OECD Social, Employment and Migration Working Papers
No. 81

A Good Time for Making Work Pay? Taking Stock of In-Work Benefits and Related Measures across the OECD

Herwig Immervoll,

Mark Pearson

https://dx.doi.org/10.1787/225442803245

OECD

Unclassified **DELSA/ELSA/WD/SEM(2009)9**

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

English - Or. English

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JEL Classification:
J20, J30, H24, H31

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ACKNOWLEDGEMENTS

This report has been produced with the assistance of the European Union, as part of a joint OECD/EU project "Tax Wedge and Effective Tax Rates on Labour". This working paper should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the author(s). In particular, the contents of this publication can in no way be taken to reflect the views of the European Union.

SUMMARY

The twin problem of in-work poverty and persistent labour market difficulties of low-skilled individuals has been one of the most important drivers of tax-benefit policy reforms in OECD countries in recent years. Employment-conditional cash transfers to individuals facing particular labour-market challenges have been a core element of "make-work-pay" policies for some time and are now in use in more than half of the OECD countries. They are attractive because they redistribute to low-income groups while also creating additional work incentives. But like all social benefits, they have to be financed, which creates additional economic costs for some. This paper discusses the rationale for in-work benefits (IWB), summarises the main design features of programmes operated in OECD countries, and provides an update of what is known about their effectiveness in terms of reducing inequalities and creating employment. As policies aiming to promote self-sufficiency, wage subsidies and minimum wages share a number of the objectives associated with IWB measures. We review evidence on the effectiveness of minimum wages and wage subsidies and discuss links between these policies and IWBs. Finally, we outline some potential consequences of weakening labour markets for the effectiveness of make-work-pay policies.

RESUME

Le double problème de la pauvreté touchant même les personnes pourvues d'un emploi et de la persistance des difficultés rencontrées par les travailleurs peu qualifiés sur le marché du travail a été l'un des moteurs les plus importants de la réforme des politiques en matière de fiscalité et de prestations menée ces dernières années dans les pays de l'OCDE. Depuis un certain temps, les prestations en espèces subordonnées à l'exercice d'un emploi (accordées aux personnes confrontées à des difficultés particulières sur le marché du travail) sont devenues une composante essentielle des politiques de valorisation du travail. Aujourd'hui, plus de la moitié des pays de l'Organisation les ont mises en place. Ces prestations sont attrayantes car elles ont un effet de redistribution sur les groupes à faible revenu tout en créant de nouvelles incitations à travailler. Mais, à l'instar de toutes les prestations sociales, elles doivent être financées, ce qui alourdit les coûts économiques pour certains. Ce document examine le bien-fondé des prestations soumises à l'exercice d'un emploi, résume les principales caractéristiques de la conception des programmes mis en place dans les pays de l'OCDE, et fait le point de ce que l'on sait de leur efficacité sur le plan de la réduction des inégalités et de la création d'emploi. En tant que mesures destinées à promouvoir l'autonomie économique, les subventions salariales et les salaires minimums ont un certain nombre d'objectifs en commun avec les prestations soumises à l'exercice d'un emploi. Nous passons en revue des données d'observation sur l'efficacité des subventions salariales et des salaires minimums et examinons les liens entre ces mesures et les prestations en question. Enfin, nous mettons en évidence certaines conséquences possibles du fléchissement du marché du travail sur l'efficacité des politiques de valorisation du travail.

1. Introduction

1. In many OECD countries, persistent labour market difficulties experienced by low-skilled individuals and others with limited earnings potential have led to a strong interest in policy initiatives aimed at strengthening employment among these groups. At the same time, a desire to support low-income working individuals and promote self-sufficiency has prompted ongoing discussions of rebalancing social safety nets. The net result has been a growing interest in, and use of, so-called "make-work-pay" policies.

2. Employment-conditional cash transfers to individuals facing particular labour market challenges have been a core element of "make-work-pay" policies for some time. Issues related to the design of these so-called in-work benefits, as well as the circumstances making this policy more or less attractive, have been discussed in a number of earlier comparative studies carried out by the OECD and others.[1] An overview of in-work benefits (IWB) is regularly provided as part of the OECD series *Benefits and Wages*.[2]

3. This paper updates and extends these earlier discussions. An update of previous comparative assessments of IWBs seems useful for a number of reasons. First, a large number of countries have introduced in-work benefits (or employment-conditional tax credits) in the past few years. For the first time, more than half of all OECD countries now operate IWBs in one form or another, providing a rich basis for discussing different policy features.

4. Second, new empirical evidence appears to strengthen the case for certain types of IWB as an element of make-work-pay policies. For instance, some recent work indicates that, in a number of scenarios and countries, the positive effects of additional employment (the "extensive margin") clearly outweigh the costs created by reduced incentives to work more hours (the "intensive margin"). There are also indications that cost assessments of IWB policies have frequently failed to account fully for their favourable distributional effects. In particular, IWBs have often been assessed mainly in terms of the cost "per job created" (which can be very high). However, a more comprehensive outcome assessment also needs to account for benefits in terms of reducing inequality and in-work poverty. Using such an approach, some recent results point towards rather low (and possibly negligible) overall costs "per dollar transferred", especially as compared with more traditional redistribution policies, which commonly entail large efficiency losses (i.e. they create unemployment).

5. Third, more comprehensive evaluations of policy outcomes are possible after the relevant measures have been in place for some time. Most earlier policy evaluations were based on simulation studies. For a few of the pioneering IWB schemes, retrospective assessments of what actually happened following their introduction (or modification) are now available and complement the predicted outcomes from earlier studies.

6. Finally, most recent evaluations of make-work-pay policies have taken place in the context of buoyant labour markets while recent economic data point to a significant, and possibly sustained, weakening of labour demand and increasing unemployment across OECD countries. This raises the question of how effective different types of in-work support measures are in the context of an economic downturn. This question, which is taken up briefly in the conclusion, is currently of particular relevance as governments are debating if and how social protection systems should be adjusted in order to cushion the fallout of the financial and economic crisis.

7. Following a summary of main findings and "stylised facts", this paper starts out with a discussion of the labour market and distributional context that has led to the increasing popularity of IWBs. Next,

1 . OECD (2000), OECD (2003b), OECD (2005).

2 . See www.oecd.org/els/social/workincentives.

Section 4 presents a detailed overview of policies in place in OECD countries. Section 5 summarises results from available evaluation studies, paying particular attention to factors that influence policy "success" in terms of employment and income inequality. As policies aiming to promote self-sufficiency, wage subsidies and minimum wages share a number of the objectives associated with IWB measures. Section 6 outlines advantages and problems associated with wage subsidies and legislated wage floors. The conclusion summarises and briefly considers the impact of economic and labour market conditions on the effectiveness of different make-work-pay policies.

2. Main findings and "stylised facts"

8. IWB measures are attractive because they redistribute to low-income groups while also creating additional employment incentives. As all state transfers, they have to be financed by imposing taxes on other (usually higher-income) groups. However, because low-income workers tend to be more responsive to financial incentives than middle or high-income earners, and because the savings from each additional job are large (out-of-work benefits are no longer payable) there is a distinct possibility that the additional tax burdens on higher-income earners are relatively small. For instance, a study considering the introduction of a simple IWB in 15 EU Member States suggests that the cost to taxpayers of redistributing one euro in the form of an in-work benefit can be as low as one euro, implying an efficiency cost close to zero – a remarkable result in view of the sometimes large efficiency costs of other redistribution measures (Immervoll *et al.*, 2007). Yet, this and many other studies also indicate that the IWB-type policies are much less effective in some countries.

9. The costs and other policy outcomes depend on a range of design features (such as the targeting of in-work payments), as well as the economic and institutional "framework conditions". One crucial factor determining policy effectiveness is the interaction of IWBs with other redistributive and labour market measures. IWBs seek to strengthen work incentives by accentuating the gap between incomes in and out of work. Any policy aspect that affects this gap therefore has implications for the functioning of IWB measures. This includes levels and eligibility conditions of out-of-work benefits, as well as tax burdens on low-wage workers and, importantly, policies affecting wage levels and distributions (such as statutory minimum wages).

10. Where wages of potential IWB recipients are low, in-work payments can make a big difference to in-work incomes and work incentives. But, as might be expected, it is more difficult to achieve a meaningful degree of redistribution (i.e. reduce income disparities between working recipients and non-recipients) if income differences between these groups are already quite small to begin with. The reason is that a proper targeting of the benefits is less straightforward in this case. In essence, with small income differences between those receiving IWB and those financing them, many recipients are likely to also pay for the IWB through higher taxes. The net redistributive effect is then limited (the same mechanism also weakens the intended positive effects on work incentives).

11. Likewise, a given income supplement for those in work will tend to create limited employment gains if activity rates of the relevant groups are already high. More generally, employment effects of IWBs are strongly determined by the nature of labour market problems faced by the target group. For make-work-pay policies to generate additional employment, any increase in labour supply needs to be matched by sufficient demand to accommodate additional jobseekers. But while IWBs are unlikely to create additional employment in weak labour markets, they can still be effective as a redistribution measure by, say, cushioning income losses associated with deteriorating earnings prospects.

12. Several countries, especially those with high minimum wages or substantial non-wage labour costs, have in the past introduced targeted measures aiming to close existing gaps between worker productivity and labour costs. These subsidies to employers, commonly referred to as wage subsidies, are

the flip-side of IWBs paid to employees. While some insights from the evaluations of IWBs are therefore useful when considering wage subsidies, the design of employer subsidies raises a number of additional and separate issues. The same holds for minimum wages, which, like IWBs, can make employment financially more attractive for low-skilled workers. But since the cost is in the first instance borne by the employer of minimum-wage workers, a statutory wage floor entails a very different type of transfer than in-work benefits.

13. While a number of OECD countries share the twin problems of in-work poverty and high inactivity rates among low-skilled workers, a point made several times in this paper is that the case for make-work-pay policies depends very much on the specific policy context and the economic conditions in each country. Based on the discussion in this paper we would suggest a number of emerging "stylised facts" about the effectiveness and the cost of different make-work-pay measures:

a. In-work benefits cannot "solve" the labour market and financial problems of low-skilled workers. But because they improve work incentives and redistribute towards low-income groups at the same time, they should be considered alongside policies that address other barriers to self-sufficiency, such as welfare-to-work measures and initiatives that encourage the build-up of human capital.

b. In-work benefits can be effective at raising employment rates among the target group. Their total effect on employment is, however, small.

c. In-work benefits that provide recurring payments to low-income workers are a cost-effective *redistribution* instrument, especially where in-work poverty is a problem. Compared with other redistribution policies, the efficiency cost can be very small (sometimes close to zero) relative to the redistribution achieved. The redistribution role of in-work benefits is, however, more limited if they take the form of short-term or one-off transitional payments (e.g. for those taking up a new job).

d. High existing tax burdens make any form of redistribution more expensive as the additional taxes needed to finance transfers are likely to exacerbate disincentive problems and the resulting negative impact on employment. High tax burdens also weaken the case for in-work benefits and other costly work-support measures. But where tax burdens are high even at low earnings levels, targeted tax reductions (which are then equivalent to in-work benefits) are a high priority in addressing employment barriers.

e. In-work benefits work well where there are significant earnings or income disparities at the bottom of the distribution. If distributions are compressed (equal) then it is much more difficult (costly) to accentuate work incentives in a meaningful way or to create a significant degree of redistribution. In-work benefits are in these cases either very expensive or largely ineffective.

f. Targeting in-work benefits to low-income *families* can be useful where redistribution to these families is a primary objective. However, because means-testing these benefits on *family* income damages work incentives of other potential earners in the household, such an approach is counterproductive in countries where these incentives are already weak (e.g. because of family-based tax systems or expensive childcare) or where second-earner employment rates are low.

g. Modest wage floors make in-work support more effective but their level, and the way they are adjusted over time, is critical. Where minimum wages (or out-of-work benefits, which can act as de-facto wage floors) are high, the resulting compressed earnings distribution leaves little "space" for in-work benefits to operate effectively. If high labour costs act as a barrier to employment, then the main policy focus should be on reducing the cost of employing low-wage workers by either lowering or

differentiating wage floors, introducing targeted wage subsidies or reducing payroll taxes and other non-wage labour costs.

3. Context: The incomes and labour market situation of low-wage workers

14. A central objective of social policy is to enhance the employment opportunities for groups at the margins of the labour market – those with little work experience and/or low skills – while at the same time maintaining socially acceptable wage rates and income distributions. In most countries, these individuals have difficulties in obtaining and maintaining rewarding jobs and, as a result, they and their families often face protracted periods in poverty.

Table 1. Non-employment rates among individuals with low educational attainment

Percentages

	1995	2000	2005
Australia	40.5	39.2	37.1
Austria	47.1	46.2	46.7
Belgium	52.5	49.5	51.0
Canada	47.4	45.0	43.6
Czech Republic	48.9	53.1	58.8
Denmark	39.1	37.8	39.6
Finland	45.3	42.7	42.1
France	43.2	43.0	42.2
Germany	54.3	49.4	48.4
Greece	43.3	43.2	42.1
Hungary	63.8	64.2	61.9
Iceland	16.8	13.2	18.1
Ireland	49.7	40.2	41.6
Italy	52.6	52.1	48.4
Japan	30.6	32.9	33.3
Korea	29.0	32.0	34.1
Luxembourg	45.5	42.1	39.0
Mexico	36.3	36.8	36.5
Netherlands	44.7	42.4	40.5
New Zealand	40.7	39.3	33.4
Norway	33.3	34.7	35.7
Poland	49.7	57.2	62.3
Portugal	28.4	27.2	28.5
Slovak Republic	61.3	69.1	78.3
Spain	51.9	46.3	41.4
Sweden	32.8	32.0	33.9
Switzerland	31.5	34.5	35.4
Turkey	43.1	46.9	50.9
United Kingdom	44.7	46.3	47.9
United States	44.8	42.2	42.8
Total	39.5	42.7	43.1

a. working-age individuals (16-64) with less than upper-secondary education

Source: OECD Education at a Glance.

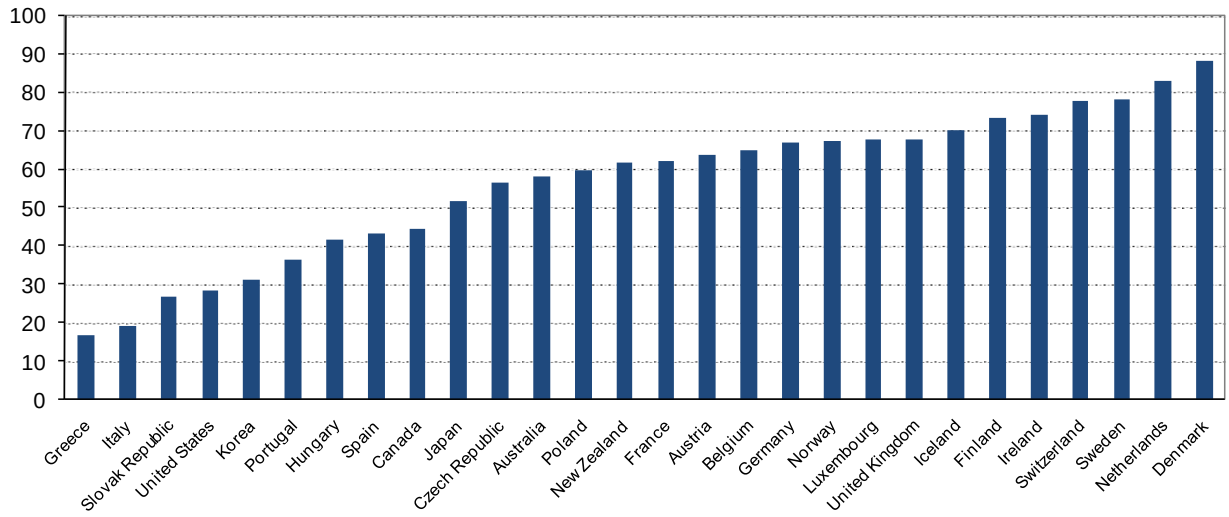
15. Low-skilled workers, who are commonly the principal target group of make-work-pay policies, face particularly severe labour market difficulties. Strikingly, more than half of all non-employed working-age individuals in the OECD belong to this group (OECD, 2003a). Longer-term trends shown in Table 1

below illustrate that, on average, 4 out of 10 working-age individuals with low educational attainment are inactive in the OECD area and that the share of inactive individuals has in fact risen since 1995.

16. When earnings, or earnings potential, are low, the financial payoffs from staying in or seeking employment are often limited. Incentive problems are exacerbated by high tax burdens on labour income and, especially, by social benefits designed to provide income safety-nets for those with no, or very low, independent income. OECD tax-benefit calculations show that those taking up low-paid employment often see more than half of their gross earnings consumed by income taxes, social contributions or reduced social benefits. This is illustrated in Figure 1 for a job with below-average earnings (two thirds of the average wage). Taking a low-paid job adds something to net income in all countries, but the size of the gain varies considerably. In slightly more than half of the OECD countries, less than 40% of such earnings add to available net income (the so-called "average effective tax rate" is 60% or higher). For instance, the average effective tax rate is especially high in countries where means-tested benefits are important (Ireland, UK, Nordic countries) or where tax burdens are high (Belgium, Germany, Luxembourg, Netherlands and, again, the Nordic countries). It is much lower in the low-tax countries (Korea, Slovak Republic) and where means-tested safety-net benefits are less generous (United States) or not generally available (Greece, Italy). While Figure 1 relates to a single individual, work incentives can be even weaker for families with children, as out-of-work benefits tend to be more generous (so the impact on family budgets is greater when these benefit payments are lost or reduced as a result of higher employment incomes).[3]

Figure 1. Effective tax burden when moving into work

Percent, single individual moving from inactivity to a full-time job at 2/3 of the average wage, 2005.



