

**FEMALE LABOUR FORCE PARTICIPATION:  
PAST TRENDS AND MAIN DETERMINANTS IN OECD COUNTRIES<sup>1</sup>**

**Introduction and summary**

***The female participation  
rate is depressed by  
policy and market failure***

Female labour-force participation is much lower than men's in many countries. These differences are to some extent rooted in culture and social norms but they also reflect economic incentives. The female participation behaviour has attracted increasing interest because of concerns that population ageing will put downward pressure on labour supply, with negative implications for material living standards and public finances. An increase in female participation could help mitigate this.<sup>2</sup> This paper focuses on the effects of market failures and policy distortions in depressing female participation and the likely results of policy reforms. The main findings of the paper can be summarised as follows:

- A more neutral tax treatment of second earners in a household compared with single earners leads to an increase in female participation.
- Childcare subsidies and paid parental leaves boost female participation, but child benefits reduce it.
- More part-time work opportunities, e.g. through policies that remove distortions against part-time work, increase female participation.
- Simulations of comprehensive policy reforms in these areas suggest that they could close most of the gap between participation rates of prime-age women and men.

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1. This paper is based on recent, more detailed OECD research (Jaumotte, 2003).

2. See Burniaux *et al.* (2003).

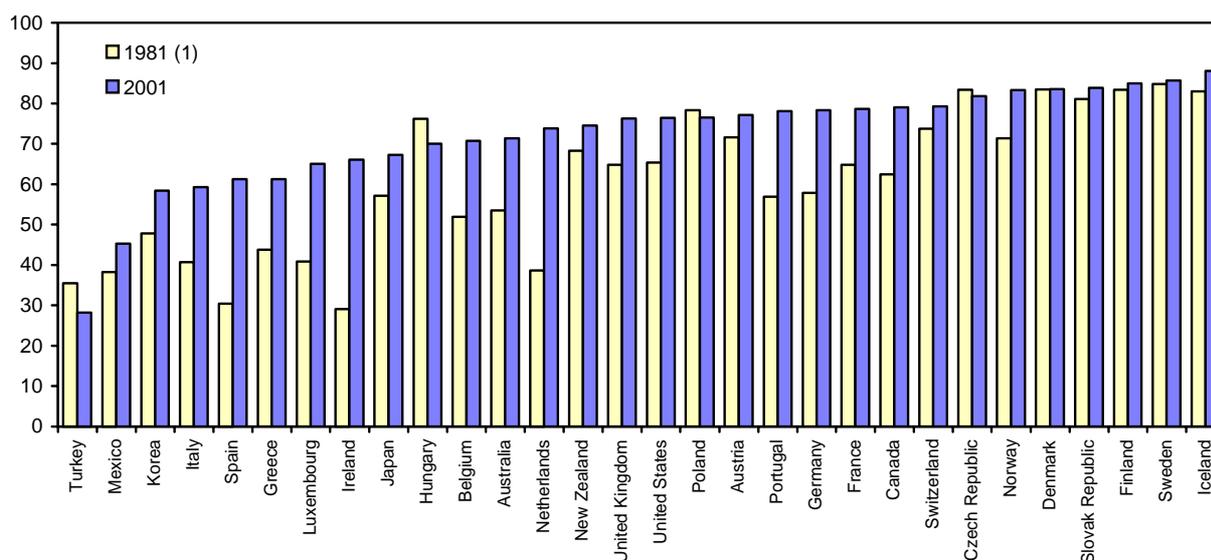
### Trends in female participation

#### *Large cross-country differences persist*

Over the past few decades, the labour force participation of women has increased strongly in most OECD countries. This process started earlier in some countries (*e.g.* the Nordic countries and the United States). More recently the increases have been greatest in countries where female participation was particularly low. This development has narrowed cross-country differences somewhat, but they still remain large (Figure 1). The participation rates of prime-age women (aged 25-54) range from about 60 per cent (or below) in Korea, Mexico, Turkey and Southern European countries (with the exception of Portugal) to well above 80 per cent in the Nordic countries and some Central European countries.

Figure 1. **The labour force participation of women has strongly increased**

*Labour force participation rates of prime-age women (aged 25-54)*



1. 1983 for Greece and Luxembourg, 1986 for New Zealand, 1988 for Turkey, 1991 for Switzerland, Iceland, and Mexico, 1992 for Hungary and Poland, 1993 for the Czech Republic, 1994 for Austria and the Slovak Republic.

Source: OECD Labour Market Statistics.

