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Remain in or withdraw from the labour market?
A comparative study on incentives

by

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Preface

This is the fourth study carried out by a voluntary group of researchers from several countries. The aim of all their studies has been to develop approaches and methodologies for comparing tax and benefit systems across countries. In particular, the studies have aimed at examining incentives to work embedded in tax and benefit systems and finding tools through comparative analyses for assessing these incentives or disincentives and their impact on labour market outcomes.

This project has been managed and carried out in a way that has already been successfully applied in the previous studies of the group. Participants in the group combine their efforts in order to agree on a common methodology and to carry out necessary calculations by themselves in each country. This allows the combination of in-depth understanding of national circumstances and good international comparability, leading to high-quality results. Notably, these results have made it possible to take steps forward in cross-country comparisons from traditional descriptive analyses on tax and benefit systems.

The first two studies[1] focused on incentives to work embedded in unemployment benefit and means-tested benefit schemes together with taxation, calculated as net replacement rates. These studies were among pilot studies focusing on international comparability of tax and benefit schemes. As a result, they stimulated broader interest in this kind of study. Notably, in the mid-1990s, the OECD regularly started to calculate net replacement rates covering a large set of countries, today including all the OECD member countries. The third study[2] dealt with incentive problems embedded in early retirement schemes, influencing the withdrawal of older workers from the labour market.

This study aims at tackling benefit receipt more broadly and at investigating mechanisms in tax-benefit entitlements that may lead to longer-term benefit dependency. It looks at the dynamics of benefit systems and is based upon hypothetical routes through which people may move from one benefit to another. Hence, the duration of benefit in combination with the benefit level is a particular focus of this study. At the same time, it aims at examining whether these incentives change if the receipt of benefits is prolonged.

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Ms. Rita Di Biase and Mr. Aldo Gandiglio, Institute for Studies and Economic Analyses, Italy.
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Mr. Hans Hansen and Mr. Morten Frederiksen, Danish National Institute of Social Research.
Mr. Lars Erik Lindholm, Swedish Ministry of Finance.
Mr. Esko Mustonen, Government Institute for Economic Research, Finland.

[1] Einerhand, M, I. Eriksson and H. Hansen (1993), 'Unemployment Insurance in the Netherlands, Denmark and Sweden', The Hague, the Netherlands
Seven Countries Group (1995), 'Unemployment Benefits and Social Assistance in seven European Countries', Werkdokumenten no. 10, Ministerie van Sociale Zaken en Werkgelegenheid, the Netherlands.
[2] Eight Countries Group (1997), 'Income benefits for Early Exit from the Labour Market in eight European Countries. A comparative study', Werkdokumenten no. 61, Ministerie van Sociale Zaken en Werkgelegenheid, the Netherlands. This study has also been published in the European Economy, Reports and Studies no. 3, European Commission 1998.

Mr. Luis Peragon, Spanish Ministry of Finance.

The secretariat of the OECD and the services of the European Commission participated in the study as observers. The authors would like to thank Mr. Mark Pearson (Social Policy Division, OECD) and Ms. Aino Salomäki (DG Economic and Financial Affairs, European Commission) for their contributions and constructive comments. The latter also wrote the executive summary and the section on participation, employment and benefit receipt.

Contents

Executive summary

A generally acknowledged problem of tax and benefit systems is the trade-off between the equity and security objective of social benefit systems and the efficiency objective of the labour market. Studies also suggest that benefit receipt among the working-age population is much larger than what the mere unemployment figures would imply. This may involve some benefits acting as a substitute for unemployment benefit, if take-up is allowed for long periods. A long duration of benefit receipt involves a risk of deterioration of skills and, consequently, a fall out from the labour market and dependency on benefits. Such benefits received in non-employment - the case where the requirements for the participation in the labour market do not apply - reduce potential labour supply.

This study aims at examining benefit levels relative to the income gained from work with a special focus on the time dimension of benefit receipt. Whether and when the level of benefits changes if its receipt is prolonged and whether it is possible to move from the receipt of one benefit to another in certain circumstances are central questions. Thus, the study tries to find out the dynamics and mechanisms of benefit systems, which may lead to longer-term benefit dependency. For this purpose, a number of hypothetical routes for exiting the labour market, notably through unemployment, and a route to return to the labour market after unemployment have been defined. The benefit level in each of these stages is studied and compared to the income level when in work. Further, the entitlement for the duration of benefits and possible disincentives to return to work and incentives to stay on benefits are looked at.

Four benefit routes have been examined in this study:
(i) *Activation route*, on which one becomes unemployed, participates in active labour market programmes, and finally re-enters employment;
(ii) *Long-term unemployment and social exclusion route*, on which one becomes unemployed, continues to stay on benefits as long as it is possible, becomes long-term unemployed when unemployment insurance benefit expires, and ends up on a last-resort benefit scheme;
(iii) *Early retirement route*, to which one may come through unemployment or directly from employment. The route through unemployment is examined here, but when that is not possible the route goes from employment to early retirement;
(iv) *Sickness and disability route*, to which one may come from employment when this benefit is used as a substitution for early retirement, or genuinely through a sickness case.

This study was carried out by a voluntary group of researchers from Denmark, Finland, Great Britain, Italy, the Netherlands, Spain and Sweden. The results of this study compare the benefit systems in these seven countries.

Activation route

As regards the activation route, in most countries there are no additional financial incentives for participation in activation programmes; the net replacement rates are the same as when people are on unemployment benefits. Italy and the Netherlands do provide higher benefits when the unemployed participate in activation programmes and thusprovide additional financial incentives for activation. In Great Britain, there is only one joint benefit, which can be considered as an activation benefit rather than just an unemployment benefit, due to its strict requirement of participation in an activation programme. Spain provides no specific benefit to promote participation. Hence, it is very important to look at the requirements for availability for labour markets and for participation in activation programmes as financial incentives are largely missing.

The Netherlands, Great Britain and Denmark provide stronger incentives for young persons to participate in activation programmes instead of staying on unemployment benefit, notably through strict requirements for participation and reduced (or abolished) benefits for unemployment alone. In particular Denmark, while combining duties and rights, requires that young unemployed persons who do not have an education qualification must enrol into an education program in order to be eligible for 'fair' benefits. In the case where they choose a labour market training programme, the benefit is low. Hence, this encourages young people to choose ordinary education instead of an activation programme.

The replacement rates are higher for low-wage than average earners both in activation and in unemployment in all countries. This reflects the aim of providing a decent income level when out of work, irrespective of the former wage level. However, it reduces the net gain that one can have when moving back to work from unemployment, in other words, the incentives to work are weak. Incentives to return to work at a lower wage level than what one had before unemployment are weak, in particular for low-wage earners. This points to the issue of the duration of unemployment benefits and of the requirements for participation in the labour market.

Long-term unemployment and social exclusion route

The duration of unemployment benefits varies largely across countries and additionally, in Spain and the Netherlands, according to the period during which one has paid contributions to the scheme. After a period of varying length, when the eligibility for unemployment benefit expires, the unemployed person usually qualifies for social assistance or unemployment assistance. Social assistance is the exit scheme in all countries except in Finland, Great Britain and Spain. In Finland, the unemployed person is entitled to labour market support, while the exit scheme in Spain is unemployment assistance and in Great Britain means-tested Jobseekers Allowance.

The insurance scheme is aimed at short to medium term unemployment, while the exit scheme is provided for a longer period, usually without any time limit. The long-term exit scheme results in higher replacement rates than the insurance scheme in many countries, especially at low wage levels, but for some family types also at average wage levels. As regards incentives to work, this seems to be a problem in many countries. The continuation of unemployment only affects the level of net replacement rates to a small degree, especially at low wage levels. An additional incentive problem associated with social assistance is that it does not generally require availability for the labour market. In most countries, the level of social assistance is comparable to the level of unemployment benefit at 67 per cent of the average wage level.

Early retirement route

Early retirement results in higher net replacement rates than unemployment benefit in most countries, both at low and average wage levels, with the most striking gains in Italy and Great Britain. In Sweden there is always a lower rate. For a single person, incentive problems in relation to work are clear in Italy and the Netherlands. Also for a one-earner couple and the low-earner spouse in a two-earner couple, the incentives for early retirement are very strong at lower income levels in most countries. This is also the case for the primary earner spouse at low-income levels in Denmark, and to some extent over a broader income range in the Netherlands, Italy and Spain.

Furthermore, when assessing early retirement schemes relative to unemployment benefits, one has to bear in mind that the early pension is usually granted for a longer period of time and that the requirements concerning labour market availability are weak or absent. Thus, particularly where unemployment has continued for some time and the prospects of a return to employment are weak, early retirement schemes can become very attractive.

Sickness and disability route

Compared to other schemes, sickness and disability schemes yield the highest replacement rates. Replacement rates show that in many cases net income is even higher than that from the previous wage. This gives reason to ask whether such a high compensation is justified and draws attention to eligibility rules and proper administration of such schemes; a lax administration may lead to extensive use of such schemes, allowing a lax interpretation of proper eligibility rules. On the other hand, with regard to incentives that stimulate work, one has to keep in mind that disability is due to medical conditions, in most cases not conditions that can be much influenced by the individual.

In general, countries that regard the disability scheme as a pension scheme have higher replacement rates. These schemes are designed in such a way that people are not expected to return to work. Often, they also offer benefits that may be higher than those offered to people in rehabilitation or those benefits granted for a temporary period to people expected to recover.

Overall conclusion

This study demonstrates that the incentive structure embedded in benefit and tax schemes is a broader issue than the net replacement rate alone and for each benefit at a time. The duration of benefit is an important part of the incentive structure, as well as the possibility of moving to another benefit if a benefit expires. The calculations show that the continuation of unemployment only has a small effect on the level of net replacement rates, especially at low wage levels, even if a person becomes long-term unemployed and dependant on the last-resort benefit scheme. It is also a cause for concern that most countries do not provide any financial incentives to participate in activation programmes, and that this may not always be combined with strict requirements as regards participation. This points to the importance of requirements regarding labour market participation.

As far as benefits in the case of withdrawal from the labour market to inactivity are concerned, the study suggests that the incentive structures deserve a revisit. Early retirement schemes do provide financial incentives to withdraw from the labour market instead of being unemployed. In addition, the absence of requirements for labour market availability and the fact that these benefits are usually granted for a relatively long period of time, increase the attractiveness of these schemes. Thus, they are likely to work as substitutes for unemployment benefits and reduce effective labour supply. The results of the calculations concerning the sickness and disability route point to the issue of a sound administration of benefits and their proper eligibility rules with the aim that these schemes would not be overly used, despite their higher compensation level.

1 Introduction

The European Union is committed to ambitious goals as regards its competitiveness, economic growth, employment creation and social cohesion in the conclusions of the European Council in Lisbon. Accordingly, policy co-ordination has been strengthened, notably in the fields of economic policies, structural reforms and labour market policies. Furthermore, as regards social policy aims, co-operation between Member States is increasing and common policy goals are being set, in particular in the fields of social inclusion and pension policies. In both of these areas the interaction with employment policies is of utmost importance. As stated in many reports, the best guarantee against social exclusion is a job and staying longer in work helps to maintain one's living standard as well as to cope with increasing pressures for future pension expenditure.

However, the current situation regarding labour force participation, employment and unemployment is not yet satisfactory in many European countries, despite clear improvements during the latter part of the 1990s. For instance, the European unemployment rate has come down from its peak of 11.1% in 1994 to 7.7% in 2001. During the same period, however, the increase in labour supply was more subdued, by only 2 percentage points from 67.2% to 69.2%. When this and the current employment rate of 64% are compared to the EU target for the employment rate of 70% by 2010, it is evident that reforms have to be continued in order to raise participation and employment rates and to tackle the structural problems that still remain. The structural problems include uneven distribution of participation in the labour market, uneven unemployment rates across social groups and age groups, as well as different skill levels and a major part of unemployment being structural in nature. In addition, European countries suffer from high levels of taxes and benefits, which cause disincentives to work, thereby reducing potential labour supply, and encouraging dependency on benefits among the working-age population, because generous benefit levels and long duration are common.

In the framework of the Employment process Member States have committed themselves to structural reforms, including reforms of benefit systems to make work pay so that the overall incentive structure in tax and benefit systems favours employment, and moving from passive income support towards active measures designed to get people back to work. Thus, social protection systems should become instruments of employment promotion and help labour markets and social systems adapt in mutually supporting ways. In this process the whole incentive structure, which is considered to include benefit levels, benefit duration, eligibility rules and job availability rules, becomes very important.

This study has been motivated by the general acknowledgement of problems, which appear as a trade-off between the equity and security objective of social benefit systems and the efficiency objective of the labour market. It has also been stimulated by the observations that benefit receipt among the working-age population is much larger than the mere unemployment figures would infer. This suggests that some benefits may act as substitutes for unemployment benefit, if take-up is allowed for long periods. A long duration of benefit receipt creates a risk of skills deterioration and, consequently, a fall out from the labour market and dependency on benefits. Such benefits received in non-employment - that is in the case where the requirement of labour market availability does not apply - reduce potential labour supply. In addition, benefit dependency constitutes a major burden on public finances, and, on the part of individuals, it prohibits participating fully in society, thereby increasing the risk of social exclusion.

This study aims to investigate incentive structures in tax and benefit schemes in a broader sense than what looking at mere benefit levels can reveal. In particular, it aims to investigate the possible additional impact of the duration of benefits on the overall generosity of benefits. It also tries to find out whether benefit systems provide the possibility of moving from one benefit to another, thus providing routes to a final withdrawal from the labour market. As a comparison, incentive structures for a return to employment through active labour market programmes are also examined. The authors hope that this study provides a contribution to the discussion on the changes in social protection, whether already done or still required, with the determined aim of gearing social protection systems to stimulate employment.

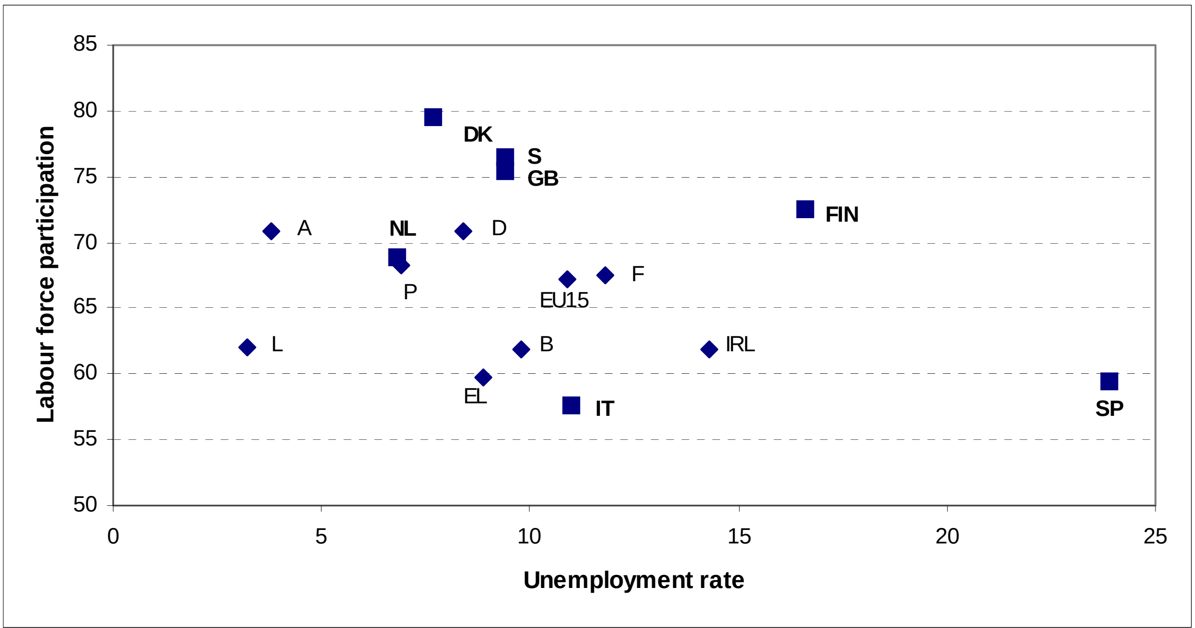
This paper is structured in the following way: Chapter 2 discusses some facts about the current situation and recent developments regarding the functioning of labour markets and the extent of benefit provision. Chapter 3 describes the methodology and some necessary assumptions of this study. Chapters 4, 5, 6 and 7 present the results of this study for the selected benefit routes: activation route (4), long-term unemployment and social exclusion route (5), early retirement route (6), and sickness and disability route (7).

2 Participation, employment and benefit receipt. Facts and developments

Despite favourable economic development and an improved level of employment during the latter part of the 1990s, unemployment is still at an unacceptably high level in many European countries and public spending on cash benefits remains high. Unemployment is often considered a primary cause for claiming benefits when one is at the working age and able to work. However, the levels and developments of unemployment rates alone cannot explain benefit spending to the working-age population. Notwithstanding this, long-term unemployment is an important cause for concern because it can lead to dependency on benefits if the duration of benefit provision is long.

It is claimed that long-term provision of benefits leads to increased use of these benefits and, consequently, benefit dependency and decreased employment and participation rates. The first graph shows the labour force participation and unemployment rates in the EU.

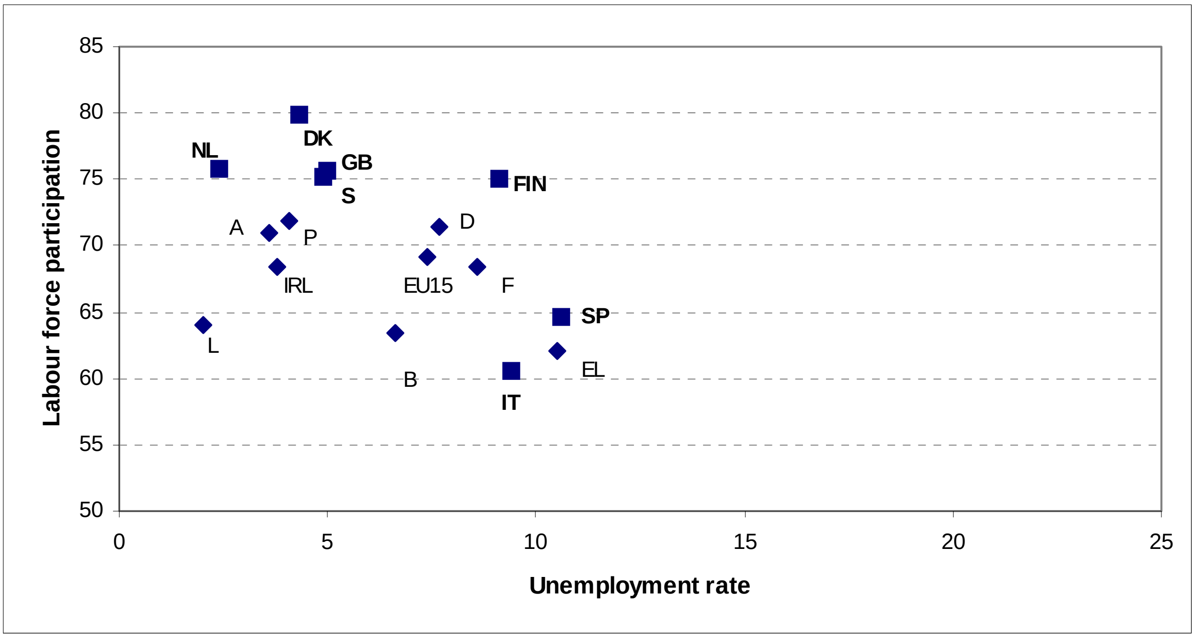
Graph 2.1 Labour force participation and unemployment rates in 1994



Source: Eurostat
Countries of this study marked in bold.

This chart for 1994 has been presented to compare with the situation in 2001. Although the participation rates have increased in all countries since 1994 (except Sweden) and the unemployment rates have decreased in all countries (except Greece), it is worth noticing that the relation between these rates has remained relatively similar in essence. Countries with high participation rates tend to also have low unemployment rates, and a low participation rate doesn't seem to guarantee a low unemployment rate. This development seems to have strengthened during the latter part of the 1990s, which can be seen in the second picture as a more distinct concentration towards the line from the upper left-hand corner to the lower right-hand corner. These figures suggest that a reduction in unemployment rates is not reached by reducing labour supply in general. On the contrary, high labour supply seems to be beneficial for job creation and employment rates. The mechanism which is supposed to support this outcome is that increased labour supply, if not accompanied immediately by increased demand for labour, reduces inflation, which in turn leads to an increase in aggregate demand, and consequently to an increase in labour demand, which results in higher employment rates. This lesson is of particular importance when policies for early retirement are considered and applied as in the past to help to cope with high levels of unemployment.

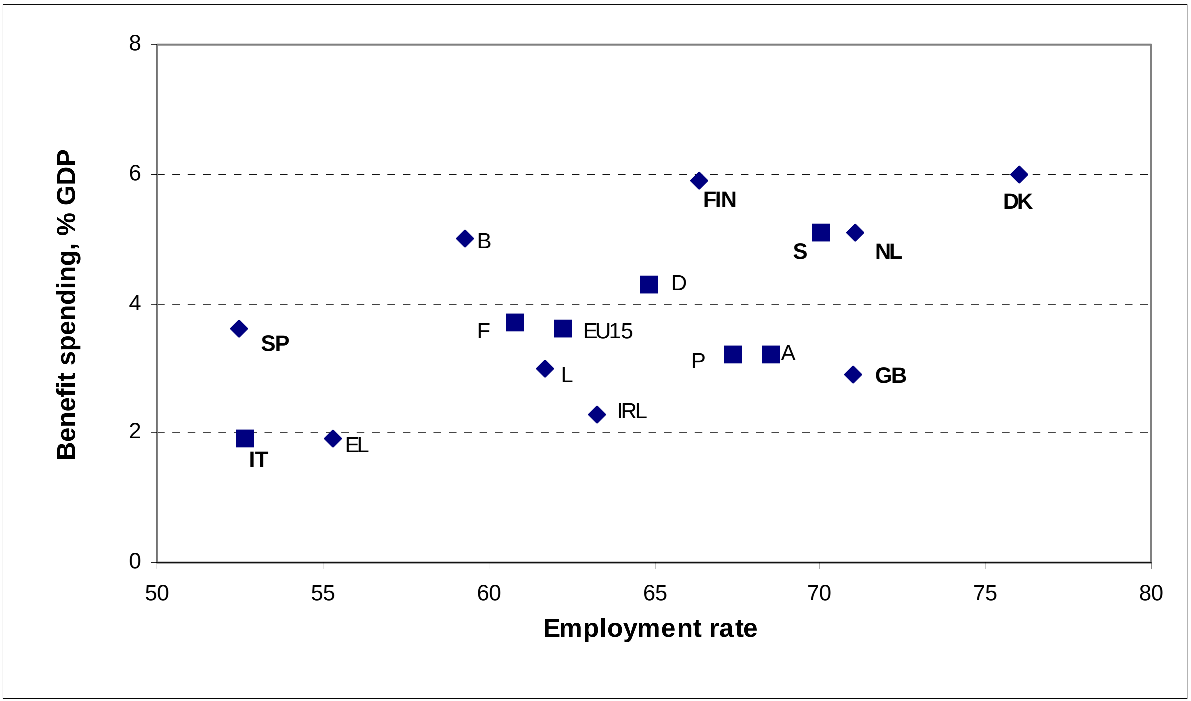
Graph 2.2 Labour force participation and unemployment rates in 2001



Source: Eurostat
Countries of this study are marked in bold.

Second, we look at the relationship between the employment rate and benefit spending. It can be seen that the relationship between these two indicators is not straightforward. In general, a low level of benefit spending as a share of GDP does not seem to correlate with high employment rates (graph 2.3). In fact, many countries with high employment rates such as Denmark, Sweden and the Netherlands spend the highest shares of GDP in benefits to working-age population. At the other end of the scale, in Italy, Greece and Spain, low employment rates are accompanied by low benefit spending. A number of facts such as benefit level and entitlement, whether benefit is based on the individual or the household, as well as distribution of benefits between men and women may largely have affected these figures. For instance, a high level of benefit for a small number of recipients can result in a high spending as a share of GDP, even combined with a high employment rate. On the other hand, a low employment rate may be accompanied by low benefit spending, if the entitlement of individual benefits is strictly limited, as is the case in some countries as regards the benefit entitlement of women when unemployed or non-employed.

