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Tax Reform in Belgium

David Carey

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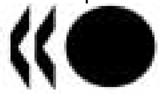

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by
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ABSTRACT/RÉSUMÉ

TAX REFORM IN BELGIUM

Belgium has a heavy tax burden which has mainly fallen on labour as international tax competition has limited the scope to which this burden could be imposed on capital. This has raised concerns about possible adverse labour market impacts from such high tax rates. In view of these concerns, the government has made substantial cuts in employers' social security contributions, has reduced employees' social security contributions and, in the context of a personal income tax reform, has introduced an earned income tax credit. All of these measures have been focused on low-income earners, maximising their favourable labour-market effects by increasing the likelihood that they produce lasting reductions in labour costs and/or reductions in benefit replacement rates. Further reductions in labour-income taxation targeted on low-income earners should be made as budget room becomes available. Narrowing the range of goods and services that are not subject to VAT would help to make more budget room available for such tax cuts as well as reducing distortions in consumption choices. So too would some increase in effective tax rates on second pillar savings, which are in fact negative on the condition that contributions have benefited from tax deductions. The government should also continue to reform the corporate tax system to ensure that Belgium remains an attractive site for direct investment.

JEL classification: H2, E62, J32.
Keywords: Taxation, tax policy, Belgium.

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LA REFORME FISCALE

En Belgique, la charge fiscale est lourde et pèse essentiellement sur le travail, dans la mesure où la concurrence fiscale internationale a limité la possibilité de faire peser cette charge sur le capital. Cela a suscité des craintes quant à l'incidence défavorable que pourraient avoir des taux d'imposition aussi élevés sur le marché du travail. Compte tenu de ces préoccupations, le gouvernement a sensiblement réduit les cotisations patronales de sécurité sociale, ainsi que celles des salariés, et dans le cadre de la réforme de l'impôt sur le revenu des personnes physiques il a instauré un crédit d'impôt sur les revenus d'activité. Toutes ces mesures ont été ciblées sur les titulaires de faibles revenus, de manière à maximiser leurs effets favorables sur le marché du travail en rendant plus probables des réductions durables des coûts de main-d'œuvre et/ou des taux de remplacement. D'autres réductions de l'imposition des revenus du travail ciblées sur les titulaires de faibles revenus devraient avoir lieu dès que la situation budgétaire le permettra. La réduction du nombre de produits et services qui ne sont pas soumis à la TVA contribuerait à accroître la marge de manœuvre budgétaire pour de telles réductions d'impôt tout en réduisant les distorsions dans les choix des consommateurs. Il en serait de même d'une augmentation des taux d'imposition effectifs de l'épargne du "second pilier" qui sont en fait négatifs, dans la mesure où les cotisations ont bénéficié de déductions d'impôt. Le gouvernement devrait par ailleurs continuer à réformer le système d'impôt sur les bénéfices des sociétés afin de faire en sorte que la Belgique reste un site attractif pour les investissements directs.

Classification JEL : H2, E62, J32
Mots clés : Fiscalité, politique fiscale, Belgique.

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TAX REFORM IN BELGIUM[1]

by

David Carey[2]

1. Belgium has a heavy tax burden, owing to a relatively high public spending ratio, which is inflated by the debt-servicing costs associated with its large public debt. As international tax competition has limited the scope to which this burden could be imposed on capital income, it has mainly fallen on labour income. This has created concerns about possible adverse labour market effects from such high tax rates. In view of these concerns, a priority of the government has been to reduce the tax burden on labour. It took a major step in this direction soon after being elected in 1999 by announcing substantial reductions in employers' social security contributions targeted on low-income earners. These are being followed by a phased reduction in personal income taxes over 2002-05 that reinforces the abolition of the additional crisis surcharge (ACS) over 2001-03. The government has also announced a revenue-neutral reform of corporate income taxation that is principally motivated by international competitiveness concerns. These reforms of labour- and capital income taxation represent the first steps in a long process of reducing the harmful labour-market effects of high labour income taxation and of making Belgium a more attractive site for direct investment and for multinational enterprises to declare their profits. Further reductions in the tax burden will depend on the budget room that becomes available as public debt interest costs fall, allowing for the fact that part of these savings will have to be used to reduce public debt. This is necessary to prepare for the budget costs of population ageing (see Chapter II) and to respect the Maastricht Treaty.

2. This chapter begins with a brief review of the major forces shaping tax policy. This is followed by a discussion of the impact of the tax system and reforms on labour and capital markets and on income distribution. The chapter concludes with suggestions for further tax reform.

Forces shaping tax policy

High debt-service costs contribute to high government expenditure

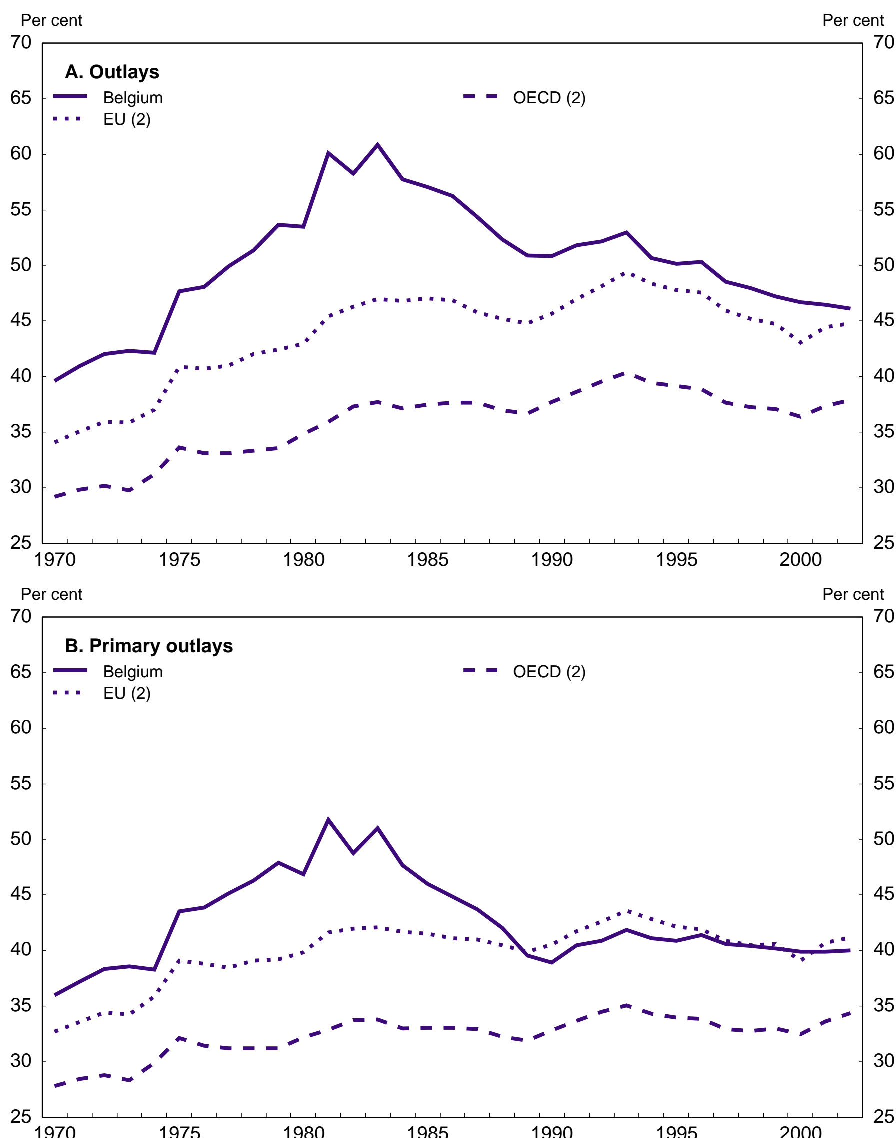
3. Total government outlays as a share of GDP have fallen markedly since the early 1980s but remain high by international comparison (Figure 1). The higher level of expenditure in Belgium than the EU average reflects higher public debt interest payments in Belgium - primary outlays as a share of GDP have fallen to around the EU average. As the government maintains a primary surplus sufficiently large to drive down public debt, interest payments are steadily declining. Part of these budget savings will be used over the next few years to reduce the personal income tax burden (see below). The remainder will mainly serve to improve the budget balance and hence, to reduce public debt. In view of the prospective budget costs of population ageing and the Stability Pact requirement to reduce public debt to less than 60 per cent

1. This paper was originally produced for the *OECD Economic Survey of Belgium*, which was published in February 2003 under the authority of the Economic Development Review Committee.

2. The author is an economist in the Economics Department. Special thanks go to Chris Heady, Mike Feiner, Andrew Dean, Jorgen Elmeskov and Andreas Wörgötter for their comments and suggestions, as well as to the Belgian authorities for their help with obtaining information needed to prepare the paper. The author would also like to thank Josette Rabesona for technical support as well as Diane Scott for technical assistance.

of GDP, it would be prudent to raise the budget surplus[3] to 1 per cent of GDP by 2008, as the government plans to do.

Figure 1. **Government outlays**
Per cent of GDP



1. General government total outlays. Estimates for 2002
2. Weighted average using 1995 GDP and purchasing power parities.
Source: OECD, *National Accounts* and *Economic Outlook No 72*.

Globalisation obliges Belgium to aim for a competitive tax system

4. Globalisation increases pressure on each country to ensure that it is an attractive site for direct investment, with one of the main policy dependent factors being taxation. This pressure is particularly intense in euro area countries, as the development of the Single Market and the introduction of the euro give MNEs greater scope to supply local markets from anywhere in the euro area. Globalisation also makes it more important to have a competitive statutory corporate tax rate because MNEs have some flexibility to

3. Measured on a System of National Accounts (SNA) basis for all levels of government.

reallocate profits from high to low tax countries without reallocating economic activities, despite having to comply with transfer pricing regulations. These considerations have been important influences shaping the recently announced corporate income tax reform and plans for future reforms (see below). The need to ensure that Belgium is an attractive site for direct investment has also influenced reforms aimed at reducing the tax burden on labour as labour costs also matter for MNEs' location decisions. In this regard, international mobility of high-skilled labour has created particular pressure for reductions in top marginal and average income tax rates.

5. International tax competition has long been an important constraint on taxation of financial assets. Personal capital income is taxed at much lower rates than labour income (see below), partly because taxpayers can evade tax on income from financial assets by holding them abroad and not reporting the income. In order to discourage such practices, taxpayers have been obliged since 1996 to sign a statement in the annual personal income tax declaration indicating the name of the taxpayers with a foreign bank account and the country where it is held.

International agreements on harmful tax practices and the taxation of savings should shape future tax reforms

6. Belgium introduced a number of preferential tax regimes in the past to ensure that its tax system remained competitive. These tax regimes -- co-ordination centres; distribution centres; service centres; foreign sales corporations; and informal capital rulings -- have been identified as potentially harmful in the context of the OECD initiative to eliminate harmful tax practices (OECD, 2000). These regimes are presently being reviewed by the OECD's Forum on Harmful Tax Practices to determine whether they are harmful. The EU is undertaking a similar exercise. Some of these regimes have already been eliminated. For example, foreign sales corporation rulings will no longer be granted given that they were contingent upon the U.S. foreign sales corporation legislation, which has now been repealed. The distribution and service centre regimes will be integrated in the new general rulings system.

7. If the EU Savings Directive is adopted, there will eventually be an information exchange system that would improve tax collection by providing an effective mechanism for ensuring that residents are declaring their foreign source interest income. This would allow Belgium to improve collection of taxes on capital income thereby enabling it to reduce taxes on labour income. Implementation of this Directive is conditional on equivalent measures being taken in the United States and other key third countries (Switzerland, Liechtenstein, Monaco, Andorra and San Marino) and on the same measures being taken in all relevant dependent or associated territories (the Channel Islands, the Isle of Man and those in the Caribbean). The European Commission is negotiating with the named countries on the adoption of equivalent measures and with the member countries concerned (the United Kingdom and the Netherlands) on the adoption of the same measures in the relevant territories. The ECOFIN Council's decision on whether or not to approve the Directive will depend on the results of these negotiations.

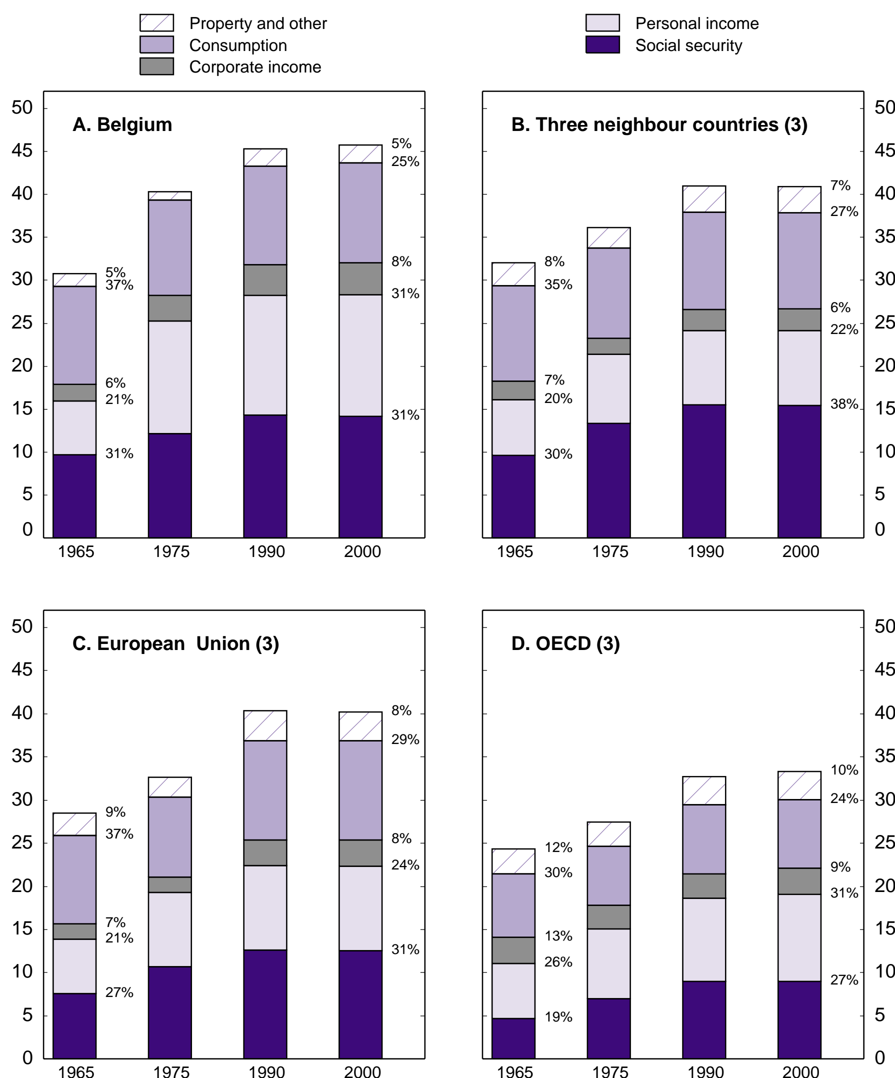
Main features of the tax system

A heavy tax burden

8. The tax-to-GDP ratio has risen substantially over recent decades, from 31 per cent in 1965 to 46 per cent in 2000 (Figure 2). This increase is greater than the EU and OECD averages and leaves Belgium with one of the heaviest tax burdens in the OECD -- only Sweden, Denmark and Finland have higher tax burdens. At the same time, there has been a large increase in the share of personal income taxes in total taxation and an offsetting decline in the share of consumption taxes. Social security taxes have remained broadly unchanged as a share of total taxation. After a long period of being broadly stable as a share of GDP, corporate income tax increased in the 1990s, reflecting both increases in effective tax rates

and a rise in the share of profits in GDP (see below). The main differences in the relative importance of the major taxes compared with the EU average are that the share of personal income tax is higher and the share of consumption taxes is somewhat lower in Belgium.[4] The government considers that the tax burden in general and on labour in particular is too high and should be continuously reduced to the level in the three main neighbouring countries (Government Agreement of 7 July 1999).

Figure 2. **The evolution of the tax burden and tax mix**
Per cent of GDP (per cent of total revenue)[2]



1. The breakdown of income tax into personal and corporate tax is not comparable across countries.
2. The bars show data as a per cent of GDP, the percentage figures show the share in total revenues.
3. Weighted average. The three neighbour countries are: France, Germany and the Netherlands.
Source: OECD, *Revenue Statistics* and *National Accounts*.

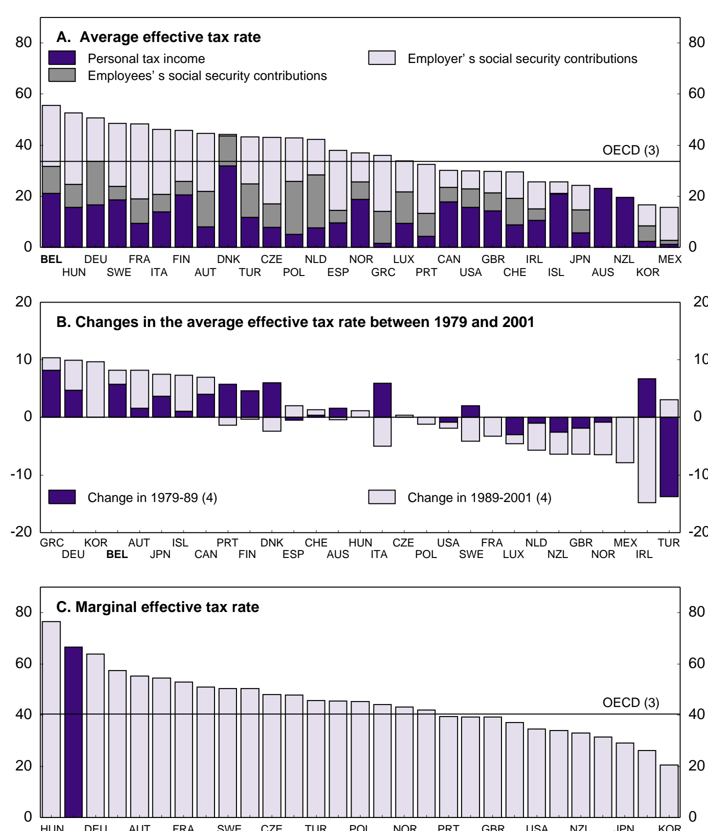
4. Part of the high share of personal income taxes in the total (and low share of property taxes) is explained by the fact that the real estate withholding tax is included in personal income taxation whereas the comparable tax (rates) in other countries is included in property tax. Even allowing for this factor, however, the share of personal income taxation in the total remains high in Belgium by international comparison.

