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Reforms in tax-benefit systems in order to increase employment incentives in the EU

by

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REFORMS IN TAX-BENEFIT SYSTEMS IN ORDER TO INCREASE EMPLOYMENT INCENTIVES IN THE EU

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Abstract

In this paper we discuss the role of tax and benefit systems in the context of the functioning of the labour markets and review recent progress made by EU Member States in reforming tax and benefit systems with a view to increasing economic incentives for higher employment and job creation. On the basis of the most recent comparable data and indicators, we try to assess whether concrete measures are being taken by Member States to alleviate the tax pressure on labour and especially on the low paid. We also examine benefit systems (especially unemployment benefit systems) with a view to evaluating recent reforms to increase employment incentives.

Our main conclusions are that while Member States have started to ease the tax burden on labour, progress on reforms has been unequal between tax and benefit systems: the emphasis has clearly been on the tax side while benefit reforms have mostly been relatively minor, and without adequate attention to the interaction between tax and benefit schemes. In view of the goal of full employment, to which the Union and the Member States are committed, it has become more urgent to speed up reforms of tax and benefit systems in order to increase labour supply and reduce structural unemployment. Further reforms aimed at making work pay should take a more comprehensive approach, including a review of the interaction between tax and benefit systems and their joint incentives to work. In general, further efforts are needed to reduce the overall generosity of benefit schemes, including eligibility rules, and to strengthen their interaction with active labour market policies in order to enhance the efficiency of active policies. This strategy could help to move people from benefit dependency to work, while preserving an adequate level of social protection for those in need.

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Views expressed in the paper are exclusively those of the authors and do not necessarily correspond to those of the European Commission.

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1. INTRODUCTION

The European unemployment rate has come down from its peak of 11.1% in 1994 to around 8.3% in 2000, but it still is far too high. Serious structural problems remain in many countries, including uneven developments across social and age groups as well as across regions. Moreover, labour shortages have emerged in a number of countries at the same time as relatively high unemployment rates.

Addressing the problems of tax-benefit systems and the functioning of labour markets implies policies that increase incentives for both the creation of jobs, that is labour demand, and greater participation, that is labour supply. The latter will become increasingly important in the future both in the short and long run. In the short run, many countries, and not only those with a low unemployment rate, will increasingly face difficulties in recruiting people in certain occupations and industries. In the long run, demographic developments will lead to higher dependency ratios and reduced shares of working-age populations. In addition, the problems of those in less favourable situations in the labour markets and facing the highest risk of remaining unemployed require particular attention, with a view to including low-skilled workers both economically and socially in the society through enhanced employment opportunities.

The search for the best policies aimed at improving the functioning of labour markets and the current discussion on modernisation of the welfare system in Europe are interrelated. The crucial issue is the trade-off between the equity and efficiency goals of welfare systems. The reason for this is that while these systems provide income security during unemployment or in the case of loss of earnings for some other reason, they also cause efficiency losses by discouraging employment. This leads to a discussion of incentive effects of tax-benefit systems and their impact on the behaviour of economic agents.

Disincentives to work embedded in tax and benefit systems reduce potential labour supply. This impact comes through two main channels. The first one is the benefit level relative to earnings and its effect on the participation decision, which can give rise to the so-called unemployment trap. The second one is the increase in disposable income as earnings rise, and its impact on work effort or hours worked, which can result in the poverty trap.

The need for reform is clear and a better balance needs to be found between the equity and efficiency goals in tax and benefit systems. The reform issue has been high on the political agenda both at the national and the European level. The special European Council in Lisbon in March 2000 reiterated the importance of assessing whether concrete measures are being implemented by EU countries 'to alleviate the tax pressure on labour and especially on the relatively unskilled and low-paid, improve the employment and training incentive effects of tax and benefit systems'.

The European Commission has contributed extensively to the discussion on the reform of tax and benefit systems through its proposals for recommendations and reports on the implementation of reforms, as well as through discussion papers. This paper has benefited from information on reforms provided by Member States in the context of the multilateral surveillance procedure.

In this paper we discuss the role of tax and benefit systems in the context of the functioning of the labour markets and review recent progress made by EU Member States in reforming tax and benefit systems with a view to increasing economic incentives for higher employment and job creation. Section 2 presents an overview of some theoretical and empirical aspects of how tax and benefit systems affect the functioning of labour markets. Section 3 describes the most recent tax reforms and tries to assess, on the basis of the most recent comparable data and indicators, whether concrete measures are being taken to alleviate the tax pressure on labour and especially on the relatively unskilled and low paid. Section 4 reviews benefit systems with a view to evaluating recent reforms to increase employment incentives. Section 5 summarises the main findings. Annexes 1 and 2 present a summary of tax and benefit reforms implemented in Member States in recent years.

2. TAX-BENEFIT SYSTEMS AND THE LABOUR MARKET: AN OVERVIEW OF SOME THEORETICAL AND EMPIRICAL ASPECTS

Tax revenues are the main source for redistributing income between different groups in society, financing welfare systems (like pensions, unemployment benefits, social assistance, health care), as well as providing the needed public goods. Tax systems are also used for environmental policies, for addressing market imperfection or externalities (viz. “Pigouvian taxes”, such as environmental taxes) and discouraging “bads”. Yet, the need to finance public spending through taxation is also an inevitable source of distortion in labour markets. Taxation affects both the supply of and the demand for labour.

2.1. Effects of taxation on labour supply

The standard textbook model on the direct impact of taxation on labour market outcomes, through its impact on labour supply, is well known. Here, we recall some of the main theoretical features and empirical evidence, which can provide a convenient background for the subsequent analysis of recent reforms.

For any taxed good, a tax drives a “wedge” between the cost of the good to the purchaser and the amount received by the supplier. This tax wedge creates a distortion in that it alters economic behaviour. Such a distortion produces an efficiency loss (often defined as “excess burden” or “dead-weight loss”), i.e. an additional cost to society arising from the distortionary impact on agent behaviour. According to the “Ramsey rule” for optimal taxation¹, the size of the “dead-weight” losses depends on the elasticities of supply and demand. The greater the responsiveness of economic agents (consumer and producers) to the tax-induced changes in relative prices, the greater the efficiency loss to the economy. Efficiency losses increase more than proportionally with the tax rate (the increase is proportional to the square of the tax rate). Therefore, a given amount of tax revenue

¹ The “second best” solution given that Pareto-efficient lump-sum taxes are not feasible for equity reasons.

should be based on a tax base that is as broad as possible in order to keep the tax rates as low as possible.

Taxes on labour², such as social security contributions/payroll tax or personal income tax, tend to discourage the individual's labour supply relative to what it would otherwise be. They drive a "wedge" between the marginal product of labour and the marginal value of leisure, thereby changing the relative price or the cost-opportunity of leisure. On the other side, it is also true that taxation reduces the worker's net income. It is well known from public finance literature that economic theory (choice theory) cannot give a precise prediction for the size and direction of the supply responses to tax changes due to the offsetting impacts of the income and substitution effects³.

Against this background of theoretical uncertainty,⁴ assessing both the direction and the order of magnitude of the potential employment effect of any change in the taxation of labour becomes an empirical matter. The behavioural parameters that determine the responsiveness of labour supply decisions to economic incentives are relevant. Indeed, in order to minimise the efficiency loss, income tax should be higher on tax-payers whose response to price incentives are small (i.e. those with the most inelastic demand and/or supply).

From an empirical viewpoint, there is a general consensus that labour supply responses to tax/benefit reforms need to be distinguished:

- by type of individual and labour market "segment";
- by whether these responses are related to a change in the hours worked or the work effort of those already in employment or a move from unemployment or inactivity to employment.

The problem is that the assessment of individual behaviour with respect to different features of tax (and benefits) systems and other factors is technically complex. Indeed it remains one of the key empirical issues. The problem in estimating behavioural labour responses in terms of supply is that there is no single "representative agent" elasticity because:

- different individuals face significantly different marginal tax rates (different incentives); and
- wage elasticities differ substantially across individuals according to such elements as marital status, age, sex, and type of job (part time/full time).

Against this background, detailed microdata are usually lacking. There is much applied microeconomic and microeconometric research, which attempts to assess the importance

² For a thorough survey of the issue, see Zee (1997), Liebfriz et al. (1997) and Pissarides (1998).

³ Following an increase in the wage rate (due for example to a cut in income tax), the substitution effect induces the individual to work more (due to the higher opportunity cost of leisure) while the income effect encourages the individual to work less.

⁴ These theoretical ambiguities do not refer to the distortionary nature of any kind of feasible (i.e., excluding lump-sum taxes) taxation, but only to the size and the magnitude of its economic impact.

of tax changes for labour supply. Results vary across studies and do not appear robust to different specifications, but there is considerable evidence that high marginal tax rates can be relevant at least for some groups of people. The main results of the empirical research can be summarised as follows:

- Some groups of people appear to be much more responsive to tax changes than others. In particular, partners in couples where one spouse is not working (usually married women) and lone-parent families are generally found to be the most responsive to incentives, both in terms of hours supplied and participation in the labour market. Tax may influence the decision as to whether or not a second member of the household enters the labour force and may encourage or discourage part-time work.
- On the contrary, tax (and benefit) changes seem far less likely to induce a relevant labour supply response for prime-age males. In general, the same holds for groups of people with prospects of higher future wages arising from continuous work histories (linked to collective bargaining systems with seniority-related pay, or on-the-job skills/human capital accumulation).
- The responsiveness to tax changes in terms of entry into or exit from the market is higher than in terms of hours supplied⁵. Furthermore, given the non-linearity of labour supply, the wage response depends critically on the hours of work at which it is evaluated. Indeed, the responsiveness appears to decline as the number of hours that the individual is already working increases.

2.2. Effects of taxation on labour demand

On the demand side of the labour market, the pivotal variable is total labour cost (relative to labour cost in competitor countries and to the cost of other production factors). Taxes on labour income (personal income tax and payroll taxes), by increasing the cost of labour at any given real wage, shift the labour demand curve downwards⁶. Thus, all other things being equal:

- tax policies that increase labour costs to employers tend to reduce labour demand and employment. The size of the impact on wages and employment depends on the slope of the labour supply (wage-setting) function; and
- tax policies that reduce the prices of non-labour productive factors relative to labour tend to modify the relative factor intensities to the detriment of labour (in particular low-skilled labour).

⁵ Although the increasing prevalence of part-time work is having an effect, usually the number of weekly working hours is fixed by collective bargaining so that individuals are unable to choose their preferred number of hours worked.

⁶ In the union wage bargaining models of the “right to manage” kind, the wage-setting curve shifts down as well and the final impact on wages and employment depends on the structure of taxation (other thing equal, regressive taxation implies higher unemployment and progressive taxation lower unemployment) and on whether the real level of unemployment benefits or the replacement rate is fixed (see Pissarides (1998)).

Changes in the tax burden, to the extent they are reflected in a change in real labour costs, can have an indirect impact on labour demand by changing domestic production costs relative to those of foreign competitors (Alesina and Perotti (1994)). In this context, for example, a reduction of employers' social security contributions can enhance the international competitiveness of a country, thereby acting like a real exchange rate depreciation. This effect has been called the "internal exchange-rate depreciation" effect in the Scandinavian policy debate and it is one of the reasons behind the setting-up of the "buffer stock" in Finland (Calmfors (1998)). This is also why changes in social security contributions and payroll taxes paid by employers are being suggested as counter-cyclical policy tools in EMU to support macro-stabilisation objectives.

2.3. Taxation, labour cost and unemployment

Until now we have sketched in isolation (a kind of "partial partial" model) the main responses in terms of labour supply and labour demand following a change in the tax rates on real wage and on labour cost respectively. Implicitly, we have so far also made the following assumption on the incidence of taxes: an increase in the tax rate on personal income is borne by workers, while an increase in the payroll tax rate, by changing labour cost, is borne by employers. In reality, the labour market outcome of a change in taxation on labour depends on the interaction of the two sides of the market, which determines the final incidence of a tax.

Indeed, while the statutory incidence of a tax may be relevant for political reasons⁷, it is well known from the tax theory that the statutory incidence is irrelevant in determining the economic incidence of a tax. To the extent that the price of the item taxed changes when a tax is levied, the tax is shifted and the final incidence can be on a base that is completely different from that implied by the statutory, nominal incidence. Thus, the actual burden of the tax depends on a complicated set of behavioural responses to the tax and generally falls on the side of the market (demand or supply) that is most inelastic.

To see how the tax incidence is relevant, it is sufficient to look at the tax wedge, between the real product wage (or real labour cost), rLc , and the real consumption wage of the worker rWc :

$$rLc = W(1+ssc_{er})/p$$

$$rWc = W(1 - ssce_{e})(1-t_i)/p(1+t_c)$$

where W is the nominal gross wage, p is the deflator of GDP at factor costs, ssc_{er} is the rate of social security contributions paid by employers, $ssce_{e}$ is the rate paid by employees, t_i is the tax rate on personal income and t_c is the tax rate on consumption goods. Thus, the wedge is given by:

$$\text{Tax wedge} = \delta = (1+ssc_{er})(1+t_c) / (1 - ssce_{e})(1-t_i)$$

$$\text{and} \quad rLc = \delta * rWc$$

⁷ Although this can be the result of "fiscal illusion", voters do not seem to be indifferent between a statutory tax rate of 10% or 30% even if the final incidence should turn out to be the same.

Accordingly, an increase in a component of the tax wedge δ (personal income taxes, consumption taxes or SSCs) can increase the labour cost (the real product wage) for a given real consumption wage, or decrease the real consumption wage, for a given labour cost. The relevant empirical issue here is whether and to what extent the total tax wedge is passed on to a higher gross labour cost. The degree to which an increase in the tax wedge is shifted to labour cost is likely to be higher, the greater the real wage rigidity and the wage elasticity of labour supply. In the extreme case of an infinitely elastic labour supply (or wage-setting curve in the non-competitive models), implying a so-called complete “real wage resistance”,⁸ any change in taxation will be fully passed through labour costs to employers, with a greater impact on employment and no change in the real after-tax wage.

A higher tax wedge could, through an increase in employer social security contributions, all other things equal (for example, in the presence of a wage floor due to minimum wages, unions or benefit levels or a complete real wage resistance), raise the cost of labour, lowering the competitiveness of a country’s producers and increasing unemployment. This will happen if the increase in the payroll tax cannot be passed on to workers in the form of lower wages (Blau and Kahn (1999)). The degree to which a payroll tax is shifted on to wages is not only function of wage resistance and the bargaining power of wage earners, it also depends on the degree to which workers value the benefits linked to the payment of payroll taxes. If workers take into account the benefits that they are buying with their payroll taxes, any change (increase) in the payroll tax will lead to a smaller change (increase) in wages, and therefore to a smaller change in compensation costs and thus the impact on employment will be less. This tax/benefit linkage is well known in public finance theory (Gruber (1995)). Another interesting feature of SSCs, linked to their role in providing entitlement to subsequent benefits is that they can be a valuable mechanism for encouraging participation in the formal economy.

Empirical findings on the degree of real wage resistance, and therefore on the final incidence of taxes on labour, is mixed. Some suggest that there is evidence of wage resistance, and therefore of a significant and long-lasting impact of taxes on labour costs and unemployment in many European countries, especially in continental Europe (Daveri and Tabellini, (2000), Marino and Rinaldi (2000)), although wage resistance and tax-push phenomena seem to differ across countries over time and according to fiscal policies pursued (Padoa Schioppa Kostoris (1992) and Tyrväinen (1995)). This reflects differences across countries in labour markets and other institutional features that impinge on bargaining strategy and power (OECD (1994)). There is also empirical evidence to indicate that a tax cut is more likely to have a greater positive impact on employment in countries where there is either a highly decentralised bargaining system or a high degree of centralisation or co-ordination of unions and, therefore, a higher internalisation of the beneficial effects of wage moderation on employment and macroeconomic performance (a confirmation of the well-known Calmfors-Driffill hypothesis).⁹

⁸ In the literature, “real wage resistance” is referred to a situation where, a change of one of the components of the fiscal wedge (personal income tax, SSCs, consumption taxes) gives rise to a change in the real labour cost (taxes fall fully on the firm) because workers try to protect their living standards.

⁹ See Alesina and Perotti (1994), Scarpetta (1996), Marino and Rinaldi (2000).

According to others (Nickell and Layard (1997)), the balance of empirical evidence suggests that, in the long-run, a kind of “*tax neutrality*” holds¹⁰. There is probably some wage resistance in the short-term but not in the long-term, although the transition to the long-term can be very long and therefore the short-term impact and the dynamics of adjustment can be long-lasting. As a result, there should be only a rather limited adverse effect of taxation on unemployment and labour input, and the precise size of this effect remains unclear. Furthermore, in a small open economy with international capital mobility, the expected rate of return on domestic and foreign investment must be the same. Thus, in the medium-to-long term, gross real wages will have to adjust in order to guarantee the equivalence condition. Hence, any increase in the tax wedge (labour taxes) will be borne entirely by labour (Nickell (1997)).

To sum up, the final labour market outcome of a change in taxation depends on all institutional factors (unions, wage setting mechanisms, minimum wage, unemployment benefits, employment protection legislation) that, by impinging on labour market flexibility¹¹, affect the degree of tax shifting and the final incidence of taxation on the production wage (labour cost) and/or the consumption wage (take-home wage). These institutional factors are also apt to change over time as a result of structural reforms. Therefore, it is also difficult to predict the actual impact on the labour market of a change in tax policy on the base of past experiences.

2.3.1. The employment impact of tax cuts under two different unemployment benefit schemes

From a theoretical point of view, the size of the impact of tax cuts on wages and unemployment is also crucially linked to the tax treatment of unemployment benefits (Daveri and Tabellini (2000)), i.e., to the way in which unemployment benefit (UB) schemes work. What is relevant is whether UBs are taxed or not¹² or, more generally, whether it is the net replacement rate (the ratio of unemployment benefit to net wages) or the real level of unemployment benefit that is fixed. The effects of tax cuts on wages and unemployment under these two different UI schemes and four labour market models (competitive, union bargaining, search and efficiency models) were modelled and simulated by Pissarides (1998). The four models yield the same implication in terms of the interaction of tax cuts and unemployment benefits: schemes in which UBs are taxed (or, equivalently the net replacement rate is fixed) make the supply/wage-setting curve less elastic (steeper) than the case of non-taxed UBs. This can be seen in Figure 1, which provides a simple diagrammatic illustration of the labour market outcomes following a tax cut, under the two situations of taxed and non-taxed unemployment benefits. We have represented the impact on real wages and on employment (unemployment) when the

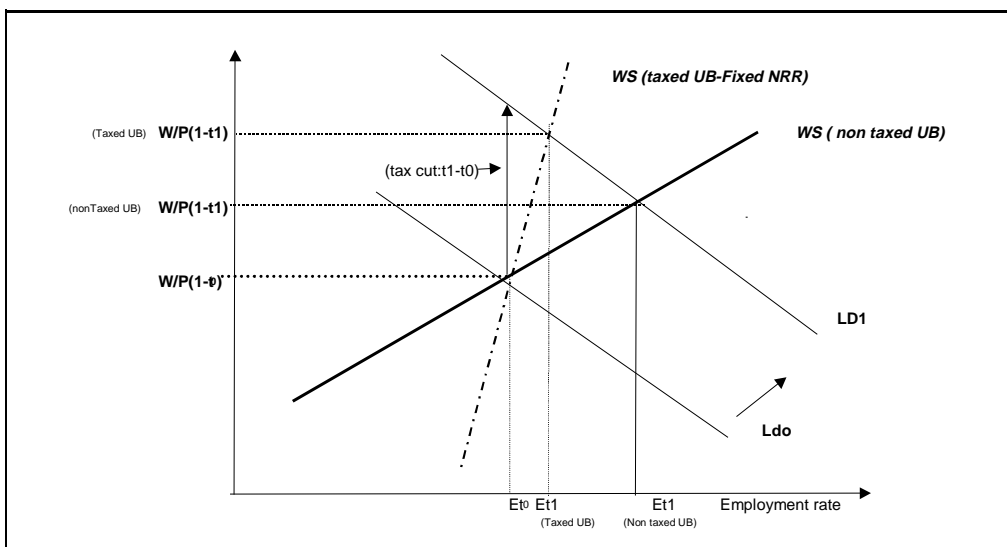
¹⁰ In theoretical terms this is equivalent to saying that in the long run, in a perfectly competitive model, the labour supply function is considered vertical. In a wage-bargaining model this is equivalent to assuming that the (upward or downward) shifts of the price-setting and the wage-setting curves are equal in size.

¹¹ The degree of product market competition is also relevant in determining the degree of wage-resistance. To the extent that employers share the “monopoly rents” of firms in a market with low competition, an increase in taxation on labour is more likely to be shifted forward into product prices, because of low firm resistance against compensatory wage claims.

¹² At least, taxed by less than income from work.

downward-sloped price setting relationship (or labour demand curve- L_d)¹³ relating employment to the real wage shifts upwards, following a cut in the tax rate. There are two upward-sloping wage-setting curves (or labour supply curve WS)¹⁴ with different slopes, representing the two UB schemes (taxed or non taxed). As a consequence of the lower elasticity of the wage-setting curve in the case of taxed UBs (or fixed NRR-unemployment benefits increasing in proportion to the wage rate), tax cuts are more likely to be absorbed by an increase in real wages. In such circumstances, the effect of a tax cut is reflected more in real wages (net take-home pay goes up from W_r0 to W_r1) than in employment¹⁵.

