

Chapter 3

Increasing Financial Incentives to Work: The Role of In-work Benefits

Ensuring that the provision of welfare benefits is consistent with work incentives has become a major policy priority in many OECD countries. One way to achieve this is through the introduction of in-work benefits and, more generally, tax-benefit reforms aiming at making work pay vis-à-vis benefit receipt. To what extent do measures that raise the financial incentives to work increase employment chances of unemployed and inactive individuals? How to ensure that in-work benefits do not end up creating low-pay traps? Under what conditions are in-work benefits cost-effective? How should they be complemented with other policies, like active labour market programmes and minimum wages, and how prominently should they figure in a job strategy?

Introduction

Over the past few years there has been much discussion in many OECD countries of how to put into place benefit systems that provide adequate income protection to those individuals and families that are not able to support themselves financially, while also maintaining work incentives. There has also been debate on how to improve incentives for individuals in part-time or low-paid work to increase their hours of work or to invest in training that would increase their chances of getting higher-paid jobs. Improving these incentives and facilitating the return to self-sufficiency of benefit recipients is important because the risk of long-term poverty is much higher for jobless individuals on benefits than for continuously employed people. Moreover, the cost of safety nets to budget-constrained governments reinforces the need to help people – who can – get back into work.

Lower out-of-work benefits would improve the gap between labour incomes and unemployment or inactivity benefits, but would do so at the cost of an increased risk of poverty for those families and individuals who are not working. Therefore, the challenge is often to design benefits in a way that they facilitate the return to self-sufficiency of recipients – rather than simply cutting the level of benefits. A strategy that pursues poverty reduction as well as promoting the return to employment would indeed maximize social welfare.

The importance of policies that allow the pursuit of this balanced approach was highlighted in the OECD Jobs Strategy which recognised that “in most OECD countries, a satisfactory level of individual or family income are deeply rooted values”, hence the need to “consider how to remove disincentives (to economic growth) without harming the degree of social protection that it is each society’s wish to provide”. Since the OECD Jobs Strategy recommendations were first issued in 1994, governments have increasingly introduced in-work benefits aimed at encouraging self-sufficiency through work. In-work benefits are welfare schemes designed to provide income supplement to needy families or individuals on the condition that they work. They are a specific type of make-work-pay policies – the other one being the reduction in social security contributions, an issue not treated in this chapter.

The impact of tax and benefit systems on financial incentives to work was previously addressed in OECD (2004a). This chapter attempts to go a step forward by drawing the link between such financial incentives and actual employment outcomes. Furthermore, in addition to documenting those programmes that OECD governments have put in place to make work pay (OECD, 2003), it contains a more thorough analysis of specific design features to ensure that in-work benefits are effective. Finally, the chapter acknowledges the importance of improving financial incentives to work as a component of a more comprehensive employment strategy including affordable childcare structures and effective active labour market policies. A suitably-set minimum wage is also an option which can be considered in order to ensure that in-work benefits fulfil their objective of supporting labour market participation.

Section 1 looks at how taxes and benefits shape work incentives. It also analyses the possible links between financial incentives and a) re-employment probabilities for unemployed or inactive individuals; and b) the probability that part-timers move to full-time

work. Section 2 focuses on how in-work benefits are used across OECD countries and shows how the various programmes influence the financial returns to work. Section 3 discusses design issues and interactions with other labour market policy tools. Finally, the chapter considers the relevance of these findings for the reassessment of the OECD Jobs Strategy.

Main findings

- Financial incentives to work are often relatively weak for single parents and one-earner families with children on welfare. Because of the structure of tax and benefit systems in most OECD countries, these groups tend to face reduced incentives upon their return to work after a period of unemployment or inactivity. In addition, for those low-income individuals who have a job, working longer hours or earning higher wages often entails little additional net income. Disincentives are also particularly strong for unemployed individuals with low potential earnings, especially if they face the prospect of returning to work at a salary lower than the one earned in their previous job.
- Financial incentives to work are found to play a role in labour market transitions. In line with other studies, the analysis conducted for the purposes of the chapter finds moderate labour market effects of marginal effective tax rates (a comprehensive measure of the extent to which work is financially rewarding). Indeed, a reduction of marginal effective tax rates by 20% (which is what some of the most ambitious reforms have tried to achieve) implies a rise in the probability of moving from unemployment to employment by nearly 10%, i.e. from 45% to 49%. The strongest effects are found for the unemployed with a working partner, whose re-employment probability would increase by seven percentage points, from 51% to nearly 58%. The evidence on transitions from inactivity to work is more mixed. Significant effects are found for single women only: for this group, the probability to move from inactivity to work would increase by almost 13%. Finally, the reduction in marginal effective tax rates is also found to encourage transitions from part-time to full-time work or promote moves to higher-paid jobs, especially for second earners in couples without children. These findings require further scrutiny based on refined empirical techniques. They suggest, however, that measures that raise financial incentives to work are one tool to increase labour supply.
- Financial incentives to work can be improved by either cutting welfare benefit levels, or introducing in-work benefits while leaving benefit levels unchanged. A policy of no welfare would be the best solution to maximize labour supply, if equity issues were not a concern. Indeed, in-work benefits have a positive effect on incentives at low income levels; but as they are withdrawn, they tend to affect the financial returns to work at higher income ranges. Nevertheless, distributional issues are a primary concern when designing policies to help people return to self-sufficiency through work and, in this context, studies show that in-work benefits can maximize social welfare
- In-work benefit programmes have recently been introduced by several OECD governments as a means of raising the financial returns to working. These programmes vary widely in terms of characteristics such as the generosity and the income level and rate at which benefits are withdrawn. In this respect, only in-work benefit programmes that have a sufficiently large impact on financial incentives to work are likely to translate into potentially significant increases in employment rates. When in-work benefit levels are very low, they are unlikely to have much impact on employment outcomes. On the

other hand, generosity has to be accompanied by narrow targeting in order to channel help to the neediest families and keep programme costs within reasonable limits.

- In-work benefits should be designed to reduce deadweight losses, arising from the fact that some beneficiaries would have found a job (or increased work effort), even in the absence of the scheme. Well-designed targeting, as well as conditions on the number of hours-worked to become eligible are effective responses to this concern.
- The level of in-work benefits and phasing-out rates (*i.e.* the speed at which benefits are withdrawn as incomes rise) should be set depending on the objective that governments want to achieve. If the main objective is that of getting individuals into work, a moderate benefit withdrawn at relatively low rates may be most appropriate. However, this implies that benefits will continue to be paid at relatively high levels of income, creating some disincentive effects higher up in the earnings distribution. As a result, a government which is more concerned about the incentives for career advancement or longer working hours of those who are already in work would chose higher benefit levels and a faster phasing-out rate. In addition, by putting a time limit to the receipt of in-work benefits, there may be an incentive for recipients to become fully self-sufficient.
- In-work benefits are most effective when the scheme is made widely known to the target group and administrative procedures to receive in-work benefits are not excessively bureaucratic. The system should also be responsive to changes in family needs. In this respect, integration with the tax system and payment through the wage package could be an improvement for recipients, and a cost-saving solution for governments.
- In-work benefits should not be seen in isolation but rather as one component of a comprehensive strategy to help the transition from welfare to work. The provision of childcare subsidies would be an appropriate accompanying policy, particularly for single parents and spouses with children. In addition, under certain conditions, a minimum wage, set at an appropriate level, can be one of the options to prevent employers from pocketing the earnings subsidy introduced by these programmes. And, effective active labour market policies are necessary to help people find jobs. The precise nature and impact of these policy interactions will be further examined as part of the reassessment of the OECD Jobs Strategy.

1. Financial incentives to work and their impact on employment transitions

Quantifying the combined effects of taxes and benefits on the financial incentives to obtain employment, work longer hours, or move to higher-paid jobs is a very complex task. Measures based solely on average taxes and social security contributions – such as tax wedges – present a partial picture of the difference between *gross* and *net* income. A more dynamic framework is needed in order to understand how changes in gross earnings translate into changes in net (*i.e.* take-home) pay for certain groups. For example, benefit withdrawal rules – which arise from the fact that benefits are usually means-tested and are reduced once income passes a certain threshold – can have a significant impact on the financial attractiveness of low-paid jobs by reducing the part of any employment income that adds to total family income. Hence, the interactions between the tax and benefit systems must be taken into account in any cross-country comparisons of the financial incentives to work.

A measure of marginal taxation that accounts for benefit withdrawals has been constructed since 2001 by OECD (see OECD, 2004a; and Carone *et al.*, 2004). Marginal effective tax rates (METRs) measure how much of a given change in gross earnings, is taxed away through income tax, social security contributions and benefit withdrawals.¹ The

benefits that are taken into account in available estimates of METRs include social assistance, unemployment, housing, family and in-work benefits.²

A. A picture of financial incentives to work across countries and family types

Given the complexity of tax and benefit systems, and the fact that benefit entitlement rules may change depending on the pre-employment status of the recipient, it is useful to calculate the impact of tax and benefit systems on the incentives to move a) from unemployment to work; b) from inactivity to work; and c) from low-wage employment to higher wage employment. Box 3.1, adapted from Carone et al. (2004), describes the logic behind these measures in more detail.

Box 3.1. A taxonomy of benefit traps

The “*low-wage trap*” (or “*poverty trap*”) is related to the financial consequences of increasing working hours (or moving into higher-paid employment) for those already in low-paid work. The “trap” refers to a situation where an increase in gross earnings fails to translate into a net income increase that is felt by the individual to be a sufficient return for the additional effort. The combination of income taxes, social security contributions and benefits withdrawal may “tax away” all or a large part of any wage gain. The influence of taxes will be more relevant for earners of higher wages (and low-wage earners with high-wage spouses in joint tax systems). Yet, due to the withdrawal of income-tested benefits and the operation of earnings thresholds for the payment of employee social security contributions, the part of any wage increases that are taxed away at low earnings is often much higher than at average and high income levels.

The term “*unemployment trap*” is frequently used to refer to a situation where benefits paid to the unemployed and their families are high relative to net income from work. While the judgment whether work “pays” is to some extent subjective and depends on many factors, tax-benefit systems will play an important role. Unemployment benefit systems provide income security during unemployment and contribute to a more efficient match between workers and jobs. Yet, at the same time, out-of-work benefits can discourage job search and put upward pressure on wage levels.

The “*inactivity trap*” is a situation similar to the unemployment trap except that it applies to people of working-age not receiving any unemployment benefits. For these individuals, a situation where employment is judged not to “pay” may be brought about by minimum income or other income-related benefits which would be lost upon taking up paid work. However, the tax system may also have an important deterrent effect, which can be particularly relevant for partners or spouses of working individuals: if their incomes are taxed jointly, any potential earnings of the currently “inactive” partner may be taxed at relatively high rates, and may thus reduce the net gain from work. Together, benefits and taxes can effectively create a wage floor below which a transition into employment does not bring any financial gain to the household in the short term.

Tax-benefit instruments may have different effects on the various types of “traps”. For instance, typical employment-conditional benefit schemes reduce the likelihood of “unemployment” or “inactivity traps”. However, they also tend to increase marginal tax rates at relatively low earnings levels, due to the phasing out of in-work benefits. In terms of their potential effect on labour supply, these instruments therefore trade off higher participation against lower working hours of certain groups already in work. Given such trade-offs, it is essential to monitor the financial consequences of both participation and working hours’ decisions.

Assessing the size of the three benefit traps identified in Box 3.1, should help identify countries and demographic groups which are most subject to reduced financial incentives to work, i.e. high METRs. These indicators should also shed light on the extent to which benefit withdrawals affect METRs. These issues are addressed in the rest of this section.

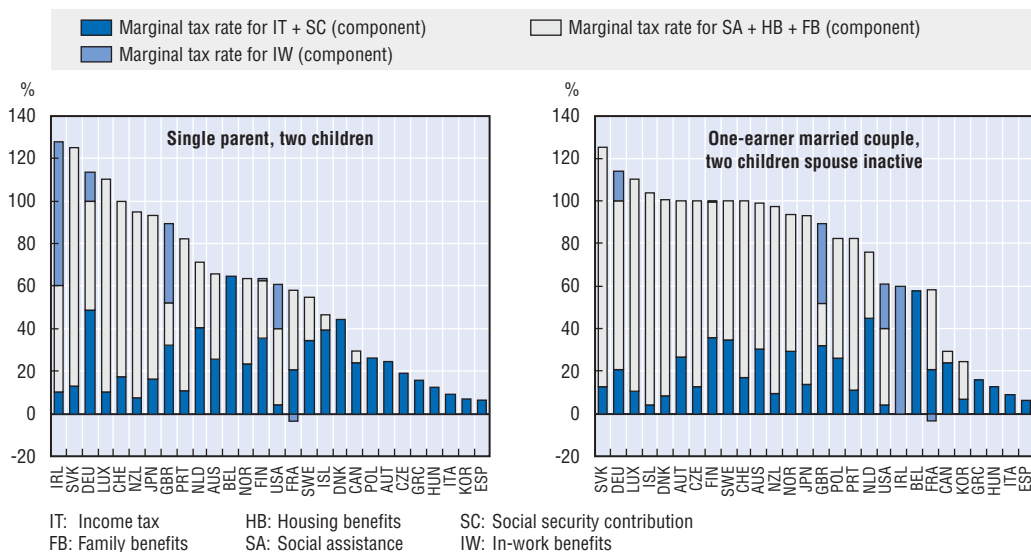
Single parents and one-earner families are sometimes subject to low-wage traps...

First, an indicator of low-wage traps is considered. Chart 3.1 shows METRs for six different household types, where the reference individual faces a rise in gross earnings of 10% (from 50% of the average production wage to 55%). Two striking facts emerge. First, two-earner couples – with or without children – face the lowest METRs (see Chart 3.A1.1). In most countries, they are able to retain more than 60% of the increase in gross earnings. This is mainly due to the fact that two-earner couples typically receive low (if any) welfare benefits in the first instance, and thus the impact of benefit withdrawal resulting from higher earnings is small. Indeed, in most cases, METRs for two-earner couples are determined by personal income taxes and social security contributions alone. Except for some countries – notably Finland, Luxembourg, the Netherlands and the United Kingdom – this is also true for single individuals with no children.

Second, the effect of benefit withdrawal rules, and their interaction with taxes, can be significant for single parents and one-earner families. It is often the phasing out of social assistance, as well as family and housing benefits that brings METRs close to 100%, particularly for families with one earner and two dependent children. In countries where in-work benefits exist, these benefits appear to raise METRs further. In fact, while playing a major role to make work pay for those who are not employed, in-work benefits are also a disincentive to increase work effort for those who are close to the phasing-out range.³

Chart 3.1. How much of a 10% wage increase is taxed away?

Low-wage trap indicator: decomposition of the marginal effective tax rate (increase from 50 to 55% of the APW), 2002



Note: The chart shows how much of a given rise in earnings is taken away in the form of higher tax and lower welfare benefits. For example, a value of 100 for the indicator shows that a 10% wage increase leads to no additional net income.

Source: OECD tax-benefits models.

