labour market contributions have to any significant extent established a link between wage bargaining behaviour and the costs of unemployment insurance. It remains a (controversial) political decision whether a growth in unemployment should result in an increased labour market contribution, as there is no automaticity. Furthermore, even if a political decision is made to establish the link between unemployment and unemployment insurance contributions, this is likely to be so at an aggregate level where insurance contributions for all groups are changed at a uniform rate. If this is so, wage bargaining incentives for each group are unlikely to be affected. The costs of aggressive wage bargaining in terms of growing unemployment insurance contributions will then be borne not by this group alone but by all groups in the labour market (cf. Jensen et al, 1992).

3.3. Passive and Active Labour Market Measures

This section contains a description of current passive and active labour market measures in Danish labour market policy. Passive labour market measures in Denmark consist of unemployment benefits, the Post Employment Wage scheme, which as described below is an early retirement scheme, and the Transition Benefit scheme which has allowed unemployed persons to enter the Post Employment Wage scheme at the age of 50-59 years. The Child Care Leave scheme and the Sabbatical Leave scheme can also be considered as passive labour market measures.

Active labour market measures comprise a number of measures aimed at increasing the employment prospects of unemployed persons, i.e. job-training and individual job-training, which are both subsidized employment schemes, education allowances for unemployed, and the Enterprise Allowance scheme, which supports unemployed persons' establishment of their own business. The Educational Leave scheme could also be considered an active labour market measure.

Active measures account for a slowly growing part of total expenses for labour market policy in Denmark, as this share grew from 15 per cent in 1986 to 20 per cent

in 1995. However, passive measures still account for approximately 80 per cent of total labour market policy expenses in 1995.

Both passive and active labour market measures are to a very high extent tax financed. Employees contribute a flat rate membership fee to the insurance funds and employers contribute a percentage of their total wage sum. However, even when including the earmarked labour market contribution which is a gross income tax employee and employer contributions cover less than half of the expenses for unemployment benefits, the remaining part being financed through the state budget. Active labour market measures in the state system are fully financed out of the state budget, as the state budget allocates a budget frame to the active labour market policy.[17] Municipal activation measures for uninsured unemployed persons are financed out of the municipal budgets.

3.3.1. Passive Labour Market Measures

As mentioned, passive labour market measures at present comprise the following schemes: unemployment benefits, the Post Employment Wage scheme, transition Benefit scheme, the Child Care Leave scheme, and the Sabbatical Leave scheme.

Unemployment Benefits

Compared to unemployment benefits in other Western countries, Danish unemployment insurance has two main distinctive characteristics: A high replacement ratio, defined as the ratio of unemployment benefits to previous wage income. And a relatively long duration of the benefit period.

The benefit level during the benefit period is set at 90 per cent of the wage received in previous employment, but with an absolute maximum gross amount limit of DKK 2,615 per week in 1996, totalling a maximum gross benefit level of DKK 136,500 per year. This amount is taxed as normal wage income, albeit unemployed persons do not pay the gross income tax (the labour market contribution - Arbejdsmarkedsbidraget). In real terms, benefit levels have remained roughly constant during the past years, yearly adjustments being a function of the average blue collar wage increase. It follows from the maximum gross benefit level that the Danish unemployment insurance system is characterized by a high replacement ratio for low wage incomes but a relatively low replacement ratio for high wage incomes. In the

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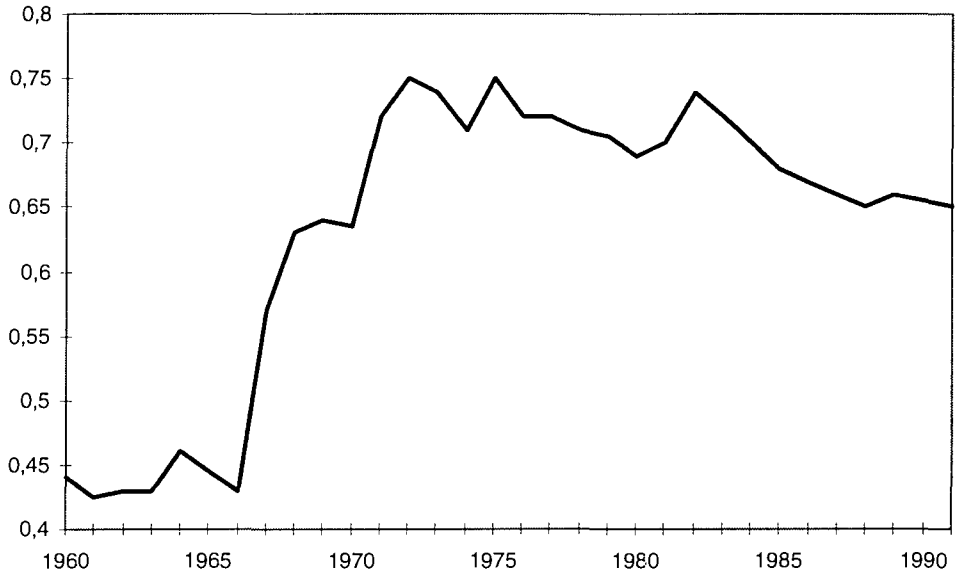
[17] This budget frame is divided into one budget frame which is available for the Regional Labour Market Councils' activation measures, and a second budget frame which is payment to state, county, and municipal institutions for wage costs in connection with the activation of unemployed in pool jobs and as a partial refund of wage costs in connection with job training positions in public sector institutions.

Public Sector Budget for 1996, it is expected that recipients of unemployment benefits will receive an average 94.5 per cent of the maximum entitlement amount. This in effect means that the unemployment insurance scheme approaches a flat rate benefit system.

Figure 3.3.1. Average Unemployment Benefit-Wage Replacement Ratio, 1960-91. Source: ADAM Databank (1994), quoted from Pedersen et al. (1995: 41).



The average replacement ratio for manual workers is currently about 65 per cent. Since 1960 the ratio has changed considerably, rising from about 40 per cent in the period until 1966 to almost 75 per cent in 1972. From 1972 till the early 1990s, the average replacement ratio has edged downwards towards 65 per cent (Pedersen et al., 1995: 38). Despite the downward trend, this is by far the highest replacement ratio in the OECD-area. The second highest average replacement rate in the early 1990s is approximately 48 per cent, found in the Netherlands (OECD 1996: 52-53).

The duration of unemployment benefits is currently 5 years, divided into a "benefit period" of up to 2 years duration and an "active period" of up to 3 years duration. However, this duration can be extended with a total of up to 1 year, if the unemployed persons makes use of the right to Child Care Leave. In the "active period" the right to unemployment benefits is coupled with a requirement of full-time activation in subsidized employment, training or education, cf. section 3.3 below.

Regulations concerning the benefit period and the requirements to qualify for unemployment benefits have been tightened since 1993. The definite limit of the benefit period to 5 years plus the possibility of 1 year of Child Care Leave for parents is a considerable reduction compared to earlier. However, on most accounts the

duration of benefit entitlements is still among the longest in the OECD area. Prior to the Labour Market Reform, the formal maximum duration of entitlements to unemployment benefit was 2.5 years, but the effective duration was much longer. Unemployed had a right to a subsidized job or education offer before the expiration of the benefit entitlement period. Through this offer benefit eligibility was re-established for a new maximum duration of 2.5 years. If the person in questions was still unemployed after the second 2.5 years period, a second subsidized offer was provided, renewing eligibility for another 2.5 years. Taking into account all available activation and benefit programmes, the effective maximum duration of benefit was about 9 years. [18]

As regards eligibility for unemployment benefit, until December 1996 26 weeks of full term employment is required within the past 3 years. From 1 January 1997 the qualification period will be doubled to 52 weeks. However, persons who have finished a higher education are directly eligible to the lowest unemployment benifit after having completed their education.

The Post Employment Wage Scheme and the Transition Benefit Scheme

The Post Employment Wage scheme is a second passive labour market measure. The scheme was originally introduced in 1979 with a view to reducing the size of the older labour force and thereby create job openings for younger unemployed persons, but it has increasingly come to be seen as a part of the ordinary public pensions system. The Post Employment Wage scheme is open for both employed and unemployed persons in the age span 60-66 who have been members of an unemployment insurance fund for at least 20 years. Today, about 120,000 persons in Denmark receive Post Employment Wage.

For the first 30 months, the Post Employment Wage is set to the unemployment benefit the recipient would be entitled to had he or she been unemployed. After this the Post Employment Wage is set to 82 per cent of the maximum unemployment benefit, equalling about DKK 110,000 per year. This income is taxed according to normal income tax rules. Compared to being in a full-time manual job, the income received in the Post Employment Wage scheme is considerably lower. The average replacement ratio for manual workers is estimated to about 55 per cent. However, compared to the maximum employment insurance, the replacement ratio is higher, namely around 80 per cent. Indeed this may be the most relevant replacement ratio. A large proportion of the unemployed individuals from the age group 60-66 have

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[18] Dalgaard et al. (1996: 99-101) conclude that considering the high average replacement ratio and the long duration of benefits, the Danish system of unemployment benefits is probably the most generous in the world. This is so even after the reforms of December 1995.

entered the scheme, reducing the official unemployment rate from what it would otherwise have been.[19]

From 1992 to 1995 the Post Employment Wage scheme was supplemented by the Transition Benefit scheme which has allowed long-term unemployed individuals from the age of 55, from 1993 from the age of 50, and upwards to enter into an early retirement scheme. However, in December 1995 the Transition Benefit scheme was abolished, and the final deadline for applying for the transition benefit was set to 31 January 1996, in effect creating an incentive for all elderly long-term unemployed to make use of the scheme as long as it was possible.

The Child Care Leave Scheme

Two of the three leave schemes which were introduced in 1993 could also be considered as passive labour market measures: The Child Care Leave scheme and the Sabbatical Leave scheme.

The legislation introducing the Child Care Leave scheme took force 1 January 1994, but the law has been revised both in late 1994 and in late 1995. Both insured and uninsured wage earners, insured unemployed persons and persons receiving social welfare are entitled to Child Care Leave. If these requirements are fulfilled, recipients of the leave allowance are entitled to an amount corresponding to 70 per cent of the maximum unemployment benefit rate, a total of DKK 1,830 per week, which is taxable as normal wage income.

The duration of the right to Child Care Leave is up to 13 consecutive weeks per parent for every child below the age of 9 years. If the Child Care Leave period is commenced before the child is one year old, the duration of the leave can be up to 26 weeks. It the employer consents, duration may be extended to 52 weeks. It is not required that the employer hires a substitute during the leave period. For unemployed persons, the Regional Labour Market Council may decide to allow Child Care Leave for up to 52 weeks if conditions on the regional labour market allow it. Child Care Leave for unemployed does not count as a part of the unemployment benefit period.

The present Child Care Leave scheme is modified substantially compared to the original legislation. In December 1994, the leave allowance was reduced from 80 per cent of the maximum unemployment benefit to 70 per cent of this amount. The leave allowance will be further reduced in 1997 to 60 per cent of the maximum unemployment benefit.

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[19] In 1995 a "Partial Post Employment Wage scheme" was introduced, making possible the partial and gradual retraction from the labour market of 60-66 year old persons. 60 to 66 year old persons who have the right to enter the Post Employment Wage scheme may reduce their working hours and supplement their income with a partial post employment wage.

The Child Care Leave scheme has been widely used in Denmark during 1994 and 1995. Approx. 31,000 full year persons made use of the scheme in 1994 and 45,000 full year persons in 1995.[20] For 1996, it is estimated that approx. 33,000 full year persons will make use of the possibility of Child Care Leave (Pedersen 1996: 24, Ministry of Finance 1996).

The Sabbatical Leave Scheme[21]

The Sabbatical Leave scheme is restricted to employed persons above the age of 25 who are entitled to receive unemployment benefits. For these persons it is possible to obtain leave for a consecutive periods of between 13 and 52 weeks. The total sabbatical leave period cannot exceed 52 weeks. There are no requirements as to what the Sabbatical Leave period should be used for. However, Sabbatical Leave requires the consent of the employer, just as the employer must hire an unemployed substitute during the leave period.

Persons obtaining Sabbatical Leave allowances receive 70 per cent of the maximum unemployment benefit rate. This rate was reduced from 80 per cent of the maximum unemployment benefit rate in connection with the legislative changes of December 1995. It will be reduced further to 60 per cent of the maximum unemployment benefit in 1997, and the scheme will be abolished entirely in March 1998. The Sabbatical Leave Scheme has not been widely used. In 1994, only approx. 2,400 full year persons utilised the scheme, whereas approx. 5,200 full year persons were on sabbatical leave in 1995 (Pedersen 1996: 24).

3.3.2. Active Labour Market Measures in Denmark

As mentioned, the scope for action of both the Regional Labour Market Councils and the individual employment consultants at the Public Employment Service has been limited as a consequence of the legal changes since 1994. Unemployed persons without an education under 25 years of age must now start an education after 6 months of unemployment, and the decision on whether or not to activate an unemployed person in a pool job rests with public sector institutions, not with the individual employment consultant and the unemployed person in common. Yet, a variety of instruments are available for the activation of those unemployed who are

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[20] A full year person is one person making use of the scheme for an entire year, or two persons who each make use of the scheme for half a year, etc.

[21] We treat the Sabbatical Leave scheme as a passive meassure, as the main element in the scheme is the withdrawal of a person from the labour force. However, it should be noted that the Sabbatical Leave scheme also contains an active element since it requires that the employer substitutes the employee on leave with an unemployed person.

not below the age of 25 and have no education. These instruments are described below.

The Individual Action Plan for Unemployed

The individual action plan for unemployed is the basic instrument in the active labour market policy. The individual action plan is a written and signed agreement between the regional Public Employment Service or the Municipal Employment Department and the unemployed person, specifying the activities which are to be undertaken in order to bring the unemployed person back to ordinary employment.

In itself the action plan does not entail any specific activation measures. The contents of an action plan may be "active job seeking" or counselling by the employment agency to clarify the possibilities and motivation of the unemployed person. However, the individual action plan is the instrument which plans other activation measures and which commits the unemployed person to participation in specific measures.

Labour Market "Job Training"

One of the most important instruments in the activation of unemployed is labour market job training, an instrument of subsidized employment. Public or private employers receive a subsidy of DKK 43.77 (in 1996) per working hour for hiring an unemployed person for a duration of up to one year. If the activated person is hired for more than 6 months in private enterprises, the employer is obliged to offer the activated person training or education corresponding to 1/12th of the total job training period. Alternatively, the private employer may choose to offer the activated person regular employment for a period.

The person receiving job training is entitled to the wage and working conditions stipulated by the collective agreement covering the work in question or the conditions which normally prevail for the work. However, the maximum wage for persons in public job training is set to DKK 81 per working hour. There is no maximum wage for persons in private job training. For the unemployed in the active period, i.e. having been unemployed for more than 2 years, the total salary to the person receiving job training cannot exceed the maximum unemployment benefit. If the salary for full-time job training exceeds this amount, working time is reduced, not the hourly salary, to a level where the working time results in a wage equal to the maximum unemployment benefit.

Labour Market Education

The Public Employment Service may choose to offer education to the unemployed. This education can be education or training programmes offered in the ordinary education system or tailor-made training or education programmes. The unemployed may identify a relevant education him- or herself, or the Labour Employment Service can acquire a right to participation in an education programme for the unemployed. The Labour Employment Service may purchase entire classes in specific education programmes or individual participation rights.

There are no limits to the duration of education which may be offered to the unemployed as an active labour market measure. However, during participation in an education programme, the person receiving the education offer is entitled to the education allowance only as long as this person is entitled to unemployment benefits. The size of the labour market education allowance corresponds to the size of the unemployment benefit, which the unemployed person would otherwise have been entitled to.

The Regional Labour Market Councils may decide for which ordinary education it is possible for the Public Employment Service to grant a labour market education allowance even where these education programmes also provide entitlement to the ordinary public education grant (Statens Uddannelsesstøtte). However, unemployed persons under the age of 25 can never be granted an education allowance if it is possible for them to receive the ordinary public education grant. Where there are no possibilities of obtaining the ordinary public education grant, the unemployed under 25 are entitled to an allowance corresponding to 50 per cent of the maximum unemployment benefit. Labour market education measures may also to some extent be financed for the unemployed through the Educational Leave scheme, as described below.

The special provisions for the unemployed below the age of 25 follow from the obligation to training or education for unskilled unemployed below 25. The limits to the size of the labour market education allowance is a further strengthening of the incentives for young persons to obtain an education. Until the changes of December 1995, young unemployed with a right to the maximum unemployment benefit were better off than students receiving the ordinary public education grant.

Public Sector "Pool Jobs"

Public sector "pool jobs" were introduced as a new labour market activation instrument from January 1996. Pool jobs partly replace the so-called public job training quotas, a system in which state, county and municipal institutions receive an advance

allocation from the state budget which is to cover the extra wage expenses incurred from activating unemployed in public job training.

Compared to the other instruments of the active labour market policy, pool jobs are special in a number of respects. First, the objective of pool jobs is not only to improve the unemployed person's prospects for regular employment. It is also to improve the level of service in a range of public sector areas. Second, the status of public sector pool jobs is comparable to that of ordinary jobs rather than job training jobs. The regional Public Employment Service is obliged to assign the unemployed to pool jobs which have been announced vacant by public institutions, and the unemployed are obliged to accept the job if they are not to incur the normal sanctions which are applied when a job offer is refused. Furthermore, employment in pool jobs may be of a duration of up to 3 years. Third, pool jobs are financed to 90 per cent from state grants to the public sector institutions (the institutions finance 10 per cent themselves). This means that pool jobs are financed from a separate budget, outside the budget of the Regional Labour Market Councils.

Unemployed persons with more than 2 years of unemployment may be offered a pool job. When the policy of early activation of unemployed is fully implemented in 1998, this means that pool jobs may be offered in the active period. The salary when working in pool jobs therefore corresponds to the maximum unemployment benefit. At the same time, the collective agreement in each pool job area must be adhered to as regards wage and working conditions.This means that the total working time is reduced until the hourly wage equals the hourly wage stipulated in the collective agreement.

The Entrepreneur Allowance

A fourth instrument in the active labour market policy is the entrepreneur allowance scheme. After having been unemployed for 5 months within an 8 months period, unemployed individuals who wish to start their own business can receive an entrepreneur allowance. In order to qualify for entrepreneur allowance, the unemployed person must have developed a business plan, which must in turn have been approved by the State Enterprise Promotion Agency (Erhvervsfremme Styrelsen). Similarly, in its assessment the Public Employment Service must consider whether the entrepreneur allowance or another activation measure is the most appropriate in terms of improving the unemployed person's possibilities in the labour market. The size of the entrepreneur allowance is 50 per cent of the maximum

unemployment benefit, and it can be received for a total period of up to 2 1/2 years, as long as the person in question runs their own business.[22]

Job-Rotation Projects

Job-rotation projects is an instrument of the active labour market policy which was introduced on a general basis in connection with the Labour Market Reform of 1993. Its popularity has grown rapidly, and during the period of rapid economic growth in 1994-95 it became one of the main instruments of the Regional Labour Market Councils in preventing shortages of skilled labour in the regional labour markets.

Job-rotation is an agreement between the employer and one or more employees of the enterprise. The contents of the agreement is to allow the employees a leave period for educational or training purposes and hire substitute labour among unemployed persons during the educational or training period. Job-rotation projects therefore provide the employer with an opportunity of training a corps of substitute workers or a buffer of trained labour - namely those persons who are employed as substitute workers during the period in which permanent employees participate in training courses. For the unemployed persons who substitute in connection with job-rotation, the benefits consists of an upgrading of qualifications and improved connections to the labour market.

The labour reforms of 1993 introduced advantageous possibilities of financing job-rotation projects, in effect through a utilization of a range of labour market instruments and other public allowance schemes: Training in itself of substitute labour prior to employment may be financed by the Regional Labour Market Council, through the ordinary appropriations of educational institutions (where the appropriation is connected to the number of students), through the public Open Education Scheme or from other public means.

During training, the pay for the unemployed person is financed through the labour market Education Allowance or through allowance schemes related to the individual education. When employed in the enterprise as substitute labour, the unemployed may be employed in job-training. This means that the employer will receive a wage subsidy in 1996 of DKK 43.77 per working hour, covering a part of the wage set in the collective agreement.

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[22] Unemployed persons who establish themselves as entrepreneurs typically do so in trades with low entry barriers and where competition is therefore intense and the enterprise closure rate high. Their average level of education is lower than for all entrepreneurs. The weak foundation for entrepreneurs who come from unemployment is reflected in relatively low turn over in their enterprises, a very low export ratio and the fact that these enterprises employ relatively few persons (Ministry of Business, 1996: 83-86). The positive employment effects of the scheme are therefore limited.

The training or education in itself of the enterprise's permanent employees may be financed through the ordinary appropriations of the educational institutions, through other public education allowance schemes, by the enterprise itself or by the Regional Labour Market Council. Payment of the employee's wage during training or education may take place through two different channels: Through the Adult Education Support scheme (VUS), which supports continuing education for adults, or through the Educational Leave scheme, which is described in more detail below.

The West Funen Network Project 1
Labour Exchange Funen

The West Funen Network Project was a rotation project which involved 65 unemployed persons and 125 employees in 4 enterprises in the metal industry as well as a number of educational institutions in the area.

The unemployed first participated in courses in welding techniques and general qualifying courses, followed by a 4-week trainee period. This was followed by 6 months' employment in the enterprises in the job training scheme. During the job training period, the unemployed served as substitute labour, while the permanent employees received training and education.

After the project had been completed, 48 of the 65 unemployed had found ordinary employment

Source: Ministries of Labour and Finance; 1996.

The wage which may be obtain through public channels in this manner normally corresponds to the maximum unemployment benefit. However, if job-rotation projects are carried out in a sector where there is a risk of skilled labour shortages, the Regional Labour Market Council may decide to supplement the education allowance up to an amount where the total allowance equals 120 per cent of the maximum unemployment benefit rate. Furthermore, the enterprise itself may decide to supplement the education allowance, enabling the employee to receive his or her normal salary level.

The Educational Leave Scheme

A further instrument of the active labour market policy is the Educational Leave Scheme. This instrument is not primarily directed towards the unemployed or towards preventing long-term unemployment. However, unemployed persons above the age of 25 may obtain Educational Leave in the same ways as employed persons, and during 1994 and 1995 the instrument was widely used by the Regional Labour Market

Councils and the regional Employment Services as an alternative activation instrument.[23]

Both employed persons, self-employed and unemployed persons are entitled to Educational Leave for a period of between 1 and 52 weeks. For the unemployed, Educational Leave from 1996 onwards counts as a part of the unemployment benefit period. The Educational Leave allowance equals the maximum unemployment benefit, both for full-time insured unemployed, employees and self-employed. For employed persons seeking to obtain Educational Leave, there are no requirements that the employer must hire a substitute during the leave period, but the employer and the employee must both agree to the Educational Leave. The scheme was widely used in 1994 and 1994. In 1994 a total of 11,600 full year persons made use of the scheme, whereas in 1995 the corresponding figure was approx. 26,800 (Pedersen 1996: 24).

European Social Fund Interventions in Denmark

The European Social Fund's (ESF) interventions in Denmark is a final instrument in the active labour market policy. ESF interventions in Denmark distinguish themselves from the national labour market system since both their financing and administration is separate from the overall labour market policy system. Furthermore, in Denmark ESF interventions are more so than other active labour market measures focused on the weakest groups of unemployed with the highest risks of social marginalization.[24]

ESF Programmes for which Denmark is Eligible

- Objective 2: Economic adaptation in regions suffering from industrial decline. A number of municipalities are included in the programme.
- Objective 3: Reduction of long-term unemployment, promotion of labour market integration of young persons and groups exposed to exclusion.
- Objective 4: Facilitating the adaptation to workers to industrial change and development in production systems.
- Objective 5b: Provision of a more versatile economic structure in rural areas. In Denmark this programme until 1994 covered the peripheral Danish islands. In 1994-1999 it covers a more diverse number of rural areas.

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[23] The main reason was that the Educational Leave scheme is financed outside the framework budget for the active labour market policy, giving the Regional Labour Market Councils an incentive to "spend someone else's money". However, the Ministry of Finance penalized this, as it did not allow the Councils to transfer more than approx. 10 per cent of the unspent means from the 1994 to the 1995 budget.

[24] Cf. Ministry of Labour (1994).

The European Social Fund is an instrument aimed at reducing unemployment throughout the European Union by measures of qualification and employment. Since 1993, Denmark has been eligible to support from four ESF programmes (not all of them financed by the ESF alone).[25]

Within the framework of these programmes, the Social Fund may finance up to 50 per cent of the expenses for specific training and education projects. The administration of ESF activities in Denmark varies for the different objectives, but regional involvement is substantial. For Objective 3 which is financially the most important Objective in Denmark, the Regional Labour Market Councils and the municipalities' Departments of Social Benefits are strongly represented in the Regional ESF Committees which develop and revise the annual social fund plan, formulate principles for prioritization of projects and supervise implementation. ESF funds equals roughly 3 per cent of the total Danish expenditure on active labour market measures (PLS Consult, 1996).

3.4. Assessment of Danish Labour Market Policy

In section 3.1.4 above, it was argued that the two most important objectives in Danish labour market policy from 1993 onwards have been a reduction in structural unemployment and a reduction in registered unemployment. In the following sections an attempt is made to assess the degree to which these objectives have been fulfilled until now.

3.4.1. Labour Market Policy, Hidden Unemployment and the Leave Schemes

Has Danish labour market policy reduced registered unemployment? And what have been the effects of the much debated leave schemes in this respect since 1993?

Hidden and Open Unemployment

Without doubt Danish labour market policy has hidden a considerable amount of unemployment. Hidden unemployment can be defined as a situation where persons wishing to obtain ordinary employment are unable to do so. Despite this, they are not registered as unemployed since they are covered by various public income support or activation schemes which removes them from the official unemployment statistics.

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[25] Objectives 3 and 4 are the only Objectives funded exclusively by the ESF. ESF funds between 20-25 % of Objective 2 measures, and about 20% of Objective 5b measures (PLS Consult; 1996).

Registered unemployment in 1994 equalled 343,000 persons (full year equivalents), corresponding to 12.1 per cent of the labour force. Of these 343,000 persons, 273,000 persons received unemployment benefits whereas approx. 70,000 persons received social welfare being registered as unemployed. However, Table 3.1 illustrates that hidden unemployment is substantial. 82,000 persons in 1994 were employed in active labour market programmes (job training and education). Similarly, 112,000 persons had made use of the Post Employment Wage scheme. A significant part of these persons are likely to have entered the sceme due to poor prospects of ordinary employment. The Educational and Child Care Leave Schemes were also utilised extensively by formerly registered unemployed, cf. the following section. To this should be added formerly registered unemployed persons substituting employed persons who enter one of the three leave schemes.

Table 3.4.1: The Distribution of the Population by Labour Market Participation.

	1970	*1994*	*1970*	*1994*
	1000 persons		*%*	*%*
Population aged 15-66	**3.290**	**3.599**	**100**	**100**
Receiving public income support	**301**	**947**	**9**	**26**
Employed in labour market programmes	0	82	0	2
Insured Unemployed	24	273	1	8
Early retirement:Social Pension	205	270	6	8
Early retirement: Post Employment Wage	0	112	0	3
Social Welfare	72	165	2	5
Educational, Child Care or Sabbatical Leave	0	45	0	1
Not receiving public income support	**2.989**	**2.652**	**91**	**74**
Employed	2.360	2.411	72	67
Housewives, students	629	241	19	7

Sources: The Welfare Commission (1995: 267), Ministry of Finance (1995) and Pedersen (1996).[26]

Furthermore, most likely a part of the 95,000 persons who received social welfare in 1994 but were not registered as unemployed have not voluntarily withdrawn from the labour market. Rather, poor employment prospects have forced these persons permanently out of the labour market. As for recipients of Social Pensions, some are likely to have lost their ability to reintegrate easily into to the labour market due to long term unemployment and problems which have been related to long-term

[26] Recipients of maternity leave allowance, sickness benefit and rehabilitees have not been included as recipients of public income support.

unemployment. On balance, it is estimated that hidden unemployment encompasses at least 250,000 persons. Total hidden and open unemployment is therefore estimated to be at least 600,000 persons. This equals almost 17 per cent of the population in the labour force active age. Compared to labour market conditions in 1970, this development is remarkable. Even if it is assumed that all recipients of social welfare were registered as unemployed in 1970, total hidden and open unemployment was well below 100,000 persons, corresponding to less than 3 per cent of the population in the labour force active age.

In sum, in combination with social policies, active labour market policies in Denmark and leave and early retirement schemes have absorbed a growing share of the labour force during the past two and a half decades. Active labour market measures and leave and retirement schemes may have reduced the official figure for registered unemployed in the short and medium term compared to what it would otherwise have been, but hidden unemployment has grown rapidly.

The Leave Schemes and Unemployment

The leave schemes are primarily an attempt at reducing unemployment through a reduction in the supply of labour. How have the leave schemes affected unemployment during the first two years of implementation?

Theoretical Arguments

A distinction between immediate, short-term socio-economic effects of the leave schemes and long-term effects is useful. The immediate effects have been summarized as follows (Kongshøj Madsen, 1995):

Short Term Effects of the Leave Schemes

- Registered unemployment decreases by one each time a registered unemployed person enters a leave scheme. If employed persons obtain leave, unemployment decreases to the extent that substitute labour is hired.
- Employment decreases when employed persons obtain leave, unless all vacancies which have emerged due to leave are filled with substitutes.
- The total of registered unemployed persons and persons on leave increases when employed persons obtain leave, unless vacancies are fully filled with substitutes.
- Total public expenditure for leave and unemployment benefits decreases, as unemployed persons enter leave schemes, to the extent that the leave allowance is smaller than the unemployment benefit which the unemployed was entitled to.
- For employed persons which enter leave schemes the budget effect depends on the degree to which substitute labour is hired and the leave allowance as a share of unemployment benefits.

As for the long term socio-economic effects of the leave schemes, conclusions are less clear. Several effects are possible:

Long Term Effects of Leave Schemes on Unemployment

- The supply of labour may grow, reducing the immediate effects of the leave schemes on registered unemployment.
- Reduced unemployment may lead to increased wage pressure, *ceteris paribus* causing decreased international competitiveness, a subsequent decrease in employment and a return to higher unemployment levels.
- Labour force qualifications may be improved due to the Educational Leave scheme. Persons who obtain leave will improve their skill level, just as the substitute labour goes through a period of "learning by doing". This may improve productivity and international competitiveness, *ceteris paribus* reducing unemployment.

The long-term effects of the leave schemes hence point in different directions and the overall effect is difficult to assess. The leave schemes both contain risks and potentials. There are growing probabilities of labour market bottlenecks and increasing wage pressures, which may in turn lead to increasing unemployment in the long term. The potentials are the possibilities of improved qualifications of the labour force. If the perspective is broadened the potentials of the leave schemes also encompass growing welfare and life quality, both for those persons who obtain leave and for unemployed who obtain employment for a period of time.

Empirical Evidence and Model Calculations

The immediate effects of the leave schemes on unemployment can be calculated as the number of persons on Sabbatical Leave (since replacement is mandatory) plus the number of unemployed who obtain Educational Leave and Child Care Leave. To this must be added the number of unemployed persons who replace employed persons on Educational or Child Care Leave (Pedersen 1996: 25).

In 1994 the leave schemes had a coverage which corresponds to approx. 45,000 full year persons. In 1995, the similar figure was 77,500. Based on survey data on the degree to which employed persons are replaced by substitute labour, the Social Research Insitute concluded that registered unemployment fell by between 32,000 and 40,000 full year persons in 1994 due to the leave schemes, depending on the degree to which employed persons' leave causes reemployment with unemployed

substitutes.[27] For 1995 it is calculated that the leave schemes have caused an immediate drop in registered unemployment between 60,000 and 70,000. These figures compare to a registered unemployment of approx. 340,000 full year persons in 1994 and approx. 285,000 in 1995.[28]

A large part of the leave scheme's effects on registered unemployment is due to reclassification of unemployed persons as persons on leave. Of the 45,000 full year persons on leave in 1994, more than 24,000 were formerly registered as unemployed. Of the 77,500 full year persons on leave in 1995, 46,000 were former unemployed persons. In summary, significantly more than half of the leave schemes' immediate effects on registered unemployment were due to reclassification of unemployed.[29]

The long-term effects of the leave schemes on unemployment have been assessed by the Economic Council and the Social Research Institute in two model calculations. In 1994 the Economic Council calculated that the effect of the leave schemes on unemployment is very limited in the long term, i.e. after 10 years. With 10,000 leave positions unemployment decreases with 2,000 whereas employment decreases with 8,000 (Economic Council, 1994). Moreover, the Council calculated that 10,000 permanent publicly financed leave positions require public budget savings or tax increases of 0.3 per cent of GDP at factor costs to avoid a growing foreign debt, as higher wage increases erode international competitiveness. This corresponds to an increase in gross income taxes of approximately 0.6 percentage points. This is twice as much as the direct expenditure to the leave schemes, since the tax increases must neutralize not only expenditures for the leave schemes but also the deterioration of the balance of payments.

Based on data on the actual use of the various leave schemes and actual replacement rates for employed persons obtaining leave, the Social Research Institute has calculated that 10,000 leave positions will result in a reduction of unemployment of between 8,800 and 9,300 after 10 years, although the reduction in employment diminishes further after the 10-year period. Correspondingly, employ-

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[27] In the most optimistic calculations, every substitution of the person on leave is assumed to cause a correspondent decrease in unemployment. However, the survey data indicates that a large part of the substitutes taking over the jobs of persons on leave were already employed in the enterprise in question. Furthermore, some substitutes come from previous employment in other enterprises and they may not be replaced in these enterprises due to shortages of skilled labour. In the most pessimistic scenario therefore, only substitutes which were unemployed before employment in the leave position are included in the calculations (Pedersen 1996: 26-28).

[28] The effects of the leave schemes on employment is calculated to be a drop of between 5,500 and 12,700 in 1994 and between 7,300 and 17,800 in 1995 (Pedersen 1996: 34).

[29] Most vacancies due to the leave schemes are created in the public sector, as between 55 and 66 per cent of employed persons who entered one of the leave schemes in 1994 were employed in public administration or the educational, social or health sectors.

ment only decreases with between approx. 700 and 2,200 after 10 years (Pedersen 1996: 73-76). However, in this model example Danish foreign debt is allowed to increase with between DKK 28 billion and DKK 35 billion during the 10-year period, as growing wage increases leads to a deterioration of international competitiveness. Fiscal policy is therefore tightened less in this scenario than in the calculations of the Economic Council.

In both calculations, the effect of the leave schemes approaches zero over time. This follows from the fact that neither of the models take the possible structural effects of the Educational Leave scheme into account. In sum, if the leave schemes are not to affect the balance of payments and the Danish foreign debt adversely, the long-term effects on unemployment are assessed to be limited, just as total employment will decrease as a result of the schemes.

3.4.2. Labour Market Policy and Structural Unemployment in Denmark

Probably the most important objective of the Labour Market Reform of 1993 was to reduce structural unemployment, or in other words: To improve the functioning of the Danish labour market thereby lowering that rate of unemployment at which inflation starts to accelerate (NAIRU). There are several means to this end.