Figure 1 Impact of tax cuts on wages and unemployment under two different UI



The result is also rather intuitive if we think about the role of unemployment (and the welfare reduction from a job loss) in most of the aforementioned partial equilibrium

¹³ The downward sloping labour demand curve represents, in an imperfectly competitive framework, the profit-maximising combination of real-wage and employment for firms making employment and pricing decisions, given a predetermined nominal wage.

¹⁴ The upward-sloping wage-setting curve represents either the no quitting/no shirking condition in efficiency wage models (that is the minimum wage, at any given level of employment, that firms have to offer to discourage quitting or to keep workers motivated) or the result of wage negotiations in wage bargaining models.

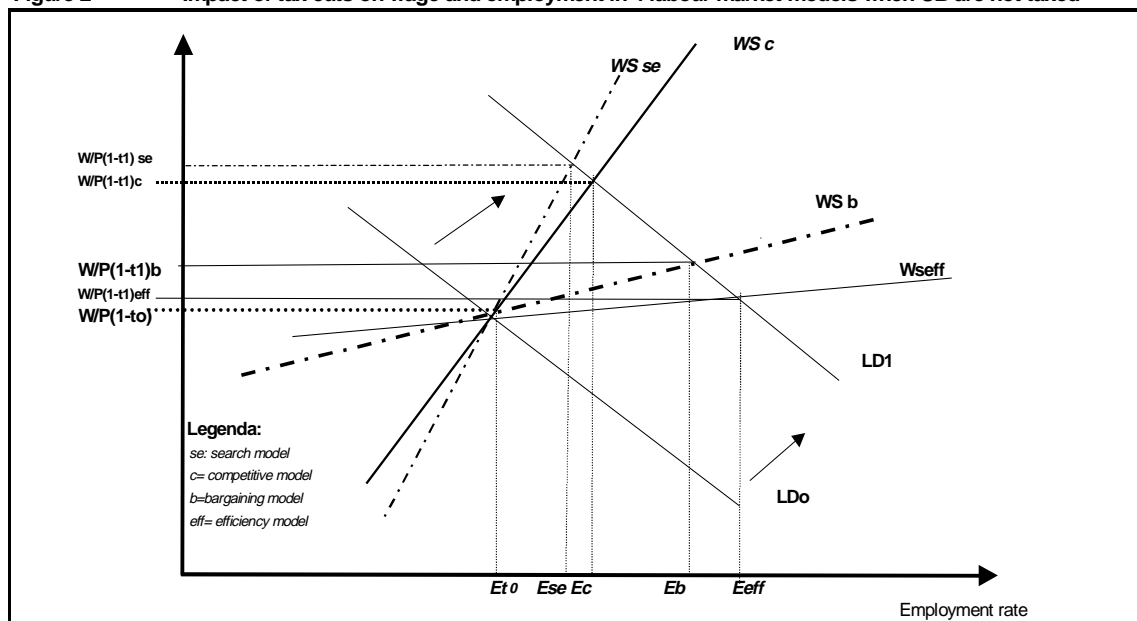
¹⁵ On the other hand, it should be noticed that, in the case of inelastic labour supply, an increase in taxation will also be passed on to net real wages (take-home pay) with little if any impact on labour cost and employment.

models, as a discipline device, in order to limit wage demands¹⁶. Thus, if after a tax cut unemployment benefits do not increase in parallel with after-tax wage increases – (the case of non-taxed UB/fixed real level of benefits, not indexed to wages), the wedge between income if employed and income if unemployed, which can be seen as the cost of being unemployed, will increase.

If unemployment benefits are not taxed, the impact of across-the-board tax cuts is estimated to be relevant under the assumption of union wage bargaining and search (on average, a tax cut of 10% will reduce unemployment by 1 percentage point, and increase wages by 3%) (Pissarides (1998)).¹⁷

In the simulation, the supply/wage setting curve appeared the flattest in the efficiency wage model under the no-shirk condition. This situation produces the greatest positive impact on employment from a tax cut, while the search model produces the least impact on employment. Figure 2 illustrates the different impact of a tax cut in the 4 models of unemployment (under the assumption of non-taxed unemployment benefits). For the purpose of clarity, figure 2 is drawn so that tax cuts shift only the demand curve¹⁸.

Figure 2 Impact of tax cuts on wage and employment in 4 labour market models when UB are not taxed



¹⁶ In the class of efficiency–wage (or incentive–wage) models, the role of unemployment is to increase the cost of dismissal and therefore to discipline workers behaviour on the job (not shirking or not quitting).

¹⁷ In this context, consumption taxes do not play a role in that they do not drive a wedge between income if employed and income (UB) if unemployed (see Daveri-Tabellini (2000)).

¹⁸ In reality, in union wage bargaining model, employment taxes shift the wage setting equation as well.

2.3.2. Tax policy proposals to increase the demand for low-skilled workers

In order to address the problem of structural unemployment linked to the changed skill structure of labour demand and an increasing mismatch in the skill composition of labour supply and labour demand, a proposal has been put forward to reduce the cost of employing unskilled labour, relative to the cost of hiring skilled labour through some form of direct or indirect subsidy for the employment of low-wage workers.¹⁹ This change in relative prices is expected to promote employment of low-skilled workers by slowing down the substitution of capital and skilled labour for unskilled labour. Furthermore, lower labour costs for unskilled workers would reduce relative prices for goods with a high intensity of low-skilled labour, especially the so-called “proximity services”, implying a local personal relationship (viz. childcare, assistance to young children, elderly and disabled people, housework).²⁰

To this end, the policy debate on the scope for modifying relative labour costs has focused on whether and to what extent the demand for less skilled and low paid labour can be stimulated through changes in labour taxes.

A substantial reduction of the fiscal wedge between labour costs and the net take-home wage at the low end of the wage scale has been proposed in order to promote labour demand for low-skilled workers, while providing reasonable incomes for these workers and adequate incentives to work and to acquire skills. The two main tools for reaching this goal that have been put forward in the policy debate are:

- the exemption of minimum wages from employer SSCs²¹ or, more generally,
- an employment subsidy to firms hiring low-skilled labour.

To the extent that the presence of a wage floor (due to unemployment benefits, minimum wages or union action), hampers the downward flexibility of wages at the low-end of the pay scale, these two measures (contrary to what would happen following a cut in income tax) reduce labour costs for unskilled, thereby increasing their demand and having a significant long-run employment effect. But such measures also tend to reduce incentives to acquire skills and should, therefore, be accompanied by other initiatives, such as training, that counteract this tendency (Nickell and Bell (1997)).

Among the main shortcomings of these proposals, usually aimed at providing subsidies for private-sector recruitment of young people and long-term unemployed, are the likelihood of a *dead-weight loss* and of *substitution effects*. Dead-weight loss refers to hiring from the target groups that would have happened in the absence of the support scheme, which therefore involves a public outlay without actual effect. *Substitution effects* refer to the consequent change in relative wage costs, leading to job-creation for a certain category of worker replacing the incumbents or jobs for other categories of

¹⁹ See Dreèze and Malinvaud (1994), Phelps (1997).

²⁰ According to recent empirical panel data estimates, a 10 per cent increase in the labour tax wedge could show up in a 1.5 percentage points increase in structural unemployment (Elmeskov & al., (1998)).

²¹ Drèze and Malinvaud (1994) and Drèze and Sneessens (1997), Fitoussi (2000).

worker, which usually arise as a consequence of *targeting*. Indeed targeted policies, although they could improve the efficiency of a given expenditure or reduce the budgetary costs of a given policy, also tend to create distortions at the margin of the target groups (Drèze and Sneessens (1997))²².

There is more radical and expensive tool, which is aimed at reconciling income protection with flexible (and market-clearing) wages. This is the substitution of minimum wages and/or unemployment benefits (along with all other forms of social transfers) by either universal transfers (negative income tax schemes) or a "participation income". Universal transfers are financed from general revenues and independent of employment status, such as the so-called guaranteed income level or "social dividend", proposed by Meade in 1989. "Participation income" is limited to members of the labour force (employed and unemployed), as proposed by Atkinson in 1993, and should be coupled with lower unemployment benefits and lower or no minimum wages.

These proposals have been considered as a possible way to reconcile income protection with flexible (market-clearing) wages. Among the deemed positive effects of the proposals are the elimination of the so-called "unemployment trap", greater labour market efficiency (especially at the low end of the wage/skill scale) and simplification of the current rather complex systems of social protection. Among the major negative aspects of these proposals, are uncertainty, both theoretical (on the grounds of insider-outsider or union-bargaining mechanisms of wage determination) and empirical, as regards the prospects for parallel implementation of more flexible (market-clearing) wages (crucial to increasing employment among unskilled, Drèze and Sneessens (1997)) and the high budgetary costs, which imply higher taxation and, therefore, increased distortions, albeit on a different segment of the labour market. To this end, it has been shown that, to the extent that the distortion is worse in the market for unskilled labour, it is also possible that a subsidy in the unskilled market, paid for by a tax in the skilled market, could even improve efficiency (see Johnson and Layard (1986)). Yet it has also been calculated that to avoid extremely high budgetary costs, the level of the basic guaranteed social income to all citizens should be rather low and below current social benefits for most groups of the population (OECD (1997)).

Another problem associated with universal public assistance schemes, which are not usually combined with work requirements (e.g. a simple negative income tax system), is the disincentive effect they have on persons/families not already on welfare but who become windfall beneficiaries of universal schemes (Blank et al. (1999)).

²² According to Layard (1997), substitution effects are less relevant and harmful than often claimed. This is because fear of a substitution effect is somewhat linked to the "*lump-of-labour fallacy*", which is based on the incorrect idea that there is only a given number of jobs available (as determined by the level of aggregate demand). On the contrary, the "substitution" of subsidised unemployed by more employable workers could increase the supply of easier-to-place workers, making it easier and faster to fill vacancies. To the extent that this contributes to reducing the structural unemployment rate (or NAIRU), it will also increase employment opportunities.

2.4. Shifting the tax burden away from labour

Reducing overall taxation on labour, and thereby reducing labour cost, is expected to both foster employment growth and help, in countries where tax evasion and tax avoidance is widespread, to shift employment from the underground economy to the formal economy. These are, in any case, medium-term results arising from the interaction of direct microeconomic effects and indirect macroeconomic impact.

From a fiscal viewpoint, there are two possible way of reducing the tax burden on labour²³:

- an uncompensated reduction of taxation on labour, which requires a reduction in public expenditure in order to avoid budgetary cost;
- a revenue-neutral reduction, which implies shifting the tax burden away from labour towards some other base.

Uncompensated reduction of labour taxes

An uncompensated reduction in direct labour taxes, such as income tax or social security contributions, to the extent it reduces the cost of labour and/or marginal tax rates, could have a beneficial effect on both sides of the labour market.

If real after-tax wages were to remain the same as in the pre-reduction situation, then the positive impact of the tax cut would be shifted entirely to employers and the demand for labour would increase. But to obtain a positive effect on employment opportunities for low-skilled workers, the income tax reduction should be accompanied by a lowering of the contractual or statutory minimum wage, otherwise the shift (and therefore the reduction in the cost of labour) cannot take place at the lowest wage level. On the other hand, a partial increase in after-tax real wages (implied by only a partial shift to the employee) could also encourage an increase in the supply of labour.

Substantial, across-the board cuts in taxation usually require a reduction of public expenditure if a deterioration in the budget condition is to be avoided, unless governments have enough room for manoeuvre as a result of economic expansion (the so-called “fiscal dividend of growth”). In itself, a reduction in labour taxes is very unlikely to be self-financing. Increases in labour supply have generally been found to be too limited to offset reduced tax revenues (although it is sometimes claimed that if the tax burden is very high and the economy is in the decreasing side of the Laffer curve, this could be the case). The alternative to cuts in public spending is to shift the tax burden away from labour to other tax bases.

Shifting the tax burden away from labour towards some other base

A revenue-neutral tax reform aimed at reducing the direct tax wedge (personal income tax and social security contributions) on labour can only be implemented by shifting the tax base from labour to other tax bases (consumption, capital income, energy).²⁴

²³ For a detailed analysis of the potential for shifting the tax burden from labour towards other tax bases see OECD (1994), Leibfritz, W., J. Thornton and A. Bibbee (1997), Zee (1997).

One problem associated with shifting the burden is that there is no consensus on the relevant definition of the tax wedge on labour, specifically regarding which taxes really impinge on workers behaviour (wage claims and labour supply) and how much the impact is.

The conventional wisdom has long been that the relevant tax wedge includes consumption taxes and that the composition of the tax wedge has little, if any, impact on wages and employment (the “invariance of tax incidence” proposition). Income taxes, SSCs and consumption taxes are considered close substitutes because they have no differential impact on labour cost and unemployment. What really matters is the overall level of the tax wedge. Therefore, compared to an uncompensated (non revenue-neutral) tax cut, the impact of a re-composition of the tax wedge (switching tax from one component to another component of the total tax wedge), in particular, shifting the tax burden from labour income to consumption is bound to have a more limited effect, if any, on the labour market in the medium-to-long run, (Nickell and Layard (1997)). However, the empirical evidence on this is not decisive. Furthermore, it should be recognised that the composition of the wedge is not neutral regarding the distribution of the tax burden across different categories of the workforce. For example, given that social security contributions are based on a flat rate and/or a contribution ceiling, they are regressive. Their burden is relatively higher for low-paid workers and, thus, they represent a disincentive for firms to hire low-skill/low pay workers.

Contrary to the widely held view, Daveri and Tabellini (2000) have recently claimed that only direct labour taxation (that is income tax and SSCs) matters for unemployment, because consumption taxes do not impose a wedge between the income when the individual is employed (wage) and the income when she is unemployed (unemployment benefits)²⁵. Therefore, a shift of taxation from labour to consumption should help in reducing unemployment. This view is confirmed by their estimates. In a simulation carried out by Tyrväinen (1995) for four countries (Germany, France, Canada and Finland), a shift from taxes on income to taxes on consumption had a favourable impact on employment, not only in the short run but also in the long run. According to simulations based on the Commission services’ QUEST model (European Commission(2000)), a reduction of labour taxes by 1% of GDP, coupled with an increase in value added taxes, would increase employment by almost 0.7% in the long run if transfer recipients were not compensated for their purchasing power loss, but only about 0.3% if they were fully compensated.

It is also worthwhile noting that a base switch from labour income to consumption could have a positive impact on employment, to the extent that the broader tax base²⁶ permits a

²⁴ The exemption of minimum wages from the payment of employer SSCs has been suggested in an influential policy paper by Drèze, Malinvaud and others (1994). It was also suggested that this exemption could be financed by shifting the burden to indirect taxation, with preference for an EU-level energy tax.

²⁵ Of course this is no longer true if wages are indexed to consumer prices (or in case of complete real wage resistance), which usually rise with consumption taxes.

²⁶ In the EU, for example, the tax base for consumption taxes is approximately one third higher than the tax base of labour taxes (total amount of gross compensation per employee). Thus, *ceteris paribus*, any percentage point reduction in the taxation on labour could be compensated by only a 0.7 percentage

lower revenue-neutral increase in the tax rate on consumption. Thus, by shifting some of the tax burden to those outside the labour force, the overall tax burden on labour (and more specifically labour cost) could be reduced even in conditions of real wage resistance (after-tax real wage rigidity), that is, when the increased taxation on consumption give rise to an equivalent increase in nominal wages.

A shift from labour to consumption should also reduce efficiency losses. It is well known from the optimal tax literature that efficiency losses increase more than proportionately with the tax rate (the increase is proportional to the square of the tax rate). Therefore, a given amount of tax revenue should be raised by a tax base, which is as broad as possible to keep the tax rates as low as possible. A switch from income tax to consumption tax could also have a relevant effect on savings behaviour, thereby enhancing growth. Yet, consumption taxes are generally viewed as regressive, therefore appropriate adjustments are needed to guarantee the overall desired fairness of the system.

Another pro-employment shift in taxation can be achieved by changing the distribution of the tax burden between low-income and high-income groups. This is done by building or increasing progressivity within a category of taxation on labour (personal income or SSCs). In all the modern imperfectly- competitive labour market models explaining involuntary unemployment (union wage-bargaining models, efficiency wages models, search models), an increase in tax progressivity (an increase in marginal tax rate for a given average tax rate) implies a positive employment effect through a moderation in wage claims²⁷ (Sorensen (1997)). In particular, in the union model, the structure of taxation is especially relevant because the higher the progressivity the less valuable are wage increases and this mechanism moderates wage claims. According to some, moving from regressive or proportional taxation to progressive taxation (mainly shifting part of the burden from SSCs to direct taxes²⁸) “*can be one of the very few ‘free lunches’ that one encounters in the analysis of economic policy*” (Pissarides (1998)). To the extent that low-skilled, low-paid workers face a demand with a much higher real-wage elasticity than the higher income-skill workers (which are more complementary to than substitutable for capital) a tax cut at the lower level, compensated by an increase at higher levels of the income scale could both increase overall employment opportunities and reduce the overall “excess burden” or efficiency loss of labour taxation. However, there are also shortcomings in this approach. For example, increasing the international mobility of high skilled workers will put a growing limit on marginal tax rates at the top end of the income distribution. Furthermore, the need to preserve incentives to acquire human capital in order to increase earnings seems to suggest that one should not increase marginal tax rates for those with high incomes.

point increase in tax rates on consumption. It is worthwhile noting here that the tax base for capital taxation is half the tax base of taxation on labour.

²⁷ In a perfectly competitive labour market model, a revenue neutral increase in progressivity (e.g. the average tax rate remaining constant, while increasing marginal rates above the average and decreasing those below the average) will have a negative impact on labour supply, because of the substitution effect (from consumption to leisure).

²⁸ Indeed, to the extent that social security contributions are often high and regressive because they are based on a flat rate and/or contribution ceilings, they represent a disincentive for firms to hire low-skill/low pay workers.

A revenue neutral tax shift from labour to capital income has often been proposed (see Daveri and Tabellini (2000)). However, it appears much more problematic because of two main features of the tax base: it is smaller and much more mobile than labour and consumption tax bases. Therefore, unless effective international co-ordination is established in order to eliminate “harmful” tax competition, it will be very difficult to re-balance the tax mix between labour and capital income in Europe and the risk is that, due to the increasing erosion of the highly mobile capital income tax base (especially from portfolio investments), the tax burden would be shifted further to labour.

From a theoretical viewpoint, it should also be remembered, for example, that higher tax on capital income, by reducing the net rate of return on investment would reduce accumulation of capital and the steady-state capital stock. This, in turn, would have negative implications for future growth and innovation rates, and, ultimately, for income levels and real wages of individuals (Daveri and Tabellini (2000)).

A switch to green taxes is a possible option for partly financing the lowering of the tax burden on labour. The basic idea is that environmental taxation could produce a “double dividend” by reducing pollution, and at the same time providing fiscal revenues that can be used to cut taxes on labour, thereby reducing another source of distortion. However, to also get a reduction in labour costs, the effective incidence of the environmental tax should not be on consumers since this would be likely to trigger wage claims aimed at maintaining the real purchasing power of wage-earners. Thus, it would be better to shift taxation away from labour to a production-based energy tax. But this, again, would require a high degree of international co-operation to avoid a deterioration in the competitive position of countries implementing an environmental and employment-friendly strategy²⁹.

2.5. Benefit systems and labour supply

2.5.1. Unemployment and poverty traps and the wage floor

As noted above, tax and benefit systems involve a trade-off between equity and efficiency goals. Indeed, unemployment benefit systems provide income security during unemployment and help to produce a more equitable income distribution. By providing income support to liquidity-constrained persons during unemployment spells, they can also provide a better and more efficient match between workers and jobs. However, these positive effects are partially or totally offset by other effects such as discouraging job search and putting upward pressure on wages. Thus, they are also accompanied simultaneously by inevitable efficiency losses through their direct and indirect (through taxation needed to finance transfers) effects on individuals’ labour market behaviour.

The impact of tax and benefit systems on labour supply comes through two main channels:

²⁹ Indeed, given the “global public good” feature of environmental protection and the relevant “international externalities” involved, there is also a strong theoretical case for strict international co-ordination in energy tax policies within and outside the EU.

- the increase in disposable income as earnings rise (measured by the marginal effective tax rate) and its impact on work effort or hours worked;
- the benefit level relative to earnings (measured by the net replacement rate) and its effect on the participation decision; the minimum benefit level and its impact on the wage floor.

An outcome of the first channel is the so-called poverty trap and of the second the so-called unemployment trap (e.g., OECD (1997) and Snower (1997)).