Labour taxation is high

Effective tax rates on labour have risen to levels that are high by international comparison…

9. The average effective tax rate (AETR) on labour has risen to one of the highest levels in the OECD: at the Average Production Worker (APW) salary, it is the highest in the OECD (Figure 3).[5] The difference between Belgium and most other countries mainly reflects social security contributions paid by employers. The marginal effective tax rate on labour is also high: it is substantially higher than in Belgium's main trading partners across virtually all income ranges (Figure 4).

Figure 3. **Effective tax rates on labour income**[1]
2001[2]

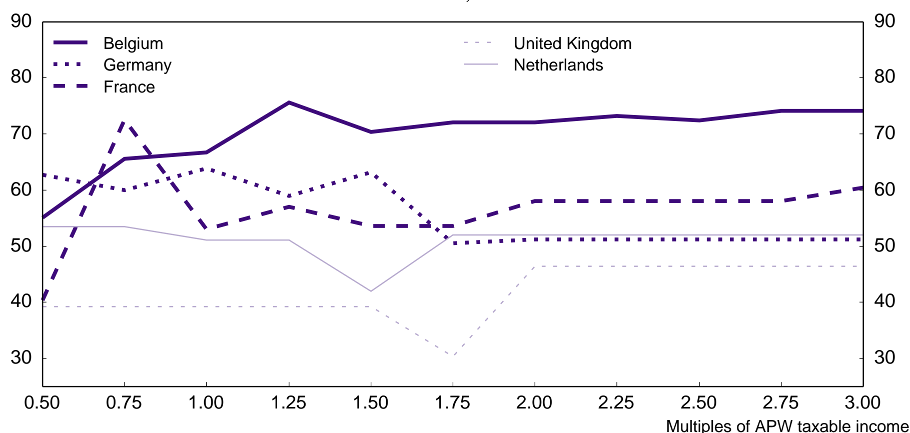


1. Tax wedge on labour as a per cent of gross labour costs. These rates are for a single individual at the level of income of the average production worker.
2. Data for 2001 are based on estimated wage levels of the average production worker.
3. Weighted average.
4. Or the earliest year available

Source: OECD, *Taxing Wages*.

5. The average effective tax rate on labour equals the labour tax wedge expressed as a share of gross labour costs. The labour tax wedge is the difference between labour costs to the employer and the wage that the employee receives after all taxes have been paid. It is calculated by applying tax rules to a hypothetical worker. The main alternative approach to measuring the tax burden on labour is to calculate the labour tax ratio (see Carey and Rabesona, forthcoming, for a discussion of the advantages and disadvantages of this approach). Such calculations also show that Belgium's tax burden on labour is one of the highest in the OECD, though not the highest, as suggested by the AETR calculations. When consumption taxes are included, the labour tax ratio in Belgium is still high, although there are now six countries with higher ratios; this ratio was 50 per cent in Belgium in 2000, compared with EU and OECD averages of 46.5 per cent and 43.1 per cent, respectively (*op. cit*).

Figure 4. **Marginal effective tax rates on labour income**
Per cent, 2001



1. Tax wedge on an additional unit of labour income as a per cent of additional gross labour costs for a single individual.
Source: OECD, *Taxing Wages*.

… reducing employment and raising structural unemployment

10. This increase in labour taxation can be expected to have reduced employment, especially for low-income earners, and increased unemployment among persons earning around the minimum wage (see Annex I for a discussion of the labour-market effects of labour taxation). Using a simple model for wage and employment determination,[6] the IMF (2001) estimates that the increase in the labour tax wedge over 1980-2000 (4 percentage points, based on their estimate of the labour tax ratio) would eventually reduce employment by about 5 percentage points (Table 1). Most of this decline reflects increases in the tax wedge over 1980-93.

Table 1. **IMF estimates of the impact of changes in the tax wedge on employment**

Per cent changes from the beginning to the end of each period

	1980-93	1993-2000	1997-2000	2000-05	1980-2000	1980-2005
Changes in direct income tax rates	-0.3	-0.9	-0.2	1.0	-1.2	-0.3
Changes in rate of employees' SSC	-1.9	0.0	0.2	-0.1	-2.0	-2.0
Changes in rate of employers' SSC	-2.3	0.3	0.1	0.2	-2.0	-1.8
Total effect	-4.5	-0.7	0.1	1.0	-5.2	-4.1

Source: IMF (2001).

6. A number of studies were used to make assumptions for the elasticities of labour demand with respect to real labour costs and of wages with respect to unemployment.

Labour tax cuts have initially been focused on employers' social security contributions for the low-paid

11. In view of these effects, the authorities have made it a priority in recent years to reduce labour taxes. Large reductions in employers' social security contributions focused on low-income earners have been made since 1999, with a particularly large cut occurring in 2000 (Table 2). Following the cuts in April 2002, there is a flat reduction of €979 per year for employees earning 67 per cent of APW or more with larger reductions for employees earning 40-60 per cent of APW (Figure 5).[7] The IMF (2001) estimates that these and other reductions in labour taxation scheduled for 2000-05 (see below) should eventually increase employment by 1 percentage point (see Table 1).

Table 2. **Budget cost of reductions in social security contributions**

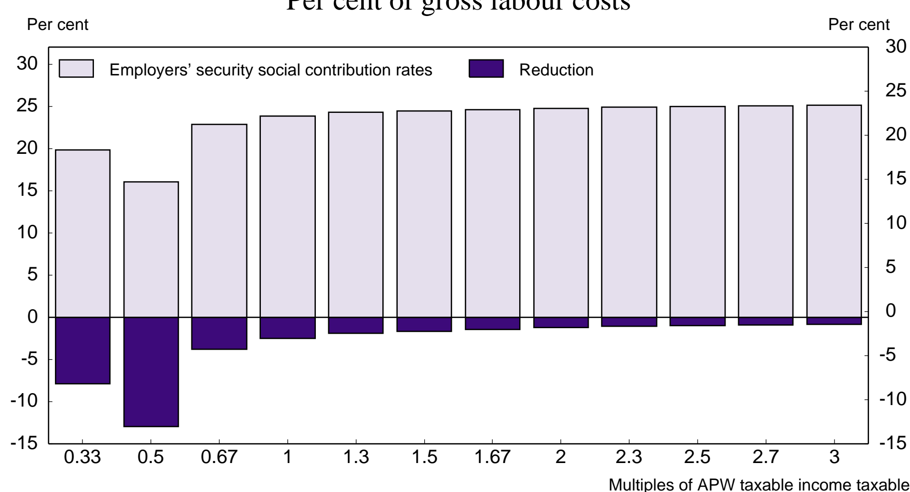
Euro million

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Employers									
Reductions in social security contributions	1490	2531	2927	3113	3352	3606	3714	3746	3831
Structural	1237	2266	2667	2791	3005	3227	3314	3323	3385
Hiring plan + activation	213	221	225	262	285	314	333	354	374
Redistribution of work and miscellaneous	37	42	35	60	63	65	67	79	72
Employees									
Reduction for low salaries	0.0	92.9	114.3	116.6	119.5	122.7	125.5	128.3	131.0

Source: Federal Planning Bureau, Economic Outlook 2002-2007.

Figure 5. **Employers' social security contribution rates, 2002**

Per cent of gross labour costs



Source: Federal Ministry of Employment and Labour.

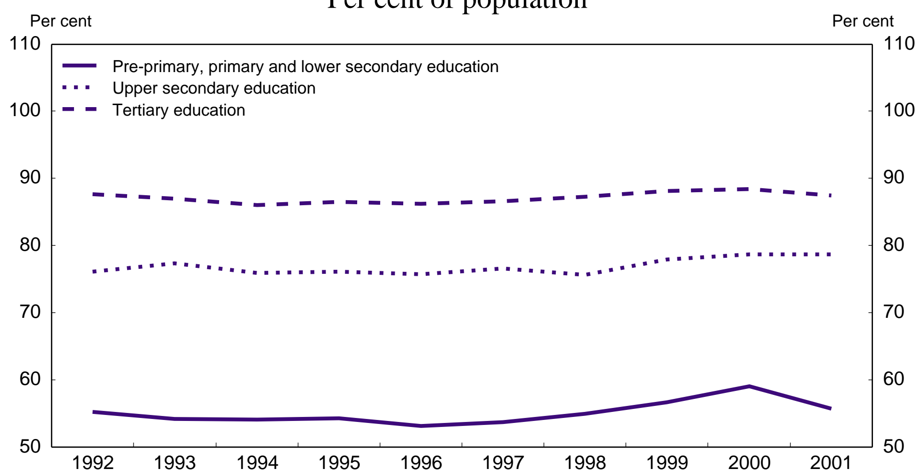
7. The government has also reduced employers' social security contributions for workers aged 58 or more, although the fiscal scale of this measure is very small in relation to the structural reductions (targeted on low-income earners). The reductions for older workers, which came into effect in 2002, are proportional to the age of the employee and are intended to discourage employers from making such employee redundant and to encourage employers even to hire such workers.

12. By focusing the reduction in labour taxes on employers' social security contributions for low-income earners, the authorities have increased the likely beneficial labour market effects of the cut in labour taxes as such employees' labour supply is the most elastic (see Annex I). Stockman's (2002) simulations using a general equilibrium model confirm this result for Belgium.[8] Accordingly, the beneficial effects on employment may be greater than estimated by the IMF (see Table 1) because the structure of the tax cuts was not taken into account in their estimates. Delivering the tax cuts through reductions in employers' social security contributions (as opposed to employees' social security contributions or personal income taxes) reinforces these effects as this ensures that labour costs fall for employees earning around the minimum wage, expanding demand for their services.

13. The reductions in employers' social security contributions for the low paid may have contributed to the increase in the employment ratio for persons not having completed upper secondary school in 1997-2000, when most of the cuts were made (Figure 6). Buoyant economic conditions were undoubtedly also a factor, especially in view of the decline in this ratio in 2001.

Figure 6. **Employment ratios by level of educational attainment**

Per cent of population[1]



1. Population in employment aged 25 to 59 years old divided by the corresponding population.
Source: Eurostat.

8. Stockman (2002) distinguishes between low-skilled, high-skilled and special programme (for which wage cost reduction measures are conditional on creating additional employment or meeting other regulatory conditions) employment. Low wages are defined as 65 per cent of APW or less. Low wage earners represented 27 per cent of full-time equivalent employment in 2001 while special programme employment accounted for only 2 per cent. With a wage benchmark, the low-wage measure generates 4 040 extra jobs by 2007, compared with 1 530 for the same reduction but focused on high-wage earners and 1 840 for a general measure (the same percentage reduction in social security charges at all wage levels). Net substitution between low- and high-wage labour is particularly strong with the low-wage measure (one high wage job is lost for three additional low-wage jobs) but weaker if the high-wage measure is implemented (one low-wage job lost for 10 additional high-wage jobs). The reduction in real labour costs per employee (market sector) is larger with the low-wage measure (-0.21 per cent) than with the high-wage measure (-0.07 per cent) or the general measure (-0.09 per cent). He also finds that the increase in employment and decline in labour costs is smaller in the absence of a wage benchmark; on the other hand, labour productivity is higher.

In a second stage, employees' social security contributions and personal income taxes are being reduced, with cuts again focused on the low paid

14. Starting in 2000, more emphasis was placed on stimulating labour supply by reducing unemployment traps.[9] Employees' social security contributions were cut in 2000 for full-time workers earning up to 115 per cent of the statutory minimum wage (about 400 000 persons); *pro rata* cuts were also made for part-time workers on the basis of the number of hours worked.[10] This measure, which had an estimated fiscal cost of €0.125 billion in 2001, increases net wages for low income-earners by up to 7-8 per cent.[11] It was complemented by an increase in the proportion of childcare costs (up to €11 per day) that are deductible for children aged less than three from 80 per cent to 100 per cent and by a number of other measures to facilitate the transition to employment.[12]

15. The government built on these measures with the introduction of a non-wastable tax credit for low incomes from labour[13] in the context of the personal income tax reform of August 2001 (see Annex II).[14] This reform, which is inspired by similar arrangements in other countries (notably the *Working Families Tax Credit* in the United Kingdom), is aimed at increasing employment and reducing poverty. It is being phased in over 2002-05[15] and is expected to cost €0.45 billion (2001 prices) when fully

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9. These arise when net replacement rates from unemployment and related benefits are sufficiently high that it is not worth while for an unemployed person to accept a job. This problem mainly concerns low-income earners with dependants; replacement rates in Belgium are lower for unemployed persons without dependants, decline over time for such persons, and are capped in all cases, resulting in low replacement rates for high-income earners (see Annex I for details).

10. Individual social security contributions were cut by €82.5 per month for full-time employees earning up to €1 150 per month. This reduction is progressively withdrawn, falling to zero for salaries of €1 350 and above and adding 41.25 per cent to the marginal effective tax rate on incomes in the withdrawal range.

11. This measure should stimulate increased labour supply and, for persons earning sufficiently more than the minimum wage for their wages to be flexible, reduce labour costs and hence, increase labour demand. For persons earning the minimum wage, this measure does not reduce labour costs and hence, increase labour demand. It could even contribute to higher unemployment among persons only able to find employment at the minimum wage rate.

12. The following complimentary measures aimed at specific unemployment traps have been taken:

    - A one-off payment of €75 is paid to a single parent families taking up employment after a long period of unemployment so as to help with the costs of returning to employment;
    - A one-off payment of €75 is paid to long-term unemployed persons accepting a job which requires them to travel far;
    - So as to encourage older unemployed persons to accept a lower-paid job than their last one, social security rights are based on the previous (higher) salary;
    - The statute of persons without employment who become unemployed again after a part-time job has been improved;
    - The part of earnings between €849 and €912 that could be confiscated has been reduced; and
    - The increased family benefit given to long-term unemployed persons is maintained during the first two quarters of taking up employment and continues if the new job lasts less than six months (previously, a stand-down of six months after taking up a job was required before being able to claim again an increased family benefit).

13. The tax credit is progressively withdrawn as (full-time) income rises above 56 per cent of the average production wage (APW) and is completely phased out by 67 per cent of APW.

14. This reform is complemented by transforming deductions for dependants into non-wastable tax credits. This will enable families that don't have enough taxable income to benefit fully from the current deductions to do so in the new system.

15. The tax credit rises from €78 per year in 2002 to €500 per year in 2005.

implemented. The Belgian tax credit is made on an individual basis, in contrast to comparable arrangements in the United Kingdom and the United States, where household circumstances are taken into account. Moreover, it is much smaller than comparable schemes in these countries, where there is less bunching of wage earners in the target earnings ranges (wage floors are lower), making larger tax credits feasible in terms of their budget cost.[16]

16. These measures will substantially reduce unemployment traps when fully implemented. Before the reforms, net replacement rates for all major family types except singles were 85 per cent or more for unemployed persons receiving the maximum unemployment benefit who could work full time for the minimum wage (Table 3).[17] Allowing for a minimum 15 per cent margin of net earnings over net unemployment benefits for accepting a job to be worthwhile, unemployed persons in most family types were caught in unemployment traps.[18] Once the reforms are fully implemented, the net gain for a long-term unemployed person receiving the maximum unemployment benefit from accepting a full-time job at the minimum wage will be 20-30 per cent for all family types except single-parent families, where the gain will continue to be smaller. These gains are greater for the more realistic case of passing from the minimum unemployment benefit to the minimum wage. Although the net gains from accepting a part-time job post-reform are smaller, they exceed 15 per cent in all cases except for an unemployed person with a working partner going from the maximum unemployment benefit to a half-time job at the minimum wage.

17. The downside of targeted measures to reduce unemployment traps is that they create high marginal effective tax rates (METRs), and hence potential poverty traps, in the income range over which the measures are withdrawn. Even though withdrawal of the main measures is linear and does not overlap, METRs still rise to a peak of around 70 per cent over 46-52 per cent of APW, the income range over which the reduction in individual social security contributions is withdrawn (Figure 7). These rates remain high (around 60 per cent) over 55-67 per cent of APW, the income range over which the refundable income tax credit is withdrawn. Such METRs are likely to reduce the overall increase in the number of hours worked, notably for part-time workers. While the high METRs could also discourage skill acquisition, this effect is unlikely to be very large as the measures are withdrawn by 70 per cent of APW, an income level at which skills are generally still low.

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16. For example, the *Working Families Tax Credit* in the United Kingdom for a single-earning couple at 54 per cent of APW (the highest income at which the tax credit in Belgium is €500) with two children aged under 16 family was £4 470 (23 per cent of APW) in 2001.

17. Net replacement rates were still high -- 79 per cent or more for all family types except singles -- at the minimum unemployment benefit.

18. This margin, which is considered to be appropriate by the High Employment Council (*Conseil Supérieur de l'Emploi*), is necessary at least partially to compensate for the costs of working, such as for transport, childminding, and clothing.