#### *Actual participation rates are below desired levels*

Preferences for female labour force participation are high in most countries. Indeed, surveys suggest that actual participation rates are below desired levels.<sup>3</sup> A survey carried out in EU countries in 1998 examined the preferences of couples with small children and found that only one in ten couples preferred the traditional male-only breadwinner model, while it actually applied to four in ten couples. The European Labour Force Survey, which covers all women irrespective of their marital status and number of

3. See Jaumotte (2003) for further references on these surveys.

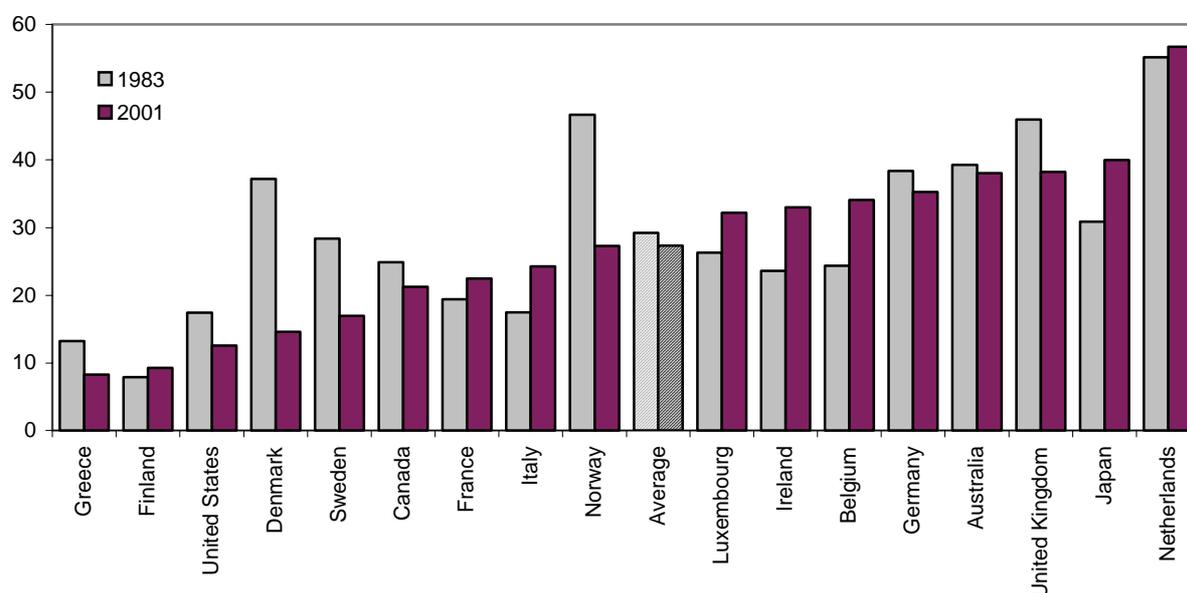
children, estimates that the percentage of inactive women who would like to work is, on average, 12 per cent in the 19 covered countries. This may be an underestimate since in responding to such questions, people may not take into account that policies may be changed. Finally, another international survey, which is more dated (carried out in 1994) but has a wider country coverage, suggests that the traditional male-breadwinner model is the preferred model only in Central European countries (Czech Republic, Hungary and Poland).

***The share of part-time in female employment varies across countries***

There are large differences across countries in the share of part-time in female employment. On average in the OECD, about one-quarter of female workers at age 25-54 have part-time jobs. Countries where this share is higher include most Northern European countries (outside of the mainland Nordics) and Pacific countries (Australia, Japan, New Zealand). On the other hand, the prevalence of part-time is relatively low in Central Europe, most mainland Nordic countries, Southern Europe, and the United States. While average proportions of part-time work barely changed over the past two decades, it declined significantly in Scandinavian countries (as women moved to full-time jobs), and most English-speaking countries, and increased in some other European countries and Japan (Figure 2).

Figure 2. **About one-quarter of female workers have a part-time job**

*Proportion of employed women aged 25-54 who are in part-time jobs<sup>1</sup>*



1. Part-time employment refers to persons who usually work less than 30 hours per week in their main job. Data include only persons declaring usual hours.

For Australia, part-time data are based on actual hours worked, and include hours worked at all jobs.

For Japan, part-time data are based on actual hours worked and defined as less than 35 hours per week.

For the USA, the share of part-time in employment is for wage and salary workers only.

Sources: OECD Labour Market Statistics.

### **Policies affecting female labour force participation**

The labour force participation of women remains determined to a large extent by the level of female education, overall labour market conditions and cultural attitudes. However, new OECD evidence confirms that policies, other than those affecting the factors listed in the previous sentence, also contribute to explaining the different performances of countries (see Box 1). These include policies promoting the flexibility of working-time arrangements, the system of family taxation, and the support to families in the form of childcare subsidies, child benefits, and paid parental leaves.

#### **Box 1. Empirical analysis**

The empirical analysis investigates the determinants of prime-age female participation based on panel data regressions for 17 OECD countries over the period 1985-1999. The potential determinants include measures of the flexibility of working-time arrangements, the taxation of second earners, childcare subsidies, child benefits, and paid parental leaves. Other potential determinants of the rate of female participation, such as the level of female education, the proportion of married women, the number of children, and overall labour market conditions are controlled for. Finally, country-specific effects are allowed to capture differences across countries in cultural attitudes and institutions. The model is further refined to allow a different impact of the explanatory variables on full-time and part-time participation. The text builds on the significant results of this analysis. See Jaumotte (2003) for further details.