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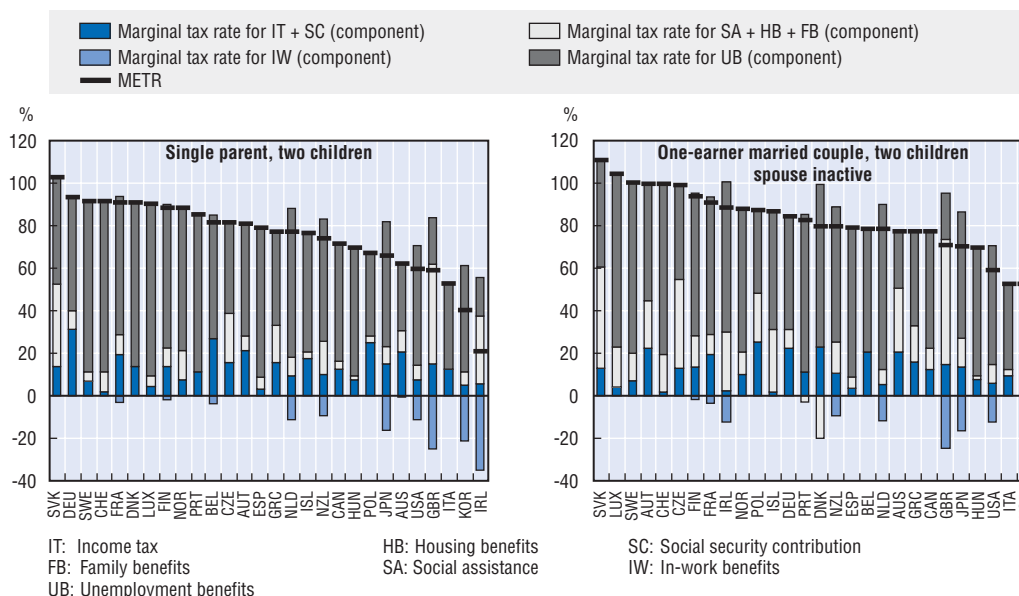
High METRs may also discourage the move from part-time to full-time employment. Annex Chart 3.A1.2 shows that this is particularly the case for one-earner families with two children in Finland, the Slovak Republic, and the United Kingdom, where METRs can exceed 80%. In addition, the tax and benefit systems in Australia, Ireland, New Zealand and the United Kingdom tend to provide single parents with low financial incentives to move to full-time work. For instance, in the United Kingdom, in-work benefits are paid starting from 15 hours worked per week and are gradually withdrawn as income exceeds a certain threshold. In other countries, high METRs are mostly due to the complete withdrawal of social assistance when income exceeds a certain threshold.

... and, when affected by unemployment or inactivity, many find it financially uninteresting to go back to work

As is well known, the level of unemployment benefits (and their withdrawal upon return to employment) tends to reduce the financial incentives to return to work. In particular for couples with two children and only one potential earner – the unemployed individual – the implicit tax rate on accepting a job offer at the same salary as before unemployment (set at 67% of APW in the chart)⁴ is very high, in most cases exceeding 80% (see Chart 3.2). This appears to be due not only to the withdrawal of unemployment benefits but also to the phasing out of additional social assistance to which this household type may be entitled to. A very similar situation can be observed for single parents and one-earner childless couples, although METRs tend to be slightly lower than is the case with unemployment benefit recipients. Other groups, although still facing high METRs, are still

Chart 3.2. Is work financially attractive compared with unemployment and other non-employment benefits?

Unemployment trap indicator: decomposition of the METR moving from unemployment to full-time work at wage level = 67% APW (wage before unemployment = 67% APW), 2002



Note: The chart shows how much of the wage earned following a move to work from unemployment is taken away in the form of taxes and lower welfare benefits. For example, a value of 100 for the indicator shows that moving from unemployment to work leads to no additional net income. A value bigger than 100 indicates that net earnings in work are less than total out-of-work benefits.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/857677552175>

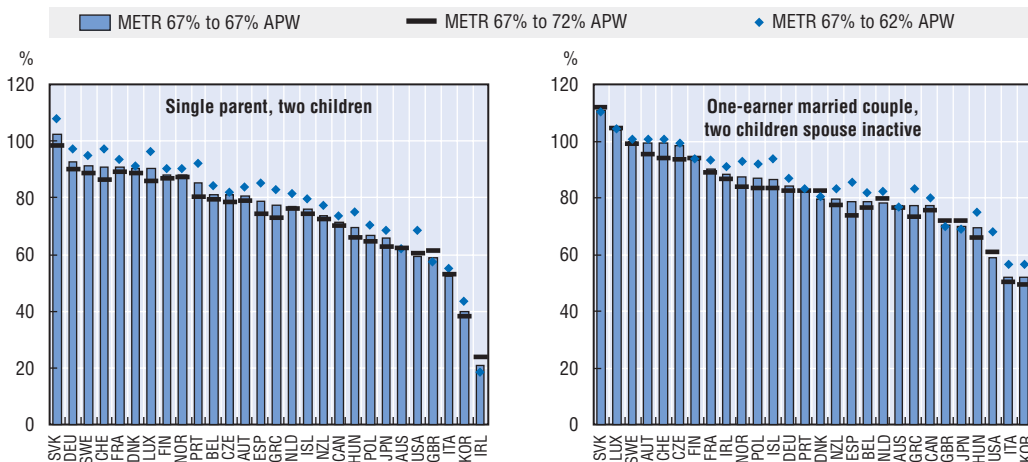
financially better off when moving from unemployment to employment (see Annex Chart 3.A1.3). This derives from the fact that, in most countries, they are not entitled to social assistance when out of work and are, therefore, not affected by benefit withdrawal once they return to employment.⁵

In-work benefits play a double-edge role. While they may reduce incentives to work longer hours or earn more for those individuals already in work, they add to the attractiveness of returning to work for those who are unemployed or inactive. This is particularly true for families with children who are most often the target of government initiatives (Chart 3.2).

The transition from unemployment to work becomes even less financially attractive when the new job pays less than the salary earned before unemployment. This is due to the fact that, in many countries, unemployment benefits are set as a per cent of the last salary. On the other hand, as Chart 3.3 shows, METRs decrease as the post-unemployment wage rises.⁶ This suggests that activation policies that help individuals get better quality jobs, e.g. by providing training that increases their skill level, will help make work more financially attractive to the unemployed.

Chart 3.3. Reduced earnings prospects after unemployment may make work less attractive

METRs when moving back to work at wage levels = 67%, 72% and 62% APW,
with previous earnings = 67% APW, 2002



Note: The chart shows how much of the wage earned following a move to work from unemployment is taken away in the form of taxes and lower welfare benefits, for different levels of re-employment earnings.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/565886074178>

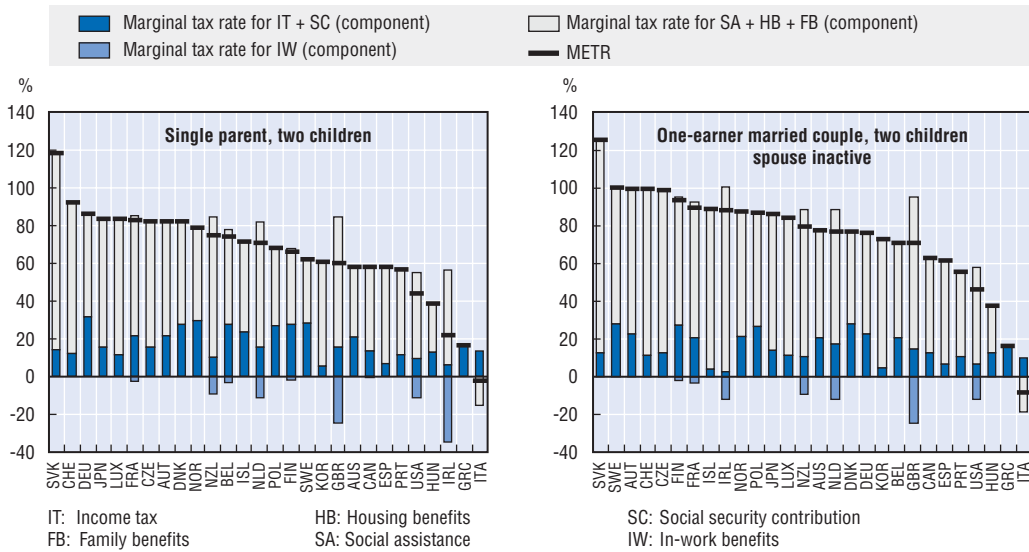
Single parents and workless households may be subject to inactivity traps

A similar picture emerges when METRs are calculated for transitions from inactivity to work (Chart 3.4 and Chart 3.A1.4).⁷

For single parents and spouses in couples with children and a working partner, the first step into the labour market may be part-time work. Chart 3.5 shows the effect of tax and benefit systems on the financial incentives of going back to employment on a half-time job. With the exception of Denmark, there appears to be no particular disincentive effect

Chart 3.4. Is work financially attractive for inactive people?

Inactivity trap indicator: decomposition of the marginal effective tax rate when moving from inactivity to full-time work at wage level = 67 % of APW, 2002



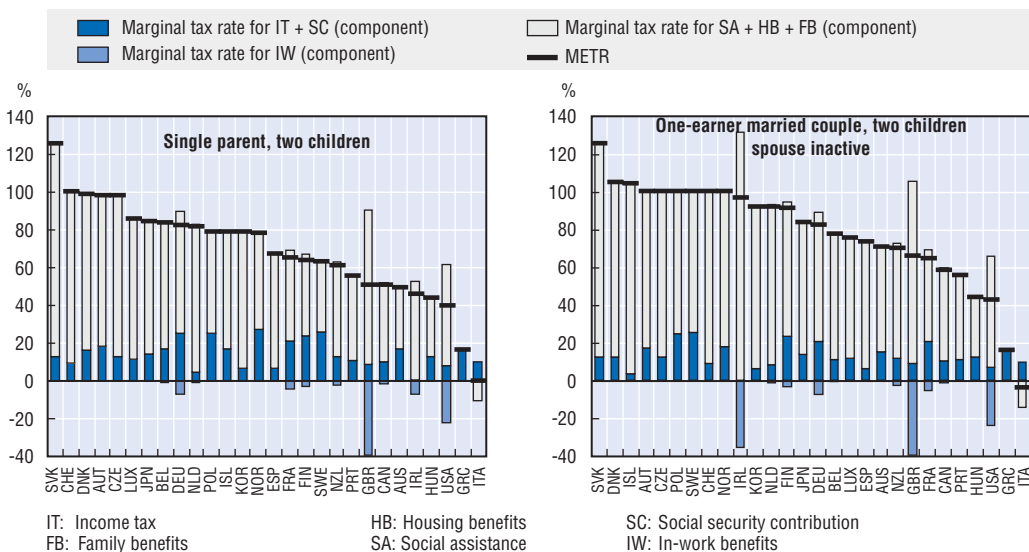
Note: The chart shows how much of the wage earned following a move to work from inactivity is taken away in the form of taxes and lower welfare benefits. For example, a value of 100 for the indicator shows that moving from inactivity to work leads to no additional net income. A value bigger than 100 indicates that net earnings in work are less than total out-of-work benefits.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/483810121604>

Chart 3.5. Do inactive individuals have an incentive to move to part-time work?

Decomposition of the marginal effective tax rate when moving from inactivity to a half-time job (20 hours a week) at a wage level = 50% APW, 2002



Note: The chart shows how much of the wage earned following a move to part-time work from inactivity is taken away in the form of taxes and lower welfare benefits.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/417543224612>

for the spouse whose partner is already working to take up a part-time job (see also Box 3.2). However, METRs are very high for single parents and members of workless households who would like to take up part-time work. In fact, the implicit tax rates are almost identical to an inactive individual obtaining full-time employment.

Box 3.2. Tax/benefit systems may contribute to explain work polarisation

The increase in the share of workless households has been worrying researchers and governments, because of its potential impact on rising income inequality and child poverty. Gregg and Wadsworth (1996) show that, between 1983 and 1994, the rate of workless households had increased in six of the seven European countries they study – Belgium, France, Italy, Germany, Spain, the United Kingdom – and had decreased only in the Netherlands. Also, in four of the countries where the workless household rate increased, it did so in an environment of rising employment. Callister (2001) shows a similar trend towards polarization for New Zealand.

Tax/benefit systems may create disincentives for workless households to obtain employment, while on the contrary encouraging labour market participation of second earners in one-earner families. As the table below shows, in a family where nobody works, the financial incentives for the first earner to enter the labour force are very weak (Column 1). On the other hand, once one of the two is working, the other spouse is only marginally penalized when leaving inactivity for employment (Column 2). The difference between Columns 1 and 2 in the table is almost always positive. The only exceptions are Denmark – because of the loss of social assistance when the spouse enters employment – and Italy where, because of a weak welfare system, METRs are very low for the transition from inactivity to work of the spouse.

This observation is supported by some recent studies. For instance, Gregg and Wadsworth (2004) find that the decline of one-earner households and the rise in both work-rich and work-poor families is not entirely accounted for by changes in household structure or by the characteristics associated with individual joblessness, and conclude indeed that such trends may be related to the interactions between tax/benefit systems and work incentives.

In addition, in households where one person is already in work, it is financially more interesting for the non-working spouse to enter employment than for the partner who is already working to work more. Comparing Column 2 with Column 3 in the table sheds some light on the extent to which a couple will have a tax-benefit incentive to become a dual-earner family or remain a single-earner family. Taking a family with two children where the only earner works for 67% of the average production wage, Column 2 shows the METR faced by the household when the second adult decides to enter employment at 33% of the average production wage. Column 3 shows the METR which arises when the same total income – 100% of APW earnings – is achieved by an increase in-work effort of the adult that was already employed. With the exception of Denmark, the difference is generally positive although in some cases rather small, showing that it is financially more rewarding for the second earner to enter employment than for the first to work harder.

The effect of *joint versus separate* tax regimes appears to go in the expected direction. With the exception of Luxembourg and Portugal, in countries where taxation of income is joint – i.e. the incomes of the two earners are added to determine the total taxable family income – the difference between first and second earners' taxation is rather small. On the other hand, in countries with systems of separate taxation of income, a second earner generally faces lower METRs than a primary earner. Notable exceptions are Germany, Iceland, Ireland, Japan, Korea and the Netherlands.

Box 3.2. **Tax/benefit systems may contribute to explain work polarisation** (cont.)**Comparisons of marginal effective tax rates of first and second earners, 2002^a**

Type of taxation system, 2002		One earner moving from inactivity to 67% APW ^a	First earner at 67% of APW, second earner moving from inactivity to 33% of APW ^a	One earner moving from 67% to 100% of APW ^a	Non-working <i>versus</i> two-earner household	One-earner <i>versus</i> two-earner household
		(1)	(2)	(3)	(4) [(1) – (2)]	(5) [(3) – (2)]
Australia	Separate	0.69	0.63	0.66	0.06	0.03
Austria	Separate	0.99	0.21	0.41	0.78	0.20
Belgium	Separate	0.71	0.44	0.51	0.27	0.07
Canada	Separate	0.54	0.53	0.65	0.01	0.12
Czech Rep.	Separate	0.99	0.31	0.37	0.68	0.07
Denmark	Separate	0.94	0.89	0.61	0.05	-0.28
Finland	Separate	0.94	0.50	0.77	0.43	0.27
France	Joint	0.89	0.36	0.43	0.53	0.07
Germany	Joint	0.76	0.54	0.54	0.22	0.00
Greece	Separate	0.16	0.16	0.17	0.00	0.01
Hungary	Separate	0.38	0.18	0.37	0.20	0.19
Iceland	Separate	0.89	0.45	0.45	0.43	-0.01
Ireland	Optional/Joint	0.88	0.34	0.42	0.54	0.09
Italy	Separate	-0.08	0.38	0.52	-0.46	0.15
Japan	Separate	0.86	0.53	0.52	0.33	-0.01
Korea	Separate	0.75	0.07	0.11	0.68	0.05
Luxembourg	Joint	0.84	0.62	0.62	0.22	0.00
Netherlands	Separate	0.88	0.42	0.41	0.46	-0.01
New Zealand	Separate	0.77	0.56	0.62	0.21	0.06
Norway	Optional	0.87	0.27	0.36	0.61	0.09
Poland	Optional	0.87	0.65	0.68	0.22	0.03
Portugal	Joint	0.55	0.51	0.52	0.05	0.01
Slovak Republic	Separate	1.25	0.83	0.89	0.43	0.06
Spain	Separate/Joint	0.62	0.16	0.19	0.45	0.03
Sweden	Separate	1.00	0.34	0.47	0.66	0.13
Switzerland	Joint	0.99	0.14	0.22	0.86	0.08
United Kingdom	Separate	0.72	0.67	0.77	0.05	0.10
United States	Optional/joint	0.46	0.52	0.52	-0.06	0.00

a) The values reported in the table show how much of the additional income is taxed away by the combination of taxes, social security contributions and benefit withdrawals.

Source: OECD tax-benefits models.

Overall, the analysis above suggests some priorities for programmes to make work pay. First, policies should be targeted on lone parents with children and one-earner couples (with or without children) with low earnings' prospects. These groups often have weak financial incentives to return to employment after a period of inactivity or unemployment. They also tend to be at risk of in-work poverty. Second, policies that help unemployed individuals obtain employment with a salary as high as, or higher than, the salary they earned before unemployment, such as effective job-search assistance and training, would

help increase financial incentives to work for this group.⁸ More generally, tax-benefit reform and active labour market policies need to focus attention on groups with low earnings' potential, notably older workers and the low-skilled.