The Duration of Unemployment

The deterioration of skills among long-term unemployed, which tend to generate self-perpetuating unemployment (hysteresis), may be prevented if the duration of unemployment can be shortened. The average duration of unemployment may, in turn, be shortened in various ways:

- Early activation may bring the unemployed person back in ordinary employment before skill deterioration sets in.
- Long-term unemployment may be prevented by *effective* activation, that is: activiation which is relevant in relation to the requirements of the labour market and the qualifications and needs of the unemployed.
- More comprehensive activation requirements may in themselves strengthen the incentives for long-term unemployed to seek ordinary employment.
- Other measures may increase the number of job openings in the labour market.[30]

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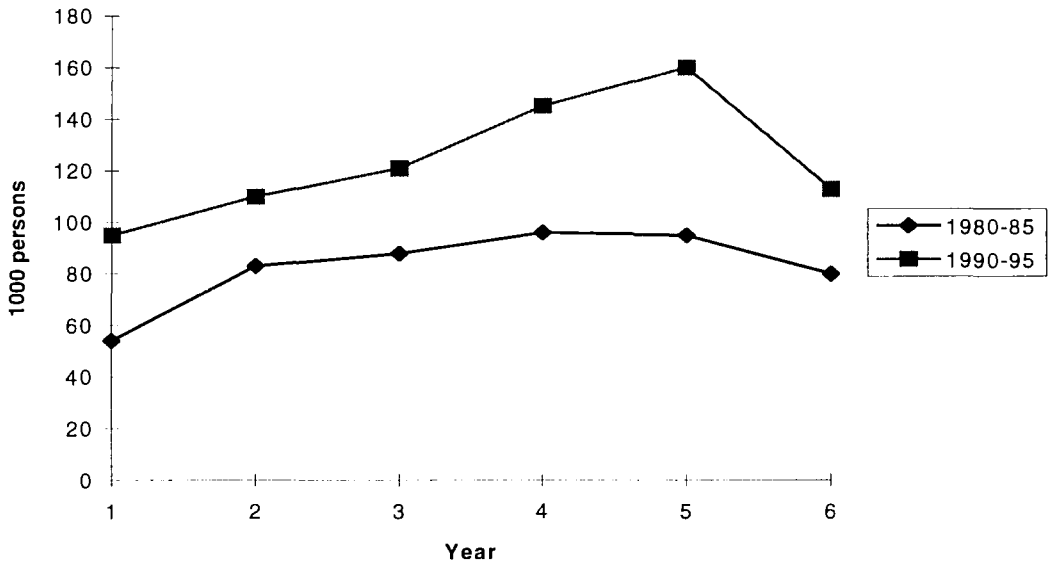
[30] Evidently, the shortening of the benefit period may also strengthen the incentives for long-term unemployed to seek ordinary employment. The shortening of the benefit period is however only to take effect gradually from 1996 onwards and the effects of recent labour market policies can only be assessed for 1994 and 1995.

In the Labour Market Reform of 1993 needs-oriented activation was introduced as was the possibility of early activation of vulnerable groups. Furthermore, in 1994 it was stipulated that the long-term unemployed with more than 4 years of unemployment have a right and duty to full-time activation. Finally, to the extent that substitute labour is employed, the three Leave Schemes should increase the number of job openings in the labour market.

Against this background, to what extent has the number of long-term unemployed decreased during the first years of the Labour Market reform? And to what extent has the average duration of unemployment shortened? Several definitions of long-term unemployment are used in Denmark. One definition used by the Ministry of Labour for international purposes is to define a long-term unemployed person as a person whose annual degree of unemployment is over 0.8. This corresponds to at least 42 weeks of unemployment during the year.

Figure 3.4.2.1 below illustrates the development in the number of long-term unemployed in Denmark in two periods characterized by an economic turnaround from recession to growth: 1980 to 1985 and 1990 to 1995.

Figure 3.4.2.1: The Number of Registered Long-Term Unemployed Persons.



Source: Statistical Ten Year Review 1995 and Monthly Review of Statistics no. 4, 1996.

In the period 1990 to 1995, the absolute number of long-term unemployed was significantly higher than in the period 1980 to 1985, cf. also Appendix B.2. In both periods, accelerating economic growth towards the end of the period was associated

with a decrease in the number of long-term unemployed. However, the decrease in the number of long-term unemployed was stronger from 1994 to 1995 than from 1984 to 1985. In the latest period, registered long-term unemployment dropped 29 per cent whereas the drop from 1984 to 1985 was just 16 per cent.[31] A corresponding pattern is found for the development in the average degree of unemployment in 1980-85 and 1990-95. The average degree of unemployment decreases with more than 12 per cent to 0.37 from 1994 to 1995. In contrast, from 1984 to 1985 the decrease in the average degree of unemployment was 8 per cent to 0.34.

There therefore appears to be some indications that the recent labour market measures affect long-term unemployment in the intended way. The average duration of unemployment and the number of long-term unemployed has fallen at a quicker pace than experienced in the most recent previous economic upturn.[32] However, "reclassification" of long-term unemployed as persons on leave accounts for a part of the decrease, as approx. 10,000 full year persons on leave in 1995 were formerly long-term unemployed as opposed to approx. 4,500 in 1994, meaning that approx. 5,500 more long-term unemployed were on leave in 1995.[33] The abolishment of the Transition Benefit scheme from 31 January 1996 also caused an increased number of elderly long-term unemployed to enter this scheme, and thereby to leave the official unemployment statistics. It is estimated that the number of full year persons in the Transition Benefit scheme was at least 25,000 persons in 1995 as opposed to approx. 10,000 in 1994, and that at the scheme encompassed at least 15,000 more full year long-term unemployed in 1995 than in 1994.[34] If the effects of the leave

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[31] This was so despite the fact that the economic growth which preceeded the drop in long-term unemployment was higher in 1983 and 1984 than in 1993 and 1994: The annual growth in GDP at factor prices was 2.1 per cent and 4.0 per cent in 1983 and 1984 respectively, as opposed to 1.3 per cent and 3.2 per cent in 1993 and 1994, respectively, cf. Statistical 50 Year Review and Monthly Review of Statistics no. 4, 1996.

[32] Since the Labour Market Reform took force on 1 January 1994 it could be argued that its effects should show up already during this year. However, activation of unemployed will take some time before the contents of activation measures can possibly produce results. Due to start-up problems the number of initiated activation measures for unemployed was also at a very low level in the first half of 1994, and the total number of initaited activation measures was much lower than expected, resulting in a significant under-consumption of means for the active labour market policy (Winter, Haahr and Ørberg 1995: 116-117, 183-185). Third, the provision of a right and duty to full-time activation of persons with more than than 4 years of unemployment only took force in 1995.

[33] This calculation is based on the assumption that the distribution of the duration of unemployment among unemployed persons on leave does not differ significantly from this distribution in the total population of unemployed. There is evidence that this a realistic assumption (Andersen et al. 1996: 48). In 1993, 18.6 per cent of all unemployed were long-term unemployed, in 1994, 20.5 per cent. From Pedersen (1996: 24) it can be calculated that the number of unemployed persons on leave was 45,000 full year equivalents in 1995.

[34] Estimate of the National Labour Market Agency AMS based on the total number of persons in the Transition Benefit scheme medio and ultimo 1994 and 1995.

schemes and the Transition Benefit scheme are removed from the calculation, the decrease in long-term unemployment was not steeper from 1994 to 1995 than from 1984 to 1985.

On balance, the labour reforms have contributed to a reduction in long-term unemployment and the average duration of unemployment. But this reduction is to a very high extent due to "reclassification" of the long-term unemployed as persons on leave or withdrawn from the labour market altogether in the Transition Benefit scheme. Withdrawal of the elderly unemployed from the labour market does not prevent any deterioration of skills in the work force and therefore does not contribute to the reduction of structural unemployment.[35] The "reclassification" of long-term unemployed as leave persons may only prevent a deterioration of skills due to unemployment, to the extent that long-term unemployed make use of the Educational Leave scheme rather than the two other schemes.

Skills Improvement and the Prevention of Labour Shortages

The second key objective in the efforts after 1993 to reduce structural unemployment was an improvement and flexible adaptation in the skill levels of the work force to prevent the occurrence of shortages of skilled labour. Thus, during the economic upswing in 1994-95, the prevention of labour market "bottlenecks" has been a key priority for Danish labour market policy.This is a result of experience gained over time. As mentioned in Chapter 2 the latest economic upswing in 1984-86 resulted in a wave of increasing wage pressures in 1986 due to labour shortages in a number of sectors with major implications for the determination of the overall wage growth rate. Labour shortages occurred in a situation where registered unemployment totalled almost 200,000 full year persons, equal to an official unemployment rate of 7,9 per cent of the labour force. Given a fixed exchange rate and a weak productivity development, the growing wage pressures undermined international competitiveness and the balance of payments. This made necessary a contractive fiscal policy which in turn marked the start of the long period of increasing unemployment which reached a peak in 1993 (cf. Ministry of Labour, 1989: 15-24).

In the Labour Market Reform, skill improvements and thereby the prevention of labour shortages is to be achieved through among other things:

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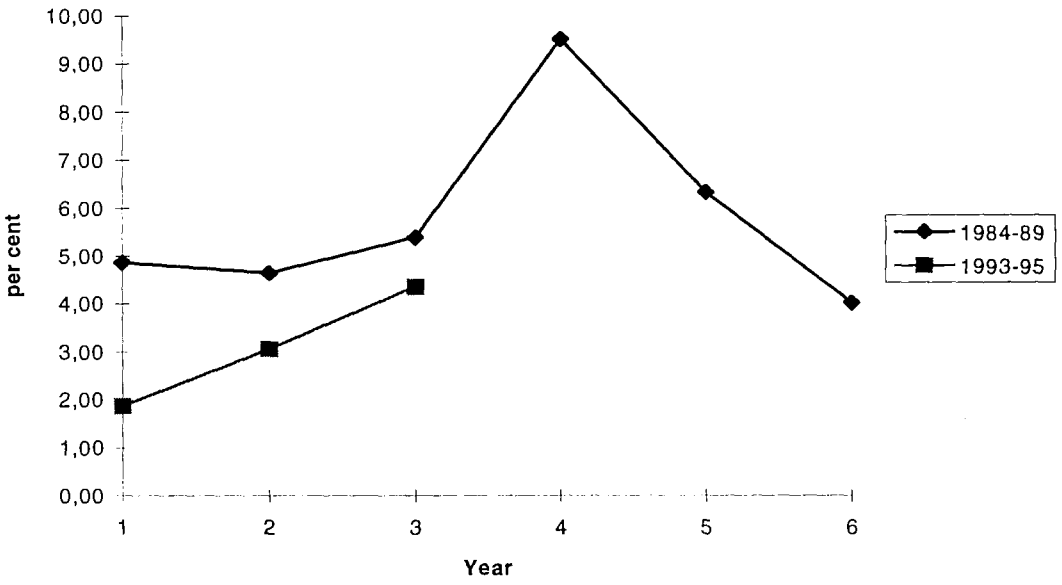
[35] On the other hand, the extended use of the Transition Benefit scheme in 1995 most likely did not *contribute* significantly to structural unemployment either: Recent data from AMS suggest that unemployed persons entering the Transition Benefit scheme were to a very high extent unskilled workers. Their withdrawal from the labour market therefore did not exacerbate problems of shortages of skilled labour.

- Improved targetting of the training and education of unemployed persons as training is tailored to suit the requirements of the labour market and the individual needs and qualifications of each unemployed person.
- Improved possibilities of "on-the-job training" for (former) unemployed and the creation of reserves of skilled labour in Job Rotation Projects.
- General improvements in the qualifications of the work force through the Educational Leave Scheme.

To what extent have the labour reforms since 1993 achieved their objectives? The ultimate objective in the prevention of labour shortages is the prevention of an acceleration of wage increases which - given fixed exchange rates and constant productivity development - will undermine international competiveness and economic growth, to the detriment of employment.

Figure 3.4.2.2: Yearly Increase in Labour Costs, Manufacturing Industry. Percentage Change on Previous Year.[36]



Source: Statistical Ten Year Review 1995. Monthly Review of Statistics No. 4, 1996.

It appears from Figure 3.4.2.2. that labour costs have not increased as rapidly from 1993 to 1995 as was the case in the economic upswing in the mid-1980s, particularly in 1987. In this connection it is also noticeable that the number of registered vacant

[36] 1984-89: Calculated on the basis of hourly wages for all workers in manufacturing and construction. 1993-1995: Calculated on the basis of average hourly wage costs in manufacturing industries.

positions have not increased with the decrease in registered unemployment as compared to the situation in the mid-1980s (Ministry of Labour and Ministry of Finance, 1996: 31).

In a qualitative assessment, no substantial problems of shortages of skilled labour have been registered in the private sector by the Regional Labour Market Councils during 1995. Some regions in Jutland (Ribe, Ringkøbing, Vejle) have registered limited labour shortages in specific areas within the field of metal manufacturing and construction. In contrast, in the public sector labour shortages have been registered in the social and health care sectors in a wider range of regions throughout the country (Ministry of Labour, 1996: 2-3). However, due to the centralized wage formation structure in the public sector, this implies waiting lists or a poorer service to the public rather than growing wage increase rates which undermine international competitiveness.

Labour market reforms are however just one among several explanations for the fact that wage increases have not yet reached the pace they did in the mid-1980s. Even if there is a quicker decrease in unemployment rates in the mid-1990s compared to the mid-1980s (from 12.1 to 10.2 per cent of the work force from 1994 to 1995 as opposed to a decrease from 10.1 to 7.9 per cent from 1984 to 1986) unemployment remains at a higher level in the 1990s than in the 1980s.

Furthermore, the economic upswing in the mid-1980s was to a large extent concentrated in the construction sector, which overheated in a context where construction had declined for more than a decade. The economic upswing from 1994 has not in the same way been concentrated on the construction sector (cf. Dalgaard et al., 1996: 170). Finally, the previous economic upturn was associated with a surprising drop in labour productivity which exacerbated labour shortages significantly (Gjerding et al., 1990). There are no indications that the same drop in productivity is taking place now.[37] More precise evidence as to the effects of the labour reforms since 1993 in relation to the prevention of shortages of skilled labour is scarce and firmer conclusions must await further data.

The "Qualification Twist" in Active Labour Market Policies

It is thus difficult to isolate the effects of the labour reforms among the various policy measures and other developments which have affected the mix and level of skills in

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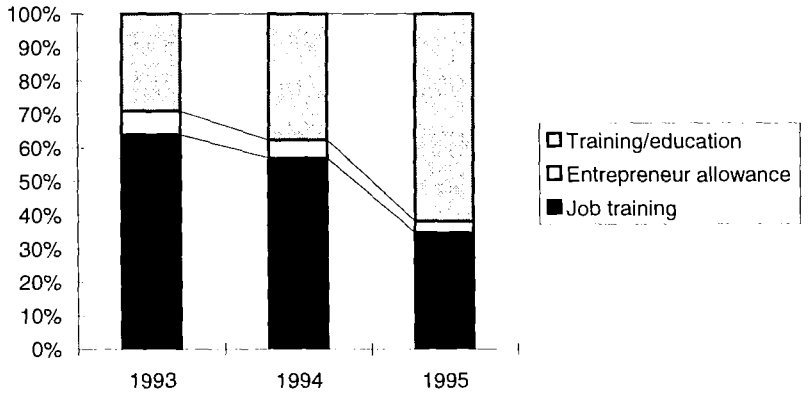
[37] The Ministry of Labour itself states that the successful prevention of labour shortages "not least is due to the fact that the efforts of the Regional Labour Market Councils and the Public Labour Exchange directed against problems of bottlenecks have been improved substantially, among other things through the flexibility, which the Labour Market Reform has implied" (Ministry of Labour; 1996: 3).

the work force after 1993. Even if this is the case, a number of qualitative developments in the actucal labour market policy in 1994 and 1995 should be emphasized.

First, the quality of activation of the unemployed has been given a much higher priority than previously. The Regional Labour Market Councils seek the highest possible employment effect of activation - sometimes at the cost of the quantity of activation (Winter, Haahr and Ørberg, 1995: 72-73). Two factors account for this development: The composition of the Regional Labour Market Councils where employee organizations have 1/3 of the seats, counties and municipalities another 1/3. And the elimination of the link between entitlements to unemployment benefits and activation in subsidized jobs or training programmes. Thus, to prevent their members from dropping out of the unemployment insurance system, it is now in the interest of employee representatives in the Councils to ensure that activation will lead to regular employment. The representatives from the municipalities share this interest, as they must provide for unemployed who have dropped out of the unemployment insurance system and revert to social welfare.

Second, the emphasis on activation measures with a high effect in terms of regular employment has meant that a higher priority than previously has been accorded to training and education in connection with the activation of the unemployed. Figure 3.4.2.3. illustrates this development.

Figure 3.4.2.3. The Relative Importance of Different Activation Instruments.



Source: AMS (1996) and Ministry of Finance (1995a).

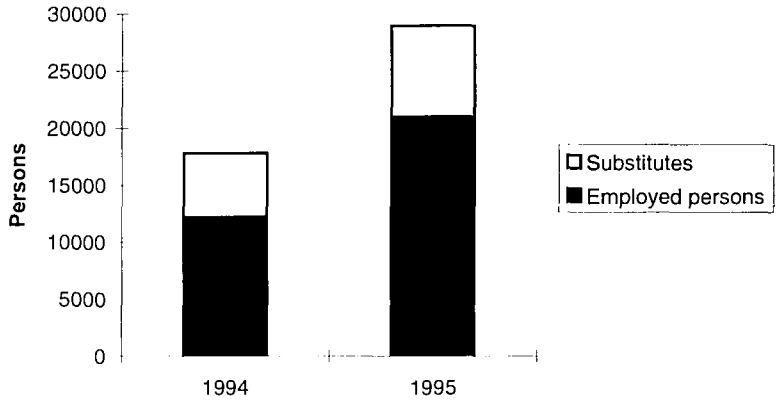
From 1993 to 1995 training and education measures as a percentage of the total number of activation measures grew from 29.9 per cent to 39.8 per cent in 1994, only to grow to 62 per cent in 1995. These figures do not include the unemployed who

have obtained Educational Leave. The relative importance of education and training for the unemployed when including the Educational Leave is even greater.[38]

The emphasis in the Regional Labour Market Councils on training and education is also reflected in the sharp increase in the total number of training and education measures initiated from 1994 to 1995. A total of more than 66,000 training and education measures were initiated in 1995, as opposed to a total of 27,300 in 1994. If the number of unemployed persons who have obtained Educational Leave are added, 143,200 training and education measures were initiated for unemployed in 1995 as opposed to a total number 73,400 in 1994, an increase close to 100 per cent (AMS 1996b).

Furthermore, Figure 3.4.2.4. illustrates the growing importance of job rotation projects in the active labour market policy. In 1994 approximately 17,800 persons participated in a job rotation project. Of these 12,200 where employed persons who received training or education and 5,600 were unemployed who served as substitutes. In 1995, the total number of participants in job rotation projects had increased to approx. 29,900 persons, of whom 21,000 where employed persons and almost 8,000 substitute labour.

Figure 3.4.2.4. Total Number of Persons Participating in Job Rotation Schemes, 1994 and 1995.



Source: AMS (1996).

Finally, there is evidence that the regionalization of active labour market policy in the Labour Market Reform of 1993 as well as the improved possibilities of flexible

[38] On the other hand, a part of this increase is accounted for by the fact that the Public Employment Service failed to initiate the planned number of job training measures in the 14 regions in 1995. To some extent the growing importance of training and education from 1994 to 1995 is therefore not a deliberate policy choice but rather a result of implementation problems, cf. Haahr and Winter (1996: 187-191).

individualized activation of unemployed has enabled a faster reaction time to threats of labour shortages in the Public Employment Service and the Regional Labour Market Councils. In the previous fully rule-bound system, there were few possibilities for training selected groups of unemployed in response to specific and rapidly emerging needs in the labour market. Rather, training took place scheduled in accordance with the legal rights of the unemployed.

At the same time, decentralization of active labour market policy has improved the information flow to the Regional Labour Market Councils and allowed them to take the necessary measures in preventing labour shortages. As for the first point, this has followed from the strengthening of the Labour Market Councils which increased their standing among the regional employer and employee organizations. The Councils are now more than ever made up of persons who represent the most important employer and employee interests, and who in particular have the political backing of these interests and can rely on information from them (Interviews carried out in connection with Winter, Haahr and Ørberg, 1995). As for the second point, this follows from the freedom of the Councils to initiate and approve specific measures such as job rotation projects and targeted training programmes. This freedom remains largely intact also after the legislative changes of 1995.

In summary, training and education is increasingly prioritized in Danish active labour market policy after 1993. It seems likely that this has had at least some limiting effects on structural unemployment and that it has contributed to the prevention of labour shortages in specific sectors. There are also indications that the decentralization of labour market policy making has facilitated a more effective prevention of labour shortages. However, it is too early to conclude that labour shortages have been prevented efficiently and structural unemployment lowered significantly in Denmark *because* of the labour reforms from 1993 onwards.

3.4.3. Conclusions

Danish labour market policy has developed constantly since 1993. The most important changes are: The responsibility for the active labour market policy has to a high extent been decentralized. A principle of needs-orientation has been introduced in the activation of unemployed. A possibility of early activation of vulnerable groups has been introduced. The activation of long-term unemployed has been intensified. Activation is gradually moved forward so as to start after two years of unemployment in 1998. The duration of the benefit period is gradually being reduced to 5 years from 1996 onwards. From 1996 mandatory training or education is introduced for young

unskilled unemployed. Three comprehensive leave schemes have been introduced, of which the two are also open for unemployed persons.

The two most important even if implicit objectives of these reforms have been to reduce registered unemployment and to reduce structural unemployment, defined as that rate of unemployment which is consistent with an unchanged wage and price inflation.

Labour market measures caused a significant decrease in *registered unemployment* in both 1994 and 1995. Through reductions in labour supply the leave schemes in 1994 reduced registered unemployment with between 32,000 and 40,000 full year persons. In 1995 the reduction in registered unemployment due to the leave schemes was between 60,000 and 70,000. However, significantly more than half of the leave schemes' immediate effects on registered unemployment were due to reclassification of unemployed persons as persons on leave, and the long-term effects of the leave schemes on unemployment are estimated to be small.

At the same time, the reduction in registered unemployment caused by labour market measures corresponds to a growth in hidden unemployment. Hidden unemployment may be defined as a situation where persons who wish to obtain ordinary employment but are unable to do so are not registered as unemployed, since they are covered by various public income support or activation schemes. It is estimated that hidden unemployment encompassed at least 250,000 persons in 1994. Total hidden and open unemployment is therefore estimated to have been at least 600,000 persons this year, equalling almost 17 per cent of the population in the labour force active age.

In this connection it is noteworthy that the Economic Council has criticized the recurrent attempts in Danish labour market policy to reduce unemployment through a reduction of labour supply. International experience thus shows that the relation between growth in labour supply and growth in employment is approximately one to one. Consequently, it is not possible to reduce unemployment through reductions in labour supply. "To all appearances, the strong emphasis during the past 25 years of Danish labour market policy on measures which reduce labour supply has had no discernible permanent effect on unemployment" (Economic Council, 1994: 70).

The effects of recent labour market measures on the level of *structural unemployment* in Denmark are difficult to assess. The number of long-term unemployed and the duration of unemployment have dropped significantly from 1994 to 1995. In itself, this should reduce skills deterioration among the unemployed and thereby the structural unemployment rate. A significant part of this decrease in long-term unemployment however is due to an increase in long-term unemployed persons' use of the leave schemes and the Transition Benefit scheme in 1995. Of these schemes

only the Educational Leave scheme may serve to prevent the deterioration of skills. If the effects of the leave schemes and the Transition Benefit scheme are excluded, long-term unemployment did not drop sharper from 1994 to 1995 than during the latest economic upswing in the mid-1980s. This suggest that apart from the leave schemes and the Transition Benefit, recent labour market reforms have had limited effects on the duration of unemployment.

Also compared to the situation in the most recent economic upswing, wage increase rates have not yet grown as rapidly as then and shortages of skilled labour have occurred only in public sector areas where the effects on wage increase rates are limited. Training and education has clearly been prioritized to a much larger extent in Danish active labour market policy since 1993 than previously. It seems likely that this has had at least some limiting effects on structural unemployment. However, there may be several other explanations for the lower wage increase rates and the limited shortages of skilled labour in the 1990s than the recent reforms of labour market policy.

In assessing the impacts of recent labour market reforms on structural unemployment it should be emphasized that there are potential conflicts between the two overall objectives of Danish labour market policy: To reduce registered unemployment and to reduce structural unemployment, cf. figure Table 3.4.3.1. and Table 3.4.3.2. below. Measures which aim to reduce registered unemployment to some extent increase structural unemployment.

Table 3.4.3.1: Measures which Increase/Decrease Structural Unemployment in the 1993 Labour Market Reform

Decreasing Structural Unemployment
• Individualized activation with an emphasis on training and education • Targeted training and education programmes, aimed at preventing bottlenecks • Job-rotation projects, aimed at establishing a buffer of qualified labour
Increasing Structural Unemployment
• Child Care and Sabbatical Leave schemes • Educational Leave scheme (to some extent)

Table 3.4.3.2. Measures which Increase/Decrease Structural Unemployment in the 1994-95 Legislative Changes

Decreasing Structural Unemployment
• Earlier full-time activation of unemployed • Mandatory training/education of young unskilled unemployed coupled with lower benefits • Reduced unemployment entitlement period • Reduced allowance levels in leave schemes • Reduced leave entitlements for unemployed • Abolishment of the Transition Benefit scheme
Increasing Structural Unemployment
• Public sector pool jobs[39] • Delayed abolishment of Transition Benefit Scheme (to a limited extent)[40]

The leave schemes are the most important examples in this respect: They may indeed exacerbate structural unemployment as the supply of skilled labour is limited, increasing the risks of labour shortages and wage growth increases. On the other hand, the leave schemes may increase job rotation as unemployed people are hired as substitutes and thereby limit the average duration of unemployment. The Educational Leave scheme may also increase labour productivity and the supply of labour with the right qualifications.

Estimates of the effects of the leave schemes on structural unemployment so far do not arrive at clear conclusions (Pedersen 1996: 45-68). However, the leave schemes may have contributed to shortages of skilled labour particularly in the public sector labour market. Furthermore, the job rotation effects of the Child Care Leave and the Educational Leave are seen to be limited since many of the unemployed serving as substitutes would have found ordinary employment irrespective of the job openings created by the leave schemes. Actually, the Child Care Leave scheme may weaken the attachment of the umemployed to the labour market as it has been extensively used by unemployed women, increasing their risks of marginalization. Finally, the qualification effects of the Educational Leave scheme are difficult to

[39] Pool jobs may impede the prevention of skills shortages as it remains uncertain whether the prevention of labour shortages takes priority over the filling of vacant pool jobs, cf. footnote * above.

[40] As mentioned in section 3.3.1, the Transition Benefit scheme was abolished in a manner which created an incentive for all elderly long-term unemployed to make use of the scheme as long as it was possible, and virtually all eligible persons eventually applied. However, the corresponding decrease in effective labour supply and increase in structural unemployment most likely is very limited since most applicants presumably are lowly skilled.

assess: According to survey data a majority of enterprises agree that the education obtained by their employees during leave is useful, but a large minority, particularly private enterprises, indicate that the education of employed persons on leave is not useful.

On balance, based on experience so far, only the Educational Leave scheme has the potential to contribute to a reduction in structural unemployment in the long term, due to its potential positive effects on labour productivity and the supply of labour with the right qualifications. However, this presupposes that education which is carried out during Educational Leave leads to job relevant qualifications. At the moment it is possible to obtain Educational Leave for a very wide range of training/education or courses. In contrast, the Child Care Leave actually increases the risk of marginalization of young lowly skilled women, and all leave schemes limit the supply of labour which may exacerbate problems of shortages of skilled labour.

In conclusion, Danish labour market policy since 1993 has been directed towards the symptom of unemployment, i.e. the rate of registered unemployment, and some of the likely causes of unemployment, namely the deterioration of skills among unemployed and the related mismatch problems of supply and demand in the labour market.

In curing the symptoms of unemployment recent labour market policy has been relatively successful, as labour market measures contributed significantly to a reduction of registered unemployment in 1994 and 1995. However, this cure is likely to be only temporary. In removing some of the causes of persistent unemployment results so far are mixed. On the one hand, there is little evidence that recent labour market measures have reduced the number of long-term unemployed in a manner which improves the prevention of skill deterioration. Rather, many long-term unemployed have been removed from the unemployment statistics through passive labour market measures. On the other hand, it does not seem unlikely that active labour market measures have contributed to the prevention of shortages of skilled labour in 1994 and 1995, through targeted improvements in the skills of the work force. To the extent that the training and education effort in active labour market policy has thus reduced structural unemployment, the decentralization of responsibilities for the active labour market policy seems likely to provide the explanation.

Looking to the future, the question is whether the labour market reforms which have been adopted since 1993 are sufficient to ensure a significant and lasting drop in structural unemployment. On the one hand, we have yet to see the effects of the measures which were introduced in December 1995. In general, these measures should serve to increase effective labour supply and improve the qualifications of the work force. On the other hand, the labour market reforms since 1993 have only

adressed some of the likely causes of unemployment. Other likely causes have not been adressed: Real wage rigidity, the insider-outsider problem, and the compressed wage structure.

4. *Industrial Relations and Wage Negotiations*

This chapter describes the central features of what has been termed the Danish model, a highly organized and institutionalized system of industrial relations. We focus on the institutional features of the Danish model as well as on the decentralization of wage formation which has taken place in recent years.

The Danish model is characterized by the integration of two opposing parties, employers and employees, into a system of institutionalized balancing of opposed interests that allows both parties to derive advantages from their participation (Due, 1993). Furthermore, as it has also been described in section 3.1, the labour market parties are extensively involved in the formulation of labour market policies, and historically, most labour market issues have been regulated by agreement between the two parties rather than by statute of law.

4.1. The Organization of the Labour Market Parties

The Danish system of industrial relations in the private sector has been dominated by two main organizations, the Danish Employers Confederation (Dansk Arbejdsgiverforening, DA) and the National Federation of Trade Unions (Landsorganisationen i Danmark, LO). Both of these organizations were established at the end of the last century. Following a lengthy conflict in 1899, which lasted three months and cost 3 million working days, the two parties negotiated a historic agreement that institutionalized the resolution of labour conflict. Since then and until recently DA and LO have set the direction for all major issues in the labour market by negotiating the framework within which lower levels of the organizations have had to negotiate and operate.

Both the Danish Employers Confederation and the Federation of Trade Unions are umbrella organizations organized along lines of trade, industry or level of skill. Furthermore, both employers and employees were organized at the level of each enterprise or work place. This made for a rather fragmented overall structure, despite the existence of the main organizations.

These structures have lasted until this decade. However, beginning in 1989, employers as well as employees set in motion a process in which the many trade organizations are being transformed into large, industry-wide cartels (Due, 1993). In some respects, this development signifies that the high degree of centralization, which has been an important feature of Danish industrial relations, is declining.

4.1.1. The Present Organization of Employers

For almost 100 years the Danish employers in the private sector and their branch organizations have been organized in the National Employers Confederation. Its membership rate amounts to about 60 per cent of potential members, and the Confederation estimates that its members cover about 50 per cent of private sector employment (Due, 1993: 403, 488). Prominent employers organizations outside the National Employers Confederation include the Employers' Organization of the Finance Sector, emerging as the result of several mergers in the banking industry (Ronit, 1995; Erhvervsfremmestyrelsen, 1994), and the National Employers Confederation is the Federation of Employers of the Agriculture Sector (SALA), covering agriculture, food industries, horticulture and forestry. Both of these organisations conduct independent collective bargaining with the sector's employee organizations. However, collective agreements negotiated by the Confederation have typically set the standard for wages and working conditions for the entire labour market, including for employers who are not members. In this capacity as trend-setter, the Confederation has yielded an influence much greater than its membership level would indicate.

Employer interests in the public sector are organized according to level of government. The Minister of Finance is responsible for all collective bargaining with national government employees (Due et al., 1996). Municipal and county employers form a group that bargains with employees at the local and regional levels of government. The group includes the National Association of Local Authorities, representing municipalities; the Association of County Councils as well as the municipalities of Copenhagen and Frederiksberg. The latter two have individual representation as they cover both municipal and county levels (Due et al., 1996).

Historically, private sector employers have striven for unity, recognizing that on their own the many small Danish enterprises could not match unions. The strategy has been to delegate decision-making authority to the central level of organization. This delegation has included a stipulation that DA must sanction any agreement entered into by a member organization. Although the Confederation has a centralized power structure for collective bargaining, the organizational structure has been fragmented. The existence of many small trade or branch organizations have forced many employers to join several employer organizations in order to match all groups of employees.

By the 1980s, the rigid lines between organizations no longer matched a fluid labour market structure. This prompted employers' organizations to seek a structure

that would eventually allow for a structure of one employer-one organization and one employer-one labour agreement without weakening the position of the individual enterprise towards the unions. The idea was to form cartels that would each cover an industry, the goal to increase flexibility in the labour market by ensuring that organizational and labour market structures corresponded.

In 1989, the two main industrial employers' organizations merged, and in 1992 this industrial employers' organization entered into yet another merger with the industrial enterprise organization, the latter representing industrial interests in business development matters. The resulting cartel was called *Danish Industry* (Dansk Industri, DI), representing employer as well as business development interests. Due to this round of organizational mergers, the number of organizations in the Confederation of Employers shrunk from 150 to 25 during the first half of the 1990s (Interview, DA). The resulting structure is expected to become one of large industrial cartels, with maybe as few as five to ten major organizations (Due, 1993).

The structural changes have also changed power relations among employer organizations. Specifically, they have undermined the central position of the Confederation (Due, 1993). Although Danish Industry is a member of the employers confederation, it is now widely considered more powerful than the Confederation itself: DI finances the majority of DAs budget, it covers 52 percent of the total wages paid by DA members and has absolute majority on the board. Moreover, the organization has built up a comprehensive administrative and analytical apparatus better prepared to service its members than that of the Confederation.

These reorganizations have also caused the locus of collective bargaining to move from the central level to the level of the cartel, even to the level of each enterprise, possibly eroding the Confederation's raison d'être (Due, 1993; Ugebrevet Mandag Morgen, 1995). The Confederation, however, has retained the power to veto the agreements negotiated by each member organization or employer. This right was exercised by the board in 1995 when the employers' organization for road delivery companies had negotiated an agreement with wage increases unacceptable to the Confederation.

At this point in time, the future role of the Confederation seems unclear as the division of labour between the national employers' organization and the developing cartels is still evolving.

4.1.2. The Organization of Employees

The changes in employers' organizations have been paralleled by a similar move toward cartel organizations in the labour movement, both in the private and in the

public sector, but cartelization has met with more resistance among employee organizations. Still, employee organizations appear to have taken the process one step further than the employers by forming six cartels.

The Danish Federation of Trade Unions, like its counterpart, is an umbrella organization for labour organizations in both public and private sectors. The Federation of Trade Unions has about 1.5 million members. Like DA, the federation covers labour organizations set up according to different principles. This means that there are possible overlaps in the organizational affiliations of each employee. Labour organizations outside the Federation, representing primarily white-collar workers, organize an additional 650,000 employees.

Membership rates are high, as more than 80 per cent of all employees are members of employee organizations, an increase from 68 per cent in 1975. For public sector employees the organization rate is about 95 per cent (Due et al., 1996). One reason the organization rate has remained high and even increased despite economic recessions may be the fact that unions through their administration of the unemployment insurance funds administer payment of unemployment benefits. Although union membership is not required for being eligible for unemployment benefits, the connection between the two has presumably furthered labour organization membership rates (Due, 1993).