Table 3. **Impact of tax and social security reforms since 1999 on net replacement rates for low-wage earners**

Ratios of net income before and after accepting a job[1]

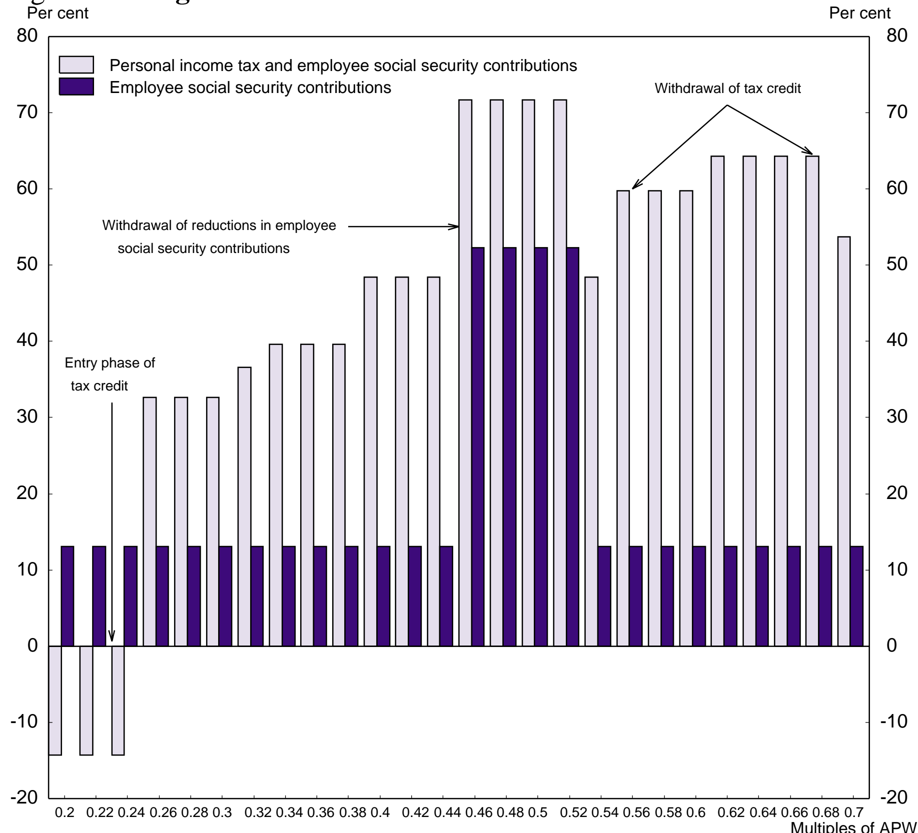
Transition:	From maximum unemployment benefit			From minimum unemployment benefit			From social assistance		
	1999	2001[2]	Idem in euros per month	1999	2001	Idem in euros per month	1999	2001	Idem in euros per month
To minimum wage, full-time									
Single	71	67	85	64	62	70	61	54	119
Single parent, 2 children	104	88	208	94	82	182	88	81	103
1 earner couple, no children	90	79	159	79	70	143	72	62	164
1 earner couple, 2 children	91	81	184	83	75	168	77	69	161
2 earner couple, 2 children[3]	85	80	146	85	80	146	74	71	153
To minimum wage, half-time[4]									
Single	84	78	78	82	76	75	72	69	42
Single parent, 2 children	92	84	134	89	81	126	88	83	85
1 earner couple, no children	88	80	105	84	77	105	77	74	47
1 earner couple, 2 children	88	83	86	87	82	86	87	82	86
2 earner couple, 2 children[3]	96	92	86	96	92	86	84	82	93

1. Child allowances, including temporary increases, and costs of childcare have been taken into account.
2. Including the tax reforms to be implemented in 2002-06.
3. Second earners are assumed to earn 130 per cent of the full-time minimum wage.
4. Including the benefit which compensates for the loss of a full-time unemployment benefit after accepting a half-time job.

Source: De Lathouwer and Bogaerts (2001).

18. A disadvantage of the non-wastable tax credit being granted on an individual basis is that it is invariant to differences in unemployment and related benefit replacement rates for different household types -- it makes work pay more for singles than for heads of household with dependants. On the other hand, this feature is an advantage when the tax credit is withdrawn, because there is no disincentive for the spouse of someone receiving a tax credit to earn more income. This is in contrast to the schemes in the United Kingdom and the United States, where additional earnings of either spouse would reduce the household tax credit.

Figure 7. **Marginal effective tax rates on low salaries after the tax reform**



Source: Federal Ministry of Employment and Labour.

19. There have also been a number of measures to reduce the labour tax wedge across all income levels. First, the Additional Crisis Surcharge (ACS, *Contribution Complémentaire de Crise*), introduced in 1993 in the context of fiscal consolidation, is being progressively phased out over 1999-2003.[19] Second,

19. The ACS was phased out earlier for low-middle income earners. The schedule for phasing it out is as follows:

Additional crisis surcharge (per cent)

Taxable income	Income earned in:				
€	1999	2000	2001	2002	2003
0-19831.47	2	1	0	0	0
19831.48-21070.94	phased transition	phased transition	phased transition	0	0
21070.95-29747.21	3	2	1	0	0
29747.22-30986.68	3	phased transition	phased transition	phased transition	0
30986.69 and above	3	3	2	1	0

withholding tax on salaries has been reduced to rates that are more in line with taxes actually due. Third, tax brackets are being shifted upwards in the personal income tax reform, partially compensating for the non-indexation of brackets over 1993-99. Fourth, the personal income tax reform also provides for an increase in the allowance for working expenses up to an income limit.[20] Finally, and again as part of the personal income tax reform, the tax-exempt amount of income for married couples is being increased to the level accorded to unmarried couples. The personal tax reform also reduces marginal tax rates for high-income earners, with the top rate already having fallen from 55 to 52.5 per cent in 2002. It will fall further to 50 per cent in 2003.

20. Using a macroeconomic model with feedback effects,[21] the Federal Planning Bureau estimates that the personal income tax reform and abolition of the CCC should increase employment by 0.6 per cent (24 000 workers) in the medium term (Saintrain, 2001). The IMF (2001) has a slightly higher estimate -- a 1.0 per cent increase in employment --, despite not taking feedback effects (notably an increase in economic growth) into account (see Table 1). This reflects different assumptions for the elasticity of labour demand with respect to real labour costs and for the elasticity of wages with respect to the unemployment rate. Overall, the IMF estimates that reductions in the labour tax wedge over 1997-2005 (2 percentage points) should eventually increase employment by 1.1 per cent, less than the reductions caused by earlier increases (8 percentage points over 1980-97) in the tax wedge.

Stock options receive preferential tax treatment

21. Taxation of stock options was reformed two years ago, when preferential rates at grant were introduced.[22] In the rare cases where the options are quoted on the stock exchange, their value is the closing price on the day before the grant (less any payment that the beneficiary makes to acquire the options). In this case, the overall tax burden is similar to that for regular labour compensation: no social security contributions are levied but the grant is not a tax-deductible expense for the company.[23] In the more usual case where the options are not quoted, their value is set to 7.5 per cent of the value of the underlying shares provided that certain conditions[24] are met for options with an expiry date of up to five

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20. The allowance for the first income bracket (€0-4 320) increases from 20 to 23 per cent in 2002 and to 25 per cent in 2003. But the upper limit to the deductible amount (€2 880) remains unchanged. This means that taxpayers with a tax base exceeding around €55 000 do not get any additional allowance.

21. Feedback effects refer to the effects on employment via the impact of the reform on other economic variables. For example, an increase in employment will increase consumption demand and output, raising demand for labour and hence, employment.

22. Stock options are taxed at grant rather than at vesting, as in most other countries. This is done to preserve consistency with the general exemption of capital gains (not related to a professional activity, such as property development, for example) from taxation under Belgian law. However, it is difficult to see why gains on stock options should not be considered as labour income and taxed accordingly, as is already the case, for example, for property developers.

23. The overall social security contribution rate is about 48 per cent (35 per cent for the employer, less €979, plus 13 per cent for the employee) while the standard company tax rate is presently 40 per cent (including the ACS of 3 per cent). Although stock options grants are not subject to social security contributions, personal income tax receipts from taxation of them is entirely handed over to the National Social Security Office.

24. These are that:

- The exercise price is fixed at grant;
- The option cannot be exercised either before the end of the third calendar year following that in which the grant is made or after the end of the tenth year following that in which the grant is made;

years. This rate is increased by 0.5 per cent per year for each year that the expiry date exceeds five years up to a maximum of ten years.[25] In the event that the exercise price is less than the current share price, this advantage is added to the taxable amount. Based on a variety of plausible assumptions, this approach to valuing stock options that are not quoted seriously underestimates their value as calculated using the Black-Scholes model, especially if the conditions for the reduced rate are satisfied (Table 4). The resulting substantial tax savings (personal income tax rates are higher than the corporate income tax rate) from remunerating employees with stock options gives firms a strong incentive to pay employees in this way, especially high-earning employees. This reduces welfare by distorting choices about the form in which employees are paid (just as do other tax incentives for pay-in-kind, such as company cars or cheap loans) and undermines both horizontal and vertical equity.

Tax preferences have been introduced to encourage profit-sharing with employees

22. In recognition of the fact that stock options are more suited to the top echelons of employees, complementary profit-sharing arrangements aimed at encouraging employees to hold shares in the firm that employs them were introduced in 2001. Provided that certain conditions are met,[26] profits distributed to employees are taxed at lower rates than regular salaries if the payment is made in the form of shares; there is almost no tax advantage (except in the case of a SMEs) if the distributions are made in cash.[27,28] It has to be seen whether external benefits warrant these tax expenditures.

- The option cannot be transferred to other living persons;
- The risk of a fall in the value of the underlying shares after granting of the option cannot be directly or indirectly covered either by the persons granting the option or by someone with a link to that person; and
- The underlying shares are in the firm for which the beneficiary provides labour services or in a firm that has a direct or indirect equity interest in the former firm in the sense of the Royal Decree of 8 October 1976 concerning firms' annual accounts.

25. If these conditions are not satisfied, options are valued at 15 per cent of the underlying shares, rising by 1 per cent per year beyond five years.

26. The profit-sharing plan:

- Must be voluntary, organised by the firm and elaborated within the firm;
- Must result from collective negotiations between employers and workers;
- Must be proposed to all employees of the firm;
- Must contain a predetermined formula which clearly shows the link to the firm's profits;
- Must not replace regular remuneration - profit-based payments are supposed to be an income supplement;
- Is not subject to the same rules for taxation and social security contributions as regular remuneration;
- Shall enable workers to take their share of profits either in cash or in the firm's shares or in a combination of the two, in proportions fixed in the plan.

27. Employers may not deduct distributions of profits to employees from taxable corporate income but do not have to pay social security contributions either (although one half of corporate tax paid on these distributions is transferred to the social security system). If the distribution is paid in shares or in cash that is lent back to a SME employer, employees pay 15 per cent tax. In the event that the distribution is in cash, employees pay a 13.07 per cent solidarity contribution plus a 25 per cent tax on the distribution net of the solidarity contribution.

28. Taking the example of a firm that wishes to grant its workers €100 out of post-corporate tax profits, this would give workers €85 after tax if paid as shares or in cash that qualifies for the same tax treatment or €66

Table 4. **Valuing unquoted stock options**

Time to option's expiry	Standard deviation of stock price		
	0.3	0.4	0.5
		Value of option	
5 years	33	41	47
6 years	36	44	50
10 years	47	56	63
		Tax value, reduced rate	
5 years	7.5	7.5	7.5
6 years	8.0	8.0	8.0
10 years	10.0	10.0	10.0
		Tax value as a per cent of true value	
5 years	23	18	16
6 years	22	18	16
10 years	21	18	16

1. These calculations use the Black-Scholes model and are based on the following assumptions:
   - current stock price is €100
   - dividends are €2.5 and grow at 4 per cent per year
   - interest rate is 6 per cent
   - the conditions are met to qualify for the reduced tax rates on stock options.

   The assumptions concerning dividends, the interest rate and the dividend growth rate imply that the present value of expected dividends is €11.8 over 5 years, €14.0 over 6 years and €22.5 over 10 years. These amounts are deducted from the current stock price for the purposes of valuing the options.

Source: Ministry of Finance and own calculations.

after-tax if paid in cash. For a regular salary payment that reduces after-tax profits by €100, the after-tax benefit for the employee is €65. (It is assumed that the corporate tax rate is 33 per cent, the marginal income tax rate is 50 per cent, the employer social security contribution rate is 25 per cent and the employee rate is 13 per cent.) As noted above, profit-share payments are not tax deductible for companies. As employers equally do not have to pay social security contributions on such payments, the cost to after-tax profits of a €100 profit-share payment is €100. If the payment is made in shares (including the equivalent SME case of cash lent back to the employer), the employee pays a 15 per cent final tax, giving a final after-tax benefit of €85. If the profit share is paid in cash, the employee pays a final tax of 34.8 per cent [13.07 + (1-0.1307)*25], giving an after-tax benefit of €65.9. Finally, a regular salary payment that reduces after-tax profits by €100 is €199 {=100/[1-(0.33 + 0.25*(1-0.33)]}; all labour costs, including social security contributions, are tax deductible. Out of this amount, the gross wage received by the employee is €149.5, which falls to €129.85 after the deduction of employee social security contributions. Personal income tax reduces this amount to €64.9.)

Consumption taxation is low in view of the high overall tax burden

A wide range of goods and services is exempt from VAT

23. The standard rate is 21 per cent, which is high by international comparison (Table 5). However, a wide range of goods and services (45 per cent of the taxable and exempted base) is not subject to VAT. Approximately 15 per cent of final consumption expenditure is taxed at lower rates (0, 6 and 12 per cent). The VAT ratio, which equals VAT revenue divided by consumption expenditures (excluding government wage consumption and VAT revenue), is only slightly above the OECD average, despite Belgium having a high tax burden. VAT productivity, measured by the VAT ratio divided by the standard VAT rate, is low, reflecting the wide range of goods and services that is not subject to VAT.

Taxation of capital income is heterogeneous

Interest income, but not income from direct equity investment, receives favourable tax treatment

24. Interest income in excess of a tax-free amount (€1 440 in 2002) is subject to a final withholding tax of 15 per cent. Taxation of interest income is low on the grounds that it is the main form of capital income for low-income households and in order to reduce incentives for taxpayers to evade tax on such income. Income from direct equity investments, on the other hand, is taxed at rates that are broadly in line with the higher rates of personal income tax. Dividends originating from a company taxed at the standard rate (40.17 per cent for companies with profits of more than €323 750) are taxed at 55 per cent[29] while dividends from companies qualifying for reduced corporate income tax rates are taxed at somewhat lower rates.[30] Given the absence of a capital gains tax, the total tax rate (including corporate income tax) on companies' retained earnings is the corporate income tax rate.

Second pillar savings receive highly preferential tax treatment

25. Second pillar (occupational pension) savings receive very favourable tax treatment. Employers' contributions are not subject to personal income tax when the contributions are made but, together with investment returns, are taxed at concessional rates at age 60 provided that certain conditions are met (Box 1). These arrangements result in negative effective tax rates on second pillar earnings on assets constituted from employer contributions (see Annex III). Effective tax rates on second pillar earnings on assets constituted from employee contributions are close to the interest withholding tax rate when contributions did not benefit from a personal income tax reduction. This is the usual case as taxpayers generally exhaust their deduction limit with deductions for repayments of principal on house mortgage loans and for compulsory mortgage insurance payments. Overall, the effective tax rate on second pillar

29. The dividend is first taxed as part of company profits at 40.17 per cent and is then taxed again at the dividend withholding tax rate of 25 per cent, giving a total tax rate of 55 per cent [0.4017 +(1 - 0.4017)*0.25]. This was the top personal income tax rate before the current personal income tax reform.

30. The lowest rate is for companies with taxable profits of less than €25 000. In this case, the corporate income tax rate is 29.71 per cent, giving a total tax rate (including the 25 per cent withholding tax) of 47 per cent [0.2971 +(1 - 0.2971)*0.25]. There is a phasing out range for companies enjoying reduced rates, so that the average corporate income tax rate is 39 per cent (excluding the ACS) at the €323 750 limit for progressive corporate income tax rates, the same as the standard corporate income tax rate.

earnings is negative. Preferential tax treatment of second pillar savings is intended to encourage such saving and partially to compensate middle- and high-income earners for the fact that there is a ceiling on social benefits but not on social security contributions. Third pillar saving is subject to the same tax treatment as employee contributions to second pillar schemes.

Table 5. **Productivity of value-added taxes**[1]

Per cent, 2000

	Value added tax revenues over GDP	Standard rates[2]	VAT ratio[3]	VAT ratio over standard rate
		A	B	B/A
United States	n.a.	n.a.	n.a.	n.a.
Japan	2.4	5.0	3.8	76.5
Germany	6.9	16.0	11.1	69.2
France	7.5	20.6	13.2	63.8
Italy	6.6	20.0	10.7	53.7
United Kingdom	6.8	17.5	9.7	55.2
Canada	2.6	7.0	4.4	62.3
Australia	3.7	10.0	5.7	56.6
Austria	8.3	20.0	14.6	73.1
Belgium	**7.4**	**21.0**	**13.1**	**62.3**
Czech Republic	7.4	22.0	12.4	56.4
Denmark	9.6	25.0	20.7	82.8
Finland	8.1	22.0	16.6	75.4
Greece	8.3	18.0	12.7	70.8
Hungary	8.8	25.0	16.3	65.1
Iceland	10.5	24.5	18.1	74.0
Ireland	6.7	21.0	14.4	68.3
Korea	4.4	10.0	8.0	79.5
Luxembourg	5.4	16.0	12.4	77.8
Mexico	3.5	15.0	4.6	30.7
Netherlands	7.1	17.5	12.9	73.6
New Zealand	8.6	12.5	12.4	98.9
Norway	7.7	23.0	18.6	81.0
Poland	7.6	22.0	12.1	55.1
Portugal	8.3	17.0	14.1	83.2
Spain	6.2	16.0	10.3	64.5
Sweden	7.2	25.0	13.6	54.2
Switzerland	4.1	7.5	6.8	91.2
Turkey	7.8	17.0	11.1	65.5
OECD average[4]	6.8	17.6	11.9	68.6
EU average[4]	7.4	19.5	13.3	68.5
Dispersion OECD				
Range (maximum-minimum)	8.1	20.0	16.9	68.2
Standard deviation	2.1	5.7	4.3	13.7
Coefficient of variation	0.3	0.3	0.4	0.2

1. VAT productivity is defined as the VAT ratio divided by the standard rate.
2. Position as at 1 January 2000.
3. The VAT ratio is VAT revenue divided by the tax base (i.e., total consumption expenditure excluding government wage consumption less VAT revenue).
4. Simple average.