Graph 2.3 Benefit spending as a share of GDP and the employment rate in 1999

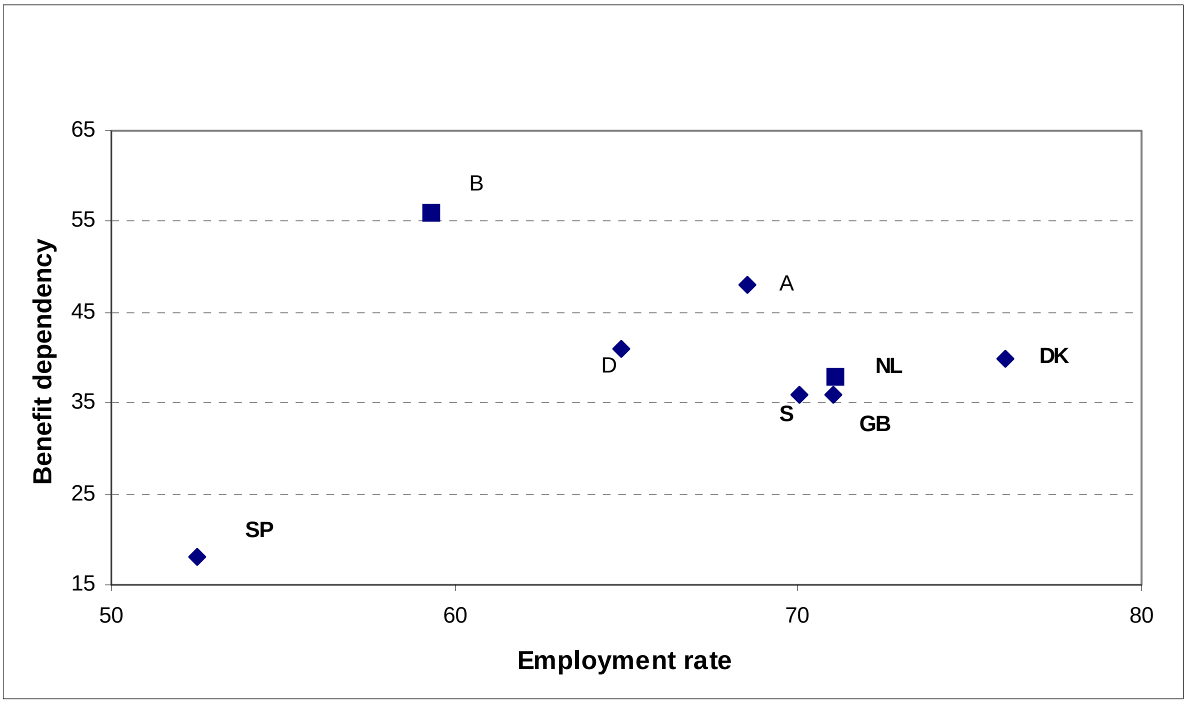


Source: Eurostat, Social Protection Database (ESSPROS).
(1) Includes disability benefits, unemployment benefits and social assistance.

More insight intothe relationship between benefit receipt and employment is provided by benefit dependency figures, as it measures their interrelationship in terms of the number of individuals both as benefit recipients and as employed, thus eliminating the impact of the benefit level on the relationship. Benefit dependency is defined as the total number of persons receiving social security benefits relative to the working-age population. The Netherlands Economic Institute (NEI) has developed this approach[3]. When measuring benefit dependency among the working-age population, it is appropriate to limit the benefit receipt to those of working age, thus excluding old-age pensions and other benefits granted to the elderly. In the NEI study, the number of benefit recipients is expressed in so-called benefit years, meaning that it is calculated on the basis of full-time equivalents for those depending on social benefits. In other words, two part-time benefit recipients, when each of them receives benefit for half a year, makes one benefit year.

[3] Netherlands Economic Institute (1999), 'Benefit Dependency Ratios. An analysis of nine European Countries, Japan and the US ', study commissioned by the Ministry of Social Affairs and Employment, the Netherlands. Netherlands Economic Institute (2002), 'Benefit Dependency Ratios by Gender. An International Comparison', study commissioned by the Ministry of Social Affairs and Employment, the Netherlands.

Graph 2.4 Benefit dependency and the employment rate in 1999



Source: Netherlands Economic Institute (2002), Benefit dependency ratios by gender.

The interrelationship between benefit dependency and the employment rate shows the expected trend; higher benefit dependency figures are accompanied by lower employment rates and lower benefit dependency by higher employment rates. However, Spain remains an outlier among the countries examined; both benefit dependency and the employment rates are low.

Third, we look at some groups of people who are likely to receive benefits and are exposed to benefit dependency. Unemployment is one reason for claiming benefits. We look at the distribution of unemployment between the most vulnerable groups of people, namely young people, women and older workers. In addition, long-term unemployment, defined as an unemployment durationof at least 12 months, is of particular interest for this study. Long-term unemployment represents a possible case for long-term benefit receipt, which exposes benefit dependency. Another reason for long-term benefit receipt is an early retirement arrangement. A person in receipt of an early pension is not required to be available for the labour market, and thus it represents the case of non-employment in which benefit is received. Hence, the relevant scope for examining incentives to work broadens from unemployment to non-employment.

Table 2.1 Unemployment rates in 2001

	Total	Women	Youth	Older workers	Long-term unemployment
Denmark DK	4.3	4.9	8.5	4.0	0.9
Finland FIN	9.1	9.7	19.7	9.0	2.5
Great Britain GB	5.0	4.4	11.9	3.3	1.3
Italy IT	9.4	12.9	28.1	4.6	5.9
The Netherlands NL	2.4	3.0	5.5	1.4u	0.8
Spain SP	10.6	15.5	21.5	8.6	5.1
Sweden S	4.9	4.5	11.0	5.9	1.2
Belgium B	6.6	7.4	17.6	3.0	3.0
Germany D	7.7	7.8	8.2	12.0	3.9
Greece EL	10.5	15.6	28.1	4.1	5.4
France F	8.6	10.3	19.3	5.8	2.9
Ireland IRL	3.8	3.7	6.6	2.6u	1.3
Luxembourg L	2.0	2.4	7.5	u	0.5
Austria A	3.6	4.3	5.8	5.6	0.9
Portugal P	4.1	5.1	9.3	2.6u	1.5
EU15	7.4	8.6	14.7	6.8	3.2

Source: Eurostat (u= unreliable or uncertain data).

The unemployment rate for EU was 7.4% in 2001 and varied largely across countries, from 2.0% in Luxembourg and 2.4% in the Netherlands to 10.6% in Spain. Among the seven countries of this study, countries with both high and low unemployment rates are represented. The rates for certain sub-groups of people tell us about the concentration of unemployment. The reasons for concentration may be incentive issues but also other institutional issues, such as the existence of a problem between insiders and outsiders to the labour market. The unemployment rate for older workers is lower than the overall rate in almost all countries. This is an unexpected feature because this group is most exposed to problems of inadequate skills levels, due to lower level of education in general, and thus should be among the vulnerable groups of people. This leads us to look closer at the employment and participation rate of older workers and searching for possible incentive problems in benefit schemes other than for unemployment.

All unemployment rates have come down from their peaks in 1994, the unemployment rate for the total labour force in the EU as a whole by 3.6 percentage points, for women by 3.8, for young people by 7.8 and for older workers by 1.8 percentage points. The long-term unemployment rate declined by 2 percentage points and its share of the total unemployment has reduced a bit, from 47% to 43%. This development can be partly attributed to the reinforced European employment policies, which draw strong attention to the activation of the unemployed and to the prevention of long-term unemployment. Notwithstanding this, the share of the long-term unemployed remains significant, thereby entitling a large number of people to benefits for long periods. In addition it should be noted that when preventive measures interfere, they interrupt the unemployment spell. Consequently, difficult unemployment appears today as unemployment recurring more frequently than in previous years. Thus, the current long-term unemployment rates may underestimate the seriousness of the unemployment problem.

Graph 2.5 Employment rates for older workers in 2001

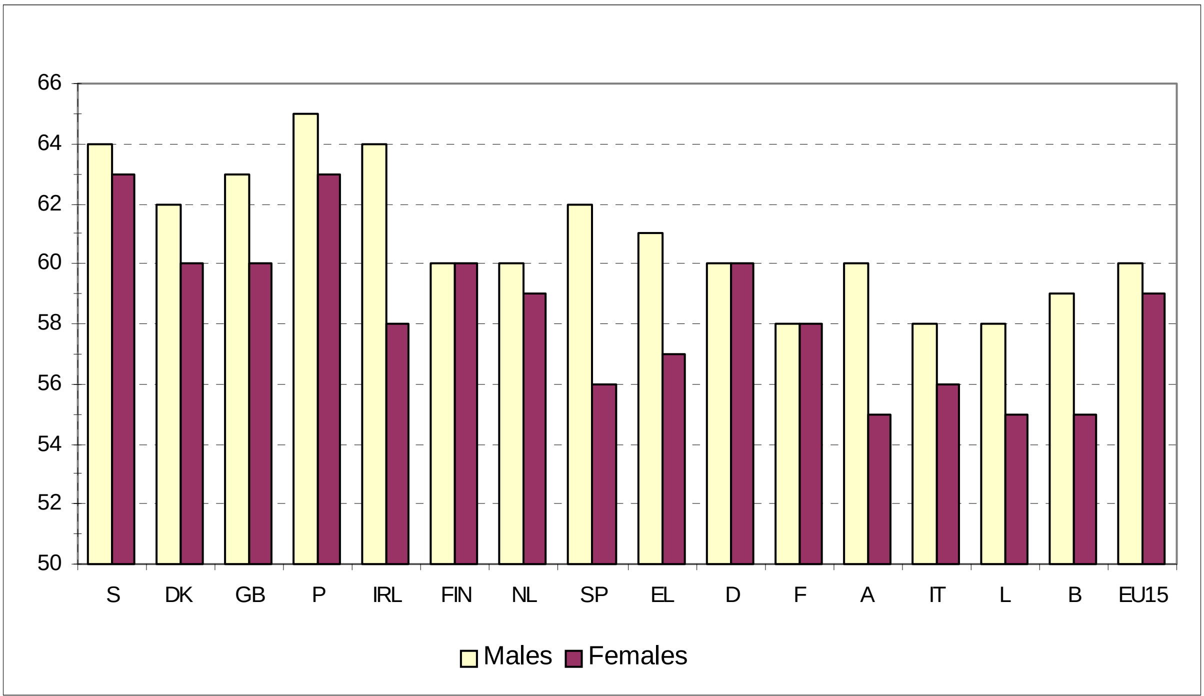
Source: Eurostat.

The number of persons on an early pension is not easily available for all countries. A high number of such persons is, however, shown by other proxy indicators, for instance by the employment rate for older workers and the average age of withdrawal from the labour market. In all European countries except Sweden, the employment rate for older workers is far below the rate for the total labour force. At the same time, the unemployment rate for older workers is lower than for the total labour force in almost all countries (table 2.1.), thus indicating that the labour supply of older workers is low.

It can be noticed from the graph 2.5 that there is no single model for the employment of older workers in European countries. In fact, the rates vary across countries far more than the total employment rates and do not follow the same ranking order as the overall employment rates. Belgium, Luxembourg, France and, notably, Austria have very low employment rates for older workers but rank in the middle for the overall employment rate. Also, the Netherlands, with one of the highest overall employment rates, falls close to the European average regarding the employment rate of older workers. These countries have the largest gaps in the employment rates between older workers and total labour force.

During the latter part of the 1990s, progress in raising the employment rate of older workers can be observed in all countries except Greece and Italy. The progress has been fastest in Finland and the Netherlands and noticeable also in Ireland, Denmark and Spain. Partially, this reflects favourable economic developments, but also a change in policies. European countries have become more and more aware of the undesirable incentives in benefit and pension schemes for early withdrawal from the labour market. Consequently, policies have been geared towards tighter eligibility rules for early retirement and promotion of remaining in employment.

Graph 2.6 Average age of withdrawal from the labour market in 2000



Source: Eurostat

The average age of withdrawal from the labour market shows a mirror picture to the employment rate of older workers. In general, countries with the lowest employment rate for older workers also experience the lowest average age of withdrawal from the labour market, although the latter figure is estimated from the labour force participation figures of the age groups over 50. Strictly speaking, the average age of withdrawal from the labour market does not express the receipt of an early pension but only the exit from the labour market. However, the figure of a low age of withdrawal together with low unemployment rates for older workers reveal that the requirement for labour market availability is not strict. The easy availability of early pensions clearly contributes to this. It can be assumed that the figures for men reflect the availability of early pensions more than those for women, who in a number of countries have traditionally only been in the labour market to a limited extent. In the EU countries, on average, men withdrew from the labour market at the age of 60 and women at the age of 59 in 2000, while the common statutory retirement age was 65 in almost all countries.

The above figures tell us that there is still ample room for improvement in the functioning of the labour market. A high level of benefit spending to the working-age people and a large group of people in unemployment and inactivity while receiving benefits call for further examination of the mechanisms in benefit systems, the reform of which could render benefit systems more supportive to employment. We turn to this question in the following chapter.

3 Methodology and assumptions of this study

This study aims to examine benefit levels relative to income gained from work, with a special focus on the time dimension of benefit receipt: whether and when the level of benefits changes if its receipt is prolonged, and whether it is possible to move from the receipt of one benefit to another in certain circumstances. For this purpose, a number of hypothetical routes out of the labour market through unemployment to long-term benefit dependency have been defined, and, as an alternative, an activation route back to employment. The benefit level in each of these stages is studied and compared with the income level when in work. Thus, possible disincentives to return to work and incentives to stay on benefits are looked at.

The study has been carried out through an investigation of tax and benefit systems in each of the participating countries and through calculation of net replacement rates of different benefit schemes in selected situations. The calculations have been done by a stylised approach of micro simulations for a set of selected family types. In other words, the structure and outcome of the benefit and tax system in each country is analysed, as it appears on the basis of the entitlement to these benefits according to the legislation on a given date and assuming that the benefit and tax rules are applied as they stand in the legislation.

Stylised simulations

In this stylised approach, a number of hypothetical assumptions and selections have to be made. These include (i) the selection of the benchmark in terms of the wage level applied for each country's calculations, (ii) selection of the family types for which the calculations will be done, (iii) selection of the benefit schemes, notably the means-tested ones, to be included in the calculations, (iv) some hypothetical assumptions which are needed for calculating certain benefits, notably assumptions on housing costs in order to calculate housing allowances. In addition, in this study, the hypothetical routes for benefit dependency or back to work have been defined.

The benchmark of the wage level is decisive for the relevance of the calculations both for each country's income distribution and for the cross-country comparison of the results. As it is already an established practice, the wage of an average production worker (APW) has been chosen as a benchmark, following the practise applied in the OECD's tax/benefit calculations for an average worker[4]. An income range below and above this average is defined as fractions of the average wage, with the aim of representing both low and high wage earners and covering the range between 67% of the APW to 150% of the APW wage. In addition to the benchmark (average) wage level, particular emphasis is given to a low wage level, which is chosen as 67% of the APW wage[5], in order to focus on the group of people to whom incentive problems are most likely to occur.

[4] See, for instance, OECD (1995), 'The Tax/Benefit Position of Production Workers, 1995 Edition'; OECD (1997), 'Benefits and Incentives in OECD Countries. 1997 Edition'.

[5] According to an OECD study, based on the European Community Household Panel data, the average wage of those who lost employment was slightly above two thirds of average earnings as an average for a number of countries, whereas the wage that they got if they became employed after unemployment was somewhat below the two thirds level when calculated. In other words, the 'low earnings' assumption often made in stylised calculations is in fact a 'typical' wage of those who experience unemployment. (OECD (2000), 'Income Changes when Moving in and out of Work', Work document ELSA/WP1 (2000))

The family types used in this study are:

- A single person.
- A single parent with two children aged 3 and 6.
- A young single parent (age 22) with one child (age 3); this family type is used only for the activation route analysis.
- A one-earner couple without children.
- A two-earner couple with two children aged 3 and 6; the second earner is assumed to work part-time, always with a wage 50 per cent of the primary earner's wage.
- A two-earner couple without children; this family type is used only for the early retirement route analysis.

In the context of the receipt of different benefits, it becomes necessary to make assumptions of the age of the primary earner. The primary earner is assumed to be of middle age, 40 years old. However, active labour market policies, in particular, may differ from those targeted to prime-age workers for young people. In the activation route, young persons age 22 are also examined. In addition, early retirement is valid only for older workers. The early retirement age of the primary earner varies from 52 (in Italy) to 61 (in Sweden and Finland) in the countries of this study. For the rest of the countries, the age is assumed to be 60 years.

Net replacement rates

The net replacement rate is a well-established indicator for measuring the unemployment trap. This trap is defined as a situation where benefits paid to the unemployed (or recipients of some other replacement benefit) and their families are high relative to earnings so that working "does not pay". More precisely, the net replacement rate is calculated as a ratio of disposable income when out of work in comparison with the disposable income gained from work. This provides adequate information regarding the interaction of tax and benefit systems, because in addition to an exchange of wage into unemployment benefit, the different taxation treatment of wages and benefits and the entitlement to means-tested benefits are taken into account.

For a calculation of net replacement rate in a stylised study, the following elements are taken into account:

Gross wage or gross benefit
- income tax
- employee's social security contribution
+ cash child allowance (incl. single parent allowance)
+ housing allowance
+ possible topping-up of social assistance

= Disposable income
- housing costs

= Family purse income

In this study, deducting the housing costs further modifies the concept of disposable income. The concept of family purse income has been used in the previous studies of this group as well. The concept can be interpreted to better reflect the income situation after some necessary living costs and that it represents that part of the family budget which can be more easily adapted to changes in disposable income. Thus, it can be regarded as room for ‘free choice’ of family consumption, whereas it is assumed that families cannot save in housing costs, at least in the short run, even if their income is reduced. The choice of family purse income tends to lead to lower net replacement rates than the concept of disposable income because the deduction of the same amount of money from the out-of-work income and in-work income affects the former more than the latter. (This effect is further illustrated in the calculations presented in the technical annex.)

Child-care is an element which can greatly affect incentives for employment in families with children. However, it is not easy to find a common methodology to define child-care costs and, secondly, subsidies to child-care cost vary greatly between countries. Due to these reasons and the complexity owing to the inclusion of the duration of benefits in this study, it does not allow for child-care costs and subsidies.

The calculations assume that the housing costs are 20% of the 100% APW wage (of the primary earner) for the family types with one income earner, i.e. for a single person, a single parent with children and a one-earner couple without children. For couples with two income earners (and with children), the housing costs are assumed to be 30% of the APW wage. The housing cost for the family type is kept constant when income changes.

All calculations are made for the year 2000. In other words, the wage levels refer to those in 2000 and tax and benefit rules are applied as they were in force in 2000.

Benefit routes

The benefit routes try to capture entitlement for the duration of benefits and have been defined hypothetically with the aim of representing possible routes to withdraw from the labour market, notably through unemployment, and a route to return to the labour market after unemployment.

Four routes have been defined:
(i) *Activation route*, in which one becomes unemployed, participates in active labour market programmes, and finally re-enters employment;
(ii) *Long-term unemployment and social exclusion route*, in which one becomes unemployed, continues to stay on benefits as long as it is possible, and becomes long-term unemployed when unemployment insurance benefits expire, and ends up on last-resort benefit schemes;
(iii) *Early retirement route,* in which one may come both through unemployment or directly from employment. The route through unemployment is examined here, but when that is not possible the route goes from employment to early retirement;
(iv) *Sickness and disability route*, in which one may come from employment when this benefit is used as a substitution for early retirement or genuinely through a sickness case.

4 ACTIVATION ROUTE

4.1 Introduction

The purpose of this chapter is to examine incentives to work. The employed person at different income levels experiences unemployment and eventually returns to the labour market through either participation in active labour market programmes or directly to work. It is assumed that the person does not receive the same wage as before unemployment. In calculations of the net replacement rates (NRR) the benefit recipient gets 75% or 90% of the former wage upon returning to work. For the purpose of presentation it is assumed that a person participates in an activation programme after 12 months in unemployment or earlier if the duration of the unemployment benefit terminates sooner.
The chapter begins by describing the out of work assistance schemes that are available in each country. A special focus is given to entitlement to benefit, benefit level, and duration of the benefit. A short description of the activation measures in the seven countries is also included. These are often very detailed and targeted to special groups but the aim is to focus on similar measures in countries.

4.2 Unemployment benefit and activation schemes

General remark. The main schemes for unemployment benefits described in the following are often supplemented by other general benefits according to the family situation, rent level or income. These can be family allowance, lone-parent allowance, housing benefits or social assistance.

Denmark
Eligibility: Voluntary unemployment insurance scheme. Conditions of eligibility depend on education, age and work record. Education has to be relevant and of at least 18 months duration. Individuals must be between 18 and 63 years of age when they first become members. Finally, individuals must have been members for one year, and in work for 52 weeks (34 weeks for part time workers) within the last three years.

Benefit level: The benefits are income related at 90% of former income, minus the general social contribution of 8% (this contribution is not levied on unemployment benefits). The maximum benefit is reached at around 2/3 of the income of OECD’s APW. The minimum benefit is 82% of the maximum benefit.

Benefit duration: The benefit period is four years – one year on benefits and then up to three years in activation.

Activation measures: An action plan is agreed between the unemployed and the labour office, with the labour office having the final say, considering the local need for different types of labour. During activation, the general rule is that the individual receives an income equivalent to the unemployment benefits he/she is entitled to. This is, however, not the case in private job training, where the wage paid should be the usual one for the type of job.
Special efforts are being made to get the young unemployed quickly into activation. Without qualifying education, they must, after having received unemployment benefits for six months, enrol in a 1.5-year educational programme in order to continue to be eligible for benefits.

For those who are not insured, persons under age 30 are entitled to an activation offer after 13 weeks, with those aged 30 plus entitled after 12 months of social assistance.
For the young (below age 25) unemployed without a qualifying education, activation is in the form of an education for 1.5 years. In that period they receive students grants or 50% of unemployment benefits. For young single parents supplementary benefits are available.

Alternative system: Since unemployment insurance is voluntary, social assistance is not only an exit scheme from unemployment insurance for those whose eligibility to an insurance scheme has expired, but also the only scheme available for those with no work history (new entrants) or those that have not joined the insurance scheme.

Finland

Eligibility: Unemployment benefit can be either flat-rate unemployment assistance or an earnings-related benefit scheme. Both schemes require a work history. The earnings-related insurance scheme is voluntary and requires 10 months membership in an unemployment fund. The person must be aged between 17 and 64, seeking full-time employment, and satisfy the employment condition. In the case of a wage earner, the employment condition is satisfied, when, within the last 24 months, employment of at least 18 hours a week (which is subject to compulsory unemployment insurance) has lasted 43 weeks. A flat-rate unemployment scheme is available for those who fulfil the employment condition but have not joined an insurance scheme. In addition, cash labour market support is available for persons who do not qualify for unemployment benefits or who have received unemployment benefit for the maximum period or exhausted the period with a training subsidy.

Benefit level: The basic component of the earnings-related unemployment benefit consists of a flat amount of €20.5 (FIM 121) per day, and a child increase of €4 (FIM 24) for one child, up to €7.6 (FIM 45) for three or more children. The earnings-related component equals 42% of the difference between daily earnings and the basic component, up to monthly earnings that are 90 times the basic unemployment benefit. Income above that level is compensated by 20% and there is no maximum in the scheme.

Benefit duration: Maximum entitlement period of unemployment benefits is 500 days.

Activation measures: In order to promote activation, unemployed individuals may alternatively participate in labour market training, which provides participants with the skills required for the labour market, and also facilitates the matching of supply and demand. Adult labour market training is available to persons over 20 years of age. In order to prevent exclusion from the labour market, training is targeted at persons who have been unemployed for a long time, are disabled or are older workers. Participants in labour market training receive the training allowance, which is the same amount as the amount of unemployment benefit. Labour market training is available to those meeting the employment condition and under condition that the maximum period for receiving the daily unemployment allowance has not expired. Training is flexible in form and can last from a few days to more than a year.

Great Britain

Eligibility: Where most countries use unemployment insurance and social assistance, Great Britain has a single, unified unemployment benefit, Jobseekers Allowance (JSA). This is for people who are unemployed or working less than 16 hours a week, are available for, and actively looking for work, and have entered into a jobseeker's agreement which remains in force. People who don't have to sign on for work, for example those who are incapable of work, aged 60 or over, or lone parents, can claim income support instead. The jobseeker's agreement consists of a description of the type of work you are looking for, the hours you are available, and the action you're expected to take to look for work and to improve your job prospects.

Benefit level: Contribution based JSA is a flat rate allowance and is taxable. Entitlement is based on the National Insurance contribution record. The amount received depends on age. It is €50 (£31.45) per week for those aged under18, € 66 (£41.35) for those aged 18 to 24, and €84 (£52.20) for those aged 25 or over.

Income based JSA is income related and taxable. The amount received is made up of a personal allowance – for yourself (same as contribution based JSA amounts), or for a couple, and for each dependent child. There are premiums to help with extra costs of disability, age, family and caring responsibilities as well as certain housing costs (e.g. mortgage interest).

Benefit duration: Flat rate JSA is payable for up to six months. Each member of a couple can claim separately and each qualifies for JSA based on their own contribution record. Claimants to income based JSA must have no income or low income, savings of less than £8,000 and your partner (if you have one) must work less than 24 hours a week. It can top up contribution based JSA if that amount is less than the amount of income based JSA entitled to. Up to October 2000, one member of the couple claims for both of them and for any dependants. That person must sign on as available for work and meet all other conditions. After October 2000, some couples will have to make a joint claim, where both members must sign on as available for work and both meet all other conditions for benefit.

Activation measures: From day one on JSA, you are actively encouraged to find employment, as part of the jobseeker's agreement condition for eligibility. In addition, there are a number of New Deals operating, targeting six main groups of people[6], and helping those eligible (usually based on length of time on JSA) to move into work. For example, with the New Deal for 18 – 24 year olds, those falling into this age group and claiming JSA continuously for six months are required to enter the New Deal Gateway. This is a period of up to four months of intensive help to find a job and preparation for a New Deal option. The options are:

Employment option – up to 26 weeks of either subsidised employment or self-employment for which you receive an allowance on the same basis as the voluntary sector option.
Voluntary Sector option – up to 26 weeks work with a voluntary organisation for which you receive either a training allowance or a wage from the employer.
Environmental Task Force option – up to six months work on an environmental project, with an allowance or wage as with the Voluntary Sector option.
Full-time education and Training option – up to one year, leading to better educational qualification and including work experience, for which you receive the same amount as you were getting in benefit.

[6] 18-24 year olds, those aged 25 and over, partners of unemployed, disabled people, lone parents, and those aged 50 plus.

A new programme called ONE is set up to provide a one-stop shop for advice on job-seeking and benefit claims for people claiming working age benefits.

