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Taxing Wages: 2003/2004
Special Feature: Broadening the Definition of the Average Worker

PART I

Basic Methodology and Main Results

This Report provides unique information for each of the OECD countries on the income taxes paid by workers, their social security contributions, the family benefits they receive in the form of cash transfers as well as the social security contributions and payroll taxes paid by their employers. Results reported include the marginal and average tax burden for one- and two-earner families, and the implied total labour costs for employers. These data are widely used in academic research and in the formulation and evaluation of social and economic policies. The taxpayer specific detail in this Report enables it to complement the information provided annually in the Revenue Statistics, a publication providing internationally comparative data on tax levels and tax structures in its the thirty member countries. The methodology followed in this Report is set out briefly in Section 1 and described in more detail in Part V of this Report.

The present edition provides estimates of tax burdens and of the tax "wedge" between labour costs and net take-home pay for 2004, summarised in Section 2 below. The Report also presents definitive results for 2003 and discusses the changes between 2003 and 2004 (see Section 3). Section 4 reviews historical changes in tax burdens.

1. Basic methodology

This section briefly introduces the methodology employed for this Report, which focuses on employees. It is assumed that their annual income from employment is equal to a given fraction of the average gross wage earnings of adult, full-time workers in the manufacturing sector of each OECD economy also referred to as the APW wage. Additional assumptions are made regarding other relevant personal circumstances of these wage earners to enable their tax/benefit position to be determined. The taxes included in the present Report are confined to personal income tax, social security contributions, and payroll taxes, (which, in this Report are aggregated with employers' social contributions in the calculation of tax rates) payable on gross wage earnings. Consequently, any income tax that might be due on non-wage income, as well as all other kinds of taxes – *e.g.* corporate income tax, net wealth tax and consumption taxes – are not taken into account in this Report. The benefits included are those paid by general government as cash transfers, usually in respect of dependent children.

Personal average tax rate is the term used when personal income tax and/or employees' social security contributions are expressed as a percentage of gross wage earnings. Net personal average tax rate is the term used when the personal income tax and employee social security contributions net of cash benefits are expressed as a percentage of gross wage earnings.

Tax wedges – a measure of the difference between labour costs to the employer and the corresponding net take-home pay of the employee – are calculated by expressing the sum of personal income tax, employee plus employer social security contributions together with any payroll tax, minus benefits as a percentage of labour costs. To determine a measure of total labour costs, employer social security contributions and – in some countries – payroll taxes are added to gross wage earnings of employees. Of course, it should be recognised that this measure may not reflect the true labour costs faced by employers.

Thus, *Taxing Wages* seeks to determine the combined effect of personal income taxes, social security contributions and family cash benefits on the net incomes of various illustrative family-types and on the labour costs faced by employers. Information is provided on employees at comparable levels of income. Key results are highlighted in the following section. Part II contains detailed results for both 2004 and 2003.

2. Review of results for 2004

Table I.1 shows gross wage earnings of the average production worker in each OECD member country for years 2003 (column 1) and 2004 (column 2). The annual change of the nominal wage of an average production worker – shown in column 3 – varied between –0.3 per cent (Japan) and 20.0 per cent (Slovak Republic). To a large extent, this significant spread reflects the different inflation levels of individual OECD countries – see column 4 of Table I.1. The annual change of real wage levels (before personal income tax and employee social security contributions) is found to be in the 0-4 per cent range for most countries;

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Table I.1. **Comparison of wage levels**

	Gross wage in national currency		Annual change 2004/03 (in percentage)			
	2003 (1)	2004 (2)	Gross wage (3)	Inflation[1] (4)	Real wage before tax (5)	Change in personal average tax rate[2] (6)
Australia	51 190	53 222	4.0	2.3	1.6	0.3
Austria	24 438	24 946	2.1	1.9	0.2	0.0
Belgium	31 385	32 281	2.9	1.9	1.0	–0.1
Canada	39 888	40 912	2.6	1.9	0.7	–0.3
Czech Republic	195 219	213 573	9.4	2.9	6.3	0.6
Denmark	316 205	327 192	3.5	1.2	2.2	–1.2
Finland	28 551	29 449	3.1	0.2	2.9	–0.8
France	22 475	23 087	2.7	2.3	0.4	–0.1
Germany	33 757	34 088	1.0	1.7	–0.7	–1.2
Greece	11 805	12 525	6.1	3.1	2.9	0.6
Hungary	1 153 440	1 260 948	9.3	6.9	2.2	–0.5
Iceland	2 720 233	2 859 073	5.1	3.1	2.0	0.3
Ireland	25 951	27 291	5.2	2.4	2.7	–0.4
Italy	22 120	22 683	2.5	2.1	0.4	0.4
Japan	4 217 856	4 205 596	–0.3	–0.1	–0.1	0.0
Korea	24 887 904	25 534 233	2.6	3.7	–1.1	–0.1
Luxembourg	31 763	32 586	2.6	3.5	–0.9	0.4
Mexico	63 475	66 432	4.7	4.6	0.1	0.2
Netherlands	31 895	32 457	1.8	1.3	0.4	2.5
New Zealand	40 467	41 778	3.2	2.3	1.0	0.4
Norway	305 653	317 101	3.7	0.5	3.3	0.0
Poland[3]	25 868	26 584	2.8	3.3	–0.5	0.1
Portugal	8 671	8 905	2.7	2.5	0.2	0.0
Slovak Republic	150 000	180 000	20.0	7.7	11.4	1.6
Spain	17 149	17 913	4.5	3.0	1.4	0.4
Sweden	244 454	251 282	2.8	0.4	2.4	0.3
Switzerland	63 720	64 419	1.1	0.8	0.3	0.2
Turkey	12 635 661 981	13 670 289 738	8.2	10.7	–2.2	0.6
United Kingdom	19 960	21 079	5.6	2.2	3.4	0.2
United States	33 553	34 934	4.1	2.6	1.4	0.1

1. Estimated percentage change in the total consumer price index.
2. Difference in the personal average tax rate of the average production worker (single without children) between 2003 and 2004.
3. A submission was not received from this country and consequently the tax/benefit structure for this country has been updated using external data sources. Given the potential for error, the reader should use caution in interpreting the results.

Source: Country submissions; *OECD Economic Outlook*, December 2004.

see column 6 of Table I.1. Only the Slovak Republic (11.4 per cent), the Czech Republic (6.3 per cent), Japan (–0.1 per cent), Poland (–0.5 per cent), Germany (–0.7 per cent), Luxembourg (–0.9 per cent), Korea (–1.1 per cent) and Turkey (–2.2 per cent) show changes in real wage before tax outside this range.

The real disposable wage of the average production worker is also influenced by the change in the personal average tax rate – shown in column 6 of Table I.1. In 2004, in almost all countries, the change of this tax burden measure at the average production workers' wage level remained between minus and plus one per cent. In two countries, this measure of the tax burden increased by more than one per cent – the Netherlands (2.5 per cent) and the Slovak Republic (1.6 per cent) while it declined by more than one per cent in Denmark (–1.2 per cent) and Germany (–1.2 per cent).