B. Financial incentives to work and labour market outcomes

The extent to which tax and benefit systems affect labour market behaviour is difficult to predict. It is possible to quantify the impact of these systems on financial incentives to work (proxied by METRs). But how individuals respond to METRs depends in part on their preferences as well as on other dynamic considerations. These are crucial questions for determining the effect of METRs on labour market transitions (see Box 3.3 for more on this issue).

Box 3.3. The impact of financial incentives on labour supply decisions: income and substitution effects

The impact of financial incentives on labour supply decisions is a vital consideration when designing policy. In other words, the way METRs affect employment outcomes depends largely on individual preferences. In a static context, an individual with *reasonable* preferences would not choose hours of work for which the METR is equal to or greater than 100%. On the other hand, how much of the extra earnings an individual is willing to see taxed away by the government depends on the balance between income and substitution effects.

In fact, the two effects tend to go in different directions. For instance, when taxes are reduced (or benefits increased), disposable income increases and people may be more likely to be content with their situation, and so less inclined, for example, to seek to increase their earnings. This is the income effect. On the other hand, the reduction in taxes would increase the price of leisure as people would gain more than before for each hour worked. This is the substitution effect and it would make individuals want to work more. Only when the substitution effect dominates the income effect will a reduction in taxes bring about an increase in-work effort.

The size of the income and substitution effects depends on individuals' preferences and needs to be estimated empirically based on individuals' responses to past tax and benefit changes. Brewer *et al.* (2003) shows that, in the United Kingdom, the greater the number of children, the greater the preference for income relative to hours of work. In addition, higher levels of education are found to be associated with a lower valuation of income with respect to hours of work (meaning that an hour of work leads to less disutility for parents with high levels of education compared to those with low levels of education). As far as age is concerned, results differ between couples and lone parents. In couples, preferences for income at the cost of higher hours worked decrease with the age of both mother and father. For lone mothers, the effect of age on the preference for income is not well determined, but studies do find that individuals who are aged above average have a greater preference for hours of work (see also MaCurdy, 1992).

Other researchers have looked at differences in the preferences for work over leisure using a different approach. Laroque and Salanié (2000) estimate the wage at which non-working married women in France would be open to accept a job (reservation wage). They find that the financial return required to work tends to increase with the number of children. The reservation wage is also found to increase with age, but it appears to be unaffected by education. Overall, these concepts represent a useful benchmark of what one should expect to find when trying to estimate the impact of marginal tax rates on labour market behaviour of different socio-demographic groups and family types.

In addition, career possibilities in the prospective job need to be taken into account – i.e. a more dynamic analysis, going beyond static comparisons of METRs, is needed. For example, if benefits are about to expire, the same job that is financially uninteresting now, will offer a considerably higher return in the near future. Or, it is possible that unemployment benefit rules imply a reduction or withdrawal of benefits if the job offer is rejected – a key issue which is also ignored in available measures of METRs. Also, a low-paid entry job may represent a stepping stone into employment and raise expectations of getting a better job in the future. Finally, social security contributions (a key component of METRs) might be regarded by workers as deferred income against future services provided by the state. These factors are likely to play an important role in limiting the effect that high METRs, as measured, have on employment transitions.

Studying the impact of METRs on labour market performance presents several difficulties. The most severe limitation derives from the fact that most of the value added of this all-inclusive measure of implicit taxation is lost when it is averaged across socio-demographic groups. For instance, the calculation of a METR for a country as a whole would result in a measure that is no different from the standard tax-wedge. This is because, at average wages, taxes and social security contributions would make up most of the marginal tax rate. Hence, Chart 3.6 focuses on unemployment and inactivity rates for the low-skilled, one of the groups most likely to face low incentives to work. The cross-country correlation between, on the one hand, unemployment and inactivity rates of low-skilled workers, and the METR associated with 67% of APW on the other, turns out generally to be positive but rather weak. The same weak relationship holds when looking at some demographic groups separately (not shown in the chart).

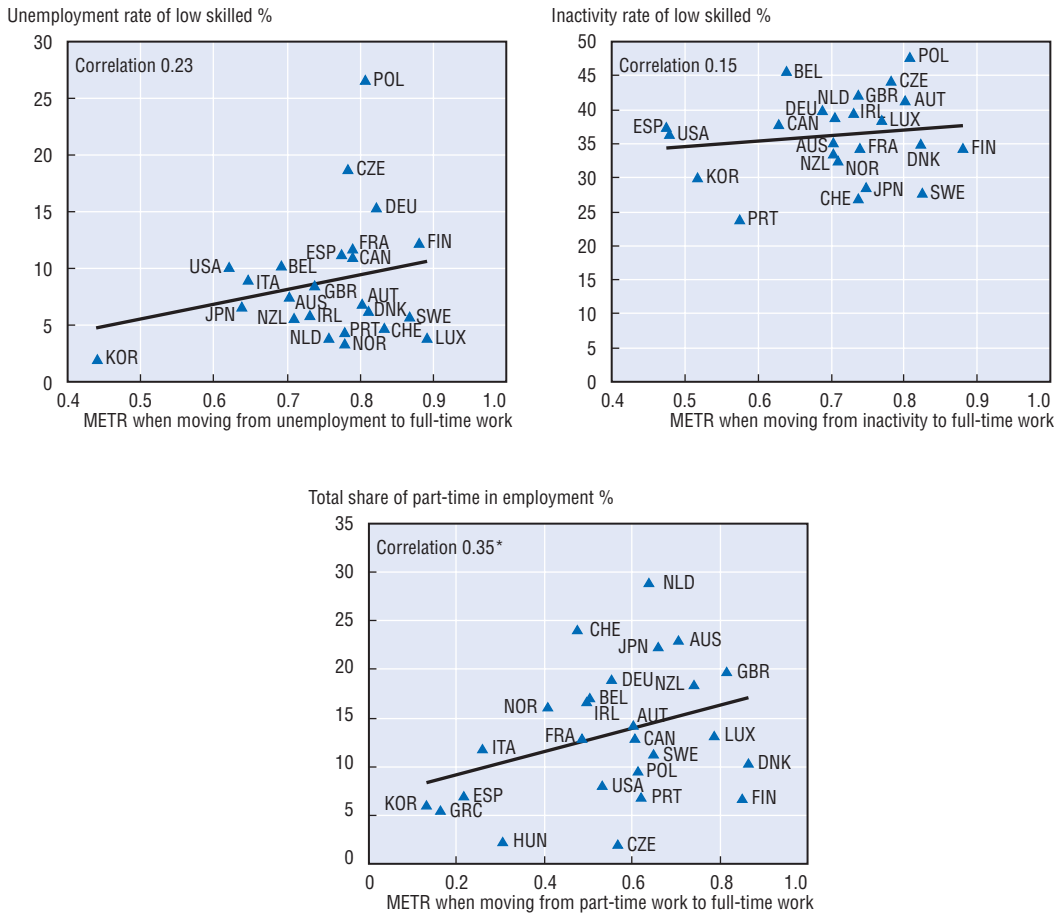
Overall, these weak relationships point to the need for a more detailed assessment of the possible links between financial incentives and employment outcomes. This can be achieved using micro-data, where the METR faced by each individual can be related to his/her labour market behaviour.

Panel A of Table 3.1 provides econometric estimates of the extent to which METRs influence the probability of transition from unemployment to employment, in several OECD countries.⁹ The dependant variable accounts for all transitions from unemployment to employment during the survey year (2001). In order to attribute an METR to each unemployed individual, a two-stage procedure is used. First, potential hourly earnings after unemployment are predicted by variables identifying region of residence, age, education, marital status and employment status of the spouse. An attempt is made to correct for the selection bias resulting from the fact that wages are only observed for individuals who are working: a variable capturing previous experiences of unemployment is also included. Hence, potential earnings of currently unemployed individuals are predicted by taking into account past unemployment experience of those currently employed.¹⁰ Separate earnings' regressions are run for men and women and for different countries of residence. With the value of potential earnings attributed to each unemployed individual and using household characteristics, a value of the METR can be calculated for each individual.¹¹

The analysis takes into account gender and family structure in order to test whether the effect of METRs is different across socio-demographic groups. Panels B and C of Table 3.1 present similar analyses for transitions from inactivity to employment and from part-time to full-time work, with a special focus on women who are more likely than men

Chart 3.6. METRs and the labour market status of low-skilled individuals, 2002^a

Persons aged 25 to 64 years



* statistically significant at 10% level.

a) METR for a one-earner couple with two children moving from unemployment to full-time work at wage level = 100% APW (wage before unemployment = 100% APW).

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/283704754338>

to be looking after the family but willing to go back to work at some point, or to be working part-time in order to reconcile work and family life. Potential earnings for inactive women are predicted in the same way as for the unemployed while for part-time to full-time transitions, hourly earnings are assumed to remain unchanged.¹²

A rise of 1% in the METR faced by unemployed individuals increases their probability of exiting unemployment by 0.5%. This may appear rather small but, as already noted, policy reforms have often reduced METRs by 10 to 30 percentage points for lone parents and by 10 to 20 percentage points for one-earner couples. Indeed, taking the population as a whole, a reduction of METRs by 20% would imply a rise in the probability of moving from unemployment to employment by about 10%, i.e. from 45% to 49%.¹³ Looking at differences across demographic groups, financial considerations appear to be more relevant for individuals with a working spouse when deciding to leave unemployment for work.

As far as transitions from inactivity to employment are concerned (Table 3.1, Panel B), METRs appear to be relevant only for single women, for which the estimated elasticity is

Table 3.1. What is the impact of METRs on employment outcomes?

	All	Women	Single	Single with children	One-earner couple	One-earner couple with children	Two-earner couple	Two-earner couple with children
Panel A. METRs and transitions out of unemployment, 2001								
All 25-64, European countries ^a and the United States ^b								
METR	-0.48 ***	-0.45 ***	-0.36 **	-0.23	-0.35 **	-0.27	-0.67 ***	-0.58 ***
Age 25-34	0.01	0.00	-0.01	0.00	0.26 **	-0.05	0.06	-0.02
Age 45-54	-0.11 ***	-0.13 ***	-0.20 ***	-0.19 **	0.08	0.02	-0.13 **	-0.05
Age 55-64	-0.33 ***	-0.28 ***	-0.32 ***	-0.34 *	-0.14 *	-0.36 ***	-0.33 ***	-0.20
Medium skill	-0.12 ***	-0.11 ***	-0.13 **	-0.17 *	-0.06	-0.22 **	-0.11 *	-0.05
Low skill	-0.11 ***	-0.13 ***	-0.13 **	-0.23 **	-0.04	-0.19 *	-0.13 **	-0.03
Female	-0.11 ***		-0.01	0.05	-0.08 **	-0.29 ***	-0.09 **	-0.11 **
Married	-0.04	-0.14 ***						
Spouse working	0.11 ***	0.18						
With children	0.02	-0.03						
Observed probability	0.45	0.43	0.44	0.44	0.23	0.52	0.51	0.54
Predicted probability	0.45	0.42	0.44	0.44	0.20	0.52	0.51	0.54
Panel B. METRs and transitions out of inactivity, 2001								
Women looking after the family 25-54, European countries ^a and the United States ^{c, d}								
METR	0.09 *		-0.63 *	-0.05	0.04	0.08	0.41 **	0.16 **
Age 25-34	0.08 ***		0.51 **	0.14 *		0.14 *	0.10	0.07 ***
Age 45-54	-0.09 ***		-0.23 *	-0.08	-0.02	0.00	-0.05	-0.09 ***
Medium skill	-0.12 ***		-0.18	-0.03	-0.03	-0.01	-0.09 *	-0.14 ***
Low skill	-0.22 ***		-0.13	-0.22 **	-0.06	-0.15 *	-0.20 ***	-0.23 ***
Married	-0.20 ***							
Spouse working	0.06 **							
With children	-0.01							
Observed probability	0.22		0.27	0.34	0.04	0.19	0.16	0.23
Predicted probability	0.20		0.21	0.33	0.04	0.17	0.14	0.22
Panel C. METRs and transitions from part-time to full-time, 2001								
All 25-64, European countries ^{a, e}								
METR	-0.12 **	-0.17 ***	0.09	-0.21	0.07	0.06	-0.38 ***	-0.13
Age 25-34	0.05 **	0.02	0.13	-0.12	-0.06	0.15	0.11 **	0.03
Age 45-54	-0.03	-0.02	0.08	-0.16 **	-0.17 *	0.00	-0.04	0.00
Age 55-64	-0.10 ***	-0.10 ***	-0.05		-0.36 ***	-0.14	-0.09 **	0.04
Medium skill	-0.01	-0.03 *	0.17 ***	0.01	-0.08	0.13	-0.05 *	0.00
Low skill	0.02	-0.01	0.13 *	0.03	-0.02	0.31 ***	-0.04	0.01
Female	-0.13 ***		-0.02		-0.13 **	-0.20 ***	-0.14 ***	-0.12 ***
Married	0.02	-0.01						
Spouse working	-0.06 ***	-0.06 **						
With children	-0.04 **	-0.04 ***						
Observed probability	0.16	0.14	0.20	0.19	0.20	0.27	0.16	0.14
Predicted probability	0.16	0.14	0.19	0.17	0.17	0.24	0.14	0.14

Notes on next page.

Table 3.1. **What is the impact of METRs on employment outcomes?** (cont.)

*, **, *** statistically significant at 10%, 5% and 1% levels, respectively.

- a) Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Portugal, Spain, United Kingdom.
- b) Maximum likelihood probit estimates of the probability of moving from unemployment to employment between 2000 and 2001. All transitions over the year preceding the survey are accounted for. Estimation procedure includes two steps: first hourly potential earnings are estimated for each unemployed individual in a regression including the following explanatory variables: region of residence, age, education, marital status, employment status of the spouse. A dummy capturing previous experiences of unemployment is also included in an attempt to correct for selection bias. Separate earnings regressions are run for men and women and for different countries of residence. To predict potential earnings for unemployed individuals waiting to return to work, the dummy capturing previous unemployment experience is set to one. In the second step, METRs are calculated for each unemployed individual assuming equal earnings before and after unemployment. The coefficients can be interpreted as the change in the probability of transition given an infinitesimal change in each independent and continuous variables and given a discrete change in dummy variables (from 0 to 1).
- c) See note b for estimation methodology with the only difference that to control for selection bias a dummy capturing previous spells of inactivity is included.
- d) For the United States, all inactive women 25-54 are taken into account.
- e) Maximum likelihood probit estimates of the probability of moving from part-time to full-time between 2000 and 2001. METRs are attributed to each part-time worker assuming he/she would move to a full-time job paying the same hourly earnings. The coefficients can be interpreted as the change in the probability of transition given an infinitesimal change in each independent and continuous variables and given a discrete change in dummy variables (from 0 to 1).

Source: European Community Household Panel, Eurostat; Panel Study of Income Dynamics.

rather high, at about 0.6%. These results have to be taken with care as the decision to return to work after a period of inactivity is likely to stem from a series of considerations that the variables included in the regression do not capture properly. Part-time to full-time work transitions (Table 3.1, Panel C) are mostly affected by financial incentives for the second earner in a couple with no children.

As mentioned above, one limitation of the analysis conducted here is that it fails to capture the quality of the prospective job, such as its likely stability and duration and the career prospects it may offer. In fact, METRs do not incorporate the possible impact of future income on decisions to move to employment or stay on benefits today. Indeed, as already noted, they fail to account for the fact that a job may be considered a stepping stone into the labour market and may provide future career and wage advancement prospects despite its possible immediate financial unattractiveness.¹⁴ In addition, it could be argued that the various components of the METRs may have separate and different effects on the probability of transition from non-employment to work or from part-time to full-time work.

Finally, the regressions fail to account for the overall institutional setting in the countries included. For instance, METRs are likely to interact with active labour market policies (ALMPs) and government-provided childcare. Indeed, ALMPs are designed to help the transition between unemployment and work and often include work-related training and job-search courses. By helping improve skills and job matching, ALMPs can contribute to increasing the post-unemployment salary thus reducing the METR. This makes them an ideal complementary policy to help individuals return to self-sufficiency. Government expenditure on childcare is also likely to play a very important role as childcare costs influence the employment decisions of parents.¹⁵ Nevertheless, estimation results are suggestive and broadly in line with the findings from other studies.