Italy

Eligibility: Unemployment benefit for workers definitively-out-of-work who do not maintain any link with the previous work. The benefit is available only to workers individually laid off in the private sector or collectively laid off but not eligible for mobility benefits. It is not available to first-time job seekers, to those who quit or to self-employed workers, who are not eligible to any kind of benefit. The benefit is paid to dismissed workers meeting 52 weeks contribution requirements, provided they have been registered on a placement list for at least two years, and are fit and available for work. Workers employed in agriculture and construction receive special unemployment benefit with more favourable treatment and shorter working requirements.

Mobility benefit is paid to those on mobility lists to deal with collective dismissals in firms eligible for Special wage supplementation. Wage supplementation funds are for workers at risk of unemployment or for displaced workers who maintain links with their previous work and could be considered temporarily-out-of-work. The ordinary fund is designed to finance all the temporary lay-offs. There is a special fund when the suspension of activity is permanent as a consequence of sector or area specific restructuring of firms.

Benefit level: Unemployment benefit is 30% of last earnings to a maximum amount and special unemployment benefit is 80% of the last earning. Starting from January 2001, the unemployment benefit has been raised to 40% of the last earnings.
Mobility benefit is 64% of last gross earnings (80% of the wage supplementation, which is 80% of last earnings) as mobility benefit is provided to workers who have already received the wage supplementation during the first year of unemployment, again subject to a maximum amount.
Ordinary wage supplementation fund pays around 80% of last gross earnings in the first year to workers in industry, construction and agriculture, for hours not worked due to temporary reduction or suspension of activity.

Benefit duration: Unemployment benefit is paid for up to six months and special benefit is paid for three months (six months for those in construction). Since January 2001, the duration of unemployment benefit has been increased from six to nine months for the unemployed over age 50. Mobility benefit duration depends on the age of worker and the location of the firm. Ordinary wage supplementation is paid for three months to a maximum of 12 months over a three-year period for workers in small firms in specific areas. Special wage supplementation is paid for 12-24 months to a maximum of 48 months in special cases.

Activation measures: The main policy interventions are for youth employment and essentially consist of monetary incentives, including tax incentives to small and middle sized firms located in depressed areas for new hirings. Tax relief, credit facilities and technical assistance exist for the young unemployed willing to become self-employed. There is tax relief on all employers' social security contributions for new hirings in depressed regions, for long-term unemployed, new part-time hirings from the mobility lists, and for hiring people for socially useful jobs.

Active labour market policies include apprenticeships with social security reduction for those up to age 26. There are subsidies to work in socially useful jobs for long term unemployed on the mobility lists. There are subsidies and reduced social security contributions for the job training of young individuals on employment lists for at least 30 months.

In 2000 the part-time law has been reformed. The final objective of the reform is to increase the share of part-time contracts in Italy, to implement their wider use in the public sector and to reduce the rigidity of their utilisation without damaging the worker's conditions. The law promotes part-time work through the simplification of administrative and procedural mechanisms, the introduction of flexible clauses and higher financial incentives.

The calculations of net replacement rates for the activation routes, presented below, are based on a part-time index, which has been assessed considering the case of the unemployed who get a part-time job (50% of APW gross wage). Notice that part-time workers cannot obtain supplementary unemployment benefits and that the different family types analysed in the activation path never end up below the social assistance level which might allow them to benefit from social assistance.

Netherlands

Eligibility: Insurance based unemployment benefit, which is compulsory for all employees except civil servants, who have their own scheme. For entitlement to Unemployment Insurance, individuals must register with the Employment Office, accept any suitable work offered, arrange and attend job interviews, and have been employed for at least 26 weeks out of the 39 weeks preceding unemployment. If, in addition to the above conditions, a person has been employed for 52 days or more for at least four out of the last five calendar years, there is a salary-related benefit.

There is a follow-up benefit for a period of up to two years, for persons still unemployed after the salary related benefit has expired.

There is also a short-term benefit for people who do not meet all the eligibility requirements.

Benefit level: Salary-related benefit is 70% of last salary. The benefit has a ceiling of €144.78 per day. The follow-up benefit and the short-term benefit is 70% of the minimum wage for singles. For single providers and couples the benefit is 90% and 100% of minimum wage, respectively.

Benefit duration: The salary-related benefit is paid for a period of 6 to 60 months depending on employment record. Short-term benefit is paid for six months.

Activation measures: Positions on secondment where the local authorities sign a contract with the long-term unemployed and young unemployed and then send them to employers in the public or private sector. This can be combined with training and financial incentives to find regular work as soon as possible. The wage received is the legal minimum wage during the first period of two years. This can increase to 120% of the minimum wage when the contract is changed into an open-ended contract.

Positions for work experience. Local authorities can on a temporary basis (up to one year) subsidise part of the labour costs of an employer. In contrast to a position on secondment, employees don’t have a contract with the local authorities, but with the employer for whom they are working. The wage received is negotiated with the employer, without limitations.

Other instruments for all benefit receivers – training, financial incentives, realisation of places in childcare etc.

Spain

Eligibility: Contributory scheme providing a substitute for the old wage income, which can be definitive (when the labour relationship ends), temporary (when the labour relationship is suspended) or partial (when the number of hours worked falls). Workers must have been employed for a minimum of 360 days in the previous six years. There is also a non-contributory scheme, which guarantees a minimum income.

Benefit level: The amount of benefit received is 70% of the contribution base for 180 days and then 60% of the base. The benefit is between the official minimum wage and 1.7 times that wage for an individual with no dependent children. The floor and ceiling increase with the number of children.

Benefit duration: The contributory scheme will entitle employees for 120 days of benefit receipt. Workers employed for the whole of the previous six years would be entitled to benefit for up to two years.

Activation measures: Benefit for active reintegration into the labour market for the long-term unemployed over age 45, with family responsibilities, who have exhausted the contributory benefit or assistance benefit. Participants must commit to an activity program designed by the employment services, participate in employment programs or professional retraining and accept suitable employment that is offered, provided it be in the usual profession, with a reasonable wage, and the individual need not change residence.

In return, the individual receives an individual employment tutor, who performs a number of tasks, and 75% of the official minimum wage for a period of up to 10 months.

Sweden

Eligibility: Voluntary income-related insurance covering members associated to Unemployment Insurance Societies and working at least 17 hours per week. The insurance is also open for self-employed. Claimants must have been members of an insurance scheme for 12 months. There are also a number of contributory criteria to be met. Individuals must be registered with the Employment Service and be actively looking for work. Any suitable employment or training must be accepted. The right to benefit can be renewed by work, by taking a job offer or by job training. There is also a basic minimum guarantee system for non-members, those that do not fulfil the membership time requirement for the income related insurance, or those who have just finished full time studies.

Benefit level: The insured receive 80 per cent of the previous income, with a floor of €28.4 (SEK240) and a ceiling of €68.7 (SEK580) per day. Basic minimum guarantee system is a flat rate of €28.4 (SEK240).

Benefit period: The insured receive insurance for 260 days a year. The insurance is paid for 300 not necessarily consecutive working days (60 weeks) or 450 days for those aged 57 or over. The flat rate is paid for 180 days. The benefit is paid for 5 days a week. There is also a possibility to renew the insurance by participating in active labour market policies or claiming a job offer.

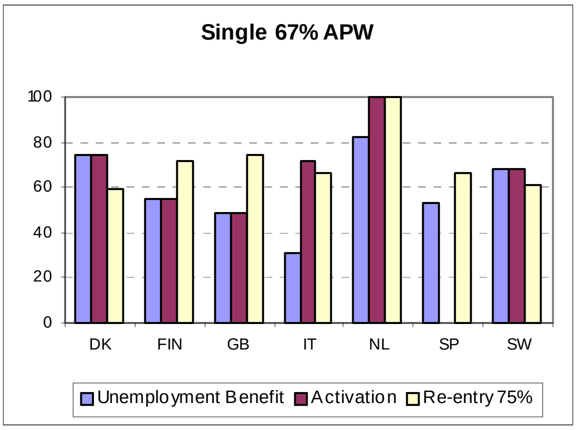
Activation measures: The purpose of labour market training is to increase the employability of job seekers to avoid long-term unemployment. The purpose is also to facilitate the matching of demand and supply by improving the skills of the unemployed. There are a variety of programs like Employment training, Work experience, Employment subsidies, Wage subsidies, Youth guarantee for age 20-24 or Activity guarantee. The programs are targeted at different groups and have shifted over time. The primary aim is to find a suitable job for the unemployed. The secondary aim has been to qualify the unemployed for a second period of Unemployment Insurance, but with the improvement in the labour market the policy goals are higher. Programs are open for unemployed persons or persons who run the risk of being unemployed. Some programs are for persons who have been unemployed a long time. The programs are available for persons from the age of 20. For younger people there are municipal programs. The benefit is the same as in Unemployment Insurance. Those who are not qualified for UI will receive a lower training grant of €16.9 (SEK143) per day. The time of the training period is flexible and can last for a short period to more than a year. The aim is to find a job by vocational training if the participant lacks professional skills or give supplementary training to broaden the skills. Retraining to another occupation can also be offered.

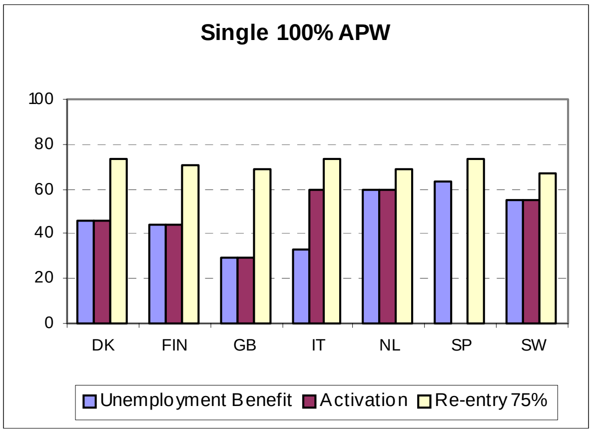
4.3 Replacement rates

Net replacement rates based on the family purse income concept are presented below, for various family characteristics, for in work or out-of-work at various percentages of the seven countries relevant APW wage level. In the following graphs two income levels for unemployed persons are shown, in activation measures or after return to work, at an hourly wage that is 75 per cent of the original wage. The complete table of data is presented in the appendix at the end of the chapter.

Single person

Graph 4.1 Activation route. Net replacement rates for a single person aged 50



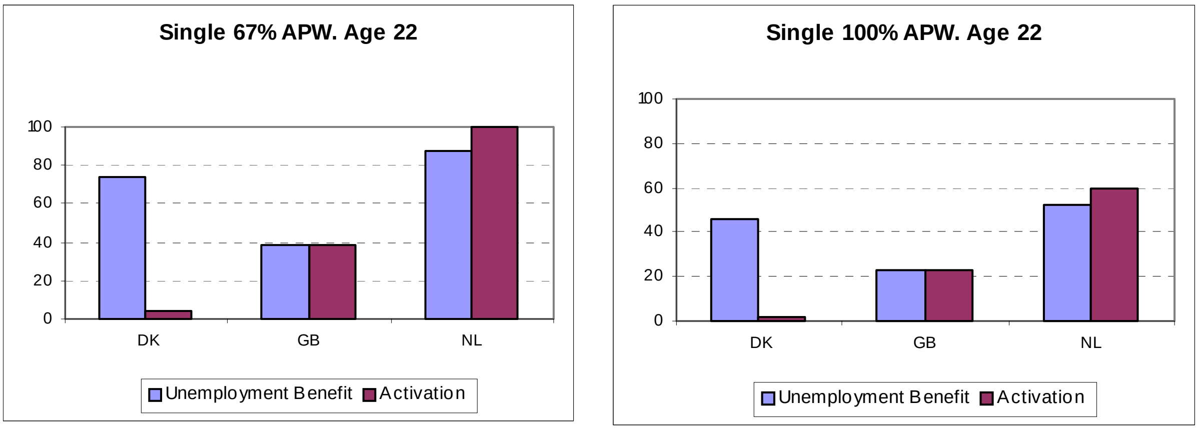


Net replacement rates from unemployment are below 80 per cent in all countries at the low-income level except in the Netherlands, where it is 82 per cent. If 80 per cent is the 'border line' for incentive problems there seem to be no serious problems in this case. Participation in active labour market measures results in the same replacement rates for unemployment in Denmark, Finland and Sweden. Spain has no general activation programme, and that is why the replacement rates in activation have not been recorded, whereas in Great Britain, the Jobseekers Allowance is a joint benefit, requiring participation in activation at an early stage of unemployment. This allowance is presented as an activation scheme in the above graph. In Italy, with a very low compensation for unemployment, and in the Netherlands, the compensation in activation is higher than in unemployment. In most countries there is no financial incentive to join activation from unemployment, participation relies on mandatory rules to do so.

Re-entry into work from unemployment or activation at a wage level corresponding to 75 per cent of the former income at the low-wage level implies a financial loss in Denmark and Sweden. In the remaining countries there is a gain, however, in Italy only when the re-entry is from unemployment, and no change in the Netherlands when the re-entry is from activation.
At the average income level, unemployment replacement rates are equal to those from activation except in Italy and all rates are 60 per cent or lower. Re-entry into work at 75 per cent of the former average wage level implies a financial gain in all countries. However, this gain is only around 10 percentage points compared with the net income when unemployed or in activation in Spain, Sweden and the Netherlands, and also in Italy in case of activation. At the average wage level, only Italy provides a financial incentive to join activation from unemployment.

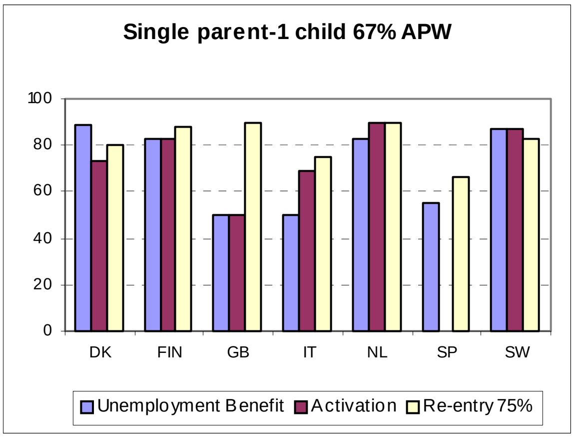
In the appendix it is shown that returning to work at 90 per cent of the original wage level has net replacement rates 2- 16 per cent lower than the original income at the low-income level. In countries where a mix of work and unemployment is possible, net replacement rates are 20-30 per cent lower than fulltime work.

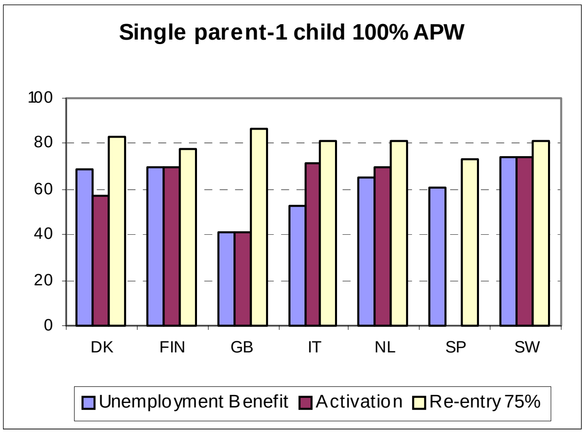
Graph 4.1A Activation route. Net replacement rates for a single person aged 22



Young persons in Denmark, who are unemployed and do not have a qualifying education, are (usually) not entitled to unemployment benefits after the first six months, but have an obligation to enrol in education, during which they receive reduced benefits. In Great Britain, there is a lower unemployment/ activation compensation for young persons and this is to some extent also the case in the Netherlands. In the other four countries the net replacement rates are the same for a 22 year old and a 50 year old, under the assumption that both have been out of the labour market.

Graph 4.2 Activation route. Net replacement rates for a single parent aged 22 with one child

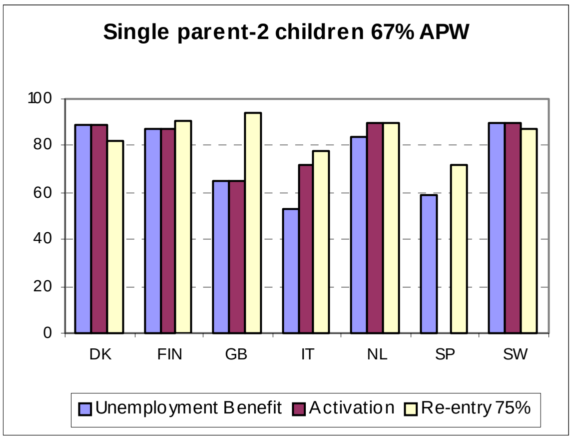


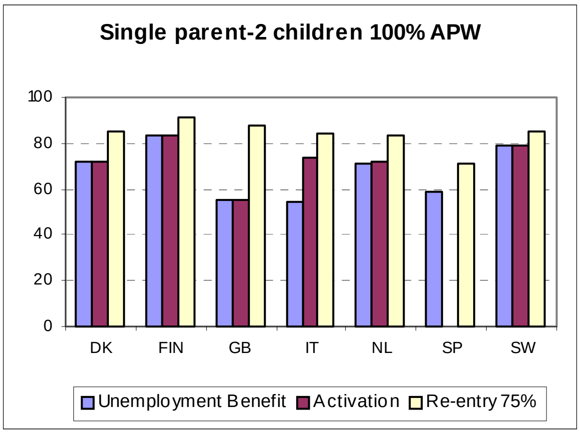


Net replacement rates for the young single parent at the low-income level are in most cases 80 per cent or more in unemployment and activation in Denmark, Finland, Sweden and the Netherlands. In Great Britain, Italy and Spain, they are substantially lower. In the 'High Replacement Rate' countries, Denmark, Finland, the Netherlands and Sweden, there are small or even slightly negative incentives to return to work at 75 per cent of the former wage level. In Great Britain, incentives to return to work are in place both financially and as requirements to participate in activation.

For a single parent at the average income level, the picture is somewhat changed compared to that at the low-wage level: Net replacement ratios are lower and return to work is somewhat more rewarding. The young Danish single parent in activation has a higher compensation due to the provider status than the single person, but it is still lower than in unemployment.

Graph 4.3 Activation route. Net replacement rates for a single parent aged 40 with two children



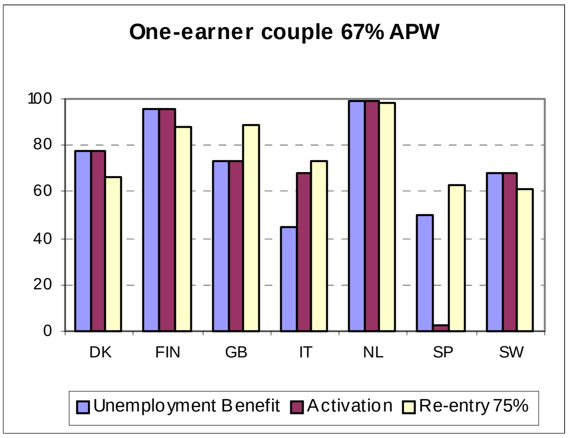


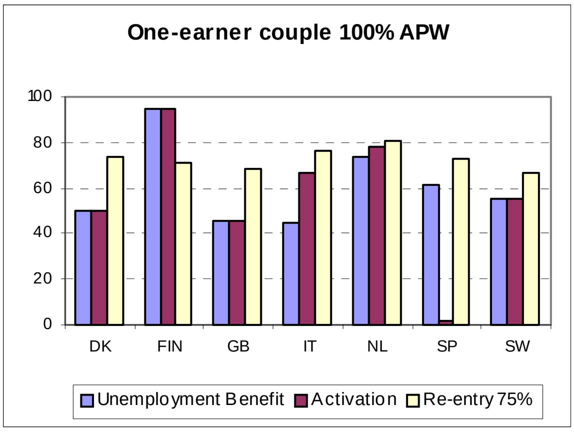
The case of an older single parent with two children shows a similar situation to the young single parent with one child, though work incentive problems are slightly higher. At the low-income level, unemployment and activation replacement rates are close to 90 per cent in Denmark, Finland, the Netherlands and Sweden. This reflects the fact that benefit systems are more generous as family size increases and in some countries also for older single parents compared to young ones.

One-earner couple

This family type, which was once the norm, is becoming less and less common. Nonetheless, one-earner couples do remain, and it is interesting to see how replacement rates change when the family size is increased to include a dependent spouse.

Graph 4.4 Activation route. Net replacement rates for a one-earner couple aged 50 with no children





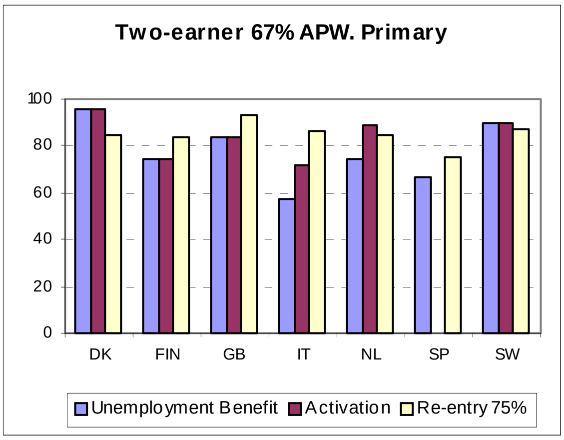
Replacement rates are close to 100 per cent for unemployment and activation at a low-wage level in Finland and the Netherlands but below 80 per cent in other countries. As in the former cases, there are no financial incentives to participate in activation instead of unemployment, except in Italy. At this low-income level, re-entry to work at 75 per cent of the former wage level has a negative impact on disposable income in Denmark, Finland the Netherlands and Sweden.

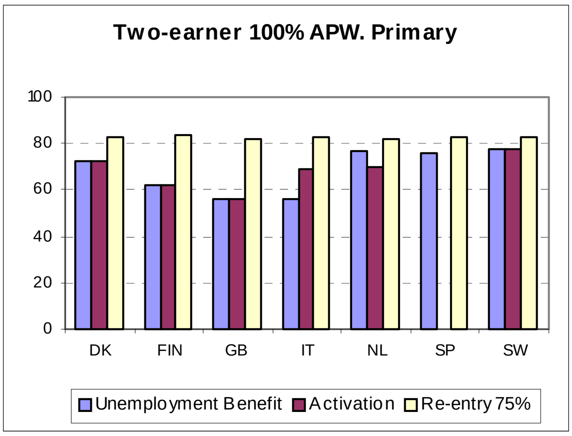
Finland experiences severe incentives problems in relation to moving to work from unemployment and activation at the average income level as well. In the other countries, re-entry at 75% of the former wage results in some increase in disposable income compared to unemployment and activation.

Two-earner couple

The two-earner couple is a fairly typical family type in Europe. The following graphs show replacement ratios for this family type depending on who follows the route from employment via unemployment to activation and re-entry at a lower wage level. In all calculations, it is assumed that the primary earner works full-time and the secondary earner part-time, at the same hourly wage but earning 50 per cent of the primary earner's income.

Graph 4.5 Activation route. Net replacement rates for a two-earner couple aged 40 with two children. Primary earner follows the route

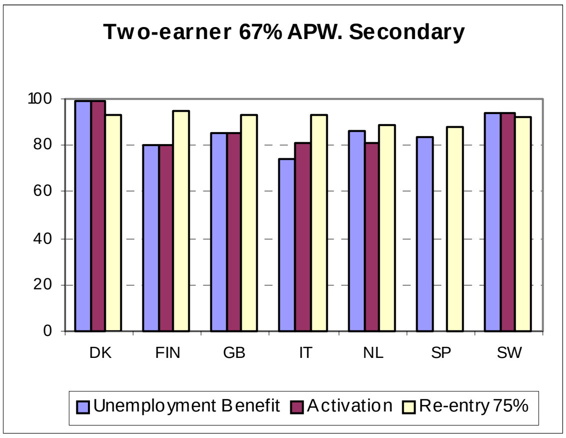


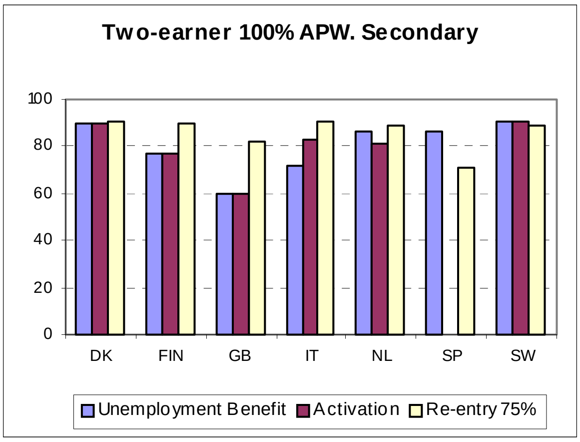


At the low-income level, the replacement rates are above 90 per cent in Denmark and Sweden from unemployment and activation and a return to work at 75 per cent of the former wage level does not pay. Finland, the Netherlands and Great Britain (unemployment only) also have high replacement rates, close to 80 per cent.

At average income levels, in all countries, the replacement rates are below 80 per cent and there is at least a small increase in disposable income if one returns to work at 75% of the former wage.