Table I.2. **Income tax plus employee social security contributions[1] (as % of gross wage), 2004**

Country[2]	Income tax (1)	Social security contributions (2)	Total payment[3] (3)	Gross wage earnings[4] (4)
Australia	24.3	0.0	24.3	38 330
Denmark	30.6	10.6	41.2	37 582
Belgium	26.6	14.0	40.5	35 622
Germany	19.6	20.9	40.5	35 203
United States	16.5	7.7	24.2	34 934
Switzerland	9.8	11.1	20.9	34 411
Netherlands	8.5	25.8	34.4	34 062
Canada	17.8	6.9	24.7	34 038
Norway	20.9	7.8	28.7	33 221
Korea	2.2	7.1	9.3	33 207
United Kingdom	15.9	8.5	24.4	32 896
Luxembourg	8.9	13.8	22.7	31 525
Japan	5.9	11.6	17.4	31 194
Iceland	25.5	0.2	25.7	30 449
Finland	24.2	6.1	30.3	29 979
New Zealand	20.7	0.0	20.7	28 228
Ireland	10.6	5.0	15.7	27 301
Austria	10.8	18.0	28.8	26 617
Italy	18.6	9.2	27.8	26 303
Sweden	24.0	7.0	31.0	26 078
France	13.1	13.6	26.7	25 459
Spain	12.7	6.4	19.0	22 497
Greece	0.6	16.0	16.6	17 287
Turkey	15.4	15.0	30.4	16 463
Poland[5]	6.1	25.4	31.5	14 381
Czech Republic	11.4	12.5	23.9	14 366
Portugal	5.6	11.0	16.6	13 033
Slovak Republic	7.9	13.4	21.3	10 322
Hungary	12.4	13.5	25.9	9 671
Mexico	3.0	1.5	4.5	9 104

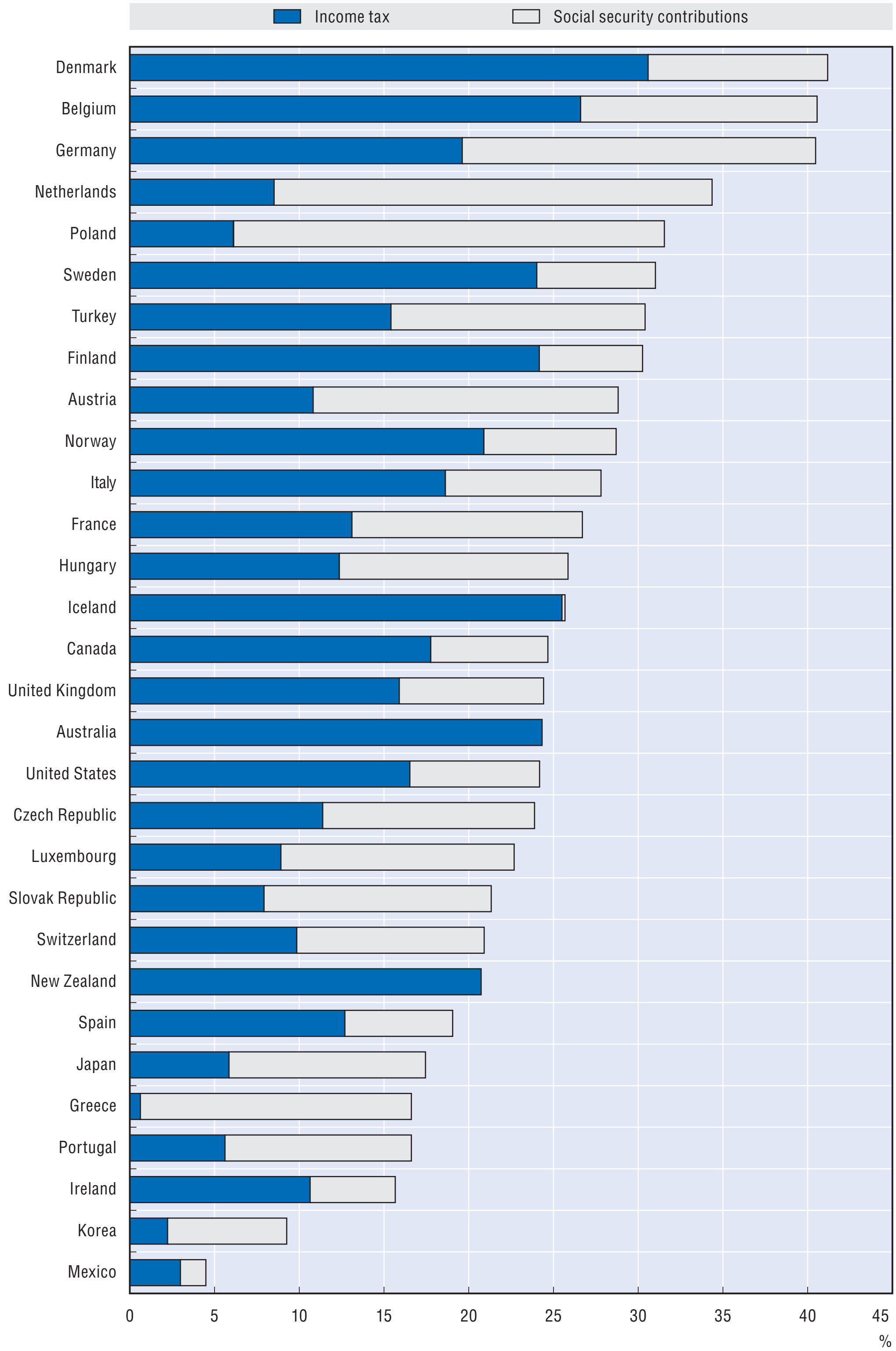
1. Single individual without children at the income of the average production worker.
2. Countries ranked by decreasing gross wage earnings.
3. Due to rounding total may differ from aggregate of columns for income tax and social security contributions.
4. Dollars with equal purchasing power.
5. A submission was not received from this country and consequently the tax/benefit structure for this country has been updated using external data sources. Given the potential for error, the reader should use caution in interpreting the results.

Source: OECD calculations based on country submissions.

Table I.2 summarises personal average tax rates – defined as income tax plus employee social security contributions as a percentage of gross wage earnings – in 2004. At the average earnings level, single workers without children pay over 40 per cent of their annual wages in personal income tax and employee social security contributions in Belgium, Denmark and Germany. In Greece, Ireland, Japan, Korea, Mexico, Portugal, and Spain the personal average tax rate was below 20 per cent.

The mix of taxes paid out of gross wage earnings varies greatly between countries. Chart I.1 provides a graphical representation of the personal average tax rate decomposed between income tax and employee social security contributions. Average production workers in Australia, Iceland and New Zealand essentially pay only income tax while their counterpart in Greece is paying almost only social security contributions.

Chart I.1. **Percentage of gross wage earnings paid in income tax and employees social security contributions, 2004[1, 2]**



1. Countries ranked by decreasing tax burden.
2. Single workers at the income level of the average production worker.

Source: OECD calculations based on country submissions.

Many OECD countries provide a fiscal benefit to families with children relative to single individuals through advantageous tax treatment and/or cash transfers. Chart I.2 provides the burden of income tax plus employee social security contributions less cash benefits for single individuals at 100 per cent of the earnings of an average production worker and for a married one-earner couple with two children at the same earnings level. The savings realised by a one-earner married couple is greater than 20 per cent of earnings in Austria, Belgium, Germany, Luxembourg and the Slovak Republic. In contrast, the burden is virtually the same (the gap is less than 1 per cent of gross earnings) in Greece, Mexico, New Zealand and Turkey. It is interesting to note that when cash benefits are taken into account, married one-earner couples face a negative burden in Ireland and Luxembourg because cash benefits exceed the income tax and social security payments.

In most OECD countries, employers pay significant social security contributions. In addition, some countries impose payroll taxes that are distinguished from social security contributions in that they do not create an entitlement to benefit for the corresponding employees and may not even be used to fund social security contributions. For the purposes of this Report, labour costs are defined as being equal to the gross wages paid to employees plus these employer social security contributions and payroll taxes (if any). In 2004, the tax wedge between total labour costs to the employer and the corresponding net take-home pay to single workers without children, at average earnings levels varied widely across OECD countries (see column 4 in Table I.3). The tax wedge exceeded 50 per cent in Belgium and Germany and was lower than 20 per cent in Korea and Mexico.

It is interesting to look at the constituent components of the tax wedge shown in Table I.3. The portion of labour costs paid in personal income tax is less than 5 per cent in Greece, Korea, Mexico and Portugal whereas it exceeds 30 per cent in Denmark. The portion representing employee social security contributions also varies widely, ranging from zero per cent in Australia, Iceland and New Zealand to over 20 per cent in the Netherlands and Poland. Employers pay 28.2 per cent of total labour costs in social security contributions (including payroll taxes where applicable) in France, 26.9 per cent in Hungary, 26.3 per cent in the Slovak Republic, and 25.9 per cent in the Czech Republic. In contrast, employers in New Zealand are not subject to these levies, while in Denmark employer contributions are negligible.