Overall, a good strategy for introducing in-work benefits should involve adequate targeting on the groups that are most likely to be sensitive to changes in financial incentives. In addition, combining this policy with effective re-employment support and activation policies, as well as quality childcare provision may increase its effectiveness.

Table 3.2. **Employment-conditional benefits^a**

2002

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name of programme	Type of benefit	Beneficiaries	Maximum benefit	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins (% of APW)	Approximate maximum earnings when benefit is phased out completely (% of APW)		
Australia	Employment entry payment.	Unemployed lone parents or long term income support recipients. Eligible once every 12 months.	AUD 104	0.21%	Full time.	No	No	No	–	–	–
Belgium	<i>Crédit d'impôt.</i>	Non-wastable tax credit.	EUR 90	0.29%	No	No	6%	2%	42%	54%	54%
	<i>Complément de garde d'enfant.</i>	Working individuals with low income.	EUR 744	2.43%	At least half-time.	Starting employment.	No	No	–	–	–
Canada ^b	Ontario start up benefit.	Long-term unemployed lone parents.	CAD 253	0.65%	No	Starting or changing employment, or joining a training programme.	No	No	–	–	–
	<i>Québec prime au travail.</i>	Social assistance recipients. Eligible once every 12 months.	Individual: CAD 511 Lone parent with children: CAD 2 190 Couple with children: CAD 2 800	Individual: 1.34% Lone parent with 2 children: 5.63% Couple with 2 children: 7.20%	No	No	–	–	Individual: 38.10% Lone parent with 2 children: 81.30% Couple with 2 children: 110.12%	–	–
Finland	Earned income allowance.	Working individuals with low income.	EUR 440 in tax savings (EUR 2 140 for the actual tax allowance)	1.6% in tax savings (7.7% of APW for the actual tax allowance)	No	No	6%	1%	46%	270%	270%

Table 3.2. Employment-conditional benefits^a (cont.)

2002

Name of programme	Type of benefit	Beneficiaries	Maximum benefit	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins (% of APW)	Approximate maximum earnings when benefit is phased out completely (% of APW)	
[1]	[2]	[3]	National currency [4]	(% of APW) [5]	[6]	[7]	[8]	[9]	[10]	[11]
France	<i>Prime pour l'emploi</i>	Working individuals with low income.	Individual: EUR 475 Lone parent with 2 children: EUR 570 Couple with children: EUR 620	Individual: 2.16% Lone parent with 2 children: 2.59% Couple with 2 children: 2.82%	No	No	5.3% 6.3% 6.9%	9%	60%	84% 105% 128%
Germany ^c	<i>Mairizer Modell</i>	Working individuals/couples with low income; additional amounts for dependent children.	Refund of full amount of employees' SSCs, plus additional benefit of EUR 924 per child.	Without children: 2.42% With 2 children: 7.57%	No	No	No	Without children: 14.7% With 2 children: 27%	Without children: 16% With 2 children: 27%	Without children: 33% With 2 children: 62%
Ireland	Back-to-work allowance (BTWA).	Long-term unemployed (over 15 months) aged over 22.	First year: EUR 4 633 Second year: EUR 3 089 Third year: EUR 1 544	First year: 18.19% Second year: 12.12% Third year: 6.06%	No	Starting employment.	No	No	-	-
	Family income supplement (FIS).	Working families with children and low earnings.	60% of difference between net family earnings and income limit (20 176 EUR for two children)	32.47% (19 hours at minimum wage)	19 hours per week.	No	No	60%	-	79%
	Continued child dependent payment (CCDP).	Long-term unemployed (over 12 months) receiving UI or UA.	EUR 16.8 per week for 13 weeks only	0.86%	Full-time for at least 4 weeks.	Starting employment.	No	No	-	-
	Part-time job incentive (PTJI).	Long-term unemployed previously receiving UA.	Single: EUR 3 920 Couple: EUR 6 604	Single: 15.35% Couple: 25.92%	Part-time.	Starting employment.	No	No	-	-

Table 3.2. **Employment-conditional benefits^a** (cont.)

2002

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name of programme	Type of benefit	Beneficiaries	Maximum benefit	(% of APW)	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins (% of APW)	Approximate maximum earnings when benefit is phased out completely (% of APW)
Japan	Re-employment allowance.	Unemployment benefit recipient.	National currency Lump sum = remaining days of term of benefits × 1/3 × daily unemployment benefit (basic allowance)	11.03% (unemployment spell of 2 months)	20 hours per week.	Starting employment while over 1/3 of benefit duration remains (minimum 45 days).	No	No	–	–
Korea	Early re-employment allowance.	Unemployment benefit recipient.	Lump sum of 50% of remaining benefits	14.36% (unemployment spell of 2 months)	20 hours per week.	Starting employment while over 50% of benefit duration remains.	No	No	–	–
Netherlands	Work credit premium.	Benefit recipients.	First year: EUR 1 361 Second year: EUR 454 Third year: EUR 454	First year: 4.45% Second year: 1.48% Third year: 1.48%	Full-time.	Starting employment.	No	No	–	–
	Combination tax credit.	Working families with children aged under 12.	EUR 190	0.62%	No	No	No	No	–	–
New Zealand	Family tax credit.	Working non-beneficiary families with children (employees) with low income.	Ensures a minimum net income of NZD 15 080 before other tax credits	Single: 16.78% (at minimum wage, 20 hours) Couple: 6.28% (at minimum wage, 30 hours)	lone parents: 20 hours couple: 30 hours	No	No	100%	–	40%
	Low income earner rebate (LIER).	Working non-beneficiary families (employees) with low income.	NZD 728	1.82%	20 hours per week.	No	No	20%.	NZD 6 240 (16% of APW).	NZD 9 880 (25% of APW).
	Work start grant (WSG).	Benefit recipients.	NZD 500	1.25%	Minimum 15 hours per week.	Starting employment.	No	No	–	–

Table 3.2. **Employment-conditional benefits^a** (cont.)

2002

Name of programme	Type of benefit	Beneficiaries	Maximum benefit	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins (% of APW)	Approximate maximum earnings when benefit is phased out completely (% of APW)	
[1]	[2]	[3]	National currency [4]	(% of APW) [5]	[6]	[7]	[8]	[9]	[10]	[11]
United Kingdom	Non-wastable tax credit.	Working families with children and low income.	Ensures an income of GBP 6 001 (16 hours) or GBP 6 607 (30 hours) reduced by 55% of the difference between income and GBP 94.5 per week	16 hours: 35.09% (at minimum wage) 30 hours: 29.69% (at minimum wage)	16 hours per week, supplement for working 30 hours per week or more.	No	No	55%	25%	110% (for a family with two children)
United States	Earned income tax credit.	Working families with children and individuals with low income.	Without children: USD 376 With one child: USD 2 506 With 2 children: USD 4 140	Without children: 1.16% With one child: 7.74% With 2 children: 12.79%	No	No	Without children: 7.65% With one child: 34% With 2 children: 40%	Without children: 0.765% With one child: 15.98% With 2 children: 21.06%	Without children: 19.00% With one child: 41.78% With 2 children: 41.78%	Without children: 34.18% With one child: 90.23% With 2 children: 102.53% All values increased by 3.09 pp if couple is married

"-" indicates that no information is available or not applicable. Non-general schemes that are specifically targeted towards younger or older age-groups are not shown.

a) All amounts are shown on an annualised basis.

b) Most Canadian provinces have a scheme similar to this; there are no federal programmes. The Prime au Travail in Québec will start in 2005.

c) The Mainzer Modell scheme only existed between March 2002 and March 2003.

Source: OECD (2004), *Benefits and Wages: OECD Indicators*, Paris.

2. Increasing financial incentives to work with in-work benefits

Financial incentives to work can be improved by either cutting welfare benefit levels or introducing in-work benefits while leaving benefits unchanged. Concerns about equity have made many countries hesitant about pursuing the former option. Instead, many OECD governments have turned to in-work benefits as the principal way of reducing METRs. Table 3.2 summarises the characteristics of the existing programmes in 2002 across OECD countries, highlighting differences in targeting, conditionality rules, level of benefits, and withdrawal patterns (i.e. the pace at which in-work benefits are reduced as income rises). All values are expressed in per cent of APW earnings to make comparisons across countries and programmes more meaningful.

Out of the 12 countries that have introduced some sort of in-work benefits, eight have special provisions for individuals who start work after a period of unemployment or inactivity. In all cases, the payment comes in the form of a lump-sum, although the criteria of entitlement vary across countries. In Australia, Belgium and Ireland,¹⁶ entitlement is restricted to long-term unemployed individuals. In Canada, the Netherlands and New Zealand, all benefit recipients who find a job are entitled to an employment-conditional benefit. With the exception of Canada, hours work requirements accompany the bonus payments: transition to full-time employment is required in Australia and Ireland, and part-time work – generally more than 15 hours – is a condition in the remaining countries. Chart 3.7 shows how these payments change the net earnings of a one-earner couple with two children where one member of the household moves from unemployment to work.¹⁷

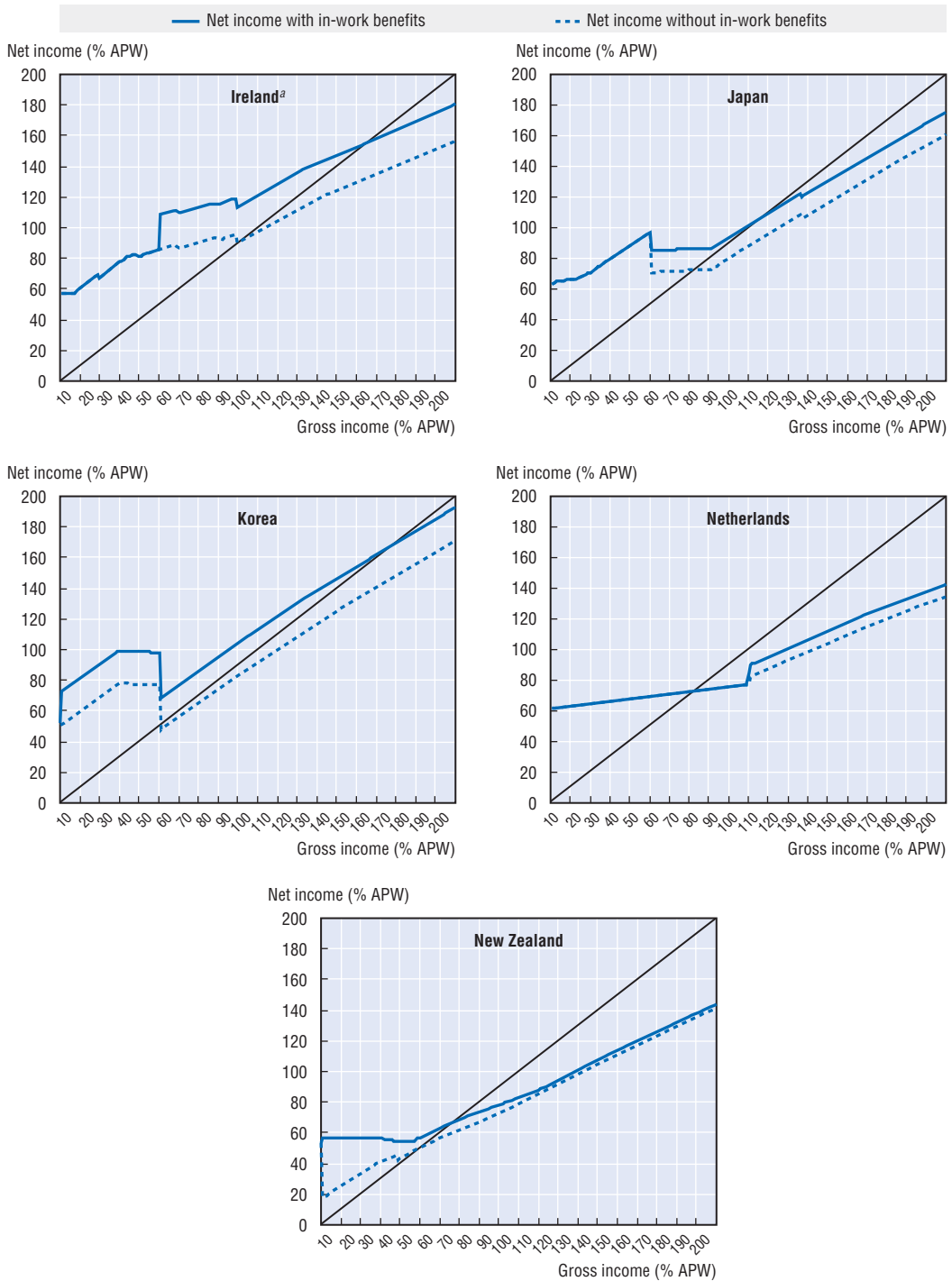
In Japan and Korea unemployed people who get a job rapidly are rewarded with a bonus calculated as a proportion of the amount of their unemployment insurance benefit entitlement that has not been used. On the other hand, in Ireland and the Netherlands, in addition to a payment at re-entry, two further payments of decreasing amounts are made to reward those who are still employed in each of the two following years. In New Zealand, the payment is means-tested and this explains why it is not available to individuals who return to work earnings at more than 110% of average earnings. What emerges from the chart is that when in-work benefits are paid in the form of lump-sum payments, they cannot overcome the negative incentives introduced by the withdrawal of welfare benefits. In Japan, for instance, an unemployed person faces the same prospective earnings in a job that pays 60% of average earnings as in a job that pays 85% of the average earnings, reducing the incentives to work more hours or to upgrade one's competencies in order to move to a better-paid job.

In addition to programmes aimed at increasing the financial incentives to work *vis-à-vis* reciprocity of unemployment or inactivity benefits, most countries in Table 3.2 have programmes to help working individuals with low income. In Belgium, Canada, Finland, France and the United States, individuals without children are entitled to an income supplement, although the benefit generally includes more generous payments for families with children. On the other hand, Ireland, the Netherlands, New Zealand and the United Kingdom specifically target families with children, reflecting the policy aim of reducing child poverty.

Benefit levels vary widely across programmes.¹⁸ The United Kingdom's Working Family Tax Credit has the most generous payouts, and can reach up to 30 to 35% of average earnings for families with children and low income. The Irish Family Income Supplement

Chart 3.7. Effects of in-work benefits on unemployment traps, 2002

One-earner couple with two children



a) Refer to a single couple with two children.

Source: OECD tax-benefits models.