The poverty trap

For low-paid workers, the poverty trap is created when the increase in earnings from greater work effort does not lead to any, or only a small, increase in disposable income due to higher tax rates and/or to a withdrawal of means-tested benefits. This is exemplified by a high marginal effective tax rate at low earnings that can even be higher than at middle-high income levels. Indeed, while the budget constraint arising from the income tax schedule is usually non-linear but convex, the budget constraint arising from the interaction of tax and benefit can be non-linear and non-convex. This is typical in the case of a minimum-income guarantee scheme. Indeed, above this range all earnings are implicitly taxed at a rate of 100 per cent (Atkinson (1993)). The benefit system reinforces the effect of marginal tax rates since the withdrawal of benefits leads to an even smaller increase in disposable income than in net wage. The existence of high marginal effective tax rates hampers the performance of the market through a substitution effect. This results in a reduction in the incentive to increase the supply of labour, whether through additional work hours or through efforts to improve the quality of labour supplied, because the after-tax wage falls and the opportunity cost of leisure diminishes (e.g., OECD (1997)). From equation (2) below, it can be seen that there are several different ways to reduce high marginal effective tax rates, while increasing benefit recipients' incentives to work (that is without reducing or indeed increasing the degree of generosity of the benefit schemes), namely by:

- Reducing personal income tax rates on low incomes;
- Lowering the withdrawal rate of benefits as the recipient's income increases;
- Introducing or increasing earning disregards (the amount which can be earned without reduction in benefits);
- Individualising the means-tested system (which is usually based on family income).

Of course, it must be stressed that all these measures to reduce high METRs without reducing the level of transfers are not budgetary-neutral and may have rather high financial costs.

The unemployment trap

The unemployment trap is defined as a situation where benefits paid to the unemployed and their families are high relative to earnings and, more precisely, where disposable income from benefits is so high relative to that from work (the net replacement rate) - that working "does not pay". In theoretical models, unemployment insurance systems are

deemed to increase the unemployment duration and therefore the equilibrium unemployment rate through two main mechanisms. The first one is by lowering search intensity. Indeed, a high relative benefit level reduces the economic incentives to job search and to move from unemployment to work and may encourage individuals to rely on social benefits or to withdraw entirely from the labour market. Under certain conditions, standard search theory models predict that an increase in the amount and duration of unemployment benefits leads to longer unemployment spells. The second mechanism is by increasing workers' negotiating power³⁰ at any given rate of unemployment and this puts an upward pressure on wages, as shown for example in the union wage bargaining models (Blanchard and Wolfers (1999), Layard et al. (1991)).

Some very simple arithmetic can, in a nutshell, help explain the relationships between net replacement rates, wage floor and effective tax rates:

The net replacement rate **NRR** can be written as:

$$NRR = B_g (1 - t_B) / w_{eg} (1 - t_w - t_{ssc}), \quad (1)$$

where:

B_g = the level of gross unemployment benefit,

t_B = the tax rates on benefits; t_w = the tax rate on wages; and t_{ssc} represents the social security contributions rates (assuming that social security contributions are not paid out of unemployment benefits),

w_{eg} = the gross wage (expected, or previously earned when employed).

By adding and subtracting 1 from the NRR, and generalising the formulation of equation (1) by assuming that the withdrawal of benefits could also be partial, we obtain the effective tax rate (**ETR**) (Disney, 2000).

$$ETR = 1 - [w_{eg} (1 - t_w - t_{ssc}) - \alpha B_g (1 - t_B)] / w_{eg} (1 - t_w - t_{ssc}) \quad (2)$$

where the term:

³⁰ For example, in a union wage bargaining model of the "right-to-manage" type, the bargaining problem for the trade unions is usually described as the maximisation of a Nash function subject to the labour demand function. In these kind of models, the optimal real (take-home) wage can be represented as a mark-up on workers' alternative income, which corresponds to the fall-back position of workers. Thus, the unemployment benefit, as the main alternative income of workers, is the main determinant of the solution to the Nash bargaining problem.

$$[w_{eg}(1-t_w-t_{ssc})-\alpha B_g(1-t_B)]/w_{eg}(1-t_w-t_{ssc})$$

shows the return on moving from unemployment (earning B_g) to employment (earning w_{eg}) and $0 \leq \alpha \leq 1$.

From equation (1), we can also derive a simple equation describing the determination of the reservation wage for unemployed people as arising from the interaction of the tax and benefit systems. Indeed, in the standard models the reservation wage (or wage floor) is the lowest wage at which a person is willing to take up a job instead of continuing to live on social benefits or staying outside the labour market³¹. Thus, in a very simplified way, and assuming an infinite duration of the benefit, the gross reservation wage (**GRW**) for an unemployed person can be written as:

$$GRW = B_g(1-t_B)/(1-t_w-t_{ssc}) \quad (3)$$

$$\text{where } NRW = GRW(1-t_w-t_{ssc})$$

Looking at the equations for the NRR and the GRW (eqs.1 and 3), it can be seen that:

- The relation between the two is: $GRW = NRR * w_{eg}$, which means that for unemployed people, the higher their net replacement rate, the higher is the wage floor. High wage floors (due to statutory or contractual minimum wages or high benefit levels) risk pricing low-productivity workers out of markets. This situation contributes to defining the extent of the unemployment trap³².
- A reduction of the gross unemployment benefit (B_g) or of the tax rates (t_b , t_w , t_{ssc})³³ will reduce the reservation wage. If benefits are taxed at the same rate as the gross wage³⁴, only a reduction in the rate of social security contributions on wages can help reduce the reservation wage.

³¹ This is, in a very simplified way, also in line with the standard search-theory model where the optimal decision rule for a worker who maximises the net present value of his lifetime utility (which is a function of income and leisure) is the following: take up any job offer providing a wage that is higher than a given reservation wage level. The probability of leaving employment is the product of the probability of receiving an offer (which is also a function of the intensity of search) and the probability of accepting it. See Bover, Arellano, Bentolila (1996) and Layard et al. (1991).

³² It must be stressed that, when unemployment benefit is paid for a limited period T (or benefits declines over time), the reservation wage will fall with the length of the unemployment spell until T is reached. After T, there will be a sharp fall in the reservation wage and the search intensity will rise, thereby significantly increasing the probability of leaving unemployment (the so called *exit rate* or *hazard rate*). (See Atkinson and Micklewright (1991), Bover et al. (1996), Layard et al. (1991)).

³³ It is worthwhile noting that here the consumption tax plays no role in defining the reservation wage, because consumer prices facing employed and unemployed persons are the same.

³⁴ See Section 2 for a short presentation of the theoretical considerations on the issue of the tax treatment of benefits, degree of tax shifting and labour market outcomes.

- On the other hand, by reducing the rate of SSCs, or the tax rate on wages when benefits are not taxed ($t_b = 0$), both the wage floor and the net replacement rate (NRW and NRR) can be reduced without reducing the net level of benefits, thereby reducing the unemployment trap.

The issue of the wage floor

The wage floor is not only created by legal or negotiated minimum wages. Unemployment and other benefit systems effectively create wage floors because their levels are corresponded to certain gross wage levels in the sense that the latter yield the same net income as benefits. As people are unwilling to take up a job at a wage which would result in a lower net income than a corresponding benefit, the minimum level of benefits affects the incentives to work and can create a special case of the unemployment trap. In this sense, the wage floor derived from benefit levels works in a similar way to statutory minimum wages. Moreover, if the level of the wage floor becomes high relative to the general wage level, it tends to compress the wage distribution (Layard et al. (1991) and Gregg (1999)).

The wage floor may depend crucially on the nature and extent of the benefit systems available to non-employed people, notably social assistance schemes. Such schemes often provide income security to people who are not eligible for unemployment benefits, and can thus operate as a substitute for unemployment benefit systems. The level of social assistance may be close to or even exceed the level of unemployment benefits, especially for low-paid people, and may often provide help over a long period. Hence, in fact, the level of minimum social assistance for those in non-employment forms the wage floor.

Estimates of the impact of benefit systems on labour supply

To sum up, the final effect of the benefit level or wages on labour supply may be influenced by a number of social, tax and labour market institutions such as the overall level of taxes and benefits, wage distribution and level of minimum wages, the design of benefit system regarding social assistance benefits for the non-employed, and other aspects of unemployment benefit generosity such as benefit duration, eligibility and job availability requirements (OECD (1999c)).

While empirical evidence on the effects of the level of unemployment benefits on unemployment is mixed, and estimates of its impact are usually rather low, much labour market literature suggests that it is the duration of benefits that has a significant impact on the length of unemployment, thus contributing to structural and long-term unemployment (Buti & al. (1997 & 2001) and Scarpetta (1996))³⁵. To address this problem, one approach is to envisage a declining time sequence of unemployment compensation, that is reducing the amounts of benefits with the duration of the unemployment spells, especially if it is difficult or costly to monitor job search. Indeed, a more rapidly decreasing unemployment benefit profile over time will raise the incentive

³⁵ Bover et al. (1996), using duration data for a rotating panel sample of unemployed in Spain and a logistic discrete hazard model, found that the hazard rate of leaving unemployment for a person without benefits is twice as high the rate for those with benefits.

to look for a job or increase the search intensity, thereby increasing the employment rate³⁶.

Estimates of the elasticity of the mean duration of the unemployment spell with respect to unemployment insurance benefit tend to be bunched around 0.5, although they range from 0.03 to 1.44 (Millard and Mortensen (1997)). Furthermore, there is clear empirical evidence of spikes in the exit rate from unemployment just before the point of benefit exhaustion (Bover and al. (1996)). Some studies suggest that it is the product of the replacement ratio and the number of years during which the benefit is available in the event of job loss that matters in respect of how quickly the unemployed find new jobs (Nickell (1997) and Nickell and Layard (1997)).

2.5.2. *The generosity of benefit systems and the role of eligibility criteria*

There is increasing empirical evidence that making the disbursement of unemployment benefits strictly conditional upon job search and related behaviour (“work test”) can reverse or at least partly offset the disincentive effects linked to these schemes (OECD (2000c)). The impact of a strict and well-enforced eligibility system on the behaviour of an unemployed person can be even higher than any decrease in the generosity (especially in the replacement rate) of benefit systems. Finally, sound administration of benefit schemes and procedures for implementing eligibility criteria, including sanctions in case of misuse, play an important role in determining how effective the rules are in practice.

The eligibility criteria in terms of qualifying for entitlement to benefits and the requirements set for effective job search and participation in labour market programmes may have a substantial influence on unemployment levels (Bertola (1999) and Grubb (1999)). In addition, it should be recalled that some of those classified as unemployed in one country could well show up as inactive in another because of the varying nature of the benefit systems or the incentive to classify them as unemployed when the duration of benefit availability is long, for example (Nickell and Layard (1997)).

There are many aspects of eligibility conditions (including sanctions) which contribute to determining the strictness of a benefit scheme. Among these, one can mention the definitions of loss of work, availability for work, suitable work (work that cannot be refused without risking a benefit sanction), valid reasons for job refusals or for quitting a job, or attending interviews, or active labour market programmes (ALMPs), requirements for independent job search, and contacts with the employment services. Benefit sanctions in the case of non-compliance with the availability criteria range from temporary reduction or suspension to permanent withdrawal of benefit payments.

The actual implementation of the eligibility criteria can differ greatly from the formal rules, depending, for instance, on the degree of discretion that is exercised by the

³⁶ This is the optimal policy in search-models with moral hazard, where the objective is to lower unemployment. However, recently, Cahuc and Lehman (2000) have demonstrated that, in a discrete time search and matching model à la Pissarides, with endogenous wage, a replacement ratio with a decreasing profile over the spell of unemployment has an ambiguous impact on the unemployment rate.

competent authorities, the organisation and division of work between various authorities, as well as on cyclical conditions. It is noticeable that the effectiveness of benefit administration is reduced during a downswing because, for instance, it becomes more difficult to prevent fraud or misbehaviour when employment services are not able to offer work to benefit recipients.

If the eligibility criteria are severe and, above all, if their enforcement is effective it might be possible to maintain a relatively high benefit level without generating excessive work disincentives. It is therefore very important to strengthen the definitions and enforcement of current eligibility criteria and to pursue a more efficient administration of these protection schemes. This, among other things, will also help to avoid excessive and unnecessary budgetary strains. One way to guarantee an effective enforcement of the eligibility criteria is through the creation of a stricter interaction with active labour market policies that influence the search behaviour of the unemployed.

2.5.3. *In-work benefits and targeted tax credits*

In-work benefits and targeted tax credits to low-paid workers are of particular interest in policy planning because, it is possible, through these measures, to avoid difficult political decisions to reduce benefit levels while achieving the objective of making work pay. However, such measures are not without budgetary impacts or negative side-effects, which are discussed below.

Policies promoting the labour supply of those who are without work may include measures such as in-work benefits or targeted tax credits (or negative income tax), which are work-contingent benefits that are usually phased out when earnings rise. In addition, benefit transfers or wage subsidies to employers can be used for such purposes.

One side-effect of these policies is that the marginal effective tax rate above the (entry) wage level at which the measures are directed (or within the phase-out range of the benefit) becomes higher and, hence, the incentives to work of those already working at a low wage level are distorted. One way out of this problem may be to tie the in-work subsidy to hourly wages or to a minimum number of hours worked. Furthermore, to ensure a budget-neutral impact, these schemes have usually been financed by increasing taxes on better-off workers, with a potentially negative impact on their labour supply.

The above-mentioned trade-off worsens in the presence of a high minimum wage because it tends to compress the wage distribution and, consequently, results in a larger number of people in a wage bracket that is affected by increased marginal effective tax rates. Therefore, in order to ensure the appropriate incidence of tax credits or other in-work benefits, the level of the minimum wage and the income bracket at which the in-work benefits should be targeted have to be carefully chosen. Similarly, a higher overall level of taxation also makes the problem worse. The higher the existing marginal tax rate, the more difficult it becomes to withdraw in-work benefits or targeted tax credits rapidly, which in turn makes the programmes costly.

Another shortcoming of in-work benefit schemes is their potential negative impact on the incentives to work of the second earner in a household. With distributional objectives in mind, these schemes are based on the overall income level of the recipient household. This makes it difficult to design a system that avoids imposing a very high marginal effective tax rate on the second earner. Individual benefit entitlement appears to be an inappropriate solution because it could lead to unnecessary benefits at the household

level. The overall income of such a household might already be high and, therefore, additional in-work benefits would be inefficient and expensive.

A further problem for many low-skilled people is that, despite being entitled to existing in-work benefits, they are unable to find a job. Indeed, they can be priced out of the market because of their relatively high labour cost due to the presence of a minimum wage that is too high or a high tax burden on labour income. In such circumstances, a low-wage subsidy may be a better help to low-skilled workers because it reduces the labour cost to the employer, and thus, increases job-opportunities for low skilled (Phelps (2000)). Such job subsidy schemes may involve benefit transfer schemes (benefit vouchers), proposed by Snower (1997), direct wage subsidies or reductions or exemptions of SSCs or other taxes to employers who recruit certain categories of hard-to-place unemployed persons. A shortcoming of job subsidies is that they may create sizeable dead-weight loss and distort recruitment between those entitled and those not entitled to a job subsidy (Snower and de la Dehesa (1997)). On the other hand, systems targeted at the hard core of the long-term unemployed may stigmatise workers in the eyes of their prospective employers.

Actual cases of in-work benefit policies show that, while they have succeeded in increasing the flow from unemployment to employment thereby raising the number of people working (especially single parents, although the impact on labour supply of married women has been generally low or even negative), they have simultaneously reduced the number of hours worked of those already in the labour market. In sum, the net impact on the total number of hours worked has been rather limited (Pearson and Scarpetta (2000)).

In general, the framework conditions for these kinds of policies are more favourable in countries where the overall level of taxes and benefits (as well as minimum wages) is relatively low and the earnings distribution wide. In contrast, countries with high levels of taxes and benefits (and a relatively high wage floor) and a compressed earnings distribution are at risk of having costly programmes with little positive net effect because of the adverse effects of reinforced disincentives for those already in work (Bassanini et al. (1999)). Such countries might have more success by giving low-wage job subsidies to firms that increase the demand for low-skilled unemployed instead of providing in-work or similar benefits to employees (OECD (1999b)).

2.5.4. Benefit reform options and framework conditions

The general objective of policies aimed at increasing employment incentives or “making work pay” is to promote wide access to employment and returns from economic activity. This being the case, jobs should be in some sense “economically” rewarding. In addition, at the individual level, these policies have potentially important social and economic externalities in terms of social inclusion, better self-esteem and well-being, and reduced social problems. At the macroeconomic level, the economic rationale for these policies lies in the potential returns of reduced expenditures on benefits, and increased economic output and tax revenues.

Options for these policies range from general reforms of benefit schemes in order to increase the difference between in-work and out-of-work income, as well as increasing the net reward from additional work effort, to programmes targeted at groups of people who are at the margin of the labour market. The latter may include policies such as in-work benefits, targeted tax credits (negative income taxes), benefit transfers or wage

subsidies to employers. Furthermore, reforms aimed at tightening eligibility rules and requiring appropriate labour market behaviour from benefit recipients are also important for mobilising labour supply.

The success of such policies differs across labour markets. The policy choice in each country depends on a number of factors (OECD (1999c))

- (1) the proper identification of problems and of the main objectives of policies;
- (2) general framework conditions such as the overall level of tax and benefit systems, the wage floor, minimum wage legislation and the earnings distribution, all of which influence the effectiveness of policies;
- (3) the trade-off between policies targeted at different groups, since policies may be accompanied by negative side-effects such as dead-weight costs, displacement and substitution effects; and
- (4) the interaction between the benefit and tax systems, and the interaction between the reforms of tax-benefit systems and the reforms of other labour market institutions.

The most important trade-off between policies targeted at different groups of people concerns the choice of whether to improve the position of those out of work or those in work, i.e., between the objectives of reducing the unemployment trap or the poverty trap.

3. THE MAIN FEATURES OF TAX REFORMS IN MEMBER STATES

Tax systems have come under increasing pressure due to both rising spending demands arising from ageing population and more mobile tax bases. Since the second half of the 1990s, Member States have implemented or have been discussing and planning major tax cuts and, in some cases, across-the-board reforms³⁷. These measures have been deemed necessary because of many factors, including:

- the excessive burden and, therefore, the high efficiency loss of existing tax systems
- the considerably lower tax burdens in the United States and Japan (which mirrors a lower share of public expenditures in GDP in these countries)
- similar fiscal changes under way in other countries, which have triggered fiscal competition inside and outside the EU³⁸

³⁷ For a recent overview of the more relevant features of tax systems and tax policy in the EU see I. Joumard (2001).

³⁸ European countries are facing increasing tax competition under the growing pressure of the liberalisation of the goods, services, labour and, above all, capital markets. Several Member States have lowered the capital tax rates to prevent their economies becoming less attractive to investors. This has occurred primarily through reductions in corporate tax rates or in capital gain taxes and to a lesser extent through reductions in the personal income tax rates, in particular the marginal rates on the highest income brackets. In the absence of tax co-ordination, contributing to a broadening of the tax

- the diversion of labour demand and supply to the informal economy in order to evade high tax pressure
- the growing awareness that tax/benefit systems in the EU appear to lower the work incentives faced by people with low earnings potential.

This last factor, in particular, and the wide acknowledgement of the need to "make work pay" explain why one feature of many of the reforms has been (and should continue to be in the future) the reduction of taxation on labour, especially on low-skilled workers. The objective is to reverse the past trend of a rising tax burden and to make the tax system more employment-friendly, thereby stimulating both labour demand and supply.

The numerous tax initiatives undertaken by Member States are summarised in Annex 1, which briefly describes changes that have taken place during the past four years (1997-2000) and measures announced or decided more recently. From this table, it is apparent that most Member States have already implemented and others have just announced personal-income-tax-cutting initiatives (reduction in marginal rates, increase in both family allowances and minimum exempted income) and reductions in both employers' and employees' social security contributions. Some of the initiatives were and are clearly across-the-board tax cutting measures (D, ES, F, I, NL). Many consist of lowering marginal tax rates at the top and the bottom of the income scale, (D, IRL) or sometimes for all income brackets (NL, F, L, ES, ES, FIN, S, I), along with higher family allowances and higher thresholds for income tax (UK, D, I, L, ES) so that fewer wage earners pay tax. In some cases (UK, NL), family allowances have been transformed into tax credits, in order to increase job incentives. Recently, a refundable tax credit scheme, creating negative income tax liabilities for low-paid workers, has been introduced in France and is planned for introduction in Belgium. In other Member States, tax-cutting measures appear to be targeted much more at reducing fiscal pressure at the low-to-middle end of the income distribution (B, F, DK, EL, Ös, IRL, and UK).

Although some countries have substantially reduced employees' social security contributions (F, IRL, NL), cuts in social security contributions have been targeted more at employers than at employees in most Member States (D, EL, ES, F, IRL, I, Ös, FIN). Some Member States are granting tax rebates to employers for providing new jobs (I, P, EL), or, more specifically, for recruiting young workers (B, UK), long-term unemployed or low-paid workers (FIN, NL, S).

In the second half of the nineties, during the period of strong fiscal retrenchment to meet the Maastricht criteria and the Stability and Growth Pact (SGP), income tax reductions in most member States were effected by restraining public expenditures or by shifting the burden onto other tax bases, mainly consumption and energy. In particular, a strategy of tax shifting from labour to energy has been and is still being implemented by Denmark, Sweden, Finland and the Netherlands. Member States have also tried to ensure the needed revenue-neutrality of tax-cutting measures by exploiting the room for manoeuvre brought about by growing tax bases as a result of the economic upswing (the "fiscal

base and enabling reduction in tax rates in the future (such as that proposed in the Community fiscal package for saving and business taxation currently being discussed), tax competition is likely to remain a binding medium term constraint for the tax mix in Member States.

dividend of growth”)³⁹. Some have planned to gradually phase in some of the more sizeable tax reductions so that their budgetary impact will be smoothed over a number of years (5 years in Germany, 3 years in France).