Source: OECD, *Revenue Statistics* and OECD, *Consumption Tax Trends*.

26. In view of the pending pressure on the pension system from population ageing, the government introduced a bill to Parliament in 2002 aimed at extending participation in occupational pensions (see Box 1 for details). It provides for "collective sectoral pensions", which benefit from additional tax advantages over and above ordinary occupational pensions provided that the new schemes are open to all workers in a specific economic branch and that there is a certain amount of redistribution in the scheme. In addition, a new category of individual pensions as a complement to "collective sectoral pensions" was created, with tax deductible contributions limited to €1 800 (indexed) per year subject to the "80 per cent rule." A difficulty with the "collective sectoral pensions" is that they are likely to attract groups of persons with high-expected payouts (adverse selection). Groups for whom redistribution is unfavourable could be expected to prefer standard occupation pension arrangements. As single market regulations rule out applying the redistribution rules to all schemes in which Belgians may wish to participate, it may be necessary to drop the redistribution requirements from the rules for collective sectoral pensions.

These tax incentives are costly and may not be very effective

27. Tax incentives for second and third pillar savings are costly. They are estimated to have amounted to about €0.55 billion (0.2 per cent of GDP) in 1999. Despite having more generous tax incentives, institutional savings are below those in many other countries (Figure 8). Moreover, even though second- and third pillar assets are relatively low, Belgian households have substantial retirement savings -- their gross financial assets are high by international comparison. Considering the countries where households have high gross financial assets, a low first pillar pension may be a more important incentive for the accumulation of retirement savings than tax incentives for second- and third pillar investments.

Box 1. **Tax treatment of long-term saving**[1]

Second-pillar pension savings (i.e. occupational schemes)

Contributions to collective pension arrangements (*i.e.* those that cover either all or a category of personnel in a firm) are tax deductible for employers (as are most other forms of labour compensation) and potentially deductible for employees so long as the pension generated, when added to the first pillar pension, does not exceed 80 per cent of final salary. Employees' contributions only reduce personal income tax liability insofar as they fall within the limit (€1 770 per person in 2002) for all reductions for second and third pillar (life insurance) contributions, mortgage capital repayments and compulsory mortgage insurance. In practice, this limit is generally exhausted before taking account of second pillar contributions. The capital amassed through contributions and investment returns[2] on them is subject to various social security contributions amounting to 5.5 per cent when the beneficiary turns 60. Provided certain conditions are met,[3] the balance is taxed (at age 60) at a rate of 16.5 per cent for employers' contributions and for employees' contributions made before 1993 and 10 per cent for employees' contributions made subsequently.[4] These tax rates are increased by surcharges for local income tax (about 7½ per cent, on average) and the additional crisis surcharge (1 per cent in 2002, zero thereafter), giving an overall tax rate (including social security contributions) on benefits of 22.5 per cent based on employers' contributions and 15.8 per cent based on employees' contributions since 1993. These arrangements result in negative effective taxation of earnings on second pillar savings constituted from employers' contributions and low positive taxation of earnings on second pillar savings constituted from employees' contributions since 1993 (see Annex III). Overall, the effective tax rate on second pillar savings is negative.

A proposed new law on second-pillar pensions aims to widen participation by creating collective sectoral pensions.[5] These benefit from additional tax breaks[6] provided that the scheme is open to all workers in a specific economic branch and that a certain degree of redistribution is built in. Otherwise, conditions are the same as for existing occupational schemes, including the application of the "80 per cent

rule". The new law also provides for the creation of individual pensions as a compliment to a collective scheme. These schemes are subject to the same fiscal rules as collective occupational schemes except that tax deductible contributions are limited to €1 800 (indexed) per year.[7]

Third pillar (voluntary, individual long-term saving)

Third pillar savings consist of life insurance savings and pension-savings-fund (épargne pension). Contributions to a "pension-savings-fund" (*épargne pension*) and life insurance premiums are tax deductible at the taxpayer's average tax rate subject to a lower limit of 30 per cent and an upper limit of 40 per cent for the rate used to calculate the tax reduction. (These rates are increased for the local income tax and additional crisis surcharges). The ceiling for deductible contributions to each of these long-term savings schemes is fixed as a percentage of earned income (15 per cent up to €1 470 and 6 per cent thereafter) subject to a maximum amount. The deductible limit for the pension-savings fund is €590 per person per year and for deductible life insurance premiums is €1 770. The limit for life insurance premiums also covers capital repayments of mortgage loans and compulsory mortgage insurance. For many taxpayers, this limit is already exhausted by mortgage related deductions, with the result that they are not able to deduct life insurance premiums. Taxation of the benefits from these schemes is the same as for second pillar schemes except that contributions to a pension-savings fund are capitalised at an annual rate of 4.75 per cent, the rate of return that banks are required to guarantee, instead of the actual rate of return.

1. Monetary values referred to in this box relate to the 2002 income year.
2. Contributions before 1999 to schemes managed by insurance companies are capitalised at 4.75 per cent per year, the rate of return that insurance companies must guarantee on these contributions, not the actual rate of return.
3. Benefits must be paid at retirement, the contract must be at least 10 years old and there must have been at least five contributions. If these conditions are not met, the contributions and returns on them are taxed at a rate of 33 per cent.
4. The tax treatment of employees' contributions to second pillar pensions became less favourable in 1993, when a deduction for contributions was replaced by a capped tax reduction for all second and third pillar contributions, mortgage capital repayments and mortgage insurance.
5. This law also requires all second-pillar pension schemes to guarantee a minimum return and to have more favourable transfer conditions for employees changing employer.
6. They are exempt from the annual tax on insurance contracts of 4.4 per cent.
7 This contributions limit does not, however, apply to self-employed persons.

Taxation of owner-occupied housing is low

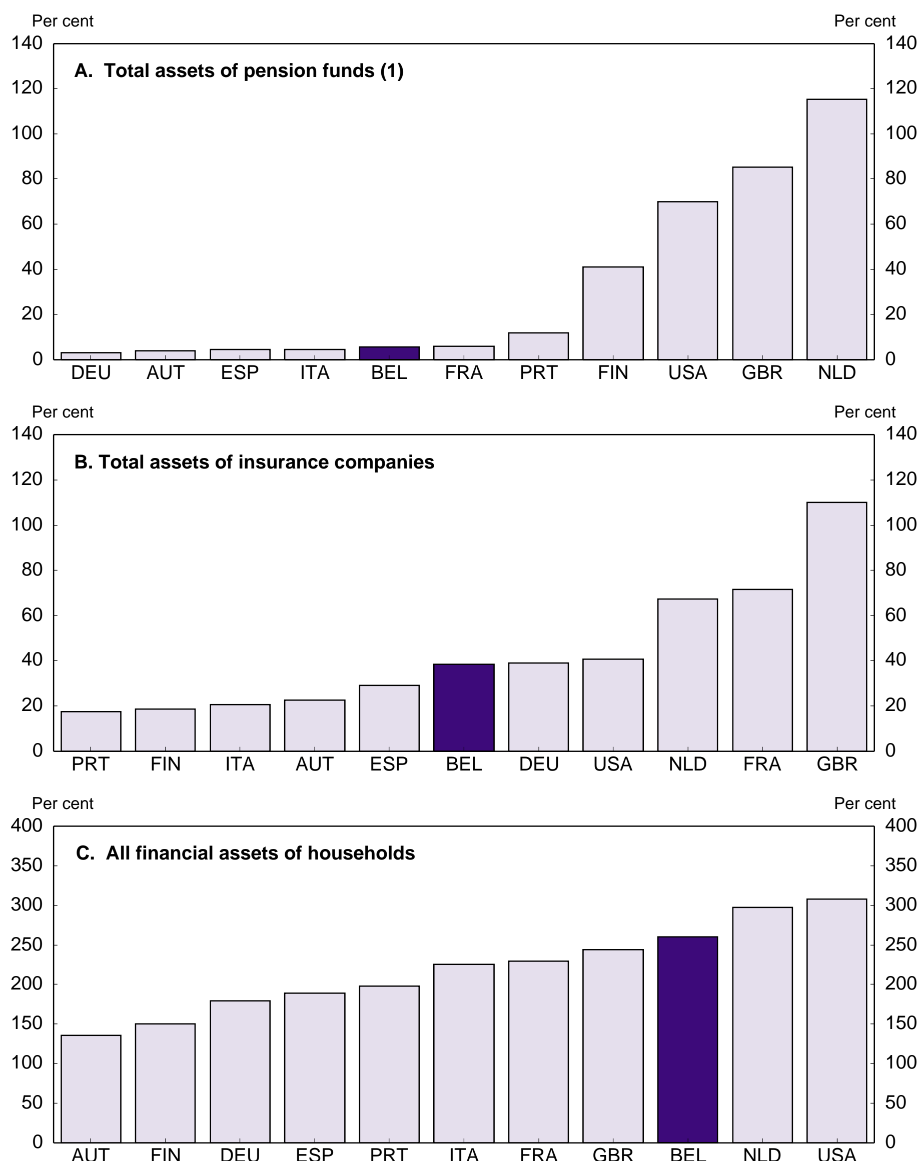
28. As in most OECD countries, investment in owner-occupied housing receives highly preferential income tax treatment (OECD, 1994). Imputed rentals are below market values, realised capital gains are not taxed after a holding period of five years,[31] interest on borrowings is deductible up to the amount of imputed rentals[32] and most capital repayments qualify the taxpayer for a small tax reduction. These

31. If the property is purchased and re-sold within this period, a capital gains tax of 16.5 per cent applies. To calculate the gain, the purchase price is increased either by the notary fee paid or by a lump sum rate of 25 per cent and by 5 per cent per year since the purchase year.

32. Since 1986, there is an additional interest deduction which can exceed the amount of imputed rentals. It concerns only building, purchase of a newly-built house or renovation work [minimum amount of €22 261 (2000 value, indexed)]. In addition, this deduction only applies to the principal residence, which has to be owner occupied, and financed by a mortgage loan with a duration of at least 10 years. The tax deduction is limited to the first income bracket of €55 652 (2000 value, indexed and increased for dependent children) for building or purchasing a new house and to the first bracket of €27 838 (2000 value, indexed) for

arrangements are intended to encourage home ownership. The share of owner-occupied housing has risen strongly in recent decades to 71 per cent in 1998, which is high by international comparison (Figure 9).[33]

Figure 8. **Gross assets of pension funds and insurance companies and financial assets of households**
Per cent of GDP, 2000



1. France, Finland and Spain: Pragma Consulting (1996). USA financial assets in 2001 were 247 per cent of GDP.
Source: Eurostat and OECD, *Institutional Investor*, Yearbook 2001.

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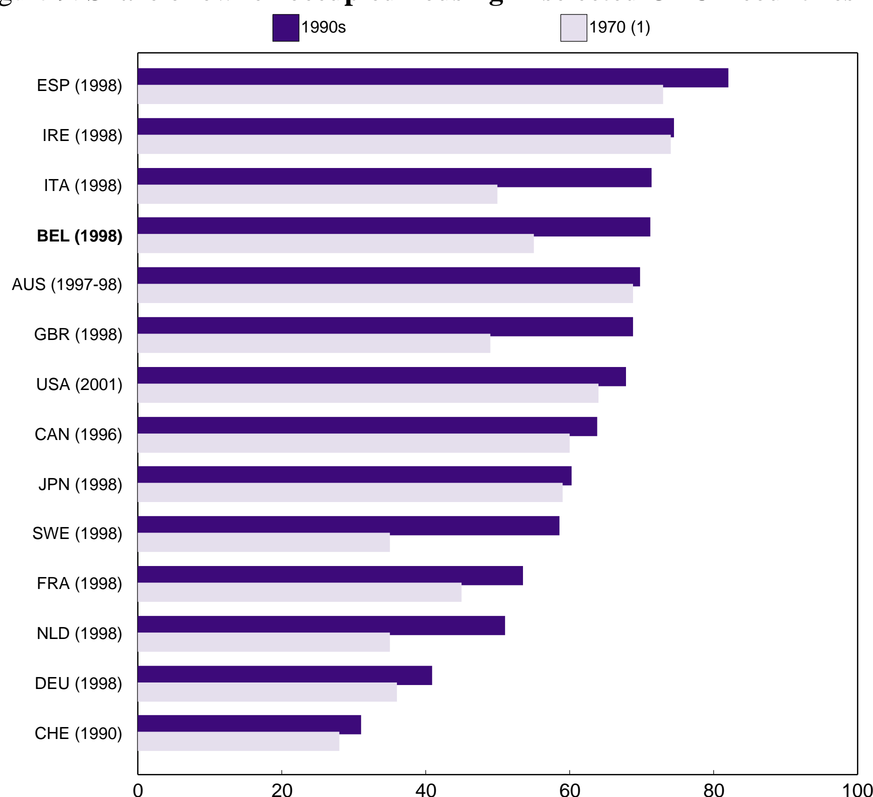
renovation work. Up to 80 per cent of the amount obtained after the first limitation is taken into account may be applied in the first 5 years (sliding proportion to 10 per cent in the 12th year).

33. Incidentally, the high rate of owner-occupied housing is another factor to take into account when considering the adequacy of Belgians' savings for retirement.

Figure 9. **Share of owner-occupied housing in selected OECD countries**



1. For Australia 1971, for Ireland and Spain 1981. Data in brackets indicate the last census year.
Source: National sources and Eurostat.

29. Personal income tax due on imputed rentals is increased by 40 per cent when the property is not occupied by the owner. This is done to discourage the ownership of secondary residences. While the 40 per cent increase also applies to rental properties, the resulting tax liability is still less than if actual rental income were taxed. Even so, these arrangements reinforce incentives for people to be owner occupiers rather than tenants. There is also a real estate withholding tax (*précompte immobilier*) in Belgium which is in fact equivalent to rates (*taxe foncière*) in other countries.[34] This tax is based on 1975 rental values, which have been indexed to consumer prices since 1991. The real estate withholding tax is no longer deductible from taxable personal income.

30. Another feature of real estate taxation in Belgium is that property registration fees are high (around 12.5 per cent before the reform in Flanders). In view of the concern that such high fees could be a barrier to labour-market mobility, the Flanders government recently announced reductions in registration fees from 12.5 to 10 per cent for the standard rate and from 6 to 5 per cent for low-value properties. The reform also brought in an "imputation through time" system, under which fees paid for the purchase of the first principal residence can be credited towards those due on the purchase of the second principal residence.[35] Brussels Region also announced a reduction in its real estate registration fees following the reform in Flanders. The reduction entails granting a tax exemption on the first part of the purchase price of

34. However, Belgium's real estate property withholding tax is recorded as income tax in *OECD Revenue Statistics*, whereas rates are recorded as a property tax. There is also a tax reduction on the first €12 500 of the purchase price of a principal residence.

35. The second principal residence must be bought within two years of the sale of the first.

a principal residence.[36] Registration fees in Wallonia remain at 12.5 per cent. While the reforms by the Flanders- and Brussels governments go in the right direction, they still leave registration fees at relatively high rates. This distorts home purchase and sale decisions -- home owners are discouraged from selling their existing property to buy another one that may be more suitable, including by being located where jobs can be more readily found. It would be preferable to reduce these fees further and to replace the lost revenue with higher taxation of imputed rentals or with a higher real estate withholding tax.

31. Taking account of taxation of imputed rentals, rates, property registration fees,[37] VAT (21 per cent) in the case of construction and the net present value of tax deductions, effective tax rates on owner-occupied housing are 6-8 per cent (Table 6). These rates, which are based on real returns, are higher than on other long-term investments (notably second pillar investments)[38] but lower than on other financial investments.[39]

Table 6. **Effective tax rates on investment in owner-occupied housing**

Per cent

	1996	1997	1998	1999
Purchase, with loan	7.5	7.0	6.3	6.4
Purchase, without loan	8.1	7.5	6.7	6.8
Construction, with loan	7.4	6.9	6.2	6.4
Construction, without loan	8.3	7.7	6.8	7.0

Source: Ministry of Finance.

Inheritance taxes are high on non direct-line successions, encouraging some taxpayers to hide financial assets abroad

32. Inheritance taxes are high by international comparison where beneficiaries are not the spouse or children of the deceased. Rates for such inheritances per heir range from 45-65 per cent in Flanders and 30-80 per cent in the other two regions, with the top rate being reached on relatively small inheritances (€125 000 in Flanders and €175 000 in the other regions).[40] These high rates are intended to discourage persons from leaving the part of their wealth over which they have discretion when writing a will to persons other than their spouse or children. The downside of these arrangements is that persons potentially affected by such tax rates have a strong incentive to hide financial assets abroad so that they can dispose of them as they wish without being subject to such high tax rates. For persons who no longer have a spouse or do not have children, the high rates cannot even serve their intended social purpose.

36. The tax-exempt amount is €60 000 in a Reinforced Development Zone for Housing and Urban Renewal (Espaces de Développement renforcé du Logement et de la Rénovation urbaine) and €45 000 elsewhere. There is no "imputation through time" system, as in Flanders.

37. These are 12.5 per cent. It is assumed that the property is held indefinitely.

38. As noted above, effective tax rates are negative on second pillar savings.

39. For example, for a long-term government bond yielding 5 per cent in nominal terms and 3 per cent in real terms, the real effective tax rate is 25 per cent (*i.e.* the 15 per cent final withholding tax on 5 per cent expressed as a percentage of 3 per cent).

40. While Flanders and Brussels-Capital have respectively implemented and announced small reductions in duty rates on direct-line successions recently, they have not reduced the rates on other successions.