#### ***Flexibility of working-time arrangements***

##### ***Part-time employment as a way to reconcile work and family***

Flexible working-time arrangements and in particular the possibility to work part-time help women to combine market work with traditional family responsibilities. According to the 2001 European Labour Force Survey, more than 40 per cent of female part-timers in Austria, Germany, Switzerland and the United Kingdom work part-time because they have to look after children or adults (such as elderly family members). The possibility to find a part-time job can thus be crucial to the labour-force participation of these women, particularly when family responsibilities can not be discharged in another way.<sup>4</sup>

##### ***But preferences for part-time vary across countries***

However preferences for part-time work appear to differ much across countries. According to the previously mentioned EU survey, which examined the preferences of couples with small children, part-time is the most frequently preferred working arrangement for women in Germany, Ireland, the Netherlands, and the United Kingdom. On the other hand, full-time female participation is preferred in some Nordic countries (Finland,

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4. Even in the Netherlands, where part-time working is fairly common, the flexibility of working hours appears to be low and women who want to reduce substantially their working hours have a higher propensity to leave the labour market (Euwals, 2001).

Sweden), Southern Europe, and Belgium and France.<sup>5</sup> Across countries, there is a broad correspondence between preferences for part-time and the actual share of part-time in employment.

***Flexible working-time arrangements stimulate female participation***

Overall, recent OECD research found that countries with a higher share of part-time in female employment tend to have higher female participation, after controlling for other factors. Thus policies that remove distortions against part-time work will lead to an increase in female participation, though the magnitude of this effect is likely to depend on the extent to which women have a preference for such work.

***However, it is important to keep an homogeneous labour market***

The OECD evidence also suggests that more part-time opportunities may arise when employers attempt to avoid restrictive employment protection legislation by resorting to part-time work which is often exempted from such legislation. However, a downside of this type of part-time work is that it creates segmented labour markets. Similarly part-time jobs characterised by poor wages and benefits, asocial or excessively flexible hours, low job tenure, absence of training, or few prospects of promotion tend to marginalise women in the labour market.<sup>6</sup> Some countries have attempted to solve this problem by giving parents greater rights to change hours (including the right to work part-time but also to resume their full-time job). Other countries have helped women turn to full-time jobs with more prospects, for example, through more generous family support (see below).

***Family taxation***

***Taxation influences the choice between home production and market work***

Taxation influences work incentives in general, but may have a particularly strong impact on the decision of married women to work. This is because typically their choice is not only between leisure and market work, but between home production (and leisure) and market work. Indeed, traditionally home production has been regarded as a closer alternative to market production for women than for men. This makes the (market) labour supply of married women more sensitive to the changes in the net wage. An argument could even be made for taxing married women less than men and single women, because the distorting effects of taxes on their labour supply are larger.<sup>7</sup> However, this would conflict with the principle of equal taxation for equal income.

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5. The high preferences for full-time participation of women in Nordic countries may reflect the fact that childcare is more readily available in these countries. In Southern Europe, on the other hand, these preferences may arise from cultural attitudes towards the role of women, implying an all or nothing choice with respect to the participation of women.
  6. Note that this does not necessarily imply that part-time work is second best. Making such a case would require assessing the consumption and production benefits of parental care.
  7. Boskin and Sheshinski (1983).

Table 1. Comparison of tax rates of single persons and second earners, 2000-2001<sup>1</sup>

	Women earning 67 per cent of APW, 2001			Women earning 100 per cent of APW, 2000			Type of taxation system, 1999 <sup>2</sup>
	Second earner	Single	Ratio second earner/single	Second earner	Single	Ratio second earner/single	
Australia	27	19	1.4	32	23	1.4	Separate
Austria	25	22	1.1	29	28	1.1	Separate
Belgium	51	34	1.5	53	42	1.3	Separate
Canada	32	21	1.5	36	27	1.4	Separate
Czech Republic	40	21	1.9	39	23	1.7	Separate
Denmark	50	41	1.2	51	44	1.2	Separate
Finland	26	26	1.0	34	34	1.0	Separate
France	26	21	1.2	26	27	1.0	Joint
Germany	50	34	1.5	53	42	1.3	Joint
Greece	16	16	1.0	18	18	1.0	Separate
Hungary	29	29	1.0	..	..	..	Separate
Iceland	42	15	2.8	42	21	2.0	Separate
Ireland	24	10	2.3	31	20	1.5	Optional/Joint
Italy	38	24	1.6	39	29	1.4	Separate
Japan	18	15	1.2	18	16	1.1	Separate
Korea	8	8	1.1	10	9	1.0	Separate
Luxembourg	20	19	1.0	28	27	1.1	Joint
Mexico	-4	-4	1.0	3	3	1.0	Separate
Netherlands	33	27	1.2	41	36	1.1	Separate
New Zealand	23	19	1.2	23	19	1.2	Separate
Norway	30	26	1.2	32	29	1.1	Optional
Poland	39	30	1.3	37	31	1.2	Optional
Portugal	17	13	1.3	20	18	1.1	Joint
Slovak Republic	27	18	1.5	35	20	1.7	n.a.
Spain	21	13	1.6	23	18	1.3	Separate/Joint
Sweden	30	30	1.0	28	33	0.9	Separate
Switzerland	24	19	1.3	26	21	1.2	Joint
Turkey	29	29	1.0	29	29	1.0	Separate/Joint
United Kingdom	24	19	1.3	26	24	1.1	Separate
United States	29	22	1.3	30	26	1.2	Optional/Joint
Unweighted average	28	21	1.4	31	25	1.2	

1. The relevant "marginal" tax rate for a married woman's decision to participate or not in the labour market is the average tax rate on the second earner's earnings, defined as the proportion of these earnings that goes into paying increased household taxes. The husband is assumed to earn 100 percent of Average Production Worker earnings (APW) and the couple is assumed to have two children. This tax rate is compared to the average tax rate for a single individual with same gross earnings as the second earner. The tax rates include employee's social security contributions and are net of universal cash benefits. But they do not include employer's social security contributions, indirect taxes, nor means-tested benefits (except some child benefits that do vary with income).

