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III. Tax reform

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.

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

Total government outlays as a share of GDP have fallen markedly since the early 1980s but remain high by international comparison (Figure 11). The

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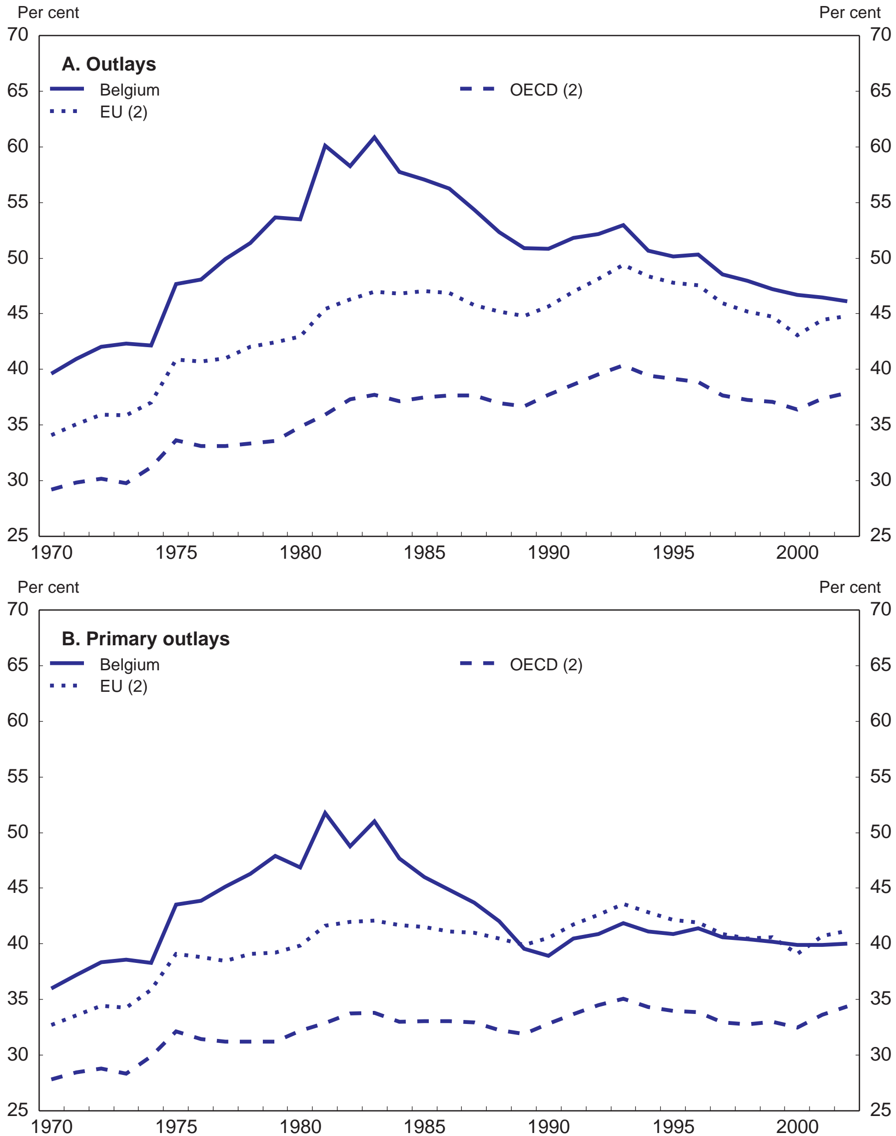
Figure 11. **Government outlays**[1]
Per cent of GDP



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*.

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 of GDP, it would be prudent to raise the budget surplus[36] to 1 per cent of GDP by 2008, as the government plans to do.

Globalisation obliges Belgium to aim for a competitive tax system

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 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.

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

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

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capital rulings – have been identified as potentially harmful in the context of the OECD initiative to eliminate harmful tax practices (OECD, 2000a). 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 US foreign sales corporation legislation, which has now been repealed. The distribution and service centre regimes will be integrated in the new general rulings system.