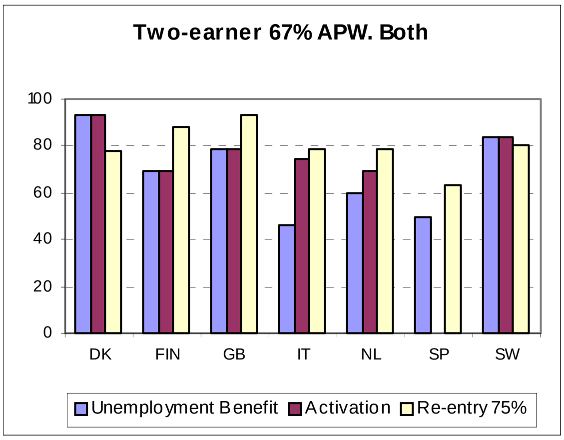
Graph 4.6 Activation route. Net replacement rates for a two-earner couple aged 40 with two children. Secondary earner follows the route

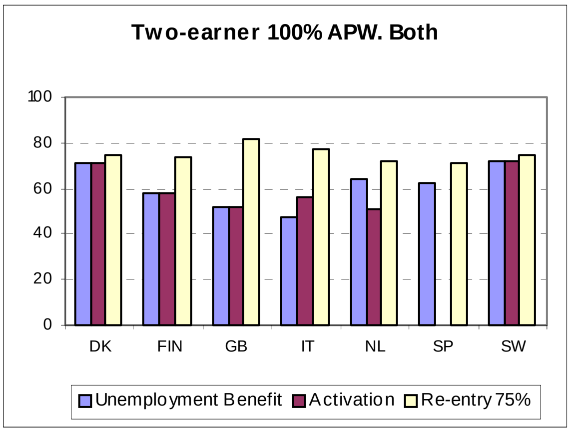




In the case where the primary income earner keeps the income from full-time work and the secondary earner becomes unemployed from a part-time job and tries to return to work, the replacement rates are high across all income levels in all countries. They range from 74 per cent in Italy to 99 per cent in Denmark at a low-wage level and are close to 90 per cent at the average wage level in Denmark and Sweden. In other words, the cost of losing a part-time job in a two-earner family is not high if unemployment benefit is available. On the other hand, a return to a part-time time job from unemployment would not produce much increase in disposable income.

Graph 4.7 Activation route. Net replacement rates for a two-earner couple aged 40 with two children. Both earners follow the route





When both spouses follow the activation route, Denmark and Sweden have replacement rates above 80 per cent and disincentives for re-entry into work at 75 per cent of the former wage at the low-income level. In the other countries, the re-entry to work at 75% of the former low-wage level results in some increase in disposable income compared to unemployment or activation.

At the average income level, all replacement rates are below 80 per cent and re-entry into work at a lower than usual wage pays off although the margin is close in Denmark and Sweden.

4.4 Main findings

In Denmark, Finland and Sweden, there are no additional financial incentives for participation in activation programmes: the net replacement rates are the same as on unemployment benefits. Italy and the Netherlands provide higher benefits when the unemployed persons participate in activation programmes and so these countries also provide additional financial incentives for activation. However, in the Netherlands, this incentive is only provided to low-wage earners in two-earner families. In Great Britain, there is only one joint benefit, which can be considered as an activation benefit rather than just an unemployment benefit, due to its strict requirement of participation in activation. Spain provides no general activation programme.

The Netherlands, Great Britain and Denmark provide stronger incentives for young persons to participate in activation programmes and to seek a job through reduced benefits and tighter eligibility rules just for unemployment benefits. In addition, Denmark, while combining duties and rights, requires that young unemployed persons who do not have an educational qualification must enrol in an education program in order to be eligible for continued, although reduced, benefits. In the case where they choose a labour market training programme, the benefit is low. Hence, this encourages young people to choose ordinary education instead of an activation programme.

Replacement rates are higher for low-wage earners than average earners both in activation and in unemployment in all countries. This reflects the aim of providing a decent income level when out of work, irrespective of the former wage level. It is the result of several factors in the tax-benefit schemes, such as minimum levels of benefits, means-tested benefits and progressive income taxation. On the other hand, it reduces the net gain from moving back to work from unemployment, in other words, the incentives to work are weak.

Denmark, the Netherlands and Sweden tend to have higher replacement rates, and hence lower incentives to enter work than the other countries, across all family types. Italy and Spain tend to have the lowest replacement rates, while Great Britain and Finland fall somewhere in the middle. In particular, incentives to return to work at a lower wage level than one had before unemployment are weak for a low-wage earner. When this is combined with the observation that most countries provide no financial incentives to participate in activation programmes, the question of duration of unemployment benefits and of requirements for participating in activation programmes become very important.

4.5 Appendix for chapter 4

Net replacement rates based on the family purse income are presented in the following tables for all income levels in the activation route. Extracts of the data are presented and analysed in the graphs in the chapter. Re-entry to full time work at both 75 per cent and 90 per cent of the previous wage level are also presented in the tables. In four countries it is possible to be unemployed half of the time and work the other half. Data on re-entry at 75 per cent and 90 per cent of the previous wage are also presented for these countries.

The income of the primary earner is shown in the head of the table for two-earner couples.
The wage level of the secondary earner is half of that level.

Table 4.1 Single aged 50 in activation route

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
UNEMPLOYMENT					
Denmark	74	57	46	36	30
Finland	55	50	44	37	34
Great Britain	49	38	29	22	18
Italy	31	31	33	33	33
The Netherlands	82	64	60	62	66
Spain	53	60	63	51	41
Sweden	68	71	55	42	35
ACTIVATION					
Denmark	74	57	46	36	30
Finland	55	50	44	37	34
Great Britain	49	38	29	22	18
Italy	72	66	60	45	47
The Netherlands	100	80	60	45	38
Spain	-	-	-	-	-
Sweden	68	71	55	42	35
WORK RE-ENTRY 75% WAGE					
Denmark	59	65	73	76	75
Finland	72	68	71	73	75
Great Britain	74	66	69	70	71
Italy	66	68	73	73	73
The Netherlands	100	80	69	70	74
Spain	66	72	73	73	74
Sweden	61	64	67	71	75
WORK RE-ENTRY 90% WAGE					
Denmark	84	86	92	90	90
Finland	87	87	89	89	90
Great Britain	85	87	87	88	88
Italy	86	87	89	89	89
The Netherlands	98	87	87	89	90
Spain	88	89	89	89	90
Sweden	84	86	86	90	90
WORK 50% AT 75% WAGE/ UNEMPLOYED 50%					
Denmark	74	61	60	57	56
Finland	73	66	65	61	58
Spain	71	75	81	81	78
Sweden	66	68	70	74	78
WORK 50% AT 90% WAGE/ UNEMPLOYED 50%					
Denmark	79	72	70	67	64
Finland	76	72	71	65	62
Spain	75	80	82	78	73
Sweden	78	78	80	84	85

Table 4.2 Single parent aged 22 with one child in activation route

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
UNEMPLOYMENT					
Denmark	89	79	69	57	49
Finland	83	82	70	58	52
Great Britain	50	46	41	33	27
Italy	50	50	53	51	50
The Netherlands	83	77	65	50	42
Spain	55	54	61	61	50
Sweden	87	86	74	60	51
ACTIVATION					
Denmark	73	65	57	47	40
Finland	83	82	70	58	52
Great Britain	50	46	41	33	27
Italy	69	69	71	55	55
The Netherlands	90	83	70	54	46
Spain	-	-	-	-	-
Sweden	87	86	74	60	51
WORK RE-ENTRY 75% WAGE					
Denmark	80	83	83	80	79
Finland	88	89	78	75	75
Great Britain	90	89	87	77	73
Italy	75	78	81	74	75
The Netherlands	90	87	81	72	75
Spain	66	67	73	74	74
Sweden	83	83	81	76	78
WORK RE-ENTRY 90% WAGE					
Denmark	93	93	94	92	91
Finland	96	96	90	90	90
Great Britain	96	95	95	89	89
Italy	92	92	93	90	89
The Netherlands	94	95	89	89	91
Spain	85	87	90	90	90
Sweden	94	93	91	92	91
WORK 50% AT 75% WAGE/ UNEMPLOYED 50%					
Denmark	85	81	77	69	64
Finland	94	94	82	70	66
Spain	87	79	76	82	83
Sweden	86	85	82	78	81
WORK 50% AT 90% WAGE/ UNEMPLOYED 50%					
Denmark	91	87	82	74	70
Finland	97	96	83	73	69
Spain	78	76	81	83	78
Sweden	91	90	88	86	87

Table 4.3 Single parent aged 40 with two children in activation route

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
UNEMPLOYMENT					
Denmark	89	82	72	63	55
Finland	87	85	83	71	64
Great Britain	65	60	55	46	38
Italy	53	51	54	52	50
The Netherlands	84	76	71	62	64
Spain	59	61	59	65	58
Sweden	90	89	79	67	59
ACTIVATION					
Denmark	89	82	72	63	55
Finland	87	85	83	71	64
Great Britain	65	60	55	46	38
Italy	72	69	74	60	59
The Netherlands	90	84	72	57	48
Spain	-	-	-	-	-
Sweden	90	89	79	67	59
WORK RE-ENTRY 75% WAGE					
Denmark	82	86	85	84	81
Finland	91	91	91	80	80
Great Britain	94	90	88	82	73
Italy	78	78	84	79	77
The Netherlands	90	88	83	74	76
Spain	72	67	71	75	75
Sweden	87	86	85	82	81
WORK RE-ENTRY 90% WAGE					
Denmark	94	95	94	93	93
Finland	97	97	96	92	92
Great Britain	96	96	95	89	89
Italy	93	90	93	92	90
The Netherlands	95	96	90	89	91
Spain	86	86	89	90	90
Sweden	95	95	94	93	92
WORK 50% AT 75% WAGE/ UNEMPLOYED 50%					
Denmark	71	84	80	75	70
Finland	95	94	94	80	80
Spain	85	84	76	80	83
Sweden	89	88	86	83	83
WORK 50% AT 90% WAGE/ UNEMPLOYED 50%					
Denmark	77	89	84	80	75
Finland	97	96	77	81	75
Spain	84	77	79	83	83
Sweden	93	92	91	88	88

Table 4.4 One-earner couple in activation route

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
UNEMPLOYMENT					
Denmark	78	62	50	39	34
Finland	96	95	95	78	65
Great Britain	73	62	46	35	28
Italy	45	44	45	42	41
The Netherlands	99	92	74	67	70
Spain	50	55	61	50	41
Sweden	68	71	55	42	35
ACTIVATION					
Denmark	78	62	50	39	34
Finland	96	95	95	78	65
Great Britain	73	62	46	35	28
Italy	68	66	67	50	51
The Netherlands	99	92	78	63	52
Spain	3	2	2	1	1
Sweden	68	71	55	42	35
WORK RE-ENTRY 75% WAGE					
Denmark	66	68	74	76	77
Finland	88	82	71	73	75
Great Britain	89	80	68	70	71
Italy	73	72	76	74	74
The Netherlands	98	87	81	75	78
Spain	63	67	73	74	74
Sweden	61	64	67	71	75
WORK RE-ENTRY 90% WAGE					
Denmark	86	87	92	90	91
Finland	95	90	89	89	91
Great Britain	95	87	87	88	88
Italy	90	88	90	89	89
The Netherlands	94	95	89	93	92
Spain	85	87	90	90	90
Sweden	84	86	86	90	90
WORK 50% AT 75% WAGE/ UNEMPLOYED 50%					
Denmark	72	65	62	59	58
Finland	102	68	76	67	58
Spain	71	74	76	82	80
Sweden	66	68	70	74	78
WORK 50% AT 90% WAGE/ UNEMPLOYED 50%					
Denmark	82	74	71	68	66
Finland	65	69	77	69	62
Spain	74	76	81	80	74
Sweden	78	78	80	84	85

Table 4.5 Two-earner couple in activation route. Primary earner follows route

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
UNEMPLOYMENT					
Denmark	96	90	72	63	58
Finland	74	71	62	57	57
Great Britain	84	72	56	39	34
Italy	57	57	56	54	54
The Netherlands	74	76	77	78	80
Spain	67	73	76	77	72
Sweden	90	90	78	67	62
ACTIVATION					
Denmark	96	90	72	63	58
Finland	74	71	62	57	57
Great Britain	84	72	56	39	34
Italy	72	76	69	67	68
The Netherlands	89	79	70	62	58
Spain	-	-	-	-	-
Sweden	90	90	78	67	62
WORK RE-ENTRY 75% WAGE					
Denmark	85	85	83	84	86
Finland	94	90	84	85	85
Great Britain	93	85	82	82	82
Italy	86	83	83	83	84
The Netherlands	85	82	82	83	84
Spain	75	81	83	83	83
Sweden	87	87	83	83	85
WORK RE-ENTRY 90% WAGE					
Denmark	94	94	92	94	94
Finland	98	93	94	94	94
Great Britain	97	92	93	93	93
Italy	97	92	93	93	94
The Netherlands	92	93	93	94	94
Spain	90	93	93	93	93
Sweden	95	95	92	94	94
WORK 50% AT 75% WAGE/ UNEMPLOYED 50%					
Denmark	99	90	77	73	72
Finland	73	66	65	61	58
Spain	91	86	89	88	90
Sweden	89	88	84	85	87
WORK 50% AT 90% WAGE/ UNEMPLOYED 50%					
Denmark	99	90	81	78	78
Finland	76	72	71	65	62
Spain	84	87	89	89	89
Sweden	93	92	88	91	91

Table 4.6 Two-earner couple in activation route. Secondary earner follows route

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
UNEMPLOYMENT					
Denmark	99	97	90	85	81
Finland	80	77	77	78	78
Great Britain	85	74	60	57	57
Italy	74	73	72	71	72
The Netherlands	86	86	86	88	88
Spain	84	87	86	85	83
Sweden	94	93	91	92	92
ACTIVATION					
Denmark	99	97	90	85	81
Finland	80	77	77	75	78
Great Britain	85	74	60	57	57
Italy	81	81	83	83	82
The Netherlands	81	81	81	83	84
Spain	-	-	-	-	-
Sweden	94	93	91	92	22
WORK RE-ENTRY 75% WAGE					
Denmark	93	93	91	91	90
Finland	95	89	90	91	91
Great Britain	93	85	82	82	82
Italy	93	90	91	90	91
The Netherlands	89	89	89	91	91
Spain	88	90	71	89	90
Sweden	92	92	89	90	91
WORK RE-ENTRY 90% WAGE					
Denmark	97	97	96	96	96
Finland	98	96	96	97	97
Great Britain	97	92	93	93	93
Italy	96	96	96	96	96
The Netherlands	95	96	96	97	96
Spain	95	96	88	96	97
Sweden	97	97	96	96	96

Table 4.7 Two-earner couple in activation route. Both earners follows route

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
UNEMPLOYMENT					
Denmark	93	87	71	57	48
Finland	69	67	58	49	43
Great Britain	79	67	52	41	34
Italy	46	46	47	30	31
The Netherlands	60	62	64	66	68
Spain	50	56	62	62	56
Sweden	84	83	72	62	55
ACTIVATION					
Denmark	93	87	71	57	48
Finland	69	67	58	49	43
Great Britain	79	67	52	41	34
Italy	74	55	56	54	51
The Netherlands	69	60	51	45	42
Spain	-	-	-	-	-
Sweden	84	83	72	62	55
WORK RE-ENTRY 75% WAGE					
Denmark	78	78	75	75	76
Finland	88	84	74	76	77
Great Britain	93	85	82	82	82
Italy	79	77	77	74	74
The Netherlands	79	71	72	73	76
Spain	63	68	71	72	74
Sweden	80	79	75	73	76
WORK RE-ENTRY 90% WAGE					
Denmark	91	91	89	91	90
Finland	96	91	90	90	91
Great Britain	97	92	93	93	93
Italy	93	91	90	89	90
The Netherlands	88	88	89	90	90
Spain	85	89	88	89	90
Sweden	92	92	88	91	90

5 LONG-TERM UNEMPLOYMENT AND SOCIAL EXCLUSION ROUTE

5.1 Introduction

In this study we consider social exclusion resulting from following a route from employment to unemployment which continues for a long time. On this route, after a period of time the eligibility to unemployment benefit expires and the living of an individual becomes dependent upon basic assistance. In this chapter, we analyse benefit availability and benefit levels during such a route. We consider the concept of social exclusion as exclusion from the labour market, which in the long run leads to a dependency on last-resort social benefits and thus exposes the person concerned to social exclusion[7]. Exclusion may occur for many reasons and in many patterns. An obvious reason is that a long spell out of the labour market deteriorates the skill level, which in turn increases employability problems and makes the return to the labour market more difficult. In addition, as work also provides meaningful social networks, long periods out of work erode these networks and the individual's social life. Thus, exclusion from the labour market is not only an economic matter but also a matter of people's behaviour and living conditions in general. However, in this study our main interest is the change in a person's economic situation.

Benefits available during such a route are usually unemployment benefit and last-resort (basic) social assistance. A summary of this route describing the availability of different benefits and their duration is provided in table 5.1. Unemployment benefit has already been described in chapter 4. In this chapter, last-resort assistance schemes and their relation to unemployment benefit and income from work are examined closer.

In most countries, the basic assistance is social assistance. In addition, Finland and Spain provide other forms of assistance, especially in case of prolonged unemployment. In Finland, individuals whose eligibility for unemployment benefit expires are entitled to cash labour market support. In Spain individuals are entitled to unemployment assistance. These benefits are provided alongside social assistance but may involve, for instance, more simple administration and less frequent control for renewal of the entitlement. In addition, in Finland, receipt of labour market support does not exclude the receipt of social assistance if the level of the latter becomes higher than that of labour market support. This is because the social assistance is the genuine last-resort assistance in the sense that it constitutes the guaranteed minimum income level.

5.2 Main schemes

The social exclusion route is usually composed of two parts. In the first part, in every country in this study, individuals who meet certain working conditions are entitled to unemployment insurance benefit. Not only the level of the benefit varies but also the schemes are different in duration. The length varies from four months to five years. When the eligibility for unemployment benefit expires, the exit scheme is social assistance in most cases. In Finland the exit scheme is labour market support and in Spain it is unemployment assistance.

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[7] In social policy literature, social exclusion is often defined by stricter multidimensional characteristics, such as "inability of an individual to participate in the basic political, economic and social functions of the society where he or she lives". This implies that social exclusion covers, in addition to a poor access to the labour market, things such as poor housing conditions and poor access to health or other public services etc.

Denmark
Danish social assistance is not a guaranteed minimum income scheme. There is, generally speaking, no automatic topping-up to the level of social assistance if the income from other sources is low. In this respect, the Danish social assistance differs from the schemes of many other countries.

Eligibility: Eligibility for social assistance requires a social event, e.g. unemployment, illness or divorce and no alternative means to support the living of the individual and the family. This means that the recipient has no other income nor any net wealth (above a minimum threshold) when social assistance starts to be received. If the situation of the recipient changes, e.g. by an earnings income, the social assistance benefit will be tapered. A couple may receive social assistance for both spouses, even if only one of them has experienced a social event.

Benefit level: The individual benefit for a person over 25 years is:

	Rate per month	Rate per month
Not provider (60% of maximum unemployment benefit)	995€	7 410 DKK
Provider of children (80% of maximum unemployment benefit)	1 324€	9 865 DKK
Young person (age<25) living independently	1 001€	4 753 DKK
Young person (age<25) living with parents	312€	2 324 DKK

Both spouses meeting the eligibility criteria will receive the individual amount of social assistance. If one of the spouses has never worked and has no intention to do so, that spouse will not receive any social assistance, but the husband will receive a supplement of 2,324 DKK a month (the same rate as for young people living with their parents). Special rules of tapering the benefit are applied, for instance, if one of the spouses receives earnings or another benefit such as pension or unemployment benefit.

Benefit duration: Benefit duration is unlimited.

Labour market requirements: Persons receiving social assistance are obliged to participate in activation programmes: those under age 30 when they have received social assistance for three months and those over age 30 when assistance has been received for 12 months.

Supplementary benefits available: Along with social assistance persons are entitled to receive ordinary child benefits and a means-tested housing allowance. Eligibility for the means-tested housing allowance also requires a social event like the personal social assistance. The housing allowance in the social assistance scheme is in addition to ordinary housing benefits.

Finland
Eligibility: The cash labour market support is an income guarantee benefit payable to unemployed persons after they have received unemployment benefit for the maximum period of 500 days. It is also paid in cases where an unemployed person does not satisfy the employment condition (i.e. too short or no work history) required to qualify for the unemployment allowance and where the person is looking for a job or undergoing labour market policy measures. It is intended to promote the unemployed person’s access or return to the labour market.

Benefit level: Except for the child increase, the rates of the labour market support are equal to those of the basic unemployment benefit. The only difference is that labour market support is means-tested against all personal income of the unemployed person and the spouse's income above a certain limit.

	Rate per day	Rate per month
Labour market support, full rate	20.5 € (121 FIM)	431€
Child increase, 1 child	1.6 € (9.60 FIM)	34€
2 children	2.4 € (14 FIM)	49 €
2+ children	3 € (18.40 FIM)	65 €

Benefit duration: Benefit duration is unlimited.

Supplementary benefits available: Persons receiving labour market support are entitled to have child allowance, means-tested housing allowance and means-tested social assistance. The latter is valid especially for families with children because the rates for children are higher than universal child allowances.

Great Britain

In this chapter it is assumed that the unemployed receives Jobseekers Allowance (JSA) during the unemployment spell. For the first six months the JSA is contribution based and after that period the JSA is means-tested against the income and wealth of the family. For a description of eligibility, benefit level and duration see chapter 4.

Italy

Social assistance is not only an exit scheme from unemployment insurance; it is also an alternative to that scheme. This also implies that social assistance recipients are available for the labour market and participate in active labour market measures. The complete social assistance scheme can be considered adopting the distinction between work related benefits and non-work related benefits. Focusing on the social assistance scheme used in the calculations, that is minimum income support, administered at local level and currently under trial in a few Italian municipalities, we made the assumption that this benefit has been extended to all regions.

Eligibility: The target groups of minimum income support are all people/households in need or identified as at significant risk of social exclusion. The program raises the household's income to a threshold slightly below the poverty line, but tests for the absence of any asset beside the residential house. There is also the residence criterion that the person's stay in the country should be at least 12 months for EU citizens, and for at least three years for non-EU citizens. For people with working capacity the benefit is conditional on either availability to accept a labour offer, active labour search, participation to training programs, or care activity towards children or disabled people within the family. The beneficiaries must be registered at the public employment service.

Benefit level: The ceiling of the minimum income support is €269 (520,000 lire) per month and this amount represents the maximum benefit for a single person with no other income source. This threshold increases directly with the economic condition indicator; the number of family members and social-demographic condition, and is modified according to an appropriate equivalence scale. For instance, the ceiling for a household with five members is €765 (1,482,000 lire) per month, which is also the amount of benefit for a five–member household with no other income sources. By contrast, assuming that a five-member household has other income sources, the benefit is equal to the difference between the ceiling and the total household income assessed by the economic condition indicator. Among the elements of the total household income, which are relevant for the economic condition indicator there are all other benefits addressed to the family. An earnings disregard of 25 per cent is applied to labour income when the economic condition indicator is calculated, aimed at promoting income from work. Both the minimum income support and the corresponding threshold are indexed each year to the consumer price index.

Benefit duration: Benefit duration is unlimited.

The Netherlands

The National Assistance Act provides a minimum income to meet essential living costs.

Eligibility: Any Dutch national - or foreigners living in the Netherlands legally- without sufficient means to provide for essential needs is granted Social Assistance. It is granted complementary to all other subsistence allowances and is provided as a last resort.

Benefit level: National norms have been established in the National Assistance Act for persons aged from 21 to 64 and for persons aged 65 and older.
Each group falls under a different norm:

	Share of the net minimum wage, %
Married couples and cohabitants[8]	100
Lone parents	70
Single persons	50

The starting point for the standard amount for lone parents and single persons is that (housing) expenses are shared with other people. If this is not, or only partly, the case the municipal authorities may pay a supplementary allowance of no more than 20% of the net minimum wage. Lone parents or single persons living on their own, and consequently unable to share their essential living costs with other persons, are also entitled to this maximum allowance.

Social Assistance for persons between age 21 and age 64, net monthly amounts (rounded)

	Basic Norm	Holiday allowance
Married couples and cohabitants	€924 (ƒ 2 056)	€52 (ƒ 115)
Lone parents	€653 (ƒ 1 439)	€37 (ƒ 81)
Single persons	€466 (ƒ 1 028)	€26 (ƒ 58)
Maximum allowance for single and single parents	€187 (ƒ 411)	€10 (ƒ 23)

[8] This includes all situations in which two people run a joint household, with the exception of immediate relatives (parent-child).

Spain

Eligibility: The assistance benefits are a continuation of the contribution system, but they are no longer intended to substitute the wage but palliate the lack of economic resources. However, only the unemployed that have previously contributed for unemployment benefits are entitled (with some exceptions). People looking for their first job are not entitled, nor those that have previously been self-employed, domestic service employees or, in most regions, agricultural workers.

Benefit level: The level is 75% of the current official minimum wage, not including extraordinary pay (€319 (ESP53,010) per month) plus social security contributions paid by the INEM, but (except for one case) only for medical assistance and family protection.

Benefit duration: Those who have contributed previously can receive the assistance benefit for a limited period if they meet other requirements. Some of these requirements are common to all categories and others are specific. The maximum period during which one can receive unemployment assistance depends on age, dependants, and, to a lesser extent, on previous contribution record. Workers aged over 52 have no duration limit until retirement age. Workers with dependants and at least six months of contributions get from 21 to 30 months of assistance, on top of the insurance. Young workers without dependants usually get no unemployment assistance after insurance has expired.

Sweden

Social assistance is the final income safety net within the welfare program. When more general welfare benefits, such as housing allowance, cannot provide acceptable economic resources, social assistance offers the last possible solution. A person is entitled to help with achieving a reasonable standard of living if there is no other way to earn a living. The help can imply a number of different measures, of which financial assistance is one. Social assistance serves two different purposes, to secure the upkeep of the individual or family, and to have a preventive and rehabilitative function.