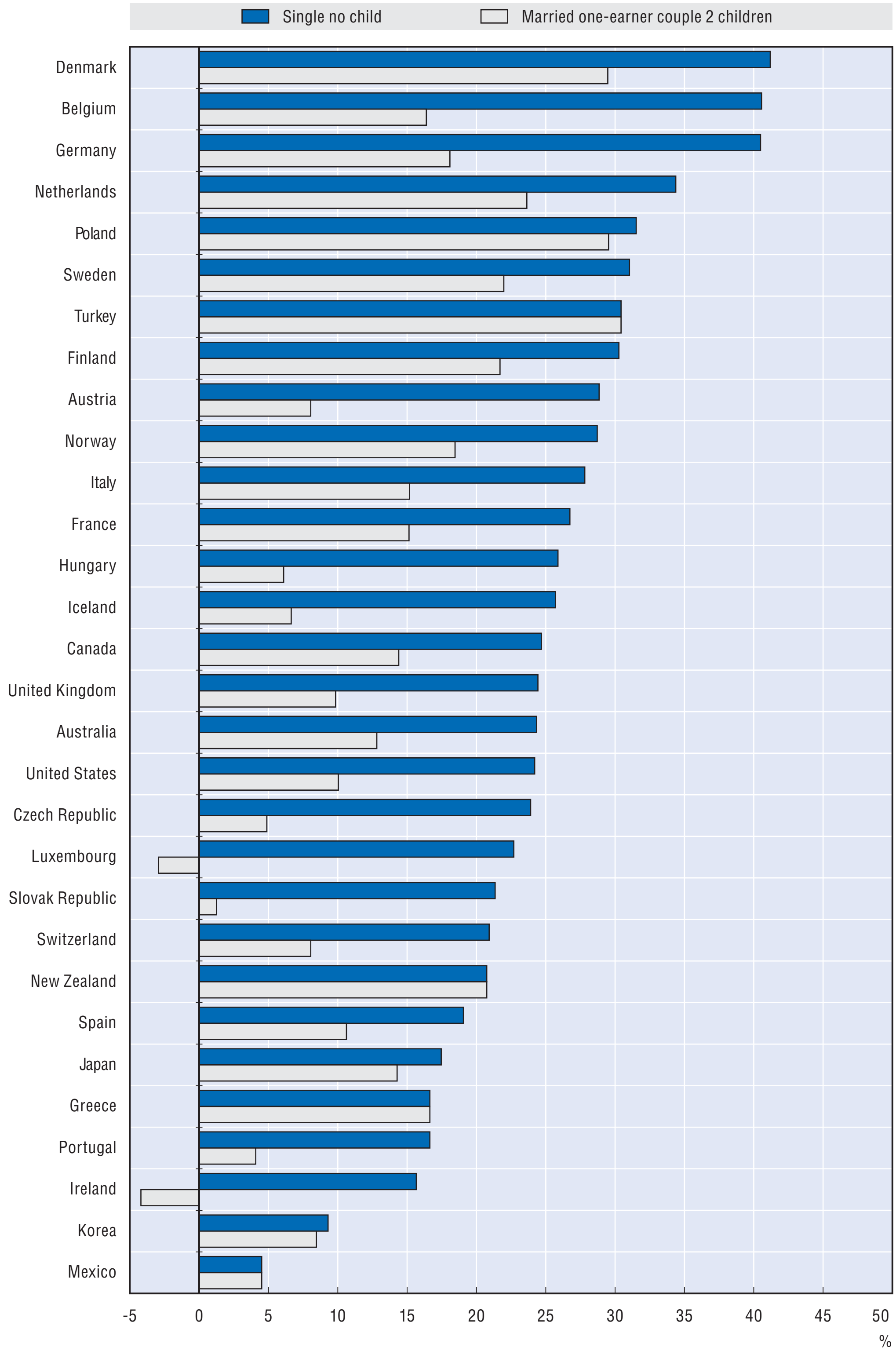
As a percentage of labour costs, the total of employee and employer social security contributions exceed 25 per cent in half of the OECD countries. They exceed one-third of total labour costs in 10 OECD countries: Austria, Belgium, the Czech Republic, France, Germany, Greece, Hungary, Netherlands, Poland and the Slovak Republic. This result is not surprising given that the social security contribution revenues in these countries amounted to more than 25 per cent of their Gross Domestic Product in 2002 (see Annex A).

Clearly, the impact of taxes and benefits on worker's take-home pay varies greatly among OECD countries. Such wide variations in the size and make-up of tax wedges reflect in part differences in:

- the overall ratio of aggregate tax revenues to Gross Domestic Product (see Annex A); and
- the share of personal income tax and social security contributions in national tax mixes.

This section continues by commenting on Tables II.1-II.11 and Charts II.1-II.6 included in Part II, Sections 1 and 3. All these summary tables show results for eight family-types, characterised by different family status (single/married, 0-2 children), economic status (one-/two-earner household) and wage level (33 per cent, 67 per cent, 100 per cent and 167 per cent of annual gross wage earnings of an average production worker).

Chart I.2. **Income tax plus employee contributions less cash benefits, by family-type (as % of gross wage), 2004**[1, 2]



1. Countries ranked by decreasing single no child rates.
2. Corresponds to Table II.4, column 2 and 5.

Source: OECD calculations based on country submissions.

Table I.3. **Income tax plus employees' and employers' social security contributions (as % of labour costs), 2004**[1]

Country[2]	Income tax (1)	Social security contributions		Total[3] (4)	Labour costs[4] (5)
		Employee (2)	Employer (3)		
Belgium	20.5	10.7	23.0	54.2	46 261
Germany	16.2	17.3	17.3	50.7	42 543
Australia	22.9	0.0	5.7	28.6	40 630
Netherlands	7.3	22.2	14.0	43.6	39 614
Switzerland	8.9	10.0	10.0	28.8	38 213
Canada	16.5	6.2	10.1	32.8	37 856
Denmark	30.4	10.5	0.5	41.5	37 788
United States	15.4	7.1	7.1	29.6	37 606
Norway	18.5	6.9	11.5	36.9	37 550
Finland	19.5	4.9	19.4	43.8	37 174
United Kingdom	14.5	7.8	9.0	31.2	36 159
Korea	2.0	6.5	8.1	16.6	36 125
Luxembourg	7.9	12.1	11.9	31.9	35 767
France	9.4	9.8	28.2	47.4	35 443
Japan	5.2	10.3	11.1	26.6	35 103
Italy	14.0	6.9	24.9	45.7	35 005
Sweden	18.1	5.3	24.6	48.0	34 606
Austria	8.4	14.0	22.5	44.9	34 356
Iceland	24.1	0.2	5.4	29.7	32 194
Ireland	9.6	4.5	9.7	23.8	30 236
Spain	9.7	4.9	23.4	38.0	29 382
New Zealand	20.7	0.0	0.0	20.7	28 228
Greece	0.5	12.5	21.9	34.9	22 138
Turkey	12.7	12.3	17.7	42.7	20 003
Czech Republic	8.4	9.3	25.9	43.6	19 395
Poland[5]	5.1	21.1	17.0	43.1	17 319
Portugal	4.5	8.9	19.2	32.6	16 128
Slovak Republic	5.8	9.9	26.3	42.0	13 997
Hungary	9.0	9.9	26.9	45.8	13 229
Mexico	2.6	1.3	11.4	15.4	10 278

1. Single individual without children at the income level of the average production worker.
2. Countries ranked by decreasing labour costs.
3. Due to rounding total may differ from aggregate of columns for income tax and social security contributions.
4. Dollars with equal purchasing power.
5. A submission was not received from this country and consequently the tax/benefit structure for this country has been updated using external data sources. Given the potential for error, the reader should use caution in interpreting the results.

Source: OECD calculations based on country submissions.

Table II.1 in Part II, Section 1 shows personal income tax due as a percentage of gross wage earnings. For single persons without children at the wage level of an average production worker (APW) – see column 2 of the table – the average income tax rate varies between 0.6 per cent (Greece) and 30.6 per cent (Denmark). In most OECD member countries, at the APW wage level, the income tax burden for one-earner married couples with two children is substantially lower than that faced by single persons (compare columns 2 and 5). This difference is clearly illustrated in Chart II.1 (see Part II, Section 3). In 10 OECD countries, the income tax burden faced by a one-earner married couple with two children is less than half that faced by a single individual (the Czech Republic, Germany, Hungary, Ireland, Japan, Luxembourg, Portugal, the Slovak Republic, Spain and the United States). In contrast, there is no difference in Australia, Finland, Greece, Mexico, New Zealand, Sweden and Turkey.