Box 1: Examples of most recently announced reforms

*In the **Netherlands**, the Income Tax Bill 2001, adopted by the parliament on May 9th, will lead to a radical review of the tax system, one of the main aims being to stimulate employment (by reducing unemployment and poverty traps) and to reduce the tax burden on labour. Marginal rates are reduced on all the income brackets (cuts are greater at the top than at the bottom) and their width is revised. The basic personal allowances are replaced by a (non-refundable) tax credit on labour income, which is independent of the marginal tax rate and is not withdrawn but stays flat (at 803 Euro) as income increases above the minimum wage level. The objective of this is to avoid disincentive effects for taking up work (mainly for non-working partners) or increasing work effort. This employment tax credit will lower the replacement rate and stimulate labour supply. Given that the tax credit is not phased-in, the measure will be rather costly because it will cover all workers, creating a great deal of “windfall beneficiaries”. Labour cost to employers is reduced by providing tax rebates for low-paid workers (SPAK) and tax reductions for employing the long-term unemployed (VLW) and for providing training.*

*In **Germany**, the Bundestag has recently adopted an ambitious tax reduction plan that will be phased in over the period 1999-2005, to make the system more employment-friendly. The reform will result in substantial cuts in the effective tax burden on households and businesses. The main beneficiaries will be families and employees with low-to-medium income, and small-to-medium-sized enterprises. Although social security contributions have been left unchanged, the gradual but noticeable reduction of the lowest marginal tax rate from 22.9% (25.9% in 1998) to 15% in 2005 will decrease the burden on low-paid and, more generally, lead to an average reduction in the taxation of personal income. Nevertheless, the latter is expected to remain relatively high in international terms⁴⁰.*

*In **France**, the government has just released a new plan for direct and indirect tax cuts, which are spread over the next three years (2001-2003) and are estimated to reduce the total tax burden on the economy by 1.3% of GDP. The main thrust of the initiative is directed at lower*

³⁹ Although very important, the issue of whether or not ongoing tax-cutting measures ensure budgetary neutrality in order to preserve the acquired fiscal consolidation is not dealt with in this paper.

⁴⁰ See Prof. L. Jarass, Member of the German Government Committee on tax reform, reply to the questionnaire for the European Parliament Hearing on Taxation Reforms in the Member States, September 11, 2000.

income groups, especially the minimum-wage earners. Furthermore, the proposed reform includes a reduction in corporate taxes, although to a lesser extent than has been done in other countries. Tax rates on personal income will be trimmed at the top and the bottom. The top marginal rate of 54% will be only gradually lowered to reach 52.5% in 2003, while the lowest tax rate (already cut by 1 percentage point this year) will fall further to reach 9.5 % in 2003. Much of the tax cuts are aimed at reducing the social security contributions for small-and medium-sized companies. Employees' SSCs for those on minimum wages (up to 1.3 times the SMIC) will be phased out (thereby reducing the marginal effective tax rate for those unemployed), making work more attractive for those in unemployment.

3.1. Is taxation on labour being reduced and, if so, by how much?

We turn now to an analysis of the evolution of taxation on labour to see whether and by how much the burden on labour has been reduced.

3.1.1. Indicators used in international comparisons of the tax burden on labour

As already noted, Member States' tax and transfer systems not only differ from each other but are also very complex. Therefore, a simple look at some of the main parameters of the system (such as the lowest and highest nominal, or "statutory", personal income tax rates or the size of family allowances or tax credits) in isolation, can give only a partial, and often distorted, view of the real tax burden⁴¹. This is especially true at the lower end of the income distribution where the effective tax rates can often be very different from the statutory rates and where, for example, marginal effective tax rates are often higher than the average effective tax rates, due to the withdrawal of means-tested benefits (such as child relief, housing subsidies, etc) and earnings supplements as income increases. If the trend in the tax burden on labour is to be assessed, then the description of changes in the main institutional features of tax systems needs to be accompanied by a more detailed analysis of quantitative indicators. International comparison of tax revenues and the tax burden is a difficult task. Existing tax-to-GDP and other more specific tax ratios (implicit or effective tax ratio on labour, on capital, on consumption and so on) have major shortcomings⁴², and do not provide an unequivocal indication of both the level of

⁴¹ Effective tax burdens in countries with higher nominal rates can, through generous basic relief, expenditures and deductions, be lower than in countries with lower nominal rates but less generous tax deductions and exemptions. Governments often pursue social objectives through tax breaks for social purposes (viz. child related tax allowances). Tax deductions, allowances and exemptions clearly impinge on the final amount of tax paid to the government and are therefore considered as tax provisions. See OECD (2000b), Revenue Statistics, 1965-2000.

⁴² The most relevant one is that, given the comprehensive income tax system that applies to both labour and capital income prevailing in the EU, it is very difficult to separate the different sources of revenue. Of fundamental importance is the way in which fiscal revenue from tax on wages (earned income) is disentangled from the total fiscal revenue from personal income tax (which includes tax on income,

transfers from the private to the public sector and the level of government intervention in the economy. Much more analytical and statistical work seems necessary in this field.

Furthermore, average ratios do not allow for sizeable differences in tax rates across different types of households with different levels of income, which can be substantial (see table 1).

Table 1. Tax wedge by income level -average rate -2000*
(Income tax plus employer's and employees' contributions, less cash benefit in % of labour cost)

FAMILY TYPE	SINGLE	SINGLE	SINGLE	SINGLE
Wage level (in % of APW)	67	100	167	67
Children	no ch	no ch	no ch	2 ch
BELGIUM	49.9	56.2	61.8	33.4
DENMARK	41.3	44.4	51.7	15.7
GERMANY	46.1	51.3	55.7	29.5
GREECE	34.3	35.7	40.3	34.3
SPAIN	32.9	37.6	41.4	28.3
FRANCE	41.2	48.1	50	32
IRELAND	18.1	28.8	39.4	-0.9
ITALY	43	46.4	50.5	26.9
LUXEMBOURG	30	35.2	43.5	4.4
NETHERLANDS	40.5	45	44.3	22.9
AUSTRIA	40.3	45.1	50.1	15.7
PORTUGAL	30.4	33.5	38.9	22
FINLAND	42.4	47.2	52.9	27.4
SWEDEN	47.8	49.5	54.2	37.8
UNITED KINGDOM	25.6	30.3	33	-4.4
EU15**	40.0	45.0	48.6	24.0
UNITED STATES	29	30.9	36.7	9
JAPAN	23.1	24	26.9	20.2

Source: OECD, Taxing wages 1999-2000

* Estimates. ** Weighted average (real GDP)

Here, we use comparable micro indicators of the effective tax burden calculated by the OECD⁴³ to assess in some detail whether or not measures undertaken by European countries have been able to alleviate the tax pressure on labour and especially on the relatively unskilled and low paid, and to identify where further efforts are needed. The OECD indicators of fiscal burden are up-to-date policy indicators, based on a “forward-looking”, micro-simulation approach, which reflects precisely the prescriptions of the tax code and benefit rules. These “forward-looking” indicators are the result of microeconomic simulations for a set of stylised taxpayers whose income from labour

transfers, profits and capital gains of individuals – item RS 1100 in the OECD’s Revenue Statistics). Using different methods to accomplish this gives rise to very different results.

⁴³ The latest issue of the OECD annual publication “Taxing Wages” contains figures up to 2000 (estimates). Effective tax burdens are calculated through a tax equation for production workers. This method has a few limitations, which should be borne in mind when comparing figures. For example, take-up rates for tax deductions and tax exemptions or fringe benefits are not included in the calculations.

ranges below and above the “average production worker”⁴⁴ (hereafter APW) wage level, which is used as a benchmark for cross-country comparisons. In essence, they are calculated by applying the tax rules to the income from work of a stylised taxpayer. They differ from “effective” (or “implicit”) tax rates, which are “backward-looking” macro indicators, based on macroeconomic, real-life data, and which convey different ex-post and aggregate (nation-wide) information on the fiscal pressure.⁴⁵ Forward-looking indicators appear more appropriate to depict the incentive structure of the tax system, while backward-looking tax rates show the “actual” burden as an endogenous result of the interaction between the tax system and individual behaviour.

The OECD figures show how much personal income taxes and social security contributions should be paid by employers and employees by family type (single, one-earner and two earner households) at various wage levels. The analysis is mainly carried out with reference to a single worker, without children, earning an average APW wage. In order to focus attention on the relatively unskilled and low-paid workers, a cross-country comparison of the main changes occurring in the tax burden has also been carried out with reference to wage levels below the average (50% and 67% of the APW wage level). These two representative tax payers are the less well-off among the available typologies, although it can always be argued that figures on lower wage levels would be more appropriate for the purpose at hand. Indeed, in some countries, for example Spain, the income corresponding to the minimum wage is less than half an average production worker’s income. On the other hand, in France for example, the SMIC in 1998 is 61% of the APW so indicators based on 67% of APW are reasonable approximations as far as low-income taxation is concerned.⁴⁶

3.1.2. *The composition of the tax burden on labour costs*

The tax burden on labour in the EU has been steadily increasing over the last thirty years. The “effective tax rate on labour” in the EU, defined as non-wage labour cost (employers’ and employees’ social security contributions) and personal labour income tax as a percentage of labour costs, was about 30% in 1970 and increased to a peak of 38% in 1996. Since then, the EU average tax burden on labour has started to decline, although very slightly, and remains high by historical and international levels.

⁴⁴ The APW wage is calculated as the average gross wage earnings of adult, full-time production (manual) workers in the manufacturing sector of each country. White-collar workers are excluded.

⁴⁵ For a detailed analysis of the tax burden on labour in the EU based on “backward-looking”, macro indicators, see Eurostat, “Structures of the taxation systems in the European Union (1970-1997)”, and C. Martinez-Mongay (2000).

⁴⁶ The wage distribution can be estimated, for instance, on the basis of the European Community Household Panel data. These data (Commission Services-DG Employment) show that in 1995, on a full-time employment basis, the share of all wage earners below the level of 50% of the APW wage varied from 10 to 20% and the share of those below the level of 67% of the APW wage varied from 15 to 35% across EU countries. In the range of +/-10% of 50% of the APW wage, there were 2-11% of the wage earners, and in the range of +/-10% of the 67% of the APW wage, there were 11-23% of the wage earners in different countries.

Turning now to the analysis of “forward looking” indicators, it can be seen from table 2 that the average tax wedge⁴⁷ on labour cost for a single worker at the average wage level was 45% in the EU in 2000 (down from 46.5% in 1997), compared to only 31% in the USA and 24% in Japan. Admittedly, the reduction in the tax burden over the period 1997-2000, evident in almost all Member States (except NL, EL and L), is limited but, at least, the previous trend towards higher taxation on labour has been arrested and partly reversed. The tax burden on labour is still particularly high and above the EU average in Belgium, Germany, Sweden, France, Finland, and Italy⁴⁸, whereas lower rates are recorded in Portugal, the United Kingdom and Ireland.

The relatively higher level of taxation in continental Europe mirrors higher levels of public expenditures, especially on social security and pension benefits. Indeed, looking at the size and the components of the tax wedge (table 2) it can be seen that about 70% of the taxation on labour is made up of employers’ and employees’ social security contributions and the remaining 30% is accounted for by personal income taxes. These figures compare to a tax burden on labour of only 24% in the USA, where social security contributions (14% of the labour cost) account for half of the tax wedge and are shared equally between employers and employees.

⁴⁷ The average tax wedge is the difference between the cost of employing people and the consumption expenditure, which can be financed from net income from work. It shows the impact of taxation on the cost of labour to the employer and is therefore a good synthetic measure of the tax burden and hence of the size of the distortion that particularly affects the demand for labour. The OECD indicators do not include consumption taxes, which are also relevant in defining the overall tax burden on labour.

⁴⁸ The order of the countries is based on the gap vis-à-vis the EU average.

Table 2. The structure of the tax wedge in 2000 and the change from 1997 to 2000

(Single person at the APW wage level, no children)

	Income Tax		Social security contributions						Total		Ranking
	2000	1997-2000	Employee		Employer		Total SSCs		2000	1997-2000	Position
			2000	1997-2000	2000	1997-2000	2000	1997-2000			
BELGIUM	21.4	-0.6	10.5	0.5	24.7	-1.1	35.2	-0.6	56.6	-1.2	1
DENMARK	32.4	-2.6	11.7	1.7	0.4	0.4	12.0	2.0	44.4	-0.6	9
GERMANY	17.3	-0.7	17.0	0.0	17.0	0.0	34.0	0.0	51.3	-0.7	2
GREECE	1.8	-0.2	12.4	0.4	21.9	-0.1	34.3	0.3	36.1	0.1	11
SPAIN	9.3	-1.7	4.9	-0.1	23.4	-0.1	28.3	-0.2	37.6	-1.9	10
FRANCE	10.4	3.4	9.6	-3.4	28.1	-0.9	37.7	-4.3	48.1	-0.9	4
IRELAND	13.6	-4.4	4.6	-0.4	10.7	-0.3	15.2	-0.8	28.8	-5.2	15
ITALY	14.2	1.2	6.9	0.0	25.3	-6.7	32.2	-6.7	46.4	-5.5	6
LUXEMBOURG	11.2	-0.8	12.1	1.1	12.0	0.0	24.0	1.0	35.2	0.2	12
NETHERLANDS	5.3	-0.2	25.3	-4.7	13.9	6.9	39.2	2.2	44.5	2.0	8
AUSTRIA	7.4	-0.6	13.8	-0.2	24.0	0.0	37.7	-0.3	45.1	-0.9	7
PORTUGAL	5.4	-0.6	8.9	-0.1	19.2	0.2	28.1	0.1	33.5	-0.5	13
FINLAND	21.4	-0.6	5.6	-0.4	20.6	0.0	26.2	-0.4	47.5	-1.1	5
SWEDEN	19.5	-1.5	5.3	1.3	24.7	-0.1	30.0	1.2	49.5	-0.3	3
UNITED KINGDOM	14.5	-0.5	7.2	-0.8	8.5	-0.5	15.8	-1.2	30.3	-1.7	14
EU15*	14	0.1	11.4	-0.9	19.6	-0.8	31.0	-1.7	45.0	-1.6	
UNITED STATES	16.6	-0.4	7.2	0.2	7.1	0.1	14.3	0.3	30.9	-0.1	
JAPAN	6.3	-1.7	9.1	2.1	9.4	2.4	18.5	4.5	24.8	2.8	

Source: OECD, Taxing wages 1999-2000

* Weighted average (real GDP)

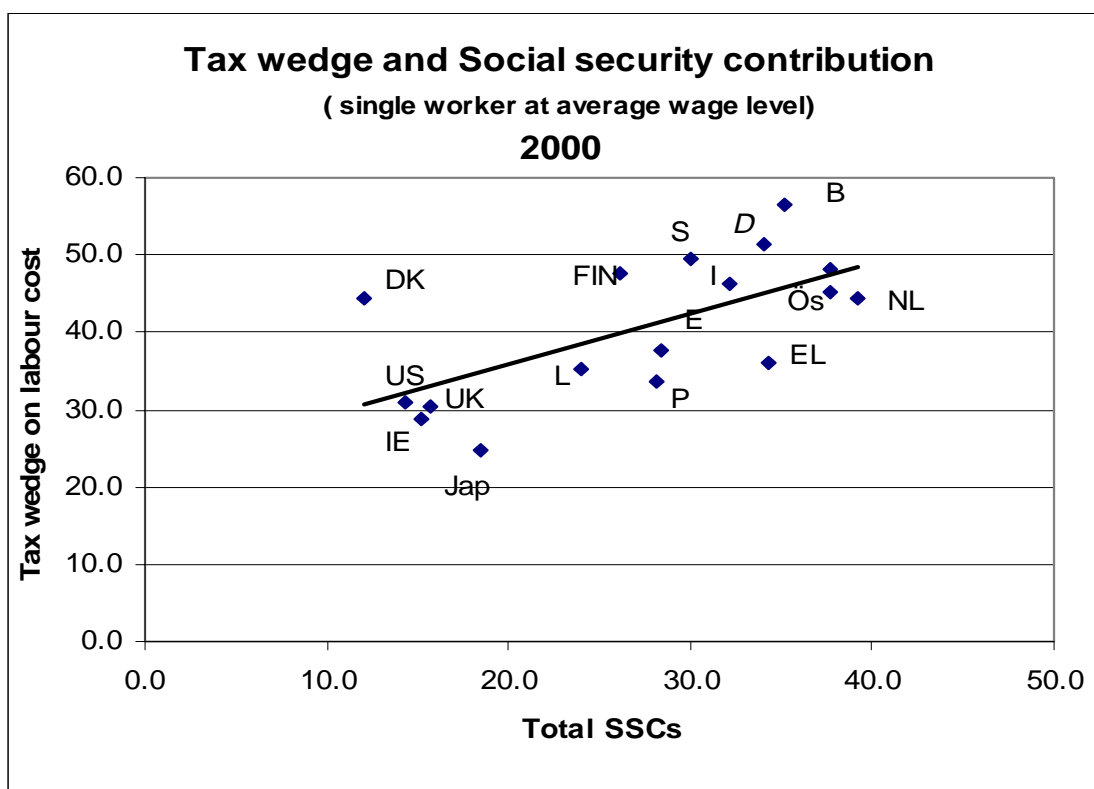
Social security contributions

In general, those countries with the highest tax wedge are also those with the highest social security contributions, highlighting the fact that higher taxation is needed for financing more generous welfare (see chart 1)⁴⁹. In particular, social security contributions paid directly by employers are generally higher, a notable exception being Denmark, which has relied heavily on tax financing of welfare transfers. It is also worth noting the high variation in social security contribution rates, ranging from the 12% in

⁴⁹ Contrary to other major taxes, SSCs and payroll taxes are generally earmarked for specific purposes. They have a relevant insurance component (their payment confers a right to a benefit) and determine the level of social protection that exists in a country. Where this is low, people have to pay into private schemes to secure an equivalent level of social insurance, but this disbursement is not recorded as taxation and this can distort international comparisons. This is not to say that the tax burden in the EU is not relatively high but just to put things in a proper perspective. Indeed, it is sometimes argued that SSCs should not be considered as taxes but as pre-payments for expected future benefits. Furthermore, it would be more appropriate to calculate a present discounted value of SSCs net of benefits, rather than simply current tax payments. An exploratory estimate of such a net "lifetime" tax burden has been carried out for the US by Mitrusi and Poterba (2000).

Denmark to about 38% in France and Austria and 39% in the Netherlands. In this last country, the predominant role of social security contributions in the average tax burden on labour provides a contrasting picture to the situation in Denmark.

CHART 1



In 2000, total social security contributions for a single worker at the average wage level accounted for 31% of the labour cost in the EU, ranging from slightly less than 30% to about 40% of labour costs in 10 MS (P, E, S, F, I, NL, EL, D, B, Ös). These figures compare to 14% in the United States and 18.5% in Japan. Furthermore, in these two countries the amount paid by employers was only around 7-9.5% of total labour costs, whereas in the EU, employers' social security contributions ranged from 20% to 25% of labour costs in half the Member States (FIN, F, EL E, Ös, S, I, P and B).

Over the last 3-4 years, some of the countries that had recorded the highest rate of social security contributions have recorded a remarkable drop (mainly I, F and Ös) in these contributions. Notable exceptions include B, D and NL. The burden of social security contributions generally appears to be distributed uniformly across different types of wage earners, because they are usually based on a flat rate. Only the Netherlands is characterised by a clearly regressive employers' social security contribution system.⁵⁰ This is due to the presence of both flat rates and relatively low ceilings⁵¹ beyond which social security contributions are no longer due, a factor likely to discourage labour demand for those with lower potential earnings (low-skill, low-productivity workers). In

⁵⁰ At a low-wage level (single worker at 67% of APW wage) employers' SSCs accounted for 13% of labour costs, compared to 8.9% at a higher-wage level (167% of APW wage)

⁵¹ In 1999, the wage ceilings were as follows: unemployment contributions and disability: NLG 80910; medical care contribution: NLG 54810. The APW wage amounted to NLG 59481.

Germany, the ceilings are relatively high⁵² when compared with the APW wage, so the potential regressiveness of the system is much less than in the Netherlands. The same is true for Spain, where ongoing reforms will make the system much less regressive. On the other hand, the system appears to be moderately progressive in Ireland and more markedly so in France, due to targeted reductions at the lower end of the pay scale.

Another interesting feature to be stressed is that, in general, there is relatively little variation in the SSC rates that different wage earners (or their employers) must pay. This also implies that the variability in the tax wedge across the wage distribution is only due to differences in the marginal income tax rates.