Eligibility: Social assistance is an asset (means)-tested minimum guarantee. The assistance should ensure the individual's subsistence and be designed to strengthen the individual. Need has to be reduced as much as possible, e.g. by moving to cheaper accommodation and applying for housing benefits. The unemployed must be registered with the Employment Service and be actively looking for a job. Any offer of suitable employment or training received must also be accepted. On the other hand, social assistance cannot be made conditional on undergoing some form of care or treatment. The National Board of Health and Welfare establish a guideline norm for social assistance, which has an individual and a household dimension.

Benefit level: The individual norm varies according to age of children and, for pre-school children, if lunch is eaten at home or not. There are seven different age groups. There is one norm for a single adult person and another norm for cohabitants. The household dimension fluctuates according to the numbers of household members.

	Rate per month for personal expenses	Household rate per month based on the number of family members	
Adult single	€ 284 (SEK 2 400)	1 person	€ 71 (SEK 600)
Adult cohabitant	€ 516 (SEK 4 360)	2 persons	€ 81 (SEK 680)
Below age 1	€ 145 (SEK 1 220)	3 persons	€ 92 (SEK 780)
Age 1-2	€ 174 (SEK 1 470)	4 persons	€ 100 (SEK 840)
Age 3	€ 137 (SEK 1 160)	5 persons	€ 111 (SEK 940)
Age 4-6	€ 171 (SEK 1 440)	6 persons	€ 118 (SEK 1000)
Age 7-10	€ 188 (SEK 1 590)	7 persons	€ 126 (SEK 1060)
Age 11-14	€ 224 (SEK 1 890)		
Age 15-18	€ 254 (SEK 2 140)		

Benefit duration: Benefit duration is unlimited.

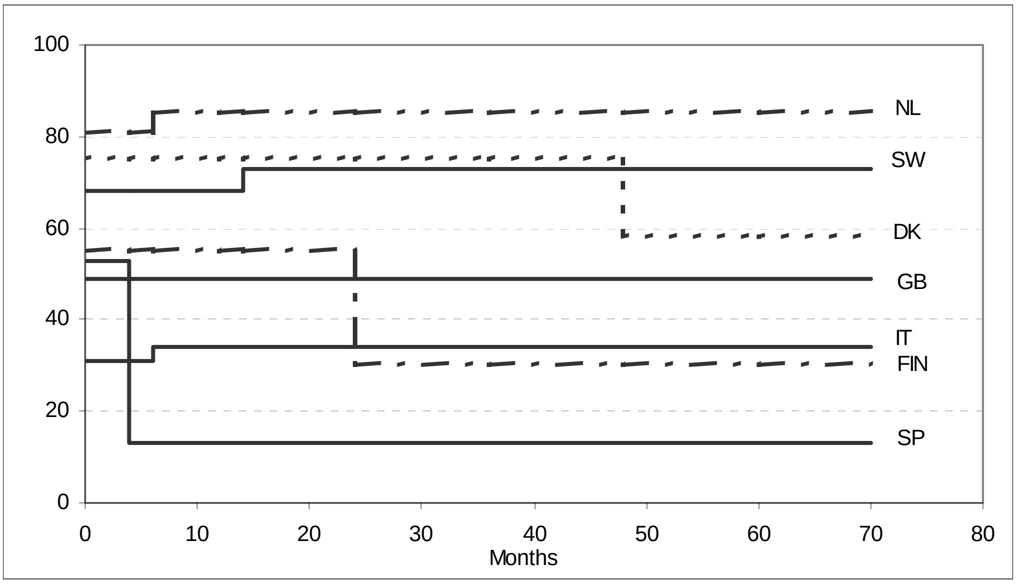
Table 5.1. Social exclusion routes

	Part 1				Part 2		
Country	**Minimum working condition**	**Scheme**	**Duration**	**Additional benefits**	**Scheme**	**Additional benefits**	**Duration**
Denmark	52weeks within the last 3 years	Optional insurance	Two periods. Initially 1 year, second 3 years	Child benefit, housing benefit	Social assistance	Child benefit, housing benefit	No limit
Finland	43 weeks within the last 2 years	Optional insurance	23 months (500work days)	Child benefit, housing benefit, social assistance	Labour market support	Child benefit, housing benefit, social assistance	No limit
Great Britain		Contribution based Jobseekers Allowance, JSA	6 months (182 days) in any job seeking period	Child benefit, housing benefit, Income based JSA	Income based Jobseekers Allowance, JSA	Child benefit, housing benefit	No limit
Italy	52 weeks within the last 2 years	Unemployment benefit	6 months (180 days)	Child benefit, housing benefit, social assistance	Social assistance	Child benefit, housing benefit	No limit
The Netherlands	26 weeks within the last 39 weeks	Income related benefit	Depends on employment record: 4 years: 6 months 5 to 10 years: 9 months 10 to 15 years: 1 year 15 to 20 years: 1½ year 20 to 25 years: 2 years 25 to 30 years: 2½ years 30 to 35 years: 3 years 35 to 40 years: 4 years 40 years or more: 5 years	Child benefit, housing benefit, social assistance	Social assistance	Child benefit, housing benefit	No limit
Spain	360 days within the last 6 years	Unemployment insurance	Depends on employment record: from 4 months to 2 years	Child benefit, housing benefit, social assistance	Unemployment assistance	Child benefit, housing benefit	Depends on age, family and contribution record
Sweden	6 months within the last year	Optional insurance	14 months (300 days)	Child benefit, housing benefit, social assistance	Social assistance	Child benefit, housing benefit	No limit

5.3 Replacement rates

There is considerable variation of generosity of the tax-benefit systems across countries and the profile of the social exclusion route varies as well. In table 5.1 there is an overview of the schemes available on the route and the duration of the different schemes. Comparing net replacement rates without considering the duration of the underlying scheme is not enough. In graph 5.1 there is an attempt to illustrate both net replacement rates and the time dimension. This kind of graph should illustrate all family types and income levels, but since it is difficult to make them easily readable we settle with one example. The example is a single person on a low income and the kinks have been a little exaggerated for some countries.

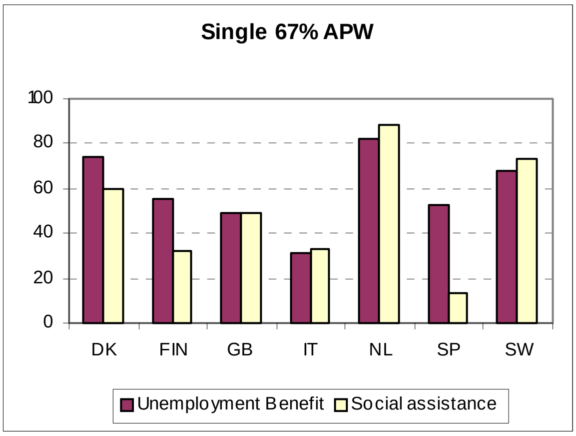
Graph 5.1 Long-term unemployment and social exclusion route. Net replacement rate for a single person at 67% APW

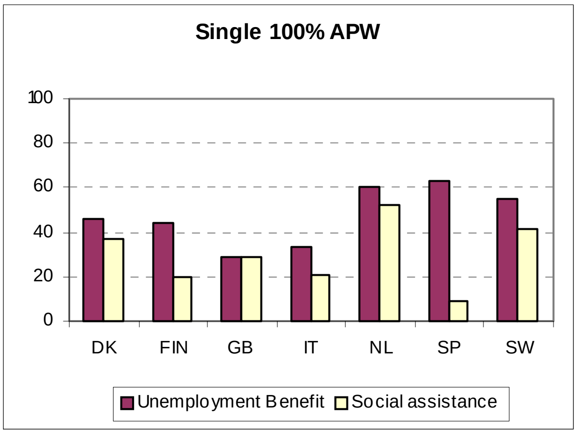


On the route to social exclusion, there are generally two different regimes: unemployment benefit and social assistance, the latter of which can continue indefinitely in principle. In three countries, namely the Netherlands, Sweden and Italy, the benefit level increases slightly when unemployment benefit is exhausted. In other words, social assistance - the last-resort benefit - provides a higher level of benefit than unemployment benefit at a low-wage level. In three other countries, namely Denmark, Finland and Spain, there is a drop in the benefit level at the time of the expiring date of the unemployment benefit. This drop is sharpest in Spain and smoothest in Denmark, occurring only after unemployment benefit receipt of four years. For Great Britain, there is a constant replacement rate. After six months of contribution-based Jobseekers Allowance, the means-tested variant of JSA is received. In the cases described in this chapter there is no difference between these benefits.

Single person

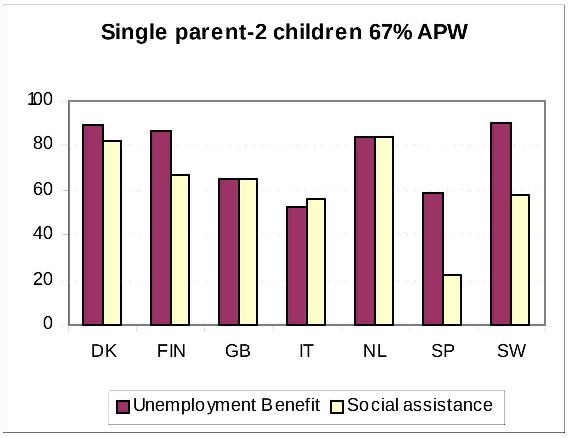
Graph 5.2 Long-term unemployment and social exclusion route. Net replacement rate for a single person aged 50

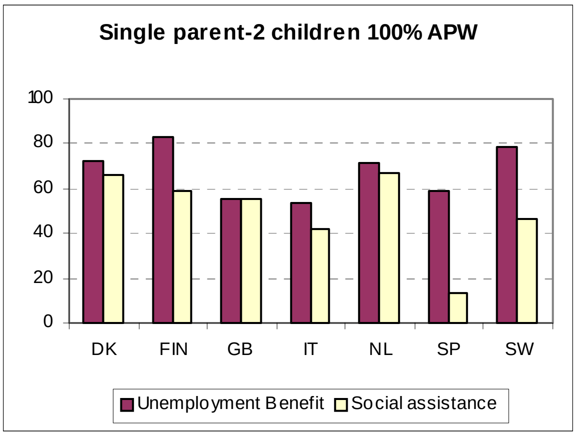




For low-wage earners, the replacement rates from the exit schemes, social assistance or unemployment assistance, are as high as or higher than those of the unemployment insurance scheme in Great Britain, Italy, the Netherlands and Sweden, while at the average wage level there is a drop in the benefit level when unemployment benefit expires in all countries except in Great Britain. At the average income level all replacement rates are below 65 per cent and those from the exit scheme are even lower.

Graph 5.3 Long-term unemployment and social exclusion route. Net replacement rate for a single parent aged 40 with two children

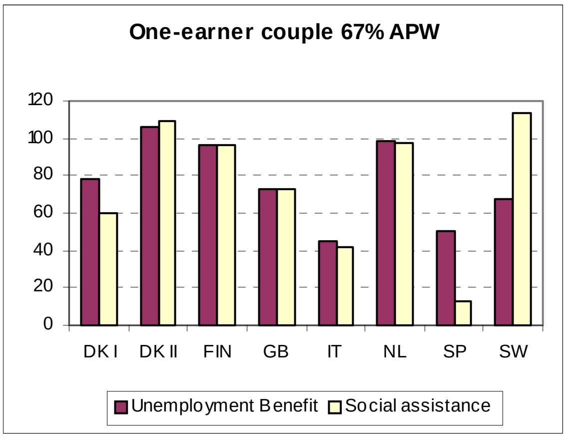


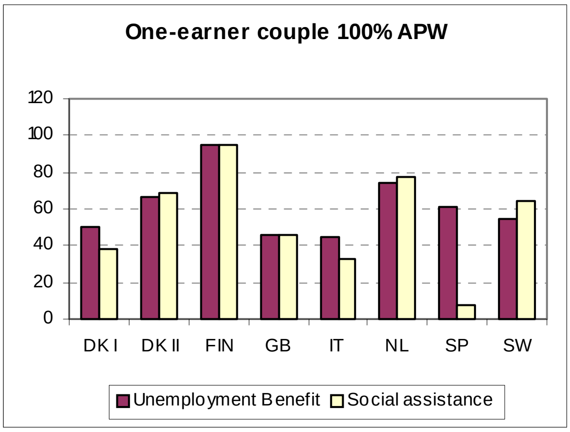


A lone parent with two children at a low-income level has high replacement rates of over 80 per cent in unemployment benefit schemes in Denmark, Finland, the Netherlands and Sweden. The rates fall markedly in Spain, Finland and Sweden if the person concerned moves into an exit scheme; in other countries the benefit level does not change much at low-wage levels. The replacement rates are lower at the average income level and the difference between the levels of unemployment and exit schemes is somewhat clearer, except in Great Britain.

One-earner couple

Graph 5.4 Long-term unemployment and social exclusion route. Net replacement rate for a one-earner couple aged 50 with no children



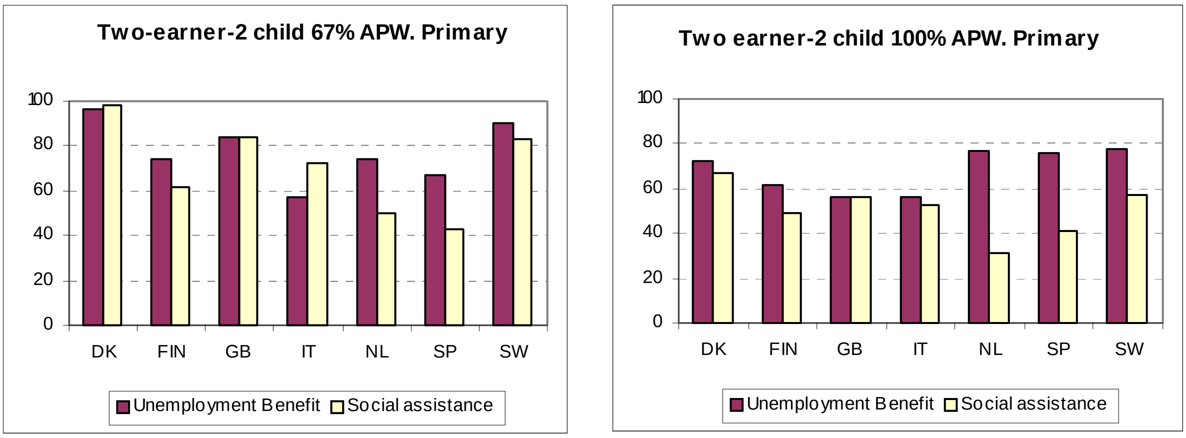


In the above graph two cases are presented for Denmark: in case I the spouse is not available for the labour market, and as a consequence eligibility to social assistance and housing allowance are reduced, whereas in case II the spouse is available for the labour market and, consequently, also eligible to receive full amounts of social assistance and housing allowance. For such a couple with one low-wage earner, the net replacement rates of the exit scheme are close to or above 100 per cent in Denmark, Finland, the Netherlands and Sweden. In addition, the level of the exit benefit is about the same as that of the unemployment benefit in most countries; it only drops in Spain, and in Sweden there is an increase.

Replacement rates are substantially lower at the average income level, however, in Finland and the Netherlands the rates are in the 80 per cent area. It is typical for this family type that the exit scheme often results in a better compensation than the insurance scheme because the 'non-active' spouse often receives social assistance directly or indirectly. Even at the average wage level, the exit scheme results in about the same benefit level as the insurance scheme, with the exception of Spain.

Two-earner couple

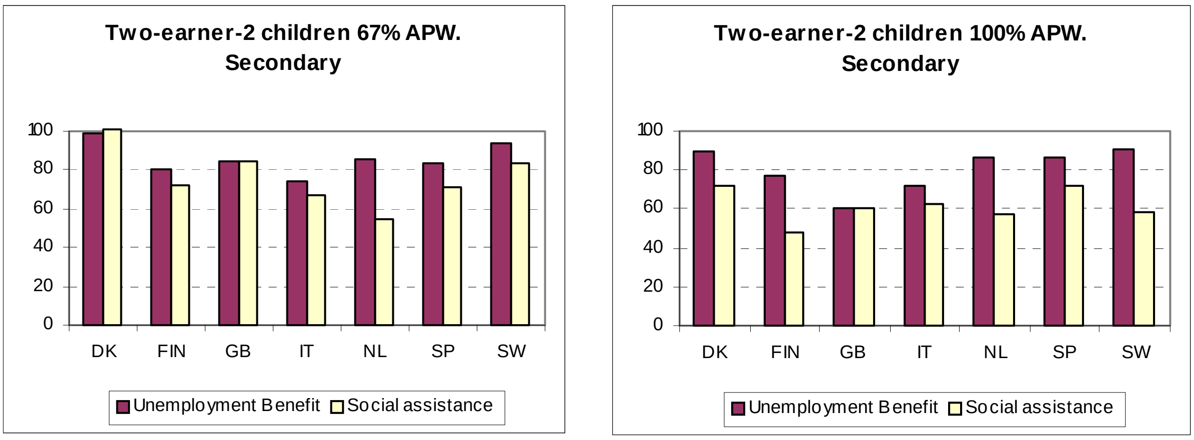
Graph 5.5 Long-term unemployment and social exclusion route. Net replacement rate for a two-earner couple aged 50 with two children. Primary income earner follows the route



Low-income households with two earners and children face fairly high net replacement rates in every country; between 60 and close to 100 per cent in insurance schemes. In the exit scheme, the benefit level is about the same in Denmark, Great Britain and Sweden, and higher in Italy. Denmark faces the clearest incentive problems, with net replacement rates of almost 100 per cent. Great Britain and Sweden also have high rates, above 80 per cent, when the primary earner in a household is encountering unemployment or social assistance.

At the average income level, net replacement rates are substantially lower for exit schemes, the Netherlands and Spain having the greatest differences between the levels of the insurance and exit schemes.

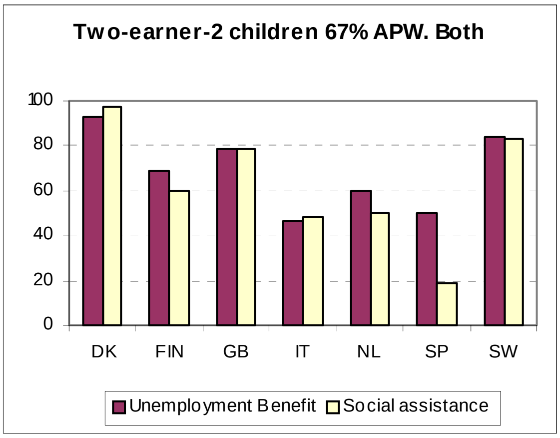
Graph 5.6 Long-term unemployment and social exclusion route. Net replacement rate for a two-earner couple aged 50 with two children. Secondary income earner follows the route

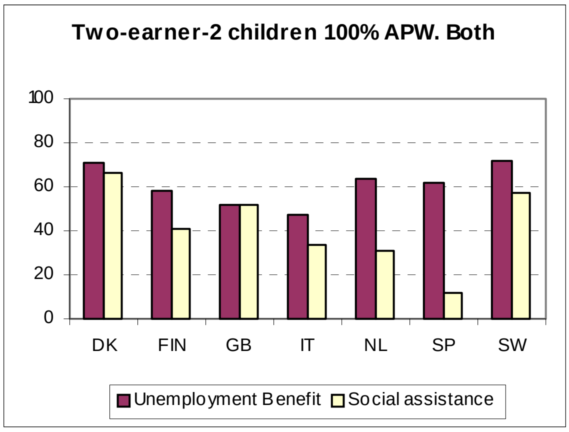


In this case the primary income earner keeps the income from full-time work and the secondary earner becomes unemployed from part-time work; the effect on both the insurance and the exit scheme compensation is smaller than in the case where the primary earner becomes unemployed. At the low-income level, almost all countries have replacement rates from insurance schemes at or above 80 per cent and from exit schemes about as high or somewhat lower. The only exception is the Netherlands, where the replacement rate of the exit scheme is markedly lower than that of the unemployment benefit scheme.

At the average income level insurance compensation still results in replacement rates around 80 per cent in Denmark, the Netherlands, Spain, Sweden and Finland. All exit scheme rates are lower than the insurance scheme rates except in Great Britain.

Graph 5.7 Long-term unemployment and social exclusion route. Net replacement rate for a two-earner couple aged 50 with two children. Both income earners follow the route





When both spouses follow the route, the net replacement rates in Denmark, Great Britain and Sweden are above or close to 80 per cent for both schemes in the low-income case.

At the average income level, most replacement rates are between 60 and 70 per cent in the insurance scheme, while the exit schemes result in lower replacement rates in all countries except Great Britain. The greatest drops occur in the Netherlands and Spain.

5.4 Main findings

The duration of unemployment benefits varies largely across countries, which was demonstrated in graph 5.1. In addition, the period during which the insured has paid contributions to the scheme affects the duration of the unemployment benefit receipt in the Netherlands and Spain. After such a period of varying length, when the eligibility for unemployment benefit expires, the unemployed person usually qualifies for social assistance or unemployment assistance. Social assistance is the exit scheme in all countries except in Finland, Great Britain and Spain. In Finland, the unemployed person is entitled to labour market support, which can, however, be topped up by social assistance if the latter provides a higher level of income maintenance. This can be the case especially for families with children. In Spain, the exit scheme is unemployment assistance, and in Great Britain the means-tested Jobseekers Allowance.

Unemployment compensation often leads to incentive problems particularly at the low-income level. This is sometimes also the case at the average income level. The three Nordic countries are steady candidates for these incentive problems, sometimes together with the Netherlands and Spain.

The insurance scheme is aimed at short to medium terms of unemployment, while the exit scheme is provided for a longer term, usually without any time limit. As far as incentives to work are concerned, there is a problem if the long-term exit scheme results in higher replacement rates than the insurance scheme. This happens in many countries, especially at low wage levels, but sometimes also at average wage levels, in particular for the one-earner couple. However, this problem may be diminishing since the number of households in this ‘classic’ family type is being replaced by two-earner couples. On the other hand, this family type is relatively common among immigrant families in the Nordic countries.

The net replacement rates from the two schemes examined above are often similar. This is always the case for Great Britain, but Denmark, Sweden and the Netherlands also share this characteristic. In fact, apart from Spain, continuation of unemployment only affects the level of net replacement rates a little, especially at low wage levels. An additional incentive problem associated with social assistance, is that it does not generally require availability for the labour market. In most countries, the level of social assistance is comparable to the level of unemployment benefit at 67 per cent of the average wage level.

5.5 Appendix to chapter 5

Net replacement rates based on the family purse income concept are presented in the following tables. Extracts are used in the graphs together with the duration of long-term unemployment preceding social assistance.

Table 5.2 Single person aged 50 with social assistance

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	60	46	37	29	24
Finland	32	25	20	15	13
Great Britain	49	38	29	22	18
Italy	33	27	21	16	14
The Netherlands	88	70	52	40	33
Spain	13	11	9	7	6
Sweden	73	57	41	32	27

Table 5.3 Single parent aged 40 with social assistance. Two children

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	82	75	66	58	51
Finland	67	63	59	49	43
Great Britain	65	60	55	46	38
Italy	56	47	42	35	30
The Netherlands	84	78	67	53	45
Spain	22	17	13	10	9
Sweden	58	55	46	42	36

Table 5.4 One-earner couple aged 50 with social assistance

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark I	60	47	38	30	26
Denmark II	109	86	69	55	47
Finland	96	95	95	78	65
Great Britain	73	62	46	35	28
Italy	42	35	33	28	24
The Netherlands	98	92	77	62	52
Spain	13	10	8	6	5
Sweden	114	88	64	50	41

Table 5.5 Two-earner couple aged 50 with social assistance. Primary earner follows route. Two children

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	98	84	67	58	48
Finland	62	56	49	41	35
Great Britain	84	72	56	39	34
Italy	72	61	53	32	33
The Netherlands	50	40	31	24	26
Spain	43	42	41	41	41
Sweden	83	72	57	45	38

Table 5.6 Two-earner couple aged 50 with social assistance. Secondary earner follows route. Two children

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	101	89	72	65	63
Finland	72	64	48	46	49
Great Britain	85	74	60	57	57
Italy	67	66	63	61	61
The Netherlands	55	56	57	57	58
Spain	71	73	72	63	63
Sweden	83	72	58	58	58

Table 5.7 Two-earner couple aged 50 with social assistance. Both earners follow route. Two children

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	97	83	66	53	44
Finland	60	52	41	33	28
Great Britain	79	67	52	41	34
Italy	48	41	34	27	22
The Netherlands	50	40	31	25	21
Spain	19	15	12	9	8
Sweden	83	72	57	45	38

6 EARLY RETIREMENT ROUTE

6.1 Introduction

The aim of this chapter is primarily to follow the route from employment via unemployment to early retirement, and to assess the economic incentives for early retirement along this route. Most early retirement schemes can be accessed from both employment and unemployment, but not all. Where access to early retirement is possible from employment only, unemployment benefit may be an alternative income in case of a withdrawal from the labour market, e.g. in case of lay-offs. Therefore unemployment insurance schemes are relevant in this context. In addition, Finland has an early retirement scheme which is accessible only through unemployment.

Denmark, Finland, Italy and Sweden have dedicated or close to dedicated public early retirement schemes. Other countries have early retirement options in private pension arrangements, e.g. Great Britain and the Netherlands. Spain and Sweden use the flexible old-age pension scheme as a tool for early retirement.

A dedicated early retirement scheme is one where the decision on early retirement is voluntary, where an agreement with the employer is not required and where no labour market obligations are attached. This is an ideal situation, rarely found in any country. The decision to be an early retiree may not seem to be very voluntary provided that this possibility is available, for instance, in a case where a person is unemployed and has little hope of getting a job again or in a case of staff reduction where options are limited to early retirement and unemployment. There is, however, a difference between early retirement because of health problems, as studied in the sickness-disability route and the type of early retirement studied here, but even this distinction may in some cases not be very obvious.