The groundwork for structural change was laid with a decision at the general assembly of the Federation in 1989 to form five industry-wide cartels. However, due to strong disagreements between skilled and unskilled labour in the metal industries, the implementation of this structure was slow. In 1992, the organizations representing employees in industry joined in an cartel, *CO-Industri*. By the end of 1993, a total of six cartels had been formed, four private sector cartels and two public sector cartels. These cover industry, construction, graphics, and retail, transportation and service industries, as well as municipal and state employees. In the public sector the cartel representing state employees - the Joint Comittee of Central Organizations - is made up of four central organizations, which are themselves coalitions of personnel organizations. Membership in these central organizations is determined primarily by the employees' level of education (Due et al., 1996). Municipal and county government employee organizations are joined in a cartel known as KTO (municipal public servants and employees appointed on a group contract basis). Member organizations are independent. which means that the cartel conducts collective negotiations, but each organization commits itself to an agreement independently (Due et al., 1996).

There has been and there still is considerable resistance within the employee organizations toward the cartels. In particular, blue-collar workers fear that the

subsuming of unskilled labour into large branch organizations will affect adversely the relatively high level of protection and pay unskilled labour has gained by uniting in one organization.

Structural changes among employee organizations have been driven by at least two factors. The trade unions have long been inhibited by problems of unclear boundaries given the different principles along which organizations were set up. As a result there have been areas of overlapping competencies and poor coordination. In general this has prevented labour from speaking with one voice to each employer since several labour organizations would be represented in each enterprise. In addition, the formation of employer cartels has put external pressure on employees to form structures that would adequately match employers in negotiations. Thus, the formation of CO-Industri is a direct response to the earlier formation of Danish Industry for employers (Due, 1993).

As is the case for employers, employee organizations are still discussing the division of power among the various levels of organization. However, the Federation of Trade Unions appears ready to move some of its competencies to the level of cartels. The federation has cut its administrative staff by one-third and has transferred a total of DKK 120 million (more than 16 million ECU) to the cartels in order to strengthen their administrative capabilities. The Federation sees the cartels as fora for the discussion and negotiation of "soft issues", i.e. education and training, working environment etc. On the other hand, some trade unions, particularly the Retail, Transportation and Service Employees are still discussing how much power should be transferred to the cartel.

4.1.3. Assessment

The changes of the past few years signify a marked shift in the organizational structures of the Danish labour market, possibly as significant as the institutionalisation of industrial relations at the end of the last century. A decentralisation is taking place from the umbrella organization to the cartel level which only covers an industry. At the same time, the potential transfer of competencies from the branch organizations to the industry-wide cartels represent a centralisation of organizational structures. It is to be expected that the organizational structure will eventually reflect the level at which collective bargaining will occur since the bargaining partners must have an administrative apparatus at their disposal (Due, 1993).

4.2. The Regulatory Framework for Industrial Relations

This section briefly describes some of the main elements in the regulatory framework for industrial relations in Denmark: It describes the General Agreement between the main organizations which has since 1899 constituted the basic framework for regulating industrial relations, and it describes the institutions which exist in the Danish labour market today for solving industrial disputes.

4.2.1. The General Agreement

The fundamental principles governing industrial relations were laid out in the General Agreement of 1899. The General Agreement institutionalized industrial conflict by stating that labour market issues, including wages and working conditions would be determined via collective bargaining between the labour market parties (Due, 1993:78).

The Agreement has been amended repeatedly, but the fundamental principles that were laid out in 1899 remain. Most importantly, the General Agreement stipulates employers' right to manage and allocate work (the management prerogative) and stipulates employees' right to form unions as well as the right not to join the labour market organizations. The agreement lays out the right to resort to industrial action, i.e. strikes or lockouts, but specifies the conditions under which work stoppages must take place, including a two-week notification period and a three-fourths majority in the decision-making body. Finally, the General Agreement stated that collective agreements could only be terminated upon three months notification.

The General Agreement was supplemented a few years later by the "Standard Rules for Handling Industrial Conflict", which spelt out the rules for how to handle disagreements about collective agreements. The Standard Rules established the distinction between disputes of interest and disputes of right. *Disputes of interest* refer to conflicts about issues not covered by collective agreement, most commonly occurring as an existing agreement expires and negotiations over a new agreement commence. *Dispute of rights* refers to disagreement about the interpretation of an existing collective agreement. Work stoppages are only allowed in the case of disputes of interest. For disputes of rights, conflicts must be settled via arbitration or by the Industrial Court. This ban on work stoppages while a collective agreement is in effect has been referred to as the "peace duty".

Other amendments to the General Agreement include protection against arbitrary dismissals defined as dismissals not motivated in the work of the employee or company-specific issues. In other words, this provision intends to protect

employees for political or organization reasons, among other things. The Agreement also explicitly offers expanded protection of shop stewards.

4.2.2. Institutions for Solving Industrial Disputes

The establishment of three different institutions for handling labour disputes have been important for maintaining stable industrial relations. As a consequence of the distinction between disputes of interest and disputes of rights, there are two types of conflict resolution institutions. Disputes of interest occur in connection with the collective bargaining process. When this process breaks down, a Board of Conciliation steps in. Disputes of right are dealt with by the Court of Arbitration or by the Industrial Court.

The Board of Conciliation

In general, industrial action, i.e. strikes or lockouts, is lawful when two parties cannot agree on the terms of a new collective agreement or on an issue not covered by collective agreement. However, in 1910, a Board of Conciliation was established to try to settle conflicts and avoid the execution of a strike or lockout. If a notified labour conflict is considered socio-economically threatening, either because it is widespread or because it involves key sectors of society such as hospital personnel, the Board of Conciliation may intervene. The Conciliator has the power to postpone the conflict for two weeks while a proposal for settlement is worked out. The conciliator cannot force a solution onto the parties; both employer and labour organizations must accept the proposal in a referendum: To turn down the proposal, at least 50 per cent of votes must be against it, and at least 35 per cent of those eligible for voting must participate in the voting procedure.

One important instrument used by the Board of Conciliation to make the proposal pass has been to link collective agreements for different areas of employment. This means that even if an agreement for a specific trade is rejected by the employer or labour organization it covers, it will be adopted if the total referendum endorses the agreement. This has promoted a centralization of collective bargaining and has prevented local strikes in limited areas.

The Board of Conciliation is a governmental institution, but several features serve to give the board the character of a corporate board of arbitration rather than a government institution. The Ministry of the Labour formally appoints the chairman of the Board, the Conciliator, but the labour market parties are involved in the appointment through its representatives on the Industrial Court. Secondly, the board's legal mandate states that the board's settlement proposals must reflect the most likely

result of a labour market conflict, thus respecting the balance of industrial relations at any given time. Finally, the Board has developed a practice of forwarding a proposal only if it is accepted by both sides in the dispute. As an extension of this process, government intervention has often taken the form of giving the Conciliator's proposal the force of law.

The Board's effectiveness stems in part from the fact that it can serve as a buffer between the negotiators from each organization and their memberships in case of a controversial compromise. When the compromise is adopted through the Conciliators' proposal rather than through direct compromise, the Conciliator is seen as the main actor rather than the negotiators (Due, 1993: 137).

The Arbitration and Industrial Courts

To deal with disputes of right a system of mediation and negotiation is in place. Initially the dispute will be negotiated among the labour market organizations, but if no agreements can be reached among the organizations, the agreement will be referred to arbitration. The Court of Arbitration consists of an equal number of representatives for employers and employees as well as a neutral mediator, who is often a lawyer.

If there is an outright breach of a labour contract, such as an illegitimate work stoppage, the issue will be handled by the Industrial Court. The court can try to solve the matter in a preliminary hearing among the parties. If this is unsuccessful, the court settles the dispute. The Industrial Court is a court of law and consists of legally trained members as well as lay judges appointed by the labour market parties. Although a court of law, the Industrial Court resembles an arbitration institution in that the labour market parties are actively involved in the settlement of the conflict. However, the court differs from arbitration in that it has the power to impose penalties both as a penal sanction and as indemnity for losses suffered.

Both arbitration awards and orders of the Industrial Court are final and must be abided by the labour market parties.

4.3. The State and Collective Bargaining

This section will focus on the strength of the State relative to the labour market parties. The relationship between the State and the labour market parties is described in terms of both the form and the level of government intervention in collective bargaining.

As mentioned, the essence of the so-called Danish Model is the extensive involvement of the labour market parties in the regulation of labour market issues.

However, the Government plays the role of an invisible hand, exerting its power when it is considered necessary for macroeconomic reasons.

4.3.1. Direct Government Intervention

Government interventions in industrial relations may take direct or indirect forms. The Government may intervene *directly* and dictate by law the agreements that will regulate the labour market for a given settlement period, including wage increases and other working conditions. Danish governments have intervened repeatedly when collective bargaining broke down and conciliation failed, and typically the intervention has consisted of giving the conciliation proposal the force of law. In such instances the intervention becomes an extension of the collective bargaining (Due). Occasionally, though, government interventions have ignored the conciliation proposals, including aspects on which the two parties have agreed, and have dictated wages and working conditions entirely according to economic policy considerations.

Government interventions occurred regularly although not very often until the 1970s. During the 1970s the system of collective bargaining between the central organizations virtually broke down. This prompted government interventions in three consecutive collective bargaining processes. The labour market parties then apparently realized that the legitimacy of the industrial system was in danger, and in order to break the deadlock between opposing interests, the focus of collective bargaining moved from the central level of the federations to the lower level of each trade organization (Due, 1993: 339).

In the 1980s direct Government intervention in collective bargaining has been more infrequent. In 1985, the then conservative-liberal coalition government intervened to end a large scale conflict after the organizations and the Conciliator had reached a deadlock. In an unusual move, the Government ignored a conciliation proposal which suggested a reduction of the working week by 1 1/2 hours without wage reductions, leading to a wage increase at about 4 percent per year. The government intervention consisted of a one-hour reduction of the working week without wage reductions, with the effect of a total wage increase of about 2 percent per year. The intervention led to massive political protests and a wave of wild strikes, but to no effect.

Since then industrial relations have been relatively peaceful, and there have been no direct government intervention in collective bargaining until recently. In 1995 a prolonged strike among nurses and other groups in the public health care sector prompted intervention. The nurses had originally demanded a large wage increase, claiming a wage lag compared to groups with similar education, but the Government

set the increase at 3.5 per cent over 2 years. However, it also set up a commission to study the working conditions and relative wage increases of nurses in relation to other similar groups. The result of the Commission's work was an extra 1 per cent wage increase which was to be conditioned on productivity increases.

4.3.2. Indirect Government Intervention

The Government can also affect collective agreements *indirectly*, for instance by adopting policies that will modify the results of negotiated wage increases. During the late 1960s and early 1970s double-digit wage increases that were agreed upon during collective bargaining were virtually nullified by tax policies or by devaluations and subsequent price inflation that left employees with no or only marginal improvements in real wages.

The Government's potential for intervention has worked as an invisible hand in the collective bargaining process, creating incentives for the labour market parties a) to reach an agreement, b) to reach an agreement that would not prompt the government to empty the agreement of its contents with countervailing policies. Consequently, it can be argued that the Government has the upper hand in the game of collective bargaining as the potential for government intervention forces the labour market parties to take into account government economic objectives.

It has further been argued that the integration of labour market parties into policy-making has created an institutional interest for these organizations in maintaining the economic system. In order to continue to play a central role in the management of the labour market and in the overall political proces, the labour market organizations have been forced to think in a longer time perspective and to take into account other interests than their own immediate ones. In 1987 the then conservative-liberal Government and the labour market organizations issued a joint 'declaration of intent', stating the goal of keeping Danish wage increases below those of the countries with which Danish companies usually compete (Due 1993: 156). This can be seen as an example of the labour market parties' acceptance of broad social interests.

4.3.3. Assessment

In conclusion, the Danish labour market organizations are to a large extent self-regulating and generally play a considerable role in the management and setting of overall economic policy. However, this self-regulation is constrained by two factors: First, the potential for government intervention, which influences collective bargaining by bringing about a willingness to compromise and by influencing the content of col-

lective agreements. Second, the high level of integration of the labour market parties into economic policy-making, which confers upon the labour market parties an interest in and responsibility for the long-term success of the economy. Ultimately, the Government decides whether or not to continue this system of industrial relations.

4.4. Collective Wage Negotiations

Until the crisis in industrial relations in the 1970s the central organizations, DA and LO, would negotiate all major issues in collective bargaining and establish the framework within which the trade organizations would settle the details. The federations would define a wage scheme for the entire labour market and determine the major issues to be discussed, such as working time or other issues important to one or both labour market parties. This system was characterized by a high degree of centralization (Due, 1993; Ibsen, 1993).

4.4.1. Recent Changes in the System of Collective Wage Negotiations

During the 1970s pressures mounted for a decentralization of the collective bargaining process. The impetus for change towards decentralized wage formation has come primarily from employers, particularly industrial employers in sectors competing in international markets. The international economy, characterized by volatile markets, exerts pressures at the enterprise level towards flexibility and adaptability. This again calls for flexible organizational structures and wage systems. In this context employers have wanted to be able to use wage differentials as a motivating factor for improved productivity and to attract or retain qualified labour through higher wages (Ibsen, 1993).

At the same time, however, employer organizations were concerned that decentralized wage formation would set off spiralling wage increases. The central employers organization has therefore attempted to control wage formation through a system of mandatory wage increase ceilings.

The current system of wage formation is thus characterized by a simultaneous process of allowing flexible wage structures through decentralization while also controlling the process by determining maximum wage increases, a system which has been termed "centralized decentralization" (Due, 1993; Ibsen, 1993). On the one hand, this implies that the centre of gravity of collective bargaining has moved away from the central organizations to the level of individual enterprises. Bargaining at enterprise level has to a large extent determined wage developments in recent years.

On the other hand, there are clear limits to decentralization as the central employers' organization attempts to control wage formation by issuing decrees about maximum wage increases to its member enterprises.

The decentralization of the bargaining process has been accompanied by a change in the wage systems. Three different wage systems have been and still are at play in the Danish labour market. Under the *standard wage system* the organizations negotiate wage levels for each group of employees depending on qualifications, job functions and experience. These standard wages are considered fixed although they are regulated annually. The annual regulations cover everyone employed under a standard wage scheme.

In the *minimum wage system*, which shall be referred to here as minimal wage, a minimum pay is set which serves as a base wage for everyone covered by the agreement. Each group of employees may then negotiate supplements or bonuses on top of the minimal wage. The resulting dynamic has been that any adjustment in the minimal wage will spread to all groups whose wages are based on the minimal wage.

The third wage system also operates with a minimum wage below which no employee wage may drop. In this system, the minimum wage and other issues of general interest are agreed upon between national organizations, but most of the wage formation occurs locally. Since the minimum wage applies only to the groups at the very lowest end of the pay scale it is not considered basic pay, and in principle there is no relationship between the minimum wage and any other wages above this level. This system allows for decentralized wage formation where it should be possible for some groups or persons to obtain higher wages without an automatic spill-over into the entire labour market.

The central organizations, including the cartels, are still trying to define their roles in the process of collective bargaining as wage formations has moved to more decentral levels. Generally, it is expected that the central organizations will continue to negotiate the framework within which local negotiations take place. However, it is unclear what those frameworks will include and how specific they will be. At the same time, the National Employers Confederation, DA, is likely to attempt to maintain control with the overall wage development through decrees about maximum wage increases.

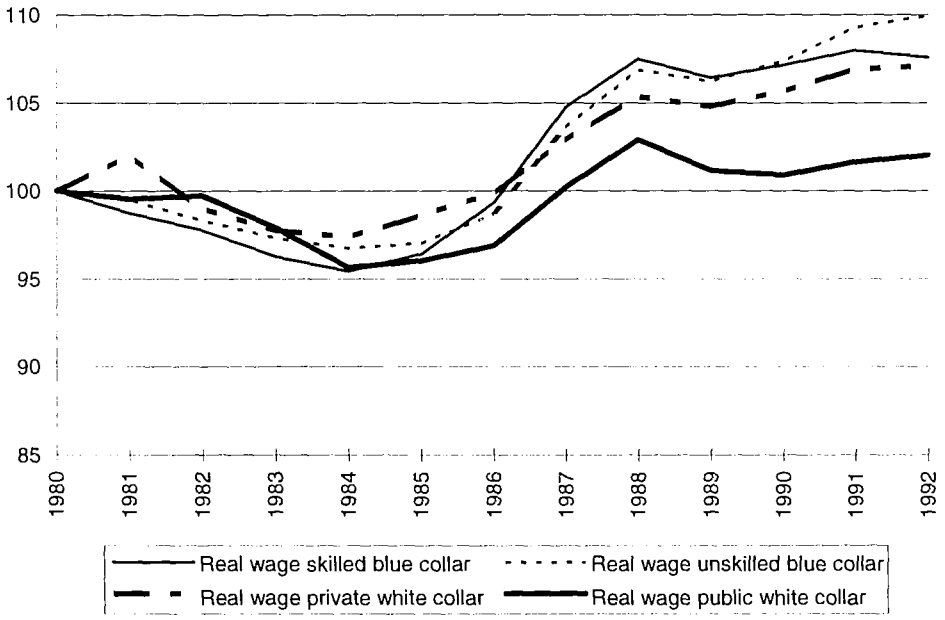
The Federation of Trade Unions sees its role as making recommendations and defining general demands at the outset of collective bargaining, as well as mediation at the conclusion of the bargaining. The Federation sees the cartels as forums for cooperation with employers about issues such as work environment and occupational health, education and other issues involving large sectors of the labour

market (Interview, Federation of Trade Unions). In order to support this development, the Federation of Trade Unions has transferred funds to the cartels to strengthen their administrative capabilities in these as well as in and other areas. Whether the cartels will take on this role is as of now not clear.

4.4.2. The Flexibility of Wage Formation

As mentioned in Chapter 2.1, a rigid wage structure has been emphasized as an important explanation for unemployment in Denmark, particularly among low skilled or unskilled workers. In this connection, there has been little change in wage structures in recent years despite the movement toward decentralized bargaining (Ibsen, 1993; Economic Council, 1994), and real wages do not appear to have been affected by the growing unemployment rates from 1987 onwards. In the Danish labour market there seems to be little downward pressure on wages for groups with a high risk of unemployment.

Figure 4.4.2: Real Wage Development by Employment Status 1980-1992. 1980 = 100.



Source: Statistical Ten-year Review 1990 and 1995.

Thus, as is shown in Figure 4.4.2. unskilled blue collar workers who have a higher unemployment risk than other groups have actually experienced a higher real wage growth rate than other groups from 1980 onwards. Furthermore, and as it is descri-

bed in more detail in Appendix C, wage increases have been fairly uniform across skill levels despite high unemployment rates for specific groups.

Finally, statistical evidence indicates a higher wage increase rate for unskilled labour in companies where employment is decreasing. In one interpretation, this is explained by the emphasis of the enterprises on retaining well-trained, productive employees rather than taking the risk that they will leave the company because of poor wages (Ibsen, 1993: 111).

On balance, decentralization of wage negotiations starting in as far back as in the 1970s has not increased the flexibility of wage formation in Denmark. On the contrary, the weak relation between overall unemployment and unemployment rates for specific groups on the one hand and real wage growth rates on the other hand may serve as evidence of the existence of an insider-outsider problem in the Danish labour market.

4.5. Conclusions

The Danish system of industrial relations remains a highly institutionalized system. The labour market parties continue to play a very significant role in the regulation of labour market affairs in a wide range of areas. However, direct and particularly indirect state intervention in the labour market constrains the freedom of action of the labour market parties and forces the parties to take overall societal objectives into account in their bargaining behaviour.

Both the organization of the labour market parties and the system of collective bargaining is presently being restructured. As for the organization of employers and employees, a system of branch related cartels is being formed, providing the basis for a one enterprise one collective agreement system. In the medium and long term this is likely to improve possibilities for a more efficient and flexible organization of production at the level of the individual enterprise.

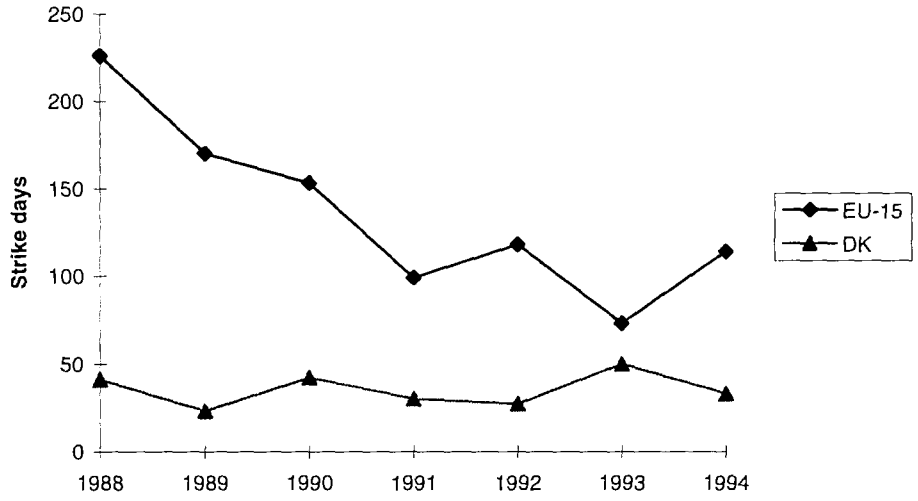
As for collective bargaining on wages, decentralization has occurred during the 1980s. A system of "centralized decentralization" has emerged, in which wage formation is to a high extent decentralized to the branch or enterprise level, but where the central employers organization retains ultimate control with the maximum wage increases.

The system of industrial relations, in particular the institutionalization of conflict resolution, has formed the basis for stability in the labour market. Compared to other labour markets in the European Union, the level of conflict has been low in recent

years when measures in terms of strike days per 1000 employees, cf. figure 4.5 below.

However, the system holds few direct incentives for looking after the interests of unemployed. The system is constructed to allow for the articulation and aggregation of employed wage earners' interests, and the rules and regulations emerging from the collective agreement system serve to protect working and wage conditions of the employed.

Figure 4.5. Strike Days Per 1000 Employees, Denmark and EU-15, 1988-1994.



Source: Eurostat.

The fate of the social chapters in the most recent collective agreements illustrate this fact. Prior to the latest round of collective bargaining the centre-left Government coalition urged the labour market parties to include agreements that would ease the access to the labour market for persons who are unable to fulfil prevailing expectations for job qualifications and productivity, either because of physical-mental handicaps or because of lacking relations to the labour market, for instance as a result of long-term unemployment. However, in the collective agreements this only resulted in vague statements of intent, as the social chapters do not oblige the parties to any specific effort other than information campaigns or the formation of work groups to determine the future effort. So far it appears that the introduction of the social chapter has had little effect in measurable terms, i.e. in terms of protected jobs (Ministries of Labour and Social Affairs, 1995. Interview, Danish Confederation of Employers).

Consequently, the risk that the Danish labour market will be characterized by an insider-outsider problem is inherent in the system. The existence of a significant

insider-outsider problem appears likely when it is considered that high unemployment rates for unskilled workers have not caused lower wage growth rates for employed persons within these groups. On the contrary, unskilled blue collar workers have experienced higher real wage increases than other occupational groups during the 1980s.

5. *Labour Market Legislation*

The implication of the Danish model as outlined in the previous chapter is that only few labour market issues are regulated by law. By and large, labour market issues have been regulated by collective agreement. This also holds for the determination of working time and other issues that will be treated in this chapter. This being said, however, there are a few statutes regulating labour market issues, some of them occasioned by EU directives.

5.1. Employment Protection Schemes

This describes the current regulation in Denmark on individual and collective dismissals, as well as the regulation and the frequency of fixed-term or temporary employment. Finally, the effects of the Danish employment protection scheme on employment are assessed.

5.1.1. Individual and Collective Dismissal

Among European countries Denmark has rather weak rules for employment protection, particularly for employees paid on an hourly or weekly basis (Employment Outlook, 1994; Economic Council, 1988a). Protection against *collective dismissal* is one labour market issue regulated by statute of law. The law implements the EU directive 92/56/EEC, stating that in case of collective dismissal employees must receive a four-week notification. Furthermore, the employer must inform the employee organizations about the number of employees to be laid off and the reason why and must enter negotiations about measures to prevent or reduce the layoffs or to alleviate their consequences for employees.

Until recently, Danish employers could lay off workers and provide little or no compensation. But in 1989 the unemployment insurance law was amended to require that employers pay the first day of unemployment for each insured employee who is dismissed. Since 1993, employers have been obliged to pay for the first two days of unemployment for each insured unemployed person (Ministry of Finance, 1993).

The reasoning behind relatively weak job protection measured in terms of low costs of dismissal has been that an open economy dominated by smaller companies needs flexibility in its employment patterns. Companies cannot sustain high labour cost when demand slows down (Economic Council, 1988a). However, two factors seem to have been prerequisites for this low degree of job protection: The high

unemployment benefit replacement ratio (on average unemployment benefits correspond to a high percentage of previous wages) and the fact that dismissed employees were entitled to benefits from day one of unemployment. In combination, these factors mean that the cost to employees of being laid off is relatively low, facilitating the acceptance of low employment protection.

Despite the liberal legislation, it appears that Danish companies practice some restraint in laying off employees, as employment patterns have been rather stable (Economic Council, 1988a). One reason may be that frequent layoffs waste the resources put into the training of employees. In other words, there seems to exist an informal job protection stemming from the employer's interest in retaining a stable workforce, and in particular the skills developed in the company (Economic Council, 1988a).

One exception to this pattern has been the frequent practice of temporary lay-offs due to shortage of work or bad weather conditions. Such dismissals are deceptive since there often exists a quasi-contractual relationship between employer and employee about continued employment. As mentioned in Chapter 2, the temporary lay-offs account for a considerable share of total unemployment spells. One estimate has assessed temporary layoffs at 40 per cent of all unemployment spells (Jensen and Westergård-Nielsen, 1990). Temporary layoffs help employers retain employees while passing the cost of the work shortage onto the unemployment insurance system.

This has prompted a change of the law so that the employer must now pay for the first two days of unemployment for those dismissed (Statute on Unemployment Insurance, 1996). The change was implemented in two rounds. Estimates of the effect of employers paying the first day of unemployment for each employee indicate that short-term lay-offs were reduced by about 20 per cent (Ministry of Finance, 1993).

Regarding *individual dismissal*, the General Agreement between the labour market parties protects employees from arbitrary dismissals, that is dismissals not related to the employee's work or to company-related issues. If the employee has worked for the employer for more than nine months, the employee can demand written information about the reasons for the dismissal (General Agreement). If the employee considers the dismissal to be unreasonable, that is arbitrary, he may take the issue to the labour market organizations who will negotiate the case or set up a Board of Dismissal. The board may reinstate the employee in his job or order the employer to pay an indemnity (General Agreement).

Individual dismissal is regulated for white-collar workers in the Salaried Employers Act, and for blue collar workers by collective agreement. Collective

agreements often offer protection on similar terms to the Salaried Employers Act, which spells out rules for notification of dismissal which increase with seniority and, redundancy payments. (Schömann, 1995). After three months of employment, the white collar worker is entitled to one month of notice, increasing with seniority to six months' notice after nine years of employment (Law on White Collar Workers). Blue collar workers often have a shorter period of notification.

Finally, special dismissal protection is offered under the law or the General Agreement to pregnant employees and to shop stewards (Schömann, 1995).

5.1.2. Temporary and Fixed Term Contracts

The use of temporary work is currently unregulated, and regulations for fixed term employment are considered liberal. There are few limitations to the amount of such temporary employment, although employees under both these employment forms are entitled to the same level of protection as any other employee.

Temporary employment is limited to three months with the same employer. Exceeding this, the employer must offer permanent employment including notification periods. Fixed term contracts may be renewed, but in the case of several renewals this may be considered a circumvention of seniority rules and the contract may be declared void, making the work relationship permanent so that general termination rules apply. (Jacobsen, 1993). Seasonal workers or day labourers are offered special protection by collective agreements.

In the early 1990s, almost 12 percent of the Danish labour force was employed in non-permanent jobs, either temporary or fixed term. This was slightly above the EU average (Employment Observatory, 1994). Many of these are in the construction business.

5.1.3. The Effects of Employment Protection on Employment

No estimates are available as to the precise effect of employment protection or the level of temporary employment on employment levels. However, it is possible to identify some trends in the relationship between job protection and employment levels.

It has been argued that high job protection leads to higher unemployment because a) companies who have to pay high costs to dismiss people are less inclined to hire and b) high job security leads to higher wages as those who are insiders in the labour market will be in a stronger bargaining position (Bertola, 1990). However, empirical evidence did not bear out these relationships. In a comparative study of unemployment levels and employment security, Bertola concluded that medium and

long-term unemployment appeared unrelated to job security. Denmark and the United States who were ranked most liberal in terms of job security legislation did not have lower unemployment in the long-term than countries with high job security. Companies in the latter countries may hire fewer employees during economic upswings but also lay off fewer during downturns, but in the long-term they do not appear to generate fewer jobs.

Likewise the empirical evidence does not support the hypothesis that insiders, due to high job protection, are able to negotiate higher wages or maintain higher wages in economic downturns thereby contributing to lower employment. In fact the study found the opposite relationship: In countries with strong job protection laws, wages dropped more in response to unemployment than they did in low job protection countries like Denmark. Bertola concludes from this that wages are more affected by other factors than by job security provisions (Bertola, 1990).

5.2. Regulation of Working Time

This section describes legal and contractual limitations to working time in Denmark, and presents recent developments in the flexibility of work schemes. The final section provides an assessment of the effects of working time regulation on employment.

5.2.1. Legal and Contractual Limitations to Working Time

There are no legal limitations to working hours in Denmark, except a statute specifying that all employees are entitled to 11 hours of rest between periods of work (Jacobsen, 1994:96). Holiday and night-time work is permitted. Other legislation includes the holiday provisions which grant employees five weeks of paid vacation every year.

As with other labour market issues, working time has been regulated by collective agreements. In this connection, Denmark has witnessed a very significant drop in the normal total yearly working time from 1950 until today. In the early 1950s, normal total yearly working time exceeded 2,300 hours. By 1990, normal total yearly working time as regulated by collective agreements had dropped to 1,676 hours (Dansk Metal and Arbejderbevægelsens Erhvervsråd, 1994). A reduction in working time was among the major issues of collective bargaining during the 1980s, and from 1990 the weekly work time was set at 37 hours. This applies to the entire labour market.

5.2.2. Flexibility in Work Schemes

Flexibility in work schemes, including rules for overtime pay or time off in lieu, is also spelled out in collective agreements. This issue has been a matter of contention between the Danish labour market parties. Labour organizations have traditionally opted for relatively inflexible work schemes, while employers have argued that inflexible working hours like other measures decreasing the flexibility of production will reduce employment.

Until the late 1980s an increasing number of Danes were employed under fixed-hour schemes, and more and more employees worked during the daytime, indicating decreasing flexibility in working hours (Mogensen, 1993). However between 1988 and 1991, the number of employees working daytime hours only decreased, and more employees had entered some form of flexible work schedules such as staggered working hours, rotation and shift work. It has been estimated that about 80 per cent of the labour force work regular daytime shifts, seven to eight hours a day, five days a week. (Mogensen, 1993: 55). However, it also appears that most of the labour force deviates from this pattern at least occasionally.

Many of the collective agreements concluded in 1991 opened up possibilities for a more flexible planning of the working week. Whereas before, any working time beyond 37 hours in a given week would set off overtime pay at higher rates, it is now possible in many work places to negotiate variable work schedules, for instance concentrating the work week on fewer days or working a mix of longer or shorter weeks. Specific arrangements are negotiated locally, but in many cases they must be approved by the national labour organizations. Most such agreements require that the working week over a specified period of weeks averages 37 hours so as not to pre-empt the option of overtime pay.

Moreover, studies asking employees about their actual working hours indicate much greater flexibility than collective agreements show. According to these studies nearly twice as many people actually work under some form of flexible work schedule as formal contracts indicate. (Mogensen, 1992: 34). For instance, during the 1980s the share of employees who worked overtime increased from about 4 per cent to almost 7 per cent of the labour force. Another study cited in Mogensen roughly estimates that about 10 per cent of wage earners work flexitime, that is they set their own work hours and frequently work overtime without direct overtime compensation. This applied primarily to white collar employees Mogensen, 1992:p. 54).

Finally, working time flexibility may be increased by people working extra jobs. In 1984, about 4 per cent of the those employed earned an income from a supplemental job. In 1990 this share had increased to more than 5 per cent of the

labour force. Particularly white collar employees and self-employed work extra jobs. Including also moonlighting work, it has been estimated that up to 22 per cent of the labour force takes work in addition to their regular jobs.

People working extra jobs may serve as a reserve pool of qualified labour. For instance, the frequency of people working extra jobs jumped during the economic boom in the mid-1980s. Likewise overtime work increased during this economic boom. This is an indication that flexibility in working time may be greater than appears from collective agreements (Mogensen, 1992:38).

5.2.3. Assessments: Working Time Regulation and Employment

Fixed working time schemes supposedly produce an inflexible labour market, as it becomes difficult for companies to adjust to fluctuations in demand. Other possible socio-economic drawbacks include inefficient use of the production capacity and the concentration of transportation around work time, increasing travel-to-work time. Yet this appears to be of decreasing significance as work schemes are generally becoming more flexible.

In terms of working time, employee organizations tied this demand to the curbing of unemployment. It was argued that work would be distributed among more people if general working time was reduced. This would again entail lower unemployment rates.

However, studies show that reduced working hours may reduce cyclical unemployment, but working time reductions do not significantly affect long-term structural unemployment as they tend to spur inflation through increased demand for substitute labour. This reduces the room for manoeuvre for increases in demand and production, just as the room for manoeuvre for expansive macroeconomic policies is limited (Welfare Commission; 1995: 351-353). Furthermore, there is some evidence that the reduction in formal working time does not necessarily lead to a corresponding reduction in actual working time. As outlined above, it appears that the number of people working in flexible work schemes, overtime and extra jobs has increased simultaneously with the reduction in the working week.

As mentioned in Chapter 3, it is the Economic Council's assessment that measures which reduce labour supply, including working time reductions, has had no discernible permanent effect on unemployment during the past 25 years (Economic Council, 1994: 70). However, the Enterprise Council of the Labour Movement AER has estimated that a 2-hour working time reduction may result in a reduction of unemployment by 45,000 persons after a 5 year period. However, these calculations

rest on an assumption that the wage growth rate will not be affected by decreasing unemployment, no wage compensation is paid.

5.3. Minimum Wage Regulation

There is no statutory minimum wage in Denmark but the labour market parties determine a minimum wage during collective bargaining. This means that minimum wages may vary among the 600 collective agreements that cover the Danish labour market, although the variation is rather small. A review of the most recent collective agreements shows that minimum wages in 1996 vary between 9.60 ECU and 10.3 ECU per hour (DKK 70 to DKK 80).

At its peak in 1977, the minimum wage amounted to 80 per cent of the average wage. By 1990, this share had fallen to about 70 per cent of the average wage. This level appears to be stable (Albæk et. al, 1992).

As mentioned in Chapter 2, a compressed wage structure caused by among other things a high minimum wage has been emphasized as one factor underlying structural unemployment in Denmark. High minimum wages particularly affect adversely the employment of low-skilled workers or employees whose productivity does not match the minimum wage. According to one estimate, the effect of the minimum wage on unemployment amounts to about 0.7 percentage points of male unemployment and 1.7 percentage points of female unemployment. (Economic Council, 1994). The Council considers this estimate conservative.

Other studies have shown that the minimum wage reduces the chances for employment of those least qualified, creating an entrance barrier to the labour market (Smith, 1993). The minimum wage hence primarily works to the benefit of those who are already employed, and who possess the qualifications to hold on to employment (Sørensen, 1992).

5.4. Conclusions

The Danish labour market is characterized by a low level of legislative regulation. Most labour market issues are left for the labour market parties to decide by collective agreements.

Denmark has rather weak rules for employment protection, particularly for employees paid on an hourly or weekly basis. Despite the liberal legislation, Danish enterprises practice restraint in laying off employees, as employment patterns have

been rather stable. One exception is temporary lay-offs due to shortage of work or bad weather conditions. However, such dismissals are deceptive since there often exists a quasi-contractual relationship between employer and employee about continued employment.