Germany and the Slovak Republic are the only OECD member countries where a married average production worker faces a tax burden less than zero. This result is due to non-wastable tax credits, whereby credit amounts in excess of the taxes otherwise due are paid to the family, resulting in a tax burden of –2.8 and –5.3 per cent respectively. Similarly, in six countries – Austria, Germany, Mexico, the Slovak Republic, the United Kingdom and the United States – single parents with two children earning two-thirds of the APW wage receive payments corresponding to the portion of their non wastable credits exceeding the taxes otherwise due. As a consequence, for these cases column 4 of Table II.1 also shows a negative tax burden. In six other countries – Greece, Hungary, Ireland, Luxembourg, Portugal and Spain – this family-type pays almost no income tax.

A comparison of columns 5 and 6 in Table II.1 demonstrates that if the previously non-employed spouse finds a job which pays one-third of the APW wage level, the income tax burden of the family (now expressed as a percentage of 1.33 times the APW wage level) will in most cases (slightly) rise. However, the tax burden actually falls in fourteen countries: France, Greece and Portugal (–0.1 percentage points), Korea (–0.2 percentage points), Turkey (–0.7 percentage points), New Zealand (–0.9 percentage points), Hungary (–1.1 percentage points), Italy (–1.4 percentage points), Sweden (–1.6 percentage points), the Netherlands (–1.9 percentage points), Austria (–2.3 percentage points), Australia (–3.2 percentage points), Finland (–3.6 percentage points), and Mexico (–4.7 percentage points).

An important consideration in the design of an income tax is progressivity – the percentage income tax burden increases with income. By comparing columns 1, 2, and 3 in Table II.1, one can gain an insight into how progressive the income tax system is. When one compares the income tax burden of single individuals at 100 per cent of the APW wage level with their counterparts at 167 per cent (columns 2 and 3), the lower paid worker always faces a lower tax burden. Similarly, single individuals at 67 per cent of the APW wage level pay an even lower percentage of their income in income tax (columns 1 and 2). Finally, when one compares the lowest paid single person with the highest paid, the burden faced by single individuals at 67 per cent of the APW wage level is less than one-quarter of the burden faced by their counterparts at 167 per cent in seven OECD countries: Mexico (the burden is negative), Greece (the burden is eliminated), Korea (approximately one-tenth), Austria, the Netherlands and Portugal (approximately three twentieths) and Hungary and Luxembourg (approximately one-fifth).

Table II.2 shows employees' social security contributions as a percentage of their gross wage earnings. For a single worker without children at the APW wage level (column 2) the rate of contributions varies between zero per cent (Australia and New Zealand) and 25.8 per cent (the Netherlands). Only two OECD member countries – Australia and New Zealand – levy no social security contributions at all on employees, though they are very low for employees in Iceland and Mexico (less than 2 per cent). Social security contributions are usually levied at a flat rate on all earnings, i.e. without any exempt threshold. In a number of OECD member countries a ceiling applies. However, this "capping" provision usually applies to wage levels higher than 167 per cent of the APW wage. This particular rate structure is reflected in a roughly constant average burden of employee social security contributions for most countries over the whole range of 33 per cent to 167 per cent of APW earnings as indicated in Table II.2. Some typical examples of the proportional burden of employee social security contributions for all family-types at all wage levels considered here, are Poland (25.4 per cent), Austria (18.0 per cent), Greece (16.0 per cent), Turkey (15 per cent), Hungary (13.5 per cent), the Slovak Republic (13.4 per cent), the Czech Republic (12.5 per cent), Japan (11.6 per cent), Portugal (11.0 per cent), Italy (9.2 per cent), Norway (7.8 per cent), the United States (7.7 per cent), Korea 7.1 per cent and Spain (6.4 per cent).

Also, with the exception of Belgium and the Netherlands, at the 100 per cent APW wage level all OECD member countries impose the same burden of social security contributions on employees; regardless of their family status (see Chart II.2).

Table II.3 presents the combined burden of the personal income tax (shown in Table II.1) and social security contributions (shown in Table II.2), again expressed in the form of average tax rates. A single person at the APW wage level without children is liable to an average tax plus contributions burden of over 40 per cent in Denmark (41.2 per cent) and Belgium and Germany (40.5 per cent). At the other extreme, the personal average tax rate is below 20 per cent in Mexico (4.5 per cent), Korea (9.3 per cent), Ireland (15.7 per cent), Greece and Portugal (16.6 per cent), Japan (17.4 per cent) and Spain (19.0 per cent).

The addition of social security contributions to the average tax rate reduces the progressivity noted in the discussion of Table II.1 as well as the proportional fiscal savings enjoyed by families. The overall tax burden of single individuals at 67 per cent of the APW wage level is, based on the simple average across OECD countries, only one-third lower than their counterparts at 167 per cent rather than the average savings of over two fifths noted for personal income taxes alone. The average fiscal savings observed for married one-earner couples with two children at 100 per cent of the APW wage level relative to single individuals falls from over two-fifths to under one quarter. These reductions are not unexpected given the observation that the average social security contribution rates tend to be the same across all family types.

Table II.4 exhibits the combined burden of income tax and employee social security contributions, in the form of net personal average tax rates as the levies due have been reduced by the amount of cash benefits each specific family-type is entitled to. Chart II.3 illustrates this burden for single individuals without children and married one-earner couples with two children, respectively. Comparing Tables II.3 and II.4, the average tax rates for families with children (columns 4-7) are lower in Table II.4, because many OECD countries support families with children through cash benefits. A lower burden is observed for a single individual without children at 67 per cent of the APW only in the case of Canada as this person is entitled a cash transfer as a way of mitigating the burden imposed by the federal consumption tax (further details can be found in the country chapter contained in Part IV of this Report).

Cash benefits are provided in a majority of OECD countries. For the case of single parents with two children earning 67 per cent of the APW wage level, 23 countries provide benefits that range from 32.9 per cent of income (Ireland) to 0.1 per cent (Spain) and average 16.8 per cent. The benefit exceeds 25 per cent of income in 4 other countries: Australia (27.3 per cent), Austria (27.2 per cent), the Czech Republic (25.4 per cent) and Denmark (25.3 per cent). For a one-earner married couple with two children earning 100 per cent of the APW wage level, the number of countries providing benefits falls to 20 and the benefits relative to income are less generous, ranging from 18.1 per cent (Austria) to 5.3 per cent (the Netherlands) and averaging 9.2 per cent. This reduction in the importance of cash benefits can be attributed to three reasons: single parents may be eligible for more generous treatment; the benefits themselves may be fixed; and/or the benefits may be subject to income testing.

Table II.5 and Chart II.4 extend the presentation to include employers' social security contributions. In this case total levies due minus transfers received are expressed as a percentage of total labour costs, defined as gross wage plus employers' social security contributions (including payroll taxes). The gap between labour costs and the corresponding net take-home pay is also known as the "wedge". In the case of a single person at the APW wage level the wedge ranges from 15.4 per cent (Mexico) and 16.6 per cent (Korea) to 50.7 per cent (Germany) and 54.2 per cent (Belgium). For a one-earner married couple with two children at the same wage level the wedge is lowest in Ireland (5.9 per cent) and Luxembourg (9.3 per cent) and highest in Poland (41.5 per cent) and Turkey (42.7 per cent). The wedge tends to be lower for a married couple with two-children at this wage level than for a single individual without children due to receipt of cash benefits and/or more advantageous tax treatment. It is also interesting to note that the wedge for a single parent with two children earning 67 per cent of the APW wage level is less than zero in Australia (–0.5 per cent), the United Kingdom (–11.2 per cent) and Ireland (–20.2 per cent). This result is due to the fact that the cash benefits received by these families as well as the value of any applicable non-wastable tax credits exceed the sum of the tax due and the total contributions.