Note: Effective tax rates are for a transition into work for somebody who has previously been non-employed receiving social assistance and other means-tested benefits as relevant. They are calculated as the sum of changes in income taxes, social contributions and cash benefits, divided by gross earnings in the new job. Assumptions and methodological details are described in Annex A of the OECD series *Benefits and Wages* (see www.oecd.org/els/social/workincentives).

Source: OECD tax-benefit models.

17. Because benefit levels are the dominant driver of effective tax rates at low income levels, incentives are generally also weaker for those with even lower wages. At 2/3 of the average wage, the

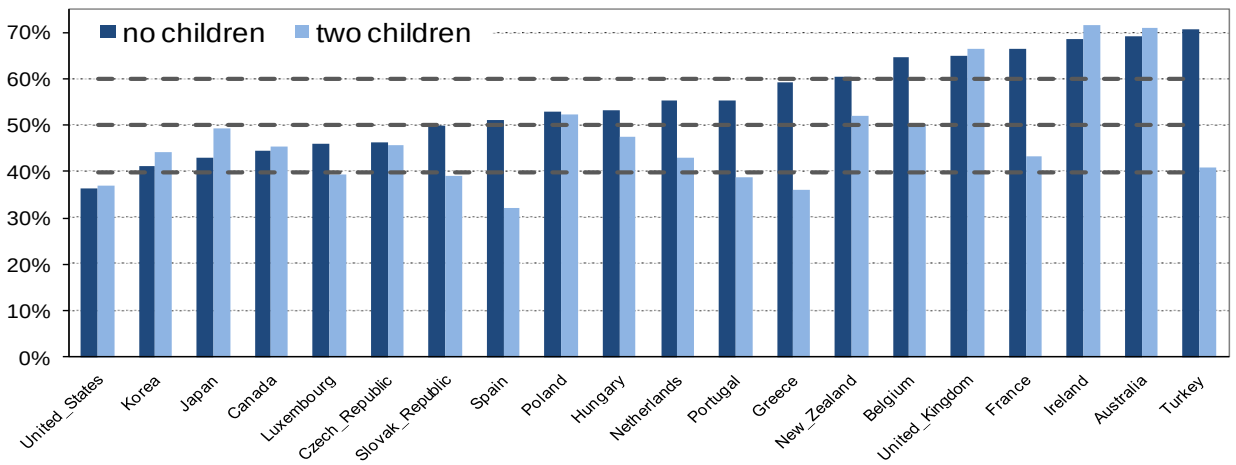
3 . For the same reason, financial work incentives are generally also weaker for those entitled to (higher) unemployment insurance benefits. However, unemployment benefit recipients may be subject to stricter job-search monitoring (see OECD, 2007d, Chapter 5), so other incentives are likely to be relevant as well.

earnings underlying Figure 1 are in fact considerably higher than minimum wage levels (set around 40% of the average wage in most countries where statutory minima exist: see OECD, 2007b). At the bottom of the wage ladder, very low wages or the limited financial gains from work mean that even full-time work can leave families with considerable poverty risks. For instance, in the United States, one full-time job at the minimum wage was not sufficient to reach the lowest of the three "poverty" thresholds shown in Figure 2 (40%, 50% and 60% of median household income), even before accounting for childcare and other work-related costs. There are only three countries (Australia, Ireland and the UK: light bars in upper panel) where lone parents earning the statutory minimum wage command net incomes above the higher 60%-of-median income cut-off, which is the commonly-used poverty threshold in the European Union.

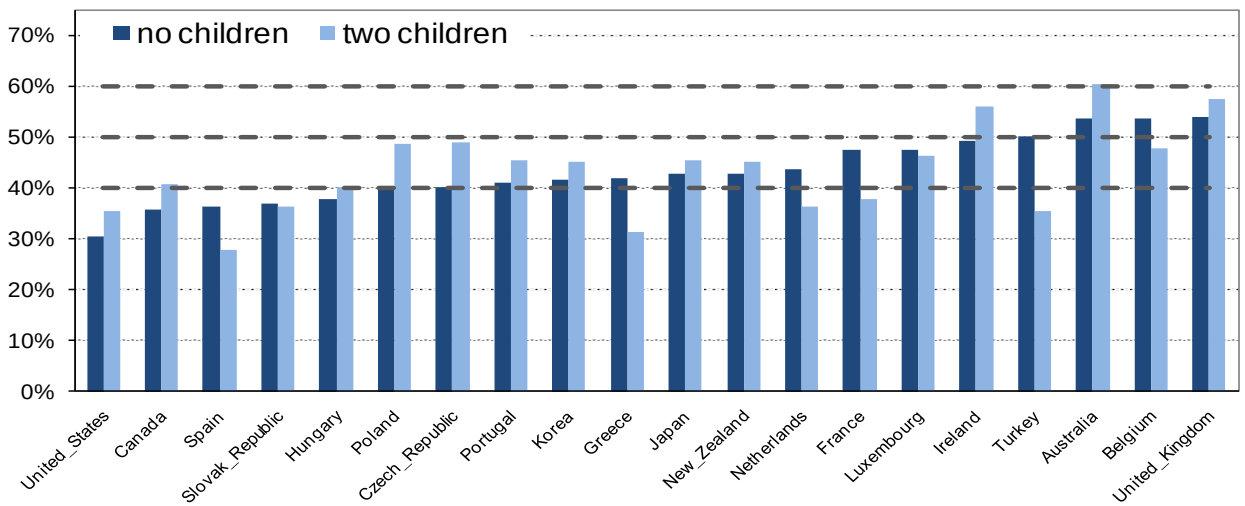
Figure 2. Full-time minimum-wage workers: Net incomes relative to different poverty lines[a]

Percentage of median household income, 2005

(a) Single individual / lone parent



(b) Married couple



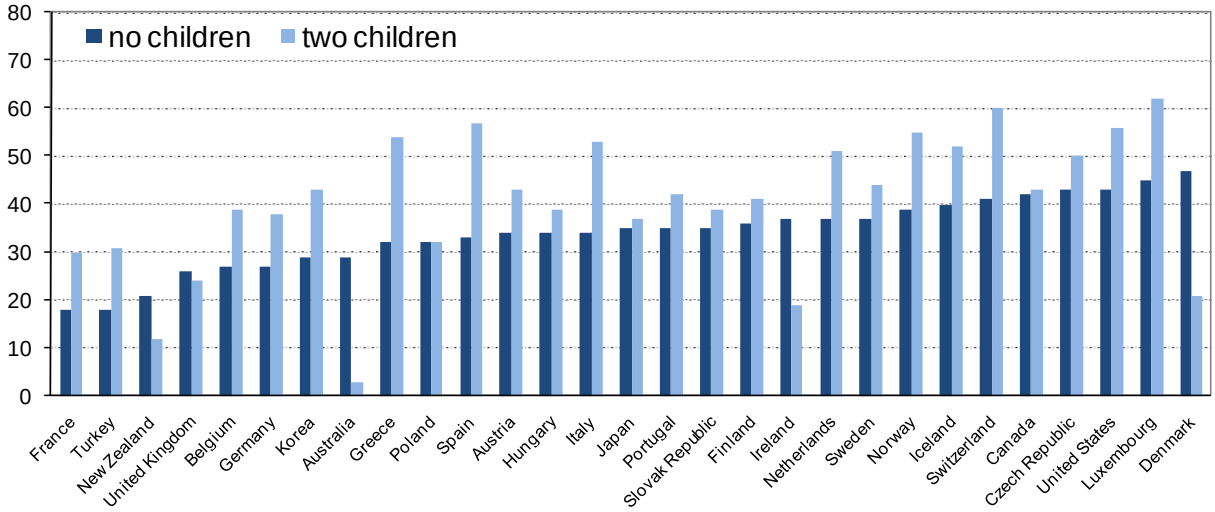
a. Only countries where statutory minimum wages are in place are included. Countries are ordered by income in the childless scenario. Median household incomes are for a year around 2005 (expressed in 2005 prices) and adjusted for household size using the 'square root of household size' as the equivalence scale. Results account for all relevant cash benefits (social assistance, family benefits, in-work benefits) except housing-related support that depends on rental expenditures. Only one of the spouses is assumed to be working in the married-couple cases.

Sources: OECD tax-benefit models and OECD income distribution database.

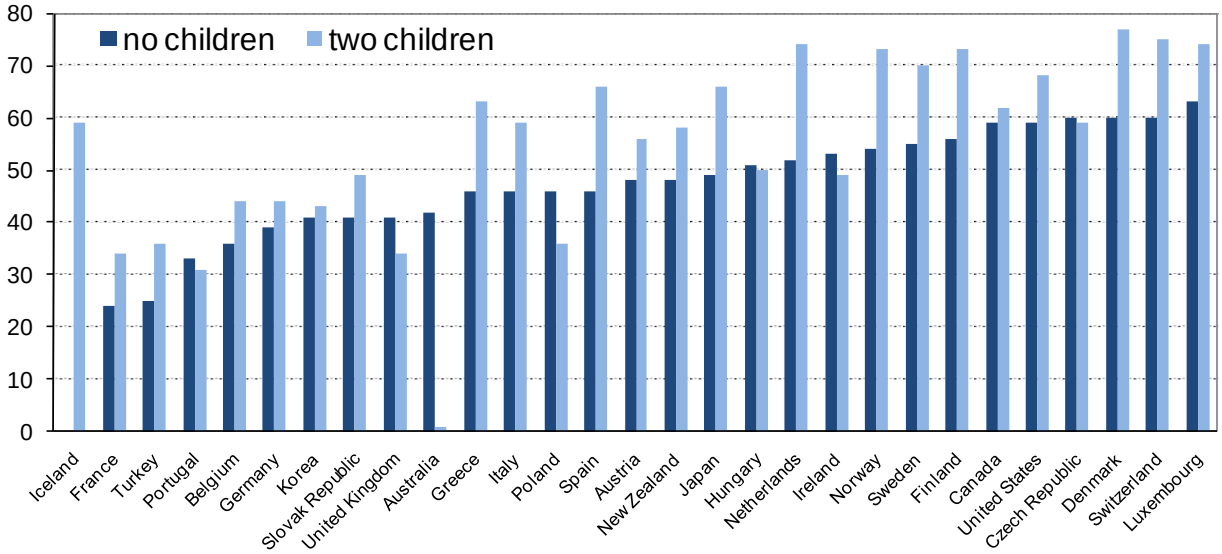
Figure 3. Earnings required to reach a poverty threshold of 50% of median income

In percent of the average wage, 2005

(a) Single individual / lone parent



(b) Married couple



Notes: see Figure 2.

Sources: OECD tax-benefit models and OECD income distribution database.

18. In fact, the earnings required to escape income poverty can be considerable. This is illustrated in Figure 3 for single individuals and married couples with and without children.[4] In a few countries, small amounts of income from work are sufficient for reaching the poverty threshold. For instance, for Australian parents, the overall package of out-of-work benefits and family support already results in incomes very

4 . Calculations have been done here using the lower 50% of median income poverty cut-off used in most OECD analyses. Similar results for the 60% threshold commonly used in the European debate are also available (as one would expect, earnings requirements are considerably greater in that scenario).

close to the poverty line, even in the absence of any non-benefit income. Likewise, in a small number of countries, earnings disregards make it possible to combine relatively generous welfare benefits with small amounts of employment income.

19. Yet, in most countries, much higher earnings, often close to 60% of average full-time wages, are needed to escaping income poverty. Depending on the country, this can be due to a number of different factors. For instance, in the United States, out-of-work incomes are low, so significant earnings are needed to bridge the sizable gap between out-of-work incomes and the poverty line. This stands in contrast to Denmark or Luxembourg, where out-of-work benefits are higher (and recipients' poverty gaps correspondingly smaller), but heavier tax burdens mean that a greater share of in-work incomes is "taxed away" following a transition from inactivity or long-term unemployment into work, and the net income gain from work is therefore small. Whatever the reason, the important point is that typical earnings of a low-wage worker may simply not be enough to comfortably clear commonly-used poverty thresholds and avoid risks of income poverty.

20. This is not to say that a growing low-wage sector is necessarily a worrying development. Indeed, similar tax-benefit calculations in OECD (2007) for recipients of safety-net benefits demonstrate that incomes are generally much lower still in jobless households. In countries with high labour costs, many commentators welcome the formation or expansion of a low-wage sector on the grounds that this will alleviate high rates of structural unemployment. At the same time, stagnant or declining wages can weaken labour supply, especially among low-wage workers whose employment decisions are known to react more strongly to financial incentives (see Section 5).

21. But are there more low-wage workers now than there were a decade or two ago? And where and to what extent have their relative earnings in fact declined? The trends turn out to be quite complex as movements in wage levels have occurred in tandem with changes in the composition of the labour force. Figure 4 depicts trends in earnings disparities for *male full-time* workers, a group which is normally the focus of studies on earnings inequality. According to these data, the gaps between low, average and high earnings have widened considerably in several (but not all) OECD countries over the past 20 years. It is important, however, to consider the limited scope of these data. While longitudinal data covering all workers are less complete and more difficult to compare, it is likely that earnings inequalities among *all* workers are more volatile (see OECD, 2008b). For instance, the gender wage gap has generally declined in recent years and female employment rates have seen very significant increases in most OECD countries.[5] At the same time, several countries have experienced a parallel trend towards more part-time and atypical work, increasing the number of workers with low earnings.[6] Finally, the data do not account for employer-provided benefits. At least for the US, where these benefits are a sizable component of total worker compensation, there is evidence that accounting for them further accentuates the upwards trend in earnings inequality (Pierce, 2001).

22. If policies are successful at increasing employment among low-skilled workers, the resulting stronger competition for jobs can be expected to put further downwards pressure on wage levels in the low-wage sector. A given low-wage worker slipping further towards the bottom of the earnings distribution will

5 . Between the mid-1990s and the mid-2000s and on average across 19 OECD countries, the ratio of median earnings for women and men increased from 78% to 82% (OECD, 2008a: Table H). Employment/population ratios for women increased from 49.3% in 1994 to 59.1% in 2007 across 19 EU countries and from 52.9% to 57.4% across the OECD as a whole (OECD database on Labour Force Statistics).

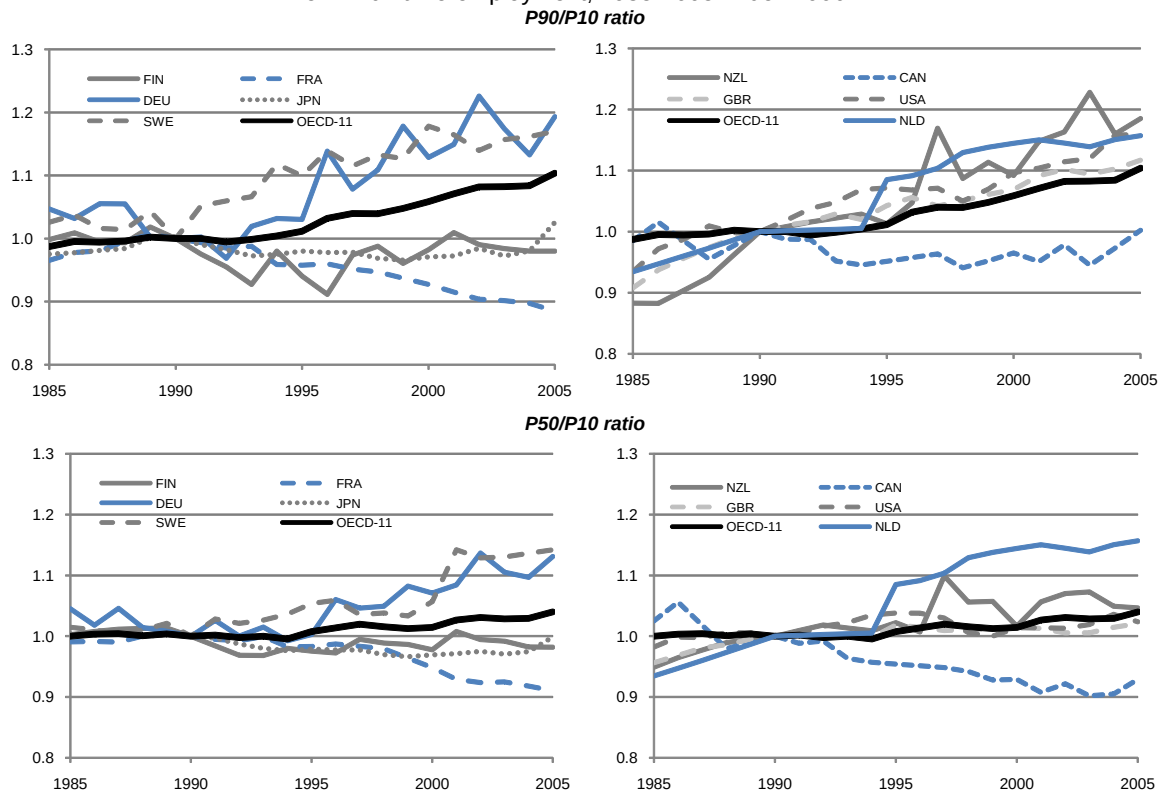
6 . Across the OECD, the proportion of employees with usual working hours of less than 30 hours per week has gone up from 21.5% in 1994 to 25.3% in 2007 for women, and from 5.7% to 7.5% for men (OECD, 2008a: Table E).

be faced with higher poverty risks, which can explain growing concerns about in-work poverty. However, for the group of low-wage workers overall, changes in typical family circumstances, and the way earnings are pooled within households, can change at the same time as earnings disparities between individual employees. There is therefore no simple one-to-one relationship between earnings gaps and the incidence of in-work poverty. For instance, growing proportions of two-earner couples among low-income households will tend to reduce in-work poverty (OECD, 2008b, discusses these concurrent trends in more detail).