There is no evidence that the liberal employment protection rules in Denmark have affected employment significantly. Comparative studies indicate that medium and long-term unemployment appeared unrelated to job security, and neither does empirical evidence support the hypothesis that insiders due to high formal job protection are able to negotiate higher wages thereby contributing to lower employment.

There are very few legal limitations on working hours. As with other labour market issues, working time has been regulated by collective agreements. In this regard, Denmark has witnessed a very significant drop in the normal total annual working time from the 1950 until today.

During the past decade, there has been a considerable focus on reductions in working time as a possible means to reduce unemployment. However, by most accounts reduced working hours may reduce cyclical unemployment, but they do not significantly affect long-term structural unemployment as they tend to spur inflation through increased demand for substitute labour. This reduces the room for manoeuvre for increases in demand and production, and the room for manoeuvre for expansive macroeconomic policies is limited. As mentioned in Chapter 3, the Economic Council indeed assesses that measures which reduce labour supply, including working time reductions, have had no discernible permanent effect on unemployment during the past 25 years.

By most accounts, the minimum wage level and the compressed wage structure in Denmark contributes to unemployment, in particular for low-skilled or unskilled workers whose productivity does not match the minimum wage. Other studies have shown that the minimum wage reduces the chances for employment of the least qualified groups, creating an entrance barrier to the labour market. The minimum wage hence primarily works to the benefit of those who are already employed.

6. *The Tax and Benefit System and the Functioning of the Labour Market*

This chapter describes the Danish system of taxes and welfare benefits as it affects the supply of labour. The effective supply of labour directly affects structural unemployment: The higher effective labour supply, the lower the inflationary pressures of the economy, as labour shortages occur less frequently. A growth in effective labour supply thus lowers that rate of unemployment at which inflation starts to accelerate.

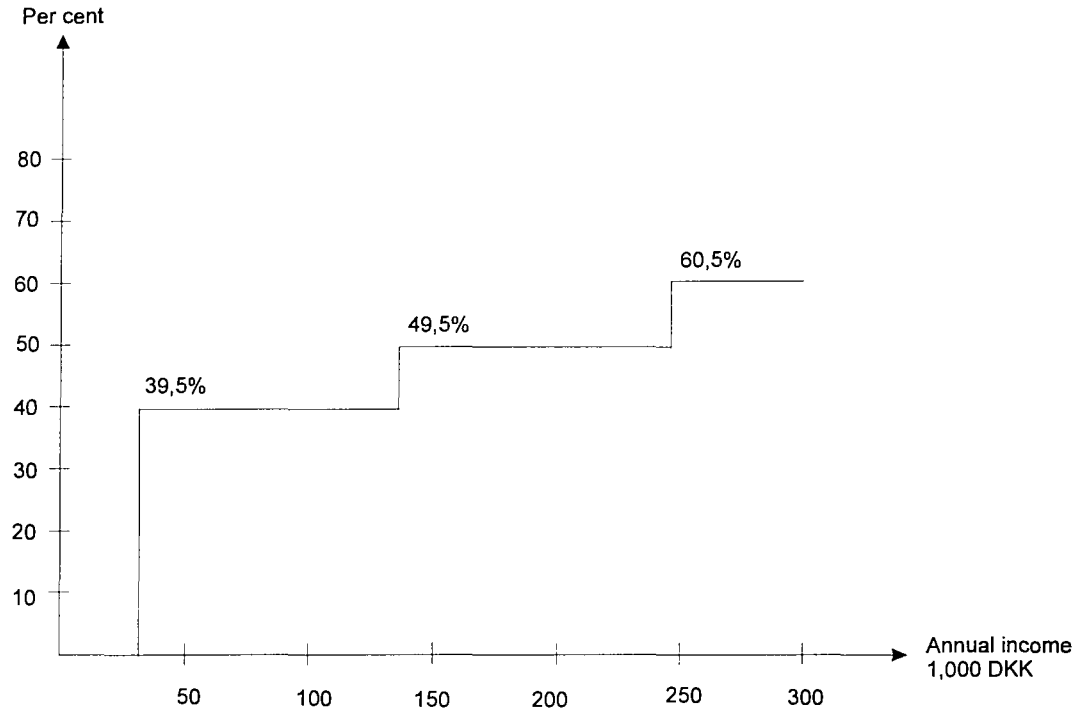
The first section presents the main features of the tax system including marginal tax rates, rate of progressivity and allowances in order to show how these factors determine the level of disposable incomes for the unemployed and low-income employees. The second section describes the mechanisms through which the tax and benefit system may actually decrease the disposable income of an unemployed person taking on a job - a phenomenon labeled the unemployment trap. Finally, the third section assesses the effects of the system of taxes and benefits and of recent tax reforms on labour supply in the Danish labour market.

6.1. The Danish Tax System in Relation to the Labour Market

Traditionally, Denmark has gained a large share of its tax revenue from high taxes on work income. In 1993, income taxes made up 26 per cent of Danish GDP (Ministry of Finance, 1995b: 248). This corresponded to 52 per cent of the total Danish tax revenue, whereas the average European OECD-member country generated about 27 percent of its total tax revenue from income taxes. Indirect taxes, primarily VAT, accounted for another 32 per cent of Danish tax revenues.

Personal income forms the basis for state income taxes as well as municipal taxes. The income-based tax system is composed of a proportional municipal tax, which varies among municipalities, and a state income tax which is progressive, including three tax levels. Finally, a labour market tax earmarked for unemployment insurance, activation and sickness benefits is based on work income. Figure 6.1 illustrates the progression in the tax system for 1997.

Figure 6.1. Income Taxes 1997 - Marginal Tax Rates



Note: Incomes are gross incomes. However, they do not include deductions for labour market tax, employee deduction or other deductions. Muncipal tax rate set at the 1995 average level of 29,5 per cent. Source: Ministry of Finance, 1995b, and interview data.

As shown in the above figure, the personal tax allowance for 1997 will be DKK 30,800, the level at which income taxes kick in. All income above this level in 1997 will be taxed at 10 per cent in addition to the municipal tax, which has been set at the 1995 average of 29,5 per cent. The state intermediate tax tier is 6 per cent, levied on all income above DKK 136,300, and the state top tier is 15 per cent which applies to all income above DKK 246,300, adding up to a marginal tax rate of 60,5 percent on income above this level. However, there is a tax ceiling of 60 percent.[41] The labour market tax amounts to 8 per cent levied on the full work income, yet this amount is deductible against personal income. In 1998, upon full implementation of the 1994 tax reform, the bottom tax will drop to 8 per cent, lowering the marginal tax rates further. Overall, the 1994 tax reform should reduce the marginal tax rate on average income by 12 to 14 percentage points from the highest previous level, by 1998.

Unemployment benefits are taxed like any other income, as is all other transfer income in Denmark. However, transfer incomes are exempt from the labour market tax. In 1996, the unemployment benefit amounts to about DKK 136,000. Assuming, realistically, that this amount will not increase considerably in 1997, the

[41] The tax ceiling does not include church taxes.

unemployed will pay state taxes at the lowest rate of 10 per cent, decreasing to 8 per cent in 1998. Thus, including municipal taxes the typical unemployed person, with no capital income, will face a marginal tax rate of almost 38 per cent in 1998, depending on the level of municipal taxes. This is a decrease in the marginal tax rate at this income level from a level of 51,5 per cent before the tax reform of 1994.

The 1994 tax reform has shifted the focus of the tax system some. In 1998, income taxes are expected to make up 42 per cent of the tax revenue, compared to 52 per cent in 1993. The tax reform lowered marginal tax rates on income and instead increased indirect taxes, specifically green taxes, i.e. taxes on energy and water consumption, industry's carbon dioxide emissions and automobiles. This means that a greater share of the tax revenue was made more dependent on consumption, less so on income.

The intention behind shifting the tax structure toward consumption-based taxes, has been to increase effective labour supply, arguing that this will increase competition for vacant jobs and limit the risks of labour shortages, thereby reducing wage growth pressures in the economy and structural unemployment. Thus, the Danish government expects that the decrease in marginal tax rates will have the following effects (Ministry of Finance, 1995b: 249, 254):

- increase the incentive to work more hours as employees will be able to keep a larger share of the earnings on the extra hours worked than previously,
- increase the incentive to seek work at all
- increase the incentive to move for better paid jobs, which will improve labour market mobility and thereby decrease structural employment,
- increase the incentive to upgrade skills, likewise improving labour market mobility
- increase the incentive to supply labour in the white labour market rather than in the black labour market.

The tax decrease on incomes in the 150,000 DKK and 250,000 DKK range is seen as particularly important since 60 per cent of the full-time employed fall within this income range (Ministry of Finance, 1995b).

6.2. The Unemployment Trap

It has been argued that the Danish system of high marginal taxes and unemployment benefits creates an unemployment trap in the sense that it may be economically more beneficial to the individual to remain unemployed rather than to accept a job. When

net-income from working is equal to or below the net benefits, the supply of labour will be minimal, that is the benefit level determines a wage floor. The precise level of the wage floor depends on the tax system. In the case where unemployment benefits and income are taxed in the same manner, the wage floor must be at or near the level of benefits. This means that persons, whose earning potential, i.e. their productivity, is below that demanded at the wage floor, will tend to be unemployed (Ministry of Finance, 1995c). The problem is exacerbated by high marginal tax rates, as these reduce the incentive to seek employment at or near the wage floor.

The Danish Unemployment Trap

Danish unemployment benefits compensate up to 90 per cent of the income in the previous job although there is a maximum benefit. This means that for most people in low-paying jobs, unemployment benefits equal 90 per cent of their wages. In this case, the following mechanisms work to set up an unemployment trap low-skilled labour:

- the high marginal taxes erode the relatively small difference between benefits and low wages,
- the problem of high marginal taxes is compounded by the phasing out of state subsidies such as means-tested housing and childcare allowances. Such a composite marginal tax implies an effectual increase in tax rates for people who move from unemployment support to a higher paying job
- there are costs associated with holding a job that do not apply to not going to work, including transportation costs and, possibly, child care costs[42] (Smith and Pedersen, 1995)
- finally, the labour market tax of 8 per cent kicks in with employment; although this tax is also deductable against the income tax, it still causes a sudden leap in taxes of up to 4 per cent percentage points when a person moves from unemployment to employment.

In 1995, a government calculation concerning the effect of the tax reform showed that people making an annual income of up to DKK 141,000, i.e. about DKK 11,000 more than the unemployment benefit for that year, would have no gain in disposable income from being employed. This was due to the labour market tax, which presents an entrance cost to the labour market (Ministry of Finance, 1995). Table 6.1 shows the net gain in disposable income as work income increases.

The table illustrates the unemployment trap: Only at relatively high wages does it pay to work, considering the cost of working. Regarding the reduction of means-tested public subsidies with increasing income, the Ministry of Finance concludes that this constitutes only a marginal problem. The composite marginal tax affects primarily single parents who represent a small share of the labour force, and

[42] However, Danish parents often continue to make use of public child care schemes during unemployment spells, partly to provide social contact for the child, partly because labour market eligibility rules require that a person can take on a job with a day's notice.

consequently, the problem amounts to a few percentage points of the work force in tax rates applying to the DKK 75,000 to DKK 200,000 income range (Ministry of Finance, 1995b).

Table 6.2 Gain in Disposable Income, Moving from Unemployment to Employment

	Gross income, *1,000 DKK.* 1995.			
	141	160	180	200
Taxes, at full implementation of 1994-reform, Dkk 1,000	49,9	59,2	69,2	78,8
Disposable income	91,1	100,8	111,0	121,2
Net gain over unemployment benefit	-	9,7	19,9	30,1

Source: Ministry of Finance, 1995b.

As to the effect of the overall unemployment trap, few estimates are available. One survey including about 600 unemployed persons, asked these about their expectations regarding the impact on disposable income from getting a job, including the reduction in means-tested subsidies. While 69 per cent of the respondents expected an improvement in disposable income, 22 per cent expected no change and 9 per cent actually anticipated a smaller disposable income if they took a job (Pedersen and Smith, 1995). Respondents were also asked about their expected net gain from making an extra DKK 1,000, taking into consideration taxes and reductions in means-tested benefits. While employees generally expected a smaller net gain than the unemployed, a significantly larger share of the unemployed, 13 per cent, expected a 70 per cent composite marginal tax rate on the 1,000, compared to about 3 per cent of the employees (Pedersen and Smith).

These results give no indication as to the exact number of persons who are trapped in unemployment for financial reasons alone, but they are a sign of a less than optimal economic incentives structure for the low-skilled portion of the Danish labour force.

6.3. Assessment of the Effects of Income Taxes on Labour Supply

Income taxes may affect labour supply in two opposite directions. Income taxes correspond to a decrease in wages. Correspondingly, a cut in marginal tax rates,

which is the more relevant case to consider here, represents an increase in wages relative to previous tax levels. A higher wage means that the cost of an hour of leisure increases relative to working an extra hour. This mechanism, referred to as the substitution effect, will result in an increase in labour supply. The other mechanism in operation, the income effect, implies that a person can earn the same net-income by working fewer hours, thus possibly resulting in a reduction in labour supply.

The question then becomes which effect is stronger. The Ministry of Finance argues that the substitution effect will prevail, that is the labour supply of the population as a whole will increase. This is because a lower marginal tax rate, given an assumed government preference for a revenue-neutral tax reform, would likely entail cuts in public subsidies and services. The population's overall increase in net income because of lower marginal taxes would therefore be offset by the decrease in public subsidies, that is the population as a whole would not experience an increase in the net income unless they increase their labour supply, the Ministry of Finance argues (1995b).

Yet empirical studies give only mixed support to the latter argument, showing that income as well as substitution effects are at work in the Danish labour market. One empirical study of the relationship between hourly wages and labour supply, found that a 1 per cent increase in post-tax wages resulted in an increase in the labour supply of 0.1 per cent (Smith, 1991, cited in Ministry of Finance, 1994). Consequently, the higher the marginal tax rates, the smaller the net increase in wages and the smaller the increase in labour supply. A later study (Pedersen and Smith, 1995: 105-106), based on statistical analyses of register data, produced similar results. In distinguishing between men and women, this study also found that while wage elasticity was positive around 10 per cent for married men, meaning that a 1 per cent increase in post-tax wages would increase their labour supply with 0.1 per cent, wage elasticity was close to zero for both married and single women. These figures indicate a relatively inelastic labour supply for the labour force as a whole.

A survey was carried out to validate these conclusions. In the survey respondents were asked how a potential tax cut would affect their labour supply.[43] The survey results are included in table 6.3. The table shows that more than half of the employed would not increase their labour supply in response to lower marginal tax rates. For women, the net effect is nill, as roughly equal shares would work more and work less, respectively. Men would increase their labour supply overall, as nearly one

[43] This methodology has its shortcomings, as respondents may not be able or willing to answer correctly. Nevertheless the method may serve as a supplement to the statistical estimations.

third of the men surveyed indicate they would work more while 15 per cent would work less.

Table 6.3. Proportion of Employed Who Would Change their Labour Supply with Lower Marginal Tax Rates (Per Cent).

	Male N=1441			Female N=1411		
Taxable income, DKK	Work more	Work less	No change	Work more	Work less	No change
<0	42.3	7.7	50.0	47.6	14.3	38.1
1-100,000	46.6	12.1	41.3	38.3	13.2	48.5
100,001-200,000	27.7	17.7	54.6	17.0	29.2	53.8
200,001-300,000	23.4	15.2	61.3	5.8	36.9	57.3
300,001-400,000	22.7	17.3	60.0	(20.0)*	(10.0)	(70.0)
>400,000	25.7	11.4	62.9	(40.0)	-	(60.0)
Total	31.0	15.5	53.4	23.6	24.2	52.2

Source: Pedersen and Smith, 1995. Parentheses indicate that the number of respondents is too small for reliable calculations.

Another noteworthy feature appearing from the survey is the fact that labour supply varies across income levels. For both men and women there is a clear tendency that respondents in the lower income-brackets are more inclined to increase their labour supply in response to lower marginal taxes than employees in the higher income ranges. While 40 per cent of men earning less than DKK 100,000 in annual taxable income indicate they would work more at the prospect of a greater net income, only 26 per cent of those making more than DKK 400,000 would work more. Among women 14 per cent of those in the low income range would work less in response to a tax-induced higher net income, and nearly 37 per cent of the women making between DKK 200,000 and 300,000 would work less. Overall, these results suggest that the substitution effect of a lower marginal tax rate would be stronger than the income effect among employees in the lower income ranges, while the opposite is true for employees in the higher income ranges. [44]

The income elasticity estimations combined with the survey indicate an empirical picture much less clear than the theoretical axioms regarding the relationship between income taxes and labour supply. The conclusion appears to be

[44] The survey analysis by Pedersen and Smith (1995) also suggests a limited potential for switching black labour supply to legal labour supply by cutting taxes, although theory would have that people generally would be more inclined to do so. Furthermore, even if a tax cut resulted in a lower supply of black labour, only married men would as mentioned increase their supply of legal labour and only by a relatively small amount.

that labour supply in Denmark is generally relatively inelastic, but also that the relationship varies with income primarily, and with gender and marital status.

In this connection it should be pointed out that there may by a number of factors which the individual cannot control in determining his or her labour supply, including union agreements. The complexity of factors determining labour supply in the Danish labour market is also illustrated by the fact that many persons continue to supply labour even though they reap no economic benefits from it. Thus, Pedersen and Smith (1995:88-90) carried out an analysis combining information from administrative registers for 1992 with survey information on hours worked and costs of work, including transportation and child care. Based in this information the gain in disposable income for employed was calculated. The calculations showed that 3.6 per cent of men and 8.5 per cent of women in the labour market work full-time although they have no economic gain from it. Additionally, about 18 per cent of the labour force work although they gain only up to DKK 500 per month by working as opposed to receiving unemployment benefits.

Again, the figures indicate that the theoretical relationship between marginal tax rates and labour supply does not predict labour behaviour to a very high degree. Other reasons than monetary issues clearly affect the decision to supply or not supply labour. The same survey offers insight into what job qualities Danish employees value. For men and women, the top three qualities are good collegues, job security and challenges on the job. "Good pay" ranks fourth among men, but does not figure at all among women (Pedersen, 1995b: 68).[45]

6.4. Conclusions

This chapter has described the Danish system of taxes and benefits. It has been shown that the combination of high marginal tax rates and high unemployment benefits for low income groups (a high replacement ratio) results in a less than optimal incentive structure for working. For the unemployed, this system entails the risk of being trapped in unemployment because there is little economic gain or possibly even economic loss associated with taking a job. The labour market tax, introduced with the tax reform of 1994 to make labour market insiders responsive to high unemployment, exacerbates the problem of the unemployment trap, as the

[45] The survey results quoted in this section were based on respondents already employed. It is quite possible that an unemployed person would be more inclined to increase his labour supply in light of tax decreases than someone already employed, since the marginal cost of work relative to leisure would would be higher in the latter case.

unemployed who takes on a job from 1998 immediately faces a 4 per cent tax increase. For those employed, the high marginal tax rates may work to restrict their supply of labour, because the net gain from supplying another hour of work is too small to make up for losing an hour of leisure.

According to economic theory, a cut in marginal income taxes could increase the supply of labour as the net wage for each hour supplied increases. Alternatively, labour supply may drop because employees can make the same wage in fewer hours. In adopting the comprehensive 1994 tax reform which emphasized lower marginal tax rates, the centre-left coalition government in Denmark counted on the former effect. Thus, lower marginal income tax rates should serve to increase effective labour supply. One of the wider objectives of this policy was to decrease wage pressures of the economy, and thereby limit structural unemployment. An increase in the effective labour supply would thus limit that rate of unemployment at which inflation starts to accelerate, enabling a lower sustainable rate of unemployment. However, empirical data has revealed a limited potential for increasing the supply of labour through income tax cuts. Among Danish employees, factors other than pay clearly affect the decision to supply or not to supply additional labour. Furthermore, individuals do not have full control over their supply of work; labour demand may be lacking, or union agreements may determine whether they can work more hours.

It should also be noted that the 1994 tax reform, while decreasing marginal tax rates across the board, comprised relatively larger cuts for the higher income brackets. Several analyses referred in the above have suggested that low-income labour is more responsive to cuts in the marginal tax rate than higher income labour. Hence there would be a greater potential for increaseing effective labour supply in cutting marginal tax rates for the low income brackets. We shall return to this debate in the final chapter.

On balance, it therefore seems doubtful whether recent Danish tax reforms have facilitated a reduction in structural unemployment. At best, the tax reform seems likely to have increased labour supply only marginally. At the same time, it exacerbated the unemployment trap-problem as the labour market tax on gross wage income in effect works as a tax on employment, thereby increasing the relative value of unemployment benefits.

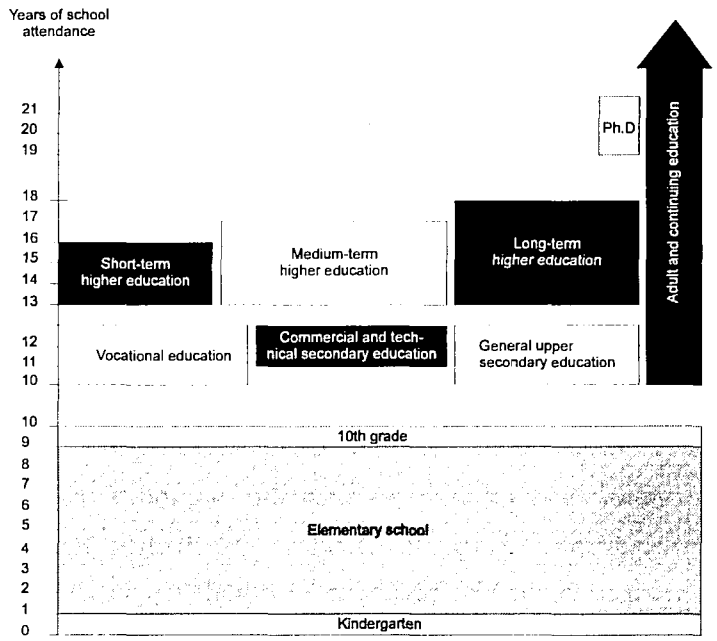
7. *The System of Education and Training and the Functioning of the Danish Labour Market*

In this chapter we review the Danish system of education and training, describing how this system influences the composition of the labour force. The first section of the chapter will outline the structure of and rates of participation in the education system proper as well as in the system of adult and continuing education. The second part of the chapter presents the results of recent mis-match analyses, i.e. analyses of the relationship between supply and demand for labour. The issue of mismatch represents an important aspect of how well the education system is attuned to the labour market. This leads into an assessment of the education system's overall functioning in relation to the labour market, which will be the subject of the final section of the chapter.

7.1. The Structure of the Education System

This section briefly outlines the structure of the Danish education system, describing each level in terms of purpose, duration of programme, admission criteria, and participation rates. Figure 7.1 illustrates the overall structure of the system.

Figure 7.1: The Structure of the Danish Education System



7.1.1. The Ordinary Education System

The Danish education system consists of an elementary school system (comprising primary and lower secondary schools), which almost every child attends; a two-pronged system of upper secondary education, which allows students to choose between an academic path and a vocational path. From these youth programmes, the pupils may enter vocationally qualifying educations, either higher educations or educations which have the character of vocational training.

Elementary School

The foundation of the Danish education system is the Folkeskole, the public school for primary and lower secondary education, spanning pre-school through 10th grade. Danish law stipulates an obligation for each child to receive nine years of education, and an optional Leaving Examination of the Folkeskole may be taken at the end of the 9th grade. About one per cent of a given form do not complete basic school. About 89 per cent of the school-age population attend the public school system. The rest attend private schools.

The public schools are based on a principle of comprehensiveness, in the sense that pupils stay with the same class throughout at least primary education, regardless of performance and intellectual ability. This principle was strengthened in the 1993 reform of the public schools, which also established the principle of differentiation, requiring the teacher to taylor educational challenges to each student.

Upper Secondary Education

About 95 percent of the pupils continue in the education system or enter a vocational training programme. The upper secondary education system has two paths. One is the general upper secondary education schools, high schools and the higher preparatory examination (HF), the primary function of which is to prepare the pupils for further studies in higher education. Admission is generally open, but the applicant must have passed the Leaving Examination of the Folkeskole. The higher preparatory examination is a two-year programme, oriented primarily toward individuals who have left the education system and wish to return.

The other path consists of the higher commercial and higher tecnical examinations, which serve both as vocational programmes and as preparatory programmes for higher education. Whereas the higher commercial examination focuses on commerce and business classes, the higher technical examination concentrates its curriculum in the fields of science and tecnology. Like the high school, these are three-year programmes.

Other Programmes at the Upper Secondary Level

A number of programmes are aimed at students who prefer a vocationally oriented education. These programmes include proper vocational training, several basic social and health studies, and, as the most recent additions, basic vocational education and the free youth education. All programmes aim to impart to the students a level of practical skills and a theoretical basis that improves their standing in the labour market while at the same time meeting the labour market needs for skilled labour.

The system of vocational education and training offers practically oriented courses, all involving a mix of alternating theoretical and practical education. The practical training components take place either with an employer as part of a practical training programme or at a school, although the latter option is generally considered less desirable.

The vocational education and training courses are designed in cooperation between the Ministry of Education and the labour market parties in order to ensure continued correspondance between graduate qualifications and the needs of the labour market. This system is intended to create a flexible and adjustable labour force. Admission to vocational courses is generally open although it is possible to restrict intake to some courses based on overall labour market trends (Ministry of Education, 1996: Fact sheet no. 3).

EGU (erhvervsfaglig grunduddannelse, basic vocational education) and free post-compulsory education are two new programmes established in order to retain more youth in the education system. Each is planned as an individually designed two-year programme to accommodate those youth who are dissatisfied with or unmotivated by the ordinary education system. The *basic vocational education* targets youth who have performed poorly in elementary school and are now in a dissatisfactory job or education situation, only where all other options seem unviable for the person. The curriculum is concentrated on practical training, but also includes a minimum of 20 weeks to a maximum of 40 weeks of theoretical schooling. The objective is to equip these students with personal, social and vocational qualifications which will facilitate their stable participation in the labour force or further education. It is therefore possible to receive credits for parts of the programme upon enrollment in other vocational programmes.

The *free post-compulsory education* offers youth an opportunity to put together their own course of education that may involve courses at ordinary educational institutions, participation in projects, associations, work or international travel. The focus is on development of personal skills rather than vocational qualifications, although counsellors in the programme find that participants through the experience they gain develop a maturity and independence that makes them well

prepared for academic studies (Information, July 13-14, 1996). But currently the free education does not formally qualify the participants for admission to higher educational institutions. The programme is expected to draw 2,000 students this year, a doubling from the first year of operation. Drop out has been low at 5 per cent.

Higher Education

There are about 130 institutions of post-secondary education, which can be divided into three levels of education. The five universities and university centres offer programmes in traditional academic disciplines. As a rule, a university programme now includes a three-year bachelors programme, a subsequent two-year master's degree programme and a three-year Ph.D. programme. Since establishment of the bachelor's degree a small portion of university students leave university upon completing this degree. In the Humanities students also have the option of a four-year degree (cand. phil) or a six-year programme, leading to the degree of master of arts. In contrast to the Anglo-Saxon university system, the bachelor programmes specialize within a single academic discipline. However, the university centres offer a more interdisciplinary approach.

The research-oriented post-graduate programme, leading to a Ph.D. degree, has been given higher priority and formalized as a regular component of the education system. Other university-level programmes offered at educational institutions separate from the universities include engineering, architecture, music, art, and various business courses. Medium- and short-term programmes are offered at professional schools, covering mainly the fields of technology, education, social work and health (Ministry of Education, 1994).

Admission to the institutions of post-secondary education is restricted to those who have passed an examination at the upper secondary level, although some non-academic institutions may admit students who do not meet this entrance qualification (Ministry of Education, 1994. Fact Shhet). However, as the number of applicants in many fields surpass the number of openings, admission criteria in many cases are more rigourous than the basic requirement. Applicants may be assessed solely on their academic merits at lower level examinations or on broader criteria, including work experience. A few educational institutions pick their applicants based on specific entrance examinations for each institution. In 1995, 72 per cent of a total of 60,000 applicants were admitted (Ministry of Finance, 1995).

Participation Rates in the Regular Education System

About half of the adult Danish population has a vocationally qualifying education, but among 25-49-year-olds this share has increased to more than 60 percent. As shown

in table 7.1, current behaviour suggests a continuation of this trend toward increasing education levels. Thus, the education profile for 1993 projects that 69 per cent of current 8th graders will complete a vocationally qualifying education.

Table 7.1.1 Education Profile, 1993. Percentages.[46]

Level of Education	Participation Rates	Completion Rates
Elementary School	**100**	**94**
Upper Secondary Education	**94**	**77**
- vocational orientation	56	39
- academically preparatory	39	38
Vocationally Qualifying Education	**73**	**69**
- short-term higher education		6
- medium-term higher education		19
- long-term higher education		10
- commercial/clerical training		13
- technical course		13
- other		7

Source: Ministry of Education, 1996.

Another important trend in the education profile is an increasing share of each form completing a higher education. Danes who are now in their 30s are more likely to have completed a university or other higher education than Danes in their 40s, whose education level overall is higher than the plus-50 group (Economic Council, 1995).

Despite the general increase in education level, about one out of three youth never completes an education that qualifies him or her for the labour market (Ministry of Education, 1995). This represents a relatively large share of the labour force who will be increasingly vulnerable in the labour market as all prognoses indicate unemployment will be increasingly concentrated among those with little or no education.[47]

[46] The numbers in the figure indicate the flow of students through the education system. Based on the complete flow in the 1993 education system, the percentages should be interpreted simply as the eventual profile that year's 8th graders will achieve in 25 years, if they behave like the students of 1993.

[47] Among the 31 per cent of the 1993 8th-grade population who according to projections will not complete a vocationally qualifying education, 9 per cent will receive no schooling beyond elementary school, 11 per cent will complete high school and another 11 per cent will participate in some courses (Ministry of Education, 1996).

Furthermore, the general level of education of the Danish education level is higher than that of other European countries such as France and Italy. (Economic Council, 1995: 101). The relatively low ranking is due particularly to the large share of the population holding a higher education degree is on a par with the higher ranking countries.[48] A different comparative survey placed Denmark in the top-five among 40 countries in terms of supply of skilled labour and labour with higher educations and professional experience (World Competitiveness Report, 1994, cited in Ministry of Education, 1995).

7.1.2. Adult and Continuing Education

In addition to the regular education system, Denmark has a comprehensive system of adult and continuing education which offers upgrading of skills for all in the labour market or a delayed opportunity for education for those who dropped out before getting a vocationally qualifying education.

In 1993, continuing and adult education involved about 2 million participants (Economic Council 1995). This does not necessarily mean that 2 million employees received education as some may have participated in more than one course. Computed in full-year persons, adult education comprised about 103,000 participants in public courses and 34,000 participants under the auspices of private companies, cf. Table 7.1.2.[49]

Private adult education accounts for about one fourth of the total adult education participation. Such courses may be company-level courses in specific skills or courses in management and organisation (Ministry of Education, 1995). These courses involve a large number of employees, about 1.3 million, but they tend to be of a short duration.

The public system of adult and continuing education varies significantly in terms of content, qualification level and duration. Adult education (VUC) offers opportunities for completing the Leaving Examination of the Folkeskole for those with little of no education. They also offer single-subject courses at the upper secondary level. As such the adult education centres serve particularly those most in need of

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[48] This comparison should be interpreted cautiously since classification of different educations vary among countries. Furthermore, while the Danish data are based on registered participation, statistics for most other countries in the comparison are derived from questionnaire data, which presumably results in an overestimated level of education (Ministry of Education, 1995: 44).

[49] A recent survey estimated that about 80 per cent of all Danish employers, private and public, make use of adult education programmes. The companies surveyed spent about 3 per cent of the total work time on such courses (Ministry of Education Newsletter, May 4, 1996).

upgrading their skills to be able to compete in the labour market. About 23 per cent of the full-year participants in public adult education attend such basic adult education.

The open education and labour market education systems represent a directly vocational approach. Open education offers adults the opportunity for completing a degree at the higher education level while maintaining in business- and finance oriented courses. The only other category that stands out is liberal arts courses, which accounted for nearly 12 per cent of the full-year participants in 1993. Many of the participants in open education programmes have already completed some other form of education.

Table 7.1.2: Adult and Continuing Education. Participation, 1993.

	Number of Course Participants	Number of Participants, Full-Year Persons	Average Duration of Course
Private courses	1,360,000	34,100	1 week
Public courses			
Adult education (VUC)	93,700	24,500	10 weeks
Open education	187,300	21,400	5 weeks
Labour Market (AMU)	266,100	14,620	2 weeks
Folk/Day High School	78,900	13,200	7 weeks
Other	44,020	29,150	7 weeks
Total, public education	**670,020**	**102,870**	
Total	**2,030,020**	**136,970**	

Source: Ministry of Finance, 1994 in Economic Council, 1995. Ministry of Education 1995. "Other includes among others adults participating in the ordinary educations and continuing education for teachers.

The labour market courses (AMU) are short-term courses aimed at upgrading the qualifications of semi-skilled and skilled labour, often blue-collar workers. Participation in the courses often enable semi-skilled workers to receive certification or obtain status as skilled labour and thereby increases their chances for employment.

A different segment of the education system consists of a traditional Danish form of education, the folk high schools. These orginally sprung out of the 19th century enlightenment circles, operating on the idea that education should be an ongoing undertaking that enriches the life of the individual and prepares citizens for democracy. The folk high schools offer courses of every form, some parallel to any other schools. As such they may serve to improve the general educational level of the population. In recent years a similar system of day high schools for the unemployed

has been established. Their students typically include people in their 20s, many of whom are outside the labour force.

By international standards the Danish level of participation in adult and continuing education is high. A 1989 survey of the EC countries found that about 16 per cent of the Danish labour force had participated in vocational training within the preceding four weeks, compared to the EC average of 6 per cent (Ministry of Finance, 1993). However, the survey concluded that the unemployed in Denmark constitute a relatively small share of the participants compared to other countries, indicating that much adult and continuing education is organized through the work place. This may reinforce the insider-outsider problem (Ministry of Finance, 1993). About two-thirds of participants in adult and continuing education are employed, while unemployed or individuals not in the labour force account for the last third of participation.[50]

7.2. The Relation Between Supply and Demand of Skills

A labour market characterized by unemployment in some parts of the labour market and vacant jobs in others suffers from mismatch problems. Mis-match can be seen as an indication of a labour market with insufficient mobility. During times of increasing employment, mismatch problems may cause wage increases and inflation, thus causing a relapse in unemployment. Mismatch probles therefore contribute to structural unemployment.

Mismatch and the Beveridge Relation

One commonly used indicator for mismatch problems is the Beveridge-relation, which pairs the number of unemployed with the number of vacant jobs over time. Increasing mismatch problems occur with a simultaneous increase in the number of unemployed and the number of vacancies (Economic Council, 1992) In the diagram this shows as an outward shift of the Beveridge-curve. The development in the Danish labour market is illustrated in Figure 7.2.1.