Table II.6 and Chart II.5 show the incremental change to personal income tax and employee social security contributions less cash benefits when gross wage earnings rise marginally. In most cases, personal income tax and employee social security contributions absorb 25-50 per cent of a worker's pay rise for single individuals without children at 100 per cent of the APW wage level. However, in two OECD countries these individuals face higher marginal rates – in Belgium (54.8 per cent) and Germany (56.5 per cent). Mexico (15.2 per cent), Korea (18.1 per cent) and Japan (22.9 per cent) have the lowest marginal tax rates.

In approximately half the countries, the marginal tax rate for married one-earner couples at the APW wage level is the same as for single persons with no children, or is within 5 percentage points. The marginal rate is more than 5 percentage points lower for the married one-earner couple in 7 countries: Luxembourg (25.0 percentage points lower), the Slovak Republic (16.5 percentage points), France (11.2 percentage points lower), Germany (10.8 percentage points), Switzerland (5.8 percentage points), Denmark and Korea (5.5 percentage points). By contrast, in Iceland (6.8 percentage points higher), the Czech Republic (12.9 percentage points higher), the United States (16.0 percentage points), Canada (18.2 percentage points), Australia (20.0 percentage points) and the United Kingdom (37.0 percentage points), the marginal rate for married one-earner couples with two children is more than 5 percentage points higher than it is for single persons with no children. These higher marginal rates are due to the existence of income-tested tax reliefs and/or cash transfers. When an income-tested measure is being phased out, the reduction in the relief or benefit compounds the increase in the tax otherwise payable. For example, the Earned Income Tax Credit in the United States is an income-tested tax relief and during its phase-out, the marginal tax rate is correspondingly increased. These programmes are set out in greater detail in the relevant country chapters, in Part IV of the Report.

Table II.7 and Chart II.6, which also take into account employers' social security contributions (including payroll taxes), trace the "all-in" marginal tax rate, or marginal wedge. Assuming a marginal increase in labour costs, Table II.7 shows the percentage of the rise in labour costs that ends up in the public sector through the personal income tax and both employee and employer social security contributions. As long as the employer contributions increase with the wage bill, the incorporation of these levies into the marginal rate results in an increase relative to the marginal rate faced by workers. In the case of a single worker without children at the APW wage level, the marginal wedge is more than one and a half times greater than the marginal rate faced by workers in seven countries: the Czech Republic, France, Greece, Mexico, Portugal, the Slovak Republic and Spain.

Table II.8 shows the percentage increase in net income when gross wage earnings increase by 1 per cent, i.e. the elasticity of after-tax income. Under a proportional tax system, net income would also increase by 1 per cent, in which case the elasticity is equal to 1. When an increase of gross wage by 1 per cent leads to a corresponding rise of net take-home pay by only 0.8 per cent, the elasticity is measured as 0.8. The more progressive the system is – at the income level considered – the lower this elasticity will be. In the case, for example, of the married one-earner household at the APW wage level, column 5 of Table II.8 shows that of all OECD member countries the United Kingdom (0.33), Australia (0.56), and Belgium and Canada (0.59) have, on this measure, the most progressive system of income tax plus employee social security contributions at this income level. At the other extreme, Japan, France and Poland (0.93), Korea (0.95) and Turkey (0.97) are close to a nearly proportional system of income tax plus employee social security contributions – at least at the wage level of average production workers.

In the case of single parents with two children earning two-thirds of the APW wage, extremely low elasticity figures are shown for Ireland (0.29) and the United Kingdom (0.25), reflecting the very high marginal rates and low average rates faced by this family-type in these two countries (refer to column 4 in Tables II.4 and II.6). It is also interesting to note that the elasticity exceeds one for a single individual at 167 per cent of the average earnings in the United Kingdom (1.05) indicating that the income tax system at this point in the income scale is regressive. In other words, a 1 per cent increase in gross pay leads to an increase in net income in excess of 1 per cent.

Table II.9 provides a different elasticity measure: the percentage increase in net income when labour costs (i.e. gross wage earnings plus employer social security contributions) rise by 1 per cent. In this case social security contributions paid by employers have also been included in the analysis. In most OECD member countries the value of this elasticity lies between 0.70 and 0.90 for most of the family-types considered. For one-earner married households at the APW wage level the elasticity is below 0.6 in the United Kingdom (0.32), Australia (0.56) and Belgium (0.57). In contrast, the elasticity is greater than 0.9 in Mexico (0.91), Japan and Poland (0.93), Korea (0.95) and Turkey (0.97).

Table II.10 specifies gross wage earnings and net income for the eight selected family-types after all amounts have been converted into US dollars with the same purchasing power. Single workers with the APW wage take home (see Table II.10, column 4) over USD 20 000 in six countries: Korea (USD 30 126), Australia (USD 29 013), Switzerland (USD 27 221), the United States (USD 26 847), Japan (USD 25 753) and Canada (USD 25 638). Average production workers pocket less than USD 10 000 after taxes in Hungary (USD 7 170), in the Slovak Republic (USD 8 121), in Mexico (USD 8 694) and in Poland (USD 9 849). In the case of a one-earner married couple at the average earnings level, families net over USD 30 000 in five countries – Australia, Korea, Luxembourg, Switzerland and the United States while families net less than USD 10 000 in two countries – Mexico (USD 8 694) and Hungary (USD 9 083). It is interesting to observe that with the exception of Mexico, New Zealand and Turkey, the one-earner married couple takes home more than the single individual at the APW wage with the average difference equalling more than USD 3 300. The higher take home pay for the one-earner married couple is due to the favourable tax treatment of this family and/or the cash transfers to which they are entitled.

Labour costs and net income for the selected eight family-types are shown in Table II.11. The "net" columns in Tables II.10 and II.11 are identical, but in Table II.11 the amounts in the "gross" column refer to total labour costs for employers instead of wage earnings of employees. Usually, labour costs are found to be much higher, because any employers' social security contributions (including payroll taxes) are now taken into account, except in the case of New Zealand, where employers pay no such contributions. In Denmark, employer contributions for social security are negligible. If measured in US dollars with equal purchasing power, labour costs for single workers earning average wages are the highest in Belgium (USD 46 291) and Germany (USD 42 453), and the lowest in Mexico (USD 10 278) and Hungary (USD 13 229).

3. Results for 2003

This section briefly reviews the definitive results for 2003 reported in Tables II.12-II.22 of Section 2 in Part II of the Report and what they show about changes between 2003 and 2004. The format of Tables II.12-II.22 is identical to that of Tables II.1-II.11 reviewed in the preceding Section A. Thus, changes between 2003 and 2004 for the various cases considered can be traced by comparing the same columns in Tables II.12-II.22, to those in Tables II.1-II.11. The following commentary on Tables II.12-II.22 focuses on changes in tax burdens and marginal tax rates for single employees without children at the APW wage level (column 2 of the tables) and for married one-earner families with two children at the APW wage level (column 5 of the tables). Comparing the columns 1, 3-4 and 6-8 of the tables would give the results for the remaining six family-types distinguished in this Report. Moreover, generally only changes exceeding 1 percentage point for average effective rates and 5 percentage points for marginal effective rates are flagged.

Table II.12 provides information on personal income tax due as a percentage of gross wage earnings. In just over half of the OECD member countries, in year 2004 single persons at average earnings paid a (slightly) higher percentage in income tax than in year 2003. In contrast, the average income tax rate fell (somewhat) in nine countries. For the most part, the change in the average income tax rate was limited to less than plus or minus one percentage point; compare column 2 of Tables II.1 and II.12. However, the average income tax rate increased by more than one percentage point in the Slovak Republic (1.6 percentage points) and in the Netherlands (2.5 percentage points) and it fell by more than one percentage point in Denmark (1.1 percentage points) and in Germany (1.2 percentage points).

A one-earner married couple faced an increase in the average income tax rate in two-thirds of OECD member countries while reductions were observed in only eight countries. However, when one calculates the unweighted average change in the income tax rate for all OECD countries, one observes a reduction of 0.1 percentage points. Increases greater than one percentage point are observed in Japan (1.1 percentage points) and in the

Netherlands (2.6 percentage points). One-earner married couples at the APW earnings level in the Slovak Republic enjoyed a reduction in the average income tax rate of 8.4 percentage points. Other reductions that exceeded one percentage point are noted for Austria and Germany (–1.2 percentage points).