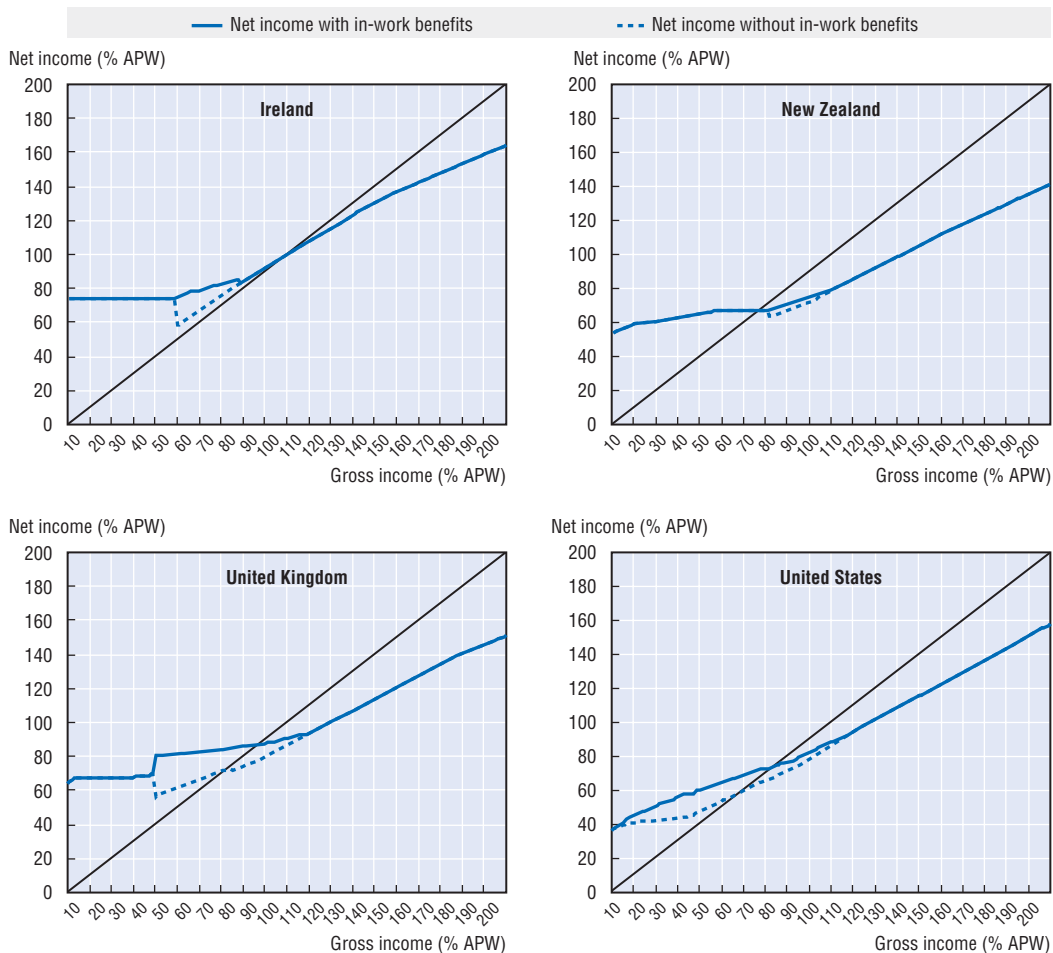
Statlink: <http://dx.doi.org/10.1787/084411702375>

programme is also rather generous, paying 32.5% of APW to working families with children. Lone parents in New Zealand receive an income supplement that can reach the equivalent of 17% of the average wage for a worker at the minimum wage. Besides being rather generous, these programmes have similar requirements with respect to working time – e.g. the schemes are available to individuals working at least 16 hours in the United Kingdom, 19 hours in Ireland, and 20 hours in New Zealand. In exchange for being rather generous, the benefits are withdrawn at rather high rates, ranging from 55% in the United Kingdom to 100% in New Zealand. The United States system is less generous, with maximum payments of 13% of average earnings to families with two children. However, the benefits are withdrawn more slowly, at a rate of 20%. Chart 3.8 shows net earnings of a one-earner family with two children, with and without in-work benefits, in these countries.

Except for the Netherlands and New Zealand, countries have not introduced special programmes to make work more financially attractive to inactive individuals. The Dutch “Work Credit Premium” and the smaller New Zealand “Work Start Grant” are the only re-employment bonuses extended to previously inactive individuals. In the other countries,

Chart 3.8. **Effects of in-work benefits on low-wage traps, 2002**

One-earner couple with two children



Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/175472763811>

it is in-work benefits for low-income working families that help reduce inactivity traps. This is in line with the findings of the previous section that targeting inactive individuals may not be so rewarding. Indeed, except for single women, the inactive do not appear to respond significantly to financial motives.

Overall, in the countries where the schemes are available to a wide range of groups, the level of benefits tends to be much lower than in countries where the schemes are more targeted. For instance, Belgium, Finland and France provide refundable tax-credits to all working individuals with low income, but the maximum amount of benefit paid out is rather small – below 2.6% of average earnings. In general, a more targeted approach, despite helping a smaller number of individuals, tends to be more effective in encouraging the return to self-sufficiency. This may be associated to the fact that, given budget constraints, when programmes are more closely targeted, the level of benefits can be higher.

3. Key design features of in-work benefits

Several OECD countries have set out to reform their tax and benefit systems in order to improve financial incentives to work, without sacrificing the poverty-reduction goal of welfare programmes. And empirical evidence presented above suggests that such policies may indeed improve job prospects, at least for certain groups. In-work benefits have emerged as a key tool in this regard. Theoretical work and empirical evaluations are crucial in understanding the specific design features of in-work benefits that help improve work incentives, while at the same time limiting the budget costs. The purpose of this section is to present the main findings of these studies.

A. Ensuring that in-work benefit policies work and are cost-effective

In-work benefits can help reconcile welfare programmes with work incentives

Whatever way they are designed, welfare systems will always tend to reduce work incentives, to the extent that welfare benefits depend one way or another on income levels. No doubt, employment-conditional programs can enhance work incentives *with respect to* welfare programmes. However, as seen earlier in this chapter, while employment-conditional programmes reduce METRs for those moving from welfare to work, their withdrawal range, reduces incentives to earn higher wages or work longer hours: work disincentives are shifted to a higher income range but do not disappear. Indeed, the only way of eliminating such disincentives would be to eliminate welfare altogether. This would reduce METRs for individuals taking up employment and make the introduction of in-work benefits unnecessary.

However, the policy goal is not just to enhance labour supply, but also to take distributional considerations into account. For example, society may value increases in the labour supply of those initially on welfare rolls – typically the most disadvantaged and those with the lowest skills – more than labour supply reductions at higher income levels brought about by employment-conditional programs. Indeed, the desirability of any welfare reform, as well as the choice of some minimum income level, requires knowledge of the income distribution, the elasticity of labour supply to tax-benefit changes, and the identification of a particular welfare function – *i.e.* how much society values equity and poverty reduction.

The optimal tax literature has shown that the combination of in-work benefits and a minimum out-of-work income (see Box 3.4) can be a welfare-maximizing tool for society,

Box 3.4. Negative income taxes and work incentives

Employment-conditional benefits have their origin in the 1960s, when Friedman (1962) proposed to reform the United States welfare system by introducing a negative income tax (NIT). His proposal came at a time when policy makers were starting to realise that traditional welfare programmes created disincentives to work.

The chart below shows how NIT would change net income with respect to both traditional welfare and no welfare. In the absence of welfare, as hours increase, net income would increase along the AB line. With traditional welfare, individuals without income would get a benefit of size BC and this would be reduced 1 for 1 as income increases – creating the flat line CD – until the point where no benefit is left and net earnings move along AD. Obviously, individuals face no incentive to work more along CD, as their net earnings do not rise with hours worked. By withdrawing benefits by less than the increase in gross income, the NIT would reduce these disincentives along the new net earnings schedule CEA.

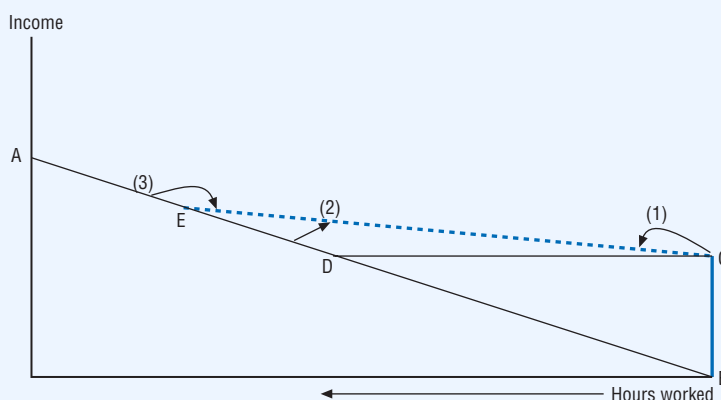
Along with improved work incentives, compared with traditional welfare programmes, a NIT would present some other advantages. First, it would provide support to poor families only on the basis of their income and not on the basis of other characteristics supposed to proxy need, i.e. old age and single-parent status. Second, it would provide cash rather than in-kind benefits. Third, it would simplify the welfare system as a whole by replacing the multitude of programmes that deal with poverty and redistribution. This, in turn, should save on administrative costs (see Moffitt, 2003 and 2004).

As far as incentives are concerned, in the presence of a NIT, total income would increase with wages but less than proportionally because benefits would be withdrawn by a per cent of the rise in earned income. Hence, a NIT would constitute an improvement over traditional welfare support (schedule CDA) but would still be second best to a trade-off vis-à-vis no welfare (AB line). In other words, if equity issues did not matter at all for social welfare, no welfare would be best solution.

In addition, while some people may be encouraged to work more in the presence of a NIT (movement indicated by arrow 1), for others incentives would go in the opposite direction making them *windfall beneficiaries*. Some will be able to achieve higher net earnings with less work effort (2) and others may choose to reduce their effort and accept a smaller reduction in income than in the absence of the NIT (3). As a result, the total effect of a NIT on labour supply is far from certain, and it would depend on the income distribution in the country.

Despite several experiments conducted in the United States and Canada (see Widerquist, 2005; and Levine *et al.*, 2004, for a review), the NIT has never been implemented in the form that Friedman envisaged. In particular, critics have pointed to the likelihood that several individuals would become windfall beneficiaries of the programme, thereby increasing total costs well beyond feasibility.

The negative income tax and windfall beneficiaries



even when the labour supply disincentives for those already in employment are taken into account. Thus, Mirrlees (1971) assumes that the overall utility is just the sum of individuals' utilities, and that marginal utilities decline with income. This set up implies that redistribution to the poor improves social welfare although this benefit must be balanced against the costs arising from work disincentives and consequent reductions in output. According to this study, an in-work benefit with close to zero withdrawal rates would be optimal, implying that the utility gains at the bottom end of the income distribution are greater than the utility losses at higher incomes. Fortin *et al.* (1993) reach similar conclusions by incorporating preference for income equality in the social welfare function.

Overall, these studies suggest that the elimination of welfare benefits as a way to increase financial incentives to work does not maximize well-being. In addition, they confirm that, within the context of modern benefit systems, in-work benefits may be a welfare-maximizing policy tool as they can contribute to achieving the right balance between poverty alleviation and work incentives.

The big issue is how to combine welfare benefits and in-work benefits in a way which both a) reduces the inevitable work disincentives associated with such systems; and b) keeps the overall budget costs within reasonable limits. The following paragraphs discuss how this can be achieved and the various trade-offs involved.

Benefit level and withdrawal rate: a difficult choice

The issue of how large an in-work benefit should be and at what rate it should be withdrawn is crucial and at the same time very difficult to address. In-work benefits should be large enough to create a sizeable difference between welfare income and work income, but their optimal level would depend on factors such as levels of income support relative to wage rates of the less skilled, the minimum wage and the costs of working (which include transport, childcare, etc.). In addition, as governments tend to be budget-constrained, the overall cost of the programme would influence the size of in-work benefits and the expected welfare gains.

Overall, the optimal benefit levels and phasing-out rates have been shown to depend on where most of the labour supply effect is likely to come from: an increase in labour market participation *versus* an increase in hours worked. In this respect, Saez (2002) shows that when most of the effect is observed in terms of labour market participation – i.e. going from non-employment to work – the optimal transfer programme should resemble the Earned Income Tax Credit of the United States (see Box 3.5), with a small guaranteed income and low benefit withdrawal rates. On the other hand, when most of the effect is expected to be in terms of changes in hours worked, rather than in participation decisions, the best choice would be a programme with high guaranteed income and a high phasing out rate.¹⁹ However, Saez's model does not consider the additional cost of long-term unemployment, in terms of loss of skills. If this was introduced in the social welfare function, it would be likely to reinforce the superiority of programmes with relatively low guaranteed income and low withdrawal rates.²⁰

The role of time-limits to in-work benefits

Another design feature that may have desirable properties is the use of time limits to the receipt of in-work benefits. The introduction of time limits to the provision of in-work benefits may help attenuate some of the drawbacks of the system in terms of possible

Box 3.5. **The success of the US Earned Income Tax Credit in getting people into work**

The Earned Income Tax Credit (EITC) began in 1975 as a modest programme aimed at offsetting the social security payroll tax for low-income families with children. The generosity of the EITC was increased in the tax acts of 1986, 1990, and 1993. The contrasts between the EITC and traditional welfare benefits are many. First, the EITC is provided through the tax system rather than the welfare system. Second, eligibility for the EITC is available to *all* low-income families with children, irrespective of marital status. Third, receipt of the credit requires positive family earnings. Consequently, the EITC creates positive incentives to work for single parents. However, because the credit is based on family income, it can create adverse incentives to work among married couples and in the phase-out range.

Several studies have found relatively strong results on participation of single parents (see Eissa and Liebman, 1996). The expansion of the EITC and other tax changes may have led to a reduction in the tax liability of single mothers by USD 1 331, on average (1996 dollars), and employment rates may have increased as a result of the measures from 73 to 75.8%. There is also some evidence of a very small negative effect on hours for those in work. Liebman (1998) and Meyer and Rosenbaum (1999) use a similar approach to examine the impact of all three of the EITC reforms. The estimated behavioral responses are very similar in magnitude to those found by Eissa and Liebman (1996). According to estimates by Grogger (2003), the increased generosity of the scheme during the 1990s helped reduce the number of entrants into the welfare system over the same period. More precisely, the author finds that each percentage-point increase in the credit rate reduced initial entry by 3.2%.

As the EITC has been heralded as a major policy success, it is interesting to look at the features that may have contributed to it. First, in-work benefits in the United States tend to generate larger financial incentives to work than similar, sometimes more generous, programmes. In fact, the EITC is not counted as income for the calculation of any other transfer programme, so the household sees the full gain of the in-work benefit, suggesting that the interaction between in-work benefits and other means-tested benefits is of central.

Second, in the United States, in-work benefits were expanded at a time when the out-of-work benefits were being reduced, particularly for single parents. Thus, the increase in incentives to work through the EITC was strengthened by the decline in the generosity of out-of-work benefits.

Third, the low withdrawal rate reduces the disincentive effects that typically arise at the higher end of the earnings distribution, although it does this at the cost of increasing the public finance burden of the scheme. There is, as noted above, little evidence that working hours have been much reduced among those already in employment in order to take advantage of in-work benefits.

financial disincentives to move up the wage ladder. Moreover, time limits tend to lower the public finance cost of an in-work benefit as opposed to a more open-ended benefit scheme.

The appropriate design of time limits depends on the expected wage progression for programme participants and the incentives for wage progression created by the time-limited system itself. With no time limit, tax-credit systems can provide a strong negative incentive for wage progression and human capital investment, reducing the chance of

longer-run self-sufficiency. This depends largely on the relative importance of the return to work experience, which occurs automatically once a job is found, in comparison with the return to human capital investment, which requires effort by the individual. Indeed, evidence of steep wage progression among low-skilled workers is rare. Most studies suggest that wage progression is likely to be no more than 3-4% per year at best (see Gladden and Taber, 2000). This is further supported by the work by Card *et al.* (2001) on wage growth among the recipients of the Canadian Self-Sufficiency Project (SSP) experiment (see Box 3.6). These results suggest that a relatively short time limit (*e.g.* up to 6-12 months) is unlikely to provide time for wage progression to result in self-sufficiency and could be counterproductive. At the end of the subsidy, either workers will leave to accept lower income, or give up their jobs, or move into some other make-work-pay programme. For example, the EITC is used by many as a way of working themselves off time-limited earnings supplements in Temporary Assistance for Needy Families programme (TANF).

Targeting of in-work benefit programs

Targeting of in-work benefits may help make programmes more effective while also limiting windfall beneficiaries, by restricting entitlement. Among others, Akerlof (1978), Parsons (1996), Besley and Coates (1992),²¹ all suggest some targeting mechanism whereby individuals are assumed to be needy because of some individual or family characteristics, *e.g.* low-education, single-motherhood and poor health, are some examples.²² Targeting, however, has been subject to criticism. First, it may be viewed as inequitable, since a person who never enters welfare is penalised relative to one who decides to go on welfare for some time and then returns to work. Secondly, targeting could limit the scope for achieving an anti-poverty objective by limiting the programme's availability. Finally, targeting can only partly screen out windfall beneficiaries. In fact, some of the individuals who are not working at the time when eligibility is assessed would have found work even in the absence of the programme. For instance, Lin *et al.* (1998) show that 15% of individuals who had been on welfare long enough to qualify for the SSP supplement of Canada, would have found a job even in the absence of the benefit.

As seen in Table 3.5, the group most often targeted is that of long-term welfare recipients. Since most individuals who have spent some time on welfare benefits are likely to remain on welfare in the near future, there are very few windfall beneficiaries of the programme. Moreover, anyone who wants to become eligible for the earnings supplement has to enter welfare and remain on for a full year (see Card and Hyslop, 2005 for more on the effectiveness of this requirement as an entry barrier to welfare).