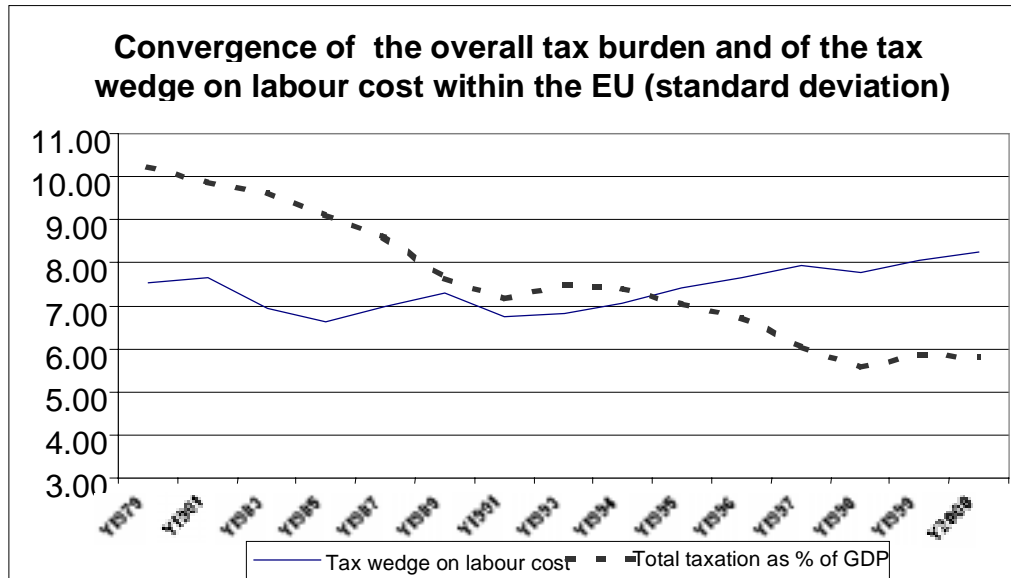
3.1.3. Is overall taxation on labour converging in the EU?

When looking at cross-country differences, one interesting question is whether there has been any convergence in terms of tax policy. Chart 3 displays the standard deviation for the EU countries of both the total tax burden (total revenue as a % of GDP) and the average tax wedge on labour costs⁵³ over the last two decades. There is a clear convergence across European countries of the total tax burden, towards a high level of taxation (the EU-average tax revenue as a % of GDP increased from 38.3% in 1980 to 43.2% in 2000). On the other hand, for taxation on labour the pattern has been one of convergence only until 1991. Since then, the process of convergence within the European countries has come to a halt and has been partially reversed. Therefore, there remains substantial, and to some extent growing, heterogeneity across EU Member States as far as the tax mix and taxation on labour are concerned.

⁵² In 1998, the wage ceilings for both employers and employees' SSCs were: unemployment and pension contribution: DM 102000; medical care contribution: DM 76500. The APW wage amounted to DM 60856.

⁵³ It is possible to calculate the standard deviation only for two types of tax-payers (single workers earning an average wage and a couple with two children where only one spouse earns an average wage income) due to the lack of long time-series for the other types of tax-payers. In the Chart we have included only the graph for single workers.

CHART 2



3.1.4. The tax burden on labour costs for low-paid workers

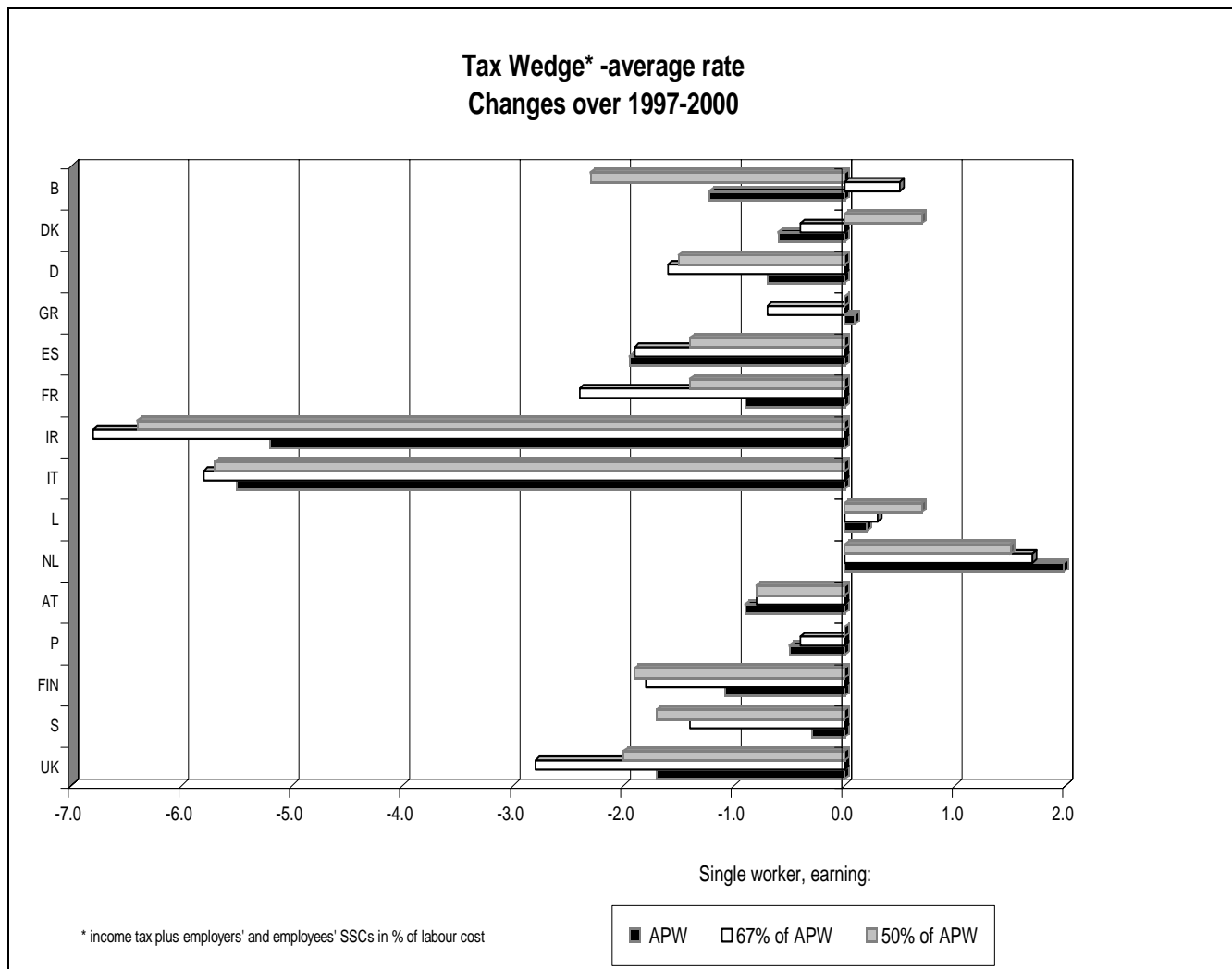
To assess whether or not measures undertaken by Member States have succeeded in alleviating in particular the tax wedge on the labour costs of low paid workers, and whether further efforts are needed, a more detailed analysis of the level of tax pressure has been carried out with reference to workers earning less than the average wage, in particular at 50% and 67% of the APW wage level⁵⁴. We have compared the evolution of the tax wedge for these two categories of workers with that of workers earning the average wage level⁵⁵. Over the period 1997-2000, most Member States succeeded in reducing the tax wedge on low and middle-paid workers (see Chart 3), notable exceptions being L and NL where the tax burden on low-wage earners increased. As a result of the 1997-98 reforms and cuts in income tax and social security contributions, IRL and I recorded the highest tax cuts, which were also across-the board reductions in the tax burden. According to these figures, tax cuts were strictly targeted at very low-paid workers in no EU country, although reductions were slightly greater for the low-paid in IRL, FIN, S, B, UK and F. It is also true that many countries are providing some form of employment-subsidies to firms hiring low-skilled, long-term or young unemployed. These subsidies, although operating through tax credit, tax rebate, or a reduction of employer's social security contributions, are not considered in the calculation of the indicators used here, because they represent an exception to the tax code for specific

⁵⁴ Estimates of the tax wedge on a single worker earning only 50% of the APW wage level have been carried out by the Commission Services (DG TAXUD) using the OECD tax equations.

⁵⁵ For a large number of EU countries, 67% of the average wage level is usually considered to be a more appropriate low-wage level, since it represents a higher percentage of workers than at 50% of APW. However in 6 Member States (B, EL, E, L, NL, UK) the legal national minimum wage is fixed at a level at or below 50% of the APW, while in F, IR and P the legal minimum wage is about 60% of APW. The remaining 6 Member States have no statutory national minimum wage but the lowest wages negotiated in collective agreements seem to be in the range of 50-60% of the APW wage.

categories of workers. Furthermore, as a result of the most recent measures (planned future tax cuts and the introduction of in-work refundable tax credits), a future reduction of the overall tax burden on low-paid is to be expected in many Member States, notably B, NL, F, and D.

CHART 3



3.1.5. Marginal tax rates and “poverty traps”

The actual shape of the budget constraint facing low-income working families is not solely a function of taxation. Indeed, due to the presence of income-tested benefits such as in-work benefits and housing benefits, low-paid workers face non-linear budget constraint, with one or more “kinks” (or effective tax thresholds). Empirical evidence shows also that individuals tend to “bunch” at corners (threshold effect), or just below the kink where the means-test comes into operation⁵⁶. From the perspective of incentives for

⁵⁶ See Disney (2000).

people to take up a job or increase their labour supply (i.e. increasing hours worked when employed), the marginal effective tax rate (METR) constitutes the most relevant indicator because it takes into account both increasing taxation and withdrawal of means-tested benefits as gross income rises⁵⁷. It allows the assessment of the combined effects of tax and benefit systems and, in particular, the extent of poverty traps for low-paid workers.

The **marginal effective tax rate** (METR)⁵⁸ is defined as the rate at which taxes are increased and benefits withdrawn as earnings rise, i.e. for a small rise in earnings.

$$\text{METR} = (1 - \text{Change in net income} / \text{Change in gross income})$$

where the (marginal) change in net income is a function of the (marginal) change in gross wages (due to changes in hours worked or work effort), the statutory marginal tax rate and the change in the level of benefits, which is a function of the rate at which the different benefits are withdrawn when income increases. Indeed, the benefit reduction rate, or taper rate (*BRR*), acts as a tax rate on earnings. In theory, taking into account the rate of income tax (*t*) and the rate of withdrawal of means-tested benefits (*BRR*), the METR ($=t + BRR$) could well be higher than 100%. To avoid this, the rate of withdrawal is sometimes applied to net rather than gross income and benefits earlier in the chain are taken into account. In this way, the METR becomes: $t + BRR(1-t)$ and, to the extent that *t* and *BRR* are less than 100%, the METR cannot exceed 100 per cent.

The marginal effective tax rate measures the immediate economic incentives in the form of the net pecuniary returns from a marginal increase in hours worked or improved work effort. In this context, the marginal effective tax rate is a policy indicator since it is the outcome of the combined policies of progressive taxation and gradual withdrawal of benefits as earnings rise.

Given the current lack of recent calculations of METRs, we can obtain an indication, albeit partial, of incentives to work by looking at the available **marginal tax rates** on gross wages.

To some extent, available marginal tax rates are not “simple” marginal rates but “composite” rates in that they also take into account: 1) “universal” cash benefits (that is, when the amount transferred does not vary according to the income of the household) and “means-tested” cash benefits, tax credits and tax allowances paid to families, mainly in

⁵⁷ It must be stressed that most labour market decisions are not “marginal” (i.e. getting a slightly higher wage or working an extra hour). Indeed, they more often involve discrete changes in status, such as moving from unemployment to work, from part-time to full-time, or from one job to another with considerably higher remuneration. In these cases, the marginal tax rate just measures the ratio between the change in the amount of tax levied and the discrete change in earned income. To avoid misunderstandings, the marginal effective rate relating to the move from unemployment to employment is referred to as the average effective tax rate (AETR) in the OECD publication “Benefit systems and work incentives”.

⁵⁸ The terminology can be a bit misleading. Indeed, the METR is more often used to calculate corporate marginal tax rates, that is the magnitude of the tax wedge driven between rates of return of the last unit of capital invested before and after the imposition of the corporate tax. For a detailed description, see OECD (2000). By analogy, the term has been extended to calculate the impact of taxation on the last unit of earned income. In the early nineties, the indicator for family income taking into account both tax and benefits was often called “marginal composite tax rate” see Atkinson (1993).

respect of dependent children; and 2) the employment conditional, means-tested tax concessions to people in low-income households such as the Earned Income Tax Credit in the US, the Family Income Supplement (FIS) in Ireland, and the earned income allowance in Finland. The OECD calculates the marginal tax rate as the additional personal income tax and employee social security contributions paid when gross wage earnings rise marginally. The M(E)TR is used as an indicator of the tax disincentive on the labour supply. Therefore the appropriate tax base is the gross wage and not the labour cost (compensation of employees or gross wage costs), because this includes social security contributions paid by employers, which are not relevant here. In most countries, workers do not know their “gross wage cost” and only care about their “gross wage” and what it implies in terms of net “take-home” earnings.

Table 3 shows that over the period 1997-2000, most Member States lowered marginal tax rates on low and medium earnings. Yet, marginal rates remain particularly high, ranging from 40% to 50% and even higher in B, D, DK, FIN, and NL for all the types of taxpayers considered. The poverty trap effect arising from the withdrawal of means-tested benefits when income rises is clearly apparent in countries where there are in-work benefits schemes, implying a withdrawal of means-tested family allowances. For example, in 1997 in Ireland the marginal tax rate of a single person with two children at 67% of the average (APW) wage level was 90% of the gross wage, while for the same taxpayer (single person) without children it was only 30%. Ireland removed this problem (a typical “poverty trap”) in 2000. A similar situation is apparent for the UK⁵⁹ where, as a result of the phase-out of the WFTC, the marginal tax rate for low income families (single earner at average wage level and 2 children and a single parent at 67% of average wage level with 2 children) is as high as 69.4% while the MTR for richer families that are not involved in the WFTC scheme diminishes to (32%)⁶⁰. Outside the EU, the US was in a similar situation until 1999, due to the functioning of the Earned Income Tax Credit (EITC) (see the description of the impact of in-work benefit systems on METRs in BOX 2). In order to avoid this effect, the Netherlands recently introduced a general “in-work” benefit scheme without a phasing-out range.

59 For the 2000 calculation, the marginal tax rates for the UK also include the Working Families’ Tax Credit introduced on 5th October 1999 (while the former Family Credit programme which paid the in-work supplement as a benefit was not included in the calculation of the MTR). The WFTC is aimed at improving work incentives, while providing support for low wage families with children. This is done by increasing the differentials between in-work incomes and net income available to recipients of unemployment benefits. Furthermore, compared to the former Family Credit programme, it also reduces the marginal deduction rate and therefore the METR. Indeed, the Family credit programme had a taper under which families above a particular threshold lost £0.70 of benefit for every extra £1 they earned, while under the WFTC the threshold has been increased and the taper reduced (to 0.55 per £1 extra income). Yet, this still implies a rather high (at least 55%) METR in the phase-out region and an increased number of people affected by higher marginal tax rates.

60 Figures in table 1, which refer to wage levels of 67% of APW wage or more, cannot show what happened, for example, in France up to 2000. There the way the RMI (revenue minimum d’insertion) operated gave rise to a METR of 100% up to the point where the threshold was reached. After the jump at the point where income support was completely phased out (around 50% of the SMIC), the METR diminished substantially, and then it increased substantially again at about 1.25-1.5% of the SMIC.

Table 3. Marginal tax rates*(Income tax plus employees' contribution, less cash family benefits, as a % of gross wage)*

	Single individual no children earning 67% of APW		Single individual 2 children earning 67% of APW		Married couple 2 children single earner on APW		Married couple 2 children 2 earners:100%APW + 33% APW	
	<i>Marginal tax rate in 2000</i>	<i>Change 1997-2000</i>	<i>Marginal tax rate in 2000</i>	<i>Change 1997-2000</i>	<i>Marginal tax rate in 2000</i>	<i>Change 1997-2000</i>	<i>Marginal tax rate in 2000</i>	<i>Change 1997-2000</i>
BELGIUM	54.1	-0.7	54.1	-0.7	51.4	-0.3	45.5	1.0
GERMANY	51.0	-0.9	48.8	-0.8	51.8	3.6	39.5	-2.4
GREECE	20.1	0.0	15.9	0.0	28.5	0.0	35.5	-0.3
SPAIN	26.4	-4.8	6.4	-17.7	23.2	-0.9	34.9	-1.8
FRANCE	48.6	-0.8	21.0	-0.4	21.0	-0.4	39.0	-0.5
IRELAND	22.0	-8.5	22.0	-68.5	28.5	-4.2	20.3	-4.6
ITALY	32.8	-1.6	32.8	-1.6	40.1	-0.6	40.5	-6.5
LUXEMBOURG	34.1	0.0	14.7	2.1	14.7	2.1	14.2	-1.3
NETHERLANDS	45.8	-1.0	41.3	-3.4	41.8	-1.9	37.5	2.9
AUSTRIA	37.1	-14.4	52.1	30.5	42.0	-0.5	32.3	-2.0
PORTUGAL	25.0	-1.0	11.0	0.0	25.0	-1.0	27.5	-0.5
FINLAND	42.7	-2.3	42.7	-2.3	48.4	-2.3	38.9	-1.0
EU12*	48.5	-2.8	33.7	-2.1	46.3	-0.8	44.5	-2.2
DENMARK	50.7	-1.4	50.7	-1.4	45.2	-1.3	36.3	-0.5
SWEDEN	38.3	-0.6	38.3	-0.6	35.2	-0.5	43.6	-2.5
UNITED KINGDOM	32.0	-1.0	69.4	36.4*	69.4	36.4*	20.8	-1.3
EU15**	41.9	-1.7	39.7	3.0	42.6	5.3	36.2	-1.9
UNITED STATES	29.6	-0.3	35.6	-15.4	29.6	-21.4	24.8	-2.4
JAPAN	17.3	0.8	17.3	0.9	18.6	0.6	21.7	4.1

Source: OECD, Taxing wages 1999-2000** UK 1997 and 2000 figures are not comparable, because former tax credit programme (FC) was not included in the calculation, while WFTC is included in 2000.**** Weighted average (real gdp)*

Box 2: The impact of different income-support schemes on the METR

The way in which transfers linked to income-support programs are reduced as the recipient earns more income has an impact on the METR (and therefore on incentives to work).

As examples, the impact of a generic negative income tax (within a minimum income guarantee scheme) and of the US' Earned Income Tax Credit scheme (EITC) are shown below:

Negative income tax

The annual transfer T is: $T = I_g - tn I_e$

Where: I_g is the Income Guarantee

tn is the rate (for example 50%) at which the transfer is phased out (the taper)

I_e is the earned income

I_d , the disposable income is given by: $I_d = I_e + T = I_e + (I_g - tn I_e) = I_e(1 - tn) + I_g$

Here, the income level at which the transfer falls to zero (the break-even income: I_{be}) and the tax becomes positive is given by:

$$T=0 = I_g - tn * I_{be} \quad \text{therefore} \quad I_{be} = I_g / tn$$

Until I_{be} is reached, the METR is equal to tn .

It is apparent from the formula that the lower the taper (tn), and hence also the METR, the higher the break-even income and therefore the greater the number of people who benefit from income support, and consequently, the higher its budgetary cost.

The US Earned Income Tax credit in 2000 (2+ children)

The phase-in income is: $\$ 0-9700$

The threshold income is: $I_t = \$9700$

while the constant or flat region is $\$9700--\12700

The tax credit rate in the phase-in range of income: $tcin=40\%$

(34% for family with one child)

Therefore, the maximum tax credit is: $MTC = \$9700 * (40\%) = \3880

The phase-out rate is: $tcout = 21.06\%$

Disposable income for over \$12700 is given by

$$I_e + T = I_e + (MTC - tcout (I_e - 12700))$$

Here, the level at which the transfer falls to zero (the break-even income: I_{be}) and the tax becomes positive is given by:

$$I_{be} = \$12700 + MTC / tcout \quad (\text{that is: } \$12700 + 3880 / 0.2106 = \$31123)$$

($MTC / tcout$ is the equivalent of $I_{be} = I_g / tn$, the break-even income in the negative income tax scheme)

It is apparent from the formula that a higher maximum credit (MTC) or a lower taper (phase-out rate) and therefore a lower METR, both give rise to a wider phase-out interval and therefore a greater number of people who benefit from income support with a higher budgetary cost (Musgrave and Musgrave (1989)).

To sum up, these two examples give an idea of the basic policy dilemma facing governments seeking to reform tax and transfer schemes (see Blundell-MaCurdy (1999)). Indeed, to increase work incentives, the choice is between reducing benefit levels or increasing program costs. It is also true that, to the extent that the "in-work" benefit scheme is successful in activating transfer recipients, its net budgetary cost will be correspondingly reduced.