2. For detailed country notes, see Jaumotte (2003).

Source: OECD database "Taxing Wages"; OECD Tax Models; OECD (2001).

***Married women remain more taxed than men and single women***

In contrast with the theory, married women are effectively taxed more heavily than single individuals in most OECD countries, providing scope for a move to neutrality (Table 1). Only in a few countries (Finland, Greece, Hungary, Mexico, Sweden, and Turkey) are second earners and single individuals taxed equally. In some countries the difference in taxation is bigger for lower income earners. The high taxation of married women was traditionally explained by the system of joint household taxation, in which the income of the second earner is subject to higher tax rates because it is pooled with the first-earner's income. While most OECD countries applied joint taxation of couples at the beginning of the 1970s, almost all countries now have separate taxation or at least offer the option of separate taxation for couples. The fact that married women remain more heavily taxed despite the move towards separate taxation results from the dependent spouse allowance which still exists in most systems and which is lost if both spouses work, and from the introduction in some countries of a number of family-based tax measures. Over the past two decades, relative tax rates of second earners declined in mainland Nordic countries and the United States, while they increased significantly in some Western European countries and Canada. Mainland Nordic countries, Austria, France, and the United Kingdom have a relatively favourable tax treatment of second earners.

***The tax incentive to share market work between spouses may affect the part-time participation of women***

Another dimension of the tax influence on female participation is the tax incentive to split income – and thus work hours – between spouses. This can be measured by the increase in household disposable income when a wife takes on a part-time job to substitute for part of her husband's earnings.<sup>8</sup> Like the measure of relative taxation of second earners, the magnitude of this tax incentive will depend on the type of household taxation (joint or separate), the size of the dependent spouse allowance, and the progressivity of the tax schedule. For example, even if the tax treatment of the second earner is perfectly neutral, under a very progressive tax system the total tax paid for a given household income will be larger if the husband earns all the income than if the income is earned equally by the two spouses. In 1999, a shift of earnings of 33 per cent of the APW level from the husband to the wife would have yielded an increase of 3 per cent of the household disposable income on average in OECD countries, and an increase close to 10 per cent in Finland, Mexico, and the United Kingdom. Looking at its evolution over the past two decades, this tax incentive declined in Scandinavian countries and Spain, while it increased slightly in some other Northern European countries and Canada.

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8. Specifically, the wife is assumed to earn 33 per cent of APW, and her husband 100 per cent of APW. This situation is compared to the case where the husband earns 133 per cent of APW and his wife does not work. This measure of the tax incentive to split income may be theoretical in some cases because the shift of work hours between spouses may be difficult in practice. Where this shift of work hours is feasible, the increase in female participation could in principle be offset by a reduced labour supply from men, leaving total participation unchanged. However, this is not very likely to happen as men's labour supply is quite stable. The tax indicator used here is more a proxy for the tax treatment of second earners working part-time than for the incentives to share market work between spouses per se.

***This incentive matters in practice***

The evidence from OECD countries suggests that countries with a high tax wedge between second earners and single individuals tend to have lower female participation rates, after controlling for other factors. The tax incentive to share market income (and hence market work) between spouses also appears to have a large impact on the female supply of part-time labour in OECD countries. For example, based on the sensitivities estimated in Jaumotte (2003), if France were to have the same tax incentive to share market income between spouses as the United Kingdom, its female participation rate would increase by about 6 percentage points.

***Support to maintenance and care of children***

Governments have various ways in which they can provide support to families with young children: paid parental leaves, childcare subsidies, and child benefits.

***Paid parental leaves boost female participation if they are not too long***

First, paid parental leaves (including maternity, parental, and childcare leaves) help mothers of young children reconcile work and family life, and may strengthen their labour market attachment through a job guarantee. In line with existing studies,<sup>9</sup> recent OECD research finds evidence of such a positive effect on female participation. However, beyond a certain length (estimated at the equivalent of 20 weeks of full pay in this study), a further increase in paid parental leave appears to have a negative effect on female participation. This reversal suggests that extended parental leave may weaken labour market skills and damage future career paths and earnings, making it difficult or less interesting for mothers to return to the labour market.

***Childcare subsidies also stimulate female participation***

Second, childcare subsidies reduce the relative price of childcare, thereby increasing the return of market work relative to home production (in addition to increasing effective income). They may be seen as a way to reduce tax-induced distortions to the participation of mothers (see above), or as an offset to the otherwise negative participation effects when a highly compressed wage structure raises the relative wages of carers and thus the cost of childcare.<sup>10</sup> Finally, childcare subsidies may also help low-income mothers break away from welfare dependence.<sup>11</sup> There is evidence in

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9. For example, Ruhm (1998) found that paid parental leaves increased employment rates in nine OECD countries. A portion of the positive relationship between paid leave duration and the employment-population ratio reflects the fact that mothers on parental leave are counted as employed (but absent from work), rather than not employed.