23. The resulting net effects in terms of in-work poverty are illustrated in Figure 5. Using the same relative poverty threshold across countries, recent income distribution data reveal that a considerable proportion of individuals (both adults and children) are poor despite living in households where at least one person has a job. In most countries, in-work poverty rates have gone up since the mid-1990s. In fact, the same data (not shown in Figure 5) indicate that more than 50% of all income-poor individuals live in such households. With the sole exception of Turkey, poverty rates are always much lower among two-earner households (bottom panel). The large proportions of poor in one-earner households (including lone parents) in the top panel are especially significant since in most of the countries with the highest poverty rates, one-earner households are relatively numerous (Greece, Italy, Mexico, Poland, Spain, Turkey). In-work poverty rates are therefore an important driver of overall poverty headcounts in these countries. In Mexico, Poland, Portugal and the United States, every 4th person living in a one-earner household is poor.

Figure 4. Relative earnings levels at the bottom of the earnings distribution

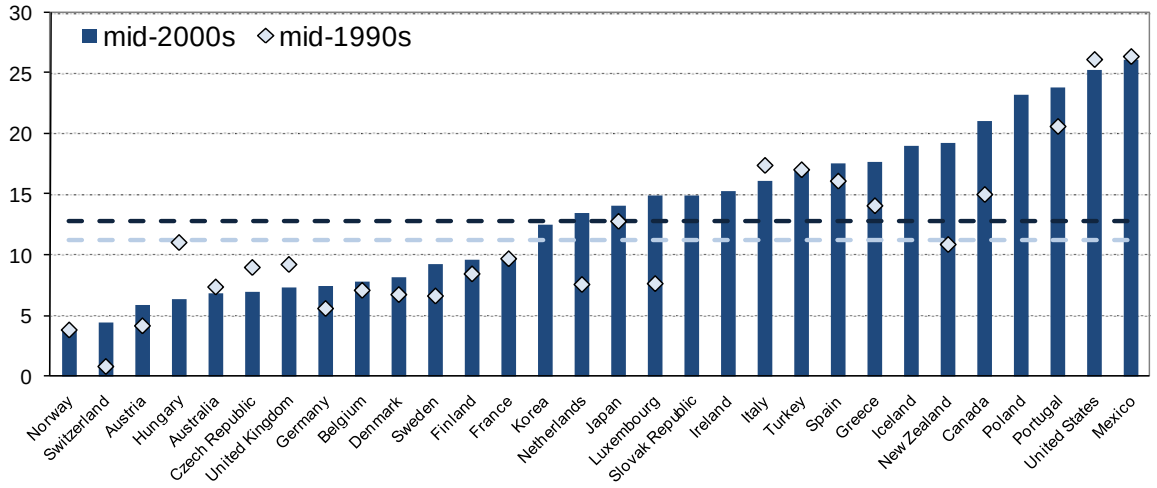
Men in full-time-employment, 1985-2005. Index 1990 = 1



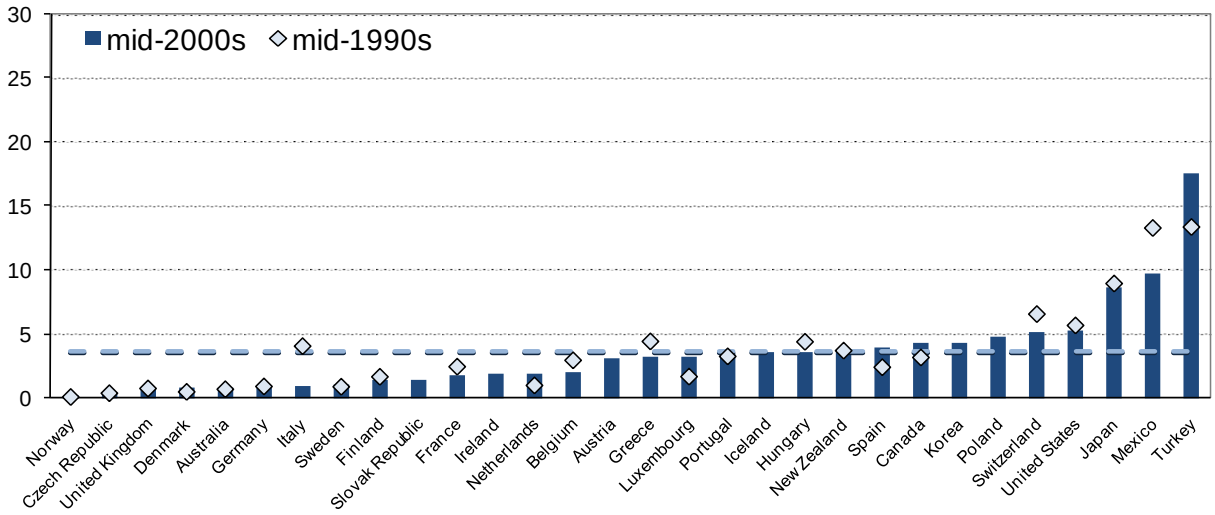
Notes: The earnings dispersion measures refer to the entire distribution (i.e. the ratio between the upper limit of the 9th decile and that of the 1st decile) in the upper panel; and to the lower half of the distribution (the ratio of median earnings to the upper limit of the 1st decile) in the lower panel. Wages and salaries of full-time employees are reported gross of taxes and social security contributions in all countries except France, where they exclude social security contributions paid by workers. Data for some countries have been interpolated for missing observations. OECD-11 includes Canada, Finland, France, Germany, Japan, the Netherlands, New Zealand, Sweden, the United Kingdom and the United States, as well as Korea (not shown above).
Source: OECD Earnings database.

Figure 5. In-work poverty

Poverty rates among individuals in households headed by working-age adults



(b) two or more earners



Notes: Poverty thresholds are set at 50% of the median income of the entire population. Dashed lines show country averages across those countries where data for both periods are available.

Source: OECD income distribution database.

24. To summarize, existing cross-country evidence demonstrates that persistent income and labour market difficulties of low-skilled individuals and low-wage workers are a reality in many (but not all) OECD countries. While jobless households face the highest poverty rates everywhere, in-work poverty among individuals in one-earner families is in the range of 15-25% in more than 1/3 of the OECD countries. For families without work, even limited employment generally brings income gains, reducing the severity of poverty they are facing. However, the interaction of means-tested benefits and sometimes considerable tax burdens on low-wage work significantly reduce the financial payoff from work. The background to very high non-employment rates among this group is a combination of limited work incentives, sluggish demand for low-skilled workers, and possible frictional problems in matching low-skilled jobseekers with vacancies. Policies that facilitate human capital formation through skill development and lifelong learning are essential to reduce the number of individuals facing these

difficulties.[7] In addition, make-work-pay policies have an important role to play in making existing redistribution systems more employment-friendly, especially for those with limited earnings potential. The challenge is to strike a balance between providing adequate safety nets, promoting decent in-work incomes, and maintaining demand for low-skilled workers.

4. In-work benefits in OECD countries

25. In recent years, many countries have rebalanced tax and transfer systems to strengthen support for low-income workers. But not all transfers (or tax concessions) that may, in some circumstances, be received by this group qualify as in-work benefits. For the purpose of this paper, the defining feature of IWB is that they are *conditional on employment* and that they create distinct incentives for some groups to increase working hours or work effort. The most important requirement for being entitled to IWB is therefore to be in employment. There are other benefits that clearly support the incomes of low-wage workers. Examples are universal family benefits or welfare benefits that provide income top-ups for some families with limited employment incomes. The main eligibility criterion of these benefits is, however, not employment but the presence of children (in the case of family benefits) or low income (in the case of social assistance or equivalent safety-net benefits).

26. IWB schemes are designed to create a significant gap between the incomes of people in work compared with the incomes that they would get if they were out of work. As indicated above, increasing the gap could be done by reducing the level of benefits for jobless people, but this tends to increase poverty amongst those who are unable to take advantage of the increased incentives to find work. Since most out-of-work benefits aim at re-integration into the labour market, cutting back on out-of-work support can also compromise individuals' abilities to rebound from a spell of joblessness. IWB policies raise the incomes of poor working families and increase the probability of jobless people seeking and finding work, without making jobless people worse off.

27. The main objectives of IWB policies can therefore be described as:

- To increase employment by creating additional financial rewards for remaining in, or taking up, low-paid work.
- To increase incomes of disadvantaged groups of workers and their families.

In-work benefits in the political debate

28. The appeal of IWB policies spans political divides, and governments of both the right and left have introduced or extended such policies in recent years. For example, it was left-of-centre governments in France and Hungary that introduced such a scheme, conservative governments in Sweden and broad-based coalition governments in Belgium, Denmark and the Netherlands. In Canada, the programme was first proposed by the Liberal government but looks set to be introduced by the Conservatives. In both the United Kingdom and the United States, the two countries with the longest history of IWB schemes, support for such programmes has been bipartisan: the Heath, Wilson, Thatcher and Blair administrations increased expenditures on IWB schemes in the UK, as did the Reagan and Clinton administrations in the US. The political attraction is that such policies appear to achieve *both* employment and distributional objectives at the same time, unlike some other alternative policies.

29. During the past few years, meetings of OECD Ministers responsible for employment policy (in 2003) and those responsible for social policy (in 1998 and 2005) have referred to IWB policies in

7 . Holzer (2007) provides a recent summary of approaches and a policy proposal in the US context.

increasingly positive tones. For instance, the Communiqué of the 1998 meeting included a call for more information on the effectiveness of alternative approaches to employment-oriented social policies, while referring to IWB polices as one of the five key elements of a strategy for more and better jobs in 2003, and emphasising the need to redesign tax-benefit systems in order to make work pay in 2005.[8]

30. At the European Union level, interest has steadily risen since the European Employment Strategy was first developed (in the mid 1990s). Guideline eight of the European Employment guidelines mainly addresses financial incentives to encourage men and women to seek, take up and remain in work (European Commission, 2003).

31. Arguably, it is possible to discern an evolution in the way that IWB schemes are viewed. Even in the mid 1990s, twenty years after such schemes were first introduced in the United Kingdom and the United States, they were being seen as interesting but unusual schemes, worth considering by other countries but certainly not at the heart of discussion about labour market and social policy. By the mid 2000s, it is assumed that such schemes are considered as a matter of course by countries seeking to have a dynamic labour market. Also, whereas in the mid 1990s debates were often at a conceptual level about whether such schemes were a good idea (for example, will such schemes trap economies into using low-wage labour rather than up-skilling the workforce), more recently concerns have become much more practical (for example, the appropriate way of adjusting payments to reflect fluctuations in earnings through a fiscal year). Thus, it seems reasonable to conclude that IWB schemes are now mainstream policies in many countries.

32. However, while acceptance of IWB schemes has risen sharply, countries still differ in the emphasis given to the different objectives of IWB schemes. In particular, (continental-)European countries appear to stress employment objectives over and above the alleviation of poverty. The result of this different set of priorities is that recent European schemes are less targeted on low-income households than in the original Anglo-American-type schemes. This and other design issues are taken up below.

Policy features

33. Before turning to the details of existing in-work benefit programmes that exist in OECD countries, it is useful to note that similar measures can have very different effects depending on the institutional context in which they are used. We have already referred to functional linkages between wage subsidies and minimum wages, and between out-of-work and in-work benefits. More generally, it can be difficult to draw conclusions from looking at isolated measures without considering the full policy package affecting the incomes and labour market situation of both low-wage workers and non-employed individuals (OECD, 2007a provides a detailed account of the full range of benefits available to working-age individuals, and of the taxes they pay). Similarly, differences in the demographic and socio-economic make-up of countries need to be kept in mind when comparing policies internationally. The consequences for the functioning of IWBs of the distribution of incomes and earnings have already been noted. Similarly, measures that target particular types of families, such as lone parents, are likely to be motivated by relative importance of this group in a given country, as well as their particular income and labour market situations.

34. Much like other social benefits, IWBs are in principle easily targeted to specific income groups and family types. The United Kingdom, Ireland and the United States target very tightly on family income, as will be described below, so IWBs in these countries play a strong anti-poverty role. In other countries, the redistributive role of in-work benefits is less pronounced. Several continental European countries

8 . Ensuring that work is financially viable and worthwhile has also been a theme of the meetings of the G8 Labour Ministers (*"Successful labour market policies should ensure that work pays…",* Chair's conclusions, G8 Labour and Employment Ministers Conference, Dresden, 8 May 2007).

operate (or are considering) programmes that are conditional on the individual circumstances of employees, notably earnings and working hours, while largely disregarding their family situation including the incomes of other family members. Country differences in this respect can in fact be consistent with the aim of promoting employment. Frequently, adverse work incentives can be created by unemployment transfers and related out-of-work payments. Where these are largely individual entitlements, as in most European countries, IWB policies that are also individual-based (i.e., not affected by the incomes of other family members) are in principle well-placed to address work-incentive issues.

35. Currently, 16 of the 30 OECD countries have employment-conditional schemes of one form or another (a few other countries are actively considering their introduction, including Austria and OECD accession countries Chile and Israel). Tables 2 and 3 summarise key features of existing policies; Annex A provides a country-by-country description.

36. There are many different types of IWB and certain features of other parts of the tax and benefit system may be considered functionally equivalent to in-work benefits even if they do not always have the "in-work benefit" label attached to them. To facilitate cross-country comparisons, the two tables below include both benefits and tax reductions (such as tax credits). Note that they do not consider:

- benefits or tax reductions that are not conditional on employment but, e.g., available to low-income individuals regardless of their work status. This includes means-tested welfare benefits that are principally designed as income support. Although earnings disregards or relatively flat taper rates built into these safety-net benefits make some types of low-wage work more attractive, they typically encourage benefit recipients to work for only a limited number of hours at low pay rather than providing a genuine incentive to increase employment incomes. For instance, in most cases, a full-time minimum-wage worker is no longer entitled to any such top-up benefits. But in a few countries (e.g., Australia) the specificities of benefit phase-outs were arguably designed to facilitate non-marginal employment. Details on how safety-net benefits are phased out once recipients start to earn some income are provided in OECD (2007a);

- support for non-parental childcare, which is conditional on one or both parents being in employment, though such schemes clearly facilitate employment and are common in many countries (OECD, 2007c);

- programmes to help contain certain types of costs for those in work (e.g., for health insurance).

37. The first of the two summary tables shows IWBs that are paid for a limited period following new employment in a qualifying job (Table 2). Such "transitional" benefits are in place in seven countries (Australia, Belgium, Canada, Ireland, Japan, Korea and the Slovak Republic). Additional discretionary payments, e.g. for social assistance recipients taking up a new job, may be available in these and other countries. The main purpose of short-term or one-off payments is to encourage transitions into employment. They mostly do not provide support for individuals who have been in low-wage employment longer than a few months and their role in redistributing and reducing in-work poverty is therefore limited. Similarly, since these benefits are only available to individuals finding new employment, they will not (at least not directly) boost the financial incentives to remain in work in the longer term or to seek higher earnings.

38. A larger group of countries operate IWB schemes that make recurring payments to a defined group of low-income workers for as long as other eligibility conditions are met (Table 3). These types of "permanent" IWBs exist in Belgium, Finland, France, Germany, Hungary, Ireland, Korea, the Netherlands, New Zealand, the Slovak Republic, Sweden, the United Kingdom and the United States. They are mostly paid irrespective of previous work status but can also be targeted to those taking up a new job (e.g. the

Irish Part-Time Job Incentive). Tax concessions or social contributions reductions are in place in four countries (Belgium, Finland, Germany, Netherlands). A number of other countries also provide employment-conditional tax credits but these are refundable ("non-wastable") and therefore akin to cash benefit payments.

39. Because the payments shown in Table 3 are not time-limited, their impact on in-work poverty, and the income distribution more generally, is likely to be more pronounced. In addition to creating additional rewards for seeking work, "permanent" IWBs also make it more attractive to remain in the qualifying job. One consequence of targeting payments to low-income or part-time workers is that they reduce recipients' incentives to increase work effort or working hours, or to invest in training, since reduced in-work benefits will partly offset any associated income gain. Withdrawing benefits over a wider earnings range reduces these disincentives but also broadens the group of recipients, increasing overall costs. The distribution of in-work earnings in the population, and particularly the number of low-wage earners who are potential beneficiaries, are critical determinants of overall IWB expenditure and, by implication, the phase-out rates needed to contain these costs. In addition, the degree of targeting may also affect the incomes of IWB recipients indirectly because, as noted earlier, in-work payments available to large numbers of low-wage workers exert downward pressure on wages.

40. In order to target IWBs to relevant groups, eligibility and benefit amounts can depend on a range of characteristics and circumstances. These include having children (columns 3 and 4), working a minimum number of hours, and receiving income from work or entering/changing employment (column 5). All employment-conditional measures use at least one of these conditions or they feature gradual phase-ins or phase-outs (columns 7 and 8) as a means of targeting individuals at specific earnings levels or working hours. For the purpose of targeting low-income individuals, incomes can be assessed individually for the benefit recipient or jointly for the couple or the family as a whole (column 9). While irrelevant for those living alone, the assessment unit can affect benefit entitlements in larger households. Benefits that are targeted in relation to family income tend to have more favourable distributional properties. The family benefit unit is therefore more common where the distributional objectives of IWBs are important. Individual-based IWBs are less well targeted towards poor households but avoid the adverse effect on second-earner work incentives associated with family-based benefit tapers (see Section 5 below).

41. It is notable that about half of the IWB schemes shown are only available to working families with children. This reflects a particular concern for child poverty and child wellbeing, and recognition that work is the most promising route out of poverty (Whiteford and Adema, 2007). Child-related eligibility conditions are therefore particularly common in countries where IWBs have a strong redistributive role. However, while child poverty is a major concern, there is an intensifying debate, even in these latter countries, about the major difficulties facing low-skilled individuals without children or a family (but who may be economically connected to children through child-support payments or related responsibilities). For instance, while the US Earned Income Tax Credit is in principle also available to childless individuals the entitlements for this group are much smaller: in 2004, childless recipients represented 21% of all EITC *recipients* but only 2% of total EITC *expenditure* went to this group (Eissa and Hoynes, 2008).