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*

The tax-to-GDP ratio has risen substantially over recent decades, from 31 per cent in 1965 to 46 per cent in 2000 (Figure 12). 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.[37] The government considers that the tax burden in general and on labour in particular is too high and should be continuously

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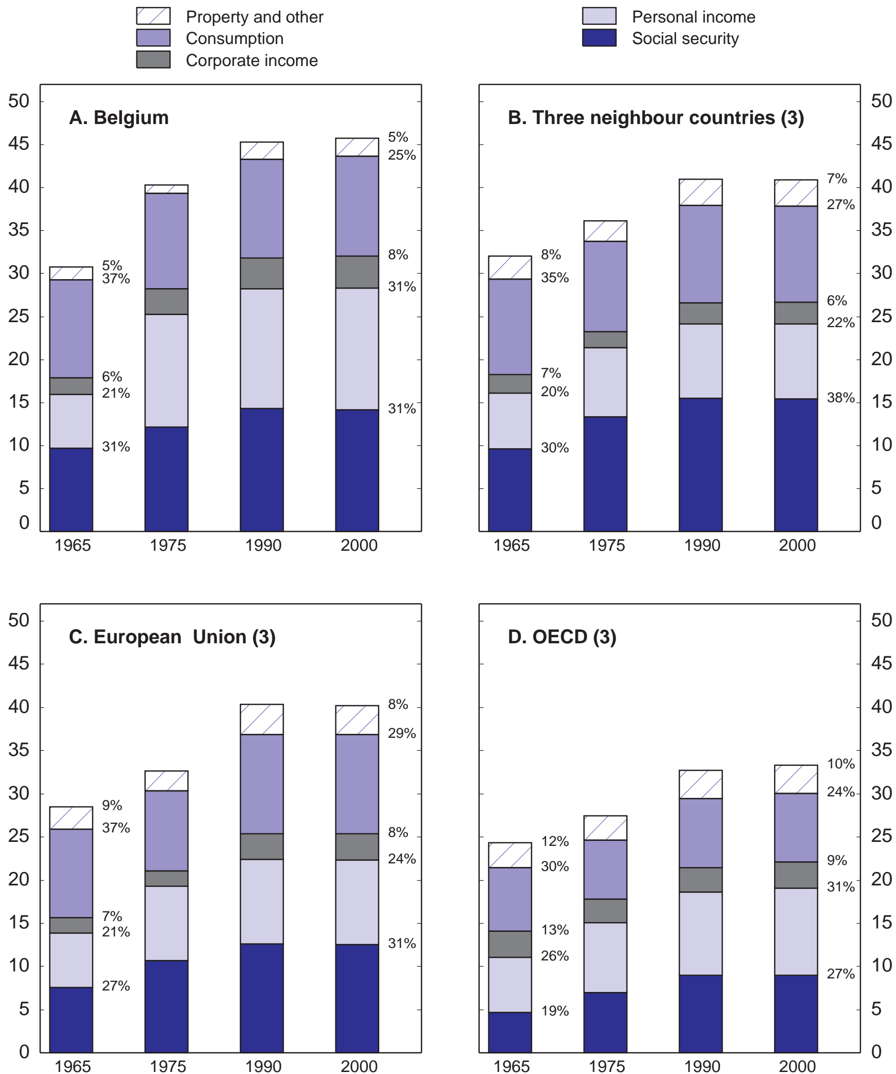
Figure 12. **The evolution of the tax burden and tax mix**[1]
Per cent of GDP (per cent of total revenue)[2]



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*.

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reduced to the level in the three main neighbouring countries (Government Agreement of 7 July 1999).

Labour taxation is high

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

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 13).[38] 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 14).

… reducing employment and raising structural unemployment

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,[39] 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 11). Most of this decline reflects increases in the tax wedge over 1980-93.

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

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 12). 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 15).[40] 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 11).