Another common targeting criterion is that of family structure. In several countries, the presence of children and single parenthood are qualifying criteria to receive in-work benefits. Not only does this choice appear appropriate in the context of targeting – single-parenthood seems to be an appropriate proxy of need – but it also often responds to the explicit government objective of reducing child poverty. While it has been argued that targeting a particular family-type may introduce incentives to change family structure,²³ only small effects of this type have been observed.

In addition to targeting by type of individual and labour market experience, several existing programmes also target by individual earnings or family income. Targeting family income has the advantage of identifying poor families but often carries with it stigma effects and can create adverse family labour supply incentives (see Box 3.2 above). Targeting by earnings has the advantage of identifying low-earners and the low-skilled, but

**Box 3.6. Are time limits to the provision of in-work benefits effective?
The experiences of the Temporary Assistance for Needy Families
in the United States and the Canadian Self-Sufficiency Project**

TANF provides monthly cash benefits to very low-income families based on eligibility standards set by the states. Unlike its predecessor, Aid to Families with Dependent Children, TANF is not an entitlement programme, *i.e.* eligible families are not guaranteed benefits. One of the main goals of TANF is to help the transition of recipients to employment, so that cash benefits are no longer necessary. Recipient families must fulfill work requirements, and there is a time limit on benefits.

Several studies have been conducted on the role played by time limits in the TANF. Indeed, many believe that time limits played a key role in generating the large welfare caseload declines in the second half of the 1990s. Since few families actually reached a time limit, these effects must have been anticipatory, *i.e.* people must have left welfare more quickly in order to avoid using up months of eligibility. In this respect, Moffitt and Pavetti (2000) show that anticipatory effects depend on discount rates and liquidity constraints, (*i.e.* the relative value that people place on short-term *versus* long-term gains) and their perception of alternatives to welfare. Random assignment studies conducted in seven US states find positive effects on employment and earnings at the end of the first year of programme participation, but they are unable to isolate the specific role that time limits played in generating the positive effect.

Few studies have looked at the specific effect of time limits. Grogger* (2000) shows that in 1998, welfare use among female-headed families would have been 14 to 16% higher in the absence of time limits.

The SSP, an experimental welfare reform begun in the mid-1990s in two Canadian provinces, offers another illustration of how time limits operate. Under SSP, an earnings subsidy was provided for up to three years to long-term recipients who left welfare and entered full-time work. The subsidy reduced welfare participation and raised employment: within 15 months, the employment rate of single mothers who were offered the supplement was 10-15 percentage points higher than the employment rate of a randomly-assigned control group (Lin *et al.*, 1998).

Despite initial findings that most employment resulting from SSP was stable (Michalopoulos *et al.*, 2000), the end-of project report showed more mixed outcomes. Most people who responded to the supplement offer would not have worked otherwise and might therefore have been expected to lose their full-time jobs relatively quickly. In general, this did not happen. For every three people who worked full time because of the supplement offer, two people stayed employed for at least a year. However, although SSP encouraged a group of less-skilled people to go to work, recent studies show that it appears to have had no long run effect on wages and little or no long run effect on welfare participation. In this respect, Card *et al.* (2005) find that wages grew as much for people who worked because of the supplement offer as for the generally more-skilled people who would have worked without the supplement offer. On the other hand, the program might have had some motivational effects on participants. Indeed, Gottshalk (2005) found that welfare recipients who work more hours induced by earnings supplements feel more control over their lives. This could potentially leave welfare recipients to be optimistic about their chances of succeeding in the labour market.

**Box 3.6. Are time limits to the provision of in-work benefits effective?
The experiences of the Temporary Assistance for Needy Families
in the United States and the Canadian Self-Sufficiency Project (cont.)**

Although a full picture of the effect of this time-limited programme will only be available when post-programme evaluation is complete, these preliminary findings are suggestive. An increase in wages sufficient to make work pay better than welfare, even after the supplement is no longer available, might deter people from reapplying for welfare and result in long-term effects from the supplement offer.

* The study is based on the United States Current Population Survey to test a theoretical model that predicts that families with the youngest children should be more responsive to time limits than other groups. The study relies on two sources of variation in the data to identify the effects of time limits and to distinguish the effects of time limits from the effects of other welfare reform provisions. First, time limits were implemented at different times in different states. Second, many states first implemented a welfare reform programme that did not include time limits, and added time limits later on.

it can create a disincentive to work longer hours or increase work effort. In this respect, an interesting proposal for in-work tax credits based on the *hourly* wage has been put forward by MaCurdy and McIntyre (2004) (see Box 3.7).

Hours limits

Restricting eligibility to those working full-time is another way of reducing the number of windfall beneficiaries in a financial incentive scheme. Indeed, this could limit the risk that individuals who would otherwise work full-time shift to part-time in order to receive the benefit.

However, imposing full-time employment as an eligibility requirement may limit the job possibilities for those on welfare who can only take a part-time job. For instance, for mothers with small children, and single mothers more specifically, a requirement of full-time work may reduce considerably the number of programme participants unless childcare costs are also subsidised.

The experience with the Working Family Tax Credit (WFTC) in the United Kingdom is interesting in this respect. The old Family Credit (FC) programme imposed a 24 hours-per-week condition but this was reduced to 16 hours when it was replaced by the WFTC. Research has shown that this has encouraged a significant fraction of inactive single parents into work (Blundell and Haynes, 2001). As expected, it has also reduced the number of hours worked by many single parents in employment. To limit the latter effect, in 1995 the government introduced a bonus paid in addition to the WFTC to those working full-time (30 hours per week). In comparison, EITC of the United States has no minimum-hours condition and some have argued for hourly wage-based credits to address the adverse hours and effort incentives (see Box 3.7).

Assessment period, changes in entitlement and payment arrangements

Most of the design issues considered up to now relate to making the system cost-efficient while getting individuals into work. However, the administrative features of the system *vis-à-vis* recipients are also very important as they influence take-up rates and therefore the effectiveness of the programme.

Box 3.7. Reform ideas: wage-based tax credits

MaCurdy and McIntyre (2004) have made interesting proposals of redesigns for the EITC, so as to improve both work incentives and targeting to working-poor families.

The novel idea underlying these proposals involves making the EITC benefit schedule dependent on family's hourly wages as well as earnings. In contrast, the existing EITC system pays benefits merely according to the level of a family's annual earnings, without regard to whether these earnings come about from a large number of hours worked at low wages or a much smaller number of hours worked at higher wages. Paying benefits based solely on a family's earnings means that some families receiving support have relatively high wages but work only part-time. These beneficiaries are not the primary targets of the income-support policy, and their participation in the programme discourages them from moving to full-time work.

The authors consider two redesigns of the current system:

- The wage-based EITC assigns a benefit schedule to a family based on its hourly wages with income supplements paid out at a fixed rate for each hour worked until full-time employment. At full-time, the family would receive the same level of benefits provided under the existing EITC. After reaching full-time, EITC benefits would phase-out at the same rate as the current EITC policy.
- The wage-subsidy EITC pays benefits to make up the difference between a family's wage and a prescribed set level. Once in full-time employment, the same rules as the current EITC would apply. This wage-subsidy EITC operates as if a minimum-wage law were passed with the law applying only to low-income families with children.

Both the wage-based and wage-subsidy alternatives to the EITC overcome the work disincentives present in the existing EITC and improve the targeting of benefits to families supported by low-wage jobs. The wage-based EITC would essentially raise net hourly wages above their non-EITC values for all families supported by jobs paying a very low hourly wage for all hours worked up to the equivalent of one full-time worker, with the benefit rate declining as a family's market wage rises. The wage-subsidy EITC would increase the net hourly wages for all families supported by jobs paying below the prescribed level up to the minimum-wage threshold; this higher wage would apply to all hours worked up to full-time. Consequently, both of these redesigns of the EITC would make work effort more attractive until the family reaches full-time work.

The wage-subsidy EITC would perform best in targeting benefits to the lowest-wage working poor. By construction, practically all benefits would go to these families. The wage-based EITC would focus more benefits to families supported by the lowest-wage jobs than does the current earnings-based EITC, but only marginally so.

The wage-subsidy EITC would also perform better than an increase in the federal minimum wage. Indeed, in the case of a wage-subsidy EITC, only those low-wage workers in low-income families with children would receive the increase in the hourly wage. And, for those workers receiving the wage increase under both the wage subsidy and a minimum-wage increase, the authors show that the wage-subsidy EITC would offer greater work incentives because families would not pay income or payroll taxes on the wage-subsidy EITC, while they would on their minimum-wage earnings.

Overall, the policy implications of the two redesign proposals are interesting. Such modifications appear not only to have the potential of enhancing work incentives of participants, but are also likely to improve the targeting of benefits to families with children supported by low-wage workers. In addition, the wage-subsidy EITC would dominate increasing the minimum wage as an effective antipoverty policy.

The intervals at which income is assessed for eligibility and to determine benefit amounts are very important. Intervals of one year are probably ideal from the administrative point of view, as they reduce the cost of assessment as well as allowing the administering offices to check income information against income-tax files. However, this arrangement would require greater potential responsiveness within a year to changes in family circumstances – i.e. significant falls in family income or changes in household's composition such as the birth of a child.²⁴ Since greater responsiveness may involve more contact with the tax-benefit offices for some families, a key issue will be how to combine this responsiveness with a system which is not too costly and is transparent with respect to potential beneficiaries.

The nature, method and frequency of payment are related and important aspects in the design of in-work benefits. In several countries, in-work benefits take the form of tax credits, moving away from the idea of a benefit paid by social security offices towards a system where eligibility determination and payments fall within the competence of the tax offices. This could turn out to be rather cost-effective if, as some countries have envisaged it – notably, the United Kingdom (HM Treasury, 2000) – tax offices could, one day, use data collected from employers to assess credit awards and eliminate the need for many families to provide such information directly every year. In addition, payment of the credit via the tax system may increase take-up rates by reducing the potential stigma associated with claiming in-work support. The use of the tax system may also facilitate payment through the wage package, therefore increasing the frequency of payments over the year. While this would likely have favourable effects in terms of matching more closely family needs than an end-of-year payment, it would increase the administrative burden on employers. Box 3.8 provides more background on this issue based on the experience with WFTC.

The issue of multiple welfare programmes

One final administrative issue that may influence both administrative costs and take-up rates is the co-existence of several programmes at once for the same potential beneficiaries. Not only does this increase administrative costs, but it has a series of implications for both recipients and the government that are worth mentioning.

The presence of several programmes, when managed by different authorities, increases the burden of the system on the recipients themselves, as they may have to travel to different offices to establish eligibility and to comply with each programme's requirement. There is evidence that the participation of eligible individuals tends to decline as programmes multiply (Zedlewski and Brauner, 1999). Both high individual and administrative costs could be reduced by the introduction of a single welfare office, establishing the eligibility for multiple programmes and dispensing benefits. An additional problem brought about by the presence of several different welfare programmes is that it makes the identification of the overall marginal tax rate faced by an individual more difficult.

Some countries have been sensitive to this issue and have been trying to simplify the system of in-work benefits. For example, the United Kingdom has recently reformed its child tax-credit scheme so that it is paid together with the basic WFTC benefit. The objective was indeed that of improving coordination among different components of the welfare system, promoting transparency in the marginal effective tax rates faced by individuals, and simplifying claiming procedures.

Box 3.8. **Pros and cons of paying tax credits through the wage package: evidence from the WFTC**

In the United Kingdom, since 2000, families have been able to receive Working Family Tax Credit payments with their monthly wage, via the PAYE system which ensures that workers receive their wages net of income tax and social security contributions. Research conducted since then has highlighted several pros and cons of this way of paying the benefit.

When originally envisaged, the general view was that payment through the wage package would have several potential advantages (HM Treasury, 2000). First, it would reduce the stigma associated with claiming in-work support. Secondly, it was likely to prove more acceptable than social security benefits to taxpayers. Finally, it would reinforce the distinction between the rewards of work and remaining on welfare.

In fact, evidence that the positive work incentives of WFTC would be strengthened by paying it through the wage packet turned out to be rather weak. Brewer and Shepherd (2004) pointed to the experience with the Family Credit, the predecessor of WFTC, during which no evidence was found that recipients disliked receiving payments directly through the social security route. Besides, the authors show that, in the United States, where families can choose the payment method, only a tiny minority of EITC recipients elect to receive it through the wage packet, rather than as a one-off lump-sum annual payment.

Among other drawbacks, academics have pointed to the evidence that mothers are generally more likely to spend resources on children than fathers (Goode *et al.*, 1998), while paying WFTC through the wage packet would leave non-working mothers in couples worse off as individuals.

Most importantly, paying WFTC via the pay packet represented an addition to employers' administrative burden. Indeed, after WFTC was introduced, there was evidence of some illegal behaviour by employers who would fire employees who tried to claim WFTC (Wheatley, 2001). And, around 18 months after the policy started, a quarter of those entitled to WFTC who received it through the pay packet said that this had caused them some difficulty with their employers (see McKay, 2003).

Overall, the United Kingdom government has heeded these findings and, in 2002, has modified payment procedures to ease the burden on employers (Inland Revenue, 2002). However, it seems that the experiment of paying in-work support through employers will be abolished altogether from 2005, five years after it began (see HM Treasury, 2004).

B. Policy complementarities

In several ways the analysis conducted up to now points to the need for a comprehensive labour market strategy to facilitate entry or return to employment. Directly increasing the financial incentives to find work via the introduction of in-work benefits is important but other policy tools can help support the role of employment-conditional payments. For instance, Chart 3.3 showed that returning to work at a wage higher than before job loss reduces financial disincentives to work, pointing to the role that active labour market policies (ALMPs) can play by effectively providing job-search support, counselling, and re-training.²⁵ In a similar way, the implementation of work requirements points to the potentially important role of effective public employment services. Besides, the introduction of a requirement of full-time work for eligibility for in-work benefits requires the provision and financing of reliable childcare structures. This is equally important in efforts to help individuals exit in-work poverty by moving from part-time to

Box 3.9. Welfare reform in New Zealand: the Working for Families package

The Working for Families package (WFF) in New Zealand was passed on 26 April 2004. By 2007 the package will provide around NZD 1.1 billion a year in extra financial and in-work assistance to families with dependent children. In addition, some of the changes introduced by the package will also affect people without children – notably, assistance for housing costs.

The WFF package is designed to achieve several objectives in assisting families with dependent children, which includes ensuring that people who work are better off as a result of their effort.

The changes will be implemented over three years, starting from July 2004 and continuing through April 2007. The main components of WFF are the following:

- Family Income Assistance improvements.
- Work Payment for families in-work initiative.
- Childcare Assistance improvements.
- Accommodation Supplement initiatives.
- Invalid's benefit changes.
- Special benefit changes.
- Consequential changes to other social assistance.

In addition, the approach adopted for delivery of the package also involves greater coordination between the welfare and tax authorities.

According to estimates from the New Zealand government, the package is expected to benefit 300 000 families and is expected to have a significant impact on child poverty and poverty alleviation. However, despite moving in the right direction, the reform does appear to have some shortcomings. First, the package does little to lower the tax rates facing second earners in couple families, giving them limited incentive to work or search for a job. In this respect, OECD (2004b) suggests that a stronger Childcare Subsidy programme – linking hours worked with financial support for parents – could address this issue.

Secondly, for sole parents, financial incentives to get a job could be strengthened through lower basic payment rates and higher employment-conditional payments. Enhanced case-management was introduced in 2004 to strengthen employment support for sole parents on benefit.

full-time employment. Finally, to prevent any risk that employers might take advantage of the employment subsidy introduced by in-work benefits through downward adjustments in wages, an appropriately set minimum wage policy might be needed. The Working for Families programme of New Zealand provides an interesting recent example of comprehensive reform (Box 3.9).