Table 2. One-off or time-limited in-work benefits: 2007 (except where otherwise noted)

	Name of programme	Beneficiaries	Children condition on benefit eligibility	Children number influence on benefit amount	Work criterion	Maximum benefit	Taper rates	Phase-out starts at	Benefit Unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Australia	Employment entry payment.	Unemployed lone parents or long-term income support recipients. Eligible once every 12 months.	Yes (lone-parents)	No (flat rate)	Starting employment	Lump sum of AUD 104 (USD 87).	Not income-dependent		--
Belgium	1. Complément de garde d'enfant.	Long-term unemployed lone parents.	Yes	No (flat rate)	Starting employment	Lump sum of EUR 743.68 (USD 1018).	Not income-dependent		--
Canada	1. Ontario start up benefit. (‘typical’ province-level start up benefit)	Social assistance recipients (eligibility limited to once every 12 months).	No	No	Starting employment	Lump sum of CAD 253(USD 253).	Not income-dependent		--
Ireland (continues next page)	1. Back-to-work allowance (BTWA).	Long-term unemployed (over 2 years) aged over 23.	No	Yes (child dependent supplement in SA amount)	Starting employment.	EUR 7 246 (USD 9919; 23% of APW) = 75% of SA amount; 50 % and 25% of SA amount for 2nd and 3rd years.	Not income-dependent		--

	Name of programme	Beneficiaries	Children condition on benefit eligibility	Children number influence on benefit amount	Work criterion	Maximum benefit	Taper rates	Phase-out starts at	Benefit Unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Ireland (cont.)	2. Continued child dependent payment (CCDP).	Long-term recipients of job-seekers benefits (CCP is a continuation of the child-additions to these benefits for 13 weeks)	Yes	Yes	Full-time for at least 4 weeks.	EUR 286 (USD 1566) = 1% of APW per child	Not income-dependent		--
Japan	Re-employment allowance.	Unemployment benefit recipients.	No	No	Starting employment, at least 20 hours per week.	Lump sum = remaining days of benefits × 1/3 × daily unemployment benefit (basic allowance).	Not income-dependent		--
Korea	Early re-employment allowance.	Unemployment benefit recipients.	No	No	Starting employment, at least 20 hours per week.	Lump sum of 50% of remaining benefits.	Not income-dependent		--
Slovak Republic	Activation allowance	Long-term unemployed SA recipient returning to work	No	No	Income from work at least MW and less than 3*MW	SKK 11 400 = 5% of AW over a period of six months			Individual

Abbreviations:
AW = average wage, APW= average production worker wage, MW = statutory minimum wage, SA = social assistance, SSC = social security contributions, UA = unemployment assistance.

Notes:
Smaller programmes may exist in these and other countries. Lump-sum payments are paid only once. Where payments are recurring, they are shown on an annual basis. 2007 average exchange rates were used to convert to US dollar amounts. The table does not include safety-net benefits (such as social assistance) that are not conditional on employment but may be nevertheless be available to some low-income earners. Further details on tax-benefit policies in each country and for years other than 2007 are available on the OECD website: www.oecd.org/els/social/workincentives.

Table 3. "Permanent" in-work benefits: 2007 (except where otherwise noted)

	Name of programme	Beneficiaries	Children condition on benefit eligibility	Children number influence on benefit amount	Work criterion	Maximum benefit	Taper rates	Phase-out starts at	Benefit Unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Belgium	Reduced social security contributions		No	No	Income from work	Max. value of SSC allowance is EUR 1716 (USD 2349) =4% of AW	18%	40% of AW	Individual
Canada	Working Income Tax Benefit (most provinces have similar)	Working individuals with low income	No	Yes	Income from work at least CAD 3000 = 7% of AW	CAD 500 (USD 500) = 3.5% of AW; double in case of couples or lone parents	Phase-in: 20%; Phase-out: 15%	23% of AW; 34% of AW in case of couples or lone parent	Family
Finland	1. Earned income allowance (municipal income taxation)	Working individuals with low income.	No	No	Income from work at least EUR 2 500 = 7% of AW	Max. value of tax allowance is EUR 3 250 (USD 4 449) =9% of AW.	1%	40% of AW	Individual
	2. Earned income allowance (central income taxation)					Max. value of tax credit is EUR 400 (USD 548) =1% of AW.	0.9%	95% of AW	
France	Prime pour l'emploi.	Working individuals with low income.	No	Yes	Income from work at least EUR 3 695 = 11% of AW	EUR 948 (USD 1298) =3% of AW	Phase-in: 4-5%; phase-out: 9%	66% of AW	Family

	Name of programme	Beneficiaries	Children condition on benefit eligibility	Children number influence on benefit amount	Work criterion	Maximum benefit	Taper rates	Phase-out starts at	Benefit Unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Germany	Reduced social security contributions	Working individuals with low income.	No	No	Income from work	Max. SSC reduction of EUR 1001 (USD 1370) =2% of AW.	5-21%	11% of AW	Individual
Hungary	1. Employee Tax credit	Working individuals with low income.	No	No	Income from work	HUF 108 000 (USD 588) =5% of AW	Phase-in: 18%; phase-out: 18%	70%	Individual
	2. Extended Employee Tax credit	Working individuals with low income.			Income from work at least 28% of AW	HUF 28 080 (USD 153) =1% of AW	Phase-in: 18%; phase-out: 5%	47%	Individual
Ireland	1. Family income supplement (FIS).	Working families with children and low earnings.	Yes	Yes (through earnings limit)	19 hours per week	60 % of difference between net family earnings and earnings limit (78% of APW).	See column [6]		Family
	2. Part-time job incentive (PTJI).	Long-term unemployed previously receiving UA. Instead of UA, part-timers get flat-rate weekly payment.	No	No	Part-time work	EUR 6 120 / 10 067 = 20% / 32% of APW.	Not income-dependent		--
Korea	Earned income tax credit (from **2009**)	Low-income working families.	Yes	Yes	Details not yet known.		Details not yet known.		Family

	Name of programme	Beneficiaries	Children condition on benefit eligibility	Children number influence on benefit amount	Work criterion	Maximum benefit	Taper rates	Phase-out starts at	Benefit Unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Netherlands	1. Combination credit	Working families with children aged under 12.	Yes	No	Income from work	EUR 149 (USD 204).			Individual
	2. Additional combination credit	Same as (1) and must be a lone parent or the lower-earning partner.				EUR 700 (USD 958) =2% of AW			
New Zealand	1. In-work Tax Credit	Working families with children and not receiving a main out-of-work benefit.	Yes	Yes	20/30 hours per week (combined) for one/two-parent families	NZD 3 120 (USD 2 380) = 7% of AW	20% (tapered jointly with main family benefit)	Once main family benefit is fully tapered off	Family
	2. Minimum Family Tax Credit		Yes	No		ensures a minimum net income of NZD 18 044 (USD 13 800) before adding in other family benefits	See column [5]		
Slovak Republic	Child tax credit	Working families	Yes	Yes	Income from work by at least one family member at least 6*MW	Tax bonus of SKK 6 480 (USD 263) =3% of AW *per child*.			Family

	Name of programme	Beneficiaries	Children condition on benefit eligibility	Children number influence on benefit amount	Work criterion	Maximum benefit	Taper rates	Phase-out starts at	Benefit Unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Sweden	Earned income tax credit under the local income tax (EITC).	Working individuals	No	No	Income from work	SEK 11 000 (USD 1628) =6% of AW	Non-refundable tax credit so its value initially increases up to the point where the credit fully offsets (local) tax liability.	No phase-out	Individual
United Kingdom	Working tax credit.	Working individual.	No (unless under 25)	No, but lone parents get more	16 hours per week; 30 hours per week if aged 25+ and no children	Maximum GBP 4 135 (USD 8274) (12% of AW) for couple or lone-parent (working over 30 hours/ week)	37%	16% of AW	Family
United States	Earned income tax credit.	Working families with children and individuals with low income.	No	Yes (increase with number of children, see next column)	Income from work	USD 428 (1% of AW) without children, USD 2853 (7% of AW) with one child, USD 4716 (11% of AW) with 2 children.	Phase-in: 8-40% depending on family type; phase-out: 0.8-21% depending on family type	17-42% depending on family type	Family

Abbreviations:
AW = average wage, APW= average production worker wage, MW = statutory minimum wage, SA = social assistance, SSC = social security contributions, UA = unemployment assistance.

Notes:
Smaller programmes may exist in these and other countries. All payments are shown on an annual basis. 2007 average exchange rates were used to convert to US dollar amounts. The table does not include safety-net benefits (such as social assistance) that are not conditional on employment but may be nevertheless be available to some low-income earners. Further details on tax-benefit policies in each country and for years other than 2007 are available on the OECD website: www.oecd.org/els/social/workincentives.

5. What works? Employment and distributional effects of in-work benefits

42. When assessing the effectiveness of in-work benefits, the most important question is whether they succeed in terms of their two main objectives: increasing employment levels and improving incomes of the target population. This section will summarise available evidence on these two key aspects. The evidence we review comes mostly from national studies of policy reforms. In addition, we discuss results from a small number of comparative studies. While results are now available for a number of countries, most of what is known about the effectiveness of in-work benefits still comes from studies undertaken in the US and UK. There is a clear need for more and detailed empirical work in other OECD countries where IWBs exist or are being considered. In particular, the discussion below relates mostly to the "permanent" type of IWB benefits listed in Table 3; "transitional" or time-limited IWBs are less well-studied.

43. As with any policy evaluation, determining the effect of a policy reform, such as introducing an in-work benefit, requires knowledge about what would have happened in its absence. There are essentially three broad approaches that researchers have taken to isolate the effects of the policy of interest from other changes that may occur in parallel (Box 1).

44. An attempt will be made to link the evidence on outcomes to the different aspects of policy design highlighted in the previous section. However, in addition to the formal policy parameters such as eligibility criteria, effective implementation is critical to ensure that IWB policies meet their objectives. In fact, some of the most convincing arguments made against IWB policies relate to findings that the administration of IWB schemes is difficult and/or expensive. Holz and Scholz (2000) state that "non-compliance appears to be the single most important threat to the credit's political viability" when talking about the US IWB scheme. They report estimates of fraudulent claims of the benefit that are worryingly high. This problem reflects the fact that the US has tried to administer the scheme at minimal cost. The United Kingdom has gone down a different road, with a heavy compliance burden on benefit recipients and a tight administrative system. The result has been that the programme is relatively expensive to administer. Even so, it has had a number of difficulties. In particular, take-up of the benefit or tax credit has often been low. In fact, much of the employment gain from the reforms of the late 1990s to the UK system are found by Brewer *et al* (2006) to be due to higher take-up of the tax credit than the previous benefit. If a country struggles to get a high take-up of the benefit, employment and anti-poverty gains will be well below the hoped-for levels. For instance, take-up rates of the Irish Family Income Supplement were estimated to be as low as 30-40% (Callan *et al.*, 2006).

Box 1. How are policy reforms evaluated?

The counter-factual of a given policy configuration is not observed directly: when comparing, say, the incomes of low-skilled workers before and after the introduction of a new in-work benefit, many other things that can affect people's income will also have changed during this period. It is then not clear if observed income changes are caused by the policy of interest or by these "other" changes. For instance, employers of low-skilled labour may have moved their activities abroad, unemployment may have gone up, or other policy reforms may have been introduced at the same time. All these parallel changes are difficult to disentangle so that determining the effect of one of them in isolation is not straightforward.

Essentially the studies reviewed below adopt one of three possible approaches. The first compares individuals who are affected by a policy with a second group that closely resembles the first but is not affected ("control group"). If the only difference is exposure to the reform, the policy effect is simply the difference in outcomes between those two groups. However, most policy measures treat similar groups similarly, so finding a good control group is difficult. So-called "demonstration projects", essentially policy pilots that are implemented on a limited scale, address this problem and provide a valuable quasi-experimental setting for understanding the effects of policies before rolling them out on a larger scale (but interpreting the results can be less than straightforward: see footnote 11). We will use the term "experimental approach" to describe this method.

Most policy reforms are not pilot-tested in an experimental setting. In this case, a second approach employs statistical techniques to eliminate the "other" changes that occurred in parallel with the policy reform. Among the studies we review below, this is the most common method used. We will refer to it as the "statistical approach".

While the first two approaches are evaluating the *actual* effects of a policy *after* it has been implemented, a third method attempts to use detailed information about population characteristics and employment behaviour in order to project the *likely* effects of a reform *before* it is put in place. For instance, by knowing the incomes and family situations of potential recipients of a new in-work benefit, it is possible to calculate the amount of benefit different individuals would get. This can then be linked with estimates of labour supply elasticities to obtain the likely income and employment effects for each group. This "simulation approach" is particularly useful when evaluating policy proposals or very recent policy reforms.

Employment effects

45. This section considers evidence on the effects of IWBs on employment *levels* in terms of employment rates and working hours. An important related question concerns their possible effect on job *quality*. In particular, since a lack of human capital is at the heart of the labour market difficulties faced by low-skilled workers, it seems useful to ask whether the policies discussed in this paper do in fact support the formation of human capital or whether there is a trade-off between short-term financial incentives and enhancing earnings capacity in the longer term (Box 2). However, while this is an important question, empirical evidence is scarce. We therefore do not attempt to provide a detailed discussion on this aspect of job quality.

46. A starting point for discussing the employment effects of IWB policies is to consider how people respond to changing financial work incentives without distinguishing, for the moment, whether such changes are driven by wage rates, a specific in-work benefit or by other policy reforms (such as a new tax schedule).[9] Although results are not available for all OECD countries, there is a vast empirical literature on the sensitivity of people's participation and working hours decisions to changes in the payoff from work. There is a broad consensus among labour economists

- that changes in participation (the "extensive margin" of labour supply) are a more significant influence on overall labour supply than changes in the number of working hours of those already in work (the "intensive margin");
- that labour supply is more responsive (or "elastic") for women than for men; and
- that low-income groups and lone parents react more strongly to financial incentives.

47. In quantitative terms, estimates of labour supply responsiveness vary between studies depending on the population groups in question and the approach employed. But the range of estimates reported by different studies is in fact rather similar across countries (see Evers *et al*., 2005 and Immervoll *et al*., 2007 for a summary of results from around 40 international studies). The bulk of this evidence indicates that +0.2 is perhaps a reasonable value for the average participation elasticity. This means that a 1% change in the income *gap* between working and not working is associated with a 0.2% change in the participation rate in the same direction. Elasticities are higher for women, especially for lone parents, ranging mostly between 0.3 and 1. Other factors contributing to more responsive labour supply include the presence of children (for women) and low education levels (for men and women).

9 . Note that the income gains due to these different sources are not entirely equivalent. For instance, higher wage rates can result in additional future entitlements to pensions or unemployment benefits whereas in-work benefits do not.

48. These general results are helpful for interpreting the more specific evidence discussed below. They are also very important when considering how in-work benefits might be best targeted. For a given amount spent on in-work benefits, targeting these resources on those with the most responsive labour supply behaviour will create the biggest payoff in terms of stronger employment and higher earnings. Because women and low-income groups respond more readily to financial work incentives, especially when children are present, it can be efficient to target IWB policies on those with low incomes and with children.

49. The likely labour supply response to a particular policy reform is an important element in evaluating its effect on employment. How much people *want* to work is especially critical when assessing the effectiveness of IWB policies, which explicitly aim at improving work incentives. However, when there is involuntary unemployment, not all individuals who want to work are successful at finding a job -- or they cannot work as many hours as they would like (Bargain *et al*., 2006). In-work benefits will therefore tend to create bigger employment gains during economic upswings than during downturns. The studies discussed below rarely address labour demand constraints explicitly. But it is important to keep in mind that the employment effect of an in-work benefit depends on both the motivation of individuals to look for a job and on the labour market's capacity to accommodate them, and that demand-side constraints are more binding when labour markets are weak.

Box 2. Make-work-pay policies and human capital accumulation

Human capital accumulation is a key factor for successful and lasting labour market integration. By promoting employment and, therefore, work experience, successful make-work-pay policies exert a positive influence on earnings potential in this respect. Yet, certain types of low-wage employment provide little prospect for advancing further. The value of experience acquired in such "dead-end" jobs is then limited, and might be further diminished if make-work-pay measures weaken incentives for human capital investments through education or training. This could be the case if they promote short-term earnings in low-quality employment over training and skill-building.

To the extent that they increase employment or reduce unemployment durations, IWBs and wage subsidies limit the erosion of human capital associated with extended spells of joblessness. But because support measures are typically targeted towards individuals in low-paying jobs, they may reduce efforts to move up the wage ladder into non-subsidised employment. This may especially be the case if support payments are available over extended periods of time. The specific targeting plays a critical role. For instance, so-called earnings disregards, which encourage recipients of welfare benefits to supplement benefit entitlements with very limited amounts of employment income may be counter-productive in this context. Similarly, steep IWB phase-outs at higher earnings levels may also reduce income gains from moving into higher-paying jobs, especially if benefits start being reduced at relatively low earnings levels. Time-limiting in-work support payments may be one way to raise mobility into "better" jobs. However, because temporary IWBs or wage subsidies are likely to be less effective at increasing employment overall, there is likely to be a trade-off between maximizing incentives for advancement while in work and avoiding unemployment-related human capital depreciation.

Like IWBs, minimum wages can strengthen incentives to qualify for a job and, hence, the gains from education and training. At the same time, higher net incomes in low-paid jobs result in a more attractive outside option to schooling which could lead to earlier school-to-work transitions. In the case of minimum wages, employers may cut back on on-the-job training if training measures, and the possible decline in productivity of those participating in training programmes, cannot be (partly) financed by lowering wages. Moreover, a more compressed wage distribution reduces the payoff from investing in human capital. If minimum wages do have a negative effect on human capital formation then this would, for instance, strengthen the case for differentiating wage floors by age. Neumark (2008) argues that US evidence points to negative effects of minimum wages on schooling and that there is some limited evidence suggesting that higher minimum wages could reduce formal training for young adults.