6.2 Main schemes

General remark. The main schemes for early retirement described in the following are often supplemented by other benefits such as housing benefits and different components from the social assistance scheme. These supplementary benefits can have a very substantial effect on the net replacement rates presented in this chapter and these schemes have been mentioned in the preceding chapters. The unemployment schemes have also been described earlier. The possibility of prolonged unemployment benefits will, however, be mentioned here, but these schemes are not considered as early retirement schemes.

Denmark

There is a dedicated public scheme for early retirement (Efterløn), which can be accessed from employment or unemployment.

Eligibility: A long contribution record to this scheme together with that for unemployment insurance is required (25 years out of the last 30, transition arrangements as a consequence of new rules). Access can be from both employment and unemployment, and no agreement from the employer is required. The scheme can be entered from the age of 60, if later, there are different premiums.

Benefit level: The benefit, when entering at age 60, is 91% of the actual or potential unemployment benefit. If early retirement is postponed to the age of 62, the benefit is the actual or potential unemployment benefit. The benefit is taxable and there is no contribution for early retirement but continued contribution for unemployment insurance. The calculations presented in the following are based on the Efterløn scheme entered at the age of 60. The length of a preceding unemployment spell has no effect on the early retirement benefit.

Benefit duration: The duration of the scheme is until the age of 65, the official retirement age from 2004. All who are born after July 1st 1939, and meet the requirements, can join the scheme as described.

Labour market requirements: There are no labour market conditions attached to being an early retiree. If it is possible to work the early retirement benefit is then reduced accordingly. The period for unemployment benefits can be extended. If the rights expire after the age of 55 unemployment benefit can be received until the age of 60 if the conditions for joining the early retirement scheme are met. This is very similar to the Finnish 'pipeline' to unemployment pension.

Finland

There are two schemes that can be used for early retirement. One is the early old age pension, which can be entered from employment or unemployment. The other is unemployment pension, which is accessible only through unemployment. However, the latter will be gradually phased out between 2009 and 2014.

<u>Early old-age pension:</u>
Eligibility: The eligibility requirements are the same as for the usual old age pension, but it is possible to take the pension from the age of 60.

Benefit level: The benefit level corresponds to that for the old age pension accrued by the date of retiring. If the pension is drawn from the age of 60, there is a reduction of 24 per cent for the rest of the life, compared to the pension starting at the age of 65. One set of calculations is based on this scheme, accessed at the age of 61 after two years of unemployment.

Benefit duration: The duration of the scheme is five years, but the benefits continue as the old-age pension.

Labour market requirements: There are no labour market requirements attached and it is possible to work and be an early retiree at the same time.

<u>Unemployment pension</u>:
Eligibility: This scheme is available for those in the 60-64 age bracket who have received unemployment benefit (earnings-related or basic benefit) for at least the maximum period (two years) of the standard unemployment benefit or for an extended period of at most three years. Additionally, they must have been employed for at least five years out of the last 15.

Benefit level: The unemployment pension is calculated as an old-age pension, but the accrual rate is reduced during the preceding period of unemployment, implying that an unemployment pension will usually be slightly lower than a corresponding old-age pension entered from employment. The accrual rate for the old-age pension is reduced when receiving unemployment pension. The second set of calculations is based on this scheme, entered at the age of 61 after two years of unemployment.

Benefit duration: The duration of the unemployment pension scheme is five years and the pension is replaced by old-age pension from the age of 65.

Labour market requirements: There are no labour market obligations attached.

The unemployment pension follows the receipt of unemployment benefits of between two and five years. An extended unemployment benefit period is available for the unemployed aged 57 or more until the age of 60. Labour market obligations basically apply during this period but, in practice, the administration is not strict. The period on unemployment benefits forms a so-called ‘pipeline to unemployment pension’ for the unemployed persons in the age group 55-59.

There is also an individual early retirement scheme, which is a variant of the disability pension scheme for persons in the age group 58-64 (however, this scheme will be abolished in 2005). The disability criteria in the scheme are based on age and work ability, which are more lax than in the ordinary disability scheme. The benefits received are equal to those from the ordinary disability pension scheme. Access to the individual early retirement scheme is not completely voluntary, but there are no labour market obligations attached. The accrual rate is somewhat lower than for old-age pension, but individual early retirement is more attractive than the dedicated early old-age pension.

Great Britain

There is no public dedicated early retirement scheme, but private schemes and schemes for public sector employees contain early retirement options. These schemes are accessed from employment only.

Eligibility: 50 years of age is pivotal in Great Britain. Above that age an occupational pension will usually be received in case of early retirement. The pension may be actuarially reduced.

Benefit level: A relatively poor outcome after 30 years of service would be a pension worth 50 per cent of the final earnings and reduced for actuarial reasons by 25 per cent for the 60 year old and by 50 per cent for the 55 year old. A relatively generous outcome would be a pension worth 67 per cent of final earnings with no actuarial reductions. A final outcome could be the case of compulsory retirement or cases where the age plus the years in service (primarily public service) exceeds the figure 85. Many cases will be between these two outcomes. In the calculations presented here a 40 per cent compensation of the former wage has been used.

Benefit duration: The pension is received as old age pension supplemented by national pension from the age of 65 (men) or 60 (women).

Labour market requirements: There are no labour market requirements for an early retiree, who will be allowed to work, but not for the same firm.

Italy

The pension system was reformed in 1995 from an earnings-based system to one based on contributions. It maintained the seniority pensions (except for new registrants), but raised the number of years of contribution and/or the age requirements, in order to abolish the seniority schemes gradually. The description here covers the seniority scheme for workers with more than 18 years of contributions paid up to 1995, as these workers, according to the rules enacted by the 1995 reform, continue to be treated under the old rules (the earnings-based award formula). This scheme can be used for early retirement and is accessible from employment or unemployment.

Eligibility: Conditions for seniority pensions require a long contribution record (37 years), with no age requirements in 2000 (it will be raised to 40 years in 2008) or a slightly shorter contribution record (35 years) and a minimum age of 55 years in 2000 (increased to 57 in 2002). Moreover, there is an early claim for a seniority pension for workers at risk of unemployment as a consequence of restructuring in specific industries or geographical areas. In practice, the principle of the early retirement scheme is to award a qualifying period (five years of insurance contributions), which covers the interval between termination of work and the years of entitlement to the seniority pension. Also, before finally entering the early retirement program there may be access to the unemployment benefit schemes.

Benefit level: The amount of pension is based on the basic pre 1995 benefit formula: the accrual rate of two percent of the average earnings in the last ten years is multiplied by the number of contribution years. The calculations presented in the following are based on the early retirement scheme and refer to a worker with a shorter contribution record, that is 32 years (28 years during the working life, plus four years during the unemployment status), instead of 37 years, as the worker benefits from five years of covered contributions (qualifying period). Accordingly, the worker is entitled to a pension equivalent of what would have been received if work had continued to reach the longer contribution record (37 years) for the seniority pension. The length of a preceding unemployment has an impact on the early retirement benefit, because the income during unemployment is lower.

Benefit duration: The early retirement pension can be received for quite a long time, 10-12 years before the ordinary pension and continues as old age pension. This is the maximum period and the assumption on which the calculations are based. Possibilities for early pensions from the seniority scheme have been significantly tightened since the mid 1990s and no more additional recipients have been authorised since 1998.

Labour market requirements: There are no labour market requirements attached to the early retiree. It is possible to work within some limits.

The Netherlands

There is no public early retirement scheme but some collective agreements, CAO's, have special rules for early retirement. These schemes can be accessed from employment only.

Eligibility: The age range for access to the scheme is from 58 to 63 years, typically 60 years. The usual requirement is 10 years of work within the same industrial sector immediately before early retirement.

Benefit level: The compensation is usually 75-80 per cent of former gross income; a level of 80 per cent is used for the calculations presented in the following.

Benefit duration: The early retirement benefit continues as old age pension supplemented by a national basic pension from the age of 65 years.

Labour market requirements: There are no labour market requirements attached to being an early retiree. The early retiree can continue to work but the early retirement benefit will then be reduced accordingly.

There is also a prolonged unemployment benefit scheme for the elderly unemployed in the Netherlands. They may receive unemployment benefit from the age of 57½ years until the ordinary old-age pension age of 65, although at a reduced rate for the last 3½ years. The labour market obligations are reduced for the elderly unemployed.

Spain

The flexible old-age pension scheme is used for early retirement. The scheme can be accessed from employment or unemployment.

Eligibility: The legal retirement age in Spain is 65. Nevertheless, workers belonging to the system before January 1st 1967 are entitled to receive an early old-age retirement pension with a substantial reduction in benefits for the rest of their life. The age range for access to the scheme is from 60 to 64 years, typically 60 years (as assumed in the calculations). As a general rule, a long contribution record is required (35 years) and this has been assumed in the calculations. Workers with a contribution record of 40 years or more can get the pension with a smaller reduction (7 per cent per year instead of 8 per cent). The lower reduction alternative has been assumed here.

Benefit level: The pension is based on an average contributed salary for the last 14 years. The average contributed salary is reduced by 7% for each year the pension is drawn before the age of 65. In the case where the pension is drawn at the age of 60 the reduction is by 35%. The pension is assumed to follow a period of two years of unemployment, but this makes no difference in the case where early retirement follows immediately after employment. A combined unemployment spell of more than two years may have an impact on the pension.

Benefit duration: The early pension continues after the age of 65 as old-age pension.

Labour market requirements: There is no labour market requirement attached to the scheme and the early retiree can also work in some jobs. Spain has also an extended unemployment benefit period for the unemployed aged 52 or above. They can continue receiving Unemployment Assistance until the age of retirement.

Sweden

The flexible old-age pension scheme is used for early retirement. The scheme can be accessed from employment or unemployment.

Eligibility: Sweden has a basic residence based pension which requires 40 years to obtain a full pension and an income based public occupational pension on top, which requires 30 years of work for a full pension. In case of a full occupational pension the requirement for a residence-based pension is reduced to 30 years. Both pensions can be drawn together from the age of 61, although at a reduction for actuarial reasons.

Benefit level: The benefit level is that from the national pension supplemented by the public occupational pension scheme in Sweden. The national pension is flat rate, and the occupational pension is related to former income, with a ceiling of 6.5 times the basic rate in the Swedish social security system. The pension is reduced when it is drawn early. The reduced pension is for the rest of life. It is also possible to take out shares of the pension, e.g. 1/4, ½ or 3/4. If half of the pension is drawn early, only this half is actuarially reduced. Most Swedes also have a labour market agreed pension (avtalspension), comprising 10 per cent of earlier income. This can also be drawn early, actuarially reduced. In the calculations presented for Sweden both the early old-age pension and the early avtalspension are included, both are drawn from the age of 61. A preceding spell of unemployment could have an impact on the occupational part of the early pension. The unemployment spell is here assumed to be of a length where this is not the case.

Benefit duration: The reduced pension is also received as old-age pension after the age of 65 has been reached.

Labour market requirements: There is no labour market requirement for an early retiree, and the early retiree can work without limitations.

6.3 Access possibilities and duration of the systems

All replacement rates for the route are contained in tables 6.3 – 6.7 of the appendix. The results for the low (67%) and average (100%) income cases have been selected for more detailed comments in the following. It is the route from employment (via unemployment) to early retirement, which is looked at. The replacements rates for early retirement will often be higher if early retirement follows directly after employment instead of after unemployment, cf. the appendix to chapter 6, 'Separate net replacement rates'. Thus, a possible incentive problem in terms of net replacement rates in relation to work will be more evident in the case where early retirement follows immediately after employment. However, in the case of early retirement via unemployment, different factors may become important, such as the possibility of receiving a benefit continuously without labour market requirements, in particular if unemployment has already continued for some time and has thereby deteriorated the skill level of the persons concerned.

The access options to dedicated early retirement systems are illustrated in table 6.1.

Table 6.1 Access possibilities to dedicated early retirement

	Em-ploy-ment	Unemploy-ment benefit	Maximum duration of unemployment just before early retirement	Minimum age of early retirement
Denmark	Yes	Yes	9 years	60
Finland Early old-age pension	Yes	Yes	Not defined	60
Fin Unemployment pension	No	Yes	5 years	60
Great Britain	Yes	No	Not applicable	Approx. 55
Italy	Yes	Yes	½ for UB to 4 years (or more) for Mobility benefit	57 or sufficient contribution
The Netherlands	Yes	No	Not applicable	Approx. 60
Spain	Yes	Yes	2 years	60
Sweden	Yes	Yes	No effective	61

Note: the max duration of unemployment benefit includes the prolonged possibilities for the elderly unemployed.

Table 6.2 Duration of different systems

	Unemployment benefit duration, years	Early retirement duration, years
Denmark	4+	5
Finland	2+	5(+old)
Great Britain	0.5 (Alt.)	10+
Italy	4	12+(+old)
The Netherlands	0.5-5 (Alt.)	5+
Spain	2	5(+old)
Sweden	1.2+	4(+old)

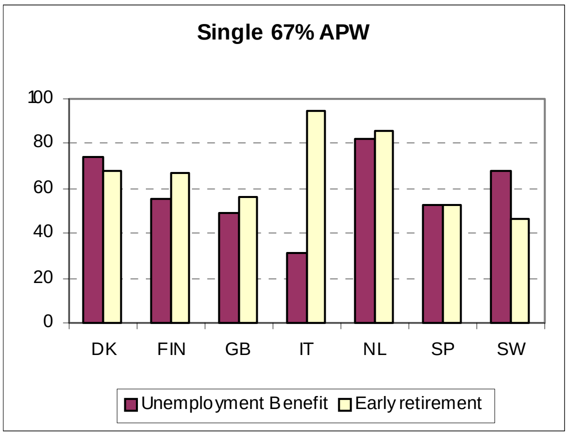
Duration indicates the number of years, which can be spent in each scheme. For unemployment benefit '4+' indicates that the ordinary benefit period is four years, and that it can be prolonged. If relevant, the calculations are based on the maximum ordinary unemployment benefit period, for Finland this is two years of unemployment before early retirement. '12+(+old)' for Early Retirement indicates that the typical benefit period is 12 years, that it can be longer and that it continues as an old age pension. For Finland only the early old-age pension is used. However, the benefit level in the unemployment pension would be almost identical in the case chosen here (after two years of unemployment and early retirement starting at the age of 61, one year after the earliest possible start). For Italy it is the Mobility case for unemployment insurance which has been used, because this was assumed to precede early retirement when the calculations were done. 'Alt.' indicates that early retirement is an alternative to unemployment and there is no access to early retirement from unemployment.

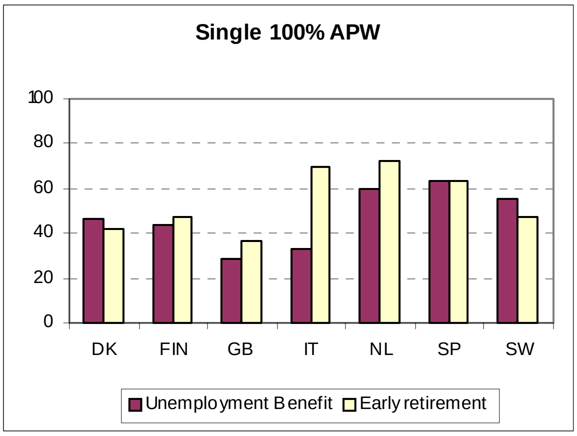
6.4 Replacement rates

The relevant replacement rates at low and average income levels for all family types are contained in the following graphs, starting with the single person.

Single person

Graph 6.1 Early retirement route. Net replacement rates for a single person





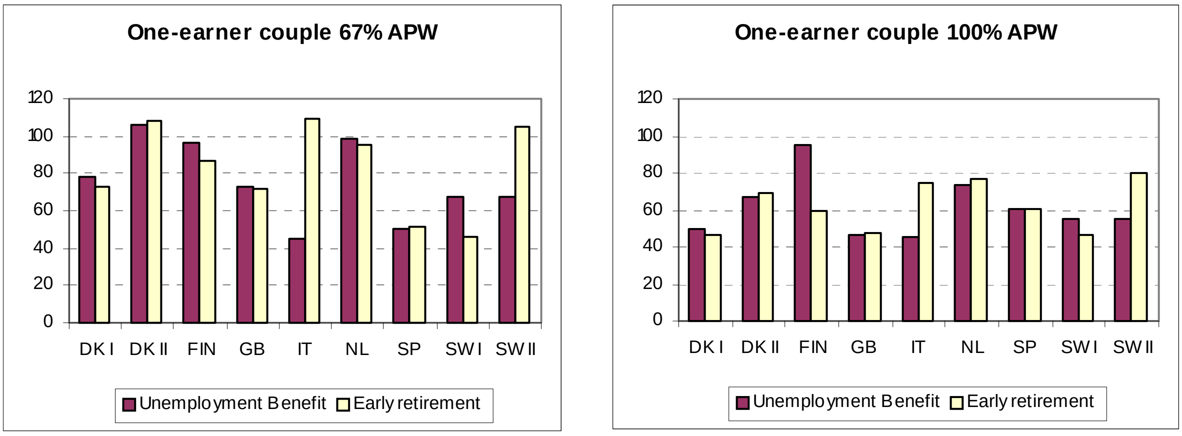
At the low income level Italy has an early retirement net replacement rate of 95 per cent and the Netherlands 86 per cent. For the other countries the rates are below 70 per cent. In Italy, the Netherlands, Finland and Great Britain, an early pension is advantageous compared to unemployment benefit, in Italy by a wide margin. In Denmark and Sweden it is the other way round and in Spain there is no difference. Italy and the Netherlands seem to have incentive problems for early retirement in relation to work at the low-income level with replacement rates above 80 per cent.

Compared to the low-income level, the replacement rates for both unemployment and early retirement are substantially lower at the average income level except for Spain. In Spain they are higher, which is primarily due to the personal taxation scheme. It is still an advantage to be an early retiree compared to being unemployed in the most countries. In addition, because usually no labour market requirements apply to an early pension, the real incentive to withdraw from the labour market on an early pension instead of unemployment benefit is likely to be higher than what appears from the replacement rates alone.

One-earner couple

The next family type is the one-earner couple. This family type is relatively rare in the Nordic countries, where labour market participation among women is almost as high as for men. The family type is, however, quite frequent among immigrant families in the Nordic countries. It is anyhow of interest to see how the situation changes when the family size is augmented by one person, who in this case is a dependent spouse. In Denmark there is a differentiation between dependent spouses available and not available for the labour market as far as social assistance is concerned. This will be seen to have a significant impact in graph 6.2.

Graph 6.2 Early retirement route. Net replacement rates for a one-earner couple



Early retirement replacement rates at the low-income level are 109 per cent in Italy, 108 per cent in Denmark (case II where the dependent spouse is available for the labour market), 105 per cent in Sweden (case II where the dependent spouse receives a residence based early pension), 95 per cent in the Netherlands and 87 per cent in Finland. In all other countries the replacement rates are below 75 per cent. Early retirement is advantageous compared to unemployment in Italy, Denmark II, Sweden II and Spain, in Italy and Sweden II by a considerable margin. In the other cases it is the other way round, but the differences are small except for Sweden I. Supplements for the dependent spouse have an impact on the rates in Finland, the Netherlands and Great Britain. In addition, in Denmark and Finland, social assistance is also involved.

Italy, Denmark II, the Netherlands, Finland and Sweden II have incentive problems for low-income situations for early retirement in relation to work with rates above 80 per cent. For Denmark II, Finland and the Netherlands this is also the case for unemployment in relation to work.

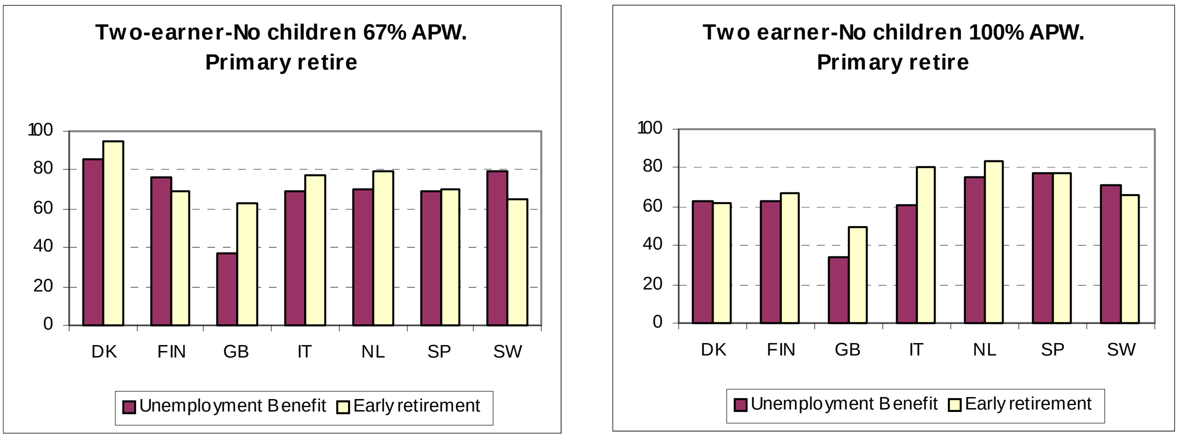
Most replacement rates are significantly lower at the average income level compared to those at the low-income level, except for Spain, where the opposite is the case, again caused by the taxation scheme. Italy and the Netherlands have relatively high replacement rates for early retirement at the average income level and this is also the case for Sweden II.

Two-earner couple

The two-earner couple is a more typical family type in Europe, and increasingly so. The following graphs cover three situations for this family type, which is now so old that there are no children living in the couple’s home.

In the first situation the primary earner spouse becomes unemployed and retires early while the secondary earner continues to work part-time. The spouse’s income from work is included in the net replacement rates calculated for unemployment benefit and early retirement.

Graph 6.3 Early retirement route. Net replacement rates for a two-earner couple. Primary earner retires early

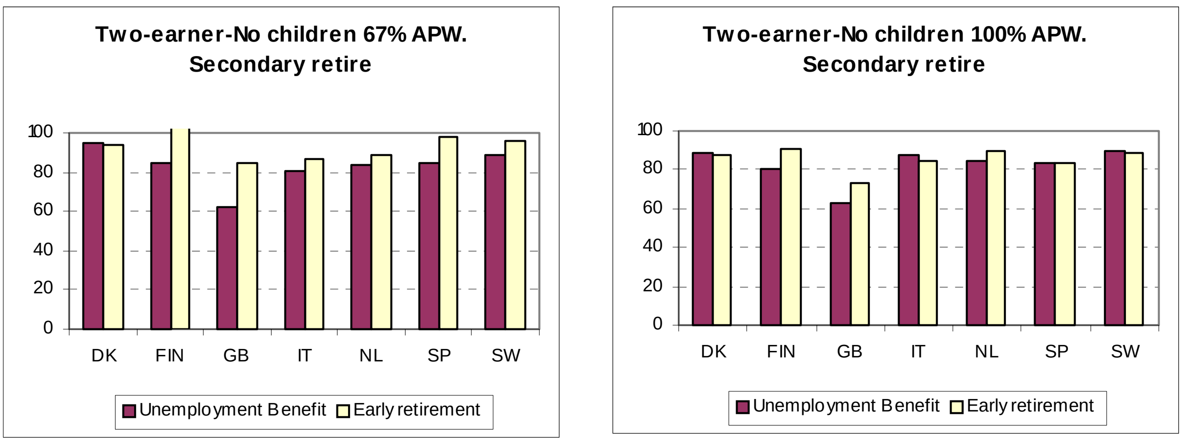


Denmark, the Netherlands and Italy have early retirement replacement rates of 95, 79 and 77 per cent respectively at the low-income level. In these countries as well as in Great Britain and Spain, early retirement is advantageous compared to unemployment. The Danish case demonstrates the greatest incentive problems in relation to work.

At the average income level, Italy, the Netherlands and Spain have higher net replacement rates in early retirement than at the low wage level. Also in Finland and Sweden, the replacement rates are about as high as for low-wage earner families. Moreover, in all countries except Sweden, early retirement provides a higher or at least the same benefit level than unemployment. Only in Denmark are the replacement rates markedly lower at the average wage level than at the low wage level, thus indicating a strong income redistribution element in benefit schemes and that benefits are close to being flat. At the same time, incentive problems tend to concentrate in low-income groups.

The next situation for the two-earner family type is where the secondary income earner becomes unemployed from a part-time job and retires early, while the primary earner keeps on working. The net replacement rates reported in graph 6.4 include the wage income of the primary income earner.