Generally, the Beveridge curve shows a decline in the number of vacancies and an increase in unemployment. Yet since the mid-1980s, vacancies have

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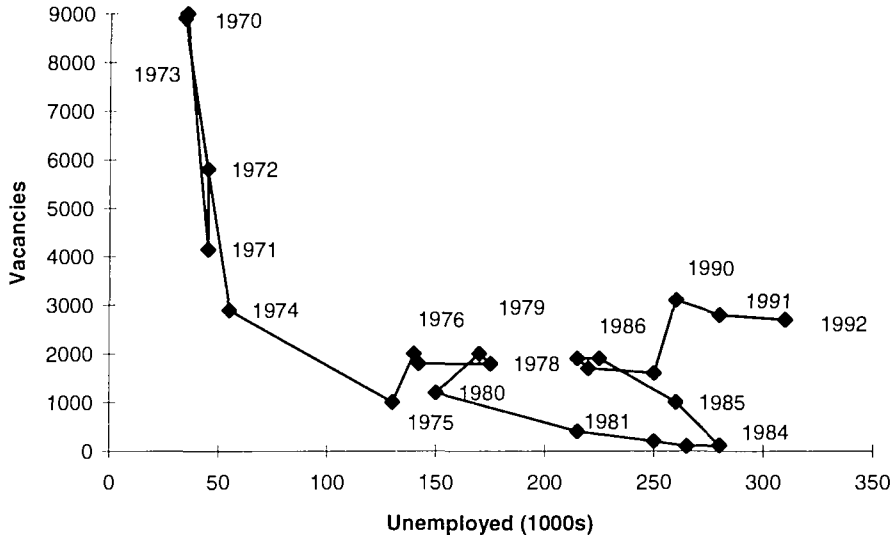
[50] To give some measure of the effect of adult and continuing education, the Economic Council estimated that adult and continued education of about 60,000 full-year persons in vocationally qualifying course would result in an increase in the average education level from 12,5 to 12,9 years over 20 years. By comparison, the same report estimated that investments in the education system proper has increased the education level of the average Dane from 9,3 years to 11 years between 1940 and 1993.

increased, but some of this may be explained by a change in the registration method of vacancies.

Figure 7.2.1: Beveridge relation 1972-1990, Denmark.



Source: Economic Council 1992b.

International surveys have concluded that the Danish Beveridge curve follows the pattern for an economy suffering demand problems. (Jackman et al, 1990; Bjørn and Pedersen, 1992 in Economic Council, 1992).[51] Yet, the Council warns not to draw firm conclusions because of uncertainty about the data. Furthermore, the shift in the Beveridge curve suggests that some of the increased unemployment during the 1980s was caused by structural factors, resulting in a growing mismatch in the labour market.

Mismatch and the Education System

Although mismatch may not be among the most important causes of rising unemployment in the case of Denmark, it would be misleading to conclude, that the Danish labour market suffers no mismatch problems.

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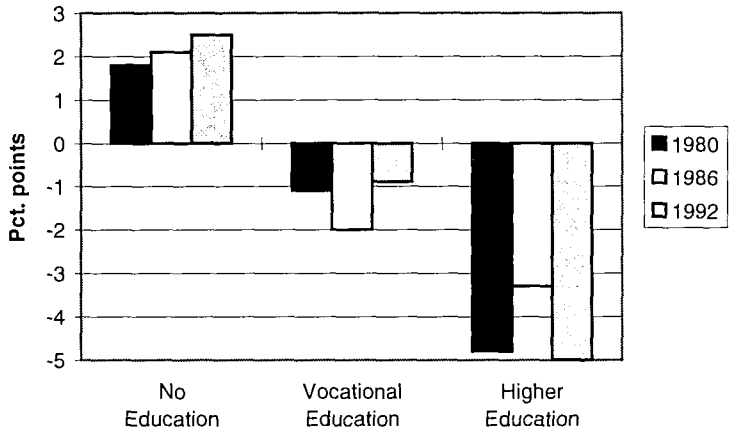
[51] One premise for the validity of the Beveridge measure is the reliability of the statistics on vacant jobs; this premise may not be met in the case of Denmark, partly due to a change in registration methods of the Public Labour Exchange. The shift upward in the number of vacant positions from 1989 to 1990 can be explained by this change in registration methods (Economic Council, 1992b).

One general problem of mismatch in the Danish labour market, which has been referred to previously, is the uneven distribution of unemployment across education levels. Persons with short-term or no education have a significantly higher risk of unemployment than those with higher education (cf. tables B.9 and B.10 in appendix B below). Thus, there is a clear negative relationship between unemployment and level of education, although long-term higher educations deviate slightly from this pattern. This disparity in unemployment risk has deepened over the last decade and is expected to continue to do so (Welfare Commission, 1995b).

Figure 7.2.2: Differences in Unemployment Rate from the Average by Category of Education, 1980, 1986, 1992.



Source: Ministry of Finance 1994.

One prognosis has estimated the distribution of mismatch by education categories in the Danish labour market by the year 2000 (Committee on Adult and Continuing Education, 1994). In an optimistic scenario, it is forecast that unemployment will drop overall and the prognosis shows lower unemployment across all education categories. However, the report concludes that one fourth of the labour force will have serious unemployment problems, involving primarily those individuals with elementary school or a basic vocational education. At the same time, shortages of skilled labour are anticipated in the areas that employ labour with higher educations. Particularly the health sector and those employing graduates from the natural sciences will experience a shortage of labour, according to the prognosis.

In a less optimistic scenario, widespread unemployment will affect those groups of the labour force who have not completed a vocationally qualifying education: fully half the labour force will continue to face high unemployment rates. Under this scenario, bottleneck problems will be limited to the health sector primarily.

7.3. Strengths and Weaknesses in Relation to a Well-Functioning Labour Market

Education affects the functioning of the labour market through labour force productivity and mobility. This section will look at the strengths and weaknesses of the education system in two respects: a) the overall quality of the education system as this is one of the crucial determinants of labour force productivity, and b) the attunement of education to labour market needs for specific types of labour as this affects labour market mobility.

7.3.1. Quality of the Danish Education System

Denmark traditionally prides itself on a high quality education system, and the Danish education system generally has fared reasonably well in international comparisons. For instance, the World Competitiveness Report 1994 placed Denmark sixth out of 40 countries on the issue of how well the education system meets the requirements for bringing about a competitive economy (Ministry of Education, 1995: 55). Despite this, there is growing concern that the education system may not adequately meet the future needs of the labour market (Welfare Commission, 1995b).

Several studies have pointed out the need for quality reviews of the Danish education system to assess whether objectives are being achieved and whether achievements match the resources put into the education system (Welfare Commission, 1995b; Economic Council, 1995). Such reviews have been set up in the higher education system and to some extent in the youth educations, but systematic quality assessment in the elementary schools have not yet been undertaken.[1]

In place of such systematic reviews the Ministry of Education in a background report to the Welfare Commission attempted to piece together quality assessments for each level of education, measuring outcome by international comparison and by the number of students progressing into the higher educations (Ministry of Education, 1995). Following are the main conclusions of this and other more general reports.

Elementary School

The level of spending per pupil is high compared to other countries, but due to the lack of overall quality assessments it is unclear whether the quality of education is correspondingly higher. An international comparison of reading competency, one of the few such studies in which Danish pupils have participated so far, found that

Danish third-graders are among the poorest readers in the industrialized world (Ministry of Education, 1995: 82).[52]

Notably, Danish pupils showed a greater dispersion in scores than pupils of other country in the study, as the top 10 per cent of Danish students were on a par with the best students of other countries, while the middle and lowest ranking Danes placed poorly in the international comparison. However, at the 8th-grade level Danish pupils ranked higher, above countries such as Germany, Canada and Norway, and the dispersion in scores equalled that of the other nordic countries. Even so, it is questioned whether reading skills are too poor, and whether the Danish students reach the international level of reading at too late an age (Ministry of Education, 1995:83).

Based on this background report, the Welfare Commission recommended a greater effort aimed at academically weak students, particularly by strengthening the practical and creative subjects in the schools in order to motivate these students to learn. The Commission also recommended more in-class lessons.

Post-Secondary Education (Youth Education)

An OECD report concluded that Danish post secondary education is generally of high quality (Ministry of Education, 1995). The vocationally qualifying educations were praised for their objectives, methods, physical facilities, breadth and relevance in the labour market, but the report also criticized the high level of dropout. Dropout is 25 per cent from technical schools and 11 per cent from commercial schools, whereas only 3 per cent of those who begin the academically preparatory schools drop out. Futhermore, a large share of students begin more than one programme before settling on one, resulting in inefficient utilization of education resources.

Several studies have analysed the causes for dropout, showing that the level of teaching and a theoretical orientation in the course play a large role for those who leave and educational programme. Based on these studies, the Commission recommends renewal of the courses to better accommodate practically inclined students as well as improved education and job counselling in order to steer students toward the right education.

One step in this direction may be the new basic vocational education (EGU). So far, the programme appears successful. From 800 participants in 1994, the first year of the programme, participation is expected to increase to 1,800 this year (Politiken, 30.6.96). In most municipalities, the completion rate has been about 90 per

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[52] According to news coverage, the Ministry of Education is expecting an equally poor ranking for Danish pupils in a similar math competency test for which the scores have not yet been released (Morgenavisen Jyllands-Posten, July 31, 1996 "Math education faces low mark".

cent, although it is lower in the capital, namely about 75 per cent. And importantly, nearly all of those who have completed the programme have obtained employment or have continued in the youth education system.[53]

Higher Education

Reviews of the higher educations systems report varying quality, but generally the reports have rated education quality as satisfactory (Ministry of Education, 1995). Several engineering schools, for instance, were found to generate candidates whose qualifications were ranked between adequate and strong, and the weighting of different skills in the programme tended to correspond with employers' weigting of skills.

Other quality indicators cited by the Ministry of Education (1995) include an improved and relatively high rate of completion by students; the fact that most Danish students pass their courses when they study abroad, and the fact that candidates from the higher educations have high employment rates. There are only few examples of Danish companies passing over a Danish candidate to recruit abroad.

The OECD in its "Review of Denmarks Science, Technology and Innovation Policies" expressed satisfaction with the establishing of a bachelor-master-doctoral structure in the Danish education system (Ministry of Education, 1995). However, the OECD reviewers, concurring with the Danish business and education community, raised concerns about the level of funding for research. Likewise the Welfare Commission expressed concern that Danish research and education would fall behind internationally, as funding of higher education as per cent of GDP is less than the international average.[54]

Adult and Continuing Education

Denmark spends relatively many resources on adult and continuing ducation, and ranks at the very top internationally measured in terms of the share of the population participating in continuing education. Furthermore, a committee established recently to review the system of adult and continuing education concluded that the planning of

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[53] A 1994 survey of 3,900 rendomly sampled enterprises showed only 40 per cent of these being satisfied with the vocational educations. Another 38 per cent expressed neither datisfaction nor dissatisfaction while the remaining companies were dissatisfied with the educations. More than half the enterprises said the programmes needed to give higher priority to the vocational aspects of the courses (Welfare Commission, 1995). In particular the younger enterprises were critical of the vocational educations.

[54] The previously mentioned survey among Danish enterprises found that nearly half the companies were satisfied the higher educations. Only 13 per cent were dissatisfied, while the remaining respondents were neither (Welfare Commission, 1995).

the course supply is generally satisfactory, although there is room for improvement (Committee on Adult and Contiuning Education, 1994).

Specifically, the committee recommended a better coordination of continuing education programmes at the local and regional levels and a greater flexibility in the courses offered in order to make the programmes more responsive to labour market needs. The review praised the large number of course offers and the numerous opportunies which exist for funding continuing education, but also pointed out that the many opportunities make it difficult to survey the market for the most appropriate options for employees. Furthermore, the review identified as a problem an inadequate offer of relevant courses for members of the labour force with little or no education.[55] Finally, the review committee recommended improved education planning at company level and better information and counseling about the continuing education system.

Partially in response to these recommendations the Danish Government has sought to increase information and counseling about continuing education, but there has not yet been any evaluation of this recent effort. Additionally, admission to adult and continuing education has become unrestricted in the sense that the course offer is based on demand and anyone can apply for admission in courses in all accredited programmes. The reform also ties public financing for each course or institution to demand for the course.

7.3.2. Mobility

Education can improve mobility and thereby prevent or remedy structural problems in the labour market. As regards mobility across trades and sectors, one indicator is the general level of education in the labour force, particularly the share who holds higher education, because labour with higher education have general skills, which can easily be transferred from one job to another. As mentioned the labour force share with higher education has increased over time, presumably facilitating mobility.[56]

The question is whether this increased level of education has been directed toward the needs of the labour market. In general, the fact that the Danish labour market suffers only moderate mismatch problems can be seen an indicator that this is to a high extent the case (cf. section 7.2). However, mismatch analyses show that the

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[55] This finding corresponds with the results from the previously cited survey of Danish companies. One third of the respondents in the survey found the continuing education offers not relevant for their employees (Welfare Commission, 1995).

[56] Indeed, a statistical analysis carried out by the economic Councils reveal a relatively high rate of mobility across trades among graduates with higher educations. This may be interpreted as a sign that the institutions of higher education produce graduates whigh enough human capital to allow mobility (Economic Council, 1992: 135)

health sector as well as those sectors of the economy which employ natural science graduates will experience future shortages of labour. In general, there will be a need for labour with higher education, which suggests a need for continued improvement of the education level.

Specifically as regards the system of adult and continuing education it seems more questionable whether this meets the needs of the labour market. For instance, vocationally qualifying continuing education is used to a large extent by employees who already hold degrees of higher education. This solidifies the education gap and hardly improves mobility in the labour market significantly. Furthermore, many employees as well as unemployed persons participate in continuing education which is not vocationally qualificing. Thus, almost half of the participants in the Educational Scheme scheme have chosen courses that are not vocationally qualifying (Economic Council, 1995:128). The Economic Council in this connection proposes an improved targetting of the continuing education effort toward those members of the labour force, who either hold no vocationally qualifying degree or who hold a degree in an area with high unemployment. In order to ensure that continuing education does meet the needs of the labour market, the Economic Council also recommends that any effort in the area of continuing education should obtain the approval from the labour market parties as vocationally qualifying.

7.3.3. Conclusions

This final section summarizes the main strengths and weaknesses of the Danish education system as it affects the labour market. Looking at the outcome of the education system, the Danish education system has produced a labour force with qualifications which to a relatively high extent match the needs of the labour market. Thus, the extent of mismatch problems are moderate.

Based on existing evidence, it also appears that the quality of the higher educations and vocational educations is satisfactory although there are concerns about future quality. The quality of elementary school education has not been adequately assessed, but international comparisons show a poor ranking in reading skills at the lower grades, but a competitive level in the higher grades.

One accomplishment of the education system overall has been the continued improvement in the population's education levels, although the level attained is still inadequate, cf. below. It should also be considered a strength of the education system that more than 90 per cent of students continue from elementary school into the upper secondary educations. Likewise, extensive participation in adult and continuing education reveals a general orientation toward and interest in education.

The recent reforms in the elementary schools and higher educations are important. The elementary school reform emphasizes differentiated education to better meet the needs of each individual pupil. The purpose is to improve the performance of all students, not least of which the academically weak and eventually to increase the interest of each student in continuing toward a vocationally qualifying education. It remains to be seen whether teachers are fully equipped to implement such individualized teaching, and whether resources are sufficient for this purpose (Welfare Commission, 1995). The reform of higher educations has instituted a bachelor-master-Ph.D.system, which should facilitate the internationalization of the Danish education system.

The main weakness of the education system remains an insufficient level of education. One third of the students of each form never complete a vocationally qualifying education, and labour market parties complain of too few graduates with higher education. In continuation of this, drop out from the vocational education and training has been identified as a problem. One reason for this drop out rate may be an inadequate offering of courses for those students who prefer practical rather than theoretical courses.

The result of the high drop out rates is an education gap with a large group of the labour force being relatively well-educated and another goup with little or no education. This education gap is further widened through the system of continuing education which tends to reach the well-educated rather than those lacking education.

8. *Industrial Policies, Employment and Unemployment in Denmark*

This chapter provides a brief description of Danish industrial policies. The level and nature of state intervention in the economy is described, as is recent trends in business policy. This is done with a view to analysing the relation between industry policy (or business policy), employment and unemployment in Denmark.

Industrial policy may be defined in different ways. In one prominent definition, industry policy is that policy which aims to increase the volume and efficiency of production in manufacturing, i.e. industry policy is allocation policy. However, the short-term prevention of job losses in industry may also be considered an element in industry policy, meaning that industry policy is an economic stabilisation policy (Brøndum 1987).

8.1. The Level and Nature of State Intervention in the Economy

Often, the description and evaluation of industrial policies in different countries focus on the juxtaposition of to opposed positions: The liberal, non-interventionist approach and the interventionist approach. In the liberal, non-interventionist approach, industrial policy is directed towards removing barriers for competition and market failures. This should enable society to reap the full benefits of the economic market, as monopoly rents are eliminated and only effective production is allowed to survive. Economic support to private enterprises, limitations to competition and state management or intervention in the private sector are seen to have only counterproductive effects on economic growth in the longterm, as it allows ineffective production to continue and monopoly rents to spread.

In this argument, state intervention in the markets may possibly serve to increase employment and decrease unemployment in the short term, but only at the costs of decreasing economic growth and international competitiveness in the long term. To avoid the damaging effects on employment of decreasing international competitiveness, states may have to turn to protectionism. However, this will only exacerbate problems in the long term, as protectionism shields private enterprises from competitive pressures for effectivisation and rationalisation.

In the interventionist approach, the state intervenes directly to affect the behaviour of private enterprises in a desired manner. In this approach it is held that a well-functioning market is not in itself a sufficient precondition to ensure economic growth, welfare and low unemployment. Targeted measures directed towards the

private sector and joint public-private measures are needed, for instance to facilitate the spread of information on new technologies among enterprises or to increase the risk-taking prospensity of private enterprises in research and development. State intervention may also be defensive, aimed at preventing the closure of loss-making enterprises and job losses. Instruments for intervention may thus range from subsidised loan schemes, loan guarantee schemes, technological development support programmes, to direct economic support to enterprises in the form of crisis-support to selected sectors or support to individual enterprises, limitations to competition or public ownership of enterprises in a range of sectors such as for instance the finance sector or selected parts of manufacturing industry.

Traditional Characteristics of Danish Industrial Policy

Danish industrial policy is dominated by liberal, non-interventionist ideas. The following traditional characteristics can be emphasized (Brøndum, 1987; Sidenius, 1989):

Traditional Characteristics of Danish Industrial Policy

1. The ends of industrial policy are broad and vague, while modest financial means make up the most important means.
2. State intervention is minimal and non-selective.
3. Industrial policy is subordinate to general economic policy, which among other things aims at improving international competitiveness.
4. Indirect subsidies in the form of tax reliefs for industry are relatively more important than direct financial assistance, loans and guarantees.
5. The implementation of industri policy primarily takes place as a reaction to enterprises' applications for support, while more advanced industrial cooperation projects are rare.
6. State owned industry is negligible.
7. Industrial expertise in the state administration is poorly developed.[57]

There are several historical explanations for this. First, a strong and independent class of peasants has historically limited the strength and scope of direct state intervention in the economy (Grønbæk, 1991). Second, ever since the 1930s industry policy has been shaped by an implicit compromise between liberal and interventionist

[57] Brøndum (1987: 64, 89) thus argues that Danish industrial policy can be described as "demand oriented subsidy policy".

(social democratic) forces. According this implicit compromise, the labour movement was allowed to ameliorate the effects of a pure market economy through the construction of a comprehensive welfare state. In return, the state was not to intervene directly in the private sector through public ownership of the means of production or other direct forms of intervention (Esping-Andersen, 1985).

Third, the small size of the Danish economy has affected the direction of industrial policies In a confrontation on direct state support to industry, larger states can provide more comprehensive subsidies to individual enterprises with relatively smaller consequences for the public budget. At the same time, the potential costs of trade wars triggered by direct state support to selected industries are much larger for a small state as Denmark than for larger states, since the small size of the economy is associated with a large dependency on international trade and on a limited number of export markets (Katzenstein, 1985: 81-87; Brøndum, 1987: 184).

Prioritizing Technology Development

During the 1980s industrial policy was gradually given a more interventionist shape, as a number of relatively large time limited technological support programmes have been launched from 1984: The Techological Development Programme (TUP), a 5-year programme initiated in 1984, the Material-Technological Development Programme (MUP), launched in 1987 and extended in 1994 to last until 1997, the Bio-technological Research and Development Programme running from 1988 through 1995, the Networking Programme from 1989, the Product Development Programme for Agriculture and Fishery launched in 1989, and the Danish Research and Development Programme for Foodstuff Technology (FØTEK), launched in 1990 as a 4-year programme and extended through 1997.

These programmes signified that the traditional general subsidy schemes were increasingly being supplemented with selective initiatives directed at specific sectors of industry, that more direct and more advanced public-private sector cooperation on research and development was given a higher priority, and that public agencies were given a larger direct role in shaping the direction of research and development efforts.[58]

Thus, although Danish industrial policy has historically been dominated by the liberal, non-interventionist approach, the state not been passive in its relations with

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[58] In 1990 the then centre-right coalition government obtained Parliament's support for a comprehensive downscaling of the direct enterprise-related export and technology promotion schemes. In return industry obtained a relief in general company taxation. In addition, the business-promotion framework law, which replaced the proliferation of individual support schemes directed at individual enterprises, has allowed a continuation of sector-related research and technology development programmes.

the private sector. Only the means in industrial policy have avoided the most direct forms of intervention. Furthermore, since the mid-1980s, growing priority has been accorded to sector specific technology development programmes entailing a higher degree of state intervention at sector level.

Figure 8.1: A Classification of Western European Industrial Policies

Policy Instrument	**Target Group**		
	Broad range of enterprises	Selected sector	Individual enterprises
Economic support: Subsidies, loans, tax breaks	**Denmark 1**		Italy
Limits to competition: Monopolies, regulation	France		
		Germany	
Capability development: Research, training and education, techological services		**Denmark 2**	
Opening of the economy: Eliminate barriers to competition	United Kingdom	Netherlands	

Source: Erhvervsudviklingsrådet (1992) with own amendments.

Figure 8.1 in this connection illustrates the development in Danish industrial policy, just as it compares it to the policies of a number of other Western European countries. This is so in tems of the policy instruments which are most commonly used and in terms of the target group of enterprises or sectors. In the figure, the distinction between non-interventionism and interventionism is thus replaced by a continuum of policy instruments aimed at affecting the development in the market-governed sector.

Traditionally, Danish industrial policy has thus aimed at a broad range of enterprises, the only exception being a number of credit support schemes introduced in the 1960s and 1970s specifically aimed at the shipbuilding sector. The preferred policy instruments for industrial policy have been relatively "soft" instruments of intervention: Interest rate subsidies and export credit guarantees have been prominent, but the financial means allocated for these schemes have been limited compared to other Western European countries (the "Denmark 1"-position in the figure).

From 1984 onwards, technological support schemes consisting of co-financing schemes, heavily subsidised loans for technology investments and public subsidies for technological consultancy services within development programmes became

increasingly important. The growth of technological support schemes also comprised a growth in funding for targetted research, training and education acitivities in connection with the introduction of new technologies, both under the auspicies of the Ministry of Industry (from 1993 the Ministry of Business), and under the Ministry of Education. The latest development in this connection has been an increased emphasis on the establishment of joint public-private research and development centres in which private enterprises and public research institutions cooperate on targetted development projects. This is illustrated in the "Denmark 2"-position.[59]

In an international context a liberal trade policy has exposed many other sectors of the Danish economy to international competitive pressures. Ever since the 1950s free trade has been official Danish trade policy, and even before membership in the European Community in 1972, tariff barriers and several other barriers to trade were low in Denmark. Perhaps among other things as a consequence of this the process of eliminating barriers to competition has not until recently played any very significant role in industrial policies at the national level. A number of large regulated public or semi-public monopolies have been allowed in areas such as passenger air transport, mail and delivery services, telecommunications, power supply, and railway transport. Even if it has remained in private ownership, the finance sector has traditionally also been highly regulated.

8.2. Recent Trends in Danish Business Policy

The traditional characteristics of Danish industrial policy have been described above, along with the movement from the mid-1980s onwards towards sector specific technology development programmes. Industrial policy has undergone a further number of changes most recently, in particular since the change of government in 1993. Total financial means available for business promotion activities have not increased significantly in this period, but a new order of priorities have emerged: A broadening of the focus in industry or business policy, an emphasis on a further strengthening of "resource areas" in Danish business, an emphasis on employment creation for persons with little education, and a growing concerns for entrepreneurs.

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[59] Many elements of the traditional industrial policy (the "Denmark 1"-position) remain important today. However, their relative significance has decreased, among other things as a consequence of the 1990 reform, referred to in footnote * above.

From Industry Policy to Business Policy

From 1993, and coinciding with the replacement of the Ministry of Industry with the Ministry of Business, the concept of industry policy has been broadened and redefined as general business promotion policy. Thus, when the centre-left coalition government took power in 1993, industry policy was redefined to encompass not only measures such as export credit guarantees and other credit subsidies, industry related research, and technological services. It was also defined to include areas such as public-private cooperation, public regulation and service, education, infrastructure, access to capital, and, the creation of new markets (Ministry of Business, 1995b).

Furthermore, the focus in business policy was broadened so as to be directed not only towards sectors competing in international markets, i.e. manufacturing, but also the private service sector, the activities of which are directed primarily towards the domestic market. This was related to the new priority given to the fight against unemployment in business policy from 1993, cf. below.

With the formation of the centre-left government in 1993 the Ministry of Business was thus from many sides intended to take over the role as a ministry of co-ordination for all business related public measures and activities, just as the ministry should function as a safeguard for business interests.

Resource Area Analyses

Starting already before the change of Government in 1993, and as a logical continuation of the growing sector-orientation, focus in Danish business policy has increasingly been on sectors or areas where Danish enterprises have specialized and acquired particular competencies. These areas have been defined as "resource areas" in which Danish enterprises are in a particularly strong position.

Inspired in particular by the theories of international competitive advantages put forward by the group of researchers surrounding the Harvard economist Michael Porter, a comprehensive analysis of the Danish private sector from the viewpoint of the private sector itself, its comparative strengths and weakness, has been carried out in the framework of the Ministry of Business in 1993-95.[60] These analyses are now being followed up in a system of dialogues between the Ministry of Business and representatives of each of the resource areas, the aim being to create the best possible framework conditions for the further strengthening of each resource area,

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[60] A total of 8 resource area analyses were carried out, covering the areas of foodstuffs, construction and housing, the medical and health industry, transport and communication, consumer goods, tourism, environment and energy and services.

among other things through the implementation of the recommendations contained in each resource area analysis (cf. Ministry of Business, 1996b).

Employment for Persons with Little Education: Domestic Services

Also from 1993, employment and unemployment has been given a much more prominent role in Danish business policy. First of all, the Domestic Services Scheme has been defined and implemented as a business development programme, seeking to create a new market for domestic services through improving professional domestic service enterprises' possibilities of competing with black work and do-it-yourself activities. At the same time, the Domestic Services Scheme has as an explicit objective to increase the possibilities of employment for persons with little or no education in the service sector. The Domestic Services Scheme will be described in more detail in section 8.3.

Gradual Privatisation and Deregulation of Specific Sectors

A gradual opening up of the economy through privatizations and deregulation has occurred in recent years, first of all due to the effects of the implementation of EU Single Market directives. Prominent examples include passenger air transport, some aspects of banking and insurance, and telecommunications.

Major recent privatizations include Tele Danmark, which formerly was comprised of 5 regionally based semi-public telephone companies, Copenhagen Airport, and Giro Bank, the banking division of the national mail service. DSB, the national public railroad, ferry and bus transportation system, and Post Denmark, the mail delivery service, has been turned into several separate state-owned limited companies as a preparation to partial privatization.

It should be recalled that state ownership of industrial enterprises has always been very limited in Denmark. The impacts of privatizations on employment and unemployment have thus so far been very limited. The question of privatization has, however, remain high on the political agenda, continuously being surrounded by controversy. Along with the opposition parties to the right, the centre parties in the coalition government continue to press for more privatizations or contracting out where it may provide benefits in the form of better value for money, whereas the Social Democratic Party remains internally divided on the question.

Entrepreneurs and SMEs in Danish Business Policy

Compared to the EU average, the Danish industrial structure is characterized by many small and medium-sized enterprises. For this reason, and since SMEs account for most of the creation of new employment, cf. Appendix B, table B1.5, most

business support measures have formally aimed to strengthen SME development, perhaps as one among several objectives. In reality, however, larger enterprises have often been in a better position to exploit public support schemes as they possess more administrative ressources.

Support for small and medium-sized enterprises has remained a formal priority since 1993,[61] and the concern for SMEs is mentioned in connection with much business related legisation, but is questionable whether SME development takes up a more prominent position in Danish business policy now than earlier. However, one recent initiative can be emphasized: In order to improve SMEs acces to capital, a 1994 law created incentives for the establishment of development enterprises, defined as private enterprises which provide risk willing capital to SMEs on market conditions. The state covers 50 per cent of any losses on the credits which have been provided.

In addition, growing attention is being paid to entrepreneur support. Along with the other Nordic countries, Denmark displays an enterprise start-up frequency and a self employment rate below the EU-average, cf. Table 8.2 below.

Table 8.2. Self-Employment in European Countries

	Self-employment as percentage of total employment 1991	**Percentage growth in self-employment 1986-91**
Denmark	6,5	-0,1
France	9,0	8,6
Germany	7,9	17,2
Italy	20,1	11.4
Netherlands	7,8	-
United Kingdom	11,8	21,5
EU-12	**12,2**	**13,7**

Source: Ministry of Business, 1996a.

Against this background, the Entrepreneur Allowance scheme for unemployed mentioned in Chapter 3 was supplemented in 1994 and 1995 with "Iværk-

[61] In *Business Account 95* (Erhvervsredegørelse 95), the Ministry of Business lists for special priority areas, which shall supplement general business policy: 1) Measures which will reinforce identified Danish industrial strength positions, 2) measures directed towards new and small growth oriented enterprises, 3) measures directed towards large industrial enterprises (industrial locomotives), and 4) employment for persons with short education (Ministry of Business, 1995b: 18).

sætterklippekortet" in which entrepreneurs were given a lump sum to purchase various consultancy and training services on business planning etc. However, the scheme has been abolished in 1996 as the Government is reviewing and planning a general overhaul and strengthening of support policies for entrepreneurs, cf. Ministry of Business (1996a).

8.3. The Domestic Services Scheme

The Domestic Services Scheme deserves particular attention. This scheme has been one of the major new initiatives of the centre-left government, which took office in 1993, and it explicitly seeks to improve employment prospects for specific groups. The weight of the scheme is illustrated by the financial means which have been made available to it. In 1994, DKK 105 million was spent on the Domestic Services Scheme. This amount rose to DKK 598 million in 1995, and the budget allocation for 1996 is set at DKK 414 million. In comparison, the total annual budget allocations to technological instrastructure and technological development programmes amounted to DKK 500-600 million in the period 1994-1996.

The Domestic Services Scheme

The Domestic Service scheme came into force on 1 January 1994, as the new centre-left coalition government's first initiative aiming at business development in the area of consumption services.

From late 1996 a state subsidy of 50 per cent of the total bill including VAT (from 1994-96 DKK 85 per working hour) is provided to consumers' purchase of services from professional Domestic Services-enterprises. Through this, consumer payment for domestic services such as cleaning, cooking, washing, shopping etc. is reduced to a level which makes Domestic Services-enterprises more competitive with black work and do-it-yourself work.

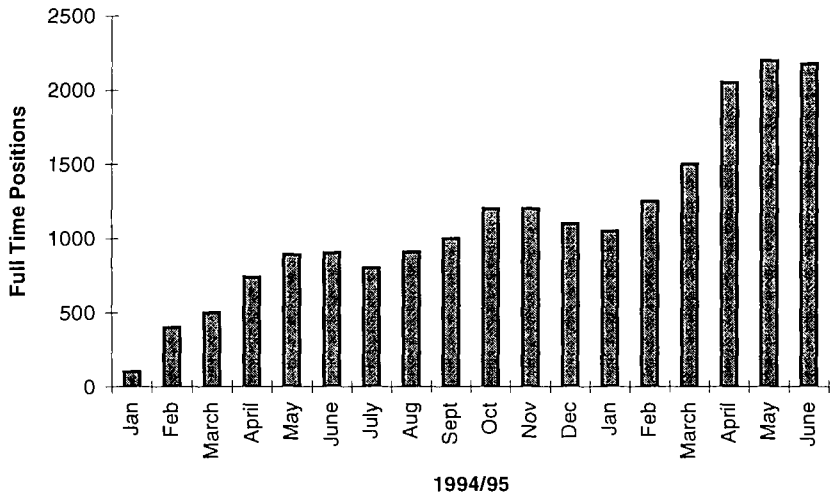
The Domestic Services scheme was initiated as a time-limited experiment, but with a law of June 1996, the scheme was made permanent.

The Ministry of Business views the scheme as an attempt to create a new market and an entirely new business sector. As opposed to similar schemes which have recently been introduced in Belgium and Finland, the aim of which is activation of unemployed,

the scheme aims to develop professionalized Domestic Services enterprises as a foundation for lasting ordinary employment of persons with little education.[62]

After a slow beginning both the demand for subsidized domestic services and supply has increased. The number of enterprises registered and approved as eligible for subsidies has increased steadily from approx. 1,600 to almost 4,000 from January 1995 to June 1995. As it appears from Figure 8.3, the number of persons employed in domestic services has increased from a few hundred at the outset in January 1994 to about 2,300 in June 1995.[63] Overall, the societal importance of the Domestic Services scheme for employment thus remains limited.

Figure 8.3. The Development in the Number of Full-Time Positions in Domestic Services 1994 - June 1995.



Source: Ministry of Business, 1996.

The Domestic Services scheme has been characterized by a number of development problems. The large majority (77 per cent) of enterprizes are very small (0-1 employees apart from the owner), and the owner lacks experience in running an enterprise. Business development and innovation occurs only to a very limited extent. At the same time larger, professionalized service enterprises find the market for domestic services too small and not profitable enough to be attractive (PLS Consult, 1995). There are, however, certain signs of an increasing professionalization of Domestic

[62] In France and Germany domestic services schemes which are more similar to the Danish model have also been introduced recently (Ministry of Business, 1996: 334-336).
[63] The total number of employed persons in Domestic Services is considerably higher, as many are part time employed.

Service enterprises. A group of relatively large enterprises has recently formed a trade organization, and with the continuing growth in demand for domestic services and the fact that the scheme has been made permanent, the market should now become more attractive to professionalized enterprises (Ministry of Business, 1995b: 350).

8.4. Strengths and Weaknesses of Danish Business Policy

This section contains a brief analysis of the strengths and weaknesses of Danish business policy, particularly in relation to employment and unemployment and the functioning of the labour market.

Precise assessments of industry policies or business policies are notoriously difficult to arrive at, among other things since the employment effects of some types of measures cannot be expected to show up until several or even many years after their implementation. For instance, this goes for measures aimed to strengthen research and development in private enterprises, or private enterprises' utilization of research undertaken in the public sector.

The Ministry of Business has, however, recently attempted to create an aggregate success indicator for business policy, a measure of "structural competitiveness". This success indicator relates developments in relative wage costs to developments in OECD market shares for Danish exports.

A normal relation between a country's relative wage costs and OECD market shares is calculated.[64] A country's structural competitiveness is positive when it has higher than expected market shares at a given level of relative wage costs or higher than expected relative wages with a given market share. Thus, the higher relative wages a country can afford without losing market shares, the more competitive its enterprises are.