United States

50. A very significant part of what we know about the effects of in-work benefits comes from studies of the U.S. Earned Income Tax Credit (EITC). This is in part because the EITC has been in place for a long time and because it has seen numerous changes since its introduction in 1975, providing a wealth of data that can be studied.

51. About two thirds of those eligible for the EITC are lone parents and 98% of EITC spending goes to families with children. Today, there exists a broad consensus among researchers that the EITC has led to higher employment for single mothers. Moreover, the size of this positive employment effect is substantial. For instance, between 1984 and 1996, the EITC increased employment rates of single mothers by between 4-7 percentage points, accounting for as much as 60% of the rise in single-mother employment rates over that period (Meyer and Rosenbaum, 2001). Grogger (2003) finds that it was responsible for 34% of the increase in employment among this group during the 1993-1999 period.

52. The Meyer and Rosenbaum results also demonstrate that mothers of young children and mothers with low education levels saw the most significant gains in employment. Consistent with this, earlier research showed that the expansion of EITC resulted in substantial declines in receipt of welfare benefits. Following an expansion of the EITC in 1993, transitions from welfare to work of half a million families between 1993 and 1996 were linked to the more generous EITC (Dickert *et al*., 1995).

53. The EITC also improves work incentives for primary earners in two-parent families with low incomes, resulting in a small increase in their employment rates. For married couples, there are offsetting effects, however, because the family-income testing of the EITC tends to lower work incentives for secondary earners. In addition, some existing workers with earnings in the phase-out range have been found to reduce working hours. Both of these negative effects are quantitatively small, however, so that net employment effects are clearly positive (Keane and Moffitt, 1998; Ellwood, 2000; Hotz and Scholz, 2003; Eissa and Hoynes, 2004).[10] All these studies are of the "statistical" sort (Box 1).

United Kingdom

54. The UK Working Families' Tax Credit (WFTC) was introduced in October 1999, replacing a different in-work benefit (Family Credit) that existed before. It has since been replaced by the Working Tax Credit and the Child Tax Credit (see Annex A), but many of the evaluations of employment effects refer to the WFTC. Like its predecessor, WFTC was only available to families with children. The main differences were twofold. First, WFTC was much more generous, with total costs more than twice as high by 2002 (resulting in per-family expenditures that were on average about four times as high as average EITC entitlements in the US). Second, compared to the previous programme, the way WFTC was administered had changed significantly. The administrative changes were designed to reduce stigma and increase participation in the programme.

55. As in the United States, considerable research on the employment effects has led to a broad consensus that the WFTC has brought substantial employment gains among lone parents. This has been shown consistently across a number of earlier studies of the "simulation" type (Blundell and Hoynes, 2004;

10 . While these types of result provide strong evidence for positive employment effects, they can be somewhat difficult to interpret: because the programme has seen numerous changes and expansions over recent years, "the" EITC does not exist. It is therefore useful to show findings for different time periods. This is done by Hotz and Scholz (2003) who classify relevant studies according to the time period covered and also express results using a common metric (similar to the elasticity values cited above) which make it easier to compare across studies.

Blundell *et al*., 2000). The most recent and comprehensive "statistical" studies confirm these positive effects. They point to a 5 percentage points (or 10%) increase in employment rates that can be directly attributed to the replacement of Family Credit with the WFTC (Brewer *et al*., 2006). This significant increase was achieved over a short period of three years (from under 50% in 1999 to around 55% in 2002). Similar to the US results, Brewer *et al*. (2006) suggest that employment gains were strongest for single mothers with young children (youngest child aged between 3 and 10).

56. The WFTC slightly reduced employment rates and working hours among mothers in couples (for reasons similar to those cited above for the EITC). This was more than offset by employment gains among fathers in couples. Since WFTC is only available for families with children, childless singles and couples are not directly affected. In summary, replacing Family Credit with WFTC increased labour market participation between 1999 and 2002 by around 81,000 workers, two thirds of whom were women.

57. As in the case of the EITC, one consequence of the succession of different versions of in-work benefit is that evaluation studies often consider individual reforms. A question that is addressed less frequently concerns the overall impact of the existence of in-work benefits *per se*. A further result from the Brewer *et al*. study is therefore of particular interest. Using a simulation approach, the authors suggest that the overall effect of the WFTC on employment rates of lone parents amounts to 10 percentage points if the comparison is made not against the previous Family Credit but against a "no in-work benefit" scenario. Put differently, the study suggests that in the absence of any in-work benefit, the lone-parent employment rate in 2002 would have been 45%, rather than the actual 55%.

Canada

58. Canada has experimented with earnings supplements (the Earnings Supplement Programme and the more recent Self-Sufficiency Project, SSP). The evaluations of these programmes are particularly significant, as the design of the experiment allows for the effects of the programmes to be determined with far greater accuracy than with either the simulation or statistical exercises upon which evaluations in most other countries must rely. Furthermore, these evaluation studies are of interest because they explicitly investigate the longer-term effects on employment and earnings.[11]

59. The SSP (which has not been implemented on a larger scale and is therefore not listed in Table 2) "provides a generous, time-limited earnings supplement available to lone parents who had been on welfare for at least a year, and who subsequently left welfare and found full-time work" (Michalopoulos *et al*., 2005, p. 6). The SSP supplement varied only with individual earnings and was independent of other income sources or family composition. Benefit amounts were substantial, providing half of the difference between actual earnings and a target level (around CAD 37 000; USD 34 500), resulting in maximum payments of more than CAD 12 000 (USD 11 200) per year in the mid-1990s. The maximum entitlement duration was three years.

60. A series of studies of the "experimental type" undertaken by the Social Research and Demonstration Corporation (SRDC) document that the SSP increased employment and earnings of those taking part in the program. Michalopoulos *et al*. (2005) report that, 18 months after becoming eligible for in-work supplement payments, full-time employment among new welfare recipients was about 12 percentage points (or 28%) higher than in the ineligible control group (employment rates were 54.9% in the eligible group and 42.8% in the control group). By month 18, average earnings excluding the

11 . It should be noted that small-scale experiments also present challenges. In particular, it can be difficult to infer from them what would happen if the programmes under study were extended to the population at large. For instance, labour markets will react more strongly to changing incomes and employment behaviours if large numbers of people are affected by the policy measure.

supplement payment were 36% higher in the eligible group. The impact on earnings and employment is quantitatively smaller for participants who have been receiving welfare payments over longer periods prior to the start of the program. But overall, the impact of the programme was such that its net cost was modest compared with other transfer programmes. For new welfare recipients, Michalopoulos *et al*. argue that the programme pays for itself as reduced welfare payments and higher tax receipt more than offset expenditures on the supplement payment, resulting in a net financial gain. The ratio of costs to benefits is, however, likely to be significantly less favourable if the experimental SSP programme were to be rolled out on a larger scale. For instance, Lise *et al.* (2004) calculate that accounting for general equilibrium effects such as job displacement and wage movements changes the cost/benefit ratio from a net gain to a net financial cost.

61. Later research showed that the positive effects on employment and earnings declined somewhat over time, but remained significant throughout the *payment* phase (for a summary, see SRDC, 2006). They did, however, become small or insignificant after payments stopped (e.g., Bitler *et al.*, 2008). This latter result is important as it suggests that continued strong financial incentives are probably necessary to have a permanent effect on outcomes. While it appears that a programme of this type cannot increase wages and human capital in the long term, the evidence establishes that it can be a cost-effective way to increase employment and incomes of disadvantaged groups. It also shows that results vary with the details of programme design. One significant result was that earnings supplements appear to be particularly effective when combined with additional employment services.

France

62. The French *Prime pour l'emploi* (PPE) was created in 2001 and has been reformed in 2003 and again in 2006. Unlike the EITC in the U.S. and the WFTC in the UK, its value is modest, amounting to a few hundred euros per year and recipient at most. Due to its relatively recent introduction, most evaluation studies are based on simulations.

63. The evidence on the 2001 version of the PPE is summarised by Sterdyniak (2007). Although the samples are not the same across the different simulation studies, all of them find positive but very small employment effects of less than 0.5 percentage points (Bargain, 2004; Choné, 2002; Fugazza *et al*., 2003; Laroque and Salanié, 2002). One "statistical" study using data on actual changes for the entire population finds effects of a similar magnitude (Arnoud *et al*., 2005), while a second study of this type suggests employment losses among married women and, surprisingly, no significant gains for non-married women (Stancanelli, 2005). A more recent "statistical" study of the 2001 PPE confirms the findings of very small employment effects (Cochard *et al.*, 2008).

64. The small employment effects can be explained by the modest benefit amounts and, at least in the case of the ex-post studies, by the difficult labour market conditions with high involuntary unemployment. Several commentators have also criticised the very complex rules of the PPE and the long delays between eligibility and benefit pay-out (up to 18 months), which are both likely to obscure the intended link between individual behaviour and financial reward. There is a clear need for an exhaustive study that would throw light on these issues, and would also consider the different versions of the PPE in order to better understand the importance of design features, notably the successive reforms that made the PPE more generous.

Germany

65. The so-called "Mini-jobs" reform in 2003 aimed at boosting employment in the low-wage sector. Unlike the programmes discussed earlier, the reform was almost exclusively focussed on strengthening employment, with little discussion of possible redistributive effects. This is reflected in the design of the

measure, which consists of a rebate of social security contributions paid by employees. It is available to all low-wage workers on a permanent basis and does not depend on family income (low-wage earners in high-income households are fully entitled to the rebate).

66. The *individual* nature of the rebate avoids the adverse work incentives for second earners created by family means-tests built into the EITC or WFTC (and, to a lesser extent, the PPE). Several design features can, however, be expected to limit positive employment effects for low-skilled workers in particular. The earnings levels eligible for the rebate can be below the level of welfare benefits available to labour-market inactive and long-term unemployed individuals. As a result, work incentives for the low-skilled remain low even after the rebate. Depending on the family situation, there may not be any effect on income at all as low-wage earners can still be entitled to welfare benefit top-ups. For these families, any reduction in social contribution burdens is likely to be offset by lower benefit entitlements. As a result of there being more generous unemployment benefits during the initial phase of joblessness, the majority of short-term unemployed persons would lose income if they started working in a "mini job". In addition, the rebate is available to all workers with earnings in the "mini-job" range, regardless of their working hours. There are therefore incentives for existing employees to reduce their hours in order to benefit from the higher rebates. More specifically, the rebates are not well targeted towards low-skilled workers as they do not distinguish between low wages and low working hours. Accordingly, a very substantial proportion of beneficiaries were not in fact low-skilled workers. For instance, 23% were pensioners or students (Fertig *et al*., 2004).

67. A recent study confirms that "mini jobs" did little to increase employment. It finds a small positive effect on participation (+36,000 full-time equivalent jobs, including students and pensioners) but this is outweighed by reductions in working hours by those already in work. As a result, the impact of the "Mini-jobs" reform on total hours worked appears to be negative (Steiner and Wrohlich, 2005).

Comparative work

68. The interest in the effectiveness and design of make-work-pay policies has motivated comparative international research, which seeks to evaluate in-work benefits in different institutional settings. The attraction of this type of analysis is that it provides important insights regarding the factors that make particular policy measures more or less effective.

69. In a study of alternative reform scenarios for Germany and the UK, Blundell *et al*. (2007) find that introducing a UK-style in-work benefit in Germany would have substantial positive effects on employment among non-married individuals. Similar to the UK experience, employment gains would be particularly strong among lone parents (with an increase of 90,000, or 8%). However, compared with the UK, the reform leads to a much larger reduction in labour supply among married individuals. One reason is that the family-based means-test built into the in-work benefit further reduces work incentives for second earners, which are already significantly lower than in the UK even before the reform. Overall, the introduction of a WFTC-style benefit in Germany would lead to small employment gains of only 30,000 additional jobs. The fiscal cost of the benefit would be high, however, resulting in very large public expenditures per job created. The authors suggest that an effective in-work support programme in Germany should seek to avoid the negative incentives for second earners and that this might be best achieved with a more individualised in-work payment.

70. The limited employment effects in Germany are confirmed by another study evaluating the (hypothetical) introduction of a WFTC-type payment in Germany and in two other continental-European countries: Finland and France (Bargain and Orsini, 2006). Results suggest that French married women would suffer a marked fall in employment rates as a result of the adverse incentive effects of the family means test built into the in-work benefit. Since worklessness among lone parents is less of an issue in

continental Europe than in the UK and other English-speaking countries, the employment gains are smaller for this group. Overall participation effects for women are therefore smaller than in the UK as well. Another important factor behind these results is the more equal income and earnings distributions in much of continental Europe. This makes it more likely that large numbers of individuals have income in the phase-out range of the benefits and are, therefore, affected by the adverse work incentives that arise from steep benefit withdrawals.

71. Individualised in-work benefits largely avoid the negative incentive effects for married women. Yet, because they are less tightly targeted and therefore paid to a larger group of workers, individualised benefits have to be substantially lower than family-based in-work payments if the total cost is to be the same. This reduces their positive impact on work incentives among groups, such as lone parents and low-skilled persons, who are known to respond to work incentives. The challenge for policy design is to find an appropriate degree of targeting that maximises the positive employment effects for single individuals and primary earners in families, while avoiding an overly negative effect on second earners.

72. To sum up, the evidence for existing in-work benefits points at significantly positive employment effects among those primarily targeted by the payment. Overall participation effects are also found to be positive. However, depending on the design of the in-work transfer, some groups work fewer hours or may decide to stop working in response to the availability of additional transfer income in the family. Employment outcomes should not be considered in isolation, however. An overall assessment needs to account for the distributional impact of IWB policies.

Distributional effects

73. A range of questions are relevant when determining which groups gain or lose from the introduction of an in-work benefit.

- Who is entitled to the benefit and who actually receives it?
- How big are the payments relative to recipients' incomes?
- How do they affect other benefit payments?
- How is the measure financed: who pays for it?
- How does it affect employment and earnings?
- How likely is it that individuals receive the benefit in future periods?

74. There are several possible ways in which the distributional impact of a policy might be assessed. One is in terms of overall measures of income inequality, which summarise income discrepancies across the entire population, including those with high and very high incomes. However, as IWB measures are specifically targeted to low-income groups, the most immediate concern is often with their impact on income poverty. This is especially the case for payments that employ a family-based means test and are therefore explicitly targeted towards low-income families (the individualised in-work payments considered by some European countries put more of an emphasis on addressing *individual* disadvantage).

75. Statistics on benefit receipt from administrative sources give a first indication of the extent to which benefit payments reach families who are poor or potentially poor. For instance, US data for 1990 show that 16% of taxpayers benefiting from the EITC lived in households receiving welfare benefits at some point during the year and that 26% were in households receiving food stamps (Liebman, 2000). The

threshold for both these safety-net benefits are substantially below the official US poverty threshold (which, in turn, is much lower than the relative poverty line commonly used in international comparisons, and also in Section 3 above). Since then, the EITC has been made substantially more generous so that families with somewhat higher incomes also became eligible. At the same time, employment rates of lone parents have increased significantly, expanding the group of potentially poor families entitled to receive in-work payments. And with higher EITC entitlements, those poor families who are receiving them will of course be helped more. As a result, expansions of the EITC during the 1990s were linked to lowering the use of welfare benefits by some 10% (Grogger, 2003).

76. Figures for 1997 show that over 60% of EITC payments were made to taxpayers with income that was below the official poverty line without the EITC (Scholz and Levine, 2001). The same study shows that about half of EITC expenditure totals directly (i.e. before accounting for employment effects) contributed to improving incomes of the poor (it reduced the poverty gap). One of the stated objectives of the 1993 expansion of the EITC was that a lone parent in a full-time minimum-wage job should no longer be in poverty according to the official US poverty threshold. Calculations for the late 1990s show that, with USD 10,300 in wages and USD 3,656 from the EITC, a working lone parent with two children would indeed have income above the official poverty line, which amounted to USD 12,802 for this family (Hotz and Scholz, 2003). In 1999, the EITC reduced (official) child poverty in lone-parent households by 4.5 percentage points to 25.1% while, in 1990, the reduction due to the (then less generous) EITC was less than 1 percentage point (House Committee on Ways and Means, 2004, Table H-21, cited in Haskins, 2006). Also for 1999, Hoffmann and Seidman (2003) report a reduction of the overall poverty headcount by 1.5 percentage points (or 4 million individuals) due the EITC. Census data for 2003 show that, again without accounting for changes in employment, the EITC lifted 2.4 million children above the official poverty line, reducing child poverty by 19% and overall poverty rates by 12.5%. Neumark (2008) summarizes evidence in Neumark and Wascher (2001) who focus on employment effects. They find that higher EITC payments on average raise the *earnings* (i.e. not counting the higher EITC payments themselves) of recipient families who were initially below the (official) poverty line, and that they also increase the probability that family earnings rise above the poverty line. Conversely, they find no evidence that the higher marginal tax rates resulting from the EITC phase-out would push the earnings of near-poor families below the poverty line.

77. For the UK, Inland Revenue data show that a total of around 2.7 million children lived in families receiving the WFTC in late 2002. Lone parent families accounted for 54% of recipient families. As noted above, average benefits per recipient family are higher in the UK than in the US. One can therefore expect that the WFTC has a bigger impact on the incomes of the working-poor. Early simulations of the "mechanical" distributional effects of replacing Family Credit with the more generous WFTC showed that income gains went, as expected, almost exclusively to the bottom half of the income distribution. The largest gains in family incomes were recorded for the second-lowest decile group, although the poorest 10% (which includes jobless households as well as many pensioners – both groups that are not entitled to WFTC payments) show small gains as well (Dilnot and McCrae, 2000). While the WFTC clearly reduces inequality, ignoring changes in employment underestimates its contribution to poverty reduction. For instance, Brewer *et al.* (2001) estimate that while 18% of children living in working families are poor, the child poverty rate among workless households stands at 80%. Using these numbers as a basis, it is possible to infer that employment gains due to the WFTC (estimated at around 80,000) would lift a substantial number of children out of poverty, perhaps close to 90,000. These improvements in poverty rates would be in addition to the effect the WFTC has on the incomes of those already in work.