Graph 6.4 Early retirement route. Net replacement rates for a two-earner couple. Secondary earner retires early



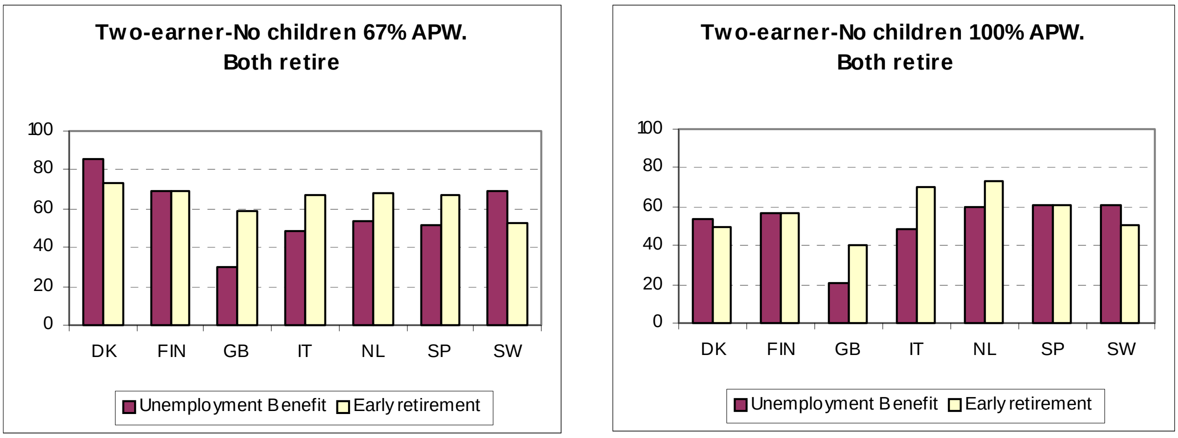
The net replacement rates in this case are very high, both in unemployment and in early retirement. The working income from the primary earner spouse is of course the main reason for that. Most striking is the result for Finland, where there is a gain from early retirement both in relation to work and unemployment at this low-income level. Close behind are Denmark and Sweden, where the loss in family purse income from early retirement of the low earner spouse is only 4-6 per cent at this income level. The small loss in the disposable income of the family is due to the fact that the low earner spouse in part-time work contributes only 1/3 of the total gross wage of the working family. In early retirement, however, he or she is often entitled to a minimum pension, which is likely to be higher than what the normal accrual rate would imply. The very modest loss is a strong incentive for a part-time working spouse in the Nordic countries and in Spain to retire early if the hourly wage is low. For the remaining countries, the loss is in the range of 11-15 percent of income, still very modest. There are clear incentive problems in relation to work both from unemployment and in particular from early retirement in all seven countries, but most seriously in the Nordic countries and Spain.

The replacement rates for early retirement are somewhat lower at the average income level, but still indicate incentive problems in relation to work, at least in six of the countries, and also in relation to unemployment benefit.

The general result for the two-earner couple where the low-income spouse is unemployed or an early retiree is that the loss in income is very small compared to the situation where both spouses work, also at the APW level.

The third situation for the two-earner couple is that both spouses are unemployed at the same time, and that both spouses retire early at the same time.

Graph 6.5 Early retirement route. Net replacement rates for a two-earner couple. Both earners retire early



The replacement rates for early retirement at the low-income level are typically around 70 per cent, lower in Great Britain and Sweden. However, early retirement results in higher replacement rates than unemployment benefit in most countries.

Most replacement rates for early retirement are lower at the average income level than at the low-income level except for Italy and the Netherlands, where there are small increases. This is also the case for Spain but this time only for unemployment benefit.

6.5 Main findings

Early retirement results in higher net replacement rates than unemployment benefit in most countries, both at the low and average wage levels, with the most striking gains in Italy and Great Britain. For a single person, incentive problems in relation to work are obvious in Italy and the Netherlands. The one-earner couple can also have very strong incentives for early retirement in relation to work. For a low-earner spouse in the two-earner couple, the incentives to early retirement are also very strong at the lower income levels in most countries. This is also the case for the primary earner spouse at low-income levels in Denmark and to some extent over a broader income range in the Netherlands, Italy and Spain.

In general, the Netherlands and Italy have high and constant replacement rates across the entire income interval, in particular for the two-earner couple. The Dutch results are based on occupational schemes agreed between social partners while the Italian ones are based on the public seniority pension scheme. The Swedish replacement rates (Sweden I for the one-earner couple) are also relatively constant across the income interval. Swedish replacement rates for an early pension are lower than the Italian ones, owing to the actuarial reduction of the old age pension when drawn at the age of 61 in Sweden, while there is no such reduction in the current Italian public early retirement scheme. In Sweden II (one-earner couple) the dependent spouse also receives a reduced basic pension based on residence. The Spanish replacement rates are also relatively stable and mostly at a level between Sweden and Italy.

The schemes of Denmark and Great Britain and to some extent also that of Finland have a strong income distribution effect, either through high minimum or relatively flat-rate benefits or tapered benefits due to means-testing. Denmark can have some very high replacement rates at the lower income levels, especially for the one-earner couple. Finnish replacement rates can also be very high at lower income levels.

Furthermore, when assessing early retirement schemes relative to unemployment benefits, one has to bear in mind that the early pension is usually granted for a longer period of time and that the requirements concerning the availability for labour markets are weak or absent. Thus, in particular in the case where unemployment has continued for some time and the prospects of a return to employment are weak, early retirement schemes can become very attractive.

It should be noted that the Dutch and the British schemes are occupational early retirement schemes and funded privately. There is a great provision of such schemes in these two countries. The schemes chosen in this study do not reflect the variation between available schemes but they have been chosen to represent large and usual schemes. It is probably correct to say that the Dutch scheme seems to be more generous in terms of the benefit level at a given age of the retiree than the British one. However, the British pension can be drawn earlier than the Dutch one.

6.6 Appendix to chapter 6

Separate net replacement rates based on the family purse income concept are presented in the following tables for early retirement. The corresponding replacement rates for unemployment have been presented in the appendix to chapter 4. Unemployment is not always part of the route to early retirement, but then unemployment may be an alternative to early retirement, and therefore also of relevance. This is the case for Great Britain and the Netherlands.

The term *separate* has to be understood in a special way. Sometimes the replacement rates for early retirement are dependent on the former step. This is the case for Denmark for the one earner couple II (cf. the note for table 6.4) and the two-earner couple where each spouse retires in turn. In these cases, social assistance is also among the benefits received in early retirement if unemployment is the former step, unemployment is a *social event*, which is an eligibility criterion for social assistance. If employment is the former step, it is not possible to receive social assistance in early retirement, because early retirement is not a social event. For other countries the contribution or income during unemployment may have an impact on the early retirement benefit. This is the case for Finland and Italy and could be the case for Spain and Sweden (but in the calculations presented here it is assumed to have no impact). The replacement rates for early retirement presented in the table are in principle dependent on the route approach of this study. They cannot always be taken out of this context and used as independent building blocks. For Great Britain and the Netherlands it is not meaningful to talk about this route, unemployment may be an alternative to early retirement, which can be entered only from employment. Where it matters, early retirement replacement rates have been calculated after an unemployment spell equivalent to the maximum ordinary benefit period in the unemployment insurance scheme assumed to precede early retirement in the calculations. For Italy this period is four years in the Mobility scheme, for Finland two years in the Unemployment Benefit scheme.

The net replacement rates presented for unemployment in the graphs are the same as those in chapter 4, except for the two-earner couple. In the previous chapter the couple had two children, this is not the case in the early retirement route. Even when children have no impact on the unemployment benefit they have an impact on disposable income in both the in-work and out-of-work situations because of family allowances and eligibility to housing benefits in some countries. The net replacement rates when family allowances are involved are usually higher than without them.

Table 6.3 Single person aged around 60 in early retirement

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	68	53	42	33	28
Finland Early ret	67	55	47	51	54
Fin Unempl pension	67	55	48	52	55
Great Britain	56	46	37	30	26
Italy	95	65	70	70	70
The Netherlands	86	69	72	74	77
Spain	53	60	63	63	64
Sweden	46	45	47	50	47

Table 6.4 One-earner couple aged around 60 in early retirement

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark I	73	58	47	37	32
Denmark II	108	86	69	55	47
Finland Early ret.	87	75	60	53	54
Fin Unempl pension	87	75	60	54	55
Great Britain	72	61	48	38	33
Italy	109	69	75	72	71
The Netherlands	95	84	77	79	78
Spain	51	55	61	65	66
Sweden I	46	45	47	50	47
Sweden II	105	91	80	75	68

Note: Denmark I is where the dependent spouse is not available for the labour market, Denmark II is where the spouse is available. Sweden I is where only the ‘active’ spouse receives an early old-age pension, Sweden II is where the dependent spouse also receives an early pension. Finland (one earner couple) corresponds to Sweden I.

Table 6.5 Two-earner couple aged around 60. Primary earner in early retirement

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	95	80	62	55	53
Finland Early ret.	69	66	67	70	72
Fin Unempl pension	69	66	68	70	72
Great Britain	63	54	50	46	45
Italy	77	77	80	82	81
The Netherlands	79	81	83	84	86
Spain	70	75	77	77	77
Sweden	65	65	66	68	66

Table 6.6 Two-earner couple aged around 60. Secondary earner in early retirement

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	94	93	88	82	78
Finland Early ret.	106	98	91	87	84
Fin Unempl pension	106	98	91	87	85
Great Britain	85	79	73	69	65
Italy	87	88	90	89	89
The Netherlands	89	89	90	91	91
Spain	98	90	84	86	88
Sweden	96	93	89	87	85

Table 6.7 Two-earner couple aged around 60. Both earners in early retirement

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Denmark	73	66	50	39	32
Finland Early ret.	69	61	57	55	55
Fin Unempl pension	68	62	58	56	56
Great Britain	59	50	40	34	33
Italy	67	66	70	71	70
The Netherlands	68	71	73	75	77
Spain	67	64	61	62	65
Sweden	53	53	51	52	49

7 SICKNESS AND DISABILITY ROUTE

7.1 Introduction

A person who is not able to work due to sickness or impairment is entitled to a sickness or disability benefit in all countries. This situation is mostly not voluntary, since the person could not avoid the impairment. The benefit must ensure that the endured condition does not lead to social and economic hardship. One of the most difficult questions has been how to design a benefit that prevents those who cannot work from poverty, but also prevents people who could still work to get this benefit instead of trying to work. This could endanger the funding of the benefit. It is the aim of this chapter to follow some typical sickness and disability cases and to assess the economic incentives coming from the schemes. These incentives are particularly important in the case where the scheme can be misused or administrated negligently in a way which allows its use as a substitution for early retirement schemes.

The disability benefit is always preceded by a period of sickness pay. For the first few days or weeks the employer pays the salary in case of sickness, then a sickness payment follows from sickness insurance. The sickness payment lasts for about a year, during which there should be rehabilitation. If rehabilitation is not successful the claimant has to apply for a disability benefit. This chapter starts with an overview of the sickness benefit regulation before describing the disability benefit regulation.

In all cases full disability is assumed in order to simplify the comparison. In this study the claimants will always receive a full benefit. Full disability means that the person cannot work at all. Schemes vary in the degrees of disability and the combination of work and benefits. Some countries also have a partial benefit for a person that could work part-time, in other countries the benefit depends on an ‘All-or-Nothing-decision’ of the authorised benefit organisation. A graduation of severity is in some cases also made by different systems, e.g. there are four different benefit schemes for the disabled in Spain.

In most countries the entitlement to the benefit also depends on a certain eligibility period. Employees usually have to work for some time before being entitled to a disability benefit. The length of this period can vary. In the cases calculated all employees have satisfied the eligibility period.

General remark: In many countries sickness and disability regulations are also a component of collective labour market agreements. These contracts may have improved the situation of the sick and disabled substantially. Therefore public insurance regulations represent minimum norms for income support. People might be better off than what is calculated in the replacement rates.

7.2 Sickness benefit schemes

Denmark

A sickness insurance benefit is available for employees, self-employed and co-working spouses in the company of the self-employed.

Eligibility: The employer - if not paying a wage - has the obligation to pay sickness benefits to the sick employee for the first two weeks. The employee must have worked for at least eight weeks with this employer for a total of 74 hours. Due to collective agreements most workers are entitled to wages (beyond these two weeks), but this study only considers insurance benefits.[9]

Benefit level: The sickness insurance benefits are based on an hourly rate. The benefit is the former hourly wage times the weekly hours (37 hours in Denmark). The benefit is 100% of the former wage if the wage is below a certain threshold (€1,650 per month excluding 8% social contributions). Sickness insurance benefits are taxable, but the social contribution of 8% is not levied. The employer pays the benefit for two weeks. After that the municipal authority is responsible for the payment and a draft rehabilitation plan. If rehabilitation fails a disability pension is granted.

Benefit duration: After these two weeks the employee receives benefits from sickness insurance. The maximum benefit period is 52 weeks. It can be prolonged if the prospect for rehabilitation is good; otherwise it changes to a disability pension.

Finland

Eligibility: A sickness benefit is paid to employees and the self-employed after a waiting period of nine weekdays. The employee must have worked for at least three months in order to be entitled to the benefit. However, due to collective agreements, the employee receives a normal wage during the first four to eight weeks.

Benefit level: The sickness benefit depends on a person's taxable income (in 2000 the reference year was 1998). If earnings have been too low the benefit is not paid. The amount is also adjusted to the employment pension contribution (about 5%). This means that 5% is deducted from a person's income before calculating benefit. The actual reference income is about 95% of 1998 taxable income. The benefit is about 70% of the former wage up to APW. Employees earning more than APW get a slightly lower percentage. Sickness insurance benefit is taxable. Next to the sickness benefit a person may also qualify for a disability allowance if their functional capacity is at least reduced for one year. The additional disability allowance is not taxable.

Benefit duration: The insurance sickness benefit is paid for up to 50 weeks.[10] Application for a disability pension is only possible after rehabilitation remains unsuccessful. During rehabilitation a rehabilitation benefit is paid.

Great Britain

Eligibility: Employees can get Statutory Sick Payment (SSP) paid by the employer during the first 28 weeks of sickness after a waiting period of three days. Self-employed or employees for whom employers are not required to pay SSP (e.g. part-time or short-term contracts) receive a short-term incapacity benefit (lower rate). After 28 weeks the short-term incapacity benefit (higher rate) is paid to everyone that meets the eligibility criteria. The short-term incapacity benefit requires a defined period of incapacity for work (more than four days in a row) and sufficient contribution payments. Next, a person must not be eligible for SSP and be under pension age.

[9] In case of wage payments the sickness benefit is paid to the employer.

[10] The regulation says 300 days including Saturdays. The 300 days are renewed after having worked for at least one year.

Benefit level: The standard flat rate for statutory sickness payment is currently €95 per week, with additional payments for dependants. Incapacity benefit is taxable after 28 weeks of incapacity. Other benefits, like a disability living allowance or attendance allowance, can be paid on top. Incapacity benefit is not means tested.

Benefit duration: After 52 weeks the benefit converts to a long-term incapacity benefit. The long-term benefit is comparable to a disability benefit.

Italy

Eligibility: Employers are required to pay sickness payments to their employees, after three waiting days. Included in the regulation are all employees in the private sector. The National Social Security Institute reimburses the payment.

Benefit level: The sickness payment corresponds to 50% of former daily gross wages up to the 20th day. Then it increases to 66%. However, collective contracts set wage supplements that vary according to sectors and length of employment. Therefore workers with at least six years of contributions receive a sickness payment equal to 100% of their gross former earnings for the first six months, which then is reduced to 50% after six months for a maximum period of 18 months. Income from insurance benefit is taxable income.

Benefit duration: The maximum duration is six months.

The Netherlands

There is no public sickness insurance.

Eligibility: Employers usually pay sickness payments during the first year of sickness, after two optional waiting days. The Sickness Benefit Act serves as a safety net for employees, who do not have an employer and in some special circumstances like temporary work, voluntarily insured and self-employed. Sick pay is also possible in the event of sickness resulting from childbirth, pregnancy, bankruptcy of the employer and some other specific events.

Benefit level: According to government regulations employers have to pay 70% of the former wage, but due to collective agreements nearly every employee gets 100% of the former wage. Employers never have to pay longer than the duration of the contract. Income from sick pay is taxable income. If the sickness payment is below the guaranteed minimum income level, the employee can also get other income support.

Benefit duration: After 52 weeks of sick leave it will be reviewed whether the employee is entitled to receive benefit under the Disability Benefit Act.

Spain

Eligibility: A temporary incapacity benefit is paid to all employees from the fourth day of sickness, after three optional waiting days. Up to the 15th working day the employer pays sickness payments, after that period the social security insurance pays**.** The employer may voluntarily cooperate with the social security insurance and pay the sickness payments directly as a form of topping up. To be eligible for a sickness benefit from the social insurance a contribution record of at least 180 working days is needed.

Benefit level: The temporary incapacity benefit is calculated on the basis of the last month's contribution and the amount of contributions paid so far. Between the 4th and 20th day, 60% of this basis is paid, from the 21st day onwards 75% of the base is paid. Income from incapacity benefit is taxable.

Benefit duration: The benefit is granted for a maximum of 12 months with a possible extension for another six months if improvement is expected. Afterwards the employee is either declared capable for work or gets a permanent disability benefit.

Sweden

Eligibility: There is a compulsory public insurance scheme covering all citizens, including residents of another nationality, who are working and registered at the National Social Insurance Board. Self-employed are also included. The insurance includes all persons with an estimated income of minimum €1,029 (SEK8,800). There is no qualification period. A sickness benefit is paid in the event of sickness, which reduces work capacity by at least 25%. It is payable after one waiting day, also in case of short-term employment contracts after 14 working days.

Benefit level: The employer is required to pay 80% of the current wage during the first 14 days plus another 10% due to collective agreements up to 90 days. Between the 15th and the 90th day a social insurance benefit is paid at 80% of the former wage. Income from sickness benefits is taxable income.

Benefit duration: After the 90th day rehabilitation efforts should start. During this period the claimant receives a rehabilitation benefit. The benefit period is in principle unlimited but sickness insurance is often replaced by disability pension after a period of 360-450 days.

7.3 Disability benefit schemes

General remark: All countries, except the Netherlands[11], maintain another compensation scheme for work injuries alongside the disability scheme, which is not considered in this study. This scheme usually has less restricted eligibility criteria and accepts lower degrees of disability, but can only be applied to a limited number of work related impairments. For this scheme no contribution record is necessary.

Denmark

The disability benefit is a pension related scheme.

Eligibility: The working capability must be reduced by at least 50 per cent and the reduction must be permanent. The disability pension scheme is residence based. It is a universal scheme. There is no occupational dependent component. In order to receive a full pension the claimant should have lived 4/5 of his life in Denmark after the 15th year. Otherwise the pension is reduced accordingly.

[11] The Netherlands incorporated this scheme in the disability benefit, which is the reason why there is no contribution record required in the Netherlands. It is also the reason for the low degree for partial benefits.

Benefit level: The pension consists of a series of flat rates. The basic amount (€550 per month) is means tested against own income. The supplement depends on disability level and household type. A pension at the highest level is (incl. basic amount) €1,740 for a single and €1,450 for a married person. Except for some supplements the benefit is taxable income.

Benefit duration: A disability pension is paid to a person who's working capability is severely reduced or lost due to long term sickness or impairment up to the age of 67, when the disability pension converts into an old age pension.

Finland

The disability pension is granted according to the same rules applied to old-age pensions, both as regards the national basic pension and the earnings-related occupational pension.

Eligibility: The benefit is granted to claimants with a sickness or injury, which reduces the functional capacity for at least 12 months. The earnings-related pension is available for all persons that have accrued pension rights during gainful employment. This benefit is not means tested. The national basic pension provides a minimum income guarantee and may supplement a small earnings-related disability pension or may be granted alone if no pension rights have been accrued in employment.

Benefit level: The earnings-related pension consists of two components: acquired rights from work and rights granted for the years after the event until the official retirement age. The granted rights are 1.5% of the calculated pension base per year up to the age of 50, then 1.2% until age 59 and 0.8% until age 64. Disability pension is taxable income.

Benefit duration: At the age of 65 the disability pension converts into an old age pension. The benefit can be granted indefinitely or for a specific period.

Great Britain

Eligibility: The claimant is required to do a personal capability test before receiving the long-term disability benefit. Entitlement is similar to the sickness regulations.

Benefit level: The benefit consists of a flat rate of currently €107 per week, with supplements for dependants and severity of sickness. There is also some differentiation according to age. The benefit is not means tested.

Benefit duration: The short-term incapacity benefit changes to a long-term incapacity benefit after 28 weeks.

Italy

The National Social Security Institute administers two levels of disability benefits for the private sector (employees and self-employed): the invalidity allowance and the disability pension[12].

[12] There exists another disability scheme, which is rather a concept of social assistance than a compensatory or pension scheme and is therefore left out.

Eligibility: The invalidity allowance is granted in case of a 2/3 working capacity reduction, which is defined through a medical assessment. The disability pension is granted in case of a permanent incapacity for any kind of occupation due to medical conditions. To obtain one of these benefits, a claimant must have paid five years of contributions, with at least three years of contributions within the last five years.

Benefit level: The invalidity allowance and the disability pension are calculated according to the same criteria as the old-age pension. According to the earning-based pension system rules, there is a minimum benefit threshold for the invalidity allowance, which is set currently at €4,845 per year, corresponding to the yearly minimum pension. If the accrued allowance is lower than the threshold it is topped up to the minimum. However, this supplement is subject to entitlement conditions, mainly based on the recipient taxable income, which cannot be above twice the amount of the social pension (€8,642) for the single, or three times the social pension for a couple (€12,963). The definition of income adopted while assessing the right to the supplement corresponds to the household's taxable income raised by the value of the top up allowance. The household is supposed to possess no income from real estate or financial assets with the exception of the residential home ownership.

Benefit duration: The benefit is paid up to retirement age and then converted into an old age pension.

The Netherlands

The disability benefit is an insurance benefit related to work rather than to pensions.
Eligibility: All employees with an employment contract that are considered disabled for at least one year or more after a medical assessment are eligible. The degree of disability must be at least 15% for a partial benefit and at least 80% for a full benefit. There are no insurance preconditions. For self-employed and persons that become disabled before even having started to work, there exists a similar system. The benefit is not means tested.

Benefit level: The amount of benefit depends on a) the degree of disability and b) the employee's last earned wage (daily pay) as well as the age. The degree of disability is determined on the basis of a person's remaining earning capacity. The minimum benefit is 14% of the former wage and the highest benefit is 70% of the former wage. A 70%benefit is paid for less than one year for persons under the age of 32 up to six years for a person aged 59 and older. The follow-up benefit is at minimum wage level plus a supplement. The supplement depends on age and the former wage. Due to collective agreements the income of a fully disabled never falls below 70% of former wage. If the benefit is lower than the guaranteed minimum income, the claimant can receive a supplement. The disability benefit is taxable income.

Benefit duration: The benefit is paid up to the age of 64.

Spain

The disability benefit is related to labour market activities. Four types of disability are distinguished: (1) partial disability for the own profession, (2) total incapacity for the own profession, (3) absolute permanent incapacity for any work and (4) severe disability. Severe disability means that the person needs constant assistance.

Eligibility: To be eligible a person must have worked half the time between the age of 16 and 26 or a quarter of the time between the age of 20 and the beginning of the sickness when being older than 26. In the calculations here the third type is assumed: absolute permanent incapacity for any work.

Benefit level: The benefit for the third type is 100% of the contribution base and cannot be lower than €5,048 per year for a single and €5,945 for a person with a spouse. The benefit type used in the calculations is non-taxable income, but not all disability benefits are non-taxable income.

Benefit duration: At the age of 65 the disability benefit is converted to an old age pension.

Sweden
The disability benefit scheme is a compulsory public insurance scheme for all citizens and foreign residents with at least three years residence. The benefit consists of a basic pension and a supplementary pension.

Eligibility: The basic pension requires no former working record. A person must have been a resident for 40 years or worked for 30 years with supplementary pension rights to get a complete disability pension. If the conditions for residence or work are not fulfilled, the pension is reduced by 1/40 or 1/30 for every year missing. Pension rights will be granted for the years missing from when the disability occurs until the official retirement age of 65.

Benefit level: The pension can be paid fully or reduced by three-quarters, half or one-quarter according to the degree of disability. The pension can be temporary or permanent. In the calculations, permanent incapacity for any work is assumed. A full basic pension is 202.9 per cent of the base amount for a single and 185.4 per cent for a person with a spouse. The net minimum pension after taxation was €8,803 (SEK74,300) for a single and €8,045 (SEK67,900) for a person with a spouse. The supplementary pension is based on a formula including gross work income and personally accrued pension rights per year. All public pensions are taxable income, but a special pension deduction of the same size makes basic pension not taxed. A minimum pensioner may also apply for pensioners' housing supplement , which may cover 90% of the rent.

Benefit duration: A permanent pension is converted into an old age pension at the age of 65.

7.4 Main findings about the systems

Most countries in principle have a system where the employer pays in the beginning, then sickness insurance, eventually rehabilitation and finally disability insurance. There are two different types of disability schemes: schemes related to pensions and schemes closely related to sickness and (the incapacity to) work. Pension schemes seem to have a more permanent character than other schemes. They are also more often linked to 'rehabilitation first'. Other systems are more integrated like in Great Britain and the Netherlands. These countries integrated sickness and disability or abolished the compulsory sickness insurance in order to increase the employer's responsibility for integration. These schemes emphasise early reintegration into the labour market.

The benefit is either a flat rate or depends on former income or insurance contributions. A flat rate is generally more advantageous for lower incomes or younger people. A contribution-based benefit is more favourable for older workers who have built a high contribution record or for people who have reached a high income. Incentives also vary according to the composition of the benefit. There are differences between compensatory systems and systems with universal coverage. The size of the benefit also varies with regard to age, severity of disability and family type. Incentives also might depend on (high) supplements.