10. This argument refers to an excessive compression of the wage structure (i.e., beyond the distribution of marginal productivities), such as those potentially produced by centralised wage-setting and minimum wage laws. The wages of carers (who tend to be concentrated at the bottom of the wage distribution) rise relative to those of mothers, reducing the access of mothers to childcare. There are other policy instruments to tackle the distortion, including a more general one which some countries have tried, namely reduced employer's social security contributions for low-skilled workers.

11. Other justifications that have been suggested for childcare subsidies, but which are beyond the scope of this study, include child development and social integration, as well as gender equity.

OECD countries that more generous childcare subsidies are accompanied by higher female participation, even after all other policy influences have been taken into account.<sup>12</sup> This is mostly true for formal day care subsidies (i.e. for infants), while there is no clear relationship between female participation and public spending on pre-primary school. The latter could reflect that inactive mothers also send their children to pre-primary school for educational purposes.

***Childcare support primarily boosts full-time participation***

The OECD evidence suggests that more generous childcare subsidies and paid parental leaves translate into higher full-time participation of women, and not higher part-time participation. However, other evidence for Canada and the United States suggests some effect of childcare subsidies on part-time participation, though smaller than on full-time participation.<sup>13</sup>

***Childcare subsidies are preferable to child benefits for female participation***

Finally, child benefits (including tax allowances) are essentially transfers for the maintenance of children. By increasing the income of families with children, they are intended to promote equity across different family types and to reduce child poverty. However, the increase in income may lower the incentives to work and, hence, female participation.<sup>14</sup> In contrast with childcare subsidies, the increase in income is not accompanied by an increase in the return to market work. Recent OECD research finds a depressing effect of child benefits on part-time female participation. It is indeed for women working part-time that the income effect from child benefits is likely to be large enough to induce a reduction in participation. Thus, from the point of view of stimulating female participation, childcare subsidies appear preferable to child benefits.

***There are large cross-country differences in the level of support to families***

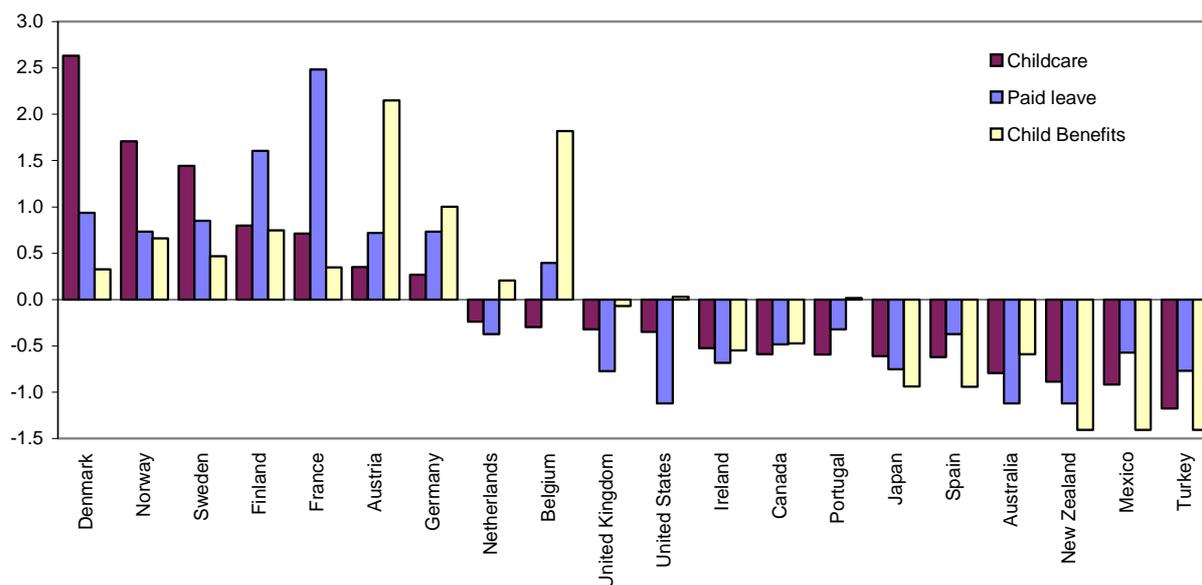
Although the three types of family support could to some extent be seen as substitutes, countries which provide more of one type actually tend to provide more of the other types, and the level of support varies significantly across countries (Figure 3). Countries in which it is relatively high include, by decreasing order, the mainland Nordic countries, France, Austria, Germany and to a lesser extent Belgium. It tends to be below the OECD average in the English-speaking countries, Japan, Mexico, Portugal, Spain, and Turkey. Childcare subsidies (usually targeted at formal day care and pre-primary school) averaged 0.7 per cent of GDP in 1999, but reached levels between 1.5 and 2.7 per cent of GDP in the Scandinavian countries.<sup>15</sup> The average length of paid parental leave was 26 weeks, with the longest paid leaves found in Finland and France. There was no paid leave