78. Unlike most results from the UK and the US, findings from the Canadian SSP explicitly account for the employment effect of the income supplement for welfare recipients who manage to find full-time work. SSP "reduced the proportion of families in poverty (income below the Statistics Canada's income cutoff) by more than 11 percentage points" (Michalopoulos *et al*., 2005, p. 19). Recalling that all

participants in this policy experiment were lone parents, the reduction of the proportion of poor families from 68.5% to 57.2% illustrates the potential of targeted in-work benefits for alleviating child poverty.

79. Most studies focus on the incomes of actual or potential IWB recipients. While policies differ in terms of targeting and their impact on employment, it is not surprising, that a transfer to lower income groups would reduce inequality and poverty. But as all public redistribution measures, IWBs have to be financed by raising taxes on other groups, or cutting public spending (for instance the introduction of the Swedish EITC in 2007 was accompanied by cuts in unemployment benefits). In both cases, the reform affects the incomes of non-recipients. A full analysis of the distributional impact should therefore consider not only the beneficiaries but also those who pay for the transfers. Indeed, an informed choice between alternative measures of redistribution is only possible given information about who gains and who loses.

80. Because of the need to raise sufficient revenues for financing an IWB, the shape of the income distribution prior to its introduction is a key determining factor of the patterns of gains and losses. If IWBs represent an *additional* transfer, i.e. if they are introduced without cutting back other benefits, financing usually takes place by increasing tax burdens for higher-income groups. As noted earlier, a highly dispersed income distribution makes it relatively easy to distinguish these higher-income groups from recipients of the IWB. The required revenue can then be raised by slowly increasing tax burdens over a wide income range (i.e., the marginal tax rates needed to finance the benefit are low). Conversely, a narrow (equal) income distribution means that it is much more difficult to target and finance the IWB. To keep the number of recipients and benefit expenses manageable, benefits have to be phased out very quickly, resulting in high marginal tax rates. If marginal tax rates are very high, they are likely to reduce work effort or working hours. Because government revenue is then reduced as well, it follows that for a given amount of total IWB spending, countries with more equal income distributions require a larger tax increase to finance these benefit expenditures.

81. Taking account of the likely employment effects of IWBs along both the "extensive" and "intensive" margins of labour supply, a recent study covering 15 EU countries calculated measures of the likely cost of a simple individual-based in-work benefit (Immervoll *et al.*, 2007). The results confirm that the tax burden needed to finance IWBs is lower in countries with relatively dispersed earnings distributions. For instance, paying a 1-euro transfer to low-income workers would cost higher-income groups around 1 euro in Portugal and the UK (i.e., there is no efficiency loss associated with the IWB). Because of the positive impact of the IWB on employment, the cost is even less than 1 euro in Ireland (an efficiency gain). But in Finland and Sweden, both countries with narrow earnings distributions, the hypothetical 1-euro IWB could be expensive, costing taxpayers as much as 5 euros in Finland and 4 euros in Sweden.[12] For this tax-financed IWB to be a desirable policy in terms of overall welfare, this means that income gains of IWB recipients in those two countries would need to be valued 4 to 5 times as much as the income losses of taxpayers financing them.

Joblessness and poverty are not permanent states

82. The evidence discussed so far has examined the redistributive effects of in-work benefits in a given period: low-income "working households" benefit from the in-work transfer, while "jobless

12 . While this seems very costly, this is in large part due to the conservative assumptions in this study about the employment effects of introducing an in-work benefit (the baseline scenario used an average participation elasticity of 0.2 in all countries while sensitivity analyses reported in the paper show that the costs turns out to be much lower if the average participation elasticity is only slightly higher). In fact, a recent study of the cost of introducing the Earned Income Tax Credit in Sweden uses more detailed estimates of likely labour supply response among Swedish households and finds that, due to relatively large reductions in benefit claims, the reform may almost pay for itself (Aaberge and Flood, 2008).

households" do not. Such results provide important insights. But it is also clear that a purely static perspective is insufficient for a complete assessment of the distributional consequences of a policy measure – especially when an explicit objective of the measure is to facilitate transitions into work. In some respects, the distinction between "working" and "jobless" households is a misleading simplification. Over time, individuals move in and out of work, and families' incomes can differ between periods. It is commonplace to argue that low income itself should not be equated with poverty; rather, low income over an extended period of time is what leads to poverty. For instance, the European Union Indicators Sub Group is careful to refer to the number of people below a given level of income as being the population "at risk of poverty", rather than all being poor. If they remain on low incomes over extended periods of time, then material deprivation becomes a very serious problem.

83. While chronic non-employment is a reality for some, analysis of employment status data suggests that for many categories of out-of-work individuals, transition rates back into employment are substantial. For instance, data for 12 European Union countries in the late 1990s showed that 36% of those reporting "unemployed" as their main status in 1997 switched to *main* status "employed" in 1998 (OECD, 2003, Chapter 2). Over a period of several years, it is likely that the majority of those unemployed at some point will be in employment at other times.

84. In fact, the same data show that, over a period of five years, the number of those ever non-employed in 12 European Union countries was more than twice the number of those who were continuously without work, implying considerable movement into and out of work. Note that non-employment includes unemployed workers, as well as other out-of-work groups such as homemakers or those in education, who are less likely to be actively looking for a job. Turnover is no doubt considerably higher for some of these groups than for others. There is also considerable variation across those 12 countries, with Denmark and the UK showing the highest turn-over indicators (values of 4 and 3.3, respectively). With a value of 5.5, turnover in the United States is much higher (less than 20% of those ever out-of-work at some point during the 5 years are without a job during the entire period).

85. There are also considerable differences between demographic groups, with men less likely to experience out-of-work spells than women. More importantly, higher labour-market turnover for men indicates that those who do go through periods of non-employment have much better chances than women to get back to work. Put together, these results have two important implications when considering the role of in-work support for the economic well-being of children. First, children growing up in low-income two-parent families are very likely to benefit from in-work support even if intermittent spells of joblessness or more frequent transitions into and out of work are a reality for many families. Second, and as recognised in the majority of OECD countries, lone parents require extra support, both to find and keep a job and to support children during out-of-work spells, which are likely to be more prolonged than for other parents. Yet, even for the lone-parent group, earlier research indicates that most lone parents without a job at a given point in time do manage to find employment later. For instance, a study for UK found that 63% of lone parents not working in 1991 and interviewed again in 1995 reported that they had held a job at some point during this period (which was a recessionary period in the UK) (Ford *et al*., 1998).

86. Many low-income families with children are repeatedly "churning" between benefit and work. Because large numbers of poor families currently without work do not always remain without work, a much higher proportion of them will benefit from IWB than is apparent from snapshot data. This conclusion holds even if there is no change whatsoever in labour supply behaviour due to the introduction of an IWB. For families experiencing transitions between work and joblessness, it is important to recognise that IWBs have an impact on income in a given year, as well as on average family income over a longer period.

6. Close cousins? In-work benefits, minimum wages and wage subsidies

87. The objectives of in-work benefits, minimum wages and wage subsidies are closely related. Ultimately, they all aim at promoting self-sufficiency among individuals with limited earnings potential. As a result, and although these measures are not always discussed together, one would expect that employing different *combinations* of these instruments may provide additional policy leverage to tackle the dual challenge of high rates of non-employment and in-work poverty among certain groups.

88. If complementarities between these policies indeed exist, policy attention should arguably shift from the question whether each of these individual policies is a "good" or a "bad" idea, to identifying the most appropriate overall policy package. All three make-work-pay measures have strengths and weaknesses and it is therefore unlikely that different combinations of them would produce identical outcomes (see Box 3). This section briefly reviews evidence on the effectiveness of minimum wages and wage subsidies and highlights links between these policies and in-work benefits.

Minimum wages

89. Statutory wage floors have a much longer tradition in OECD countries than in-work benefits. They are also more widely-used. Statutory or otherwise legally binding or generally applicable minimum wages are currently in place in just over two-thirds of the OECD countries. In addition, employment contracts of low-wage workers may also be subject to collective agreements providing for sector, occupation or region-specific wage floors. Nevertheless, minimum wages are highly controversial. In part, this can be attributed to the fact that minimum wages *redistribute*: they "do not increase the pay of workers by magic" (Freeman, 1996, p. 640), but entail gains for some and losses for others.

90. Arguably, however, the debate surrounding the minimum wage is sometimes too narrow, ignoring some of its potential effects. First, discussions of the minimum wage tend to focus on the demand-side of the labour market, with the impact on labour costs and demand for low-skilled workers at the heart of the controversy. Yet, they can also be expected to affect labour supply as they boost the financial gain from working for some groups. As the discussion in Section 5 has shown, low-wage workers do respond to financial incentives.

91. Second, the distributional effects of minimum wages (or minimum-wage increases) tend to be implicitly or explicitly compared with other, more targeted, redistribution or anti-poverty programmes. The usual result is that, because minimum wages often benefit individuals in non-poor households and do not improve the incomes of jobless households, they are less effective in this respect (see, e.g., the studies using US data by Neumark *et al.*, 2005 and Burkhauser and Sabia, 2007). This outcome is not surprising for a make-work-pay policy, which addresses *individual* disadvantage and does not directly affect the incomes of the poorest (jobless) households. Nevertheless, the high in-work poverty rates shown in Figure 5 above for one-earner household would in fact suggest that a large number of poor households would benefit from higher wages. But a more important point concerns the efficiency of redistribution through the minimum wage relative to other policies. For a balanced comparison, it is necessary to consider the *relative* costs of alternative, more targeted, redistribution measures. Most of these measures entail efficiency costs. Because of the adverse effect on work incentives, the costs of measures targeted to the poorest households are especially high. The critical question is therefore whether minimum wages at a given level achieve a reasonable degree of redistribution relative to their costs, and how this compares with other policies.

92. Finally, evaluating a policy measure in isolation ignores potential links with other, related, policies. A number of recent studies have pointed to such links between minimum wages and IWBs, showing that properly-set minimum wages can make IWBs more effective and less costly.

Box 3. Are different make-work-pay packages functionally equivalent?

It is tempting to think that, with two policy objectives (redistribution and increasing employment) and three different make-work-pay policies to achieve them, certain combinations of these policy measures would create outcomes that are essentially the same. To illustrate the mechanics and trade-offs associated with each policy, it is useful to consider the effects of different packages in more detail.

For a given individual, it does not matter whether income gains are due to a higher wage or a wage-supplementing government transfer. The financing of these income gains differs between the two scenarios however. In the case of a wage increase, the income gain is in the first instance paid for by the employer who may, in turn, be able to shift some or all of the additional burden to consumers (charging them higher prices) or production factors (e.g. lowering the wages of other workers, reducing employment levels or working hours). In-work benefits are financed by the taxpayer so the incidence of the associated losses depends on whose taxes are increased (or whose benefits are lowered) to pay for them. In order to compensate the employer for the additional costs of a minimum wage, one could imagine a wage subsidy which would restore net labour costs to the pre-minimum-wage level. If this wage subsidy is financed in the same way as the in-work benefit, the two make-work-pay packages would indeed be economically equivalent.

There are, however, a number of reasons why this theoretical equivalence does not carry over to a more realistic setting where make-work-pay policies apply not only to one individual but are available to wider groups of people:

- Introducing a minimum wage (or increasing it) creates a discrete change in the wage distribution which real-world tax-benefit provisions cannot replicate. For instance, an in-work benefit which would top up wages in such a way as to make net wages equal to the minimum wage is not feasible. Employers could simply lower the wages of all those earning at or below the intended minimum, thereby minimising labour costs while keeping net wages unchanged.

- For similar reasons, wage subsidies cannot fully compensate employers for the cost they are facing as a result of the minimum wage (there would again be incentives to claim that wages would be excessively low without the minimum). In addition, and as discussed in the main text, minimum wages have knock-on effects on wages further up the wage distribution. There is no reason to expect the phase-out of a wage subsidy to mimic exactly these effects on higher wages.

- Minimum wages are explicitly or implicitly defined on an *hourly* basis whereas most taxes and benefits are determined on the basis of total earnings and do not, or only to a limited extent, change in relation to the number of hours worked.

In practice, higher wages and in-work benefits also have different consequences for pension entitlements and fringe benefits that are determined in relation to individual earnings. The bottom line is that in-work benefits, wage subsidies and minimum wages provide different levers for addressing labour market and income difficulties of certain groups. Each of these policy interventions is characterised by a different set of strengths and weaknesses, creating opportunities for exploiting complementarities between them.

93. Legally binding wage floors are in place in 21 OECD countries. The variation across countries is very substantial, with 2006 levels for adult workers ranging from less than USD 2 per hour in Hungary, Mexico, Poland, the Slovak Republic and Turkey to more than USD 10 in France and Luxembourg. Relative to average full-time wages, minimum wages are lowest in Korea and Mexico (around 25%) and highest in Australia, France and New Zealand (close to 50%). Between 2000 and 2006, the simple (un-weighted) 21-country average has increased slightly, indicating that minimum-wage workers have tended to participate equally in the wage gains or losses experienced by the working population at large. Some countries have, however, seen substantial changes over the past six years. In the United States, gross earnings of minimum-wage earners have fallen behind those of the average US employee by six percentage

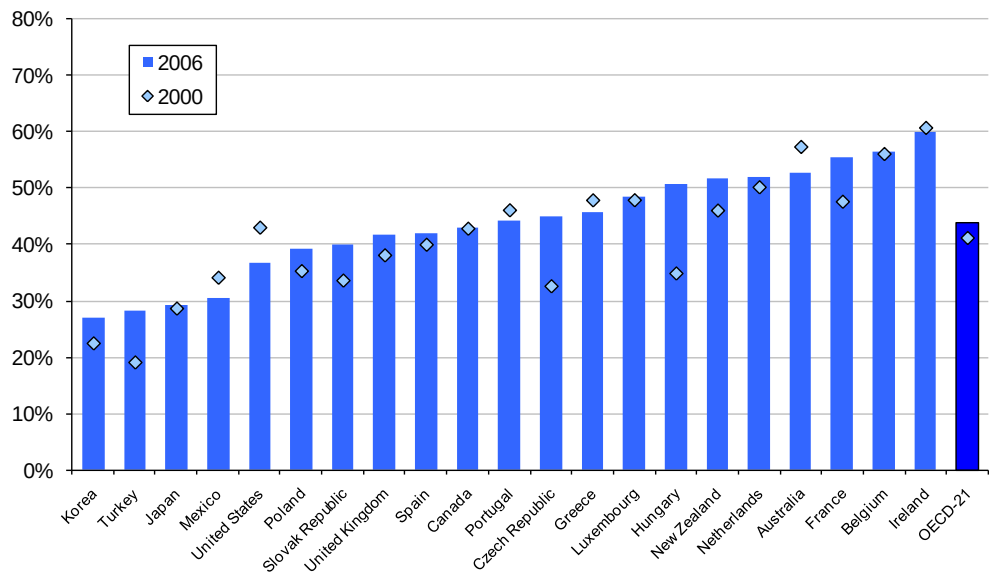
points over the period.[13] Minimum wages have also lagged behind average wage growth in Australia, Belgium, Greece, Mexico, the Netherlands and Portugal (OECD, 2007b).

94. However, these values are in *gross* terms. Since the tax treatment of minimum wages also varies across countries, a comparison of *after-tax* values is more informative when discussing work incentives and firms' hiring decisions. In fact, income taxes, payroll taxes and social contributions payable by employee and employer create a significant wedge between labour costs and take-home pay, even at the bottom of the wage distribution (OECD 2007b reports tax wedges for full-time minimum-wage workers ranging from 6% in Korea and Spain to more than 20% in Belgium, France, Hungary, Netherlands, Poland and Turkey).

95. Net-of-tax minimum wages are shown in the upper panel of Figure 6 for a single full-time worker. The country average is just under 45% of net average wages, ranging from lows of 30% or less (Japan, Korea, Mexico, Turkey) to highs of around 55% in Belgium and France (they are highest in Ireland but this is in part due to data limitations: see note to the Figure). With progressive tax systems, minimum wages expressed as a percentage of the average wage are higher when the comparison is made in net terms than on a gross basis. In a number of countries, this progressivity provides a sizable relative "boost" to the incomes of minimum-wage earners compared to those of average earners. For instance, in Belgium, tax burdens are among the highest in the OECD at all wage levels. But because of considerable progressivity built into the tax system, the ratio of minimum to average wage is 40% on a gross basis but 56% after accounting for income taxes and social contributions.

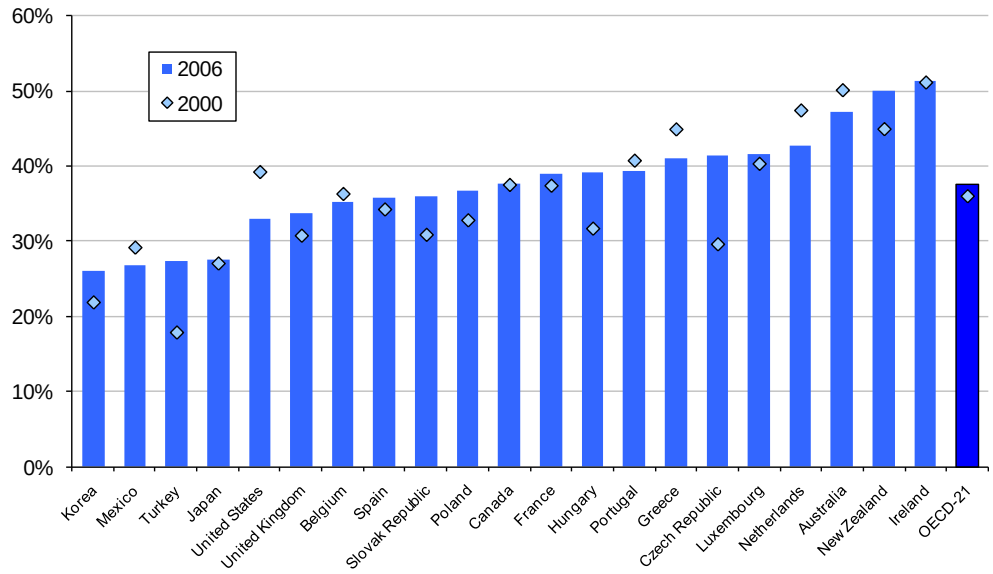
Figure 6. Minimum wage and minimum labour cost after tax[a]

(a) Net earnings in a full-time minimum-wage job. Percent of net average wage for a single individual.