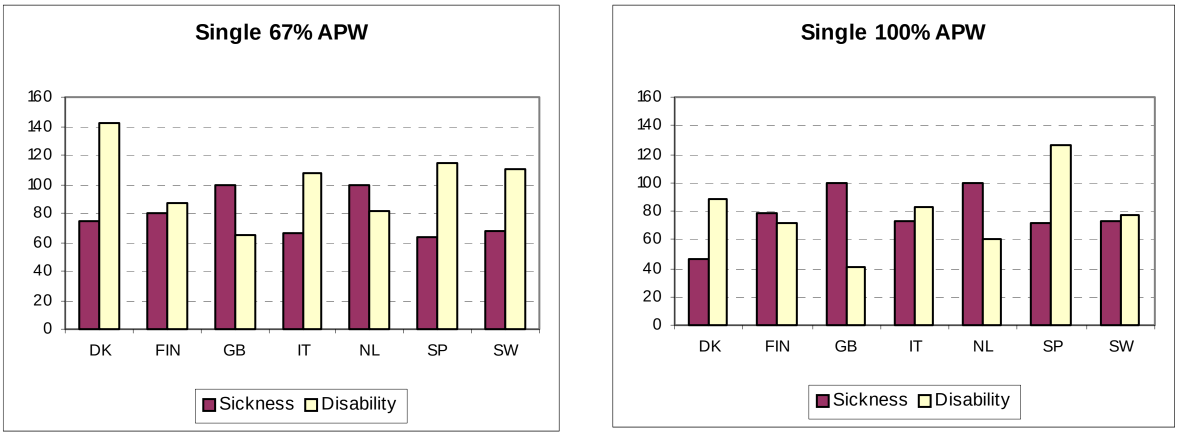
7.5 Replacement rates

Net replacement rates for sickness and disability based on the family purse income concept are presented below for different family types. Besides the compensation from sickness and disability, the rates also include other benefits the person might be entitled to like housing subsidies, (municipal) tax credits and children's allowances. The replacement rates for disability are always calculated for a fully disabled person, which means that the person cannot work at all (due to capacity or government regulation). A sickness benefit lasts in most countries for about one year, after that time a disability benefit is granted.

The net replacement rate for disability pension in Spain has a tendency to increase when income increases. This is due to the fact that the disability pension is exempted from personal income tax and that a progressive income tax schedule applies for earned income. The family purse income is affected by the progressive tax on wages and the absence of tax on disability pensions, which causes that the net replacement rate to increase with income.

Single person

Graph 7.1 Sickness benefit and disability pension. Net replacement rates for a single person aged 50



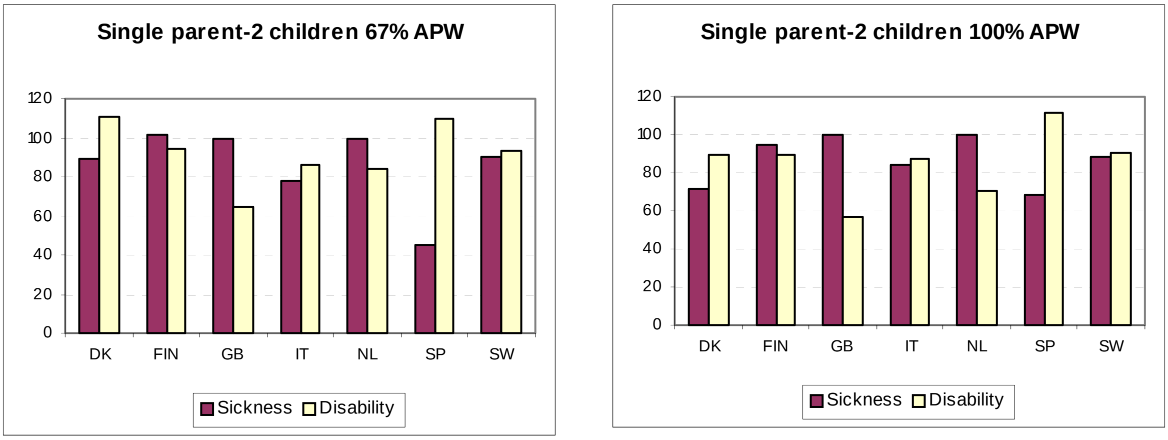
Two of the countries, Great Britain and the Netherlands, always have replacement rates of 100 per cent in case of sickness, assuming that usual wages are paid also in that situation. This is clearly more than public (or privatised) insurance schemes usually provide. The other countries have replacement rates between 65 and 80 per cent at the low-income level.

Disability pensions result in replacement rates of 142 per cent in Denmark, 115 per cent in Spain, 111 per cent in Sweden and 107 per cent in Italy. Finland and the Netherlands also have high replacement rates of 87 and 82 per cent respectively. Disability is not voluntary, but the compensation is generous at the low-income level in all countries, except Great Britain. Disability compensation is also higher than for sickness, except in Great Britain and the Netherlands. Particularly wide margins are seen in Denmark, Italy, Spain and Sweden.

At the average income level the sickness replacement rates are a little higher than at the low-income level in Italy, Spain and Sweden but still below 80 per cent. In Great Britain and the Netherlands, they remain at the same level of 100 per cent.

Disability replacement rates are mostly lower than in low-income situations, there is only a rise in Spain. In Great Britain and the Netherlands, there are no incentive problems, with replacement rates of 41 and 60 per cent. In Italy with 83 per cent and Denmark with 88 per cent, there might be and in Spain, peaking at more than 120 per cent, there should be an incentive problem even if disability is not a voluntary outcome.

Graph 7.2 Sickness benefit and disability pension. Net replacement rates for a single parent aged 40 with two children



For the single parent, Great Britain and the Netherlands have assumed sickness replacement rates to be 100 per cent. In Denmark at 89 per cent, Finland at 102 per cent, Italy at 78 per cent and Sweden at 90 per cent, the sickness replacement rates are also high. Only Spain has a low compensation at the low-income level with 45 per cent.

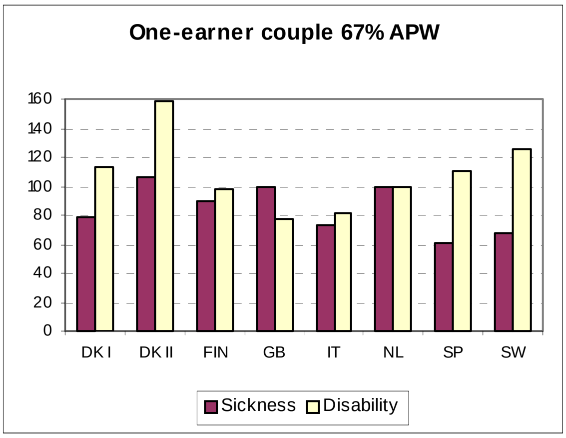
Disability replacement rates are above 100 per cent in Denmark and Spain and higher than 80 per cent in all the other countries except Great Britain at 65 per cent. Disability results in a higher compensation than sickness in Denmark, Italy, Spain and Sweden, but the margins are narrower than for a single person at the low-income level, except in Spain, due to favourable taxation of benefits.

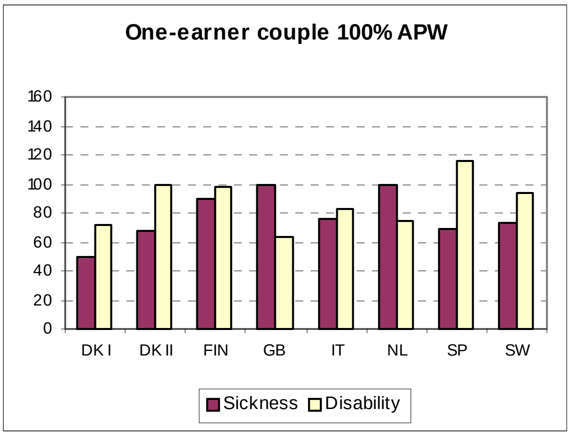
At the average income level, Spain has a disability replacement rate above 100 per cent and the other countries also have rates of above 80 per cent, except Great Britain and the Netherlands. Compensation for disability is better than for sickness in Denmark, Italy, Spain and Sweden.

One-earner couple

The situation for a couple with one income is presented in the graph below, assuming that both partners are 50 years old.

Graph 7.3 Sickness benefit and disability pension. Net replacement rates for a one-earner couple aged 50





Note: DK I the partner is not available for the labour market
DK II the partner is available for the labour market

The disability replacement rates for this family are 100 per cent or more in all countries except in Great Britain and Italy, where they are approximately 80 per cent. Except in Great Britain, the rates are equal to or above the replacement rates for sickness. The Danish case, where the spouse receives social assistance, is extraordinary in reaching a replacement rate of close to 160 per cent at the low-income level.

At the average income level, replacement rates from disability are still high, in most cases between 80 per cent and 100 per cent and mostly higher than in the case of sickness.

The general impression from these one-earner families (single, single parent and one-earner couple) is that compensation for disability results in high or very high replacement rates and mostly also higher than for sickness in most countries. This is the case at both the low-income level and the average income level. It is hardly relevant to use the concept of incentives in the usual way here, but in purely financial terms disability is often preferable to work. This gives reasons to ask whether such a high compensation is justified and it draws attention to the eligibility rules and a proper administration of such schemes because a lax administration may lead to an extensive use of such schemes.

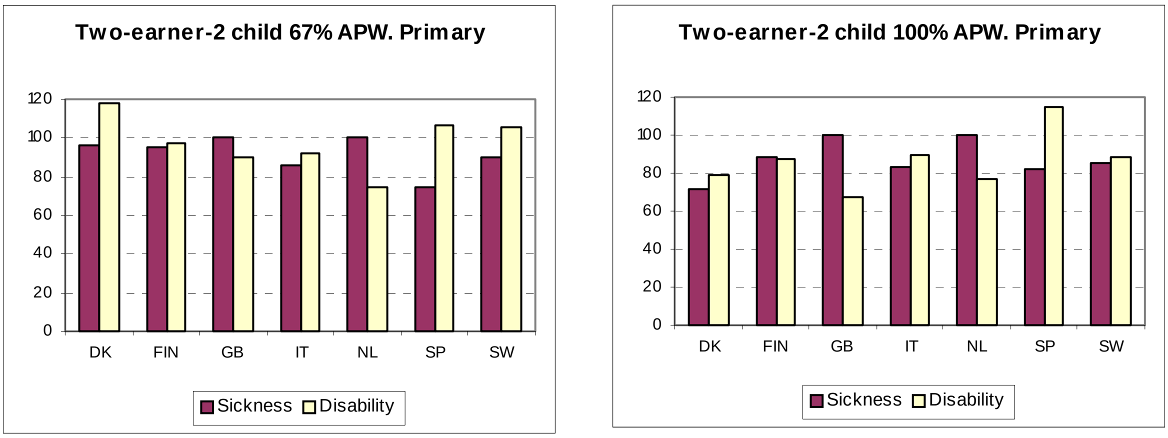
Two-earner couple

In most countries the most common situation nowadays is a situation where both partners are working. There are three possible situations for the case of a couple with two incomes and two children:

1) The primary earner gets sick and disabled,
2) The secondary earner gets sick and disabled
3) And the worst case, both get sick and disabled

In all cases is assumed that the secondary earner is a part-time worker with half the income of the primary earner.

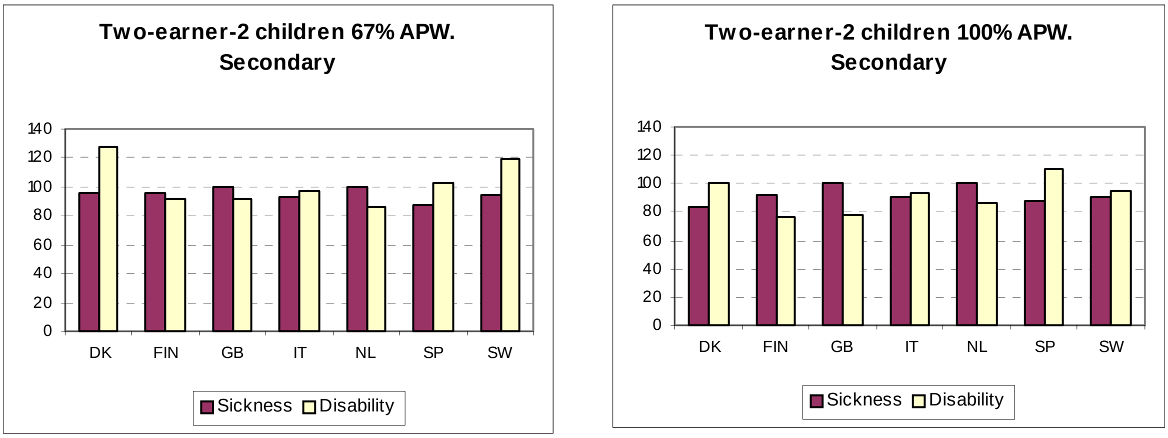
Graph 7.4 Sickness benefit and disability pension. Net replacement rates for a two-earner couple aged 50 with two children. Primary earner follows the route



For a two-earner family, where the primary earner becomes disabled, the compensation together with the income from part-time work of the spouse, results in replacement rates close to 100 per cent. In Denmark the rate is almost 120 per cent, while the Netherlands are at the other end of the range with 74 per cent at the low-income level. Replacement rates for sickness are somewhat lower, except in Great Britain and the Netherlands where they are assumed to be 100 per cent.

At the average income level most replacement rates for disability are between 80 and 90 per cent, but in Spain the rate increases to 115 per cent due to favourable taxation of benefits.

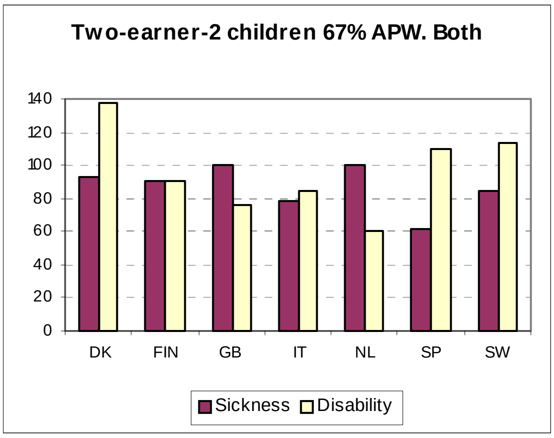
Graph 7.5 Sickness benefit and disability pension. Net replacement rates for a two-earner couple aged 50 with two children. Secondary earner follows the route

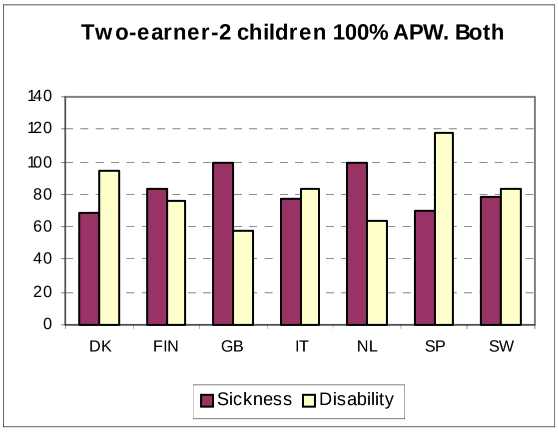


In the case where the secondary earner gets sick, the replacement rates are at least as high as in the case where the primary earner gets sick in all countries. At all income levels replacement rates are relatively similar because the influence on household income of the secondary earner is not so important for the overall household income.

Again replacement rates related to disability are even higher than the former income in some countries like Denmark, Sweden and Spain. This effect is most obvious with low incomes, but in Spain also with high incomes due to favourable taxation of benefits. In Denmark low-income families in particular have high replacement rates. Compared to the situation where the primary earner gets disabled, replacement rates are higher. The main reason is that the income from part-time work of the secondary earner has only minor importance on the total family income, while a disability pension is high relative to income from work.

Graph 7.6 Sickness benefit and disability pension. Net replacement rates for a two-earner couple aged 50 with two children. Both earners follow route





When both spouses are sick or disabled at the same time, the replacement rates are mostly somewhat lower than in the two preceding cases, but still remarkably high, both at the low and average income level. The replacement rates in several cases are well above 100 per cent.

7.6 Main findings

Compared to other schemes, sickness and disability schemes yield the highest replacement rates. Replacement rates show that net income is even higher than that from the former wage in many cases. With regard to incentives that stimulate work, this effect is concerning, but one has to keep in mind that disability is due to certain medical conditions and in most cases not a condition that can be influenced by the individual.

In general, the countries which regard the disability scheme as a pension scheme, have higher replacement rates. These schemes are designed in such a way that people are not expected to return to work. Often, they also offer benefits that may be higher than those offered to people in rehabilitation or those granted for a temporary period to people who are expected to recover.

In most countries replacement rates for disability decline when income rises. This is not the case in Spain, where replacement rates rise with increasing income. This occurs because there is no taxation of disability pensions.

The replacement rates also reflect strongly the nature of the benefit, showing 'staircase-like' rates for flat rate benefits and similar percentage rates for different income levels in insurance schemes that are based on contributions on former wages. Flat rates are more advantageous for lower incomes than for higher incomes. A high, flat rate benefit therefore causes high replacement rates for low-income households.

7.7 Appendix to chapter 7

Net replacement rates based on the family purse income are presented in the following tables for all income levels in the sickness and disability route. Extracts of the data are presented and analysed in the graphs in the chapter.

The income of the primary earner is shown in the head of the table for two-earner couples. The wage level of the secondary earner is half of that level.

Table 7.1 Single person aged 50 with sickness or disability benefits

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
SICKNESS					
Denmark	74	57	46	36	30
Finland	80	80	79	75	72
Great Britain	100	100	100	100	100
Italy	66	68	73	73	73
The Netherlands	100	100	100	100	100
Spain	64	70	71	71	72
Sweden	68	71	73	73	61
DISABILITY					
Denmark	142	110	88	69	58
Finland	87	80	72	71	71
Great Britain	65	55	41	31	25
Italy	107	78	83	81	82
The Netherlands	82	64	60	62	66
Spain	115	121	126	129	132
Sweden	111	92	77	80	80

Table 7.2 Single parent aged 40 with two children aged 3 and 6 with sickness or disability benefits

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
SICKNESS					
Denmark	89	82	72	63	55
Finland	102	93	95	89	82
Great Britain	100	100	100	100	100
Italy	78	78	84	79	77
The Netherlands	100	100	100	100	100
Spain	45	64	68	73	73
Sweden	90	89	88	83	72
DISABILITY					
Denmark	111	101	89	78	69
Finland	94	92	90	84	79
Great Britain	65	62	57	51	45
Italy	86	83	87	87	84
The Netherlands	84	76	71	62	64
Spain	110	109	112	118	122
Sweden	93	92	91	87	84

Table 7.3 One-earner couple aged 50 with sickness or disability benefits

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
SICKNESS					
Denmark I	78	62	49	39	33
Denmark II	106	84	67	53	45
Finland	90	90	89	80	74
Great Britain	100	100	100	100	100
Italy	73	72	76	74	74
The Netherlands	100	100	100	100	100
Spain	61	64	69	70	71
Sweden	68	71	73	73	61
DISABILITY					
Denmark I	113	90	72	57	49
Denmark II	158	125	100	80	68
Finland	98	98	98	97	88
Great Britain	77	70	63	48	39
Italy	81	80	83	82	82
The Netherlands	99	92	74	67	70
Spain	110	111	116	121	125
Sweden	125	109	94	86	80

DK I The partner is not available for the labour market.
DK II The partner is available for the labour market.

Table 7.4 Two-earner couple aged 40 with two children aged 3 and 6. Primary earner with sickness or disability benefits

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
SICKNESS					
Denmark	96	90	72	63	58
Finland	95	93	88	85	83
Great Britain	100	100	100	100	100
Italy	86	83	83	83	84
The Netherlands	100	100	100	100	100
Spain	74	79	82	82	82
Sweden	90	90	85	84	77
DISABILITY					
Denmark	118	100	79	68	61
Finland	97	94	87	83	83
Great Britain	90	85	67	54	46
Italy	92	89	89	88	89
The Netherlands	74	76	77	78	80
Spain	107	111	115	117	120
Sweden	106	102	88	88	88

Table 7.5 Two-earner couple aged 40 with two children aged 3 and 6. Secondary earner with sickness or disability benefits

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
SICKNESS					
Denmark	96	91	83	79	76
Finland	96	94	92	92	92
Great Britain	100	100	100	100	100
Italy	93	90	91	90	91
The Netherlands	100	100	100	100	100
Spain	87	90	88	88	90
Sweden	94	93	91	92	92
DISABILITY					
Denmark	127	115	101	93	88
Finland	91	86	76	68	61
Great Britain	91	90	78	75	74
Italy	97	93	94	93	94
The Netherlands	86	86	86	88	88
Spain	103	108	111	114	117
Sweden	119	106	95	94	94

Table 7.6 Two-earner couple aged 40 with two children aged 3 and 6. Both earners with sickness or disability benefits

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
SICKNESS					
Denmark	93	87	69	56	47
Finland	91	89	83	77	75
Great Britain	100	100	100	100	100
Italy	79	77	77	74	74
The Netherlands	100	100	100	100	100
Spain	61	67	70	70	72
Sweden	84	83	79	77	69
DISABILITY					
Denmark	138	118	94	76	63
Finland	91	86	76	68	61
Great Britain	76	73	58	46	37
Italy	84	83	83	82	83
The Netherlands	60	62	64	66	68
Spain	110	114	118	120	123
Sweden	114	101	84	82	82

Annex 1 Technical note on the impact of some concepts and assumptions

Income reference

The calculations of this study refer to the concept of the average production worker, defined by the OECD: the APW, whose gross wage represents the income derived from the same work functions in all countries. The APW is a full-time worker in the manufacturing industry, with no sickness or unemployment and average overtime. This is a well-established yardstick for international comparisons, although not without shortcomings. Going up or down from the APW income level may give results which are not so easy to identify in terms of specific groups on the labour market. However, some of the lower levels can be interpreted as part time work at APW hourly wages. This could be the interpretation for the secondary earner spouse in the two-earner couple. Anyhow, income variation is useful in tracking possible incentive problems in relation to work. Income levels of 67, 80, 100, 125 and 150 per cent of the APW level have been chosen in this study just to give a reasonably broad income interval. In the two-earner couple, the secondary earner spouse is assumed to earn half of the income of the primary earner.

Family types

A substantial variation in family types is also necessary to get an impression of how social events such as sickness or unemployment affect different families. In this study, the single person, the single parent, the one-earner couple without children and the two-earner couple with children (except in the retirement situation) have been chosen. These types do not cover all possibilities, but are the most typical family formations.

Income concepts

The income concept used for calculations of the in-work and the out-of-work situations is important. The standard OECD concept is the *take home pay* concept or extensions of this. In its basic form, take home pay is gross wage minus personal taxes and employee paid social contributions. Inclusion of benefits for children and housing extends the concept to the usual concept of disposable income. In this study, the concept is further refined: the take home pay is the basis, and benefits for children and housing are added, then the housing costs are subtracted to derive the *family purse income* concept. It reflects what is disposable for the family when housing has been paid for.

Small net replacement rates on the basis of the family purse income, e.g. in activation of young unemployed, can thus indicate, that it is not sustainable to keep on living in costly accommodation, but it is necessary to move to a cheaper flat. Using the usual disposable income concept may miss this point. On the other hand, large replacement rates according to the family purse concept can be a result of the comparison of small family purses in two different situations, both of which may be at a non-sustainable level. It is therefore necessary to assess the nominal value of the family purses as well.

As an example on implications from different income concepts the situation for the Danish single parent (2 children) in work and in unemployment (insured) at APW income level is illustrated according to the usual disposable income concept and the family purse income concept.

Annex table 1 Net replacement rates for different income concepts

	In work	In unemployment
Gross income	285 000	148 000
- Personal taxation	125 840	51 766
Basic take home pay	159 160	96 434
+ Child benefits	53 628	53 628
+ Housing benefits	4 660	22 644
Disposable income	217 448	172 706
- Housing costs	57 000	57 000
Family purse	160 448	115 706
Net replacement rate based on the disposable income concept		79 %
Net replacement rate based on the Family purse concept		72 %

A single Danish parent with two children at APW income level is used in the example

The disposable income concept results, as should be expected, in a higher replacement rate than when the family purse concept is applied. If the situation at 1.5 APW income is illustrated, the difference between the results of the two income concepts increases and the two replacement rates will be 65 per cent and 55 per cent respectively. There is no change in income in the unemployment situation, but the in-work income increases, and the deduction of the fixed housing costs have a smaller impact than at the APW income level.

Housing costs

When more composed calculations are made, including housing costs and housing benefits, it is necessary to make assumptions concerning housing costs. This is not easy and there is probably no best way to do this in the context of international comparisons. A relatively simple approach was selected for this study. For families with one income, 20 per cent of the gross APW wage was selected as gross housing costs (15 per cent of which are operating costs such as electricity, heating etc.), and for families with two incomes, 30 per cent of the same basis was selected (15 per cent of which as operating costs). Other procedures can easily be justified, e.g. varying housing costs in accordance with varying income. This has not been done here; the housing costs are fixed for each family type, disregarding income level.

All the countries participating in the study followed this approach. The implication is that housing costs constitute the following share of the gross family income for all the family types. The housing cost share at different income levels in per cent of APW income is illustrated in the following table.

	0.67 APW	0.8 APW	APW	1.25 APW	1.5 APW
Housing cost	30%	25%	20%	16%	13%

For the two-earner couple the secondary earner has half of this income.

Housing cost matters, especially in the family purse concept. It is not claimed that housing costs are identical for the seven countries following the simple approach, but they are calculated according to a common procedure and the results are comparable between all countries.

Sensitivity analysis

To illustrate the importance of housing costs a simple sensitivity analysis is presented in the following. Danish cases are used, in alternative I a low housing cost is used (20 or 30 per cent of the 100 per cent APW gross wage depending on family type) and in alternative II a high housing cost is used (25, 30 or 40 per cent of the 100 per cent APW depending on family type).

Impact on net replacement rates from varying housing cost assumptions. Income level is 67 per cent of APW income.

	Alt. I	Alt. II
Single, unemployment benefit	74 (20%)	67 (25%)
Single parent, unemployment benefit	89 (20%)	85 (25%)
One-earner couple, unemployment benefit	106 (20%)	164 (30%)
Two-earner couple, unemployment benefit	93 (30%)	91 (40%)

When housing costs are lower the replacement rates are usually higher, except for replacement rates above 100 per cent, where it is the other way round. The one-earner couple with high housing costs is one case where the family purse income is quite low. The effects are not dramatic, except for the one-earner couple. In the Danish cases above, ordinary housing benefit and housing allowance from the social assistance scheme are included and have an impact on the result.