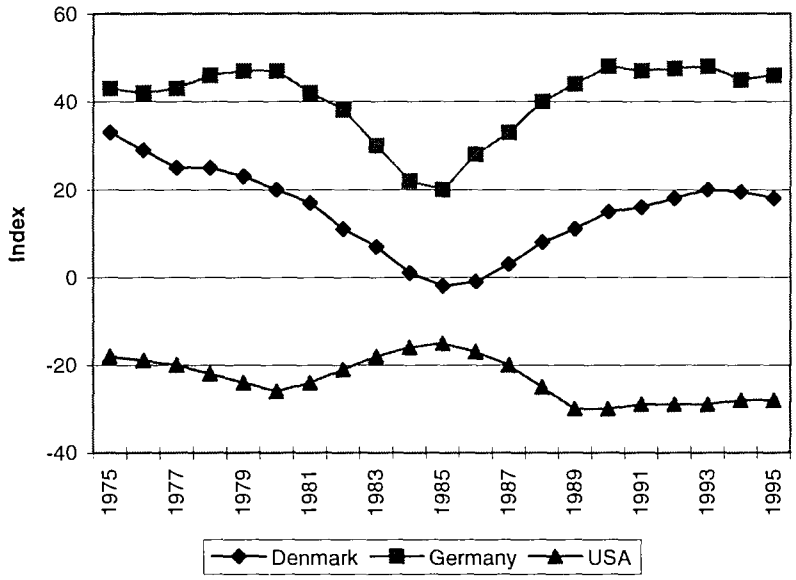
A country's structural competitiveness increases when the enterprises manage to retain their market shares in spite of growing relative wage costs, or when enterprises increase their market share with constant relative wages. Positive movements in the business policy success indicator can therefore be ascribed to all conditions which either makes it possible for the enterprises in a country to increase

[64] Through a regression-analysis of the relation between different countries' GDP-size and their OECD market shares, an expected OECD market share for each GDP-size is projected. Furthermore, it is assumed that wage increases of 1 per cent will lead to price increases of 0.6 per cent, and that a 1 per cent wage increase will lead to a drop in expert values of 0,6 per cent.

productivity faster than in other countries, increase the quality of export goods and services or direct supply towards those market segments which allow the highest price increases (Ministry of Business, 1996: 229-238).

Indirectly, the success indicator may therefore be seen as a measure of the quality of the framework conditions of business and thereby of the quality of business policy.

Figure: 8.4 Business Policy Success Indicator, 1975-1995



Source: Ministry of Business (1996).

It appears from Figure 8.4 that Danish structural competiveness decreased from 1975 to 1985. From 1985 to 1995 structural competiveness has improved significantly. Compared to Germany and the United States, Danish structural competitiveness has been lower than the German but higher than the American. The Ministry of Business (1996) ascribes the improvement in structural competitiveness from 1985 to improved enterprise earnings, a documented increase in registered research and development activities and to macroeconomic stability, which has given the enterprises good planning opportunities. Furthermore, from 1985 onwards Denmark has to a high extent avoided structurally conserving subsidies to declining industries, a type of subsidies which has been more common in other industrialized countries.

The business policy success indicator does not measure the effects of business policy on employment and unemployment.[65] Rather, it measures the extent

[65] Actually, an initiative such as the Domestic Services scheme may lead to a drop in the business policy success indicator as the employment of more persons in low wage areas

to which competitiveness in the international markets is compatible with high wages. Even if an economy can "afford" a high and growing relative wage level without loosing international market shares, it may be characterized by a persistent high unemployment rate. Where employed persons reap all benefits of increased productivity in the form of real wage growth, the business policy success indicator may thus grow without any decrease in the unemployment rate. This situation presupposes high real wage rigidity where employed persons' real wage development is only to a small extent affected by developments in the unemployment rate. As mentioned in Chapter 2 and Chapter 4, real wage rigidity and an insider-outsider problem has indeed been emphasized as two important causes for the high and persistent Danish unemployment during the 1980s, and the strengthening of structural competitiveness from 1985 onwards has coincided with a growth in Danish unemployment rates from 1987 to 1993.

Nevertheless, the figures of the business policy success indicator suggest that there is scope for employment growth in the Danish economy, even if it is - realistically - assumed that there is a strong preference for high real wage levels among wage earners. The relatively high structural competitiveness of Danish enterprises indicates that higher than expected market shares have been maintained in spite of relative wage costs above the OECD average. In priniciple, it should therefore be possible to trade future real wage increases with employment growth, at the same time upholding a relative high real wage level. In this sense, overall Danish business policy must be assessed positively. Good framework conditions for business have made possible a high level of structural competitiveness.

With the available data it is not possible to assess the employment effects of individual business policy measures.[66] Overall, however, it seems important that the preservation of declining industries has not played a very significant role in the industrial policies of the past decade. The stabilization element in industrial policy has, in other words, played a minor role in Denmark, whereas the allocation element has grown in importance since 1984.

The Domestic Services scheme seems to have contributed to employment for low-education groups, but at a modest scale, and the overall importance of the

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decreases the average wage rate without corresponding increases in international market shares.

[66] There is little precise evidence as to the employment effects of the technological development programmes initiated since 1984. However, only 10 per cent of the enterprises which have taken part in the Material Technological Development Programme (MUP) indicate that their participation has created new employment (PLS Consult 1996b). For the Føtek-programme from 1990-94 18 per cent of the involved enterprises answer that employment has been increased, but it should be considered that Føtek primarily aims to further long-term development through research support.

scheme for employment and unemployment remains limited and dependent on continued public subsidies.[67]

[67] 24 per cent of the owners of Domestic Service enterprises were previously registered as unemployed. Furthermore, the Domestic Service scheme has not just lead to a registration of black employment: less than 1/4th of the consumers of services in the Domestic Services scheme previously purchased black domestic services (PLS Consult, 1995).

9. *The National Debate on Strategies for Limiting Unemployment*

This chapter first summarizes the direction of present Danish policies aimed to lower unemployment. It then focuses attention on the future: Which further measures are currently being debated with a view to a further permanent and sustainable reduction in unemployment? The debate has revolved around two key issues: First, an increase in labour productivity through training and education, which will enable a reduction in unemployment for low skill groups without lowering minimum wages. Second, various measures which would lower labour costs, particularly for unskilled labour.

9.1. The Direction of Present Policies to Lower Unemployment

As has been described in the preceeding chapters, present national policies for lowering unemployment consists of the following elements:

Stability-Oriented Macroeconomic Policy

The government pursues stability-oriented macroeconomic policies, targeted at reducing unemployment and balancing the public budget while at the same time keeping inflation low and the exchange rate stable, cf. Chapter 2. An expansionary fiscal policy in 1993 and 1994 to stimulate economic growth, demand and thereby job-creation has been followed by a gradual tightening of fiscal policies in 1995 and 1996.

Towards Policies which Increase Effective Labour Supply

Increasingly, policies are moving away from the traditional policy of reducing labour supply as a way to reduce unemployment. Rather, policies are to a growing extent directed towards increasing effective labour supply. An increase in the effective labour supply is seen to lower the inflationary pressures of the economy as shortages of skilled labour occur more rarely. In other words, an increase in the effective labour supply lowers structural unemployment: The rate of unemployment which is consistent with unchanged wage and price inflation (NAIRU-definition).

The most prominent examples of the new official emphasis on an increase in the effective labour supply are found in the active labour market policy itself and in tax policy. As it is described in Chapter 3, intensified activation of unemployed, tightened rules for benefit eligibility, the shortening of the total benefit period, and the abolish-

ment of the Transition Benefit Scheme are measures which all serve to increase labour supply. Furthermore, the possibility of individually adapted training programmes, job-rotation projects and targeted training programmes should serve to make supply more effective, i.e. directed towards the demands of the labour market and areas where there are potential risks of labour shortages.

The Tax Reform of 1993 similarly contains a number of elements which aim to increase effective labour supply: A decrease in marginal personal income tax rates coupled with an increased use of resource consumption taxes ("green taxes").

Limiting Labour Supply through the Leave Schemes

A number of policies are increasingly directed towards increasing effective labour supply. At the same time the three comprehensive Leave Schemes launched in 1994 serve to limit labour supply and thereby to reduce registered unemployment in the short term. The leave schemes are, however, gradually being scaled down. The Sabbatical Leave Scheme will be abolished entirely in March 1998 and the Child Care Leave allowance will be reduced to 60 per cent of the maximum unemployment benefit in 1997. The inconsistency in Government labour market policy is thus likely to become less significant during 1997 and 1998, even if it is not dissolved entirely.

Increased Labour Demand through Increased Labour Productivity

A fourth element in recent policies aimed to lower unemployment consists of a growing emphasis on increasing the demand for labour through an increase in labour productivity. Two different paths are followed.

First, a key component in the 1993 Labour Market Reform was early activation of unemployed, an element which was strengthened in the subsequent reforms in late 1994 and late 1995. Early activation shall not only serve to increase effective labour supply, it shall also prevent that deterioration of skills which is associated with long-term unemployment. Labour productivity is, in other words, to be preserved with early activation, in order to improve unemployed persons' employment chances.

Second, in the 1993 Labour Market Reform and to an even higher extent in the actual labour market policies which have been implemented by the Regional Labour Market Councils much emphasis is placed on an upgrade of the skills of the labour force. As it appears in Chapter 3, training and education has been given a significantly higher priority than previously by the Regional Labour Market Councils. The implicit presumption is that this will allow for a growth in labour productivity, entailing a growth in the demand for labour without changes in the agreed level of wages.

Increased Labour Demand through Subsidised Labour

Fifth, wage subsidy schemes have played a prominent role in Danish labour market policy ever since the early 1970s, and they continue to play an important role after the 1993 Labour Market Reform in the Job Training and Individual Job Training Schemes.

However, a recent salient element in Goverment policy has been the Domestic Services Scheme in which a 50% subsidy is provided to private households for the purchase of cleaning services etc. The scheme is presented as a business development initiative, but its most prominent objective is to improve employment prospectives for persons with no or little formal education. The overall importance of the scheme for employment and unemployment does, however, remain limited.

9.2. The Debate on the Future Direction of Policies

The current Danish debate on strategies for limiting unemployment revolves around three themes: the issue of labour productivity, and the issue of labour cost, particularly for low-skill groups.

9.2.1. Increasing Labour Productivity

Increasing labour productivity as a means to reducing unemployment repeatedly appears on the Danish public policy agenda. Increasing productivity in this context means upgrading the skills of the labour force, particularly of the low-skill group who has above average unemployment.

The current government has made education one of its main strategies for reducing unemployment. The Social Democrats and the small social-liberal government partner, supported by the labour movement, have been among the strong proponents of this strategy. Thus two government slogans illustrate the education strategy: "Education for All", signals the intent to increase the number of youth who complete a vocationally qualifying education, "Education for Life" indicates the principles of strong adult and continued education.

The effort to increase education levels so far includes expansion of the number of education places. Two youth educations have been established to provide new entryways to the education system, particularly for those who are vocationally rather than theoretically inclined. Finally, the incentive to enter education inherent in the unemployment benefit system has been sharpened for youth who are unemployed.

Regarding adult and continuing education, one of the main changes is free admission to continuing education. This is accomplished by funding education institutions based on the number of students being admitted, that is demand-based education planning, as opposed to the previous planning . A grant system has been established to encourage companies to do more planning of employee continuing education; each company can receive 50 per cent, up to 50.000 DKK, of the cost of mapping out employees' qualifications and needs for more education. Other reform elements include increased financial support for participants in adult education and an effort to improve local cooperation among suppliers of labour market courses.

One focus of the changes has been to increase participation by people with little or no education. In addition to increased financial support for adult education, this effort involves an exemption for this group from the newly introduced user fees and an effort to plan the course offering so that it better accommodates those with only little education.

The changes that have been implemented in adult and continuing education fall short of the comprehensive reform the government originally announced as its goal. The intention was to improve accessibility of the system by making uniform admission, financing and courses. But a review committee concluded that no single reform could be all encompassing, and that a uniform system would become too inflexible to accommodate the different needs of the many participants (interview, Ministry of Labour). But most of the proposals made by committees have been implemented, although in a piecemeal fashion. Until later evaluations of the system, it appears to be too early to tell whether the changes will be sufficient. The litmus test of the reform will be whether the participation rate of those with little or no education increases, and whether labour market parties feel the system become more responsive to their needs.

The rationale behind the education strategy is that the compressed wage structure that characterizes the Danish economy requires high productivity - that is high skill labour - in order to sustain employment at the relatively high minimum wages (Denmarks Employment Programme, 1995). The government repeatedly has argued that a qualifications upgrade of the Danish labour force will reduce mismatch problems in the labour market and help longterm unemployed gain stable employment. Similarly, the labour movement argues that the education strategy creates an upward spiral as opposed to the low-wage strategy, because investments in new technology also requires highly qualified labour. A large education gap in the

labour force means that parts of the labour force will be stuck in the no-growth outdated technology sectors of the labour market (Information, May 20, 1996.)[68]

The education path also happens to be the least controversial path. There is general consensus in Denmark that the qualifications of the labour force need to be upgraded to increase productivity. The disagreement concerns whether this strategy is enough. Some, including the liberal and conservative opposition, argue that education must be accompanied by other strategies that address incentives to work.

The Economic Council in an analysis of the issue of education concluded that the Danish labour force needs a skills upgrade, but also stressed that an increased effort in adult and continuing education must target youth because the labour market will benefit from the upgrade for more years from a young person's education, and that continuing education should focus on vocationally qualifying educations. Furthermore, the Economic Council argued that despite increased education, structural unemployment must also be addressed through changes in the incentives structures (1995).

Several participants in the debate have argued that education may not be the answer for parts of the labour force. The director of the dominant employer cartel, Danish Industry, argued recently that some members of the labour force are so poorly qualified that continuing education will never suffice to make them competitive in the labour market (Information, January 11, 1996)[69]. These poorly skilled persons will only find work by accepting a wage that matches their productivity. Given the resistance to lowering the income levels of lowwage Danes, the director suggests lower taxes to allow for lower wages. We shall return to this debate later in the chapter.

Even inside the coalition government there are voices who question whether education is the answer for all. The Danish Minister of Business agrees with those who say there will be some labour force participants whose skills cannot be upgraded to high productivity jobs. For these labour, she proposes a greater emphasis on service sector jobs, and she has also supported a low wage tax allowance, cf. below.[70]

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[68] Interview with economist Henrik Hofmann, the Labour Movement's Economic Council (AE). "Rustet til fordelingskampen" (Armed for the distribution struggle).

[69] Interview with Director Hans Skov Christensen of Danish Industry. Information, january 11, 1996. "DI: Lavere skat skal skabe job til restgruppen" (DI: LOwer taxes will create jobs for those left out).

[70] Morgenavisen Jyllands-Posten, 31.5.1995. "Vejen til Fremtidens Velfærdssamfund" (Paths to the welfare society of the future). Mimi Jacobsen.

9.2.2. Reducing Labour Costs

A second issue which also continue to be debated concerns a reduction in labour costs in order to increase labour demand. This line of thinking has been well-represented in the Danish debate on, reflected in the many different proposals which are being considered.

Some of proposals aim to affect employers' demand for labour directly, for instance through lower minimum wages. Other proposals aim to increase labour demand indirectly through the labour supply function, as a reduction in income taxes for low income groups will increase labour supply among these groups, and as lower wage demands are seen to result since disposable income can be maintained at lower nominal wage levels. Thus it becomes economically feasible for employers to demand also low skilled labour, whose productivity does not warrant high wages. Finally, a proposal on an employee tax allowance has aimed at increasing labour supply among low income groups as this allowance would decrease the importance of the unemployment trap. This would also lead to lower wage demands among low income groups.

Lower Minimum Wages

Much debate continues to be centered around a lowering minimum wages. The argument first goes that lower minimum wages will increase wage differentials thereby encouraging employment of labour whose skill and productivity level was too low to make them employable at the previous wage level. Second it is argued that lower wage costs in particular for low skill groups will increase labour demand in labour intensive sectors of the economy. In particular this demand effect is seen as a method to create an entrance for low-skilled youth or to increase employment in the service sector, for instance in various domestic or consumer services where current wage levels have not allowed a high demand. It is also argued that lower minimum wages will serve to transform much black labour to registered employment, as in the black sector the absence of taxes compensate for lower wages.

This proposal is much disputed. The trade union movement strongly opposes a lower minimum wage. Labour movement representatives argue that a lower minimum wage would create a downward pressure on wages resulting in poverty - the phenomenon known as the working poor from the United States. Comparing unemployment statistics, the labour movement argues that despite a low entrance minimum wage, youth unemployment in the United States is twice the average rate of unemployment and higher than the rate of youth unemployment in Denmark. The same trend is true for the United Kingdom (Det Fri Aktuelt, 1 January 1995).

Furthermore, it appears that low minimum wages have not signifiantly reduced structural unemployment. The labour movement's economic analysis institute AER also disputes the assertion that the service sector market will flourish once wages drop, referring to the relatively small employment effect of subsidising Domestic Service, cf. section 8.3.1.

Government economists also generally argue that the employment effect is limited, pointing to an international comparison indicating that a one-per cent drop in structural unemployment requires an 10-to-15 per cent increase in wage differentials. Consequently, a significant drop in structural of unemployment would require quite considerable wage reduction for the low-income groups. Furthermore, economists in the Ministry of Finance find support for their view in American studies, showing that a 10 per cent drop in minimum wages would increase employment among youth under 19-years-old by maximum 3 per cent, while the effect of minimum wages on employment of labour in their 20s or older appears negligible (Ministry of Finance, 1995b).

Standardbearers for a lower minimum or entrance wage are employers and the opposition parties to the right in the Danish political spectrum. They receive some support from the Economic Council. The proponents for a lower entrance wage argue that it will help poorly qualified labour gain access to the labour market. The direct effect on employment of lowering entrance wages is multiplied, the Council argues, because the greater competition for jobs and the greater wage dispersion will rubb off on wages above the entrance level thus leading to overall wage restraint. This, in turn, will lower company costs, improve competitive strength and finally, create even more jobs. According to Council estimates, some 25 per cent of men and 15 per cent of women in the labour force do not have adequate education to qualify for jobs at the typical entrance wage. Based on this, the Council has estimated the effect of reducing entrance wages by 10 per cent relative to average wages (Economic Council, 1994).

Regarding the employment effect of such a wage cut, the Council's calculations show a net improvement in employment of 6,500 persons, concealing an increase among poorly qualified labour of 53,000 persons, but offset by a decrease for the higher educated of 46,500 persons, because the former become more competitive for some jobs that do not require much education. Including the secondary employment effects, the net increase in employment would amount to 23,000 full time employees. This corresponds to an increase in total employment of 0.9 per cent or a 0.8 percentage point decrease in the 1994 registered unemployment rate.

As for social and distributional effects, the Council concludes that a lower entrance wage will have limited adverse effects, possibly even positive ones. This is

because many employees whose relative wages decrease will increase their employment, consequently compensating for the relative fall in the annual income. Furthermore, those who gain employment will increase their annual income.

Finally, the Council takes into account studies that show a rather high wage mobility. This means even if a person starts out at a lower entrance wage, his accumulated lifetime income will not be significantly affected, because studies show that most of those in the lowest 10 per cent of incomes at a given point will move out of this group and into higher income groups rather quickly. On the contrary, a person who gets a job and presumably improves his skills will rise through the wage hierarchy to land at a higher accumulated lifetime income than he would have by staying unemployed because noone would hire him at the current entrance wage. This means that only those who will hold the low entry-wage jobs permanently, will come out worse from lower minimum wages.[71]

A final issue that requires consideration concerning lower minimum wages is the means by which such a minumum wage could be enforced, given the lack of a statutory minimum wage, and further given the fact that entrance wages often exceed the collectively negotiated minimum wage (cf. section 5.3). The debate has centered around how to create incentive for the social partners to negotiate a lower minimum wage, possibly a separate lower entrance wage for youth. One suggestion has been to lower unemployment benefits, which would create incentive for labour to take jobs at lower wages than they would under the current system. The Ministry of Finance estimates that this option would require a lowering of unemployment benefits and other transfer incomes much greater than the positive effect on wage dispersion it might entail.

Another instrument put forward is to set up a mechanism that will force the social partners to take responsibility for unemployment levels. This was one of the formal purposes of the labour market tax, which finances part of the unemployment benefits, cf. section 3.1.2 in Chapter 3. The thinking is that labour market insiders will be directly affected by increasing unemployment through higher taxes, which should encourage them to show wage restraint. Finally, the Economic Council points out that minimum wages in the public sector exceeds the minimum wage in the private labour

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[71] Mobility calculations show that out of the 10 per cent of the population who had the lowest wages in 1981, less than half were in the lowest income decile one year later, and after nine years 20 per cent remained in the lowest income decile (Economic Council, 1994). However, since many of the individuals in the first income deciles are retirees and students, who have a high probability of moving up or simply disappearing frorm the statistic, this may not be the best indicator for mobility. Unfortunately, the Council has not calculated mobility for those in the second and third deciles.

market, implying that a lowering of public sector minimum wages might have a beneficial effect on the entire labour market.

The Government generally cites concerns about increasing social inequities by lower wages or transfer incomes, and has not yet pursued policies in this regard. However, government members have occasionally speculated publicly about the feasibility of a simultaneous drop in low incomes/unemployment benefits and marginal tax rates for low income groups. We shall consider the issue of tax reliefs for low-income groups in the following section.

Tax Reliefs for Low-Income Groups

Opponents of lower entrance or minimum wages are motivated by concerns for growing inequality. In response to this concern, several economists and policymakers have suggested that a lower entrance or minimum wage be accompanied by a low-income tax relief. A low-income tax relief allows low-income labour to accept a relatively lower-paying job without losing real income. Consequently, employers will demand more low-skill labour and the labour market would approach market clearance. Additionally economists expect new job creation in sectors whose earnings could not previously pay the wages, particularly in the service sector.

Proponents argue therefore that such a simultaneous change would lessen structural unemployment problems without resulting in greater income disparities. Although this proposal has circulated widely with much positive response, the Ministry of Finance warn that it may create a poverty trap: as the tax relief is phased out with increasing income, marginal tax rates will take a leap for income in the income range where the tax relief is phased out, thus reducing incentive for those in the lower-income groups to take better paying jobs. Again, this will decrease labour market mobility and possibly increase structural unemployment (Ministry of Finance, 1995b; Welfare Commission, 1995).

Furthermore, Government economists argue that the tax allowance for low-income labour would have to be compensated for through higher marginal tax rates on income levels above that affected by the tax allowance. The level of such an increase would depend on the income level at which the tax relief applies as this determines the volume of lost tax revenue, but it would be considerably smaller than in the case of tax deduction applying to all employees. However, the Minister of Taxation maintains that there is no room for a tax relief for low-income wage earners (Politiken, 4 February 1996).

The Proposal for an Employment Tax Allowance

Finally, a proposal to offer an employment tax deduction has also been on the public agenda. An employment tax allowance would not apply to the unemployed, and it would thus decrease the relative value of unemployment benefits.[72] According to proponents of the proposal this would increase incentive for the unemployed to accept a job even at lower wages than they would have accepted otherwise. Thus, the tax allowance would offset the costs of obtaining employment which create disincentives to work for some low pay groups, such as the possible loss of public subsidies and transport costs or other costs of working. In this way, an employment tax allowance would help overcome the phenomenon of the unemployment trap, cf. Chapter 6.

The line of argument regarding the effects of this on labour supply is the same as that described in connection with lower minimum wages. The employment tax allowance will increase labour supply among low income groups, leading to lower wages or wage increase rates among low income groups. This wage restraint effect will spread to higher income groups leading to overall relative wage restraint. This will in turn strengthen enterprise competitiveness, contributing to job creation.

One specific proposal, being supported by the Minister of Business, would offer a tax deduction equal to 10 per cent of work income up to DKK 130,000 a year (Politiken, 4 February 1996). An employment tax deduction in this form would apply to all employed, regardless of income, thereby decreasing tax revenues considerably. Assuming that an employment tax deduction would have to be revenue neutral, the proposal would most likely result in higher marginal rates on all income above DKK 130,000 (assuming that this is the upper limit for the deduction). Thus, according to one calculation, a 1 per cent tax deduction on incomes up to DKK 130,000 would require a 2 percentage point increase in marginal tax rates (Welfare Commission, 1995).[73]

In this connection, the recent tax reforms in Denmark, which have lowered marginal tax rates by 12-14 per cent, may have created some maneuvering room for a tax deduction as opposed to the tax rates before the tax reforms. At the same time,

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[72] The Employment Tax Allowance may also decrease the absolute value of unemployment benefits if the tax revenue which is lost through the Allowance is compensated for through consumption taxes.

[73] In a different example it was assumed that gross minimum wages were lowered to DKK 100,000 per year. In this instance, the Welfare Commission calculated that tax rates would have to be lowered to 12 per cent on the first DKK 100,000 to fully compensate low-wage labour. As a result marginal tax rates on all income above DKK 130,000 would increase by 27 percentage points on top of the 1998 tax rates. The Commission concludes that an employment tax deduction would intensify the rate of progression in the Danish tax system markedly (Welfare Commission, 1995).

however, it seems likely that reactions to an increase in marginal tax rates will be stronger in an economy like the Danish with high marginal tax rates than in an economy with low marginal taxes (Ministry of Finance,1995; Welfare Commission, 1995).[74]

9.3. Perspectives

This section briefly assesses the likely development in policies directed towards lowering unemployment in the years to come. In this assessment it is important to keep in mind the character of the Danish political system and labour market.

Most importantly, the Danish political system is consensus-oriented. Because Danish governments traditionally are coalitions with a narrow or no majority, most major policy reforms are adopted by broad coalitions that span both sides of the ideological divide. Furthermore, it is most often sought to involve and obtain the consent of the labour market parties as regards major and minor reforms affecting the functioning of the labour market directly.

Secondly, reforms in Denmark is in every pluralist political system generally follow the path of least resistance. This means that reform proposals will be shaped or amended so as to create the least possible controversy. Finally, following from the first two points, any significant reform to deal with structural unemployment in Denmark must gain the support of the Social Democratic Party and the labour movement, because of their size and central position in the labour market. On this basis the following prospects seem likely for future unemployment policies:

- It can be expected that proposals which are perceived as significantly affecting the income distribution will meet significant resistance.
- It appears likely that the education strategy will continue to be given high priority in the attempt to lower structural unemployment. This strategy is the least controversial of the proposals being debated, and it generally resonates with cultural values.
- In the same vein are measures that would increase effective labour supply through earlier activation and more comprehensive activation of unemployed. These are also relatively uncontroversial as long as they are seen as improving the chances of the unemployed for gaining employment. Further tightening of eligbility rules

[74] In Ministry of Business et al. (1996) a thorough analysis of the impacts of an employment tax allowanve is provided.

also appear in the debate from time to time, also among members of Government, and it is possible that such measures could gain sufficient support.

- Finally, it is likely that Danish unemployment policies will continue to include labour subsidy schemes, in the forms of private job offers, the Domestic Services scheme and other service jobs that targets low skill labour, because they create jobs without any obvious costs to any groups.

However, as it appears from the previous sections, the other meaures discussed in the Denmark have poorer prospects of adoption. The resistance in core circles of the Social Democrats as well as the labour movement make it unlikely that these parties will come around on the issue of lower entry wages. And as outlined above, at this point, such crucial labour market legislation will not be passed without the parliamentary approval of the Social Democrats. The same is true of lowering the unemployment benefit.

The debate on lower taxes for low income wages has recently gained momentum again, as the OECD unequivocally supported such a measure. In Denmark, an unusual alliance of the conservative-liberal opposition has tentatively joined forces with the Socialist People's Party, the main opposition party on the left, to push for low-income tax relief. But as outlined above, any low-income tax relief in a tax system like the Danish with relatively high marginal tax rates means that any tax relief on low incomes would probably be fairly small and the unemployment effect therefore rather minor. A sizable low-income tax relief would necessitate relatively high marginal tax increases for higher incomes to compensate for lost revenues on the low incomes, given that there appears to be little support in major public budget cuts. Green taxes, at their current level would hardly bring in enough revenue to make up for a low income tax cut and a significant increase in these is not in the cards. Therefore, it also does not seem likely that the current Danish government will choose this policy.

One other scenario should be considered, though. Recent polls show great strides being made by the liberal-conservative party, Venstre, while the Social Democrats have lost so much electoral suppor that they would no longer be the biggest single party. If such a situation materializes after the next election, it is possible that Denmark could see a right-wing coalition government with the liberal and the conservative party and one of the extreme right-wing parties. Representatives for these parties have been among the standardbearers for some of the more radical proposals in the debate, including lower unemployment benefits and other incentives that would decrease wages.

It is questionnable, however, whether these parties would break away from the consensus tradition and pass important reforms in the labour market without the support of the Social Democrats. It is also important to keep in mind that there is a near-consensus of value across most sectors against allowing a group of working poor to develop. Consequently, it must be expected that even if these parties chose to attempt to act on their political agendas and implement more sweeping reforms these would most likely have to put these reforms together in such a way that low-wage earners' net-income would not decrease significantly. Furthermore, such a government would have to take into account the potential for widespread resistance and disruption in the labour market if it were to pass major reforms without Social Democratic consent.

In sum, only four instruments are likely to be applied to any higher extent in the future than presently in the attempt to lower structural unemployment further:

- The activation of unemployed may become further extended.
- Eligibility rules for unemployment benefits may become tightened.
- Training and education of unemployed and employed persons may be be given yet a higher priority.
- Earlier activation.

The open question is whether these policy instruments are sufficient to solve Denmarks near-permanent problem of high and persistent unemployment.

Appendix A: Population and Labour Force Developments

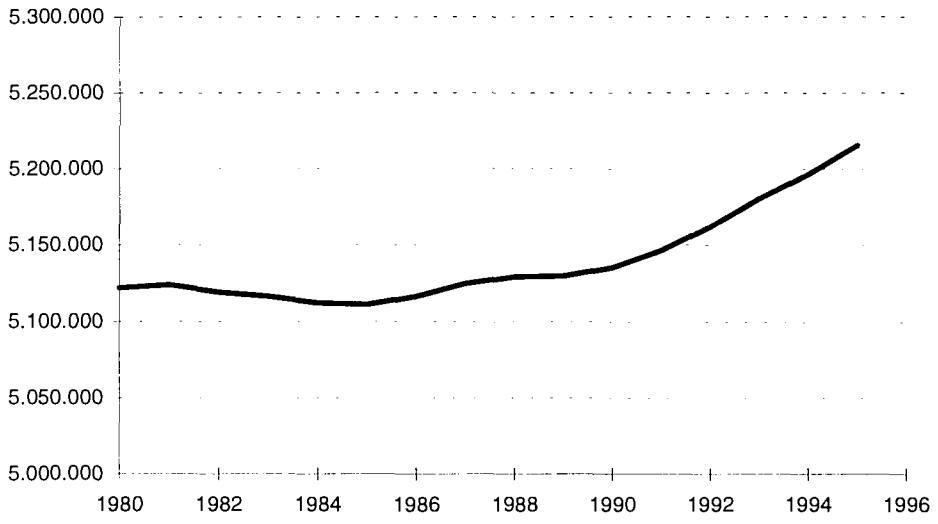
A.1 Demographic Trends: Changes in the Size and Structure of the Population and the Labour Force

This Appendix contains a description of the main demographic trends in Denmark. The description focuses on persons in the labour force active age and on developments in the size of the population in the labour force active age. The first subsection provides a short description of the structure of the population. The second subsection focuses on the development in the labour force from 1980 to 1995. Finally, the third subsection projects the future development in the size of the labour force.

A.1.1 Demographic Trends: The Size and Structure of the Population, 1980-1995

Figure A.1.1 illustrates the development in the size of the Danish population. The population has been fairly stable during the past 15 years. The slight increase in the population is mainly due to immigration.

Figure A.1.1: The Danish Population, 1980-1995.



Source: Statistical Ten-year Review, 1990 & 1995.

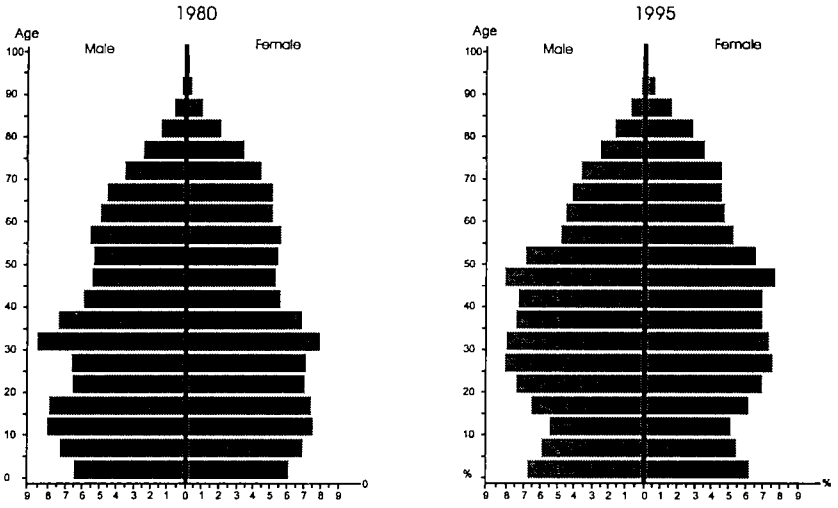
The net fertility rate measures the number of female babies which 1000 women, who are reduced according to mortality, give birth to. Since 1980 this number has been below 1000, which means that the Danish population will not be able to maintain its present size in the long run without immigration. The low net fertility rate also means

that the relative weight of old and young people can be expected to change. In 1994, people above 60 years of age constituted 20 per cent of the whole population. This percentage is expected to increase to 25 per cent in year 2030.

A.1.2 Age and Gender Distribution of the Population

In Figure A.1.2 the age distribution of the population in 1980 and 1995 is displayed. No significant shifts between the different age groups have occurred in this period. This can be explained partly by the relatively brief observation period.[1]

Figure A.1.2: The Age Pyramid for the Danish Population in 1980 and 1995.



However, the figure reveals a low birth rate in the early and mid-1980s. The figure also indicates the growing weight of elderly people relative to young people, just as it is noticeable that females live longer than males.

A.1.3 Regional Variations in the Development of the Population

In table A.1.3 the Danish population has been divided according to counties. The number of citizens within the capital area has decreased during the past 15 years whereas the number of citizens in all of the counties of Jutland has increased.

The increase in the population during the last 15 years has taken place in Jutland and in Funen only. This picture does not change if distinction between gender is introduced.

[1] The expected lifetime of males is 72.5 years and of females 77.8 years.

Table A.1.3: The Development in Danish Population by Region - January 1st 1980 and 1995

	1980 thousands	1995 thousands	Percentage change
Copenhagen Municipality	499	471	-5,61
Frederiksberg Municipality	88	88	0,00
Copenhagen County[1]	627	606	-3,35
Frederiksborg County	329	350	6,38
Roskilde County	202	224	10,89
Vestsjællands County	278	288	3,60
Storstrøms County	260	257	-1,15
Bornholms County	48	45	-6,25
Fyns County	453	468	3,31
Sønderjyllands County	250	252	0,80
Ribe County	213	222	4,23
Vejle County	326	337	3,37
Ringkøbing County	263	270	2,66
Århus County	574	619	7,84
Viborg County	231	231	0,00
Nordjyllands County	481	488	1,46
Capital Area[2]	1745	1739	-0,34
Total	5122	5216	1,84

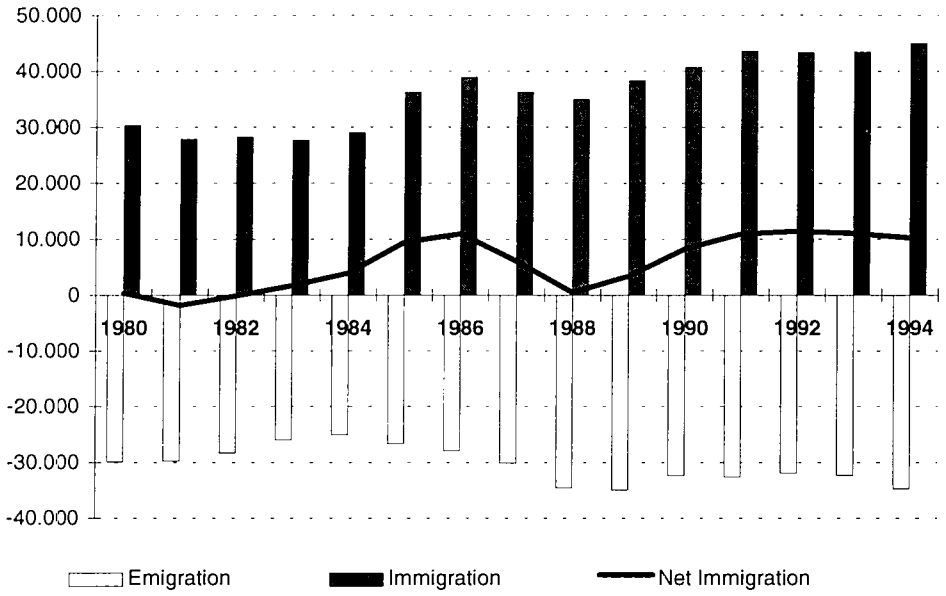
[1] Copenhagen County does not include Copenhagen municipality.
[2] Capital Area includes Copenhagen Municipality, Frederiksberg Municipality, Frederiksberg Municipality, Copenhagen County and Roskilde County.