Financial incentive policies and childcare benefits

Paying for childcare can be a significant in-work cost for single parents who work but also for second earners with young children. Several papers have looked at the effect of childcare costs on the labour supply of single mothers or married women, mostly focusing on the experience of the United States where the welfare reform of the mid-90s triggered

the introduction in several states of childcare subsidies.²⁶ For instance, Connelly (1992) and Averett *et al.* (1997) show that women's labour supply responds to the *effective wage* – i.e. the wage net of child-care costs and of childcare subsidies – rather than to the gross wage. Averett *et al.* (1997) find that a 1% reduction in the effective wage (*e.g.* through greater subsidisation of child-care) would raise women's labour supply by 1%. The effect is found to be even larger for single mothers.²⁷ In addition, Lemke (2000) shows that the quality and stability of childcare have much larger effects on the probability of work than do its costs. In this respect, Berger and Black (1992) show that the introduction of childcare subsidies have had a positive effect on the quality of childcare. As for the experience of other countries, Powell (1997) investigates the impact of childcare costs on the labour supply of married women with children in Canada. She estimated the “direct childcare cost elasticity measure for hours of work” to be approximately -0.32 , suggesting that increases in the cost of childcare have adverse impacts on the labour supply decisions of married Canadian women.

While participation effects have been shown to be large, the impact of childcare subsidies on hours worked appears to be much less important, as shown by Berger and Black (1992) and Lemke *et al.* (2000). Instead, availability of early education systems, such as full-day kindergarten, seems to be much more relevant in women's decisions regarding work.

Overall, high-quality subsidised childcare appears to be an essential component of an overall strategy to raise women's incentives to work and a necessary complement to in-work benefits (Box 3.10). Once more, targeting of needy families is essential to ensure that deadweight losses – through windfall beneficiaries – are limited and to deal with the public finance aspects of childcare benefits.

Minimum wages as a complement to in-work benefits

There are several reasons to think that a coherent strategy for promoting work and reducing poverty should combine in-work benefits with a minimum wage set at a moderate level.

In-work benefits have several advantages over a minimum wage as an instrument to tackle poverty. They can be targeted on low-income households, their level can vary depending on family circumstances, and they do not raise the direct cost of low-wage employment to employers. Attempting to use minimum wages alone to generate an adequate in-work income that is responsive to the needs of varying family structures is problematic.²⁸ Since the overlap between low-wage jobs and family poverty is not all that large in many countries (see OECD, 1998), a minimum wage is not a very effective anti-poverty instrument on its own. In most cases, it is inferior to an appropriately designed in-work benefit. In addition, it would affect job prospects for low-productivity workers, particularly the young.

However, by improving the returns to work, in-work benefits make low-paid jobs more attractive to the unemployed and inactive. In the absence of a minimum wage, there would be an increased risk that some employers would try to take advantage of this additional labour supply by lowering wages (under assumptions of employer monopsony). In this context, an appropriately-set minimum wage would establish a floor for wages and ensure that low-income workers enjoy the full benefit of the in-work support. Indeed, it is noticeable that countries such as Ireland, New Zealand, the United Kingdom and the United States all have legal minimum wages as a complement to their in-work benefits.

Box 3.10. **Childcare provisions as part of an overall make-work-pay policy framework**

In *Canada*, the National Child Benefit (NCB) supplement plays an important role in increasing financial incentives to work. The NCB Supplement is the Government of Canada's contribution to the federal/provincial/territorial National Child Benefit initiative, which aims at preventing and reducing child poverty and promotes attachment to the workforce by ensuring families are better off working. In most jurisdictions in Canada, the NCB operates in a way similar to an in-work benefit for certain transitions from social assistance to the labour market. Individuals with children receiving provincial/territorial Social Assistance (SA) have their SA benefits reduced by an amount equivalent to the NCB Supplement while employed individuals with children receive the NCB Supplement depending on their income. In addition, provinces and territories reinvest their SA savings into new or enhanced measures for low-income families with children, which can further support parents in making the transition from SA to work.

The Netherlands, another country with employment-conditional programmes, replaced the income-dependent benefits for childcare with a childcare tax credit in 2004.

Adding to its in-work benefit programmes, *New Zealand* has recently introduced new childcare provisions aimed at assisting parents into work. The maximum number of hours qualifying for the income-related Childcare Subsidy (payable to the childcare provider) and Out-of-School Care and Recreation (OSCAR) subsidy was increased from 30 to 37 hours per week. On the supply side, additional funding was provided to improve the number and quality of OSCAR providers so that lack of access to childcare is less of an impediment to beneficiaries and low-income workers entering and/or remaining in the paid workforce. Further increases of benefit amounts and income disregards are planned for 2005 as part of the Working for Families reform package. Access to the New Employment Transition Grant, previously only available to sole parents, was extended to married people with a dependent child or children. For six months following the cancellation of the benefit to enter employment, the grant provides assistance to people who are required to take unpaid leave due to personal illness, illness of their partner or their child, or as a result of a breakdown in their childcare arrangements.

In the *United Kingdom*, the Working Family Tax Credit contains a generous childcare component, whereby families are entitled to a tax credit of 70% of childcare costs up to some limit depending on the number of children.

The choice of the “appropriate” level of the minimum wage depends in part on the shape of the earnings and skills distribution, and will therefore change across countries. This is further complicated by the need to choose a minimum wage that is compatible with a given amount of in-work benefits. An example of combination of these two policy tools is provided by the United Kingdom where the minimum wage was re-introduced to accompany the package of make-work-pay reforms that include the WFTC and New Deal programmes.²⁹

Tax credits and active labour market policies

The effectiveness of in-work benefits is likely to be strengthened when they are combined with well-designed ALMPs. Blank et al. (1999) find evidence that the provision of job coaching and case management services enhanced the labour market impact of both

the Self-Sufficiency Project in Canada³⁰ and the Minnesota Family Investment Program in the United States (see also OECD, 2003).

More generally, while in-work benefits require individuals to work, sometimes full-time, finding a job after a period of unemployment may not be easy, especially in a context of rapidly changing skill requirements. Effective ALMPs can help ensure that those who are out of work are kept in contact with the labour market and do not drift into long-term unemployment.

Hence, combining in-work benefits and effective ALMPs can prove a winning strategy. ALMPs would improve an individual's prospects for sustainable employment. At the same time, an employment-conditional benefit could increase the financial benefits of work, improving the incentive to take, and then to stay in, work. The combined impact of these two policies is likely to be greater than that of any one of them taken in isolation. In this respect, the United Kingdom has been pursuing a comprehensive strategy to help people move from welfare to work. This includes in-work programmes to ensure that work pays – the WFTC – and increased emphasis on active labour market policies to help individuals regain self-sufficiency through employment – the New Deal programmes.

C. Cost considerations

When assessing the effectiveness of in-work benefits, it is essential to also take into account the cost of the programmes for the public purse. This is important because in-work benefits do not come cheap, and the taxes and contributions needed in order to fund the programmes may in turn affect employment outcomes in various ways. For instance, in the United Kingdom, the WFTC is estimated to cost GBP 5 billion – about 0.6% of GDP – and, in the case of the EITC of the United States, costs have reached about USD 33 million, or 0.33% of GDP (OECD, 2003). Of course, these costs are outweighed, at least in part, by lower welfare payments resulting from the fact that certain job-seekers will find a job as a result of the scheme.³¹

Nevertheless, by designing in-work benefits along the lines outlined above, it is possible to both increase employment (and thus broaden the tax base) and limit the budgetary repercussions of the schemes. In particular, narrow targeting may help reduce costs in two ways. First, more directly, it reduces the number of intended beneficiaries of the programme by focusing aid on the on the neediest groups. Secondly, it reduces the number of windfall beneficiaries. For instance, focusing on individuals who have spent a certain time on welfare reduces the likelihood that people who are not in need may try to become eligible for the benefits. Requirements related to working hours may also help in restricting eligibility. A programme designed to focus on a relatively small number of needy individuals could be generous while keeping the overall public finance costs under control.

The financial costs involved with in-work benefit reforms must also be forecast as accurately as possible. In this respect, analysis of take-up rates is very important (see Hernanz *et al.*, 2004). Low or declining rates of take-up of benefits – welfare and in-work – may reduce the capacity to anticipate the financial costs of reforms, as well as reducing the probability that welfare programmes attain their goals, thus leading to unjustified disparities of treatment among eligible individuals.

Conclusions

Based on the findings of this chapter, several observations are in order with respect to the OECD Jobs Strategy. The chapter shows that in-work benefits, if well-designed, can help improve employment outcomes. However the schemes can be costly and, more generally, they are not a panacea. Indeed, one important finding of the chapter is that in-work benefits work best when combined with other policy instruments to improve labour market participation. For instance, increasing labour force participation of single parents is not just an issue of making work pay: childcare support also needs to be made available. Likewise, effective ALMPs, by promoting job-search and enhancing skills, can provide a useful complement to in-work benefits. Finally, there is a risk that employers may pocket part of the financial gain introduced by in-work benefits, by reducing salaries. One way of preventing this would be to have an appropriately-set minimum wage that accompanies in-work benefits.

Further analysis is needed before specific recommendations can be issued, particularly in terms of policy packages. For instance, more work is necessary to assess the interactions between in-work benefits and minimum wages. In addition, demand-side aspects not addressed in this chapter are also likely to play a crucial role in determining the effectiveness of in-work benefit programmes and the role played by minimum wages. Finally, more analysis of the costs and benefits of the existing programmes across OECD countries is also necessary before recommendations can be issued as to whether these policies are cost effective. These are issues which will be addressed as part of the next stages of the reassessment of the OECD Jobs Strategy.

Notes

1. Technically, the METR is defined as $(1 - \Delta ne / \Delta ge)$ where Δne is equal to the change in net earnings, and Δge is the change in gross earnings experienced by the household. In other words, it compares total income out of work (the sum of all benefits to which a certain individual or family would be entitled while out of work) with income in work (the sum of gross earnings and all benefits to which the individual or family would be entitled while in work, i.e. earnings disregards or in-work benefits).
2. Indeed, despite being a useful tool for the analysis of the impact of tax and benefit rules on financial incentives to work, METRs suffer from some limitations due to the complexity of tax and benefit systems and the difficulty of incorporating these complexities in a single indicator. Some of these limitations are described in more detail on line at: www.oecd.org/els/employmentoutlook (OECD, 2005).
3. Note that in Ireland the METR for a person in a one-earner household with two children who sees his/her earnings rise by 10% is fully determined by in-work benefit withdrawals. In fact, at 50% of APW earnings, no income taxes or social security contributions are payable and the only benefits received are a) family benefits, which remain constant as earnings rise – and, therefore, do not contribute to the METR – and b) family income support benefits, for which eligibility starts at 19 hours of work per week and which decline gradually as earnings increase.
4. The left panel of Chart 1 (OECD, 2005) shows that 67% of APW is a reasonable assumption. Approximately 23% of individuals in the 19 OECD countries shown in the chart work for less than 67% of the APW earnings in their country, with the highest share in Hungary, Poland, and Italy and the lowest in the Czech Republic, Switzerland and Belgium. In addition, the right panel of Chart 1 (OECD, 2005) shows, for the countries for which this information is available, that a large share of those earning less than 67% of the APW level are working full-time at hourly wages below APW level.
5. Note that in Denmark, social assistance reduces the METR. This is due to the way social assistance is paid.

6. This is not the case in all countries. For example, in the United Kingdom, single parents and families with children are better off going back to work with a salary that is lower than the pre-unemployment salary. This comes from the combination of unemployment benefits that do not depend on pre-unemployment earnings and in-work benefits that decrease with wages. It is also the result of a policy aimed at reducing child poverty by helping parents back to work (e.g. by paying them childcare benefits).
7. In Italy, very low METRs are mostly explained by a very weak welfare system for inactive individuals. The sole benefits available – family benefits – are only paid to working families and unemployed individuals.
8. Chapter 2 in this edition of the *Employment Outlook* shows that active labour market policies, if well designed, can be effective in raising employment prospects for job-seekers.
9. The countries in question are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Portugal, Spain, United Kingdom and the United States.
10. Other techniques could have been used to deal with the selection problem, like using instrumental variables or Heckman two-step models, but data limitations made this impossible.
11. Additional assumptions include: a) individuals were earning the same as their potential earnings before the unemployment spell; and b) METRs calculated for families with two children are used whenever children are present. Assumption a) may lead the METRs attributed to each individual to be lower than the true ones, as it is likely that unemployed individuals suffer a wage loss following unemployment. On the other hand, assumption b) would lead imputed METRs to be either overestimated or underestimated, depending on the number of children: true METRs would likely be lower for those having only one child and higher for those having more than two children.
12. Gurgand and Margolis (2005) for France, Schneider *et al.* (2000) and Schneider and Uhlendorff (2004) for Germany, conduct a similar exercise, using the ratio of net in-work income to welfare as a proxy for financial incentives. In both studies, potential earnings' regressions are used to attribute a value of the ratio to each individual. Gurgand and Margolis (2005) look at the effect of this ratio on the probability of being employed and find that financial incentives play a weak role on labour supply decisions of individuals on welfare. On the other hand, Schneider and Uhlendorff (2004) find that the ratio of income from work to welfare benefits increases the probability of leaving social welfare, even when demand factors are controlled for.
13. Using the data from the first column of Table 3.1 Panel A, this is calculated starting from the observed mean of 45% and adding a 4.3 percentage points rise ($45 * 0.2 * 0.48 = +4.3$).
14. OECD (2003, Chapter 2) showed that, more often than not, unskilled individuals tend to have very low labour market attachment and this may reduce the incentives of taking up a job. Indeed, the chapter found that low-paid employment often alternates with non-employment, particularly for the low skilled. Another study conducted by Kapsalis and Tourigny (2004) for Canada found that more than 60% of all transitions from inactivity to employment involved a transition to a non-standard job (self-employment, part-time permanent employment, or temporary full and part-time employment). This points to the importance of policies that not only help individuals go back to work, but also provide them with the necessary tools to gain a stable position in the labour market.
15. METRs used here do not include childcare benefits. See Barber and Immervoll (2004) on preliminary work to include childcare benefits in METRs.
16. In the case of Ireland, individuals are entitled to the "Back-to-Work Allowance" only after spells of unemployment ranging between 15 and 22 months, depending on age and family status.
17. Some of the programmes presented in Table 3.2 provide very small payments and only marginally increase net earnings. They are not taken into account in the charts.
18. See OECD (2003, Chapter 3), for a more detailed description of individual programmes.
19. Indeed, the price for extending generosity at lower earnings, without increasing withdrawal rates, would be a higher implicit tax rate further up the income distribution (an example of this is the working family tax credit in the United Kingdom).
20. The Saez model lacks a number of important features of present-day financial incentive programmes, such as the focus on household income, rather than individual income, and targeting. As a result, the model would be more consistent with the experience of some European countries such as France, than with the design of programmes in anglo-saxon countries. However, it can still be considered applicable within groups with the same characteristics.