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12. This confirms most of the abundant single-country evidence. See Jaumotte (2003) for further references.
13. Powell (1998).
14. On the other hand, if liquidity constraints prevented the mother from working because she was unable to pay for childcare, the increase in income could lead to an increase in labour supply.
15. In addition to childcare subsidies, governments also grant tax allowances for private childcare expenses. These expenditures are not included due to a lack of data for most countries. However, even in the United States and Canada, where they are a more important component of childcare support, they only account for about 10 per cent of public spending on childcare (including pre-primary school).

entitlement in Australia, New Zealand, and the United States in 1999 (New Zealand recently introduced paid leave). Finally, child benefits increased on average the disposable income of two-child families by 7.5 per cent, with the highest increases recorded in Austria and Belgium.

Figure 3. The generosity of family support varies across countries<sup>1,2</sup>

OECD indicators of generosity of provision, 1999<sup>3</sup>



1. *Childcare* subsidies per child (in 1995 PPP-US\$) are calculated as total government spending on formal day care and preprimary school in 1999, divided by the number of children of age lower than the age of entry to primary school. Non-refundable tax allowances and credits for private formal daycare expenses are not included. However they constitute a relatively small part of total spending.

*Paid leave* refers to the maximum number of paid leave weeks a woman is entitled to by the national legislation on account of maternity, parental and childcare leaves for the birth of a first child. The number of leave weeks is the sum of leave weeks, each multiplied by the corresponding statutory income replacement rate. Means-tests are not taken into account.

*Child benefits* denotes the percentage increase in household disposable income between a family with two children and a childless couple, where the husband has gross earnings of 100 per cent of APW, and the wife 33 per cent of APW.

2. For countries for which data was not available for 1999, the closest available year was used. See Jaumotte (2003) for country notes.

3. Each indicator is calculated as the deviation from its OECD mean and is expressed in multiple of its OECD standard deviation.

Sources: For government spending on childcare (i.e., formal day care and pre-primary school): OECD Education database; OECD social expenditures database; Eurostat; various sources. For parental leave: Gauthier and Bortnik (2001) and "Social Security Programs Throughout the World" from the United States Social Security Administration. For child benefits: OECD database "Taxing Wages". See Jaumotte (2003) for details.

### ***The differences in levels of support increased***

In all countries for which data are available, childcare subsidies per child increased in real terms between 1985 and 1999. However, the Scandinavian countries, which started with a higher level of spending, recorded much larger increases than the other countries, thereby widening the cross-country dispersion in the level of support. Provisions for paid parental leaves also became more generous in almost all countries between 1981 and 1999, leading to a doubling of the average length of paid parental leave. However, again, the largest increases were recorded in a number of countries which had among the longest paid leaves at the beginning of the 1980s, most strikingly France, Germany and the mainland Nordic countries.

Finally, despite a slight increase in their average level, child benefits underwent a mixed evolution, increasing in a number of countries, but decreasing in others.

### *Other policies*

#### ***Other policies are also important for female participation***

The analysis has focused on policy instruments which affect directly the participation of married women and mothers. However, several other policies have an impact on female participation, albeit sometimes indirectly:

- Excessive regulations of the service market tend to hinder the development of the service sector, which is the predominant employer of women.<sup>16</sup> They also tend to restrict the supply and drive up the prices of services such as childcare and household services. This problem is straightforward (but possibly not easy) to deal with through policy reform – which is likely to have positive effects beyond those on female participation.<sup>17</sup>
- In some countries, less restrictive immigration policies have permitted an increase in the supply of labour employed in household services, including childcare and care for elderly family members.
- High welfare and other income support payments relative to wages tend to discourage employment and activity. In some countries, single mothers are particularly affected due to the fact that a large fraction of them are low-skilled and have low potential earnings. Evidence has been found that make-work-pay schemes (such as the Earned Income Tax Credit in the United States) significantly increase the activity rate of low-income people in general, and of single mothers in particular, even after controlling for other changes in tax and social policies.<sup>18</sup>
- Gender-specific anti-discrimination laws have been introduced in most countries and have been relatively effective in lowering the gender pay gap. In general, the higher wages have stimulated female participation but the evidence on employment effects is mixed.

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16. Pissarides *et al.* (2003).

17. This recommendation does not have as its focus regulations which ensure a minimum quality of childcare, which are clearly necessary. Rather, it is concerned with excessive regulations and administrative burden which tend to discourage the supply of valuable childcare services.

18. Note that the predicted effects of the EITC are not all pro-work. The literature provides consistent evidence that the EITC positively affects labour force participation. However, it also finds smaller, negative effects on hours of work for people already in the labour market and for secondary earners.