3.2. Some remarks on the reforms of tax systems to increase employment incentives

As regards current and future reforms of tax systems in order to increase employment incentives, one should keep in mind the following four main remarks:

- Most reforms of the tax system comprise a reduction in the statutory marginal tax rate on personal income in the lower tax brackets. Yet, one should bear in mind that, as stressed by Phelps (2000), if the ultimate goal of such a measure is to alleviate the tax burden on low-paid workers, the provision of a low-wage income support (an employment subsidy to firms where there is a relatively high statutory minimum wage, limited to low-paid workers) can be more effective as a way of increasing both employment and pay than other approaches. This is because a tax relief for low-income recipients in the form of income-tax reductions in the lower tax brackets could be highly cost-ineffective because the relief will cost the government the loss of tax revenue on all earners' income, including the very high earners and short-time workers (even with high hourly wage levels) who don't intend to be employed regularly.
- Across-the board income tax cuts that have already been implemented or have been announced are bound to reduce the tax wedge on labour income. But it is clear that the responsiveness of labour demand and supply to the reduction of the tax burdens on wage will be different across countries, reflecting different labour (and product) market institutions and degrees of rigidity. For example, as stressed before, the employment impact of tax cuts will be higher in countries where the increase in after-tax income from work is not accompanied by an increase in after-tax replacement income for unemployed people.
- The impact on work effort of an in-work benefit scheme implying tax credits should be evaluated taking into account not only the positive impact on labour supply decisions of those who may be induced to enter labour markets. It should also take into account the impact of the scheme on labour supply decisions of those individuals already working who may face a disincentive to increase their work effort because they will face a higher benefit reduction rate (and therefore a higher marginal effective tax rate (Blundell and MaCurdy (1999))).
- Tax reforms should be more focused on enhancing labour supply responses, given the need for a substantial increase in participation and employment rates in view of the ageing population and, at least in some Member States, emerging signs of shortages in the labour market.

4. BENEFIT SYSTEMS AND MAKING WORK PAY

4.1. Some characteristics of benefit systems

4.1.1. Transfer spending

Total cash transfers for social protection have diminished in most Member States since 1993. Between 1993 and 1998, transfers to households were reduced by almost 1 percentage point of GDP in the EU as a whole. The reduction was most pronounced in Finland, the Netherlands and Sweden where it fell by 6, 5 and 4 percentage points of GDP respectively, and a reduction of 3 percentage points was also recorded in Ireland and Spain (table 4). From 1998 onwards, this trend continued with a reduction of 0.5 percentage points up to 2000. Over the whole period since 1993, only Greece and Portugal showed an increase in transfer spending, although the same is true for Germany and Italy between 1993 and 1998.

Table 4. Transfer benefits in the EU, 1993-2000
(% of GDP)

	All transfers			Transfers to working age people (1)		Disability		Unemployment	
	1998	Change 1993-98	Change 1998-2000 (2)	1998	Change 1993-98	1998	Change 1993-98	1998	Change 1993-98
	BELGIUM	19.3	-2.3	-0.5	5.2	-0.8	1.4	-0.4	3.2
DENMARK	18.2	-1.8	-1.3	6.3	-2.6	2.2	0.0	3.2	-2.3
GERMANY	19.7	0.6	-0.2	4.4	-0.3	1.7	0.2	2.2	-0.5
GREECE	16.2	1.7	0.3	1.8	0.0	1.3	0.0	0.5	0.0
SPAIN	14.9	-2.9	-0.4	4.1	-2.5	1.6	0.0	2.5	-2.5
FRANCE	19.2	-0.4	-0.3	3.5	-0.5	0.9	-0.2	2.2	-0.4
IRELAND	9.1	-3.3	-1.1	3.1	-1.2	0.7	-0.1	2.2	-1.1
ITALY	18.9	0.4	-0.3	2.0	-0.3	1.4	-0.3	0.6	0.0
LUXEMBOURG	16.8	-0.6	-1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
NETHERLANDS	18.9	-4.9	-1.0	5.3	-3.2	2.9	-1.9	1.9	-1.0
AUSTRIA	19.4	-1.0	0.1	3.2	0.2	2.0	0.4	1.1	-0.2
PORTUGAL	13.0	0.9	0.6	3.6	0.0	2.4	-0.2	1.0	0.0
FINLAND	17.7	-6.2	-1.9	6.3	-3.6	3.0	-1.3	2.9	-2.2
SWEDEN	19.4	-3.9	-0.9	5.8	-1.8	2.5	-0.5	2.7	-1.2
UNITED KINGDOM	16.9	-1.7	-0.4	3.5	-1.0	2.7	-0.1	0.8	-0.9
EU15(3)	18.2	-0.9	-0.5	3.8	-0.9	1.8	-0.2	1.7	-0.7

Source: Eurostat, Social protection database, ESSPROS

(1) Includes unemployment + disability benefits + social assistance.

(2) Source: Ameco, DG ECFIN, European Commission.

(3) Weighted by real GDP share in 1998.

In all countries that have reduced total spending, this has been achieved predominantly by reducing the share of benefits that are directed at the working-age population, mainly replacement benefits. Unemployment benefits in the EU fell by 0.7 percentage points and disability benefits by 0.2 percentage points between 1993-98.

The fall of benefits to the working-age population as a share of GDP can be attributed to a number of factors. It is evident that economic growth has contributed to a reduction in

benefit spending, particularly in those countries that succeeded in reducing unemployment⁶¹. Despite increased unemployment in some countries, unemployment benefits as a share of GDP diminished slightly in all countries. Hence, there are grounds to say that Member States' efforts to restrict benefit spending have started to produce results, notably as regards unemployment and disability benefits.

4.1.2. *Benefit dependency*

The number of people of working-age in receipt of public benefits would be an important indicator to assess the shift from passive to active policies. However, suitable data are generally not available and it is not easy to control for all details, such as partial or part-year receipt of benefits, or simultaneous receipt of several benefits in counting the number of recipients. Nonetheless, the Netherlands Economic Institute (NEI) has made an effort to construct indicators of benefit dependency (NEI (1999)). These indicators include the ratio of recipients of all kind of benefits to the number of working-age persons or recipients of replacement benefits relative to the number of employed or the working-age population. In some cases, these figures can be presented in full-time equivalents, thus focusing on the economic burden of benefit schemes on the employed (in full-time equivalents).

The Netherlands Economic Institute (NEI) study constructed indicators for the number of benefit recipients in terms of full-time equivalents (benefit years), based on information on full-time benefit recipients and total benefit expenditure. In addition, a number of estimation and transformation methodologies were used to correct for partial benefit receipt and to avoid double counting.

One indicator of the benefit dependency ratio, describing the ratio of benefit recipients (benefit years) among the working-age population relative to the total of working-age population, is shown in table 5. The number of benefit years refers to benefit recipients in full-time equivalents, as if each recipient received a full benefit during the whole year. The indicator below shows the receipt of unemployment and disability benefits, social assistance, survivors benefits and early or pre-retirement pensions in the age bracket 15-64 relative to the number of the total working-age population (15-64 years old). Roughly half of the working-age population in Belgium, France, Germany and Austria received benefits. This is more than double the figure for the United States. Moreover, the evolution in the 1990s shows that very few countries succeeded in reducing benefit dependency when compared with 1990 (only NL and slightly in E). However, in all countries, except Germany (and Japan), benefit dependency peaked in 1993 or 1994, and since then the countries examined have succeeded in reducing benefit dependency.

61 In the EU, as a whole, the unemployment rate remained almost at the same level from 1993 (10.7%) to 1997 (10.6%) but fell in 1998 to 9.9%. The unemployment rate fell in 1993-98 by several percentage points in DK, E, IRL, NL, FIN and UK, all of which (notably DK, E and FIN) also succeeded in reducing expenditure on unemployment benefits.

Table 5. Benefit dependency in some Member States

Country	The number of full-time benefit years (UB+SA+DIS+ERP+SUR ¹) / working-age population (15-64 years)		
	1990	1993/4 ²	1997
Belgium	58.7	59.2	55.9
Denmark	41.6	49	43.1
Germany	36.2	41.7	48.3
Greece	n.a.	n.a.	n.a.
Spain	27.1	35.3	26.3
France	44.1	51.2	50.5
Ireland	n.a.	n.a.	n.a.
Italy	n.a.	n.a.	n.a.
Luxembourg	n.a.	n.a.	n.a.
Netherlands	42.1	42.9	37.7
Austria	45.3	50	47.7
Portugal	n.a.	n.a.	n.a.
Finland	n.a.	n.a.	n.a.
Sweden	28	45	37.6
United Kingdom	31.9	44.3	39.3
United States	21	24.1	20.8
Japan	28.6	31.2	33.7

Source: Netherlands Economic Institute, 1999

¹ UB= unemployment benefits, SA= social assistance, DIS= disability pensions, ERP= early and pre-retirement pensions, SUR= survivors' pensions

² The peak year was 1993 in B, E, NL, Ö and UK; 1994 in DK, F and S; and 1992 in the US.

4.1.3. Conditions for receipt of unemployment benefits

An international comparison of unemployment benefit systems is a complicated task because they differ in terms of their entitlement conditions, such as work history and contribution record required, eligibility criteria such as availability for work, capacity to work, the age and family conditions of the recipient, and the duration and rate of benefits. In addition, most Member States provide both insurance schemes and unemployment assistance schemes, in which the entitlement conditions are different. The unemployment insurance scheme (UI) is usually based on the tenure and wage level of the job preceding the unemployment spell. The unemployment assistance scheme (UA) often complements the expired UI benefit period with means-tested benefits or replaces the income from

unemployment insurance if the unemployed person does not qualify for an insurance benefit.

Table 6 summarises some features of unemployment benefit schemes in Member States. Unemployment benefit duration differs a good deal across Member States, and the effect on duration of factors such as length of the previous employment experience, the contribution record and the age of the individual in question, also varies. The range of the unemployment insurance benefit shown in the table below indicates the variation due to employment experience and contribution records (in Portugal due to the age of the recipient). It is clear that Belgium and Denmark provide the most generous benefit durations, which are not affected by the employment or contribution record of the individual, but only by the general entitlement conditions. Also in Finland, the insurance benefit period is relatively long for workers with a relatively short work experience, while in most countries the insurance benefit period is, at most, six months for those with a short work experience. France and the Netherlands provide very long benefit durations for older workers with long work and contribution histories. Many countries, for instance Denmark, Finland, Sweden and Luxembourg provide for payment to older unemployed persons of prolonged benefits, which do not require longer contribution and employment years.

The availability of unemployment assistance or social assistance further affects the total benefit duration. These schemes offer minimum flat rate and means-tested benefits types after the expiry of unemployment insurance benefit. At least one of these two benefit types is available in all countries except Greece. The availability of such benefits is particularly meaningful at the lower end of the wage scale where they can provide essentially the same level of benefits as unemployment insurance, or even exceed it in some countries. Furthermore, early retirement schemes may play an important part in providing income security during prolonged unemployment spells and, thus, they work as substitutes for unemployment benefits. In fact, all Member States (except Greece) provide some kind of early retirement schemes for older workers. These schemes may contain incentives that encourage withdrawal from the labour market, as opposed to being unemployed and available to the labour market. In particular, the job availability criteria of early retirement benefits are generally more lax, the period for which they are granted longer, and the level rather higher than unemployment benefits.

Table 6. Unemployment benefit systems in the EU

Country	Benefit duration, months			Waiting period days	Entitlement conditions (UI), months (1)	Job availability requirement, index (2)
	Unemployment insurance	Unemploym. assistance	Social assistance			
Belgium	No limit	None	Unlimited	0	14 / 18	3.2
Denmark	48	None	Unlimited	0	12 / 36	2.8
Germany	6 - 32	Unlimited	Unlimited	0	12 / 36	2.6
Greece	5 - 15	None	None	6	4 / 14	n.a.
Spain	4 - 24	6	Limited	0	12 / 72	n.a.
France	4 - 60	Unlimited	Limited	8	4 / 8	2.8
Ireland	15	Unlimited	Limited	3	9 / 12	1.8
Italy	6 - 9	None	Limited	0	12 / 24	n.a.
Luxembourg	12	None	Unlimited	0	6 / 12	4.0
Netherlands	6 - 60	24	Unlimited	0	6 / 9	3.7
Austria	5 - 12	Unlimited	Unlimited	0	12 / 24	2.3
Portugal	12 - 30	10.5	Unlimited	0	18 / 24	2.9
Finland	23	Unlimited	Unlimited	7	10 / 24	2.8
Sweden	14	5	Unlimited	5	6 / 12	3.8
UK	6	None	Unlimited	3	12 / 24	2.6

Sources: European Commission (2000), MISSOC 2000; Danish Ministry of Finance (1998)

1) Expressed in the number of months that the unemployed person must have been employed and contributing to insurance unemployment scheme (the first figure) within the investigated period of time (the latter figure).

2) The index is a weighted average of points from 1 to 5 dedicated to eight categories of job availability criteria. Five point are given to the maximum strictness.

The Danish Ministry of Finance constructed an indicator of strictness relating to job availability in benefit criteria for 1994-96 in 19 OECD countries (including the EU countries except I, E and EL). The indicator was constructed for 8 categories of job availability and benefit sanction features in unemployment benefit schemes. According to this indicator, job availability rules were relatively strict in Luxembourg, Sweden and the Netherlands, and relatively lax in Austria and Ireland. It suggested that some countries with higher replacement rates apply strict eligibility rules. In addition, separate regressions suggested that eligibility criteria influence long-term unemployment more than short-term unemployment and that strict eligibility criteria offset the impact of a high net replacement rate. Nonetheless, it is recognised that uncertainties are inherent in this kind of indicator owing to the multidimensional nature of the problem, including the number of rules, their relative weighting with each other and the implementation dimension (Danish Ministry of Finance (1998), OECD (2000c)). Some Member States have taken reforms to tighten the job availability requirement in the period since 1996. In particular, the United Kingdom undertook a radical overhaul of its unemployment benefit system in 1996 and the current system provides only a job seeker's allowance, which requires active job seeking and participation in labour market programmes when needed.

4.1.4. *Net replacement rates*

The level of unemployment benefits in relation to earnings is important where job take-up is concerned. In addition, in many countries last resort benefit schemes for non-employed people are available for the unemployed as well, whether as supplements to unemployment benefits in cases where the unemployment benefit alone remains below the level of minimum social assistance or in the case of long-term unemployment where the insurance-based benefit has expired. Therefore, the level of minimum social assistance also becomes an important factor affecting incentives to work.

Charts 4 and 5 show the net replacement rates for some family types at low and average wage levels in 1997. The net replacement rate for the 1st month shows the rate of the unemployment benefit without the possible topping-up of social assistance, whereas the rate for the 60th month includes also the topping-up of social assistance. In some countries, topping-up is available for the unemployed person already as of the 1st month of unemployment. If the entitlement to insurance-based unemployment benefit has expired before the 60th month of unemployment, social assistance may constitute the main source of public support at this point in time. This is the case for a number of countries such as Denmark, Finland, Luxembourg, Netherlands, Spain, Sweden, and the United Kingdom⁶².

The net replacement rates for low-paid families with children (Chart 4) show that out-of-work income is 80 % or more in eight countries (DK, FIN, NL, S, L, P, F and UK). The long-term net replacement rate remains close to that of the first month, with some important exceptions: in some countries (FIN, NL, S, L, UK), it is even higher than in the first month and only in EL (and F) is it markedly reduced. For single earners, the net replacement rates are generally somewhat lower than for families with children. Although they are over 80 % in six countries in the first month of unemployment, they fall in most countries if unemployment continues. The same features are also evident in the net replacement rates at the average wage level, the main difference being that the rates are about 10 percentage points lower (Chart 5).

The net replacement rates can be followed only over a couple of years (1995-97) on the basis of comparable OECD calculations⁶³. The changes in these figures are minor and

62 For Italy, the figures refer to the amount of the "minimo vitale" scheme implemented (or even simply existing on paper but not funded and implemented) in a few municipalities and also refer to old people, not to working age individuals. For working age individuals, the "minimo vitale" schemes, where they exist, pay substantially lower amounts and do not last very long (usually 3-6 months). For the future, a generalised social assistance scheme is being developed (the *Reddito Minimo d'Inserimento*). This is a means tested scheme topping up household income, including earnings for which a partial exemption is in place. Such a scheme is currently under experimentation (it has been operating since 1999 in 39 out of more than 8,000 municipalities, an extension to some other municipalities having been planned for 2001). The unemployment benefits gross replacement rates (the "ordinary" benefit scheme) last only 6-9 months and amount to 40% of the gross wage. On the other hand, CIGs (a wage supplementation scheme) and mobility allowances are more generous and may last much longer but pertain only to collective dismissals and to workers formerly employed in the industrial sector.

63 The replacement rates are constructed as the ratio of pre-tax social insurance and social assistance benefits to the pre-tax wage.

may be more the result of changes in tax rules or means-tested benefits than in the benefit level itself. A firm conclusion on the trend in replacement rates would require a longer time series, which unfortunately is not available. Nonetheless, a descriptive analysis (Section 4.2) of reforms of benefit schemes does not give any grounds for concluding that large changes have taken place in replacement rates very recently, despite the fact that changes in tax systems in favour of wage earners may have had some effect.

CHART 4

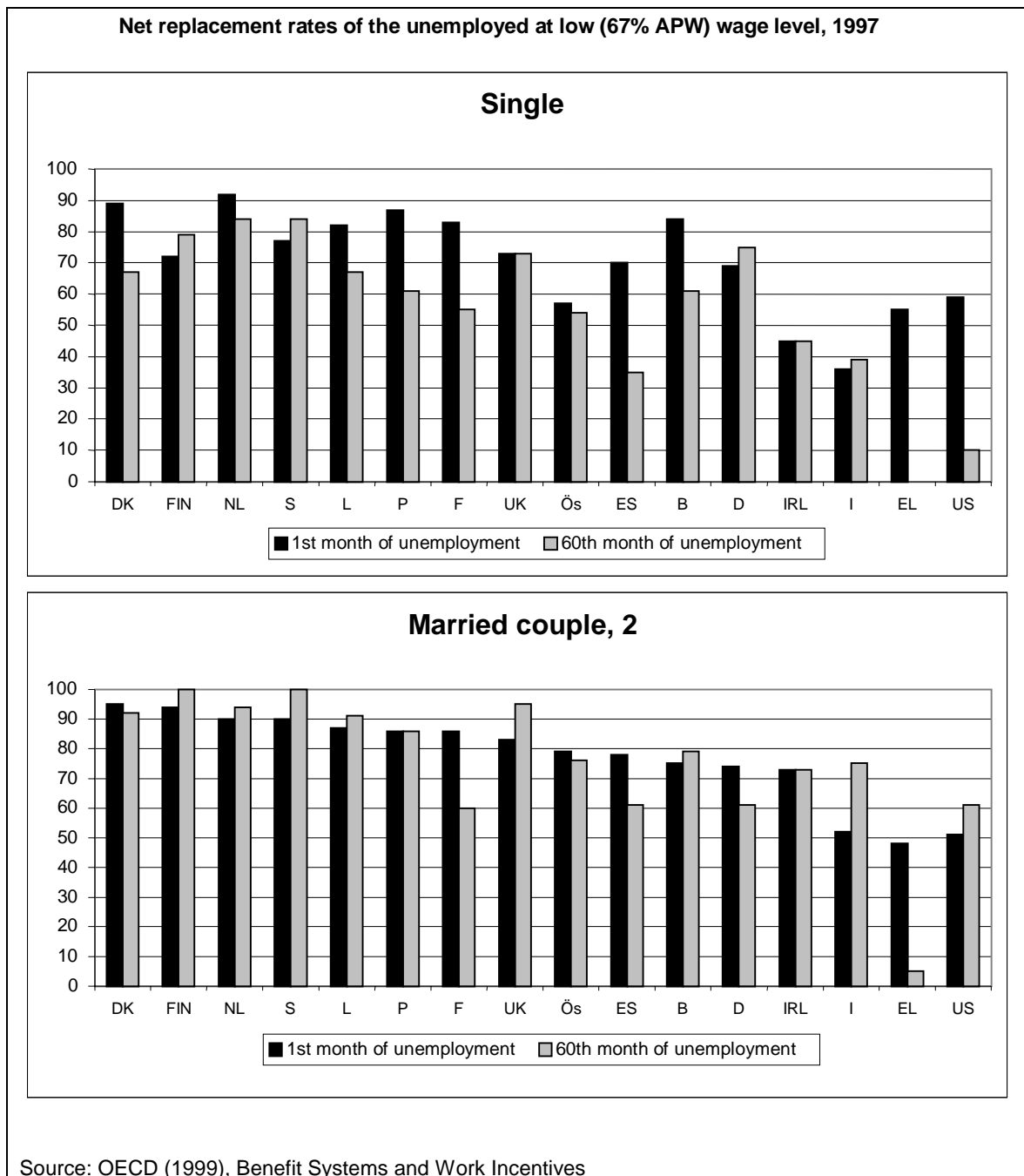
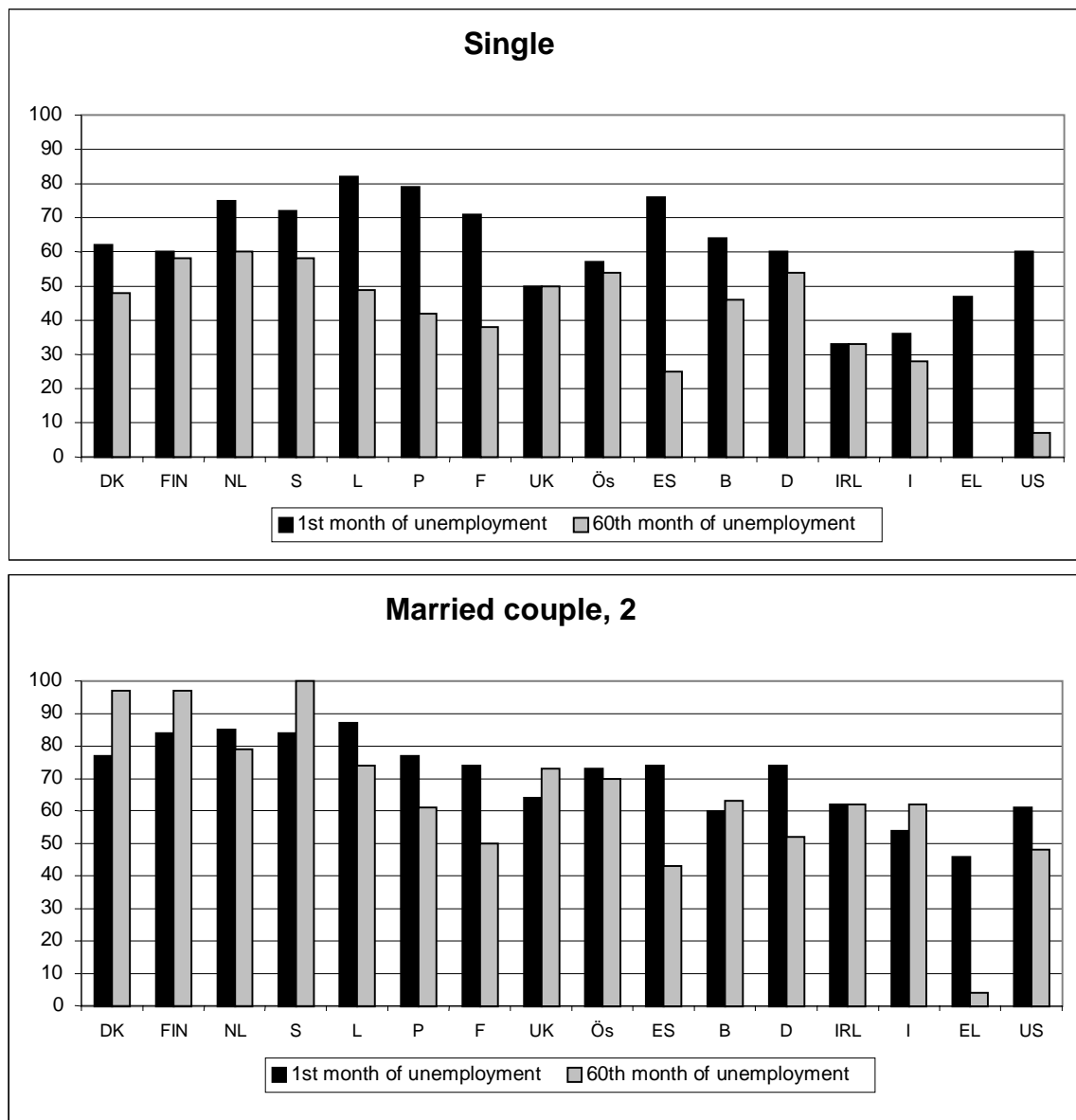