Source: Statistical Ten-year Review 1991 & 1995.

A.1.4 The Impact of Migration

The development of migration is shown in Figure A.1.4. Immigration has been larger than emigration, and net migration has been postive during the last 15 years. However, net migration has not exceeded 11,000 persons per year during the last 15 years, and compared to the total Danish population net migration has been small.

Figure A.1.4: Emigration, Immigration and Net Immigration in Denmark, 1980 - 1995.



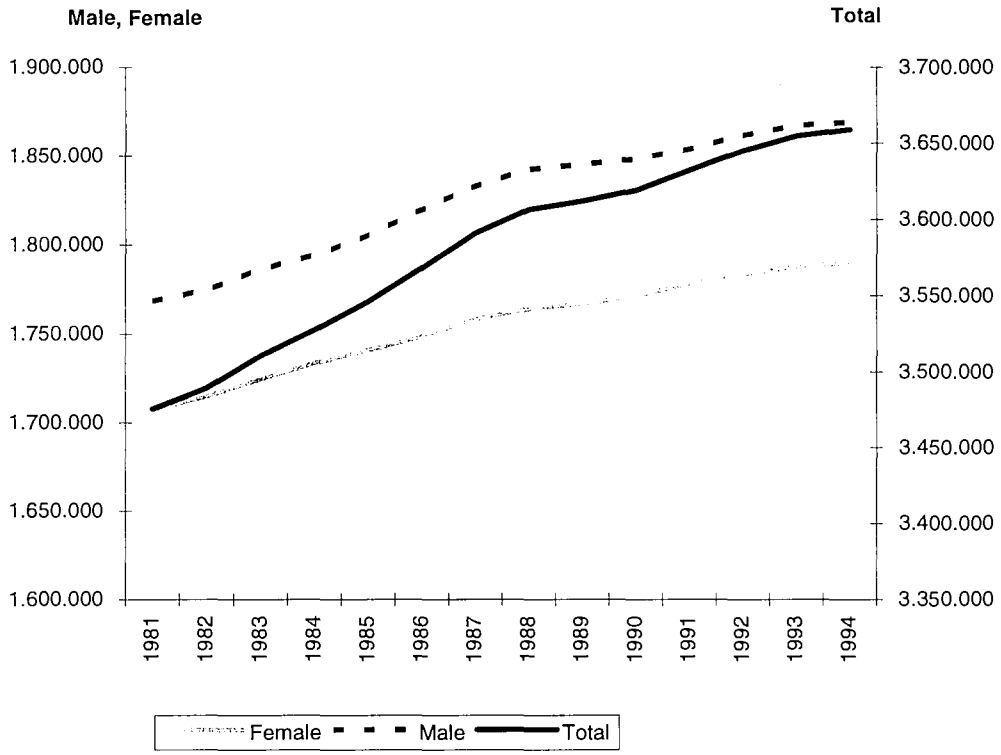
Source: Statistical Ten-year Review, 1980 & 1995.

The number of foreigners who have immigrated into Denmark has also been moderate. During the last ten years net migration of foreigners has not been more than 13,000 persons per year.

A.1.5 The Size of the Population of Active Age in the Labour Force

In Denmark, the labour force active age is the age between 16 and 66 years. As shown in figure A.1.5 the population in the labour force active age has increased over the last 15 years. The total increase in the size of the population in the labour force active age has been about 180,000 persons corresponding to a 5.3 per cent increase from 1981 to 1994. The increase is mainly due to a natural increase in the population but can also to a certain extent be explained by immigration.

Figure A.1.5: The Size of the Population in the Labour Force Active Age by Gender, 1981-1994.



Source: Statistical Ten-year Review 1991 & 1995.

A.2 The Development of the Labour Force 1980 - 1995

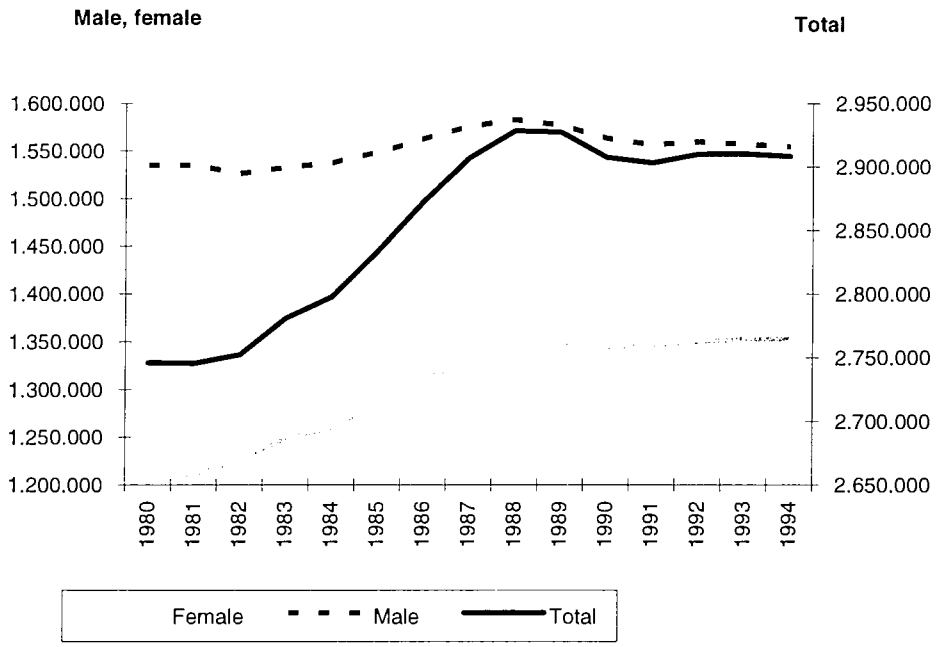
The labour force is defined as the number of employed persons plus the number of registered unemployed persons. The labour force is highly affected by the size of the population in the labour force active age, by labour force participation rates and by the number of working hours agreed upon in collective agreements.

A.2.1 The Size of the Labour Force

Figure A.2.1 displays the development in the size of the labour force, in total and by gender during the last 15 years. The size of the labour force increased rather steadily during most of the 1980s, decreased slightly around 1990, and has stayed at a fairly constant level since then. The increase has mainly been due to an increase in the female labour force. The male labour force has been stagnating as a result of a slight decline in male participation rates, especially for men over 60 due to the Post Employment Wage scheme, cf. section A.2.2 below.

The ratio between the population and the labour force population is an indication of the number of people one person in the labour force has to support. This ratio has been fairly stable over time, although the Danish population has grown, cf. figure A.1. In 1980 the ratio was 1.9 which had fallen to 1.8 in 1994. The constancy of the ratio between the population and the labour force is mainly due to an increase in female labour force participation, cf. below.

Figure A.2.1: The Labour Force in Total and by Gender 1980-1994, Number of Persons.



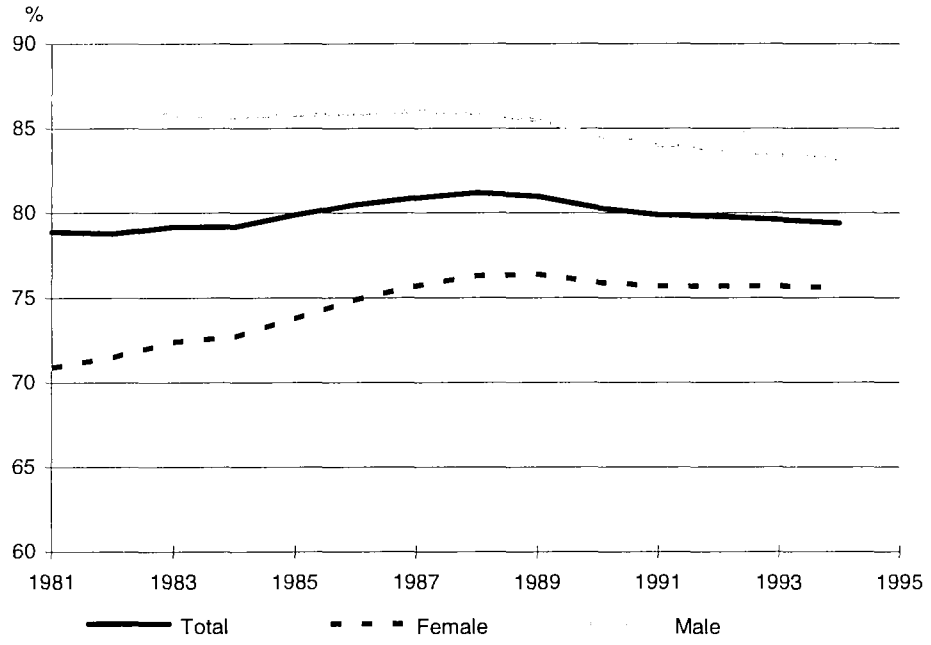
Source: Statistical Ten-year Review, 1991& 1995.

A.2.2 Labour Force Participation Rates

The labour force participation rate measures the ratio between the size of the labour force and the size of the population in the labour force active age. The larger the participation rate the higher the percentage of persons in the labour force active age are willing to hold a job.

The increase in the labour force since 1980 has mainly been due to an increase in the female labour force with the female participation rate rising from 71 per cent in 1980 to a constant level around 76 per cent since 1987. Male labour force participation rates were higher than those of women througout the period from 1980, but the male labour force participation rate has decreased during the last 15 years. As mentioned, the main reason for this decrease is a large increase in the number of persons receiving early retirement benefits.

Figure A.2.2: Labour Force Participation from 16 to 66 Years, 1981-1994



Source: Statistical Ten-year Review, 1991 & 1995

It is noticeable that the relationship between gender and labour market participation rates in Denmark virtually disappears when controlling for educational background. Thus, Bonke (1995) has identified a clear connection between educational background and labour force participation rate: The higher the educational level, the higher the labour market participation rate. At the same time, the differences between male and female labour market participation rates narrow considerably as the educational level increases.

Table A.2.2.1: Labour Force Participation by Educational Background and Gender, 1994.

	Male	Female
Basic education	87,7	77,1
Upper secondary school education	91,7	86,6
Higher education	96,7	94,5

Source: Bonke (1995).

When dividing the labour force by age Table A.2.2.2 shows that the labour force participation rate is relatively high for people between 25-54 years of age. For older and younger people labour force participation is lower.

There are different reasons for the low labour force participation of the two age groups. For young people the low labour force participation is due to the fact that an increasing proportion of this group attends further education. For older people the main explanation for the low labour force participation rate is the fact that a large proportion of this group receives early retirements benefits.

Table A.2.2.2: Labour Force Participation by Age, 1994.

	16-19	20-24	25-34	35-44	45-54	55-59	60-66
Male	64,7	82,4	90,8	92	91	85,3	39,5
Female	58,0	77,2	86,6	89	84,5	68,3	21,4

Source: Statistical Yearbook 1995

A.2.3 Changes in the Labour Force by Age and Gender

From Table A.2.3 it appears that there has been a large decrease in the number of young and old people in the labour force from 1980 to 1994, whereas the middle aged group of the labour force has increased significantly.

Table A.2.3: Changes in the Labour Force by Age and Gender, 1980 - 1994.

Age	%-change, males	%-change, females	%-change, total	Total (1000s)
16-24	-14	-11	-12	531
25-34	1	6	3	694
35-54	20	33	26	1053
55-59	-1	16	6	194
60-66	-31	-38	-34	152
Total labour force by gender	1437	1187		2624

Source: Statistical Ten-year Review 1991 and 1995. Available data is not completely precise.

The increase in the number of middle aged persons in the labour force is partly explained by growing female labour participation. The decreasing number of older persons in the labour force is to a high extent explained by an increase in the number of people receiving early retirement benefits. As mentioned, the decreasing number of young persons in the labour force is partly a result of a longer education period for this age group compared to earlier.

A.2.4 Regional Variations in the Development of the Labour Force

In table A.2.4 below the labour force has been divided by counties. The largest increase in the labour force has taken place in the eastern part of Jutland (Århus and Vejle county).

Table A.2.4: The Labour Force by Counties in 1980, 1988 and 1994 (thousands)

	1980	1988	1994	1980-1994
			%-change	
Copenhagen Municipality	244	248	247	1
Frederiksberg Municipality	38	45	45	16
Copenhagen County	366	351	333	-9
Frederiksborg County	190	200	196	3
Roskilde County	119	125	134	13
Vestsjællands County	135	150	154	14
Storstrøms County	137	139	135	-2
Bornholms County	29	22	23	-20
Fyns County	230	243	243	6
Sønderjyllands County	131	136	131	0
Ribe County	115	125	122	6
Vejle County	160	175	188	17
Ringkøbing County	141	149	149	6
Århus County	288	326	336	17
Viborg County	117	117	126	8
Nordjyllands County	240	261	260	8
Capital Area	923	972	958	4
Total	2.629	2.805	2.811	7

Source: Statistical Ten-year Review 1991 and 1995.

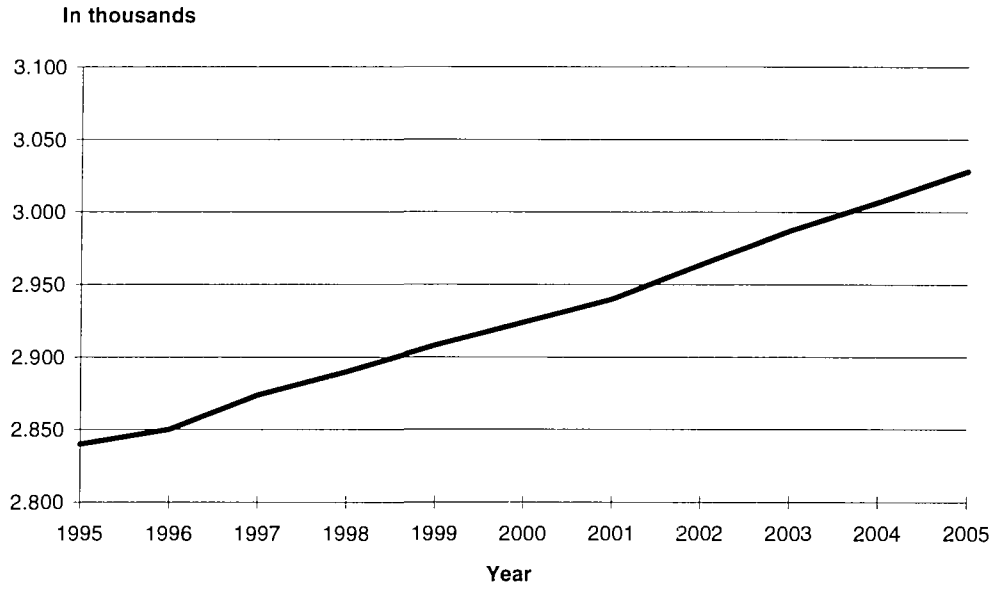
On the contrary, the labour force has decreased in some of the peripheral regions in Denmark: Bornholms county and Storstrøms county. In the capital area as a whole, the labour force has only increased slightly since 1980.

A.3 Labour Force Projections 1995 to 2005

The Ministry of Finance has projected the future development of the labour force. This projection is shown in Figure A.3 below. It is expected that the labour force will grow from less than 2.85 million persons in 1995 to more than 3 milllion persons in 1995,

an increase of 188,000 persons during the next 10 years. The expected increase in the size of the labour force can be explained by two factors:

Figure A.3: Forecast Future Development in the Labour Force, 1995-2005.



Source: Ministry of Finance, 1995b.

The first and most important is an increase in labour force participation. The Ministry of Finance expects a total increase of 4.3 per cent, from a level of 78.7 per cent in 1995 to a level of 83 per cent in 2005. This is due to improved employment prospects in the period towards 2005, which will reduce the number of persons receiving early retirement benefit as well as the number of persons receiving temporary leave allowances.

The second factor is an expected increase in the size of the population in the labour force active age. Thus, the population in the labour force active age will increase by 50,000 persons during the period from 1994 to 2005.

Looking even further ahead, the Central Statistical Office has projected the size of the population in the labour force active age until 2040. This projection shows that the size of the population in the labour force active age will decline in the long run. A decrease of 3.4 per cent (118,277 persons) is expected until year 2040. Correspondingly, a decrease in the size of the Danish labour force is expected as well.

A.4 Conclusions

The descriptive analysis of the Danish population and labour force can be summarised in the following points:

Population

- The population has been fairly stable from 1980 to 1995. The impact of immigration and emigration has been very low.
- The proportion of old people is expected to rise by 5 per cent during the next 40 years.
- Due to a low net fertility rate the Danish population will not be able to maintain its present size in the long run without immigration.
- The size of the population in the labour force active age has increased slightly with about 180,000 persons corresponding to 5.4 per cent from 1981 to 1994.

Labour force

- The labour force has grown in the period from 1980 to 1994. This can to a very large extent be explained by an increase in female labour force participation, whereas male participation rates have decreased.
- Throughout the period from 1980 to 1994 male labour market participation rates have been higher than female participation rates. However, the gap has narrowed, in particular in the period until 1989. Among persons with a high education there are virtually no gender differences in labour market participation rates.
- There has been a decrease in the number of old and young people in the labour force. There are different reasons for the lower labour force participation rate for these two age groups. For young people lower labour force participation can be ascribed to the fact that a growing proportion of this group is currently receiving education. For old people the main explanation for the lower labour force participation is the fact that a large proportion of this group is currently receiving early retirement benefits.
- The labour force is expected to increase in the short and medium term. This can be explained by an increase in the size of the population in the labour force active age and by an increase in labour force participation.
- There have been few major changes in the relative size of the labour force in the Danish regions. Some counties in Jutland have experienced a strong growth in the

size of the labour force, whereas the size of the labour force in some capital regions and in areas affected by economic decline has decreased.

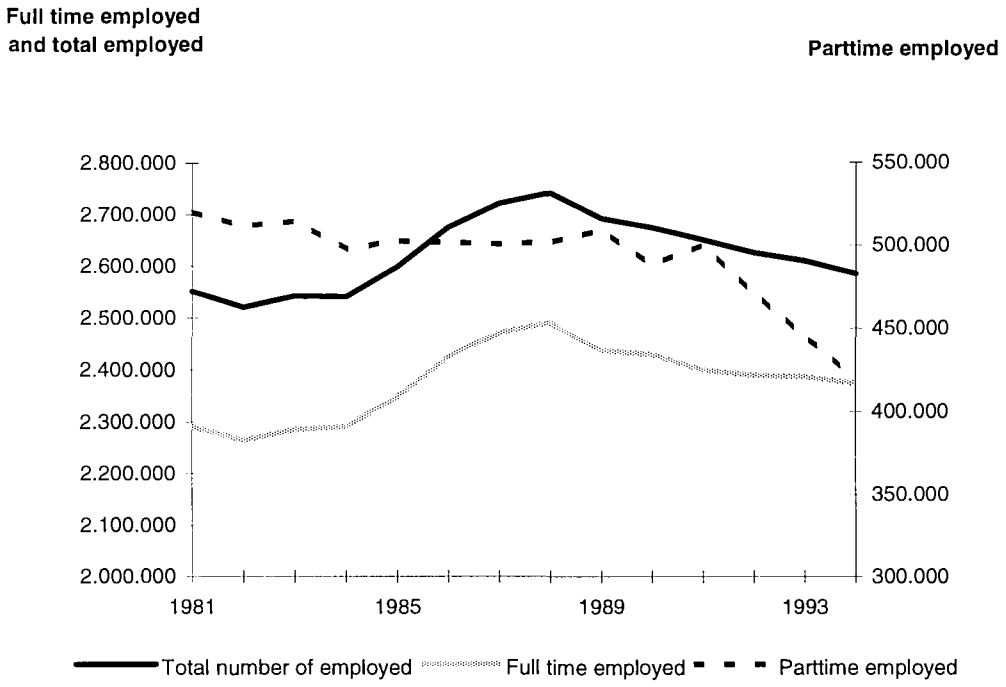
Appendix B: The Structure of the Work Force

This Appendix is divided into two main sections. The first section describes the development in the structure of employment in Denmark from 1980 to 1994. The second section describes the structure of unemployment and its development from 1980 to 1994.

B.1 Employment in Denmark

Figure B.1 illustrates the development in total as well as full-time and part-time employment during the last 15 years.[2] Full-time employment peaked in 1987, but has since then been decreasing. From 1981 to 1991 part-time employment was fairly stable, but since 1991 it has been decreasing.

Figure B.1: The Development in Full-Time, Part-Time and Total Employment, 1981-1994



Source: Statistical Ten-year Review 1991 and 1995

[2] The total number of employed is calculated as the number of full-time employed persons+ ½*(the number of part time employed persons).

To some extent this decrease can be explained by the fact that some of the part-time employed have obtained full-time employment. Another explanation may be found in the fact that a part-time person's possibilities of obtaining supplementary unemployment insurance have been gradually limited during the 1990s. Most part-time employed persons are women employed in the public sector. Women constitute more than 65 per cent of all part-time employed.

The decrease in employment since 1987 correlates to an increase in unemployment, as will be described in more detail in section B.2 below.

B.1.1 Employment by Primary, Secondary and Tertiary Sector

Table B.1.1 displays the development in the distribution of employment by sectors. The importance of employment in the primary and secondary sectors has decreased compared to the tertiary sector, i.e. the private and public service sectors. Today less than one third of all employment is located within the primary and secondary sectors.

Table B.1.1: The Development in Employment in the Primary, Secondary, Private Service and Public Service Sector, 1980-1994.

	1980	1988	1994
Primary sector	7,7	5,8	5,0
Secondary sector	29,1	28,5	27,5
Private service sector	34,9	36,3	36,1
Public service sector	28,3	29,4	31,4

Source: Statistical 50-year Review, 1995

The decrease in relative employment in the secondary sector can to a certain extent be explained by a change in the demand for labour. Thus, increased import of goods from low wage countries has affected the industrial structure in Denmark. Enterprises competing with companies from low wage countries have two options: Substituting relatively expensive labour with new technology or moving production to lower wage countries. The development within the manufacturing of textiles, clothing apparel and leather products and footwear illustrates this dynamic as employment in these areas has decreased from 29,921 persons in 1984 to 21,198 in 1992 a decrease of 29 per cent.

B.1.2 Employment by Occupational Structure

Table B.1.2 illustrates that a significant change has occurred in the Danish occupational structure during the last 15 years. The number of self-employed people has decreased by 17 per cent. The number of persons employed in unskilled labour has also decreased significantly, and the number of assisting spouses has dropped dramatically. On the other side, the number of white collar employees has increased significantly.

To a certain extent the decrease in the number of self-employed people can be explained by the decrease in the number of people working in the agricultural sector, but there has been a decrease in the self-employment in all sectors.

Table B.1.2: The Population by Occupational Structure, 1981 and 1994, Thousand Persons and Per Cent.

	1981		1994		1981-94
		%		%	%
Self employed	282	6	234	5	-17
Assisting spouses	69	1	27	1	-61
White collar employees	1081	21	1231	24	14
Skilled blue collar workers	288	6	288	6	0
Unskilled blue collar workers	584	11	509	10	-13
Employees in employment, not further specified	249	5	296	6	19
Unemployed	194	4	323	6	66
Persons outside the labour force	2378	46	2288	44	-4
I alt	5124	100	5197	100	1

Source: Statistical Ten-year Review 1991 and 1995

The decrease in the number of unskilled blue collar workers and the increase in the number of white collar employees must to a high extent be ascribed to a shift in the demand for labour, cf. section B.1.4 below. The decrease in the number of unskilled blue collar workers has taken place in the manufacturing and the construction sectors mainly.

B.1.3 Employment by Qualification Levels

Available data makes it possible to describe current employment by industry and qualification level. From Table B.1.3 it appears that the service sectors demand labour with a higher educational level than the manufacturing industry. In the industries of financial and business services, public services and other services

persons with a high or medium length education make up between 10 and 27 per cent of the total number of employed, which is significantly higher than for other industries.

Table B.1.3: Employed Population by Highest Level of Education, 1992.

Industry (november 1992)	No training/ education	Vocational training	Short education	Medium length education	High education	Total
Agric., fishery etc.	72%	24%	2%	2%	1%	147,965
Manufacturing	48%	41%	4%	5%	2%	523,125
Construction	38%	53%	4%	3%	1%	159,005
Wholesale trade	38%	49%	4%	5%	2%	176,205
Retail trade	52%	44%	2%	1%	1%	210,015
Restaurants/ hotels	68%	28%	2%	2%	1%	78,729
Transport	55%	37%	3%	3%	2%	201,154
Finan./bus. service	34%	42%	4%	11%	10%	253,825
Public service	36%	26%	10%	18%	9%	880,880
Other services	51%	36%	3%	5%	5%	170,324
Industry not stated	52%	28%	4%	9%	7%	2,438
Total (%)	**45%**	**36%**	**6%**	**9%**	**5%**	**2,803,665**
Total	1,251,350	1,008,329	159,419	245,313	139,254	2,803,665

Source: Statistical Yearbook 1995

Furthermore, in section B.1.1 it was concluded that employment in the public and private service sectors has expanded since 1980 compared to the primary and secondary sectors. Together these data suggest that a shift is taking place in the demand for labour in the Danish labour market towards labour with a higher educational level. It appears that today new jobs created are more knowledge intensive than previously.

B.1.4 Employment by Age and Gender

The development in employment by age and gender is shown in Table B1.4. The employment rate for men has decreased. However, this decrease is offset by an increase in women's employment. Total employment has increased by 0.4 per cent from November 1980 to January 1994.

The table also shows that there has been a decrease in the employment level of young and old people. However, this is offset by a large increase in employment in the age group 35-54.

Table B.1.4: The Percentage Change in Employment by Age and Gender, 1980-1994.

Age	Male %-change	Female %-change	Total %-change
under 20	-10,0	-0,7	-6,1
20-24	-11,4	-12,9	-12,1
25-34	-5,5	-4,7	-5,2
35-54	10,9	25,5	17,4
55-59	-12,2	1,9	-6,5
0ver 60	-23,1	-20,7	-22,3
Total	**-3,6**	**5,5**	**0,4**

Note: Calculations are based on employment figures from November 1980 and January 1994.
Source: Statistical Yearbook 1982 and 1995.

B.1.5 Job Creation by Firm Size

Table B.1.5 shows the creation of new jobs by firm size. Job creation in Denmark has mainly taken place in small firms. Thus, small firms with less than 10 employees represent a net job creation corresponding to 194,000 employees. Firms with less than 100 employees represent about 82 per cent of total job creation.

Table B.1.5. Firm Size and Job Creation in Denmark, 1981-1989.

Firm size	1-9	10-99	100-499	+500	Total
	1000 employees				
New established	288	249	89	40	666
Firm's expansion	446	471	142	51	1110
Gross job creation	**734**	**720**	**231**	**91**	**1776**
Closures	276	213	70	26	585
Firm's reductions	264	492	194	115	1065
Gross job loss	**540**	**705**	**264**	**141**	**1650**
Net job creation	**194**	**15**	**--33**	**-50**	**126**

Source: Ministry of Business Development 1995b.

B.1.6 Employment by Regions

Table B.1.6 displays the development in the number of employed persons broken down by region over a 15 year period.

Table B.1.6: Change in the Employment by Regions 1980-1994.

Region	Employment Change (%)	Absolute Number of Employed 1994
Copenhagen Municipality	-9,1%	213,312
Frederiksberg Municipality	-3,3%	43,792
Copenhagen County	-11,8%	308,259
Frederiksborg County	4,3%	186,983
Roskilde County	13,9%	124,281
Vestsjællands County	2,1%	140,038
Storstrøms County	-6,9%	120,055
Bornholms County	-7,7%	21,019
Fyns County	3,3%	223,063
Sønderjyllands County	0,4%	123,738
Ribe County	7,5%	112,584
Vejle County	6,5%	169,883
Ringkøbing County	6,1%	142,756
Århus County	6,7%	306,429
Viborg County	1,3%	116,471
Nordjyllands County	1,7%	232,203
Capital Area	-4,5%	876,627
Jutland	4,5%	1,204,064
Total	0,4%	2,584,866

Note: Calculations are based on employment figures from November 1980 and January 1994.
Source: Statistical Yearbook 1982 and 1995.

The increase in the total number of employed persons has taken place in Jutland, more specifically in both the eastern part of Jutland (Århus and Vejle counties) and in the western part of Jutland (Ribe and Ringkøbing counties). Employment has also grown in Roskilde county west of the capital area.

In general, there has been a change in the regional industrial structure in Denmark, as more and more manufacturing enterprises are located in the western part of the country. To a high extent this explains the growth of employment in the western parts of Denmark and the decreasing employment in the capital area.

B.1.7 Conclusions

This descriptive analysis of employment in Denmark can be summarized in the following points:

- Total employment in Denmark has increased slightly from 1980 to 1994, with a peak in 1987. Since 1987 a small decrease in employment has occurred.
- Employment in the private and public service sectors makes up a growing share of total employment. Similarly, the relative importance of employment in the primary and secondary sectors is decreasing.
- At the same time, a higher share of persons employed in the service sector has a medium length or a high education.
- Together, these last two points suggest that on average newly created jobs today are more knowledge intensive than previously and that the demand for labour is shifting towards a more highly educated labour.
- There is a clear trend that new jobs in Denmark are created by small firms with less than 100 employees. These firms account for 82 per cent of all new jobs created in the period from 1981 to 1989.
- Employment has grown in the western part of the country whereas it has decreased in parts of greater Copenhagen area in the period from 1980 to 1994.

B.2 Unemployment in Denmark

This section gives a description of the structure and distribution of unemployment in Denmark. To provide information on patterns of the development of unemployment, the period from 1980 to 1995 is considered as far as is possible, due to availability of statistics. Considerable differences exist in unemployment according to age, gender and education, and between different industries, occupations and regions. These differences are examined in separate subsections.

B.2.1 The Unemployment Rate 1980-1995

In this section the development of unemployment since 1980 is described. The main emphasis is on figures from the national statistics.

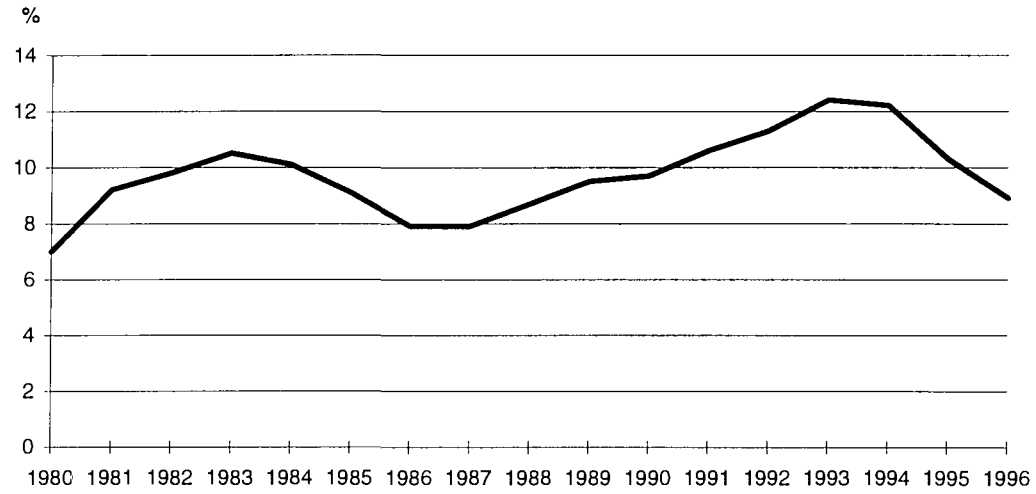
From Figure B.2.1 it can be seen that there has been considerable variation in the aggregate level of unemployment during the period 1980-1995, although the unemployment rate exceeded 7 per cent the whole time.[3] The unemployment rate increased between 1980 and 1983, when it reached a level of 10.5 per cent. A rather sharp decline occurred between 1984 and 1986, but from 1987 the unemployment

[3] Since 1980 the labour force in the 16-66 age group has been taken as the denomin The participation rates are for the 16-66 age group. See Pedersen and Smith (1991).

rate started to climb again and in 1993 it reached a record-high level of 12.4 per cent. In most recent years there has been a rather sharp decline down to an unemployment rate in August 1996 of 8.9 per cent. This development is the result of changes in both the supply and the demand for labour, as described in Chapter 2.2, Section A.2 and Section B.1.

The unemployment rate discussed in this section is based on registered unemployment, and it thus measures what is known as open unemployment. In addition to open unemployment, there may also be some un-registered unemployment, i.e. actively job-seeking persons who are involuntarily not registered as unemployed.

Figure B.2.1: The Unemployment Rate in Denmark, 1980-1995.



Source: Statistical Ten-year Review 1991 and 1995, Monthly Review of Statistics 1996:3.

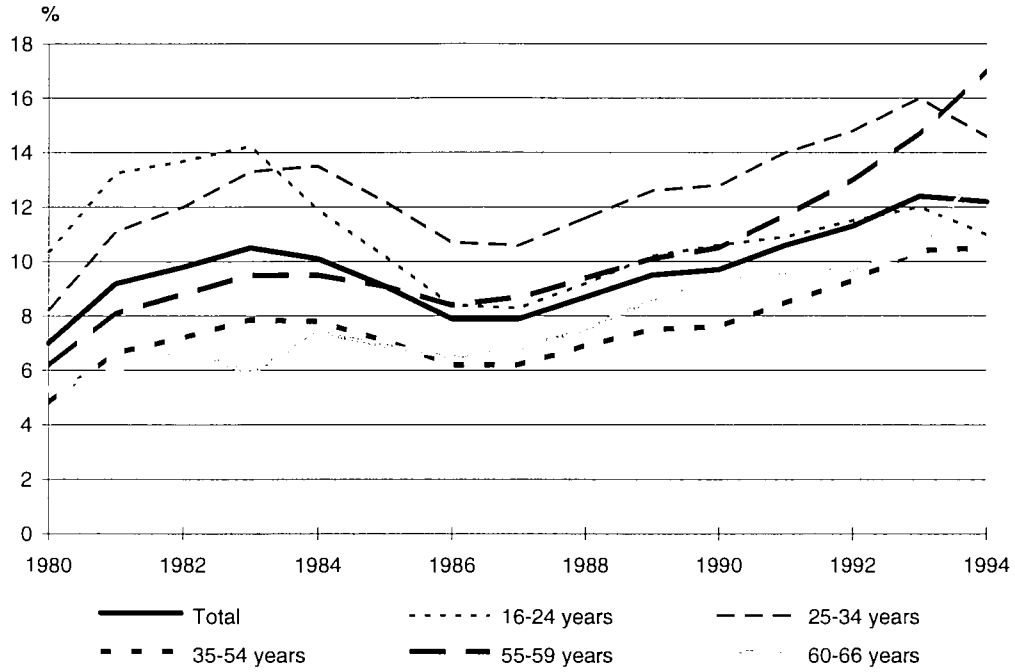
All the available evidence suggests that unregistered unemployment is low in Denmark and can be disregarded without inducing any significant error. The only significant group of unregistered unemployed is comprised of young jobseekers who still live with their parents but do not register as unemployed because they are not entitled to unemployment benefits or social welfare. On the other hand, registered unemployment includes some people who are registered as unemployed although they are not willing to accept a job or are in fact working already. Comparisons with Eurostat statistics on unemployment indicate that this is not negligible.