Widening of the corporate income tax base started in the 1990s, raising effective rates and making the tax system more neutral[41]

33. At the beginning of the 1990s, there was a large gap between the standard nominal corporate tax rate and the corporate tax ratio (corporate income tax as a share of corporate profits as reported in the national accounts) (Figure 10). This had grown over the 1980s owing to an expansion of tax expenditures and poor targeting of the participation exemption and of deductions for previous losses (*Conseil Superieur des Finances*, 1991). A series of (mostly) base-widening measures was taken in the 1990s aimed both at raising tax revenue and at making the tax system more neutral (and hence, at reducing its excess burden).[42] These measures substantially reduced tax expenditures and base erosion from abuse of provisions to avoid double taxation of foreign-source income (Table 7). By the late 1990s, the corporate tax ratio excluding losses and based on a concept of profits that disregards tax deductions that are considered to be tax expenditures[43] had increased almost to the nominal tax rate (see Figure 10). Hence, the remaining gap between the corporate tax ratio (with national accounts data on corporate profits) and the nominal tax rate was mainly explained by tax expenditures (losses were small at the end of the period considered). A large part of these tax expenditures consists of exempted profits of co-ordination centres and other preferential tax regimes (distribution- and service centres). Based on the Devereux and Griffith (1998*a*) approach to measuring the marginal effective company tax rate,[44] Belgium now figures in a group of countries with an

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41. This and a number of the following sections on corporate taxation draw heavily on Valenduc (2002*b*).

42. These were the following:

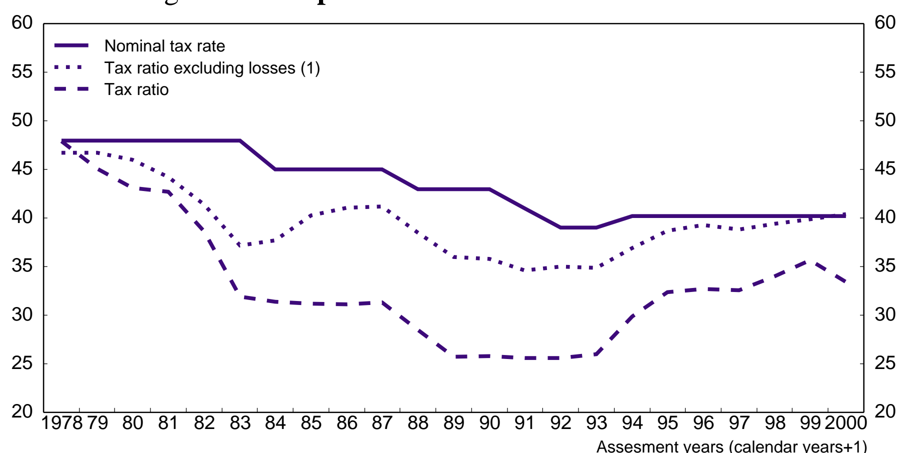
- "Upstream taxation" and anti-abuse rules were introduced (1990, 1991, 1996) to ensure that the participation exemption system (which allows a company to deduct 95 per cent of a dividend it receive from a company in which it has a significant shareholding) did not lead to a double exemption of distributed profits;
- The notional withholding tax credit of 15/85 for interest received from abroad was replaced by a credit for foreign withholding tax effectively paid (1991);
- The notional tax credit for resident companies providing new equity or lending money to a co-ordination centre was repealed (1990-91), although the preferential tax regime for co-ordination centres remains in force;
- The large investment allowance introduced in the early 1980s to compensate for high inflation was restricted to small businesses or investments that generate externalities (such as R&D or environmental investments) with the rate linked to the inflation rate (1992);
- The conditions to be met to qualify for reduced corporate tax rates for small businesses were made more restrictive (1993);
- Disallowed expenses were expanded (including, for example, part of car expenses) and a thin capitalisation rule for interest deductions was introduced (various measures from 1989 to 1995);
- A tax credit was introduced for new equity raised by SMEs (1996).

43. This measure uses tax statistics to obtain a corporate profit series that excludes losses. The reason for excluding losses is that they cause the standard tax ratio measure to vary over the business cycle even when there is no change in tax policy. To construct this modified tax ratio, tax data on corporate profits must be adjusted to exclude deductions that are considered to be tax expenditures (increasing the tax base) while disallowed expenses that are genuine economic expenses are deducted from the tax base. See Valenduc (2002*b*, p.60) for more information.

44. This approach adapts the King-Fullerton (KF) (1984) methodology to deal with investment projects that earn some economic rent. The resulting Average Effective Tax Rate (AETR) is a useful indicator in the case of imperfect competition. By contrast, the KF approach only considers marginal investments and thus is only appropriate to discuss the effects of the tax system under perfect competition.

intermediate gap (of 4-6 percentage points) between the nominal- and average-effective corporate tax rate (Figure 11). The current corporate income tax reform continues along the same lines (see below).

Figure 10. **Corporate income tax rate and tax ratio**



1. This tax ratio is based on a concept of profits that disregards tax deductions that are considered to be tax expenditures. See Valenduc (2002*a*, p. 60) for more information.
Source: Valenduc (2002*a*).

Table 7. **Tax expenditures, nominal and effective corporate income tax rates**

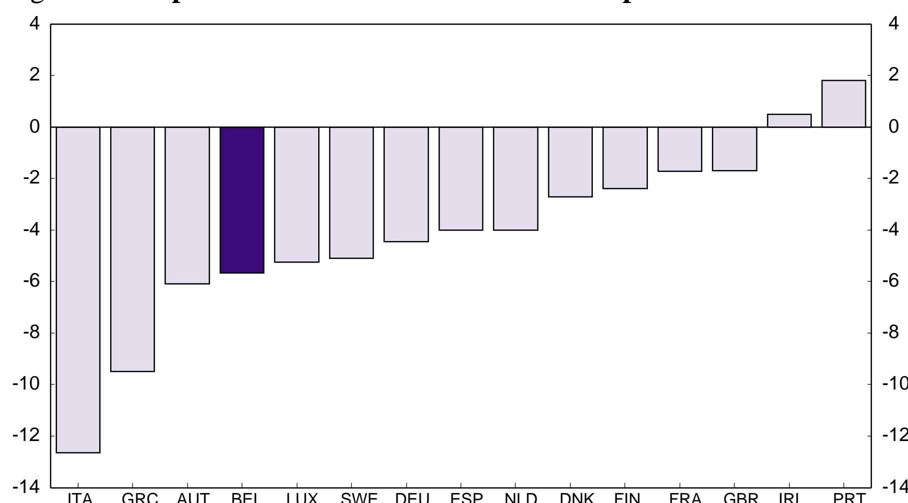
Per cent

Tax year	1985	1990	1995	1998
Nominal tax rate	45.0	43.0	40.2	40.2
Average effective tax rate	31.9	27.8	33.6	36.6
Difference	13.1	15.2	6.6	3.6
As a percentage of the tax base, before deductions				
Tax expenditure deductions	13.8	17.3	14.2	9.6
of which:				
Co-ordination centres	0.3	9.5	11.4	8.0
Finally taxed income and profits exemptions	21.0	24.7	27.2	29.1
Imputed withholding taxes as a percentage of the tax base net of deductions	2.7	4.4	2.1	0.6

Source: Ministry of Finance.

34. The unwinding of preferential tax regimes and the reduction in tax expenditures also made the tax system more neutral in its treatment of different forms of investment. Capital export neutrality[45] was enhanced by the changes to the participation exemption system and the move from a fixed notional tax credit to the effective withholding tax paid on interest received from abroad.

Figure 11. **Gap between effective and nominal corporate income tax rates**



Source: European Commission (2001*a*).

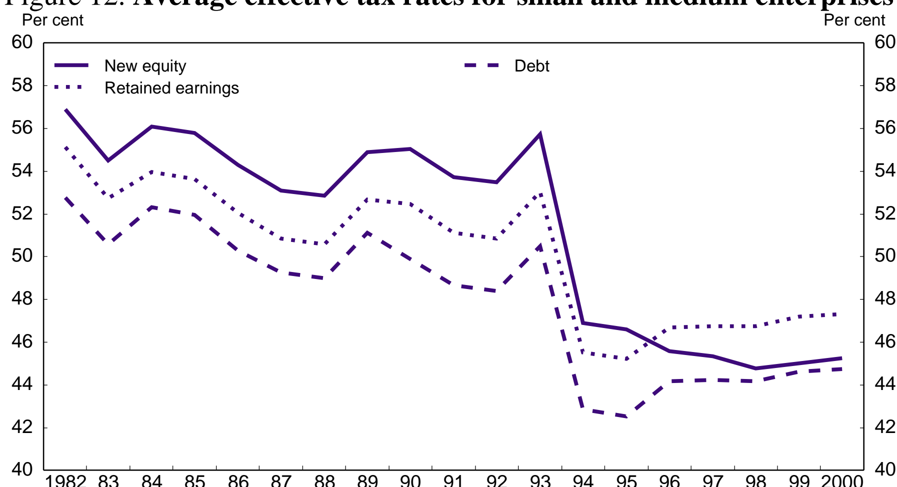
Debt financing continues to be tax-preferred for SMEs

35. Until 1996, the AETR (based on the Devreaux and Griffith, 1998*a*, methodology and assuming a closed economy framework[46]) on SME investments financed by new equity was higher than on investments financed by retained earnings, which in turn was higher than on debt-financed investments (Figure 12). Tax discrimination against new equity financing was reduced in two stages: the dividend-withholding tax was reduced from 25 to 15 per cent in 1994 on dividends from all shares subsequently issued; and a tax credit on new equity issues was introduced. Since the latter reform, the AETR on investments financed by new equity has been slightly lower than that on investments financed by retained earnings. Nevertheless, the tax credit on new equity issues does not seem to have had much effect judging by the limited recourse that there has been to it (for example, €14.8 million in tax credit was claimed in relation to 1999 profits). It would seem that major shareholders in SMEs are unwilling to dilute their shareholdings, resulting in an inelastic demand for new equity capital with respect to the cost of such capital. At the same time, the choice between financing by debt or retained earnings does seem to be sensitive to the tax treatment of each, suggesting that the preferential tax treatment of debt financing has encouraged firms to adopt riskier financial structures than they would have in the absence of taxation.

45. Capital export neutrality means that taxation is the same regardless of where an investment is made. These reforms improved capital export neutrality by making exemptions of foreign-source dividends and interest from Belgian taxation more dependent on the foreign taxes actually paid on such income.

46. A closed economy framework is used because SMEs do not have direct access to world capital markets. Shareholders are thus subject to personal income tax in Belgium. Accordingly, the AETR must integrate both taxation of the SME and the taxation of private savers in Belgium. In fact, SME managers play a major role in financing their companies.

Figure 12. **Average effective tax rates for small and medium enterprises**[1]

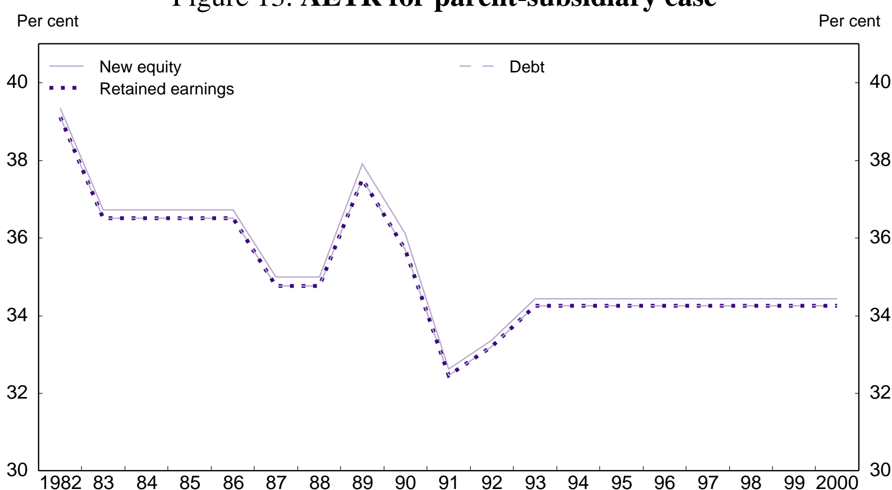


1. With fixed inflation and interest rates.
Source: Valanduc (2002a).

Taxation is neutral for large firms integrated in a group of companies, except when the ultimate source of finance is debt

36. For large firms, a reasonable conceptual framework for considering the neutrality of the tax system as between finance sources may be that of a parent-subsidiary with the parent financing itself on international capital markets. In this framework, domestic taxation of shareholders is irrelevant -- hence AETRs are lower than for SMEs, despite the fact that they benefit from reduced corporate tax rates. When the parent finances itself through retained earnings or new equity, AETRs for the parent-subsidiary taken together are almost identical regardless of the form in which the subsidiary is financed (Figure 13). In the case of a loan to the subsidiary, income is transferred to the parent, where it is taxed, whereas in the case of financing through retained earnings in the subsidiary, the income remains in the subsidiary, where it is taxed (the parent's capital gains are tax-free). Financing by a new issue of shares to the parent is slightly disadvantaged compared with the other options because dividends are only 95 per cent tax-free. In the event that either the subsidiary or the parent borrows directly from world capital markets, such financing is tax preferred owing to the deductibility of interest payments, as is the case in all other OECD countries.

Figure 13. **AETR for parent-subsidiary case**[1]

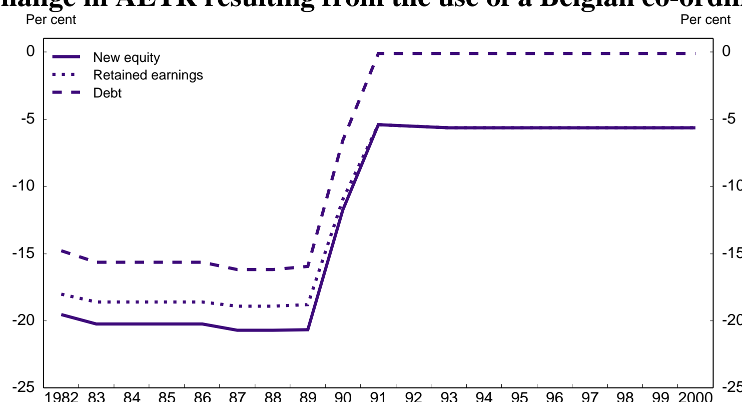


1. With fixed inflation and interest rates.
Source: Valanduc (2002*a*).

Financing a subsidiary by new equity or retained earnings is tax-preferred when a Belgian co-ordination centre is involved

37. Large companies using a co-ordination centre[47] benefit from a reduced AETR if it is financed by new equity or by retained earnings. The cost-plus regime for taxation means that neither interest received by the co-ordination centre, nor retained earnings in it are taxable. Since the notional withholding tax on interest was abolished in 1990-91, a parent lending money to a co-ordination centre (to finance a subsidiary) gains no tax advantage from using a co-ordination centre (Figure 14). However, there continues to be a significant tax advantage (3.4 percentage points) when the co-ordination centre is financed by new equity or retained earnings.

Figure 14. **Change in AETR resulting from the use of a Belgian co-ordination centre**[1]



1. With fixed inflation and interest rates.
Source: Valanduc (2002*a*).

The corporate income tax system discourages investment in Belgium

38. Tax considerations have grown in importance in recent years for decisions on where to locate economic activities, especially in the EU, where a growing number of firms consider the European market as a single market for the purposes of selecting a production site (European Commission, 2001*a*). The importance of taxation in location decisions is confirmed in a recent empirical review of the literature (OECD, 2001), where it is concluded that direct investment flows have become more sensitive to effective tax rates. Recent studies (Devreux and Griffith, 1998*b*; Bretin and Guimbert, 2001) have found a significant relationship between direct investment flows and AETRs (calculated according to the widely accepted methodology of Devreux and Griffith, 1998*a*). Unfortunately, the current corporate income tax system reduces the attractiveness of Belgium for inward direct investment relative to other alternative European destinations except Germany and makes outward investment more attractive in all of these countries except Germany (Table 8).

47. Belgian co-ordination centres are subject to income tax on a cost-plus basis but interest paid is not included in the cost-base. Combined with the fact that the tax base includes neither interest, nor dividends received, nor retained earnings, this means that co-ordination centres are not subject to tax on investment income. Despite this, the Belgian parent can still benefit from a 95 per cent tax exemption on dividends received from a co-ordination centre and from a full exemption on capital gains on shares in the co-ordination centre (Valenduc, 2002*a*).

Table 8. **AETR for various locations of an investment made by a parent located in a country using an exemption system**[1]

Per cent

	Country of the subsidiary									
	Belgium	Germany	Spain	France	Ireland	Italy	Luxembourg	Netherlands	Sweden	United Kingdom
New equity	34.8	35.5	30.0	28.2	6.7	31.5	24.3	30.2	22.9	26.5
Debt	34.4	35.0	30.0	28.4	9.3	31.3	24.8	30.2	23.6	27.0
Retained profits	34.8	35.5	30.0	28.2	6.7	31.5	24.3	30.2	22.9	26.5
Incentive (+)/disincentive (-) to invest outside of Belgium										
New equity		-0.7	4.8	6.6	28.1	3.3	10.5	4.6	11.9	8.3
Debt		-0.7	4.4	6.0	25.0	3.1	9.6	4.2	10.8	7.3
Retained profits		-0.7	4.8	6.6	28.1	3.3	10.5	4.6	11.9	8.3

1. These average effective tax rate (AETR) calculations assume a parent company (subject to a 35 per cent corporate income tax rate) situated in a country that exempts foreign earnings from domestic taxation. This company is considering the tax implications of locating a subsidiary in one country or another. The tax incentive to invest outside of Belgium is calculated as the difference between the AETRs on an investment in Belgium and in the other country: a positive index indicates a relative disadvantage for Belgium.

Source: Valenduc (2002*a*).