Chart 5 Net replacement rates of the unemployed at average (APW) wage level, 1997



Source: OECD (1999), Benefit Systems and Work Incentives

4.1.5. Average effective tax rates when taking up a job

Net replacement rates describe how the economic situation changes when an individual moves from employment to unemployment. However, it is also interesting to examine how large the economic incentive is in the case where an individual moves from unemployment to employment, or when the spouse of the unemployed or employed person begins to work. Table 7 summarises the economic incentives in these situations.

More precisely, the measure used is the so-called average effective tax rate (AETR), (OECD 1999c)⁶⁴.

Table 7. Average effective tax rates for taking up a job in 1997

(assuming the principal earner at the APW wage level)

Principal earner:	From unemployment(1) to full-time employment	From unemployment(1) to part-time employment	From long-term unemployment(1) to part-time employment	Unemployed	Employed	Employed
Secondary earner:	Non-employed	Non-employed	Non-employed	From non-employment to full-time employment	From non-employment to full-time employment	From non-employment to part-time employment
BELGIUM	68	109	109	43	57	61
DENMARK	84	84	118	55	50	48
GERMANY	80	115	115	31	51	50
GREECE	54	104	104	66	30	30
SPAIN	78	77	159	23	23	19
FRANCE	76	69	133	29	28	38
IRELAND	68	83	60	20	32	25
ITALY	63	84	84	37	33	25
LUXEMBOURG	87	198	198	26	30	14
NETHERLANDS	89	90	134	45	39	37
AUSTRIA	76	135	135	32	30	21
PORTUGAL	79	174	174	14	21	13
FINLAND	88	117	152	48	36	23
SWEDEN	88	79	154	43	37	42
UNITED KINGDOM	72	93	93	60	28	20
EU15	77	107	128	38	35	31
UNITED STATES	68	102	102	20	19	11
JAPAN	60	133	133	10	12	10

Source: OECD (1999), Benefit Systems and Work Incentives

(1) Unemployment benefit is not topped up with social assistance

(2) It is assumed that the long-term unemployed person receives social assistance if his unemployment benefit has expired

The first three columns of the table describe the amount of earnings which is “taxed away” when, in a family where one of the spouses is non-employed (and without benefits), the principal earner moves from being unemployed and in receipt of benefits (unemployment benefit alone or unemployment benefit plus social assistance) to either

⁶⁴ This indicates the share of the extra earned income not received by the family (due to taxes and withdrawal of benefits) when one of the spouses moves from unemployment to employment (taking up a job at the average wage level). The definition of the AETR is:

$$\text{AETR} = 1 - \frac{(\text{net in-work income} - \text{net out-of work income})}{\text{Change in gross income}}$$

It does not consider other additional expenses associated with work such as childcare and transportation costs, which can be large. Technically speaking, the AETR is a marginal rate over a large income change due to the change of “status”: from unemployment to employment. In the publication “Benefit systems and work incentives” the OECD has termed it “average” to distinguish it from the one relating to people who are already in work.

full-time or part-time (a 40% work effort) employment⁶⁵. On average, EU countries tax away 77% of the individual's earnings in the case of taking up a full-time job (as a result of taxes and withdrawal of unemployment benefits), with peaks of 90% in L, NL, FIN and S. From the second and third columns, which describe incentives/disincentives to take up part-time employment, it is apparent that this does not pay in most countries. Over 100% of the increase in gross income is taxed away in half the countries (L, P, A, FIN, D, B, EL) and 80-90% in the rest (except in France: 70%) in the case of short-term unemployment (excluding the possible topping-up impact of social assistance). However, if the principal earner is long-term unemployed and the family is entitled to social assistance, there is practically no economic incentive in any country (except possibly Ireland with a 60% effective tax rate) to take up a part-time job.

Columns 4, 5 and 6 of table 7 deal with situations where the secondary earner moves from being non-employed without benefits to a full-time or a part-time job. To summarise, one can say that in most countries, there do not seem to be large disincentives for the spouse to take up work, either part- or full-time, in the case where the principal earner is employed. However, around 50% of the income increase is taxed away in B, DK and D in both cases. In addition, if the principal earner is unemployed (column 4), the incentive for the secondary earner to take up a job in most countries is weaker than in the case where he/she already has a job

In short, the disincentives associated with moving into employment are highest in families where neither of the spouses is working.

4.2. Direction of benefit reforms in Member States

Member States are committed in the framework of the Luxembourg process to put a series of programmes in place to help unemployed persons participate more fully in the labour market. The aim is to reform benefit systems to make work pay so that the overall incentive structure in tax and benefit schemes favours employment and to move from passive income support towards active measures designed to get people back to work.

The implementation of a comprehensive reform strategy takes a long time and results can be seen only after a number of years. Some Member States have pursued a long-term reform strategy and have succeeded in significantly reducing unemployment and, more importantly, structural unemployment. Box 3 describes the reform strategies of some of these countries.

⁶⁵ The first column is the inverse indicator of the usual net replacement rate in a case where the principal earner moves from unemployment benefit to full-time employment.

Box 3: Some examples of benefit reforms as a part of comprehensive labour market reforms

Denmark: *The groundwork for the existing labour market policies was laid with the reform of January 1994. It is based on the principles of flexibility and the free choice of instruments. While it offers individual guidance for training and employment and improved opportunities for further education and training, it sets clearer duties for job seekers. In 1994, eligibility conditions for unemployment benefit were tightened through the abolition of the right to regain entitlement to unemployment benefits via subsidised employment and participation in activation programmes. Until then, these programmes were often considered mainly as an “unemployment benefit generator”, that is, a way of prolonging the duration of benefits through renewal of entitlement. In the subsequent years, rights and duties concerning full-time activation were further introduced: in 1995 for those having spent 4 years in long-term unemployment; in 1996, for those having spent 2 years in unemployment; and in 1999, for all those unemployed for longer than 1 year. Furthermore, in 1999, rights and duties relating to activation were extended to all persons on social assistance: for those under the age of 30 who had been on social assistance for 3 months; and for those over 30 who had been on social assistance for less than 12 months. Requirements for young school leavers to access supplementary education and job availability requirements during participation in activation were tightened in 1996, and further strengthened in 1999. Access to transitional allowances (the so-called ‘after wage scheme’ which was available for the long-term unemployed aged over 50) was closed for new entrants in 1996. The duration of unemployment benefits was reduced for the first time in 1996, from 7 to 5 years, and further in 1999 from 5 to 4 years. Since 1996, unemployed youngsters under 25 without vocational education have been guided into ordinary youth education or special training schemes, which include eligibility for a daily allowance; a refusal to participate would lead to loss of the right to social benefits. The 1999 rules on early retirement pensions provided elderly workers with incentives to stay longer in the labour market. This took place through greater flexibility in combining work and early retirement.*

The Netherlands: *The Dutch policy to orient social security systems towards activation of labour supply and the objective of integrated policies can be traced back to the 1980s. In the late 1980s and early 1990s, the emphasis in benefit reforms was on the level of benefits; the gross unemployment benefit was reduced to 70% of the last earned income. In the early 1990s, disability criteria and requirements for accepting work when in receipt of disability benefits were tightened. In 1998, a premium differentiation for the disability benefit scheme was introduced and the reintegration of handicapped persons was promoted via subsidies to employers who recruit disabled people. Young people under 23 who register in employment offices or claim social benefits have been included in an integration plan for employment since 1992. The need for activation programmes for older unemployed workers is assessed and individual programmes are prepared according to three categories of distance from the labour market. In the unemployment benefit scheme, the employment condition (to become eligible for benefits) was tightened and the redundancy pay period was extended from 8 weeks to 6 months in the early 1990s. In 1999, older unemployed people over 57.5 years were obliged to accept a suitable job offer. Most recently, reforms have aimed at improving social security and employment services administration with a view to achieving a more integrated and transparent range of services with less bureaucracy and better data management, while outsourcing the reintegration task of employment services to the private sector and local authorities.*

A summary of the most recent benefit reforms for increasing employment incentives (Annex 2) indicates that the recent changes in benefit schemes have not been particularly comprehensive. In general, the reforms have been rather partial and can be characterised by steps into the right direction. The interaction between tax and benefit schemes has been addressed only in a few reforms such as the Finnish package of reforms to reduce wage floors and high marginal effective tax rates⁶⁶ and the French reform of housing benefits, housing taxes and social assistance (in 2001) targeted at the wage level close to the minimum wage.

Many partial reforms have provided support to active labour market programmes. They have been undertaken mainly through measures that produce additional benefits if one takes up a job or labour market training. To this end, the package has often included such measures as enabling workers to keep unemployment benefits or to have additional bonuses during training or back-to-work schemes (B, F, FIN, IRL) and transferring benefits or providing wage subsidies or exemptions of employers' social security contributions to the employer (B, E, EL, I, P, FIN, S, UK) when an unemployed person is recruited. Some countries (B, EL, P, Ös, FIN) have also made efforts to encourage part-time work instead of unemployment, mostly by means of loosening conditions for receiving part-time unemployment benefits.

Some Member States have already taken steps to tighten the control of eligibility criteria and to create a stricter link between rights and responsibilities, i.e. benefit entitlement is linked to requirements for appropriate labour market behaviour (active job search obligations, a stricter definition of "suitable work", participation in active labour market programmes). Consequently, it has become increasingly difficult for an unemployed person to turn down the offer of a job or a training programme without negative consequences for his/her entitlement to benefits.

The Netherlands has tightened the application of unemployment benefit sanctions since the mid-1980s. In 1996, legislation was introduced, according to which a voluntary quit or refusal of work or labour market participation makes the individual ineligible for benefits. The UK has also tightened job availability conditions since the mid-1980s, including a radical overhaul of benefit legislation in 1996. This legislation creates a framework for processes that define and monitor availability, job-search and compliance with employment services' instructions. Furthermore, in 1998, under the New Deal, participation in a labour market programme was made obligatory for all youth remaining unemployed after six months plus an additional four-month "gateway" period (OECD 2000c). More recently, Denmark and Finland introduced rules in their legislation on the responsibilities of unemployed persons especially for young unemployed persons, thus tightening the requirement to participate in active measures as a condition for maintaining eligibility for benefits. Denmark has made most progress in extending the right and duty to activation to people in receipt of social assistance. Finally, Sweden has increased requirements in terms of occupational and geographical mobility in

⁶⁶ The package of measures implemented in 1997-98 included measures in labour market support, housing benefits, social assistance, child care fees and tax credit granted to low earners with a view to reducing the wage floor and the very high marginal effective tax rates, and thereby incentives to work at the lower end of the wage scale. An evaluation study shows that these measures clearly improved incentives to work, resulting in a positive response in labour supply, which was estimated to have increased by around 30000 work years, i.e. around 1.5% of those employed in 1996 (Laine and Uusitalo (2001)).

unemployment insurance schemes, as well as tightening the rules concerning participation in active labour market programmes. The latter no longer qualifies participants for a new benefit period. In addition, the total period (including renewed periods) has been limited to 600 days.

On the other hand, reforms of the duration and the level of unemployment benefit schemes are very rare. Austria recently reduced the benefit level (in 2000) by introducing a unique replacement rate of 55%, which is increased for low income earners to an upper limit of 60% for single persons and 80% for those with dependant family members. In addition, the inflation adjustment of unemployment benefits has been abolished. Sweden introduced (in 2001) a reduction in the level of unemployment benefit after the first 100 days of benefit receipt. Denmark shortened (in 1997) the duration of benefits from 5 to 4 years, although this still remains one of the longest in the EU.

There has been some tendency to increase the use of employment-conditional benefits. The Working Families Tax Credit was introduced in the United Kingdom in 1999 (replacing the former Family Credit). A similar scheme was also introduced in Ireland. Moreover, a tax credit for low earnings was introduced in the Finnish tax scheme in 1996. Currently, Belgium, France and the Netherlands are introducing such schemes in their tax systems. These reforms, together with job subsidies, represent positive move towards active policies, while enhancing work incentives, reducing the risk of the unemployment trap and addressing the problem of the working poor. However, all in all, the shift from passive to active measures is not strong. Passive benefits remain important and the introduction of in-work benefits on a larger scale has not taken place. Moreover, many job subsidies, especially those in favour of the young and long-term unemployed, seem to provide only temporary help in terms of better incentives to work. It remains to be seen whether this is sufficient to keep these people in employment permanently or at least significantly longer than the period when the extra bonuses are paid.

It would appear that in reforming benefit systems, Member States seem to have been most determined to encourage older workers to stay longer in employment. Most countries have made efforts to make pension systems actuarially more neutral and encourage older people to stay longer in working life. Early retirement schemes have been reformed in Belgium, Denmark, Italy, Austria and Finland. These reforms have increased the early retirement ages and made early pension schemes less attractive. They have also allowed for more flexible combinations of part-time work and retirement and loosened “earnings tests”, which often precluded individuals from working while receiving a pension. Spain and Portugal have introduced reductions in pension rights if an early pension is taken and bonuses if one continues to work after the statutory retirement age. Germany has promoted part-time work, allowing older workers to halve their working time without high income losses. Some countries have also guaranteed the social security rights of older workers who take up a job at a lower wage than previously and have allowed them to keep their social security rights based on the previous higher wage.

5. CONCLUSIONS

Member States have made some progress in rendering tax and benefit systems more employment friendly and have started to ease the tax burden on labour as well as reducing high marginal tax rates. However, reform progress has been unequal between tax and benefit systems: the emphasis has clearly been on the tax side while benefit

reforms have mostly been relatively minor, without adequate attention to the interaction between tax and benefit schemes.

Regarding tax reforms, while the overall progress is positive, the results are mixed and the overall taxation on labour remains very high in many Member States by historical and international standards. In addition, social security contributions are very high in most Member States. High taxation is the mirror image of generous benefit and pension schemes because it provides the means to finance these schemes. As regards fiscal measures targeted at low-paid workers, many countries have taken steps to reduce taxes at the lower end of the earnings scale, notably employer's social security contributions. However, it is fair to say that results in terms of the reduction of the tax burden at the lower end of the wage scale are limited and, in most countries, tax reductions on labour have been general rather than targeted.

As far as benefit systems are concerned, the starting positions are characterised by relatively high net replacement rates of unemployment benefits and social assistance in most Member States, as well as by a long duration of entitlements in some countries. Given the overall generosity of different out-of-work benefit programmes, including unemployment insurance, social assistance, disability and early retirement schemes individuals face few economic incentives to take up employment at low wage levels in most countries.

The reform approach, which has the aim of improving work incentives in benefit schemes, has been rather piecemeal and narrowly focused, involving measures targeted at specific problems and social groups. Some reforms have been supportive of active labour market programmes and employment-conditional benefits, such as benefit transfers or wage subsidies for the hard-to-place unemployed persons or, more generally, in-work benefits or tax credits for all low-paid workers, have been introduced. However, the shift from passive to active measures is not strong. In unemployment benefit schemes, most changes have been made to eligibility rules, while changes in benefit levels and duration have been rare. Early retirement schemes have been addressed by most Member States with a view to encouraging older workers to prolong their working life, both by tightening the eligibility rules and providing more flexible arrangements to combine work and retirement.

In view of the goal of full employment, to which the Union and the Member States are committed, as well as the general intermediate targets and the special target for the employment rate of older workers set by the Stockholm European Council in March 2001, it has become more urgent to speed up reforms of tax and benefit systems in order to increase labour supply and reduce structural unemployment.

Further reforms aimed at making work pay should take a more comprehensive approach, reviewing the interaction between tax and benefit systems and their joint incentives to work. Moreover, more measures should be targeted at the lower end of the income scale. In addition, these measures should be carefully designed so as to reduce the unemployment trap while not creating excessive poverty traps for those already in work. In general, further efforts are needed to reduce the overall generosity of benefit schemes, including eligibility rules, and strengthening their interaction with active labour market policies with the aim of enhancing the efficiency of active policies. This strategy could help to move people from benefit dependency to work, while preserving an adequate level of social protection for those in need.