13 . This result is based on the federal minimum wage, which is only uprated occasionally by the Congress. By late 2006, the majority of states have already operated wage floors above this federal level. In addition, nominal adjustments of the federal minimum have come into force since then.

(b) Cost of employing a full-time minimum-wage worker.
Percent of labour cost for an average-wage worker.



a. In the US, the average wage figure excludes supervisory and managerial workers while in Ireland, it is limited to manual workers in the manufacturing industry. In both cases, ratios of minimum to average wages would be *lower* if expressed in relation to a more comprehensive average wage concept. See OECD (2007b) for details.

Source: OECD (2007b).

96. The lower panel of Figure 6 shows the same ratios of labour costs. Minimum labour costs range from less than 30 per cent of the cost of an average worker in Japan, Korea, Mexico, Spain and Turkey to close to 50 per cent in Australia, Ireland (the above qualification applies here as well) and New Zealand. In around half of the countries, the cost of employing minimum-wage workers has gone up in recent years, both in real terms and relative to the labour cost for workers earning average wages. The trends are, in fact largely similar to those observed for net minimum wages. One exception to this pattern is Belgium, where a combination of lower tax burdens and minimum-wage increases below inflation have enhanced net incomes of minimum-wage workers while keeping labour costs largely unchanged.

97. There is a vast amount of evidence on the effects of minimum wages on employment, especially for the United States.[14] Theoretically, it is clear that a wage floor reduces employment in a competitive labour market, although the size of the effect depends on factors such as the level of the minimum, the wage distribution and compliance with mandatory minimum-wage provisions. However, in settings that allow for market imperfections, both employment and wages can be inefficiently low. Market imperfections such as monopsonistic labour demand, search frictions or information asymmetries between workers and employers are characteristic of at least some labour market segments in OECD countries. In these cases, wage floors can theoretically also have the opposite effect and raise employment if set at an appropriate level (Card and Kruger, 1995; Cahuc *et al.*, 2001; Acemoglu, 2001, but already noted by Robinson, 1933 and Stigler, 1946). When set above a certain level (the workers' marginal product – which of course varies between employers and types of job), minimum wages will, however, reduce employers' demand for labour in both competitive labour markets and those characterised by market imperfections.

14 . Extensive surveys are provided by Dolado *et al*,(1996); OECD (1998), Chapter 2; Brown (1999); OECD (2006), Chapter 3; Neumark and Wascher (2007). Neumark and Wascher (forthcoming) will discuss a wider range of outcomes.

98. Empirical studies looking at the employment effects of altering minimum-wage levels report conflicting results. In part, this is because they focus on different geographic areas or labour market segments. But disagreements exist also between studies where these are similar. In a comprehensive survey of the "new minimum wage" literature, Neumark and Wascher (2007) conclude that the range of estimated elasticities of employment with respect to changes in the minimum wage is very wide, that the majority of studies point towards disemployment effects, especially among low-productivity workers, and that there is comparatively little evidence of positive employment effects. In addition, even those remaining in work (and thus benefiting from higher hourly wages) could see their earnings decline if employers cut back on working hours (Neumark *et al.*, 2004), although this should presumably offset some of the negative effects on employment levels.

99. Although the employment losses found in some of the studies are very small or insignificant, job losses among low-productivity groups, such as younger workers, are of course a concern as these are the very groups that minimum wages are supposed to assist. But as with any other redistribution policy, even a finding of negative employment effects do not mean that minimum wages would be undesirable. One might assume that society puts a premium on supporting low-wage workers – indeed, such an assumption seems relatively safe if it has been decided that their wages should be supported by introducing a wage floor. To decide whether a given minimum wage is "too high", the important issue is then how large any employment losses are relative to the income gains of low-wage workers (those remaining in their jobs and those taking up work as a result of improved work incentives). Formalizing this equity-efficiency trade-off, Lee and Saez (2008) show that a non-zero minimum wage can be welfare-improving in spite of disemployment effects. Moreover, as long as governments value redistribution towards low-wage workers, this also holds in competitive labour markets. In addition to redistributive preferences, the optimal minimum wage level then depends on the responsiveness of labour demand and labour supply to wage changes. Unsurprisingly, a more elastic demand for workers makes minimum wages more costly and hence reduces the minimum wage optimum, while a highly responsive labour supply has the opposite effect.

100. For a number of reasons, the case for a minimum wage becomes stronger when IWBs are in place. First, a minimum wage improves the targeting of IWBs. By preventing wage levels at the bottom from falling, they prevent employers from "pocketing" the value of IWBs by lowering wages. Since minimum wages also tend to increase wages further up the wage ladder, this is also likely to increase the share of IWB payments that stays with workers earning wages above the minimum.[15] In other words, minimum wages reduce the "leakage" of IWB payments to employers, which helps to achieve the intended redistribution to low-wage workers (note that employers may nevertheless respond to higher minimum wages by reducing the pay of higher-wage workers).[16]

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15 . One explanation is that employees adjust their wage expectations following changes in the minimum wage and that this affects the labour supply schedule, prompting employers to consider paying wages above the legal minimum (Falk *et al.*, forthcoming). A recent study argues that a substantial increase in the Hungarian minimum wage to a level close to the 15th earnings percentile resulted in progressively smaller, but measurable, wage increases up until the 35th percentile (Kertesi and Köllõ, 2003). Likewise, Neumark *et al.* (1994) find that significant wage effects of a minimum-wage increase in the United States are discernable at wage levels up to about twice the new minimum, although employers appear to partly compensate these gains by offering lower wage increases in the following period.

16 . A less straightforward way in which minimum wages improve the targeting of IWBs relates to the role of wage floors as a rationing device. Essentially, some of those who are almost indifferent between working and not working lose their jobs as they are priced out of the labour market. Because these 'marginal workers' do not have strong preferences for work, their costs of involuntary unemployment are relatively low. As they no longer receive IWB payments, larger amounts can then be spent to support the incomes and work incentives of those who have stronger preferences for work (or lower work-related costs), resulting in a better allocation of resources and improved welfare overall (Lee and Saez, 2008).

101. Second, the congruence of policy objectives means that minimum wages can to some extent be traded directly against reduced IWB payments. Higher wage levels at the bottom mean that the same in-work income can be attained with lower IWB payments. As a result, overall expenditure on IWBs can be lower, as can the taxes needed to finance them. In other words, with minimum wages in place, the burden of supporting low-wage workers then falls to a larger extent on employers, as well as their customers and employees, and to a lesser extent on taxpayers financing government transfers. In particular, lower IWB levels mean that the steepness of benefit phase-outs can be reduced, which helps limit the negative labour supply effects of high marginal tax rates associated with benefit tapers.

102. The discussion above suggests that, in a context of widening wage inequalities, wage floors can be a useful element in an overall package to make work pay. Keeping wage floors properly differentiated and in line with the productivity of low-wage workers is, however, essential to avoid substantial disemployment effects. This is particularly important in countries, or sectors, where wage flexibility is already seen as insufficient. Younger workers are a particular concern in this respect.

103. The various links with the tax-benefit system also have implications for the appropriate design of minimum wages. Levels should be set to maximise the positive synergies with IWBs. In addition, out-of-work benefits can affect the effectiveness of minimum wages as they can act as de-facto wage floors themselves (especially if such benefits are available over extended periods of joblessness and eligibility is broad). Because of these linkages, it is important to consider whether reforms in one policy area should be accompanied by adjustments of other measures.

104. Due to the complexity of issues to be considered, and the sensitive political nature of the minimum wage topic, independent wage commissions are well-placed to meet the challenges of determining appropriate minimum wages and proposing adjustments that account for labour market conditions and policy developments. There are several examples of such advisory bodies in OECD countries, including the Australian Fair Pay Commission, the Irish and the Mexican National Minimum Wage Commissions, the UK Low Pay Commission and similar bodies in Korea and several US states.

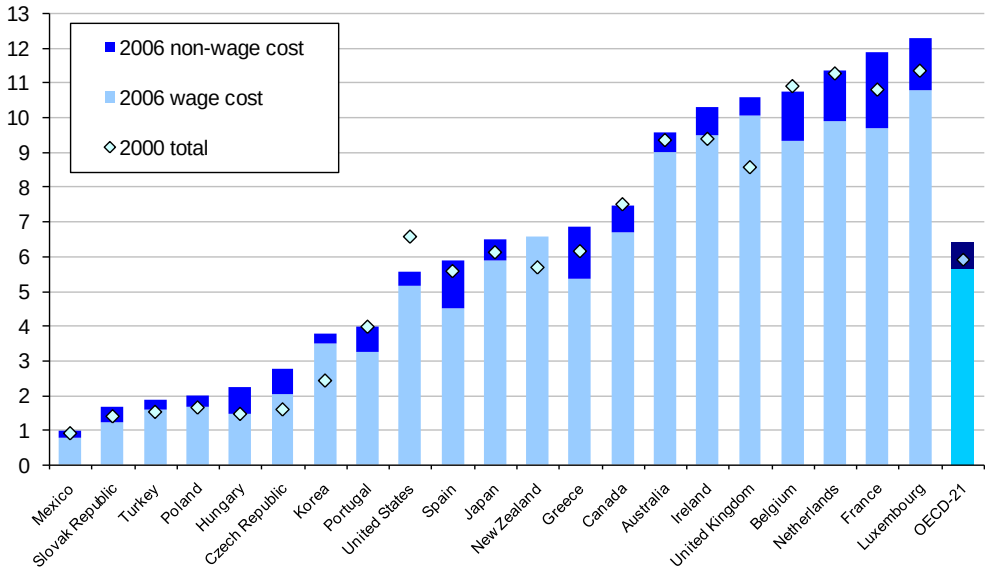
Wage subsidies

105. Wage subsidies or employment-related tax concessions to employers reduce the costs of employing certain groups of workers. They are generally targeted to cover individuals facing particular challenges in the labour market because their productivity is low in relation to the cost of employing them. By bringing down these costs, wage subsidies reduce the gap between the wages employees are willing to accept and what employers are prepared to pay. As a demand-side measure, they have no direct effect on the take-home pay of employees but instead aim at increasing their chances of finding or keeping a job at prevailing wage levels. They therefore tend to be employed in situations where wages are not sufficiently flexible to close any perceived gaps between labour costs and worker productivity.

106. To alleviate the costs of employing low-productivity workers, a number of countries have therefore implemented measures to restrain non-wage labour costs specifically for workers whose wages are at or close to the minimum. A similar argument for wage subsidies can be made where social benefits create de-facto wage floors below which employees are unlikely to accept a job. Figure 7 shows the same minimum labour cost estimates from Figure 6b in absolute terms. Two observations that stand out: (i) minimum labour costs are very high in some OECD countries when compared to others; and (ii) non-wage labour costs are substantial. Both points illustrate the potential scope for wage subsidies to employers of low-wage workers.

Figure 7. Minimum labour cost: wage levels and tax burdens

2006, in USD per hour at current exchange rates and prices



Source: OECD (2007b).

107. Wage subsidies can be administered in a number of different ways. They may operate as stand-alone measures or are closely integrated with other measures, such as training, public employment programmes or other active labour market policies (OECD, 2003b). Frequently, they take the form of preferential payroll tax rates or reduced employer social contributions, especially where non-wage labour costs are high. Indeed, a number of OECD countries, notably Belgium and France, have in the past linked minimum-wage increases to wage subsidies designed to moderate the resulting effect on labour costs (OECD, 2007b). From the mid-1990s to 2003, the Netherlands has provided a substantial reduction of employer social contributions for all workers with wages close to the bottom of the wage distribution. Employers in Austria and Germany pay no or reduced social contributions for workers earning wages below a threshold that is close to the social assistance entitlement for single individuals (OECD, 2007a).

108. While these broad measures reduce labour costs for all workers in a particular wage range, many countries operate wage subsidies targeted at specific types of workers such as young or older workers (see OECD series *Jobs for Youth* and *Ageing and Employment Policies*), individuals with disabilities or health-related problems (see OECD series *Sickness, Disability and Work*), or the long-term unemployed (e.g., Kangasharju, 2007; Bernhard *et al.*, 2008). They may be available permanently (for as long as the employment relationship lasts), or for limited periods of time. Subsidies may also be provided as single one-off payments to provide incentives for hiring (rather than retaining) workers belonging to the target group.[17]

109. As in the case of IWBs, the effectiveness of wage subsidies in terms of creating employment depends on how subsidies are targeted and on the resources are devoted to them. As in the case of minimum wages, employment effects are subject to the responsiveness of labour demand. Indeed, to the

17 . The flip side to hiring subsidies, which are designed to make hiring new workers more attractive, are measures that make layoffs more costly (e.g., "experience rating" of payroll taxes: see Anderson and Meyer, 2000 and de Raaf *et al.*, 2005).

extent that minimum wage increases are found to reduce employment, measures to reduce the costs of employing low-wage labour can be expected to increase it. In terms of their distributional impact, wage subsidies, like minimum wages, address *individual* disadvantage. So while wage subsidies seek to raise employment levels among low-wage workers, they should not be expected to be particularly well targeted in terms of *family* incomes.

110. Evaluations of wage subsidies focus on three main outcomes:

- employment effects,
- the extent to which available support is in fact utilised by employers, and
- the proportion of subsidised jobs that would have existed anyway, even in the absence of the subsidy (often referred to as the "deadweight loss").

111. Before discussing some of these results, it is important to point out that while *net* increases in employment can be the main policy objectives associated with wage subsidies, this is not necessarily the case. For instance, evaluation studies often find substantial "displacement" or "substitution" effects, i.e. newly-generated employment is accompanied by simultaneous job losses among existing employees.[18] Displacement, which can run in the order of up to 70%, obviously reduces the net effect on employment. However, if the primary motivation for wage subsidies is a concern for labour market equity, a more equal distribution of unemployment in the labour force can be an explicit objective. In this case, displacement or substitution is *a priori* not a problem. For interpreting evidence on employment effects, it is also useful to note that the details of labour demand responses are generally less well-studied than those of labour supply. There is therefore a possibility that, compared with the evidence on labour supply discussed above, the effects of wage subsidies could be more significant along the intensive margin (increasing the working hours of existing employees) than along the extensive margin (hiring additional workers). Hence, employment levels, which are usually the main focus of policy evaluations in this area, might show less of an impact than total hours worked (Dickert-Conlin and Holtz-Eakin, 2000).

112. Studies of the broader labour market tend to show that labour demand is fairly elastic with respect to the cost of labour, suggesting that wage subsidies could have a substantial impact on employment. Indeed, estimates of employment effects on this basis find very significant increases of total employment ranging up to several percentage points (OECD, 2003b, Table 3.2). However, most ex-post evaluations of actual policies in this area often show much more limited effects suggesting that labour demand for long-term unemployed, and other groups targeted by wage subsidies, is in fact less elastic.[19] Net employment effects can be especially limited in the case of measures that are temporary or very narrowly targeted. One reason is that employers may simply not be aware of the existence of such measures. Moreover, firms may consider the bureaucratic process of obtaining support as too burdensome, especially if firms are small and lack the capacity for complying with what may be perceived as complex administrative procedures (because of the need to establish that a potential or existing employee belongs to the target group, it is likely that the bureaucratic requirements are more significant in the case of highly targeted measures).

113. In addition to take-up problems, employers may not want to hire employees who have been identified as facing particular barriers. If the subsidy is taken to signal low ability or job-readiness, it may in fact widen rather than close the perceived productivity gap. Voucher-type programmes, which

18 . See e.g. Hujer *et al.* (2002) for Germany and Dahlberg and Forslund (2005) for Sweden.

19 . See e.g. Mühlau and Salverda, 2000 for the Netherlands, and the references for Finland cited in Kangasharju (2007), although Kangasharju himself finds more sizable employment effects.

jobseekers can present to potential employers much like a coupon, may reduce the administrative burden on employers, but are likely to exacerbate stigma-related problems. Similarly, hiring subsidies can be administered as one-off lump-sum payments and might therefore be expected to involve less of an administrative burden. However, efforts by the administration to limit carousel effects (attempts by the employer to obtain higher subsidies by increasing staff turnover), can in fact result in fairly comprehensive informational requirements in this case as well.