The recently announced reform of corporate income taxation is mainly aimed at restoring Belgium's competitive position

39. In view of Belgium's relatively unattractive corporate income tax system from the point of view of direct investment decisions, the government announced in 2002 a major corporate tax reform aimed at restoring the competitive position of Belgium. The corporate tax rate is to be reduced from 40.17 per cent to 33.99 per cent (including the ACS), with the loss of revenue to be made up by base-widening measures (Box 2). As the reform is revenue neutral, it is unlikely to have much effect on overall AETRs and hence on the attractiveness of Belgium as a production site, although it should encourage investment in labour-intensive activities (which do not lose much from smaller deductions for depreciation) and discourage investment in capital-intensive activities. However, the government also intends to introduce a new advance-rulings system at the same time. This can be expected to make Belgium a more attractive destination for foreign direct investment by enhancing legal and tax liability certainty, and hence reducing investment risk. In addition, the lower corporate income tax rates will reduce incentives for multinational enterprises (MNEs) to shift their profits to countries with lower corporate tax rates. Moreover, as the measures widening the tax base bring it closer to economic income they should also make the tax system more efficient (*i.e.* reduce the excess burden of taxation) and transparent.

Box 2. **Corporate income tax reform**

The main features of the 2002 corporate income tax reform are as follows:

1. The corporate tax rate is to be reduced from 40.17 per cent to 33.99 per cent (*i.e.* 33 per cent plus the ACS surcharge).
2. As this reform is to be revenue neutral, a variety of tax expenditures are to be reduced and certain anomalies of the current system are to be eliminated, including:
    - Some taxes to the regions are no longer to be tax deductible;[1]
    - Depreciation rates are to be less favourable by aligning them with the exact timing of the investment (*pro rata temporis*); and
    - Liquidation proceeds are to be subject to a 10 per cent final withholding tax. Reforms to help SMEs include:
    - Progressive corporate income tax rates are to be lowered to as low as 24.98 per cent (including the ACS) (Table 9);
    - A partial tax exemption on reinvested profits is to be introduced; and
    - There will be an exemption from penalties on SMEs that do not make adequate provisional tax payments during the first three years of the firm's existence.
3. The government also intends to introduce an advance-rulings regime. It views this regime as contributing to administrative simplification and to taxpayer legal security. The authorities intend that this regime will conform with OECD rules.

1. Deductibility of regional taxes was an anomaly because it provided an incentive to regions to increase expenditure and taxes. Furthermore, regional tax policy is less efficient when regional taxes are deductible at the federal level. For example, deductibility would reduce the incentive effect of an increase in waste tax.

Table 9. **New company-tax scales for SMEs**

Per cent

Taxable profits (in euros)	Former rates	New rates	New global rates (including ACS[1])
0 to 24789	28	24.25	24.98
24790 to 89242	36	31	31.93
89243 to 322262	41	34.5	35.54
> 322262	39	33	33.99

1. Additional crisis surcharge.

Source: Ministry of Finance

A further cut in the corporate tax rate to 30 per cent without compensating base widening would make the tax system competitive

40. The government has indicated that it sees the recently announced reduction in the corporate income tax rate as a first step towards lowering the rate to 30 per cent and abolishing the ACS. Such a move from the current 40.17 per cent rate would result in a tax advantage for investment in Belgium relative to the major European alternatives with the exception of Ireland and Sweden provided that it was not compensated by base-widening measures (Table 10).

Table 10. **Direct investment tax incentives at a corporate income tax rate of 30 per cent[1]**

Per cent

	Corporate income tax rate = 30 per cent								
	Germany	Spain	France	Ireland	Italy	Luxembourg	Netherlands	Sweden	United Kingdom
New equity	-10.9	-5.5	-3.8	17.2	-6.9	0.1	-5.7	1.4	-2.2
Debt	-10.1	-5.1	-3.5	15.2	-6.4	0.1	-5.3	1.3	-2.2
Retained profits	-10.9	-5.5	-3.8	17.2	-7.0	0.1	-5.7	1.4	-2.2

1. See footnote to Table 8. These calculations abstract from the base widening measures announced in the 2002 corporate tax reform, i.e. the only change to the current corporate income tax system is that the tax rate is reduced from 40.17 per cent to 30 per cent.

Source: Valenduc (2002*a*).

Tax reform is also aimed at supporting the development of SMEs

41. The recently announced company tax reform is also aimed at supporting the development of SMEs, mainly by lowering the progressive corporate income tax rates from which they benefit and by granting a partial tax exemption on re-invested profits (see Box 2). The reduction in progressive corporate income tax rates is basically in line with that in marginal rates in the personal income tax system since the government took office. This is intended to ensure that the tax system does not discourage SMEs from incorporating and hence benefiting from limited liability.[48] Both the reduction in progressive rates and the

48. Personal income tax reductions since the government took office (abolition of the 3 per cent ACS, reindexation of tax brackets and abolition of the top two tax brackets (52.5 per cent and 55 per cent)) have reduced marginal income tax rates by around 15 per cent, approximately the same amount as the announced reduction in progressive company tax rates.

partial tax exemption on re-invested profits should enable incorporated SMEs to retain more earnings, which is the most important source of finance for them. The measures also reduce the tax advantage for debt financing (see above). Indeed, they can be viewed as a complement to the tax credit for new equity introduced in 1996, which was also aimed at increasing tax neutrality between different sources of finance. A 10 per cent final withholding tax on liquidation proceeds is also being introduced to close the loophole whereby owners of companies benefiting from progressive rates could pay less tax than under the personal income tax by retaining earnings and subsequently selling the business.

Redistribution through the tax-benefit system

42. The tax-benefit system in Belgium reduces income inequality for the working-age population by somewhat more than in most other OECD countries for which data are available (see Annex IV).[49] The redistributive effect of personal income taxation rose during the 1990s, owing to the increase in the tax burden, but will not be affected by the tax reform, despite a decline in the tax burden.

Main options for reform[50]

43. Belgium has a high tax burden, especially on labour. Thanks to sustained fiscal consolidation, the government is reducing the tax burden as debt interest payments decline. It is giving priority to cutting taxes for low-income earners so as to maximise the favourable labour market effects of the tax cuts. Corporate income taxation is also being reformed in response to international competitiveness concerns. Even with these reforms, the tax system will still impose high economic costs relative to those in OECD countries with more neutral systems. This section discusses suggestions for reform aimed at reducing the excess burden of taxation and enhancing equity.

Labour income taxation

The labour tax wedge should be reduced further, especially for low-income earners

44. Subject to budget constraints, the labour tax wedge should be reduced further, especially for low-income earners. Insofar as the target population for these reductions earns around the minimum wage, they should be made through further cuts in employers' social security contributions. This would ensure that the cuts lower labour costs and hence expand demand for this category of employee. For low-income employees earning sufficiently more than the minimum wage for their wages to be flexible, there is not a great difference over the medium-term *per se* between delivering the tax cuts through reductions in employers' social security contributions, on the one hand, and reductions in employees' social security contributions or income tax liabilities on the other. However, using the personal income tax system, notably via non-wastable tax credits, has the advantage that the reductions can be targeted according to family circumstances, and hence to replacement rates from unemployment and related benefits, increasing the favourable employment effects. Thus, it would be preferable to deliver future tax cuts to this group through the non-wastable income tax credit. This, in turn, should depend on family circumstances, being

49. Benefits are also considered because they are a close substitute for taxes in redistribution. For example, if benefits are indirectly means tested through withdrawing tax concessions, as occurs in Belgium, this will tend to reduce the redistribution effect of the benefit system but to increase that of the tax system relative to direct means testing, as occurs in Australia or the United Kingdom. For the purposes of an international comparison, it is also preferable to focus on the working-age population as high reliance on public old-age pension systems in some countries, such as Belgium, exaggerates the initial inequality of income distribution and the redistribution effect of government transfers.

50. See Box 3 for a summary of the main recommendations for tax reform.

greater for persons with high replacement rates from unemployment and related benefits than for persons with low replacement rates.

45. A constraint on the design of targeted reductions in the labour tax wedge is the incentive effect of targeting -- it results in high marginal effective tax rates over the income range that the tax reduction is being withdrawn (55-67 per cent of APW earnings), discouraging labour supply. If current rates of withdrawal were to be maintained, the extent to which targeted tax reductions could be made out of any given budget envelope would depend on the number of wage earners who would be affected by the measures. As there are many wage earners in the income range over which benefits would be withdrawn, targeted tax reductions would need to remain modest, especially compared with comparable arrangements in the United States and United Kingdom, where the bottom end of the income distribution is less dense. Even so, the budget envelope accorded for such measures in Belgium remains much smaller (as a share of GDP) than in these two countries, suggesting that there is still room to increase it, despite the problem of a relatively dense distribution of income at lower income levels.

Tax breaks for stock options should be reduced

46. A higher proportion of the value of stock option benefits should be subject to personal income tax and social security contributions and should be a tax-deductible expense for companies. This would bring the tax treatment of stock options more into line with that for other labour compensation while at the same time preserving lower taxation for the highly mobile employees that benefit from them than for the rest of the population. The value of stock option grants will be readily available from 2005 onwards, when the new International Accounting Standards come into force. These require European companies (and those from other countries adopting the standards) to record the cost of stock option grants (based on the Black-Scholes formula) in their accounts as a labour expense. It is sometimes argued that preferential tax treatment for stock options is warranted because they disproportionately benefit business start-ups and other innovative firms that generate external benefits. However, this tax expenditure is only weakly related to these external benefits - all firms benefit, whether or not they generate innovation externalities. If it were thought desirable to subsidise start-ups, more focused measures would be preferable, but that is another issue.

Consumption taxation

The range of goods and services exempted from VAT should be narrowed

47. A wider range of goods and services is exempt from VAT in Belgium than in most other countries. Such an approach is usually justified on the grounds that it protects the poor. However, it also benefits the well off. Indeed, VAT has no effect on income distribution in Belgium as it is proportional to total consumption expenditures (de Coster, Gerard and Valenduc, 2002). It would be preferable to narrow the scope of goods and services exempted from VAT and use the extra tax revenue to address tax reform priorities, such as making working pay. This would also reduce distortions in consumption choices.

Personal capital income taxation

Tax incentives for second-pillar savings should be reduced

48. Second-pillar savings receive very favourable tax treatment -- taking savings constituted from employers' and employees' contribution together, the effective tax rate is negative. This tax treatment is generous both by international comparison and compared with that for other forms of long-term saving. It is not clear what social (external) benefits are gained by subsidising the return on second-pillar savings, which mainly benefits middle-high income earners. Taxation of these returns should be increased at least

to zero, as in many other countries. This would still be attractive compared with taxation of the returns from other long-term investments. At the same time, the regulatory framework for second pillar savings should be made more attractive, notably by improving pension portability and adopting a "prudent person" approach to rules on asset allocation (which would increase long-run returns). If such reform were to be adopted, it would be necessary to address directly concerns about the overall progressiveness of the tax-benefit system arising from there being no cap on social security contributions but caps on social security benefits.

High inheritance taxes on non-direct line successions should be reconsidered

49. High inheritance taxes on non-direct line successions encourage people affected by them to hide wealth from the fiscal authorities, depriving them of revenue. As noted above, these arrangements are intended to discourage testators from leaving the part of their wealth over which they have discretion to persons other than their spouse or children. It is difficult to see how applying these high rates to inheritances from persons who no longer have a spouse or do not have children furthers this objective. The approach to achieving this social objective should be reconsidered with a view to finding arrangements that cause less collateral damage.

Imputed rentals should be raised to market values

50. Taxation of imputed rentals on property not occupied by the owner is at least 40 per cent higher than on owner-occupied property. Such taxation is still lower than if market rentals were instead applied. While these arrangements were introduced to discourage ownership of secondary residences, they also had the effect of further discouraging people from being tenants instead of owner-occupiers. Given the already generous tax treatment of owner-occupied housing and the risk that high rates of owner-occupied housing could reduce labour mobility, it would be preferable to raise imputed rentals on all property to market values. This would remove the additional discrimination against rental property implicit in these arrangements and ensure that owners of secondary residences are assessed with incomes from these properties as though they were let.

Corporate income taxation

Changes in the standard corporate income tax system may be required to make Belgium a more attractive destination for direct investment

51. Belgium has a number of preferential tax regimes (co-ordination, distribution and service centres) that help to make it an attractive destination for some types of international investment, even though average effective tax rates in the standard corporate income tax system on inward investment are higher for international investors than in most other European countries. In the event that these arrangements are eventually terminated, in the context of EU and OECD agreements to eliminate harmful tax practices, the average effective corporate income tax rate should be cut to the extent required to ensure that taxation is not a barrier to inward investment in Belgium.

Box 3. **Recommendations for tax reform**

Labour income taxation

The labour tax wedge should be reduced further, especially for low-income earners. Tax cuts should be delivered through reductions in employers' social security contributions for persons earning around the minimum wage and earned income tax credits targeted on unemployment- and related benefit replacement rates for other low-income earners.

Tax breaks for stock options should be reduced. A greater proportion of the value of stock option grants should be taxed, bringing the tax treatment for such income more into line with that for other labour compensation. Valuation of stock should be the same as that to be used in company accounts prepared in line with the new International Accounting Standards, which will be compulsory for European companies as from 2005.

Consumption taxation

The range of goods and services exempt from VAT should be narrowed. This would reduce distortions in consumption choices and yield revenue that could be used to pursue other reform priorities, such as reducing the tax burden on low-income earners.

Personal capital income taxation

Tax incentives for second-pillar savings should be reduced. Increasing the effective tax rate to zero on the earnings from such savings would still provide an attractive fiscal framework. The regulatory framework for such savings should also be reformed to make them more attractive, notably by improving pension portability and by adopting a "prudent person" approach to rules on asset allocation.

Inheritance taxes on non-direct line successions should be reconsidered. The authorities should consider alternative approaches to protecting children's interests that cause less collateral damage.

Taxation of imputed rentals on owner-occupied and rental housing should be the same. This would reduce the tax bias in favour of owner-occupied housing.

Corporate income taxation

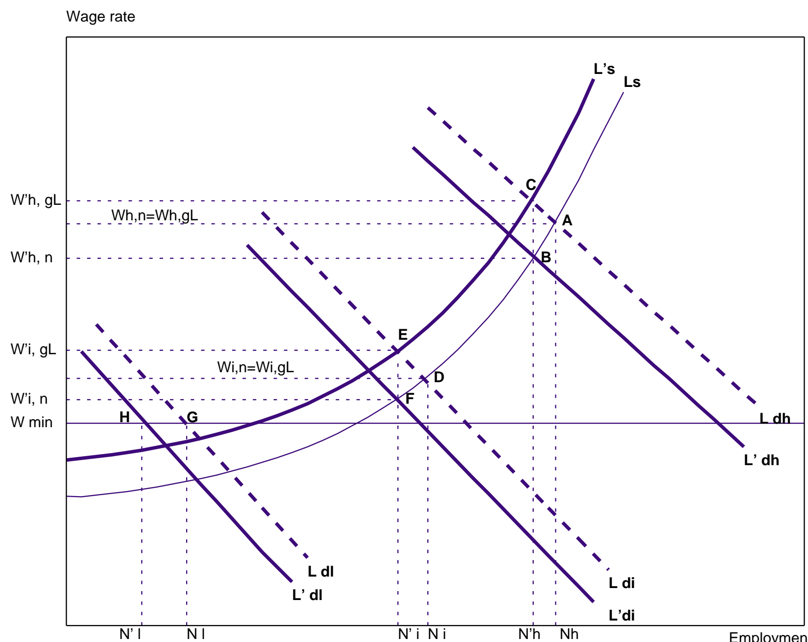
The tax rate should be cut further. In the event that Belgium is eventually obliged to phase out its preferential tax regimes (co-ordination, distribution- and service centres), it will be necessary to cut the nominal (and average effective) corporate tax rate to preserve Belgium's competitive position as a destination for direct investment. This would also reduce incentives for multinationals to transfer profits to countries with lower nominal tax rates.

ANNEX I: THE IMPACT OF AN INCREASE IN THE LABOUR TAX WEDGE ON THE LABOUR MARKET

In the absence of a minimum wage floor, an increase in the labour tax wedge raises labour costs to employers and reduces net wages to employees and employment. This occurs irrespective of whether the statutory incidence of the tax increase is on employers or on employees. In the case of an increase in payroll taxes, labour demand shifts down, reducing equilibrium net wages for employees and employment: adjustment to the new equilibrium shifts part of the tax burden back onto labour. This is illustrated in Figure A1, where the labour-demand-curve for high-skilled labour shifts down from L_{DH} L_{DH} to L'_{DH} L'_{DH}. The equilibrium shifts from A to B. At the new equilibrium, employment (N'_{H}) and the net wage ($w'_{N,H}$) are lower than in the initial equilibrium while gross labour costs ($w'_{GL,H}$) are higher. If instead wage taxes (i.e. personal income tax or individual social security contributions) had been increased by an equivalent amount, this would have shifted the labour-supply curve for high-skilled labour up to L'_{SH} L'_{SH} and the new equilibrium to C. Gross labour costs, the net wage and employment are the same in this equilibrium as in the equilibrium (B) with an increase in payroll taxes. At intermediate income levels, where high benefit replacement rates (see Box A1) make labour supply more elastic,[51] more of the increase in the tax burden falls on employers and there is a larger decline in employment. As for high-income workers, the new equilibrium does not depend on whether the statutory incidence of the tax increase is on employers or on employees. However, for workers paid the minimum wage (see Box A2), an increase in payroll taxes has a much larger negative effect on employment than an increase in wage taxes. Indeed, in the case illustrated, the increase in payroll tax cuts employment from N_{L} to N'_{L} whereas the corresponding increase in wage taxes has no effect on employment (because the minimum wage rate is still higher than the wage rate that would equate labour supply and labour demand). The decline in employment caused by an increase in payroll taxes is greater for employees paid the minimum wage than for other employees.

51. High benefit replacement rates make labour supply more elastic by setting reservation wages below which beneficiaries are not prepared to work.

Figure A1. **The labour market effects of an increase in the labour tax wedge**



Note: Meaning of symbols:
Wgl = gross labour costs, Ld =labour demand, Ls = labour supply, L' = labour demand or supply after a tax increase,
Wn = net wage rate, h= high salary, i =intermediate salary and l =low salary.
Source: OECD.