Table II.13 provides information on employee social security contributions as a percentage of gross wage earnings. For single persons at average earnings, changes between 2003 and 2004 in the average burden of employee social security contributions did not exceed one percentage point, except in the case of the Netherlands where the burden of such contributions increased by 2.8 percentage points; compare column 2 of Tables II.2 and II.13. The burden of contributions of one-earner married couples at this income level increased by 3.6 percentage points in the Netherlands while it declined by 3.4 percentage points in Belgium; compare column 5 of Tables II.2 and II.13.

Table II.14 presents the combined burden of income tax and employee social security contributions in the form of personal average tax rates. For single persons at average earning, this fell between 2003 and 2004 in Denmark (–1.2 percentage points), and Germany (–1.3 percentage points). It rose in the Slovak Republic (2.3 percentage points) and in the Netherlands (5.3 percentage points). Particular attention should be paid to the changes being noted for the Netherlands (for both single persons at the APW earnings level as well as for a one-earner married couple) as it is being caused by the interaction of the change in gross earnings and an important threshold for public medical insurance resulting in changes to the personal income tax burden, the social security contribution burden as well as the overall tax wedge. The reader can find more details in Section 4.

For one earner married couples it fell in Austria (–1.3 percentage points), Germany (–1.4 percentage points), Belgium (–4.2 percentage points) and the Slovak Republic (–7.8 percentage points). It rose in Hungary (1.2 percentage points) and in the Netherlands (6.2 percentage points). For this family type, the unweighted average remained virtually the same between the two years.

Table II.15 provides the combined burden of income tax and social security contributions while levies due have been reduced by the amount of cash family benefits received by each qualifying family-type. For single persons at average earnings, changes between 2003 and 2004 are identical to those discussed above in relation to Table II.14. Reductions in the average tax rate of one-earner married couples exceeding one percentage point are noted for Germany (–1.3 percentage points), Portugal (–1.5 percentage points), Belgium (–4.0 percentage points) and the Slovak Republic (–5.4 percentage points). On the other hand, the average tax rate increased in Japan by 1.1 percentage points, New Zealand and Iceland (1.3 percentage points), Australia and Hungary (1.7 percentage points), the Czech Republic (3.4 percentage points), Poland (4.2 percentage points) and the Netherlands (6.3 percentage points); compare column 5 of Tables II.14 and II.15.

Table II.16 extends the presentation to include employers' social security contributions. In this case all amounts due (less transfers received) are expressed as a percentage of total labour costs, that is gross wage plus employers' social security contributions (including payroll taxes). In the majority of countries, changes in the gap between total labour costs and the corresponding net take-home pay in 2004 as compared to 2003 remain within plus or minus one percentage point. However, for the single average production worker, the wedge in Denmark and Germany fell by 1.2 percentage points and also in Mexico by 1.8 percentage points; compare column 2 of Tables II.6 and II.16. It increased in the Netherlands by

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8.4 percentage points. For married one-earner couples (compare column 5 of Tables II.5 and II.16), the wedge decreased by more than one percentage point in 5 countries: Germany and Portugal (1.2 percentage points lower), Mexico (1.8 percentage points lower), Belgium (3.5 percentage points lower) and the Slovak Republic (5.1 percentage points lower). For this family, the wedge increased by more than one percentage point in six countries: Iceland and New Zealand (1.3 percentage points), Australia (1.6 percentage points), the Czech Republic (2.4 percentage points), Poland (3.6 percentage points) and the Netherlands (9.8 percentage points). Based on the unweighted OECD average, the wedge increased by a third of a percentage point for this family type.

Table II.17 shows the marginal rate of income tax plus employee social security contributions minus benefits by family-type and wage level. Generally, changes between 2003 and 2004 in the marginal rate remain within the range of plus or minus five percentage points. For single workers at average earnings in Greece the marginal rate increased by 12.6 percentage points and in Korea by 5.6 percentage points; compare column 2 of Tables II.6 and II.17. For one-earner married couples with two children at average earnings, this measure increased by more than 5 percentage points in Spain (8.4 percentage points), Greece (12.6 percentage points) and Australia (20 percentage points). Decreases in excess of 5 percentage points are noted in the Slovak Republic (–8.1 percentage points) and New Zealand (–30.0 percentage points); compare column 5 of Tables II.6 and II.17.

Table II.18 shows the marginal wedge (rate of income tax plus employee and employer social security contributions minus benefits) in 2003. For a single worker at the APW earnings, a decrease in the marginal wedge is noted for Canada (–6.5 percentage points) while increases in excess of five percentage points are observed in Korea (5.4 percentage points), Greece (9.8 percentage points) and France (14.1 percentage points). For a one-earner married couple, the marginal wedge declined by more than five percentage points in Canada (5.5 percentage points lower), the Slovak Republic (7.0 percentage points lower) and New Zealand (30.0 percentage points lower) while increases are observed in Spain (6.5 percentage points), Greece (9.8 percentage points), France (16.7 percentage points) and Australia (18.9 percentage points).

Table II.19 shows the increase in net income (in per cent) after a 1 per cent increase in gross wage for 2003. Table II.20 provides the increase in net income given a 1 per cent increase in labour costs for this same year. Given that the results shown in these two tables are directly dependent upon the marginal and average tax rates that have been previously discussed, readers are left to make their own comparisons.

Tables II.21 and II.22 report background information on levels of labour costs, gross wages and net wages in 2003 and do not require further discussion.

4. Historical trends

In previous editions of this Report, historical data dating from 1979 were provided for average productions workers in OECD countries, both for a single individual and a one-earner married couple with two children. Starting with the 1997 Edition, the number of families taken into consideration within this Report was expanded to the eight types that are currently provided. Starting with the 2003 Edition, historical data are now provided for these eight family types dating from 1996 and this information is presented in Tables III.1-III.8, Part III to this Report. For the sake of completeness, Part III to this Report continues to provide the updated historical data from 1979 for the average production worker in OECD countries.

Evolution of the tax burden, 1996 to 2004

Each of the Tables III.1-III.8 corresponds to a particular family type and each is divided into three parts. Part (a) provides data related to the burden of income taxes, Part (b) depicts the burden of income taxes plus employee social security contributions less cash benefits (net tax burden), and Part (c) contains the tax wedge that comprises income taxes plus employee and employer social security contributions (including any applicable payroll taxes). Given the wealth of data that these tables provide, it would not be possible to fully discuss all of the information. Therefore, the discussion will focus on some observable trends over this period and will highlight selected important year-to-year changes.

Important trends

For OECD countries as a whole, the income tax burden, the net tax burden (personal income tax plus social security contributions less cash benefits) and the tax wedge have all tended to decline when one compares the levels in 2004 with those in 1996 for all of the family types considered in this Report. This observation can be established by calculating the average year-to-year change for OECD countries and then taking the sum of this measure for the entire time period. In terms of the personal income tax burden, it has declined anywhere from 1.5 percentage points (for single person at five-thirds of the APW wage level) to 2.3 percentage points (for two-earner married couples). The decline in the net tax burden is not as dramatic as it ranges from a fall of 0.3 percentage points (single person at five-thirds of the APW wage level) to a fall of 2.4 percentage points (single parent with two children). The decline in the overall tax wedge is similar ranging from a reduction of 0.4 percentage points (single person at five-thirds of the APW wage level) to a reduction of 2.5 percentage points (single parent with two children). It is also interesting to note that for each of the measures and for each family type, the number of OECD countries where declines are noted is roughly twice as many as the countries for which increases have been observed.