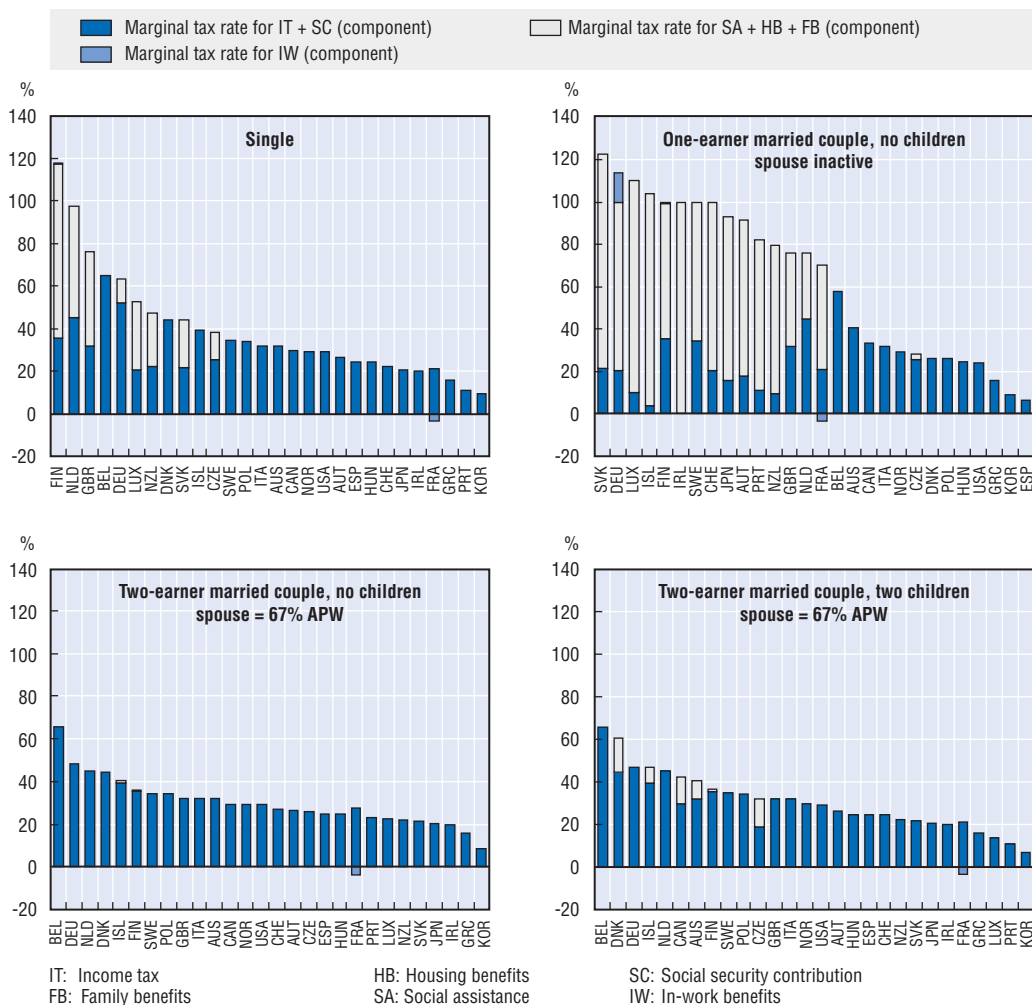
21. The models have in common the assumption that there is some unobservable ability upon which the government would prefer to base transfers in a first-best world but cannot – for example productivity – so the second-best solution involves targeting. In the end, if the screening mechanism is sufficiently accurate, the social welfare gains from giving benefits to the targeted needy can outweigh the losses from the denial of benefits to those who are truly needy but who do not possess the correct characteristics, and hence go untargeted. The risk remains that individuals may try to change their characteristics in order to become eligible to benefits. However, since there is a cost to changing one's characteristics – divorce, single motherhood – a targeting system would still be optimal if few people change categories to benefit from targeting.
22. The idea that targeting is a more efficient redistribution tool than alternative universal programs such as a basic income guarantee and the NIT has been challenged by some. For papers that show that providing universal payments does not necessarily reduce economic efficiency, see Bryan (2005) and Pressman (2005).
23. The theoretical literature on models of family structure generally supports the proposition that offering benefits to only one family type will increase the number of families of that type. One exception is if welfare is viewed as social insurance against the event of divorce. In such a model, provision of insurance should actually encourage getting married.
24. This raises the related issue of how far the credits should reflect less dramatic increases and falls in income.
25. Job-search support can help reduce the duration of unemployment spells and this in turn would limit human-capital losses associated with long spells of unemployment. It may also improve the match between workers and jobs, thus increasing job stability and wage progression. Effective job training, on the other hand, is likely to play a more direct role in increasing the wage that the unemployed can demand on the labour market.
26. For a survey of childcare subsidy programmes, see Blau (2000).
27. Kimmel (1995) focuses on single mothers and finds that free child care would imply that the employment probability for this group would more than double.
28. For example, Gregg (1999) estimated that, in the United Kingdom, it would require a minimum wage of between GBP 5 and GBP 5.70 for one full-time worker in a couple to generate an income of half the average household income. A minimum wage set at this level could well have adverse consequences for the employment of low-skilled workers, particularly the young.
29. Its level was set at 44% of average earnings, and the same worker would get an additional 30% of average earnings as part of the WFTC if she/he is working at least 30 hours, bringing her/him barely above the relative poverty-line.
30. In the 18-months report on the SSP, Lin *et al.* (1998) show that participants themselves were pointing to the importance of these support services. In fact, when asked "If you could change one thing about the SSP to make it a better program for you, what would it be?", 12% of those who did not take up the income supplement suggested that SSP should add a job placement service.
31. Moreover, even if there was a net negative effect on public finances, it would lead to somewhat higher taxes across a large number of non-beneficiary households – and it is unclear whether this would, on its own, have much impact on labour market participation.

ANNEX 3.A1

Supplementary Material on Marginal Effective Tax Rates

Chart 3.A1.1. **Low-wage trap indicator, 2002**

Decomposition of the marginal effective tax rate (increase from 50 to 55 % of the APW)



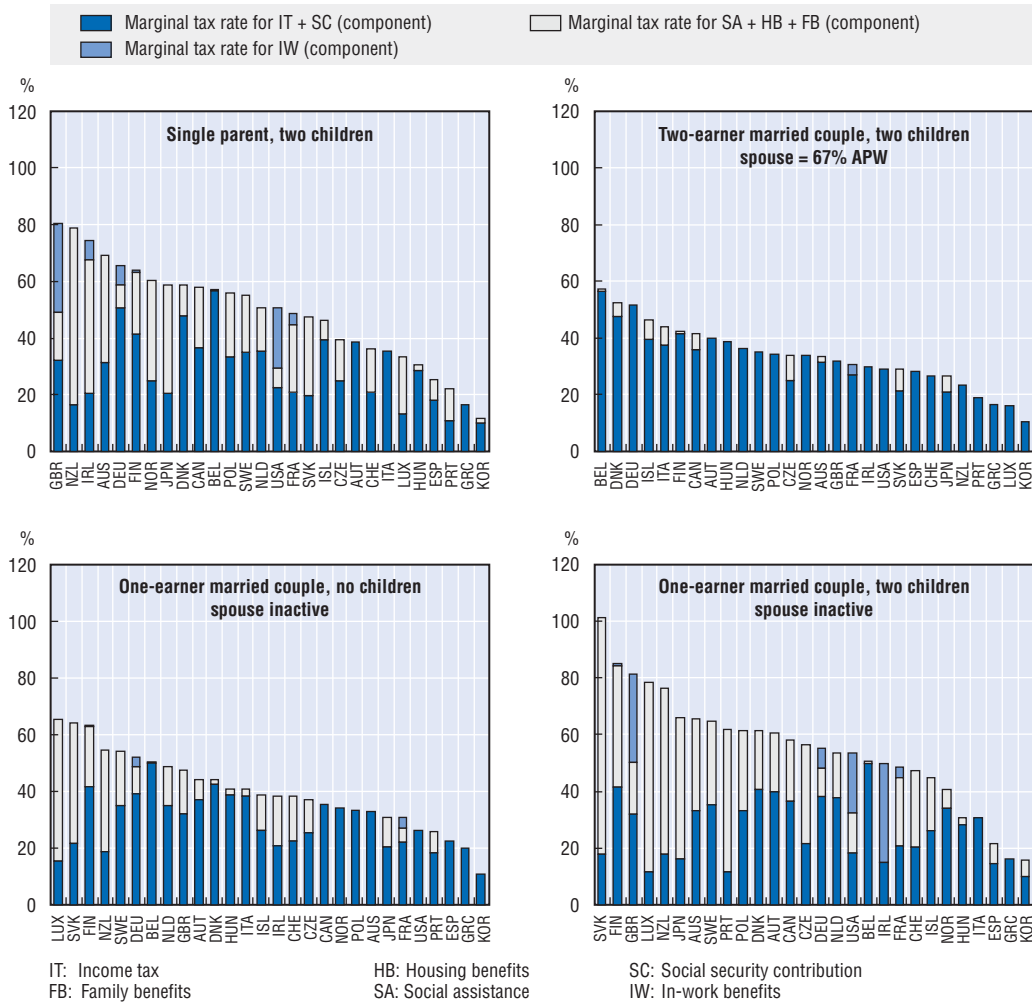
Note: The chart shows how much of a given rise in earnings is taken away in the form of higher tax and lower welfare benefits. For example, a value of 100 for the indicator shows that a 10% wage increase leads to no additional net income.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/422076235135>

Chart 3.A1.2. METRs associated with the transition from part-time to full-time, 2002^a

Decomposition of the marginal effective tax rate when moving from a part-time job (20 hours a week) at a wage level = 50% APW to a full-time job (40 hours a week) at a wage level = 100% APW



a) Part-time is defined as earnings at 50% of APW earnings and full-time as earnings at 100% of APW earnings.

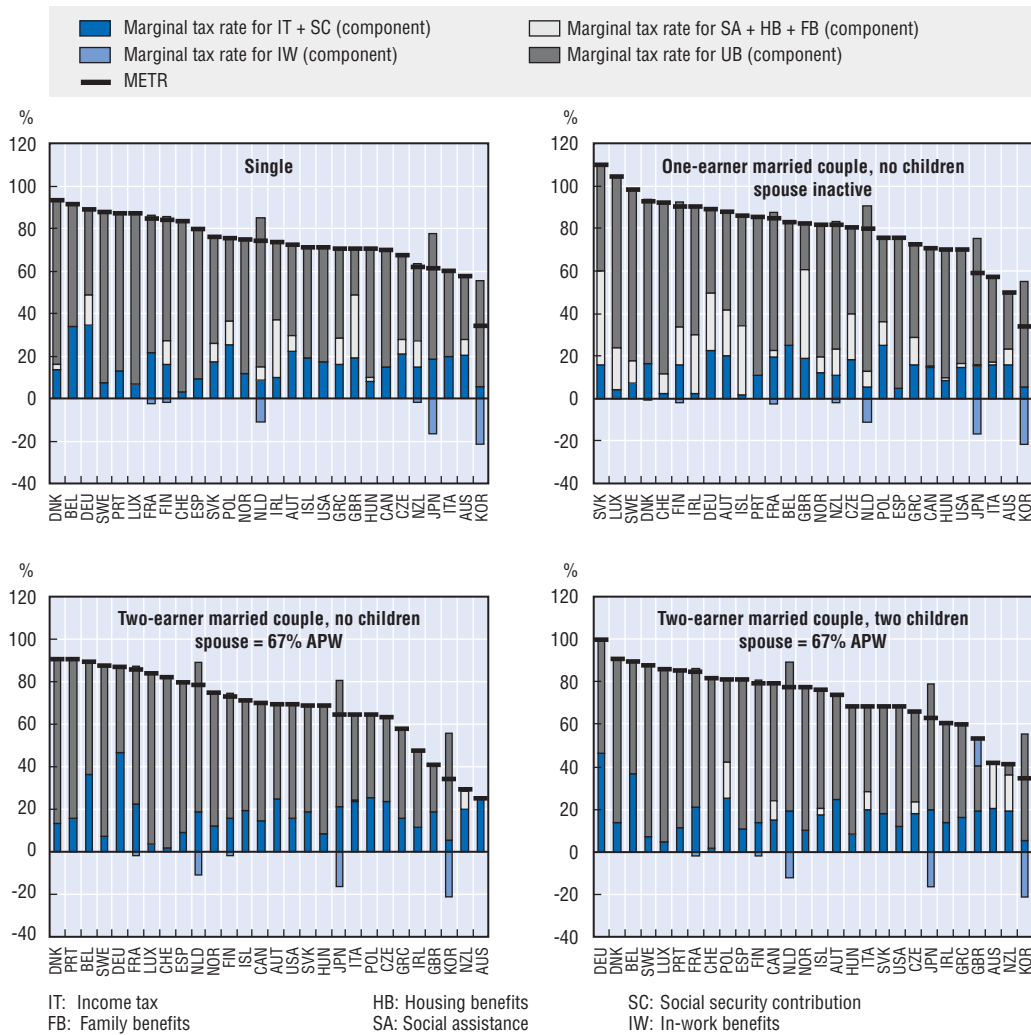
Note: The chart shows how much of the wage rise following a move from part-time to full-time employment is taken away in the form of higher taxes and lower welfare benefits. For example, a value of 100 for the indicator shows that moving from earning 50% of APW to 100% of APW leads to no additional net income.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/611428571535>

Chart 3.A1.3. **Unemployment trap indicator, 2002**

Decomposition of the METR moving from unemployment to full-time work at wage level = 67% APW
(wage before unemployment = 67% APW)



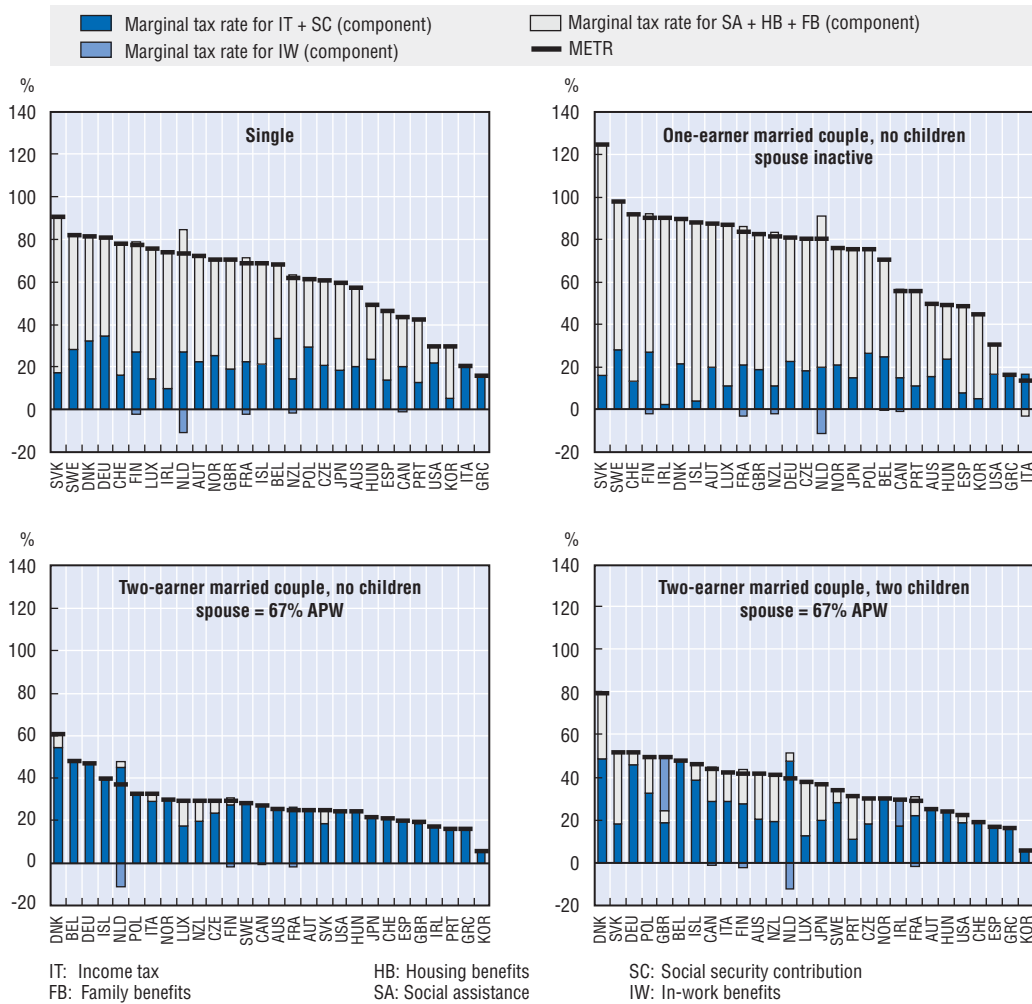
Note: The chart shows how much of the wage earned following a move to work from unemployment is taken away in the form of taxes and lower welfare benefits. For example, a value of 100 for the indicator shows that moving from unemployment to work leads to no additional net income. A value bigger than 100 indicates that net earnings in work are less than total out-of-work benefits.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/371224750524>

Chart 3.A1.4. Inactivity trap indicator, 2002

Decomposition of the marginal effective tax rate when moving from inactivity to full-time work at wage level = 67% of APW



Note: The chart shows how much of the wage earned following a move to work from inactivity is taken away in the form of taxes and lower welfare benefits. For example, a value of 100 for the indicator shows that moving from inactivity to work leads to no additional net income. A value bigger than 100 indicates that net earnings in work are less than total out-of-work benefits.

Source: OECD tax-benefits models.

Statlink: <http://dx.doi.org/10.1787/482672861521>

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