B.2.2 Unemployment by Age 1980-1994

Unemployment is unevenly distributed among age groups. The young groups, 16-24 years and 25-34 years, had the highest incidence of unemployment during the first

half of the 1980s, as can be seen in Figure B.2.2. The fall in the unemployment rate for the youngest group in the mid-1980s is primarily a consequence of improvements in labour market policy which provided public employment programmes and education for the young. It does not thus indicate an improvement in the market employment situation of this age group. Furthermore, the statistics for the age group 16-24 years are hiding the full picture of youth unemployment. If the age group is split into 'under 20 years' and '20-24 years' a quite different picture emerges.

Figure B.2.2: Unemployment Rates by Age Groups in Denmark, 1980-1994



Note: From 1984 the age grouping of unemployed is based on the age at the end of the year as opposed to previously the middle of the year. Source: Statistical Ten-year Review 1991 and 1995.

The 20-24 age group had the highest unemployment of all groups during the period 1980-1993, but its leading position was almost taken over by the 25-34 age group during the period. This is of course a clear cohort effect, since to a large degree it is the same people who have now become older and entered another age group.

This pattern indicates that the unemployment risk attaches to persons rather than age groups. Those entering the labour market during a recession have a higher risk of starting their labour market career as unemployed, and these initial conditions seem to determine their future employment possibilities. These aspects of labour market entry have been investigated for the Danish labour market by Jensen et al. (1992) and Ploug (1990), and both studies confirm the above hypothesis.

Table B.2.2: Unemployment Rates by Age Groups in Denmark.

Age	1980	1988	1993	1994
16-17 years	5.2	0.2	0.1	0.1
18-19 years	14.9	5.6	6.0	5.9
20-24 years	15.3	12.2	16.5	15.3
25-29 years	11.9	13.0	17.3	15.5
30-34 years	9.1	10.3	14.8	13.6
35-39 years	7.7	7.5	11.6	11.0
40-44 years	7.3	6.7	9.6	9.5
45-49 years	7.4	6.8	9.4	9.4
50-54 years	7.8	7.3	11.8	12.8
55-59 years	9.2	9.3	15.1	17.0
60-64 years	8.9	7.8	10.6	15.1
65-66 years	12.8	5.1	6.3	7.6

Source: Statistical Yearbook 1981, 1989, 1994, 1995.

The oldest age group (60-66 years) had the overall lowest unemployment rate during the first half of the 1980s, but this was because several labour market policies were targeted at this group, especially as regards labour supply. The main explanation of the low unemployment rate for this group is thus that the labour supply (the labour force participation rate) is heavily influenced by the Post Employment Wage scheme which came into operation in 1979.[4]

The unemployment rate for the two youngest age groups, the 16-24 year olds and the 24-34 year olds has decreased from 1993 to 1994, and unemployment for the very young is low. This development is explained by demographic developments, as the small generations born in the early 1980s are now entering the labour market.

It can be seen that the difference in unemployment rates between various age groups has diminished over the period 1980-1993. There also seems to be some evidence that the difference is least in periods of low unemployment such as the mid-1980s, primarily because the unemployment rates of the young groups are more sensitive to cyclical movements. However, the development in most recent years is markedly different. The upswing from 1994 causes the unemployment rates of the young and middle-aged groups to fall, whereas the 55-59 and the 60-66 age groups continue to have an increasing unemployment rate. This puzzling development does

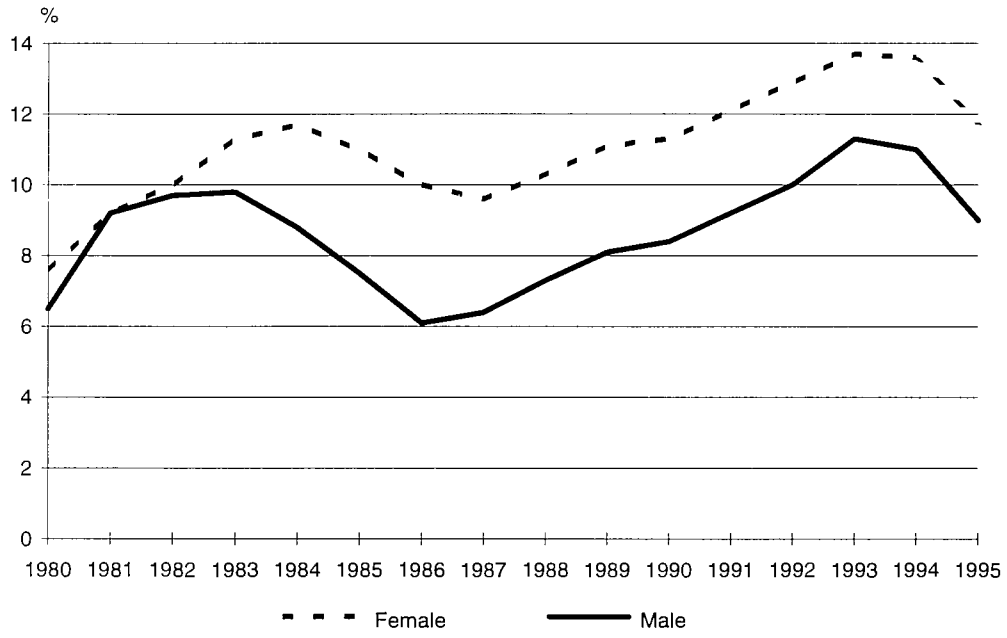
[4] This may also explain the apparent lack of cyclical movements in the unemployment rate of this group.

not appear to be a consequence of any special labour market measures targeted at these groups.

B.2.3 Unemployment by Gender 1980-1994

The female unemployment rate has been higher than the unemployment rate for males ever since 1982, whereas for the first three years of the 1980s the two rates were roughly similar. This is reflected in Figure B.2.3, which shows the unemployment rates for males and females. It can also be seen that the male-female unemployment differential increased in the mid-1980s but has been almost constant since 1987.

Figure B.2.3: Male and Female Unemployment Rates in Denmark, 1980-1995.



Source: Statistical Ten-year Review, 1991 and 1995.

The increasing difference between male and female unemployment should be considered in light of a rising female labour force participation rate and the weak growth in public sector employment since 1982. Since the public sector is the main sector for female employment, this combination of rising participation and weak growth in public sector employment has contributed to the increasing male-female differential.

The development over the period has also been different for males and females. Male unemployment rate started to decline in 1983 and reached its lowest level in 1986 before it started climbing again. In contrast, female unemployment started to decrease a year later and did not reach its lowest level until mid-1987

before it started to increase again. This different development is explained by the fact that the main employment sectors for males are manufacturing and construction, i.e. sectors which are more sensitive to cyclical movements than the major female employment sectors: private and in particular public services.

B.2.4 Unemployment by Skill Levels and Education

Unemployment also differs substantially across different categories of skills and educational qualifications. In general, unemployment rates are negatively correlated with skill and qualification levels.

Table B.2.4.1 shows how groups with different levels of education experience different unemployment rates. People with basic schooling have at least twice the unemployment rate as those with a higher education. Certain small groups with a higher education experience, (mainly in the humanities), some unemployment, but in general people with a higher education are in a situation close to full employment. The main component of unemployment in these groups is search unemployment, in connection with the transition from education to work. Those with a higher education, especially those with a medium higher education have a very low unemployment rate. People with a vocational education have an unemployment rate that is above that of people with a higher education but it is still below the average unemployment rate. This picture has been the same for the period 1984-1994.

Table B.2.4.1: Unemployment Rates Distributed According to Education.

Education	1984	1990	1993
Basic schooling only	10.9	11.3	14.2
Vocational education	10.4	11.9	14.4
Upper secondary school education	6.8	7.6	10.7
Short higher education	4.8	5.5	6.7
Medium higher education	3.4	3.4	4.9
Long higher education	5.6	4.9	6.3
Average	8.6	8.8	11.4

Source: Statistical Ten-year Review 1995.

Tables B.2.4.2 and B.2.4.3 provide a more detailed analysis of these differences for 1993. Table B.2.4.2 shows that 27 per cent of the labour force experienced unemployment in 1993. However, the proportion does vary significantly with age, from 11 per cent in the 60-66 age group to 39 per cent for the 25-29-year-olds. When it comes to education the variation is also quite large; 30 per cent of those with basic

schooling only were affected by unemployment in 1993, whereas only 14 per cent of those with a medium higher education experienced unemployment in 1993.

Table B.2.4.2: Proportion of the Labour Force Experiencing Unemployment by Age and Education, 1993.

	16-24 years	25-29 years	30-59 years	60-66 years	16-66 years
Basic schooling only	0,28	0,47	0,31	0,12	**0,30**
Upper secondary school education	0,35	0,51	0,29	0,14	**0,36**
Vocational education	0,43	0,34	0,23	0,12	**0,27**
Short higher education	0,57	0,35	0,17	0,09	**0,20**
Medium higher education	0,35	0,32	0,11	0,06	**0,14**
Long higher education	0,20	0,36	0,14	0,04	**0,16**
Average	**0,34**	**0,39**	**0,24**	**0,11**	**0,27**

Source: Statistical News, Labour Market 1994:21.

Within each educational category there is considerable variation between different age groups. For instance, 57 per cent of those with a short higher education between the ages of 16 and 24 experienced unemployment, while only 9 per cent of those aged 60-66 with an equivalent education had this experience.

The average degree of unemployment among people who have experienced some unemployment shows less variation with age and education, cf. Table B.2.4.3 The variation with age tends to be the opposite of what was found for the proportion experiencing unemployment: The oldest group has the longest total duration and the younger groups have shorter durations in all educational categories. An unemployed person aged 60-66 will on average be unemployed for more than six months, whereas a person under 30 will only be unemployed for slightly more than four months.

The high unemployment rates for the younger age groups are thus caused by a higher risk of experiencing unemployment, but their unemployment periods are relatively short. Older people have a relatively low probability of experiencing unemployment, but if they are unfortunate enough to become unemployed their unemployment periods are long. The short durations for young people are to a large degree caused by public policy measures such as temporary job and training programmes, and cannot thus be regarded as an indication that jobs are relatively easy for young people to find.

Table B.2.4.3: Average Degree of Unemployment by Age and Education Among Persons Experiencing Unemployment, 1993.

	16-24 years	25-29 years	30-59 years	60-66 years	16-66 years
Basic schooling only	0,369	0,469	0,486	0,510	**0,461**
Upper secondary school education	0,351	0,440	0,456	0,562	**0,396**
Vocational education	0,351	0,367	0,428	0,509	**0,401**
Short higher education	0,292	0,258	0,365	0,513	**0,338**
Medium higher education	0,341	0,287	0,378	0,535	**0,350**
Long higher education	0,293	0,315	0,431	0,531	**0,397**
Average	**0,357**	**0,395**	**0,451**	**0,511**	**0,421**

Source: Statistical News, Labour Market 1994:21.

Table B.2.4.2 and B.2.4.3 show that age and education are both important factors influencing the risk of experiencing unemployment and the duration of this unemployment. People with basic schooling only are clearly worse off in both respects, since they have a higher risk of experiencing unemployment and a smaller chance of escaping from it again. No clear pattern can be observed for the other educational categories.

However, the educational classification applied here is rather crude, grouping together very different types of education with very different levels and patterns of unemployment within each group. A more detailed analysis by types of education would show a more diversified picture.

B.2.5 Unemployment by Occupation

Unemployment is very unequally distributed by occupation. The unemployment rates for various selected occupational groups are shown in Table B.2.5 These figures only cover insured persons, as they are derived from unemployment data for the insurance funds covering each occupational group. Together with the unemployment rates the table also shows each occupational group's fraction of the total insured labour force.

Table B.2.5: Unemployment Rates for Different Occupational Groups, 1980 and 1994

	Unemployment rate %		Percentage of insured labour force	
	1980	1994	1980	1994
Blue collar female workers (unskilled)	16,6	22,5	5,75	3,82
Blue collar male workers (unskilled)	15,3	21,3	18,70	13,33
Metal workers	6,9	10,9	6,57	5,10
Commercial and clerical workers (skilled)	8,5	14,1	16,42	13,33
Managerial workers and public servants	5,6	8,0	5,62	7,28
Nurses	0,1	0,5	...	2,18
Engineers (college/university educ.)	2,6	9,1	1,52	2,14
Academics (university education)	7,9	8,6	0,82	2,14
Total	**9,9**	**12,5**	**100,00**	**100,00**

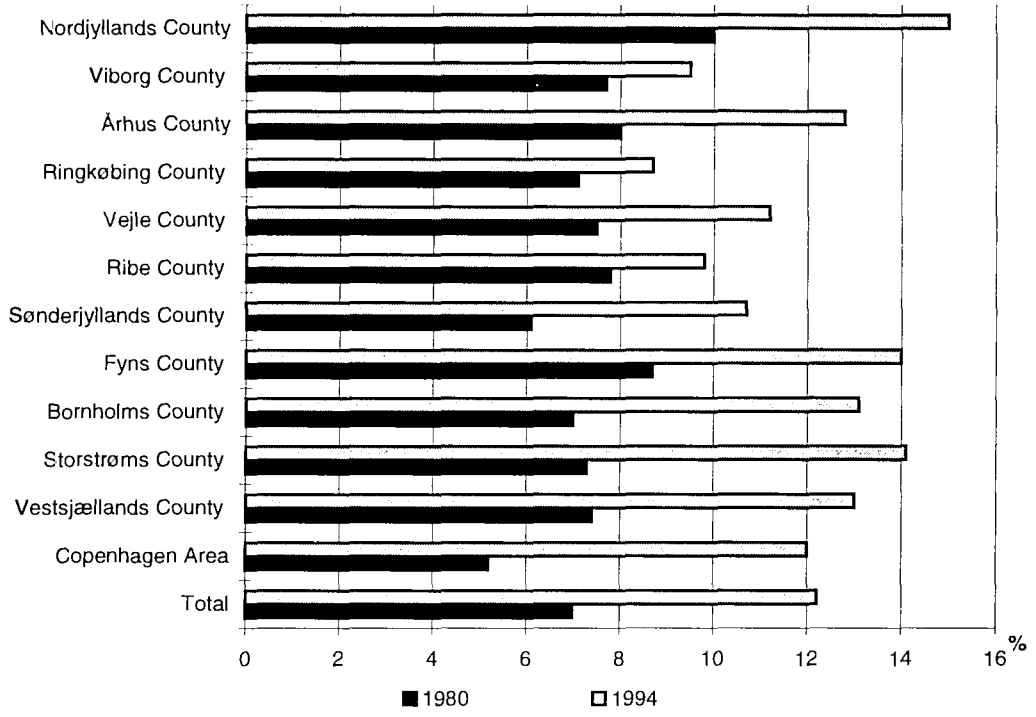
Source: Statistical Ten-year Review, 1991 & 1995.

These figures show substantial differences between occupational groups, with unemployment rates ranging from 0.5 per cent to 22.5 per cent. Evidently unskilled blue collar workers are more prone to experiencing unemployment than other groups.

B.2.6 Unemployment by Region 1980-1994

Unemployment is unevenly distributed across geographical regions of the country. Figure B.2.6 shows the regional unemployment rates for the counties of Denmark in 1980 and 1994.

Figure B.2.6: Regional Unemployment Rates in Denmark, 1980 and 1994



Source: Statistical Ten-year Review 1991 and 1995.

It can be seen that the unemployment rates range from 8.7 per cent in West Jutland to 15.0 per cent in North Jutland, while the overall unemployment rate is 12.2 per cent (in 1994). The Copenhagen metropolitan area has a low unemployment rate, but it should be noted that the actual city of Copenhagen has an unemployment rate well above the average. During the period 1980-1994 there was a shift in the regional structure of unemployment rates, with some regions experiencing a fall and others a rise.

Regional differences have increased over the period: the standard deviation of the unemployment rates increased from 1.2 percentage points in 1980 to 2.0 percentage points in 1994. OECD (1990) points out, however, that by international standards the regional differences in Denmark are small. Regional mismatch has evidently not contributed to the creation of high unemployment in Denmark.

The Danish labour market has traditionally been characterized by the very low geographical mobility of its workers. This alone could be expected to give a very skewed geographical distribution of unemployment. However, this is not the case, something which can perhaps be attributed mainly to regional shifts in demand. As mentioned in section B.1 above the westwards move of manufacturing industry, to the parts of Denmark which previously had a higher rate of unemployment, is among the most noticeable developments.

B.2.7 The Rate of Long-Term Unemployment 1980-1994

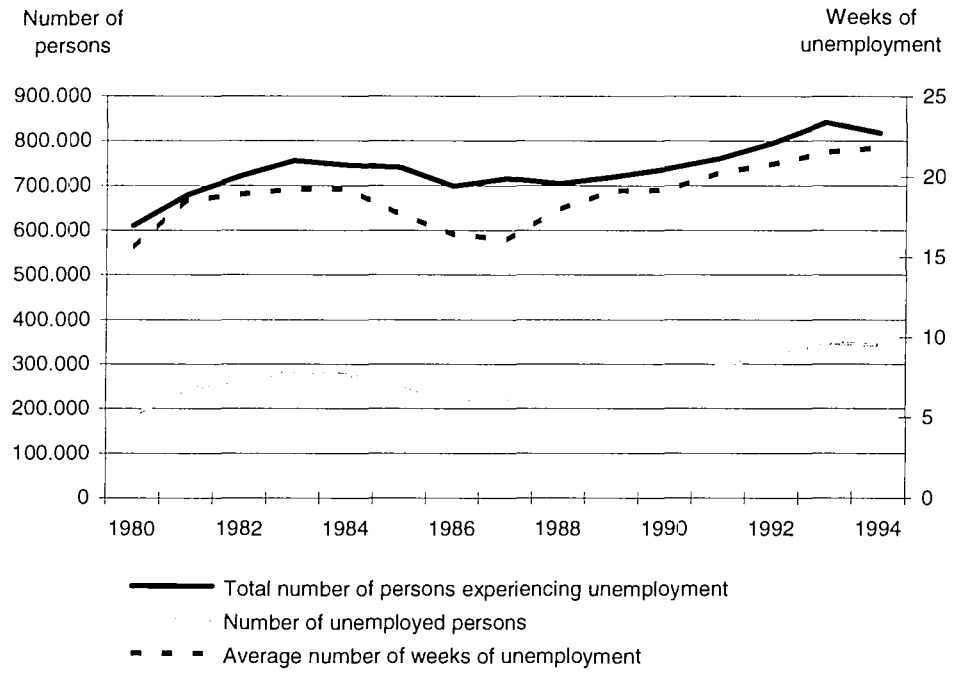
A remarkable feature of Danish unemployment is that it is widespread through the labour force. More than one-quarter of the labour force is affected by shorter or longer spells of unemployment in any given year. Taken together with an unemployment rate of about 12 per cent, this indicates a relatively high degree of turnover among those registered as unemployed.

In spite of this widespread experience of unemployment affecting more than 25 per cent of the labour force, the heaviest burden of unemployment is borne by a much smaller group. Most of those who have been unemployed in a given year have experienced one or a few short spells of unemployment only, while another small group of people have been without jobs for most of the year. And if we consider a longer period than one year, we find that unemployment is even more concentrated. A very large proportion of the labour force never experiences unemployment, while another much smaller group consists of people who are unemployed year after year or who move frequently in and out of unemployment.

The annual unemployment rates conceal important information about the distribution of unemployment in the short and long-term. Unfortunately, the Danish unemployment statistics do not contain a direct measure of long-term unemployment. However, they do allow a breakdown of the unemployment rate into the number of people experiencing unemployment in any given year and the amount of the unemployment experienced.

Figure B.2.7.1 shows the breakdown of unemployment into these measures. The figure shows the numbers experiencing unemployment in each year (a measure of the risk), the number of unemployed persons in the year (in full-time unemployment equivalents), and the average weeks of unemployment per unemployed person. It can be seen that for most of the period 1980-1994 more than 700,000 people were experiencing unemployment each year, which corresponds to over 25 per cent of the stock of the labour force during the year. The average time spent in unemployment for people in this group was between 16 and 21 weeks per year. However, the average time spent in unemployment per person per year may consist of one or more spells. Consequently, the average duration of unemployment spells will generally be shorter than the average number of unemployment weeks per year.

Figure B.2.7.1: Average Weeks of Unemployment per Unemployed Person, 1980-1994



Source: Statistical Ten-year Review 1991 and 1995.

The variations in unemployment over time are reflected in the numbers experiencing unemployment and in the average weeks of unemployment per unemployed person. The curves in Figure B.2.7.1 shows that the number of persons experiencing unemployment and the average weeks of unemployment move with the number of unemployed persons and hence the unemployment rate. Thus an increase in unemployment means that the numbers experiencing unemployment as well as the time they spend without work will both increase.

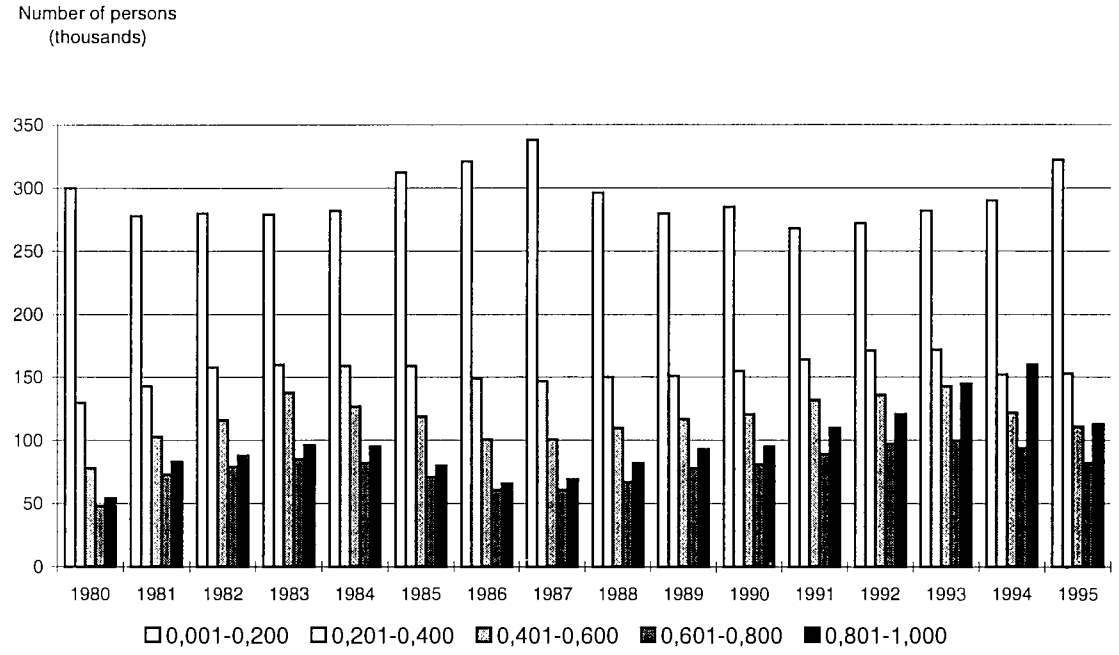
An exception to this occurred in 1987 and 1988, when the increase in unemployment was accompanied by an initial decrease in the average weeks in unemployment and the number of people affected was what accounted for the increase; this was then followed by an increasing average time spent in unemployment, which accounted for the total subsequent rise in unemployment. A similar, but opposite situation occurred in 1994.

The average degree of unemployment for all those experiencing it is around 0.35 (corresponding to 18 weeks), but this single number does not reflect the rather large variation in the time spent in unemployment by those affected. More than 25 per cent of those experiencing unemployment in a given year have a total duration of unemployment of 5 weeks or less (and this need not even be in one spell, but may be

in two or more short spells). Figure B.2.7.2 shows a breakdown of total unemployment into the number of persons experiencing unemployment in each of five intervals for the degree of unemployment.

Several definitions of long-term unemployment are used in Denmark, but as mentioned in Chapter 3 one of the definitions used by the Ministry of Labour (for international purposes) is to define a long-term unemployed person as someone whose annual degree of unemployment is over 0.8. This corresponds to at least 42 weeks of unemployment during the year.

Figure B.2.7.2: The Number of Persons Experiencing Unemployment Distributed by Degree of Unemployment, 1980-1995.



Source: Statistical Ten-year Review 1991 and 1995. Monthly Review of Statistics no. 4, 1996.

Using this definition it can be seen from Figure B.2.7.2 that more than 150,000 people (5.5 per cent of the labour force) were long-term unemployed in 1994. However, from 1994 to 1995 there was a sharp drop in the number of long-term unemployed to 113,000. It also appears that long-term unemployment has strong counter-cyclical movements, whereas very short-term unemployment (with a degree of unemployment between 0 and 0.2, corresponding to between 0 and 10 weeks) shows pro-cyclical movements.

A breakdown of long-term unemployment into male and female unemployment shows that male long-term unemployment is much more sensitive to cyclical movements than female long-term unemployment.

B.2.8 Other Aspects of Unemployment

A very large proportion of all unemployment spells in Denmark are due to temporary layoffs. The official Danish unemployment statistics do not give any information about the reason for the unemployment. However, it is possible to obtain some knowledge about this from other sources. Jensen and Westergård-Nielsen (1990) report estimates of the size of temporary layoffs in the period 1979-1984. They found that 40 per cent of all unemployment spells are due to temporary layoffs. Because these spells are generally shorter than the unemployment spells following from permanent layoffs, this amounts to only 16 per cent of the total unemployment.[5] The results do not show any significant cyclical variation in the amount of temporary layoffs over the studied six-year period.

Jensen and Westergård-Nielsen (1990) also found that temporary layoffs are concentrated in short spells of unemployment. Temporary layoffs constitute about 70 per cent of all unemployment spells lasting less than two weeks. Unemployment due to temporary layoffs is also unevenly distributed, depending on occupation and industry. Unskilled workers and skilled construction workers are the two occupational groups suffering the highest relative level of temporary layoff unemployment. Among industries it is fishery, manufacturing and construction which are particularly prone to unemployment due to temporary layoffs. The municipal public sector also has a high proportion of this kind of unemployment.

B.2.9 Conclusions

This descriptive analysis of Danish unemployment given in the previous subsections could be summarized as follows:

- The period 1980-1996 has been characterised by high and persistent unemployment, with some cyclical variation resulting in a peak in 1983 and with an increase from 1987 that led to a record-high level of unemployment in 1993. In the recent years unemployment has started to decline again.
- Unemployment is very unevenly distributed according to age, gender, education, and occupation. Women, young people, low-skilled workers, and those with very

[5] However, because of the technique used, this is a very conservative assessment. Another Danish source using a different data set and including work sharing, suggests that 20 per cent of total unemployment is due to temporary layoffs in a broader sense

little or no education exhibit higher unemployment rates than other groups. The male-female differential has increased significantly during the period 1980-1995.

- The unemployment rate of the 60-66 age group has been kept down artificially during the 1980s by an early retirement scheme. This suggests that there is a considerable amount of disguised unemployment. However, recently this age group as well as the 55-59 age groups have seen a remarkably increase in unemployment rates.
- Temporary layoffs are quite common in Denmark. They constitute 40 per cent of all unemployment spells and 16 per cent of total unemployment. The main reason for the high volume of temporary layoff unemployment is the unemployment insurance system, which subsidizes this type of unemployment.
- On the one hand unemployment is very widespread in the labour force; on the other it is very concentrated to a small group of people. Almost half of all unemployment may be considered long-term unemployment.

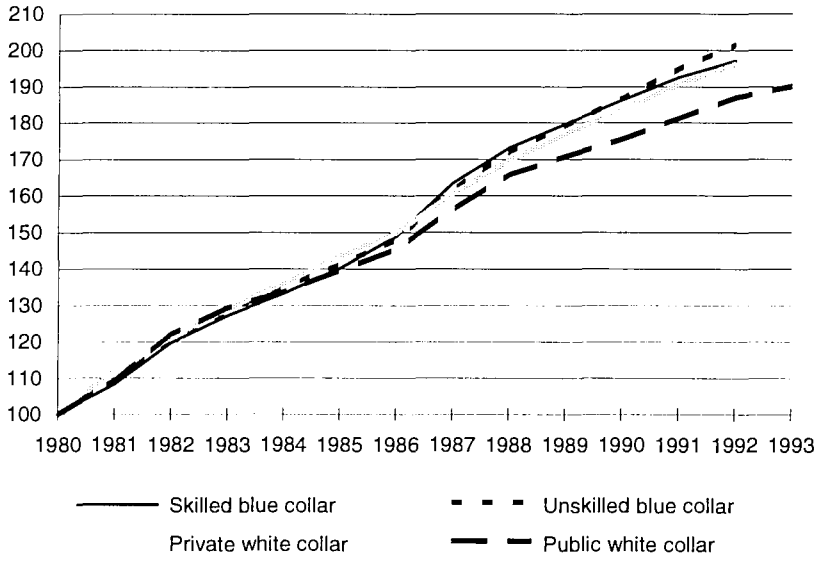
Appendix C: Wage and Salary Trends

This appendix describes the wage development from 1980 to 1992. Underlying the aggregate wage development are differences between different labour market groups. The description therefore focuses on different occupational groups: unskilled blue collar workers, skilled blue collar workers, white collar workers in the private sector and white collar workers in the public sector.[6]

C.1 The Development in Nominal Wages

The development in nominal wages for the four occupational groups of employees appears from Figure C.1 below. The figure shows the relative development in wages for the groups based on an index where 1980=100.

Figure C.1: Development in Nominal Wages by Occupational Status 1980-1992. 1980 = 100.



Source: Statistical Ten-year Review 1991 and 1995

From 1980 to 1986 white collar workers in the private sector experienced the highest nominal wage increases, whereas skilled blue collar workers experienced the lowest increases, but in general the relative increases of the four groups were not very different. From 1986 to 1988 all groups experienced a higher level of wage increase

[6] In this section the word wage covers both wage and salary.

than earlier In 1987 there is a pronounced increase in wages for all groups, especially for skilled and unskilled blue collar workers.

Since 1987 white collar workers have had relatively lower wage increases than blue collar workers. Within the group of blue collar workers there is an internal shift in 1989, as unskilled workers have since then had higher relative wage increases than skilled workers.

Among the most pronounced changes in wages in Denmark over the last 15 years are the exceptionally high wage increases that resulted from collective bargaining in spring 1987. These increases should been seen in the light of the employment situation in Denmark at the time. From the mid-1980s the unemployment rate had been falling significantly, creating problems of labour shortages for some categories of employees. These problems resulted in high wage increases for these groups which then rubbed off on other groups.

C.2 The Development in Real Wages

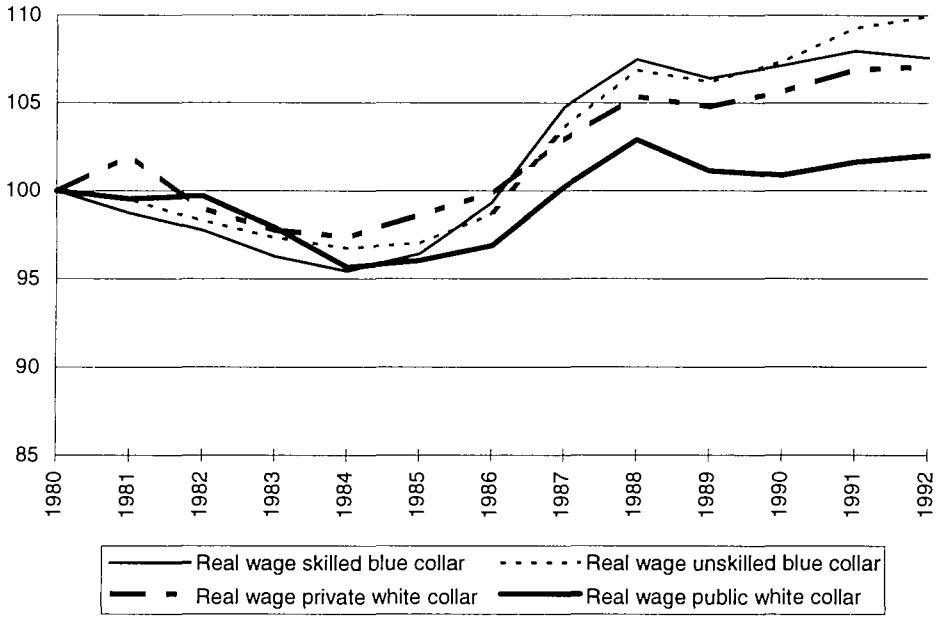
In contrast to nominal wages, real wages have been adjusted for price changes.[7] Figure C.2 below displays the development in real wages in Denmark over the period from 1980 to 1992 for the same four occupational groups as in figure C.1 above.

In the early 1980s blue collar as well as white collar workers experienced a constant decrease in real wages. This did not change until 1984 where real wages strarted to increase slightly. The decrease in real wages in the early 1980s was to a high extent a consequence of policy measures aimed at limiting private consumption in a light of a large balance of payments deficit.

The above mentioned large increases in nominal wages that resulted from collective bargaining in 1987 also led to an increase in real wages for all occupational groups. However, this increase lasted only until 1988 where real wages decreased again. From 1989 there has been a small increase in real wages for most groups.

[7] In this section the real wage is computed as the nominal wage deflated with the GNP-deflator

Figure C.2: Development in Relative Real Wages by Occupational Status 1980-1992. 1980 = 100.



Source: Statistical Ten-year Review 1991 and 1995

Unskilled blue collar workers have experienced the largest increase in real wages from 1980 to 1992. In particular, this group has experienced a larger increase in real wages than other groups since 1986.

In spite of the changes that have occurred real wages have remained quite stable since 1980, indicating that the general wage increase level in society to a high extent corresponded to the overall changes in prices. For instance, Table C.2 shows that real wages for privately employed white collar workers have increased less than 10 per cent during the last 12 years.

Table C.2. Development in the Relative Real Wage from 1980 to 1992

(1980 =100)	**1980**	**1992**
Real wage skilled blue collar	100	107,6
Real wage unskilled blue collar	100	109,9
Real wage private white collar	100	107,1
Real wage public white collar	100	102,0

Source: Statistical Ten-year Review 1991 and 1995

C.3 The Development in Wages by Gender

When it comes to wage differences between men and women in Denmark a very uniform picture emerges for blue collar as well as for white collar workers. In the very early 1980s there is a slight narrowing of wage differences between men and women, but since then women's wages have not improved relative to those of men.

Wage differences between men and women are not equally large for all occupational groups. The lowest differences are found within unskilled blue collar workers, where women's wages are about 90 per cent of those of men. For white collar women employed in the private sector wages constitute only 76 per cent of the wages of men. White collar women employed in the public sector earns an average of 86 per cent of their male colleagues wages.

The wage differences between men and women do not necessarily, however, reflect open discrimination on behalf of employers. Rather they may express structural differences between the male and the female parts of the labour force.

Although there is a change in male and female roles in the labour market, some occupations remain female occupations, e.g. nurses and teachers. Most of these occupations are also low pay occupations. This in particular explains the wage differences in the public sector. For the private sector other contributing factors to differences in wages may be education and position within the company. These factors do not have any significant impact on the wages of unskilled workers which explains the smaller wage differences between the sexes in this occupational group.

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