Focusing on the personal income tax burden, it is useful to note those countries where there have been the most significant changes. The most significant reductions affecting most or all of the family types are noted in Denmark, Finland, Hungary, Ireland, Poland, Sweden, Turkey, the United Kingdom and the United States. In the case of Denmark, Finland, Ireland, Poland, Sweden and Turkey, the reduction in the personal income tax burden is quite consistent across the different family types. When comparing the different family types, the change in burden ranges from –3.4 percentage points to –5.6 percentage points in Denmark, –4.8 percentage points to –5.7 percentage points in Finland, –9.5 percentage points to –13.1 percentage points in Ireland, –11.8 percentage points to –12.5 percentage points in Poland, –4.8 percentage points to –6.5 percentage points in Sweden and –6.6 percentage points to –10.1 percentage points in Turkey.

The reductions observed in Hungary, the United Kingdom and the United States have been more targeted in nature. In Hungary, families with children benefited from a reduction of at least 10 percentage points while the maximum reduction for other family types was only 5.7 percentage points. In the United Kingdom, all families pay less tax as a percentage of income yet, with the exception of single parents with children and a one-earner married couple, the reduction represents no more than 2.3 percentage points. In contrast, the savings to single parents represent 28.8 percentage points and the savings to a one earner married couple amount to 7.6 percentage points. In the case of the

United States, families with children have been afforded a reduction amounting to between 5.5 and 8.3 percentage points while single persons and a two-earner married couple with no children only save between 1.6 and 2.6 percentage points.

The most significant increases in the personal tax burden are observed in Australia and Iceland. In Australia, the increase in this measure over the time period in question ranges from 1.4 percentage points (single person at the five-thirds the APW wage level) to 9.0 percentage points (single parent with two children). In Iceland, the burden has grown for all family types by anywhere between plus 4.0 percentage points (single person at the APW wage level) to plus 8.1 percentage points (one-earner married couple) although some of this increase can be attributed to an upward revision to the earnings of the average production worker from 1998.

Turning to the net tax burden which takes into account employee social security contributions as well as cash benefits, one can observe that the with the exception of Ireland, the United Kingdom and the United States, the significant reductions noted for the personal tax burden have been diminished by either increases in employee social security contributions and/or reductions in cash benefits. In the case of Ireland, the changes to employee social security contributions and cash benefits have led to further gains over the time period in question as the reduction in this measure is between –11.1 percentage points (single person at five-thirds of the APW earnings level) and –24.7 percentage points (single parents). The gains noted above for the United Kingdom and the United States are essentially the same when looking at the net tax burden.

In terms of those countries where it has been noted that the personal income tax burden has been increased significantly, the addition of social security contributions and cash benefits changes the overall story. For Australia, the change in the net tax burden ranges from a reduction of –2.2 percentage points (one earner married couple) to an increase of 3.7 percentage points (single parents) indicating the fact that Australia has converted previous benefits provided in the income tax system to payable benefits. In the case of Iceland, the inclusion of cash benefits and employee social security contributions has led to a further increase in the net tax burden ranging from a low of 4.0 percentage points (single person at the APW earnings level) to a high of 23.8 percentage points (single parents). However, the significant increase in the burden of single parents can be attributed to the revision to the earnings of an average production worker as of 1998.

Over the time period in question, one can observe significant reductions in the tax wedge that have exceeded five percentage points for more than one family type in nine OECD member countries – Belgium, Finland, France, Hungary, Ireland, Italy, Mexico, the United Kingdom and the United States. The largest decline is observed in the United Kingdom where single parents have benefited from a reduction in the wedge of 23.8 percentage points yet the reduction for the other family types that are considered within this Report only exceed 3 percentage points for a one-earner married couple, reflecting the targeted reduction in the personal income tax burden. In the case of Ireland, all family types enjoyed a significant reduction in the wedge, ranging from a reduction of 10.7 percentage points (single person at five-thirds of the APW wage level) to 22.8 percentage points (single parent). Other double digit declines are seen in France (the decline ranges from a low of 1.7 percentage points in the case of a one-earner married couple to a high of 12.3 percentage points for single parents), Italy (the decline ranges from a low of 3.1 percentage points for a single person at five-thirds of the APW earnings level to a high of 10.5 percentage points for single parents) and Mexico (all family types benefit from a reduction of at least 8.8 percentage points with a single person earning five-thirds the APW earnings level enjoying a 10.3 percentage point reduction). For the other countries, the fall in the wedge ranged from 1.3 to 8.3 percentage points in Belgium, from 4.0 to 6.7 percentage points in Finland, from 2.7 to 9.1 percentage points in Hungary, and from 1.5 to 7.7 percentage points in the United States.

Consistent increases in the tax wedge are noted in five OECD member countries. The largest increase is observed in Iceland where the wedge for a single parent has increased by 24.9 percentage points while the other family types have seen increases ranging from a low of 5.3 percentage points for a single person at the APW earnings level to 18.3 percentage points for a one-earner married couple. In Korea, the increase in the tax wedge has ranged from a low of 4.9 percentage points (two-earner married couple with two kids and where the spouse earns two-thirds of the APW earnings level) to a high of 7.7 percentage points (single person at five-thirds of the APW earnings level). The increase ranges from a low of 2.7 percentage points (one earner married couple) to a high of 9.7 percentage points (single parents) in Australia (it should be noted that a change in reporting practice has impacted on the tax wedge and the reader can get further information in Section 4). In Japan, the increase ranges from a low of 7.2 percentage points (single person at the APW earnings level) to a high of 8.7 percentage points (one-earner married couple). In Turkey, it is interesting to note that while the wedge for a single person at five-thirds of the APW earnings level increases by 8.1 percentage points, the wedge falls for a single person at two-thirds of the APW earnings level as well as for single parents.

In the discussion of the results for 2004, attention was paid to how the *Taxing Wages* results could be used to assess the progressivity of personal income taxes as well as evaluating the tax treatment of families *versus* a single person. The results presented in Part III can be used to look at the evolution of these two measures.

The degree of progressivity of the personal income tax system can be assessed by comparing the burden faced by single persons earning two-thirds of the APW wage with the burden faced by their counterparts earning five-fifths of the APW wage. Hence Part III Table III.1a is compared with Table III.3a. For all OECD countries and for all years, the lower paid worker always pays a lower percentage of income in personal income tax than the higher paid worker.

By comparing the situation in 1996 versus the one in 2004, one can assess whether there has been any change in this measure of progressivity. On average, personal income taxes have become slightly more progressive in OECD countries. In 1996, the personal income tax burden of a single worker earning 67% of the APW wage paid was a little less than one-half that of the worker earning 167% of the APW wage. In 2004, the tax burden of this lower paid worker had fallen to under nine-twentieths of the higher paid worker.

When one compares the situation in each OECD country, one observes that personal income taxes have become more progressive in twenty countries although none more so than in Ireland, where the burden of the lower paid person in 1996 was about one-half that of the higher paid worker while in 2003 the burden represents only about one-quarter.

Personal income taxes have become slightly less progressive in 7 OECD countries: Australia, Canada, France, Iceland, Japan, Mexico and Turkey.

The results presented in Part III Tables III.5 and III.2 can be used to compare the tax burdens faced by a one-earner married couple at the APW wage and the single worker at the same income level. Focusing on the net tax burden (personal income tax plus employee social security contributions less cash benefits which can be found in Part b of the tables), one observes that the average fiscal savings (the difference between the personal income tax rate of a single worker and that of a married one-earner couple) for OECD countries enjoyed by a one-earner married couple relative to a single worker at the APW wage has increased slightly since 1996 from 11.0 per cent of income to 11.9 per cent.

The savings for the one-earner married couple has increased in 16 countries and declined in 12 others. In three countries, the fiscal savings has increased by more than 5 percentage points: in Ireland (increasing 8.1 percentage points from 11.8 to 19.9 per cent of income), in the United Kingdom (increasing 6.5 percentage points reaching 14.6 per cent of income) and in the United States (increasing 6.4 percentage points reaching 14.2 per cent of income). In contrast, the fiscal savings has decreased by more than 5 percentage points in two countries: in Poland (falling 5.7 percentage points from 7.7 to 2.0 per cent of income) and Iceland (falling 13.0 percentage points to 19.1 per cent of income).