### *Characterisation of the environment for female participation*

*Across countries, three models can be distinguished*

On the basis of the level of support to families, the share of part-time in female employment, and to a lesser extent the relative taxation of second earners, countries tend to fall in three groups:<sup>19</sup>

- High childcare subsidies, low part-time, and favourable taxation: countries which share these features include most mainland Nordic countries, France, and (to a lesser extent) Austria. Participation rates of prime-age women are very high, close to or higher than 80 per cent.
- Low childcare subsidies, high part-time: countries in this group include most other Northern European countries and Pacific countries. The tax treatment of second earners does not show a clear pattern across these countries and is in general close to average. Female participation rates range from close to 80 per cent in Switzerland to about 65 per cent in Ireland and Japan.
- Low childcare subsidies, low part-time: this category groups countries with very different income levels. These are Canada and the United States, on the one hand, and the Czech Republic, Korea, Mexico, Portugal, Spain, and Turkey, on the other hand. Female participation rates fluctuate tremendously across these countries, ranging from very high levels in Canada, the Czech Republic, Portugal, and the United States (close to 80 per cent) to significantly lower levels in the remaining countries (60 per cent and below), despite a favourable tax treatment of second earners in some of the latter countries.

### **The potential for reforms to increase female labour force participation**

*Policies can have a significant impact on female participation*

This section presents some simulations to illustrate that the policies examined in this paper can have a significant impact on female participation. The simulations, presented in detail in Burniaux *et al.* (2003), are based on empirical estimates of the models of female participation behaviour summarised in Box 1. The simulated policy measures are by necessity stylised and in some countries they may imply radical departures from current policies. They may thus not be feasible policy options in some countries. With this caveat in mind, an illustrative scenario was simulated which assumes for all countries a neutral tax treatment of second earners, high tax incentives to share market work between spouses (highest value observed), and an increase in public childcare spending per child to the

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19. A country is defined as having a high value for an indicator if it is higher than the average value for all countries. Iceland, with relatively high child support, a relatively high share of part-time in female employment, and an unfavourable tax treatment of second earners, does not fit in any of the groups.

highest level in the OECD. Under such a scenario, the prime-age female participation rate would increase on average by 10 percentage points across OECD countries (Figure 4).

***However the scope for reforms differs across countries***

The scope for reforms however differs across countries, depending on their current policies. Countries which stand to gain the most from a neutral tax treatment of second earners include the Czech Republic, Ireland, Italy, and Spain. On the other hand, the increase in childcare spending yields particularly large participation gains in Australia, Canada, the Czech Republic, Korea, New Zealand, and Southern European countries. Finally, the largest predicted gains from tax incentives to share market work between spouses are found in Germany, Ireland, Japan, and Switzerland.

***Policy reforms can be costly for public finances***

Increases in childcare subsidies and cuts in tax rates will most likely impose a net budgetary cost, even though they may be partially self-financing.<sup>20</sup> In turn, this may require an increase in tax rates creating other distortions in the economy, or a cut in other budgetary expenditures. Such effects have not been taken into account in the simulations. Beyond the budgetary cost, childcare subsidies may encourage excessive consumption of childcare (both in quantity and quality). For example, it has been argued that childcare subsidies in Sweden are too large, in the sense that a reduction in the subsidies accompanied by a budget-balancing reduction in marginal income taxes would increase efficiency, not least by reducing the excessive production of household services.<sup>21</sup>

***But such costs could be kept down***

In order to keep the costs of reforms down, and at the same time increase the efficiency of reforms, the receipt of childcare subsidies can be conditioned on the employment of the mother, or at least on active job search by the mother. Furthermore, tax cuts and childcare subsidies can be targeted to low-income mothers whose labour supply is more responsive to the net wage.<sup>22</sup> However, greater targeting implies higher marginal effective tax rates as income rises, and a careful design of the tax cuts and childcare subsidies is needed to limit the negative impact on the supply of hours. Finally, the effectiveness of childcare subsidies and tax cuts in raising female participation hinges on the responsiveness of the childcare supply. *A priori*, the supply of childcare should be very responsive because of the low capital requirement for home-based childcare arrangements, and evidence of high responsiveness has been found for the United States.<sup>23</sup> As