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ANNEX 1: - RECENT TAX REFORMS IN MEMBER STATES

	Personal income taxes	Social security contributions	Corporate and capital taxes	Consumption taxes	Others (Energy, environment)
B	<p>From 1999 onwards a full indexation of tax brackets has been restored.</p> <p>Gradual elimination of “complementary crisis levy”(CCC), by 2004.</p> <p>Reforms of PIT from 2002. Introduction of a refundable tax credit for low-paid workers.</p>	<p>Reduction of SSCs, especially for the low-paid in 2000 (lump sum reduction of SSC paid by employers and employees). Aligning of the regime for white-collar workers to that of blue-collar workers.</p>		<p>Lowering of VAT on labour-intensive services.</p>	
DK	<p>1998 tax reform (“Whitsun package”). Gradual reduction of marginal tax rates, in particular for low and middle-income earners (statutory tax rates down by 1 percentage point at the lowest and intermediate levels) The top rate will increase from 62% to 63 % (1999-2002). Average local government tax rate up by 0.8 pps.</p>	<p>The temporary contribution to ATP (Labour Market Supplementary Pension), corresponding to 1% of the wage bill was made permanent with effect from 1999. Increased contribution to early retirement scheme in 2001.</p>	<p>Corporate tax rate cuts (from 32% to 30%) in 2001, accompanied by stricter depreciation rules. Simplification of tax-rules on shareholdings for individuals. Introduced a 5% tax on stock-return to pension funds. Reduction of tax deductions for interest payments (1999-2001).</p>		<p>Gradual increase in energy taxes over 1999-2002.</p>
D	<p>Across-the board gradual reduction of income taxes: minimum marginal rate down from 25.9% in 1998 to 22.9% in 2000 and 15% in 2005; maximum rate down from 51% (2000) to 42% (2005). Minimum exempted income threshold will be raised.</p>	<p>Reduction of SSC to the pension system by 1 pp. between 1998 and 2000</p>	<p>From 2001, corporate tax rate cut to a uniform 25% (from 45% and 30% for non-distributed and distributed profits, respectively). No taxes on capital gains when shareholdings are sold between companies (from 2002 onwards).</p> <p>Local business tax of unincorporated firms credited against their income tax.</p>		<p>Ecological taxes, introduced in 1999, will gradually increase until 2003 to finance reductions in SSC.</p>

	Personal income taxes	Social security contributions	Corporate and capital taxes	Consumption taxes	Others (Energy, environment)
GR	<p>Increased income tax allowances, increase in tax credits for families with 3 children, abolition of presumptive criteria.</p> <p>Reduction of the highest tax rate from 45% to 42% (for income earned in 2001) and to 40% (for income earned in 2002).</p> <p>Indexation of tax brackets to the consumer price index, every two years starting from 2001.</p>	<p>Reduction of firm's taxable income by an amount equal to 50% of the pension contributions paid to newly hired. The measure will be in effect, initially, for the period 2000-2001.</p> <p>Reduction of employers' pension contributions (from 13.33% to 11.33%) for low-paid workers (up to about 125% of minimum wage).</p> <p>Abolition of employees' pension contributions for those paid at the minimum wage (2000).</p>	<p>Tax relief for venture capital.</p> <p>Reduction of the tax rate for non-listed companies from 40% to 37.5% for 2001 and to 35.0% for 2002.</p> <p>Abolition of the special tax on banking activities (2001).</p> <p>Reduction of the tax rate on stock exchange transactions from 0.6% to 0.3% (2001).</p>	<p>Lowering of VAT on labour-intensive services. Reduced VAT rate on electricity.</p> <p>Adjustment of indirect taxes on cars and heating oil to the average rates in the EU.</p>	
E	<p>Thorough reform of the personal income tax in 1999:</p> <p>A new single tax rate schedule was established; minimum and maximum marginal tax rates cut by 2 and 8 pps respectively. The concept of taxable income, which is obtained after the deduction of a tax-free personal allowance, was redefined.</p>	<p>General cuts in SSC for permanent contracts (0.2 pps for the employers and 0.05 for the employees in 2000).</p> <p>Targeted cuts in SSC for new permanent contracts since 1997.</p>	<p>No withholding tax on securities. Tax incentives for venture capital.</p> <p>Reduction of withholding tax on dividends</p>	<p>Lowering of VAT on labour-intensive services: hairdressers and small house repairs.</p>	
F	<p>Reforms of PIT between 2001 and 2003 with tax cuts focused on low income. Introduction of a refundable tax credit for low-paid workers ("prime pour l'emploi"), earning less than 140% of the SMIC.</p> <p>CSG ("contribution sociale généralisée") and CRDS ("contribution pour le remboursement de la dette sociale") will be gradually reduced in the next three years for workers earning up to 1.3 times the minimum wage.</p>	<p>Digressive reduction of employers' SSC at the lower end of the wage scale (in association with the reduction of the working week).</p> <p>Employers' and employees' unemployment insurance contributions gradually reduced from 6.18 in 2000 to 5.4 in 2003.</p>	<p>.Removal of the surcharge on corporate profits in 2000.</p> <p>Creation and extension of a tax to finance the reduction of the working week.</p> <p>Reduction of taxes on dwellings.</p> <p>Gradual reduction of corporate tax rates from 36.6% to 33.3% between 2001 and 2003.</p> <p>For small and medium companies, gradual reduction of the corporate tax rate to 15% in 2003 for the first 250,000 francs of gross operating surplus.</p>	<p>General cut in the VAT rate (1 percentage point)</p> <p>Reduced VAT rates on household repairs and services.</p> <p>Elimination of the "vignette" for non-business cars.</p>	<p>Progressive rises in environmental taxes.</p> <p>Reduction of excises on petrol products in some sectors.</p>

	Personal income taxes	Social security contributions	Corporate and capital taxes	Consumption taxes	Others (Energy, environment)
IRL	<p>Reduction of the standard (from 24% to 22%) and top rates (from 46% to 44%) in 2001. Increase in the standard rate band. Generalisation of standard-rating and increase in personal allowances.</p> <p>Gradual move towards individualisation of the standard rate band.</p>	<p>New National Training Fund Levy payable by employers from 2000 onwards. This is offset by cuts in the employer PRSI contribution rates (from 12% and 8.5% to 11.3% and 7.8%, respectively).</p>	<p>Reduction of the standard corporate rate from 28% in 1999 to 24% in 2000 and further to 12.5% by 2003.</p> <p>Housing market: introduction of a new anti-speculative tax of 2%.</p>	<p>Increase in indirect taxes on tobacco. Abolition of travel taxes on air and sea travels to overseas destinations in 2000.</p>	<p>Cut in excise duty on kerosene in 2000.</p>
I	<p>Across-the board tax reform in 1998: reduction of tax brackets from 7 to 5; increase in the minimum rate from 10 to 19%; decrease of the maximum rate from 51 to 46%. In 2000, reduction of the rate on the second bracket from 27 to 26%. Increase in allowances for poorer households. Further reduction in tax rates and increases in allowances in 2001-2003. Exemption of the imputed income of owner occupied dwellings (2001).</p>	<p>Total SSC relief for new jobs in the South introduced in 1999 for a duration of three years. SSC rebates at the lower end of the wage scale.</p> <p>SSC cuts: 0.82% in 1999, 0.70% in 2000, additional cuts planned for 2001. Increase (0.5%) in self-employed SSCs (2001).</p>	<p>In 1998, introduction of a regional tax on production activities (IRAP) with a flat rate of 4.25% and Dual Income tax (DIT). DIT initially applied only to corporate taxpayers; in 2000 extended to insurance and banking and implementation accelerated; further extension to other types of businesses planned in 2001. Reorganisation of tax rules on capital gains in 1998, broadening tax base and reducing rates to two (12.5% and 27%); further fine-tuning in 2001.</p>	<p>Following the 1998 tax reform, increase in the minimum VAT rate to 20%, intermediate VAT rate of 16% abolished. In 1999, reduction of VAT on labour-intensive services (home renovation, etc.), measure extended to 2000.</p>	<p>Some excise duties were reclassified as CO2 taxes in 1999. The CO2 tax was suspended temporarily in 2000. Possible freeze also in 2001.</p>
L	<p>Reduction in tax brackets from 16 to 14 in 2001. Marginal rates cut by 2 pps (2001) and 4 pps (2002), thereby reducing the lower rate to 10% and the top rate to 38% in 2002. Increase (+45%) in the minimum level of taxable income.</p>		<p>Planned reduction of the effective taxation of business from 37.5% to 30% in 2002. Elimination of the local business tax.</p>	<p>Reduced VAT rates on some labour-intensive services.</p>	

	Personal income taxes	Social security contributions	Corporate and capital taxes	Consumption taxes	Others (Energy, environment)
NL	<p>Reduction of direct taxes on all income brackets by 2001. Top rate down from 60% to 52%, intermediate rate down from 50% to 42%, lower rate down from 33.9% to 32.2%. Changes in the tax brackets. Increase in the minimum level of exempted income.</p> <p>Introduction of an employment tax credit to employees and self-employed (max 920 euro for income levels higher than minimum wage).</p>	Reduction of SSC for workers aged above 65.	In 2001, a tax on presumptive capital income with a flat 30% tax rate on imputed rate of return of 4% (equivalent to a net wealth tax levied at a rate of 1.2%) replaced the existing tax on net wealth and the progressive tax on actual personal capital income (interest, dividend, rental income).	The standard VAT rate raised from 17.5% to 19% (2001).	Increase in environmental levies.
P	<p>Conversion of deductible allowances into tax credits (since 1999).</p> <p>In 2001: general reduction of tax rates; spouses can be taxed separately; more favourable tax credits for savings, housing, health and education expenses.</p> <p>New simplified regime for the self-employed.</p>	<p>Harmonisation of SSC for the self-employed and employed.</p> <p>Exemption or reduction of employers' SSCs for recruiting young people, long-term unemployed or people with disability (2001)</p>	<p>Reduction of tax rates on firms' profits (from 32% in 2000 to 30% in 2002 and 25% in 2006)</p> <p>Introduction of a simplified regime for small firms (volume sales below 150,000 euro –20% tax rates). Elimination of double taxation on dividends.</p> <p>Increased tax credits for R&D related investments.</p>	Reduced VAT on some labour-intensive services.	<p>Review of the subsidised mortgage-lending scheme to favour housing investment during downturns.</p> <p>Environmental tax reform presented to the Parliament (2001).</p>

	Personal income taxes	Social security contributions	Corporate and capital taxes	Consumption taxes	Others (Energy, environment)
A	Increase in family allowances. Reduction of tax rates on low and middle incomes planned for 2003.	The pension contributions made by active and retired civil servants increased by 0.8% in 2001. Increase in pension contributions of farmers and self-employed. Employers' unemployment contributions for newly hired person aged over 50 abolished.	Assistance for business start-ups. Reduction of taxes on business transfers. Cut in tax deductions and privileges in 2001-2002.	Increase in tobacco and vehicle insurance taxes in 2000.	Increase of electricity tax
FIN	Rates reduced by 1.7 pps since 1997. Cumulative reductions for 2000-2001 for all income brackets, but lower incomes targeted through the abolition of the lowest income tax bracket. Increase in the earned income tax credit in both State (2001) and municipal taxation (2002).	Downward adjustment of employers' and employees' social contributions to unemployment, health care and pensions schemes.	Rates increased from 28 to 29% in 2000.	Taxes and duties on cars, alcohol and tobacco may be reduced in the medium term as trade restriction exemptions related to EU accession expire.	Increase of energy and environmental taxes.
S	Reduction of tax rates on low and middle incomes in 1999. The limit for national income tax was raised (thus, the proportion of income earners paying national tax is expected to fall to 15%). Further reductions planned for 2002-2003.	Neutral revision of employers' SSC: Old age retirement fees up by 3.8 pps to 10.21%; health insurance fees up by 1 pps. General wage fees down by 4.95 pps. Tax rebate of 25 per cent of the employees' contribution from 2000 and of 50% from 2001.	Reductions in corporate taxes in 2000. Coupon tax on dividends to foreign companies partly abolished in 2000. New tax relief in 2000-2001.	Taxes and duties on alcohol and tobacco will be reduced because of expiration, in 2004, of exemptions related to EU membership. Reduction in VAT rate (from 12% to 6%) on domestic air travel and public transport (2001).	Increase in energy taxes on diesel oil and electricity from nuclear power in 2000.

	Personal income taxes	Social security contributions	Corporate and capital taxes	Consumption taxes	Others (Energy, environment)
UK	<p>The more generous Working Families Tax Credit (WFTC) replaced the Family credit (2000). Employment Tax Credit (ETC) extending the principle of WFTC to workers without children from 2003.</p> <p>Introduction of a means-tested Children's Tax Credit (2001). Lowering of income tax rates: starting tax rate down from 20% to 10% on the first £1520 of taxable income. Basic rate down from 23% to 22%. Abolition of the married couple's income tax allowance (2000). Widening of the bottom 10% tax band (2001).</p>	<p>Abolition of the National Income Charges (NICs) entry fee.</p> <p>Increase in the threshold above which employees pay NICs.</p> <p>Reduction in the employers' NIC rate by 0.3% and 0.1% in 2001 and 2002 respectively.</p>	<p>Capital gains tax reform. Permanent first year capital allowances for SMEs at 40%.</p> <p>Increases in stamp duty on property transfers above £250,000.</p>	<p>5% real increase in tobacco duty (2000)</p>	<p>Levy on aggregates.</p> <p>Introduction of graduated vehicle excise duty for new cars from 2001.</p> <p>Introduction of a climate change levy (2001).</p>

Sources: EC, *Public Finances in EMU-2000*; *MSs' update of stability programmes, 1999-200*; *Joint Employment Report 2000 (2000-07-28)*; *National Action Plans for Employment 1998-2001*.

ANNEX 2: - BENEFIT SYSTEM REFORMS FOR INCREASING EMPLOYMENT INCENTIVES IN MEMBER STATES

	Unemployment benefits: benefit level, duration, eligibility and job availability rules	Means-tested schemes: housing allowances, social assistance, child care subsidies	Older workers : disability, early retirement schemes	Employment-conditional benefits	Employment subsidies
B	<p>Introducing an allowance for training attendance for young job seekers (1999).</p> <p>Adapting unempl. benefit rules to take into account new provisions related to temporary unempl. and voluntary work (1999).</p> <p>Modifying the rules (more flexibility and simplicity) regulating the application of benefit sanctions in the UI schemes (2000).</p>		<p>Increasing the minimum age (to 58 years) for full-time early retirement and extending part-time early retirement schemes (1999).</p> <p>Increasing incentives for employers to keep older workers longer in work through reductions in SSCs (2000).</p> <p>Older unemployed who take up a job at lower wages than before are entitled to keep their social security rights based on previous better wages (2000).</p>	<p>Introducing an income support threshold for employed under back-to-work scheme (1998).</p> <p>Enabling workers in back-to-work scheme and young persons in training to receive allowances paid from UI (1998).</p> <p>Providing lump-sum payments to long-term unemployed, lone parents or compensate for moving costs when taking up jobs (1999).</p> <p>Introducing in-work tax credit concentrated on low wages (2000).</p>	<p>Transferring unemp. benefits to employers for promoting hiring of long-term and other unemployed and exempting the whole salary from SSC payments (1999).</p> <p>5 years of reduction of employers' SSCs for hiring unemployed aged 45 or above (2000).</p>
DK	<p>Reduction of the duration of unemployment benefit from 5 to 4 years (1999)</p> <p>Strengthening of job availability requirements (1999).</p>	<p>Tightening the eligibility rule on "guaranteed minimum (social assistance)" for under 25s (1998).</p> <p>Extension of the right and duty to activation to all people in receipt of social assistance (1999)</p>	<p>Modifying the early retirement law to be less attractive for under 62s and increasing incentives to remain longer in working life through a more flexible combinations of retirement and part-time work (1999).</p> <p>Softening the reduction of the basic pension when pensioners have earnings from professional activity (1999).</p>		

	Unemployment benefits: benefit level, duration, eligibility and job availability rules	Means-tested schemes: housing allowances, social assistance, child care subsidies	Older workers : disability, early retirement schemes	Employment-conditional benefits	Employment subsidies
D	Making the unemployed eligible for active measures (subsidised jobs) after 6 months (instead of 12 months) (1999).	Increase in child allowance (1999). After ruling of constitutional court, increase of unemployment benefits (2000). Tighter means-testing of the part-time work in the social security system (so-called 630 DM law), (99).	Promoting empl. of those aged 50 and above for a period of up to 5 years in New Länder and regions with high unempl. (1999). Introducing the “Act on Part-time Work in Old Age” allowing older workers to halve their working time without high-income losses (2000).		
EL	Extending subsidies to unemployed aged over 20 for encouraging training and job search in a fixed-term program (1998-2000). Increasing the level of UB for persons in their 2 nd year of unemployment (2001)	Extension of provision of social housing to unemployed (2001). Rent subsidies for certain categories of LTU (2001)	Early pensions for workers in hazardous occupations (2001)	Providing an income subsidy for a period of up to one year to the previously long-term unemployed when taking up a part-time job, at least 4 hours a day (2001). Subsidy to LTU aged 45-65 to take up jobs (2001).	
E		Extending parental leave with a right of transferring 10 weeks to the father and drawing up rules for work contract termination to avoid dismissal due to pregnancy and family-care leaves (1999)	Introducing a reduction in pension rights if an early pension is taken up, and allowing over-65s to draw a pension and continue working, with no employer’s SSC due (2001).	The Active Job Finding Programme links receipt of benefits to participation in active programmes for long-term unemployed and those over 45 years of age with very low incomes (extended in 2001).	Providing bonuses and incentives for recruiting young (under 30), older (45 or more) or long-term unemployed persons (1999), extended to certain other groups in 2001
F	Revision of UI scheme including reductions in contributions, enhanced assistance in job search, loosened eligibility requirements for benefits and elimination of reductions of benefits over time (2001).	Adjusting the housing benefit scheme (and housing taxes) to reduce marginal effective tax rates at or close to the minimum wage level (2001).	Tightening rules for making elderly employees redundant by increasing fine for lay-offs of over 50s (1999).	Enabling workers to keep certain allowances during the first 12 months of regular empl. (1999).	

	Unemployment benefits: benefit level, duration, eligibility and job availability rules	Means-tested schemes: housing allowances, social assistance, child care subsidies	Older workers : disability, early retirement schemes	Employment-conditional benefits	Employment subsidies
IRL		<p>Allowing the retention of the Rent and Mortgage Supplement for those who are in the Community Employment Scheme, Back to Work Allowance Scheme and Revenue Job Assist (1999).</p> <p>Introducing a national minimum wage (2000)</p>		<p>Extending Back-to-Work Allowance to long-term unemployed taking up self-empl. (1998)</p> <p>Enhancing Back to Work Scheme (e.g., travel allowance, bonus for starting training, 1999).</p>	
I	<p>Increasing the level of unemployment benefit from 30 to 40% of the reference wage (2000).</p> <p>Lengthening the duration of UB from 6 to 9 months for the over-50s (2000).</p>		<p>Speeding up the increase of retirement age from 53 to 57 as from 2002, instead of 2008 (1998).</p> <p>Exemption of SSCs for people with a seniority pension entering a temporary contract for at least two years (2000).</p> <p>No reduction of the basic pension when pensioners (with at least 40 years of paid contributions) have additional earnings from work activity (2000).</p>		<p>Three-year tax rebates (tax credit) to employers for promoting hiring on permanent contracts (2000).</p> <p>Exemption of SSCs to employers for promoting hiring of long-term unemployed (2000).</p>
L		<p>Introducing parental leave and leave on family grounds with a guarantee of re-employment (1999).</p>			
NL	<p>Tightening job availability for the unemployed aged over 57.5 years (1999)</p>	<p>Setting up scheme for expanding child care facilities (1999).</p>			<p>Occupationally Handicapped Reintegration Act for promoting employment of persons with disability (1998).</p> <p>Introducing premium differentiation for the first 6 months of unempl. benefits to discourage short-term/seasonal employment.</p>

	Unemployment benefits: benefit level, duration, eligibility and job availability rules	Means-tested schemes: housing allowances, social assistance, child care subsidies	Older workers : disability, early retirement schemes	Employment-conditional benefits	Employment subsidies
P	Creating a partial unempl. benefit to promote part-time jobs (1999).		Old-age pension has been reduced in cases of early retirement and a bonus is paid out for those who continue to work after reaching 65 years (2000).		Establishing an exemption from payment of contributions for recruiting unemployed (targeted to youth, LTU and people with disabilities) (1999).
A	Deducting only a portion of income from temporary work from unempl. benefit/assistance (1998). Abolition of inflation adjustment of UB. Introduction of a unique replacement rate of 55%, which is increased for low income earners to an upper limit of 60% for single persons and 80% for the those with dependent family members (2000).		Introducing allowances for elderly workers taking up part-time jobs (2000-2001). Increasing the statutory early retirement age by 18 months by the end of 2002 and introducing the discounting factor of 2 pps/year in case of early retirement in 2000, to be raised to 3 pps/year in 2001.		
FIN	Improving partial unempl. benefits for taking up part-time jobs (1997). Tightening of empl. conditions from 6 months to 10 months for insurance-based unempl. benefit (1997). Increasing the age from 55 to 57 for elderly long-term unemployed to be entitled to prolonged unemployment benefit (1997).	Modifying the Social Assistance and housing allowance schemes to reduce the wage floor (1998).	Providing a safeguarded pension amount for those taking up lower paid jobs (1998). Cutting unempl. pension by 4% and raising early retirement age from 58 to 60 (2000). Increasing employers' responsibilities for unempl. & disability pension costs (2000).	Introducing a travel grant for hard-to-place unemployed persons receiving labour market support if they take up a job (2001).	Providing subsidies to employers to hire long-term unemployed (1997).

	Unemployment benefits: benefit level, duration, eligibility and job availability rules	Means-tested schemes: housing allowances, social assistance, child care subsidies	Older workers : disability, early retirement schemes	Employment-conditional benefits	Employment subsidies
S	<p>Increasing requirements in terms of occupational and geographical mobility in the unemployment insurance scheme (2000).</p> <p>Introducing a reduction in the level of UB after the first 100 days of benefit receipt (2001).</p> <p>Tightening the eligibility rules of UB: participation in ALMPs does not qualify for a new benefit period and the total period of UB is limited to 600 work days (2001).</p>		<p>Providing employer tax reductions corresponding to 75% of wage costs over 2 years for recruiting LTUs aged 57 or older (2000)</p> <p>.</p>		<p>Providing employers tax reductions for hiring long-term unemployed (1999).</p>
UK	<p>Introducing a work-focused interview to benefit system (ONE, 1999)</p> <p>Childless couples born after 1/10/75 are required to make a joint claim for the job seeker's allowance (1999).</p>		<p>Providing the tax-free allowance and in-work training grant for unemployed aged 50 or over as a New Deal initiative (2000).</p>	<p>Linking the receipt of benefits more strictly to participation in New Deal initiatives for all unemployed persons aged 25+.</p> <p>Providing employment subsidies for those aged 25+ and participating in New Deal (2000)</p> <p>Introducing tax credits for families with children and disabled to provide guaranteed minimum income when employed (1999).</p>	<p>Offering subsidy to cover payments up to 6 months (and training costs for taking on young unemployed) for hiring those in the New Deal initiatives.</p>

Sources: *Joint Employment Report 2000* (2000-07-28); *MISSOC INFO: Evolution of social protection in the Member States of the European Union* (2/99 and 2/2000, DG EMPL); *National Action Plans for Employment 1998, 1999, 2000 and 2001*.

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