Important year-to-year changes

Tax wedges – the difference between labour costs to the employer and the corresponding net take- home pay of the employee – express the sum of personal income tax and all social security contributions minus cash benefits as a percentage of labour costs (see Section 1). Generally, changes in the tax wedge between two successive years are limited to between plus and minus three percentage points. Larger changes generally have one of three causes:

- changes in national tax and benefit legislation;
- divergences between the change in earnings and the changes to the structural parameters of the tax system; and
- changes in countries reporting practices.

In order to better illustrate some of the important year-to-year changes, the discussion will focus on changes in the wedge affecting a one-earner married couple at the APW wage. Since 1996, year-to-year changes exceeding plus or minus 5 percentage points are observed in 10 different OECD countries: Australia (plus 6.2 percentage points in 2002), the Czech Republic (minus 7.7 percentage points in 1998), Iceland (plus 5.9 percentage points in 1998), Italy (minus 5.7 percentage points in 1998), Japan (plus 5.8 percentage points in 1999 and plus 5.9 percentage points in 2002), Korea (plus 6.4 percentage points in 1997), Mexico (minus 7.7 percentage points in 1999), the Netherlands (minus 7.9 percentage points in 2002 and plus 9.8 percentage points in 2004), the Slovak Republic (minus 5.1 percentage points in 2004) and Turkey (minus 9.5 percentage points in 1999 and plus 10.1 percentage points in 2000).

Among the identified significant year-to-year changes, there are five examples of the impact of major legislative modifications (cause i). The reductions identified in Italy in 1998 and in Turkey in 1999 were caused by significant changes to the personal income tax rate structures in these two countries. The reduction in the wedge noted for the Czech Republic in 1998 can be attributed to the introduction of income tested family benefits in the previous year. The increase in the wedge in Japan in 1999 can be attributed to higher social security contributions. Finally, the reduction in the Slovak Republic is due to the tax reform enacted in 2004.

A divergence in the growth of gross earnings and the growth of the structural parameters underlying a tax system (cause ii) can lead to significant movements in the tax wedge. The 10.1 percentage point increase in the wedge in Turkey in 2000 is an example of the impact of high rates of inflation that are reflected in the increase in of gross earnings of over 50 per cent while at the same time the tax bracket structure was only increased by 25 per cent thereby leading to a decline in real terms in the value of important tax thresholds. This real decline in the threshold values led to an increase in the personal income tax burden of the average worker.

The two significant changes to the tax wedge noted in the case of the Netherlands provide another example of the impact of divergences between the growth in gross earnings and the growth in the structural parameters underlying the tax system. Lower-paid workers in the Netherlands are afforded a public health insurance plan. Where earnings exceed the eligibility threshold, these workers are shifted from the mandatory public health plan to private insurance. Where workers are eligible for the public plan, they and their employers make contributions determined as a percentage of their gross wage up to a specified level of income and the contributions that are made by the employers are treated as a taxable benefit. The eligibility threshold tends to be near the average earnings of a production worker in this country. Hence, in 2000, the tax wedge declined by 7.9 percentage points as the average worker ceased to be part of the public health plan while the 9.8 percentage point increase observed in 2004 is due to the fact that this same worker becomes once again covered under this plan.

Most of the major year-to-year changes noted here have been caused by changes in country reporting practices (cause iii). The increase in the wedge noted for Korea in 1997 is due to the fact that additional social security contributions have been taken into account as from this year. The higher wedge in Iceland in 1998 can be attributed to the historical revision that has been made to the APW wage level in the 2003 Edition of this publication. The reduction in the wedge noted for Mexico in 1999 is due to the fact that employers' contributions to privatised social security are no longer reported (see the country chapter in Part V for an explanation why this reporting practice was changed). The increases in the wedge noted for Australia and Japan in 2002 are also the result of changes in reporting practices. In the case of Australia, State payroll taxes are included for the first time. Finally, improvements have been made in the reporting of social security contributions for Japan.

Historical data, 1979 to 2004

Also Part III to this Report contains six tables showing trends in personal average tax rates and tax wedges for average production workers in OECD countries, as from 1979. Tables III.9-III.12 show personal average tax rates and tax wedges for the single average production worker without children over the 1979 – 2004 period for those countries where data were available. Similarly, Tables III.13-III.14 in Part III show personal average tax rates and tax wedges for the married average production worker (one-earner household with two young children) over the same period.

Single person without children

Table III.9 in Part III reveals that since 1979 the average personal income tax rate has increased in 9 countries and declined in 16 (excluding countries that have become members since 1991). The top increases were found in Belgium (+11.4 percentage points), Iceland (+8.7 percentage points) and Italy (+7.1 percentage points) while the largest reductions were observed in Turkey (–26.6 percentage points), Ireland (–13.1 percentage points) and Sweden (–12.5 percentage points). Over the past 15 years (again excluding those OECD countries who became members in the intervening years), a similar pattern is

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noted as there have been increases in 8 countries and reductions in 17. The largest increase over this period was recorded in Iceland (+8.0 percentage points) while the most significant declines were observed in Ireland (–14.9 percentage points), Denmark (–13.5 percentage points) and Sweden (–13.0 percentage points). Since the year 2000, the average personal income tax rate has risen in 12 OECD countries and fallen in 18. The largest increase over this period of time has occurred in Iceland (+2.4 percentage points) while the largest decline took place in Hungary (–6.5 percentage points).

In order to more fully appreciate changes to a worker's take-home pay, social security contributions also have to be taken into account. Table III.10 in Part III presents the burden of income tax plus employees' social security contributions for a single person at the APW wage level. Since 1979 the average personal tax rate (including contributions) of single workers without children (excluding countries that have become members since 1991) has increased in 15 OECD countries and declined in 10. The largest increase is noted in Belgium (+15.2 percentage points) while the largest reductions occur in Turkey (– 18.6 percentage points) and Ireland (–12.5 percentage points). Over the last 15 years, this measure has increased in 10 countries and fallen in 15. The most significant increase has occurred in Iceland (+8.2 percentage points) while the largest decline was observed in Ireland (–17.7 percentage points). Since the year 2000, there has been a small increase in the burden of income tax plus employee social security contributions in 13 countries (no more than 2.5 percentage points) and a decline in 17 with the largest decline observed in Hungary (–5.5 percentage points).

Table III.11 in Part III extends the presentation to include employers' social security contributions – the tax wedge. Over the 1979-2004 period, the tax wedge for a single worker with no children at the APW wage level tended to increase in OECD countries. Since 2000, the tax wedge has increased in 13 OECD countries and declined in 17. Excluding Australia where the significant increase over this period of time is due to a change in reporting practice, there are no increases in excess of 3 percentage points. Declines in excess of 3 percentage points are noted in Finland, Hungary, Ireland and Luxembourg.

One-earner family with two young children

The information in Table III.12 in Part III parallels that in Table III.9, but now focuses on the one-earner married couple with two children at the average earnings level. Average income tax rate reductions over the time period in question (measured relative to the earliest data point available) exceed 10 percentage points in Turkey (–26.6 percentage points), Germany (–12.7 percentage points), Hungary (–11.7 percentage points). Poland (–11.2 percentage points as from 1993) and the United Kingdom (–11.2 percentage points).

Likewise, the information in Table III.13 in Part III parallels that in Table III.10, but focuses on the married one-earner couple with two children at the APW wage level whereby cash benefits are also taken into account. Trends shown here are largely in line with tax trends for single individuals, but in most countries the net tax and employee contributions burden of one-earner married couples is (much) lower than is the burden of single individuals. In a number of countries, families with children have lower burdens because the cash benefits they receive have offset the tax amounts due. In 1979, the average fiscal savings across OECD countries enjoyed by a one-earner married couple relative to a single person at the same level of earnings amounted to 11.6 per cent of income and increased slightly to 11.9 per cent of income in 2004.

Finally, Table III.14 in Part III extends the one-earner married couple analysis to include employers' social security contributions. Over the 1979-2004 period double digit increases (measured relative to the earliest available data point) of the wedge are reported for Greece (+25.6 percentage points), Japan (+12.6 percentage points), Canada (+11.4 percentage points) and New Zealand (+10.3 percentage points). At the other extreme, double digit declines are seen in Ireland (–14.5 percentage points), Turkey (–11.2 percentage points) and Luxembourg (–10.8 percentage points).

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Part V

Methodology and Limitations