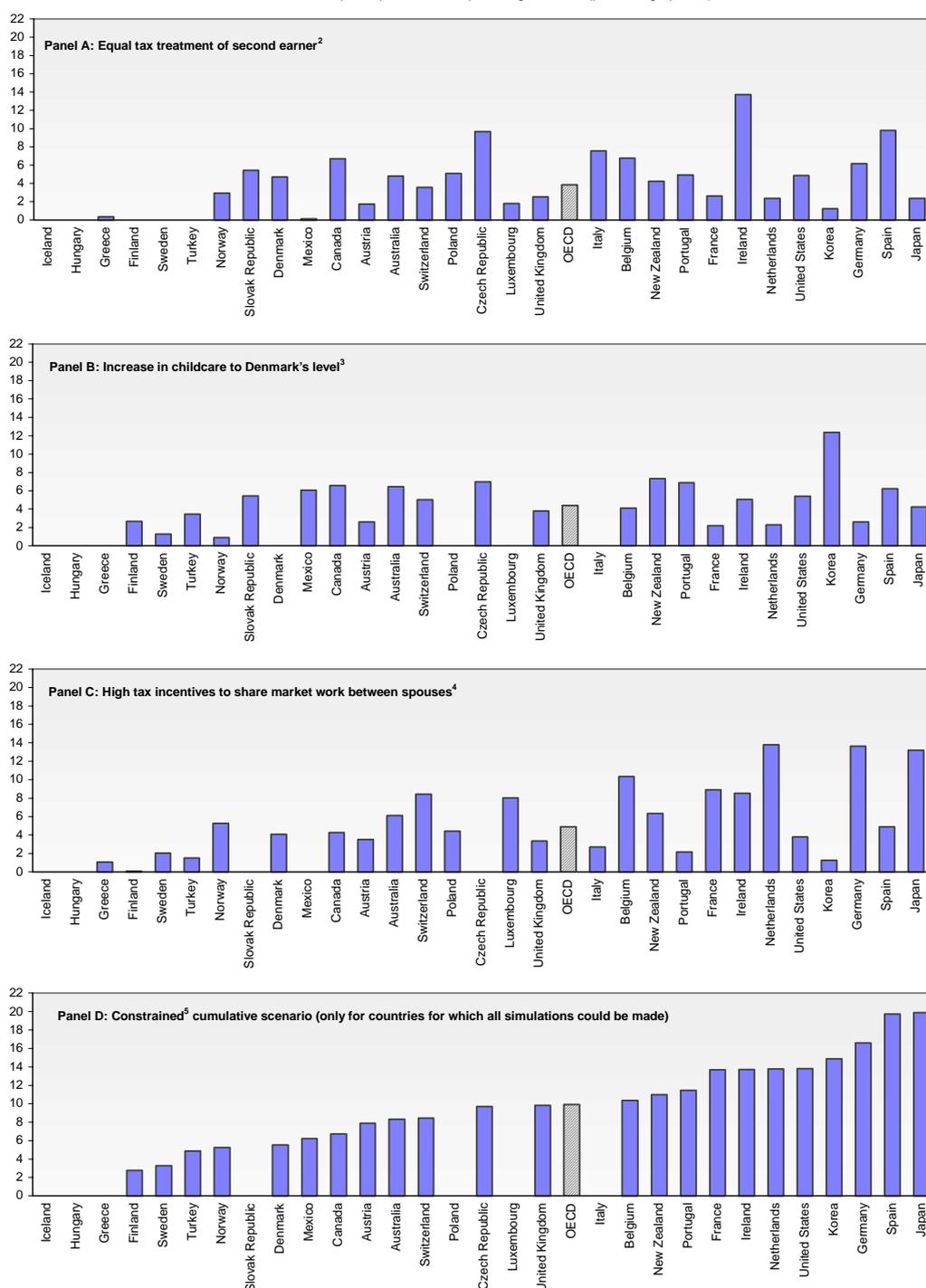
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20. They are partially self-financing because the resulting increase in female labour supply leads to higher government revenues. See Burniaux *et al.* (2003).
21. See Rosen (1996). Of course, a full evaluation of the costs and benefits of childcare subsidies would have to take into account positive externalities on child development and socialisation, as well as considerations of equity (including gender equity).
22. It has been argued that the case for conditioning and targeting childcare subsidies has to be weighted against the potential benefits of childcare for the children's future development and their integration into society.
23. Blau (2001).

discussed earlier, policies which may enhance this responsiveness include less restrictive product market regulation and immigration policies.

***Policy reforms may also have some unwanted equity effects***

In some instances, the policies which promote female participation may imply a cost in terms of reduced equity. For example, separate household taxation and, more generally, greater neutrality of the tax treatment of second earners, imply less equity between families of different types. Indeed, under separate taxation, the tax paid by families with a same gross household income varies with the split of this income between the two spouses. Likewise, although childcare subsidies are preferable to child benefits from the angle of raising female participation, child benefits may be justified on grounds of equity across different family types and reducing child poverty. A careful balancing of policies is thus needed.

**Figure 4. Policy reforms could increase female participation<sup>1</sup>**  
*Increase in the participation rate of prime-age women (percentage points)*



1. The baseline participation rates are the projected female participation rates for 2025 based on cohort effects and are taken from Burniaux et al. (2003); OECD refers to the unweighted OECD average.  
 2. Panel A assumes an equal tax treatment of second earners and single individuals (at 67 percent of in APW), as is already the case in Finland, Sweden, Hungary, Mexico, and Turkey.  
 3. Panel B assumes that public childcare spending per child converges in all countries to the OECD maximum of US\$8009 observed in Denmark. No simulation could be made for Greece, Hungary, Italy, Luxembourg, and Poland due to lack of data on public childcare spending in these countries.  
 4. Panel C assumes that the increase in household disposable income between a situation where husband and wife share market work (100 per cent and 33 per cent of APW respectively) and a situation where the husband earns all the market income (133 per cent of APW) is 11 per cent, i.e. the maximum value observed in Finland and Mexico. No simulation could be made for the Slovak Republic, due to lack of data.  
 5. The constrained cumulative scenario combines the policy measures simulated in Panels A to C, under the constraint that the resulting female participation rate can not exceed the male participation rate projected for 2025 in the baseline. This constraint is also applied to Panels A to C, though to a lesser extent. The constrained cumulative scenario was only calculated for countries for which all individual policy measures could be simulated. It is thus not calculated for Greece, Hungary, Italy, Luxembourg, Poland, and the Slovak Republic.

Source: OECD estimates.

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