Box A1. **Unemployment benefit replacement rates**

Net benefit replacement rates (i.e. the proportion of income from work replaced by unemployment and related welfare benefits) are 80 per cent or so for unemployed persons who were earning 67 per cent of the average production worker (APW) wage (except for singles after one year of unemployment) (Tables A1 and A2).[1] These rates are higher than the OECD average, especially for long-periods of unemployment. As there are unemployment benefit minima, net replacement rates are higher for lower income earners, especially those with dependants.[2] For long-term married unemployed persons who had been earning 67 per cent of APW, unemployment benefit corresponds to about 54 per cent of APW. If the unemployed need to make at least 15 per cent more from working to accept a job, the benchmark used by the High Employment Council, the reservation wage for such an unemployed person would be about 62 per cent of APW. Unemployment benefits probably also determine reservation wages for most unemployed persons who were earning as little as 50 per cent of APW. However, for unemployed persons who had only been earning 40-50 per cent of APW, benefit-based reservation wages would be lower than the minimum wage.

As the income that may be taken into account to calculate unemployment benefits is limited to about 0.62 of APW, the influence of benefit replacement rates on reservation wage rates rapidly declines as income rises.[3] For example, the net replacement rate for long-term married unemployed persons falls from

80-86 per cent when last earnings were 0.67 of APW to 57-69 per cent when last earnings were APW. Reservation wage rates for workers whose last earnings were APW or more are likely to be considerably higher than the income they could get from unemployment and related benefits.

1. 1999 data.
2. The floors correspond to 24 per cent of APW for a single unemployed person and 33 per cent for a married unemployed person with a non-working spouse and two children. A long-term unemployed person will receive these amounts of benefit if his previous earnings were less than 56 per cent of APW.
3. The fact that there is a ceiling on unemployment benefit eliminates the insurance aspect of contributions for employees subject to the ceiling: for them, there is no link between contributions and expected benefits. In these circumstances, social security contributions are simply a tax.

Table A1. **Net replacement rates in the first month of benefit receipt,[1] 1999**

	APW-level				66.7 per cent of APW-level			
	Single	Married couple	Couple 2 children	Lone parent 2 children	Single	Married couple	Couple 2 children	Lone parent 2 children
Australia	33	29	62	47	45	39	77	59
Austria	60	62	76	73	61	64	82	78
Belgium	**64**	**61**	**64**	**65**	**85**	**80**	**79**	**81**
Canada	62	64	91	91	62	64	97	97
Czech Republic	49	67	70	71	66	69	70	72
Denmark	63	63	73	78	89	89	95	96
Finland	65	71	83	87	79	83	88	92
France	71	68	72	72	78	76	82	83
Germany	60	56	70	71	67	75	75	76
Greece	47	47	44	47	48	48	46	50
Hungary	48	48	60	61	65	65	75	76
Iceland	55	50	66	68	74	66	79	85
Ireland	31	44	57	52	42	59	67	59
Italy	42	44	53	50	39	40	49	47
Japan	67	65	64	70	82	79	77	82
Korea	55	55	54	55	54	54	54	54
Luxembourg	82	82	87	87	82	80	88	88
Netherlands	82	89	89	81	88	84	85	80
New Zealand	39	53	68	64	57	79	87	79
Norway	66	67	74	83	65	67	82	90
Poland	36	43	46	47	53	62	58	67
Portugal	79	78	70	80	88	86	87	87
Slovak Republic	79	77	78	80	77	75	77	79
Spain	74	74	73	76	76	72	76	77
Sweden	71	71	78	85	82	82	90	93
Switzerland	81	80	91	92	91	90	92	92
United Kingdom	46	46	49	49	66	64	54	55
United States	58	60	57	58	59	59	49	49

1. After tax and including unemployment benefits, family and housing benefits.

Source: OECD tax-benefit models.

Table A2. **Net replacement rates 60 months after claiming benefit, 1999**[1]

	APW-level				66.7 per cent of APW-level			
	Single	Married couple	Couple 2 children	Lone parent 2 children	Single	Married couple	Couple 2 children	Lone parent 2 children
Australia[2]	33	29	62	47	45	39	77	59
Austria[2]	55	57	72	69	58	59	78	74
Belgium[2]	**45**	**57**	**68**	**69**	**60**	**80**	**84**	**86**
Canada	24	41	62	60	35	57	81	80
Czech Republic	37	60	80	74	54	84	100	96
Denmark	60	69	80	79	85	96	102	97
Finland	53	71	89	62	73	92	100	69
France[2]	30	28	42	43	43	41	59	60
Germany[2]	54	52	65	63	63	61	71	71
Greece[2]	8	8	10	11	8	8	11	12
Hungary	28	28	38	40	28	28	39	41
Iceland	50	74	87	65	68	97	104	80
Ireland[3]	31	43	56	56	41	59	66	64
Italy[4]	0	4	18	14	0	5	21	17
Japan	33	47	68	61	49	69	87	84
Korea	6	11	18	16	9	16	27	23
Luxembourg	50	67	75	59	70	92	93	82
Netherlands	60	69	71	61	74	83	85	76
New Zealand[2]	39	53	68	64	57	79	87	79
Norway	43	52	62	58	53	73	83	69
Poland	33	50	74	56	48	72	93	81
Portugal[2]	49	60	63	64	70	86	87	87
Slovak Republic	38	62	80	60	54	90	100	100
Spain	23	28	39	37	32	40	57	51
Sweden[5]	54	71	85	49	79	102	110	70
Switzerland	54	68	75	69	78	99	100	96
United Kingdom	46	57	80	71	66	80	88	81
United States	7	12	46	38	10	17	59	48

1. After tax and including family and housing benefits for long-term benefit recipients.
2. Net replacement rates (NRRs) are based on social assistance (SA) except in Australia, Austria, France, Germany, Greece, New Zealand, and Portugal, where NRRs are based on unemployment assistance (UA), and in Belgium where unemployment insurance (UI) benefits at reduced rates are available for long-term unemployed. In Portugal, UA lasts only for 24 months after 24 months of UI benefits.
3. Housing benefits are not included due to very small number of recipients.
4. Social assistance (*Reddito Minimo di Inserimento*) is not included in NRRs due to its experimental character (on trial in 39 municipalities). NRRs are based on family benefits.
5. People in work are not entitled to social assistance.

Source: OECD tax-benefit models.

Box A2. **Minimum wage rates**

Minimum wage rates in Belgium have declined in recent years in relation to average production worker (APW) wages, as in some other countries, and are broadly in line with rates in other countries (Table A3).[1] It is estimated that some 400 000 full-time employees in Belgium (12 per cent of all full-time employees) earn up to 115 per cent of the statutory minimum wage.

1. The statutory minimum wage rate in Belgium for full-time workers was €1 131 per month in 2001(€1 186 for adults aged 22 or over).

Table A3. **Statutory minimum monthly wages**[1]

Per cent of APW

	1980	1985	1990	1995	2001
Belgium	56.9	46.3	47.2	49.8	45.3
Greece				61.1	51.3
France	59.8	59.8	58.2	62.4	62.0
Ireland					49.4
Luxembourg	46.1	43.9	44.8	52.9	50.8
Netherlands	49.4	53.7	48.1	48.5	47.5
Portugal				64.5	61.2
Spain	62.2	63.2	59.6	43.7	38.8
United Kingdom					40.6
United States	37.3	55.3	31.7	30.5	44.3

1. Annual averages.

Source : Eurostat and OECD, *Main Economic Indicators* and OECD, *Taxing Wages*.

Cross-country empirical studies indicate that there is probably some overall small negative effect of labour taxation on employment and unemployment. Moreover, this effect appears to be greater for marginal groups in the labour market and in countries, such as Belgium, with an intermediate level of wage centralisation/co-ordination (Box A3).

Box A3. **Results of cross-country studies on the labour-market effects of the tax wedge on labour**

There is a wide variety of empirical estimates based on panel data for OECD countries of the adverse effects of the labour taxation on employment and/or unemployment (Table A4). Reviewing these studies and taking into account their own results, Nickell and Layard (1999) conclude that "the balance of evidence suggests that there is probably some overall adverse tax effect on unemployment and labour input (but that) its precise scale…remains elusive." Their estimates indicate that, for example, a 5 percentage point increase in the tax wedge, which is substantial, would reduce the employment ratio by about 1.2 per cent (e.g. from 61 to 60) and increase the unemployment rate by around 13 per cent (e.g. from 8 to 7 per cent). They also find that the effect on the employment ratio is greater for groups other than prime-age males (25-54). Elmeskov *et al* (1998) obtain similar results for unemployment (their paper does not include employment equations). In contrast to the rather small effects found in these and some other studies, Daveri and Tabellini (2000) find that the labour tax wedge has a substantial effect on unemployment in a group of mainly European countries[1] that have an intermediate level of centralisation/co-ordination in wage bargaining. Indeed, they find that the increase in the tax wedge fully explains the increase in unemployment in Europe in recent decades. However their results break down if the country groupings change (de Haan et al, 2002). Elmeskov *et al* (1998) and Nickell and Layard (1999) also find evidence that the adverse effects of the labour tax wedge on employment and unemployment are greater in countries such as Belgium with an intermediate degree of wage centralisation/co-ordination.

1. These countries are Australia, Belgium, France, Germany, Italy, the Netherlands Spain and the United Kingdom (pre-1980).

Table A4. **Summary of recent studies examining the effects of the tax burden on labour**

Study	Countries	Period	Indicator used	Conclusions
Alesina and Perotti (1997)	14 OECD countries, panel estimates	1965-90	Total of direct taxes paid by households, social security taxes paid by employers and employees and payroll taxes, expressed as share of GDP.	Degree of shifting of labour taxation is a hump-shaped function of the degree of centralisation of labour markets.
Nickel (1997)	20 OECD countries, two cross sections	1983-88, 1989-94	Total tax rate, i.e. sum of average payroll, income and consumption tax.	Payroll taxes have negligible coefficient; overall tax burden may raise unemployment and reduce labour supply.
Mendoza *et al.* (1997)	18 OECD countries, panel estimates	1966-90	Updates of Mendoza *et al.* (1994)	Factor income tax ratios are negative and consumption tax ratios significantly positively related to investment, but there is relationship between tax ratios and growth.
Elmeskov *et al.* (1998)	18/19 OECD countries, panel estimates	1983-95	Tax wedge, defined as total value of employers' and employees' social security contributions and personal income tax, divided by gross earnings plus employers' social security contributions.	Tax wedge significantly related to unemployment, but not in case of high levels of degree of centralisation/co-operation in the labour market.
Nickel and Layard (1999)	20 OECD countries, two cross-sections	1983-88, 1989-94	Total tax rate, i.e. sum of average payroll, income and consumption tax.	Total tax wedge affects unemployment, while payroll taxes alone have no additional effect.
Blanchard and Wolfers (2000)	20 OECD countries, panel estimates	1960-95+ (eight 5-year periods)	Payroll tax variable from Nickell (1997) and total tax ratio: sum of average payroll, income and consumption tax rates.	Higher taxation increases unemployment, but the effect is small.
Daveri and Tabellini (2000)	14 OECD countries, panel estimates	1965-95	Tax ratios of Mendoza *et al.* (1997).	High unemployment and the slowdown in economic growth in Europe stem from high labour taxes in combination with the characteristics of the labour market.
Martinez-Mongay (2000)	EU plus Japan and United States, panel correlations	1970-97	ECFIN tax ratios.	Labour tax ratios affect private investment and growth negatively. No effects on (un)employment, which is "unsurprising" as interplay with market institutions not taken into account.
Fiorito and Padrini (2001)	G7 without Japan, estimates for each country	1970-94 (quarterly)	Variant of tax ratios of Mendoza *et al.* (1997).	Increasing taxation (especially labour taxation) negatively leads both the labour force and employment, while increasing taxation positively leads unemployment.
Palley (2001)	20 OECD countries, pooled time series model	1983-94	Nickel tax ratios.	No robust effect of taxes on unemployment.
Volkerink *et al.* (2002)	14 OECD countries panel regressions	1960-95	Tax ratios of Volkerink and De Haan (2001) and of Mendoza *et al.* (1997).	Confirmation of results of Daveri and Tabellini (2000).

Source: De Haan *et al.* (2002).

ANNEX II: PERSONAL INCOME TAX REFORM

Features of the current personal income tax system[52] pertinent to the 2001 reform

Earned income[53] is taxed individually while most other income is taxed at the level of the household. There is a marital quotient that permits couples to transfer income from the principal earner to the other spouse where she/he earns 30 per cent or less of household income so as to reduce the overall tax liability. The amount then transferred is set at 30 per cent of the earned income or both spouses, less the own income of the spouse enjoying the quotient. This transfer cannot exceed €7 710. A portion of net global taxable income, varying according to the composition of the household, is exempt from tax. The basic exemption is €5 350 for a single person and €4 240 for each spouse. These amounts are increased for dependent children, with priority being given to allocating the additional amounts to the spouse with the higher tax liability.[54] Income that is not tax-exempt is taxed at rates that are not affected by the exemption: households with large amounts of tax-exempt income start paying tax at rates well up the income tax scale.[55] The operation of the marital quotient and transfer of the exempted quotient are illustrated in Box A4.

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52. This description of the tax system in 2001 is drawn from Ministry of Finance (2002*a*).

53. Earned income comprises:
    - Employees' salaries and wages;
    - Company directors' remuneration;
    - Profits from agricultural, industrial and commercial activities;
    - Proceeds from liberal professional activity;
    - Profits and proceeds from former professional activities; and
    - Replacement income.

54. Exemptions for dependent children are €1 140 for the first child, an additional €1 780 for the second, an additional €3 630 for the third and an additional €4 050 for the fourth and subsequent children.

55. Tax rates applicable to 2001 income are as follows:

Bracket of taxable income (in €)	Marginal rate (per cent)
0-6 570	25
6 571-8 710	30
8 711 - 12 420	40
12 421 - 28 540	45
28 541 - 42 810	50
42 811 - 62 790	52.5
62 791 and over	55

Source: Ministry of Finance (2002*a*).

A taxpayer with an income of €30 000 and a tax exemption of €10 000 would pay €4 840 in tax: (12 421 - 10 000)*0.40 + (28 540 -12 421)*0.45 + (30 000- 28 541)*0.50.

Box A4. **An illustration of the functioning of the marital quotient and transfer of the exempted quotient in the case of a married couple without children**

	Principal earner (in euros)	Spouse (in euros)
Net earned income	24789	0
Marital quotient	-7437	7437
Taxable income	17352	7437
Tax according to basic scales	5987	1903
Tax exempted income	4240	4240
Tax rebate (25 per cent of exempted income)	1060	1060
Tax	4927	843

Source: Ministry of Finance (2002*b*)

Tax rebates are granted on replacement income (Table A5).[56] These are granted only once per household and subject to horizontal[57] limitations and are phased down as income rises (Table A6). The reduction is phased down more quickly for standard unemployment benefit, falling to zero for Aggregate Taxable Income above €21 410. The general schema for calculating taxes, incorporating the above elements, is summarised in Box A5.

Table A5. **General tax rebates on replacement income**

Euros

Categories of income	Basic amount of reduction	
	Single person	Spouse
Pensions, early retirement pensions (new regime)	1550	1810
Early retirement pensions (old regime)	2800	3060
Standard unemployment benefits	1550	1810
58 plus unemployment benefits	1550	1810
Sickness/invalidity	1990	2250
Other replacement incomes	1550	1810

Source: Ministry of Finance (2002*b*).

56. These are pensions, early-retirement pensions, sickness or disability benefits and all other relevant benefits allocated as partial or total compensation for temporary loss of gains, profits or remuneration (Ministry of Finance, 2002*a*, p. 36).

57. The reduction is only granted in the same proportion as the income giving rise to the entitlement to total net income. For example, a single person who has received unemployment benefits amounting to €2 500 and (other) net earned income amounting to €10 000 will be granted one-fifth of the basic reduction.

Table A6. **The general rule for the vertical limitation of tax rebates on replacement income**

Euros

Brackets of aggregate taxable income (ATI)	Limitation of the reduction (R = basic amount of reduction, R' = vertically limited reduction)
Less than 17150	R' = R
17150 to 34310	R' = R/3 + [R*2/3*(34310 - ATI)/17160]
34311 and over	R' - R/3

Source: Ministry of Finance (2002*b*).

Box A5. **General schema for calculating personal income taxes**

Tax according to the income tax scales

Less basic tax rebate

Less tax reductions for long-term savings, expenses paid for work or services performed in the framework of local employment agencies and an increased tax reduction for savings for house purchase

Equals tax to be divided between spouses

Less tax reduction for replacement income

Equals reduced basic tax on aggregate taxable income

Plus tax on separately taxed income

Equals state tax

Plus regional and municipal surtaxes

Plus additional crisis tax

Equals total tax payable by the household

The 2001 personal income tax reform

First Pillar: reduction in the tax burden on labour

The first pillar is aimed at widening access to better-paid jobs. It represents a major effort to reduce the tax burden on labour, paying particular attention to the two extremes of the income distribution. This pillar includes the following four measures:

- Introduction of a non-wastable tax credit of €500 per year, aimed at low labour incomes (budget cost €0.45 billion);
- Increase in the allowance for working expenses (budget cost €0.32 billion);
- Upwards shift in tax brackets, partially compensating for the non-indexation of brackets until 1999 (Table A7). This will benefit 83 per cent of taxpayers (budget cost €0.77 billion);
- Abolition of the top two tax rates (52.5 per cent and 55 per cent). This is aimed at making Belgium more attractive for highly qualified workers (budget costs €0.17 billion).

Table A7. **Personal income tax scales, before and after the reform**

Based on 2001 incomes

Rate	Income brackets (euros)	
Per cent	Pre-reform	Post-reform
25	0-6495	0-6495
30	6496-8627	6496-9246
40	8628-12296	9247-15419
45	12297-28260	15420-28260
50	28261-42365	>28260
52.5	42366-62147	
55	>62147	

Source: Ministry of Finance (2000*b*), Tables 15-16.