114. Subsidies that are available for a broader group of employees and are of extended durations are likely to cause less of a problem in terms of stigma or non-takeup. However, there exists a policy trade-off between tight targeting and sizable deadweight losses. Without careful targeting, costs are high as more workers are eligible. In the case of reduced payroll taxes or social contributions which are targeted only on the basis of wage levels, they cover large numbers of existing employees so that a considerable share of the total cost is effectively a transfer to the employer (OECD, 2003b, Table 3.4).[20] It is useful to note that the trade-off involved in targeting is not dissimilar to the case of IWBs discussed earlier. But importantly, IWB payments to those who would have worked anyway are more easily justified as redistribution to low-wage workers. In the case of wage subsidies, no corresponding distributional objective usually exists that would rationalise windfall gains to employers due to imprecise targeting. However, while some of this transfer may represent a windfall for the employer, simple economic reasoning suggests that, at least in a competitive labour market, a lower price for low-wage labour ultimately raises the demand for this group of workers.[21]

CONCLUSIONS

115. Interest in in-work benefits (IWBs) by social and employment ministers in OECD countries has gone from polite but slightly suspicious curiosity to urgent consideration. In 2007, half of the OECD countries had some form of IWB policy in place. Depending on their design, their appeal is that they can potentially reduce poverty and increase employment, or to put it another way, they promise improvements in terms of both equity and efficiency. The international evidence reviewed in this paper shows that IWB policies that manage to have a significant effect on in-work incomes are effective in raising the employment rate of the target group. Yet, public expenditure per job created is often high when compared with other job-promotion policies. Administrative difficulties related to the implementation of IWBs can further reduce their effectiveness. Hence, if the sole objective is to spend a given amount of money to create the maximum number of jobs, other policies are probably preferable. This is particularly likely to be the case when certain framework conditions are not met. For example, when the distribution of earnings is narrow, or tax rates and benefits are high, the “space” for IWB policies is smaller and they can even become counterproductive.

116. However, the point of IWB policies is that they can reduce inequality at the same time as increasing employment. A narrow cost-per-job calculation fails to account for the redistributive element.

20 . While often used in this context, the term “deadweight loss” is potentially confusing here as the same term commonly refers to efficiency losses due to taxation. Since reduced payroll taxes and preferential social contributions represent tax reductions, they can be expected to reduce deadweight losses arising from taxation.

21 . Indeed, as the minimum-wage literature indicates that minimum-wage increases lead to some employment losses further up in the wage distribution, it is not implausible that reduced labour costs for low-wage workers could, equivalently, raise demand for slightly higher-paid workers.

When compared with alternative redistribution measures, IWBs are an attractive policy option in most countries, especially in a situation of persistently high in-work poverty.

117. IWBs and related policy measures clearly do not provide a panacea for all social and labour market problems. In particular, policies to make work pay do not "solve" the problem of low employment and low wages of those with low skills. In the case of low-skilled labour, the most direct way of addressing limited earnings potential and employability is to improve skills and human capital of this group. Yet, any policy that has empirical evidence supporting claims that, in certain circumstances, it could promote *both* efficiency *and* equity by fostering employment and decent levels of family income deserves to be considered in countries facing such problems.

118. The objectives of IWBs, minimum wages, and targeted wage subsidies paid to employers are closely related. Ultimately, they all aim at promoting self-sufficiency among individuals with limited earnings potential. As a result, considering different *combinations* of these instruments provides additional policy leverage to tackle the dual challenge of high rates of non-employment and in-work poverty. Where wage inequality is high, there are good reasons to believe that all three types of policies can complement each other, resulting in a more effective overall make-work-pay package. These potential complementarities are important. Costs are associated with all make-work-pay measures individually but the overall costs can probably be reduced when they are employed in combination. While, on the face of it, the effects of different policy combinations may appear similar, it is important to recognise that their mechanics generally turn out to be significantly different for some of the groups benefiting from or paying for these measures.

119. One possible concern with the evaluations of IWBs summarised in this paper is that they have mostly taken place in a context of relatively strong labour markets and have tended to focus on labour supply while mostly ignoring demand-side restrictions. In the current context of severe economic downturns, weakening labour markets and higher rates of involuntary unemployment, demand-side constraints are becoming much more important. In this situation, in-work support that addresses supply-side issues should not be expected to create higher employment. At *given earnings levels*, the equity-efficiency trade-offs of IWBs are therefore likely to be less favourable when the economy is weak. Demand-side constraints make wage subsidies (and other policies that encourage labour demand) more attractive.

120. Yet, a broader consideration of policy challenges during an economic downturn may nevertheless suggest a role for IWBs. In fact, distributional concerns are likely to become more important as earnings levels come under pressure – both because of lower wage growth, and because reducing working hours is one likely response of employers faced with low demand for their products. Governments are likely to consider measures to cushion the resulting income losses. While increasing minimum wages is counter-productive in a situation of already-low labour demand, IWBs are in principle well-placed to provide effective income support for low-earning individuals (indeed, there can be a case for trading increased IWBs for lower minimum wages). They can facilitate maintaining at least some connection with the labour market. If successful, this can limit the strain on unemployment benefits and related support measures and facilitate a quicker return to more regular or better-paid employment once demand for labour picks up.

121. As benefits targeted at low-earning individuals, IWBs soften the impact of deteriorating earnings for some individuals: while benefit phase-outs at higher earnings levels reduce the payoff from working more, they also ease income losses for those confronted with pay cuts (wage insurance schemes and part-time unemployment benefits, which seek to offset some of the income losses of workers working reduced hours, have a similar effect). At the same time, since IWBs are conditional on work, they magnify income losses for recipients whose earnings fall below the relevant earnings (or working hours) threshold. As pointed out in this paper, IWBs are most effective when customised to the distribution of working hours

and earnings in the population. Because severe economic downturns can have marked effects on the earnings distribution, policymakers should review whether the eligibility conditions and payment profiles of existing IWBs are still appropriate or should be adapted in order to exploit their potential as a measure that cushions income losses during a recession.

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ANNEX A. IN-WORK BENEFITS IN OECD COUNTRIES

122. This annex provides further details of the policies summarised in Tables 2 and 3 of the main text.

Australia

123. The *Employment Entry Payment* is a lump sum payment of AUD 104 (USD 87) made to people moving into full-time employment. To be eligible, a person must have been either a lone parent receiving Parenting Payment, or a long-term income support recipient (12 months or more).

124. In addition, Australia has progressively liberalised the income tests built into out-of-work benefits and family allowances, although these provisions are not considered in-work benefits in this paper. For example, in 1978 an unemployment benefit recipient would lose all their payment working only 18 hours a week at the minimum wage. In 2008 they can work 29 hours a week before losing their payment. The *Working Credit* provides for more generous earnings disregards for benefit recipients who have not had any non-benefit income during a given period (i.e., they can keep more of their benefit once they take up employment). Benefit recipients build up Working Credits for each period (fortnight) where non-benefit income is below a given limit (so unlike the re-employment allowances in Japan and Korea, which reward a quick return to work, the Working Credit is more generous for longer-term benefit recipients).

125. While not conditional on employment, low-income taxpayers are entitled to a non-refundable ("wastable") tax credit, the *Low Income Tax Offset* (LITO) which amounted to AUD 750 in 2007 and is reduced at a rate of 4% for taxable income exceeding AUD 30,000. In July 2008 it has been increased to AUD 1,200 meaning that taxpayers are entitled to receive some tax credit if their income is less than AUD 60,000. The LITO is set to increase further to AUD 1,350 from July 2009 and to AUD 1,500 from July 2010.

Belgium

126. Between 2001 and 2004, Belgium had an employment conditional tax credit. The payment depended entirely on individual earnings, not family earnings, and was both phased in and phased out as earnings increased (as in the US EITC described below). The maximum credit was around EUR 500 per year. When introducing the measure, the Finance Minister (Mr. Reynders) said that "The idea behind the earned income tax credit is that the organization of solidarity must go beyond the simple passive compensation for people out of employment and extend to low-paid workers. Such an instrument aims at both promoting employment and fighting poverty." (Reynders, 2001). In 2004 it was replaced by the *Bonus de l'emploi,* a rebate on employee social security contributions. As in the French scheme, the aim is to reward low-*skilled* workers. Hence those with high earnings but low hours of work receive less than if they had the same income as a result of low wage rates but high hours of work (Orsini, 2007). Simplifying somewhat, the new scheme is worth around EUR 1 700 (USD 2 327) per year to those with earnings of EUR 14 500 (USD 19 850) per year, and is then withdrawn at a rate of around 18%, so that a person earning over EUR 24 000 (USD 32 855) receives nothing. The payment is not conditional on the presence or otherwise of children.

Canada

127. The Working Income Tax Benefit (WITB) "is a refundable tax credit intended to provide tax relief for eligible working low-income individuals and families who are already in the workforce and to encourage other Canadians to enter the workforce." (Canada Revenue Agency website). Individuals have to have at least CAD 3 000 (USD 2 793) of work income, and household incomes of less than around CAD 13 000 if the person is single, in which case the maximum benefit is CAD 500 per year, or CAD 21 000 if the person has dependents, including children, in which case the benefit can be CAD 1 000 per year. The WITB was proposed by the Liberal Government in 2005 but they did not have time to implement it. However, the Conservative Government is now in the process of doing so.

128. A number of provinces and territories have programs which provide earned-income supplements. These include: The Quebec Work Premium; the Manitoba Child Related Income Support Program; the Saskatchewan Employment Supplement; the British Columbia Earned Income Benefit; the Northwest Territorial Workers' Supplement and the Nunavut Territorial Workers' Supplement.

129. The Quebec Work Premium is typical. The refundable credit is calculated on the basis of earned income, total income and family situation. For example, a couple without children could receive the payment only if their annual income was under CAD 22 950 in 2007, but if they have a child then everyone with an annual income under CAD 43 437 would qualify. The value of the payment ranges from a maximum of CAD 512 for single people, to CAD 2 821 for a couple household. The Budget Speech of M. Seguin, the Minister of Finance when this measure was introduced (though replacing an older IWB policy), stressed in particular the need to reward work. Over 500,000 people are estimated to benefit from the programme (Seguin, 2004).

Finland

130. An *Earned Income Allowance* is calculated on the basis of taxpayer's income from work. The allowance amounts to 49 per cent of income between EUR 2 500 (USD 3 422) and EUR 7 230, and 26 per cent of the income exceeding EUR 7 230, until it reaches its maximum of EUR 3 250 (2007 figures). The amount of the allowance is reduced by 4 per cent of the earned income minus work related expenses exceeding EUR 14 000.

France

131. The *Employment Premium (prime pour l'emploi, or PPE)* is a refundable tax credit for households comprising wage-earners whose equivalent full-time net taxable earned income was between EUR 3 695 and EUR 26 231 in 2006. The credit is determined in a multi-step calculation. First, the amount of the premium is calculated for each eligible wage-earner, and then the individual amounts are aggregated. The resulting amount is then increased if there are dependent children, and again if the individual is a lone parent. It is this final amount that is deducted from the family's tax liability. However, the credit is attributed only if the household's reference taxable income does not exceed certain limits which themselves vary according to the presence or otherwise of children. For example, the limits are EUR 16 042 for a single person but EUR 24 906 for a lone-parent family with two children; EUR 32 081 for a married couple with no children but EUR 40 945 for a married couple with two children. In the event of part-time work, the income used to compute the amount of the credit is converted to a full-time equivalent, and the resultant credit is then adjusted to the actual amount of time worked. Hence, the presence of children enters the formulae in two ways – first by increasing the amount of maximum payment, and second by raising the earnings threshold below which families are eligible for the payment. However, the maximum payment is quite low, around EUR 950 per year, plus between EUR 36 and 72 per child.

Germany

132. Employee contributions to social insurance, which can add up to more than 20% of gross wages, are waived or reduced for holders of so-called *Mini Jobs* (gross earnings up to EUR 400 per month; USD 550) and *Midi Jobs* (up to EUR 800 per month). Between these earnings levels, they are phased in to reach the standard rate at EUR 800. Holders of these jobs are, however, not fully covered in the social insurance system. These reductions are also available to those with a regular primary job, i.e. the earnings from a "mini" job are not aggregated with those from other employment when calculating social insurance contributions.

Hungary

133. Hungary has an *Employee Tax Credit*, worth 18% of wage income earned, subject to a monthly maximum payment of HUF 9 000 (USD 49). Annual income must also be below HUF1.5m (USD 8 170); between HUF1.5m and HUF 2.1m a reduced payment is made. Furthermore, there is an *Extended Employee Tax Credit* which is available to those with annual incomes between HUF 600 000 and HUF 1.5m, worth an additional 18% of annual wage income. These credits are not dependent on the number of children present.

Ireland

134. Ireland has a four different IWB schemes. The most important one in terms of expenditure is the *Family Income Supplement (FIS).* This pays 60 per cent of the difference between the net family income and an earnings limit. The earnings limit – and therefore the value of the benefit – varies according to the number of children – see the short table below. Claimants must be working at least 19 hours per week to qualify (though married or cohabiting couples can add their hours together). It is apparent that payments can be very high -- EUR 250 (USD 342) per week or more -- for workers with low wages and/or low hours of work.

Family size	Weekly net earnings limit (in EUR)
1 Child	480 (USD 657)
2 Children	550
3 Children	625
4 Children	720
5 Children	820
6 Children	910
7 Children	1020
8 Children	1090

Japan

135. Japan has a *Re-Employment Allowance* which rewards unemployed workers who find a job quickly. It is a one-off payment, and is not related to family circumstances.

Korea

136. In addition to a re-employment allowance similar in spirit to that of Japan, Korea is introducing an earned income tax credit. To qualify, households must have earned income from employment; must have total income of less than 17m won (USD 18 300), and must have at least two children. The first year of operation will be 2009, based on 2008 incomes. It is expected that around 310,000 households will benefit.

Netherlands

137. The Dutch *Combination credit* is a tax credit for a taxpayer with children below the age of 12 years who have around EUR 4 500 (USD 6 160) or more in earnings in any given year. It is a small payment – just EUR 149 per year – and is a fixed amount. However, an additional EUR 700 is paid if the person is a lone parent or if they are the partner with the lowest income in the household, so the combined value of tax credits for a two-adult household is nearly EUR 1 000 per year.

New Zealand

138. Both the *In-work Tax Credit* (formerly 'in-work payment') and the *Minimum Family Tax Credit* are targeted exclusively to families with children. The Minimum Family Tax Credit, which is received only by a relatively small number of families, ensures a certain level of net income. In other words, it acts as an income top-up for working families and is correspondingly lower for families whose incomes are close to the reference level (and zero above that level). The In-work Tax Credit provides an in-work benefit of up to 7% of average wages which is tapered off at 20% although the taper sets in only at relatively high income levels. The benefit amount is the same for families with one, two or three children but higher for larger families.

Slovak Republic

139. The *Relief for Children* is a tax credit for each dependent child that is deducted from the tax liability and if this amount exceeds the tax liability, the excess is paid to the taxpayer. To be eligible for this credit, the parent must annually earn at least six times the minimum monthly wage which for 2007 means they must earn at least SKK 45 600 (USD 1848). The monthly tax credit amounts to SKK 540 (USD 22) per child.

Sweden

140. Sweden introduced its in-work tax credit on 1 January 2007. The precise formula is relatively complicated, relating to the level of municipal tax (which is a significant proportion of total taxes in Sweden). It will be increased at the beginning of 2008, at which point it will be worth around SEK 1 000 (USD 148) per month to most people, being worth slightly more to low and middle income earners than to high earners – but even high earners will receive a significant amount of credit. The tax credit is not dependent on the number of children.

United Kingdom

141. The United Kingdom has several IWB programmes, but the main one is the *Working Tax Credit*. This is an in-work means-tested benefit to top up the earnings of people on low incomes. The WTC grew out of the Working Families Tax Credit (WFTC), which was a much larger in-work benefit. However, the WFTC was split into a Child Tax Credit, which is paid to all families with children and income below a certain limit, regardless of work status, and the WTC, which is paid to all those in work on low incomes, regardless of family status (with some exceptions – lone parents receive more, for example, and parents can receive a payment even if aged under 25, whereas non-parents cannot). Low-income workers looking after children are therefore eligible for both the WTC and the CTC. The employee must be working at least 16 hours per week (30 hours if aged 25 and over and does not have a child) to qualify for the WTC.

142. WTC is calculated by adding up all the elements for adults and children to which a person is entitled (the Table below gives the elements involved). This credit is reduced by 37 pence for every pound of income above a threshold of GBP 5 220 (USD 10 450) per year. In addition parents can receive 80 per

cent of the actual childcare cost per week, up to a maximum childcare cost of GBP 175 (USD 350) per week if one child, GBP 300 per week if two or more children.

Family type	Rates of credits (in GBP per year)[1]
WTC Elements	
Basic Element	1730 (USD 3462)
Second Adult Element	1700
Lone Parent Element	1700
30 Hour Element	705
Disability Element	2310
Severe Disability Element	980
50 plus Element (16-30 hours)	1185
50 plus Element (30 hours)	1770

143. Hence, for example, anyone qualifying for WTC would get the 'Basic element' credit. If they were partnered with someone, they would get an additional 'second adult' credit as well, and if they worked more than 30 hours, there would be a further credit. Such a household would therefore have a credit of GBP 4 135 in 2007. If one adult in the household worked for 30 hours at the minimum wage of GBP 5.52 and the family had no other income, then total income would be GBP 8 611 per year. 37% of the difference between GBP 8 611 and GBP 5 220 is GBP 1 255. The family would be entitled to GBP 2 880 per year (the difference between 4 135 and 1 255).

144. The WTC and the CTC are designed to mesh together very closely. In particular, the WTC is withdrawn as income rises. Only once all the WTC has been withdrawn does CTC start to be withdrawn if income rises even further. The levels of credit were also chosen in such a way that most working families saw little or no change in their family incomes due to the change from WFTC to WTC – the main effect was to increase incomes of those without work who rely on benefit.

United States

145. The *Earned Income Tax Credit* gives low-income workers a refundable credit. For taxpayers with one child, the credit is 34 per cent of up to USD 8 390 of earned income in 2007. The credit phases down when income exceeds USD 15 390 and phases out when it reaches USD 33 241. The earned income threshold and the phase-out threshold are indexed for inflation. For taxpayers with two or more children, the credit is 40 per cent of up to USD 11 790 of earned income in 2007. It phases out when income reaches USD 37 783. In 2007 low income workers without children are permitted a refundable earned income credit of 7.65 per cent of up to USD 5 590 of earned income. The phases-out range in this case is USD 7 000 to USD 12 590. All income limits are USD 2 000 higher for married taxpayers.

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