Second Pillar: neutrality with respect to lifestyle choices

The objective of the second plank is to develop a personal income tax system that is neutral between married- and unmarried couples. This entails abolishing the measures that are unfavourable to married couples and giving unmarried couples access to the tax advantages linked to marriage. Specifically, the reform entails:

- Raising the amount of tax-free income for married couples to twice the amount for singles (budget cost €1.09 billion);
- Raising the tax rebate for replacement incomes for married couples to twice the amount for singles and individualising it (budget cost €0.39 billion);
- Taxing married couples separately on non-labour income (budget cost €0.059 billion); and
- An extension of the marital quotient to couples making a contract to live together (no budget cost).

Third Pillar: improvement in the way that dependent children are taken into account

- Make refundable the income tax reductions for dependent children;
- Grant a supplementary reduction to solo parents;
- Increase the income ceiling for the means test for solo parents; and
- Exclude part of the support payments they receive from the other parent in respect of their children from the assessment of their income.

Fourth Pillar: more environmentally sound taxation

Complimenting the measures in the First Pillar that aim to encourage certain forms of transport for commuting (notably, public transport and car sharing), the reform contains measures that encourage investments to economise on residential energy consumption.

Impact of the reform on the budget and on the personal income tax ratio

The reform is being phased in progressively, with the more costly measures in the second pillar only applying to incomes from 2004 with a final impact on the budget in 2005-06 (Table A8). The budget

impact of the reform (with a base year of 2001) has been estimated at €3.3 billion (1.3 per cent of GDP) once it is fully implemented (in 2006) (Table A9).[58] The cumulative effect of the reform, together with the restoration of indexation of tax brackets and the abolition of the complimentary crisis charge, is substantial, reversing almost all of the increase in tax pressure since 1990 (Figure A10).

Table A8. **Timetable for implementation of personal income tax reform**

Tax year[1]	2001	2002	2003	2004
Reduction in the tax burden on labour				
Earned income tax credit for low-income earners		P	P	C
Increase in the flat-rate deduction for working expenses		P	C	C
Broadening of the central tax brackets			P	C
Abolition of the highest marginal income tax rates		P	C	C
Neutrality with respect to lifestyle choices				
Alignment of the tax exempt income quotas			P	C
Individualisation of tax reductions for replacement incomes				C
Generalisation of separate taxation to unearned income				C
Improvement in the way that dependent children are taken into account				
Making tax reductions refundable		C	C	C
Increase in the single-parent means-test limit	C	C	C	C
Generalisation of tax exempt quota to all single parents with dependent children		C	C	C
More environmentally sound taxation				
Deduction for non-car transport costs	C	C	C	C
Energy-saving deductions			C	C
Total				

Note: P = Partial implementation; C = Full implementation

1. Taxes due for a given year are paid in the following year, although a more or less important part is already paid in the given year through the withholding tax or earned income (*précompte professionnel*).

Source: Valenduc (2002*b*).

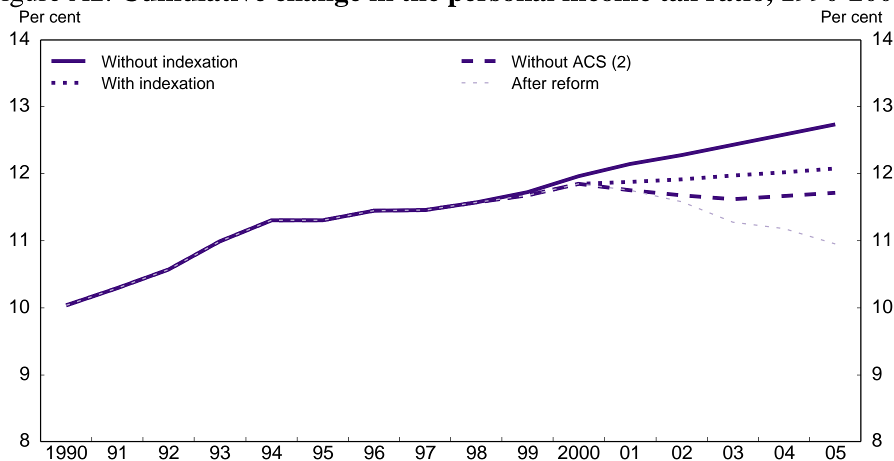
58. This estimate was made using the micro-simulation model known as the *Income Tax Revenue Simulator* and on the basis of income from 2001.

Table A9. **Budget cost of personal income tax reform**

	Euro billion
Reduction in the tax burden on labour	**1.64**
Earned income tax credit for low-income earners	0.45
Increase in the flat-rate deduction for working expenses	0.25
Broadening of the central tax brackets	0.77
Abolition of the highest marginal income tax rates	0.17
Neutrality with respect to lifestyle choices	**1.46**
Alignment of the tax exempt income quotas	1.09
Individualisation of tax reductions for replacement incomes	0.40
Generalisation of separate taxation to unearned income	0.05
Improvement in the way that dependent children are taken into account	**0.12**
Making tax reductions refundable	0.07
Increase in the single-parent means-test limit	
Generalisation of tax exempt quota to all single parents with dependent children	0.05
More environmentally sound taxation	**0.11**
Deduction for non-car transport costs	0.07
Energy-saving deductions	0.04
Total	**3.33**

Source: Ministry of Finance.

Figure A2. **Cumulative change in the personal income tax ratio, 1990-2005**[1]



1. Personal income tax as a percentage of gross personal income.
2. Additional crisis surcharge.
Source: Ministry of Finance.

ANNEX III: EFFECTIVE TAXATION OF SECOND-PILLAR SAVINGS

Savings constituted from employers' contributions

Suppose an employee aged 40 receives a pay increase that costs the employer 100 in the form of a contribution to the second-pillar pension scheme (*group assurance*). After deduction of the tax on insurance premium (4.4 per cent) and reduced social security contributions (8.86 per cent), 88.0 is invested [88.0 = 100/(1.086 x 1.044)]. Assuming this yields 4.75 per cent[59] per year for 20 years, the capital grows to 222.6 by age 60. This is then subject to various social security contributions amounting to 5.55 per cent and the balance is taxed at 16.5 per cent plus a surcharge for local income tax (7.5 per cent on average) and the additional crisis surcharge (1 per cent in 2002, zero thereafter). After these social security contributions and taxes, 172.6 (172.6 = 222.6*(1 - 0.055)*(1 - 0.165*(1.085)) is available for distribution or to be invested in a tax-free annuity.

Now suppose instead that the employee receives a pay increase that costs the employer 100 in the form of a regular salary payment. After deduction of employers' social security contributions (35 per cent), employees' social security contributions (13.07 per cent) and personal income tax (45 per cent, the most representative bracket) adjusted for surcharges (7.5 per cent on average for the local income tax, 1 per cent in 2002 for the additional crisis surcharge), the employee has 33.0 (33.0 = [100/1.35]*[1 - 0.1307]*[1 - 0.45(1.085)] "in the hand". If this sum were to be invested at an annual rate of return of 4.75 per cent and this return were to be tax free, the after-tax capital would grow to 83.5 [$83.5 = 33.0*(1.0475)^{20}$] by age 60. The difference between this amount and the terminal amount (172.6) from an employer second-pillar contribution reflects negative effective taxation (i.e., a subsidy) on second-pillar earnings. The negative effective tax rate on such earnings is 81.6 per cent [$172.6 = 33.0*(1 + 0.0475*[1.816])^{20}$].

Employees' contribution to second-pillar pensions generally do not generate reductions in personal income taxation because the limit (€1 770 per person in 2002) has already been exhausted by third-pillar and mortgage-related deductions. If our employee contributes 100 to a second-pillar scheme, this costs him the same amount in terms of post-tax earnings and grows to 253.0 ($100*1.0475^{20}$) by age 60. This is then subject to various social security contributions amounting to 5.55 per cent and the balance is taxed at 10 per cent adjusted for the various surcharges (7.5 per cent on average for local income tax and the additional crisis surcharge of 1 per cent in 2002), leaving 213.1 (213.1 = 253.0*(1 - 0.055)*[1 - 0.10*(1.085)]) available for distribution or to buy a tax-free annuity. The effective tax rate on earnings from employee second-pillar contributions is 18.8 per cent ($213.1 = 100*[1 + 0.0475*(1 - 0.188)]^{20}$).

Taking second-pillar investments from employer and employee-financed contributions together, the earnings from such investments are taxed at negative effective rates.

59. Contributions before 1999 to second pillar schemes managed by insurance companies were capitalised at this rate for tax purposes, irrespective of the return actually earned. Contributions made since 1999 are capitalised at the actual rate of return achieved.

ANNEX IV: REDISTRIBUTION THROUGH THE TAX-BENEFIT SYSTEM

Redistribution through the tax-benefit system is greater than the OECD average

The tax-benefit system in Belgium reduces income inequality for the working-age population from slightly above the average for 12 OECD countries with full data sets to slightly below the average (Table A10).[60,61] The reduction in income inequality attributable to the tax system (15.1 percentage points) is somewhat greater than the average while that attributable to the benefit system (0.7 percentage points) is relatively small. To some extent, this reflects the choice in Belgium to means test replacement income benefits indirectly by withdrawing tax rebates on them as income rises. Inequality in the distribution of disposable income for the entire population is also slightly below the average for 19 OECD countries (excluding Mexico and Turkey, where conditions differ greatly from those in other OECD countries). For the entire population, the Gini coefficient for market incomes in 1992 is estimated to be 52.7 per cent (Cantillon, 2000). Transfers cut this to 36.0 per cent, social security contributions reduce it further to 34.8 per cent and personal income taxes lower it still more to 29.9 per cent. From this perspective, the redistribution effect of the personal income tax (4.9 per cent) is only 30 per cent of that of the social security system (17.9 per cent). As noted above, such estimates are not comparable with those for countries in which a larger proportion of retirement income is provided through private schemes.

The redistribution effect of household taxes rose during the 1990s

The redistributive effect of personal income tax rose slightly during the 1990s reflecting an increase in the average tax burden; the progressiveness of the tax was stable (Figure A3).[62] This increase in the tax burden reflects the fact that a large part of the increase in taxation that was necessary to reduce the budget deficit to 3 per cent, in line with the Maastricht Treaty, was imposed on households (de Coster, Gerard and Valenduc, 2002). Two measures introduced in 1993 were particularly important in this regard: the limitation of tax-bracket indexation to the zero-rate amount; and the additional crisis surcharge of 3 per cent of taxable income. Two new taxes on households were also introduced which were more progressive than the personal income tax -- the special social security contributions and the solidarity tax on pensions.

60. Benefits are also considered because they are a close substitute for taxes in redistribution. For example, if benefits are indirectly means tested through withdrawing tax concessions, as occurs in Belgium, this will tend to reduce the redistribution effect of the benefit system but to increase that of the tax system relative to direct means testing, as occurs in Australia or the United Kingdom. For the purposes of an international comparison, it also preferable to focus on the working-age population as high reliance on public old-age pension systems in some countries, such as Belgium, exaggerates the initial inequality of income distribution and the redistribution effect of government transfers.

61. Taking into account VAT would not alter the amount of redistribution in Belgium as it is proportional to total consumption expenditures (de Coster, Gerard and Valenduc, 2002).

62. The methodology used is that of Kakwani (1977). The redistributive effect (RE) is calculated using the average tax rate (t) and progressiveness (P) as follows: $RE=t*P/(1-t)$.

Table A10. **Gini coefficient for the working age population, mid-1990s**

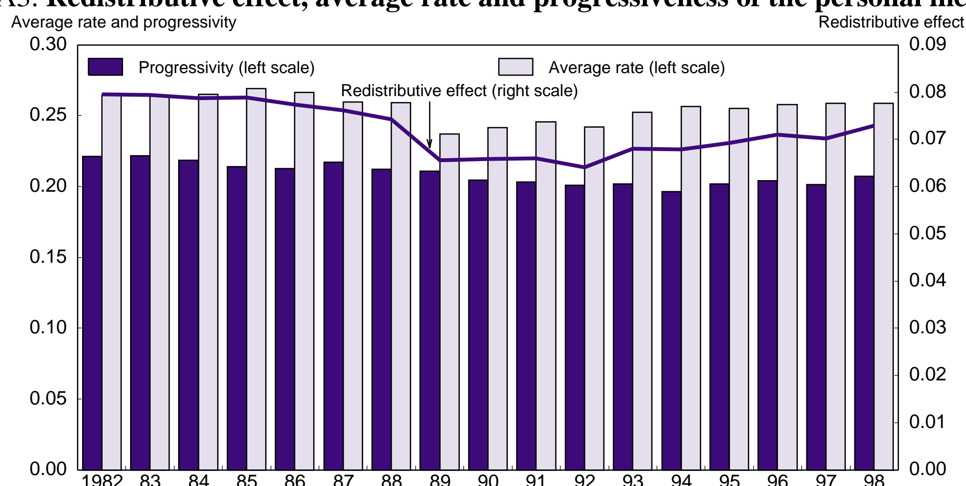
Equivalence scale elasticity 0.5[1]

	Market incomes	Market incomes and transfers	Disposable income	Redistributive effects			Miscellaneous
				Transfers	Taxes	Total	GINI coefficient for disposable income of the entire population
Australia	47.4	44.5	29.0	3.0	15.5	18.4	30.5
Austria			23.3				23.8
Belgium	43.2	42.5	27.4	0.7	15.1	15.8	27.2
Canada	45.0	43.7	28.7	1.3	15.0	16.3	28.5
Denmark	36.5	33.5	20.5	3.0	13.0	16.0	21.7
Finland	39.0	36.4	23.4	2.6	13.0	15.6	22.8
France	34.5	33.6	27.7	0.9	5.9	6.8	27.8
Germany	41.9	41.9	28.2	0.0	13.7	13.7	28.2
Greece			32.2				33.6
Hungary			28.6				28.3
Ireland			32.1				32.4
Italy	47.0	48.2	34.2	-1.2	14.0	12.8	34.5
Japan							26.5
Mexico			52.7				52.6
Netherlands	43.0	40.1	25.4	2.9	14.7	17.6	25.5
Norway			24.9				25.6
Sweden	40.8	41.1	24.7	-0.4	16.4	16.1	23.0
Switzerland							26.9
Turkey			50.5				49.1
United Kingdom	44.1	41.6	30.4	2.5	11.2	13.7	31.2
United States	49.1	48.5	33.3	0.5	15.2	15.8	34.4
Average (12)[2]	42.6	41.3	27.7	1.3	13.6	14.9	27.9
Average[3]			27.9				28.0

1. Household income is divided by the square root of the number of persons in the household in recognition of economies of scale in household consumption. A higher value would reflect an assumption of less economies of scale, with an elasticity of 1.0 corresponding to the assumption of no economies of scale in household consumption.
2. Simple average of 12 countries with full data sets.
3. Simple average of all countries except Mexico and Turkey, which are outliers.

Source: Förster and Pellizari (2000) and own calculations.

Figure A3. **Redistributive effect, average rate and progressiveness of the personal income tax**



Source: Valenduc (2002*b*).

Reform will not alter the redistribution effect of the personal income tax…

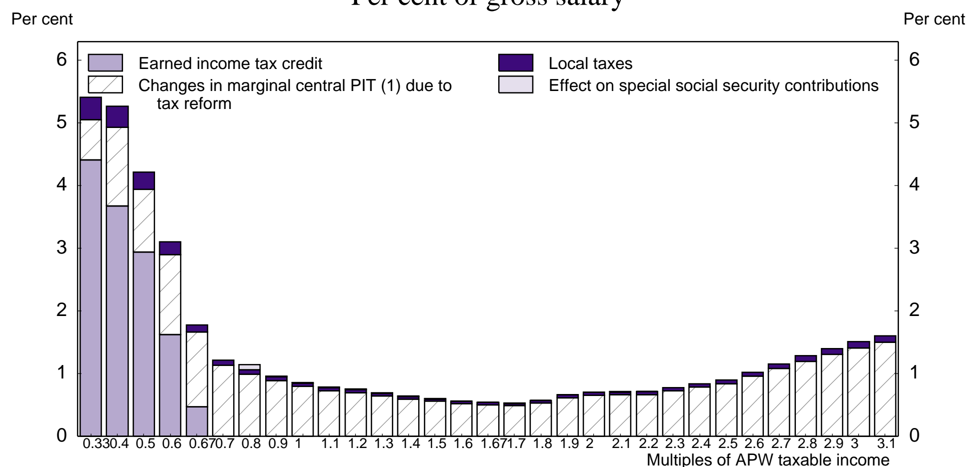
The personal income tax reform delivers the largest tax cuts as a percentage of gross salaries to low-income earners and the smallest reductions to middle-income earners (Figure A4). The gain for low-income earners is mainly attributable to the non-wastable tax credit (Valenduc, 2002*b*) while high-income earners benefit from the abolition of the top two tax rates. The reductions are such that persons in the first, fifth and sixth income deciles pay a smaller share of total income tax while persons in the other income deciles (including high-income earners) pay a higher share: overall, the reform increases the progressiveness of the personal income tax (Table A11). This impact on the redistributive effect of the tax, however, is offset by the decline in the average tax rate: progressiveness is higher but is applied less.

Table A11. **Effect of reform on the progressiveness and redistributive effect of the personal income tax**

	Before reform	After reform
Inequality of taxable income	0.385	0.385
Index of progressiveness	0.186	0.212
Average rate	0.256	0.227
Redistributive effect	0.064	0.062
Inequality of disposable income	0.321	0.323

Source: Ministry of Finance.

Figure A4. **Tax reductions by level of salary**
Per cent of gross salary



1. Personal income tax.
Source: Valenduc (2002*b*).

… but abolition of the additional crisis surcharge will reduce the redistributive effect

Abolition of the additional crisis surcharge has no effect on the progressivity of the personal income tax since it was introduced as a constant percentage of the personal income tax liability. However, it reduces the average tax burden and hence the extent to which that progressiveness is applied. This reduction in the redistributive effect largely offsets the increase that occurred in the 1990s. The reintroduction of indexation also reduces the average tax burden, but the impact on the redistributive effect of the personal income tax is offset by an increase in the progressiveness of the tax.

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