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

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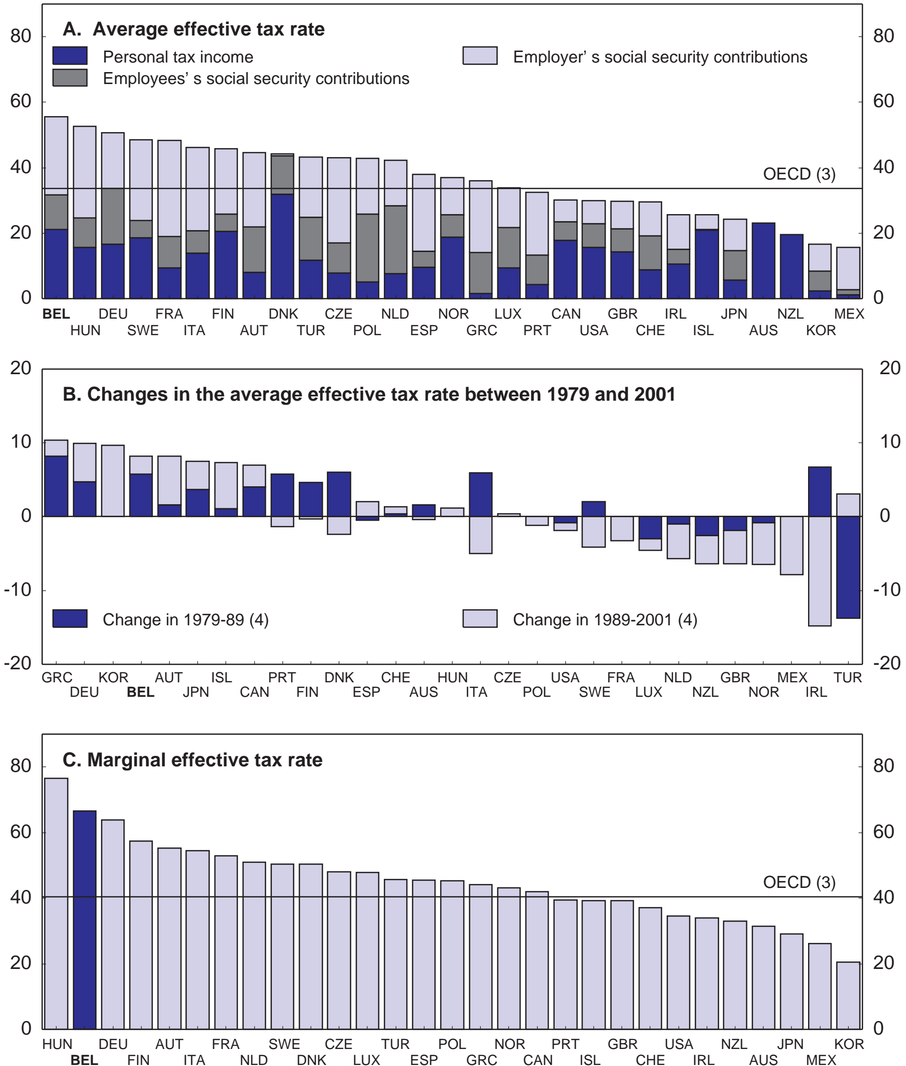
Figure 13. **Effective tax rates on labour income**[1]

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*.

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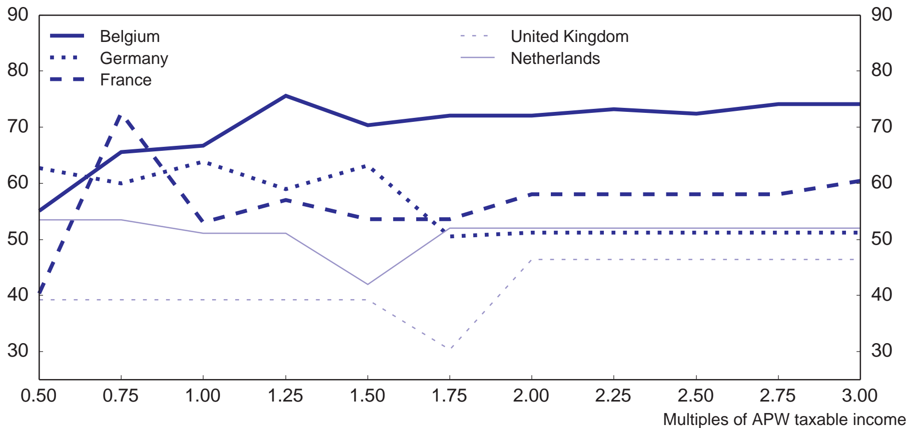
Figure 14. **Marginal effective tax rates on labour income**[1]
Per cent, 2001



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*.

using a general equilibrium model confirm this result for Belgium.[41] Accordingly, the beneficial effects on employment may be greater than estimated by the IMF (see Table 11) 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.

Table 11. **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).

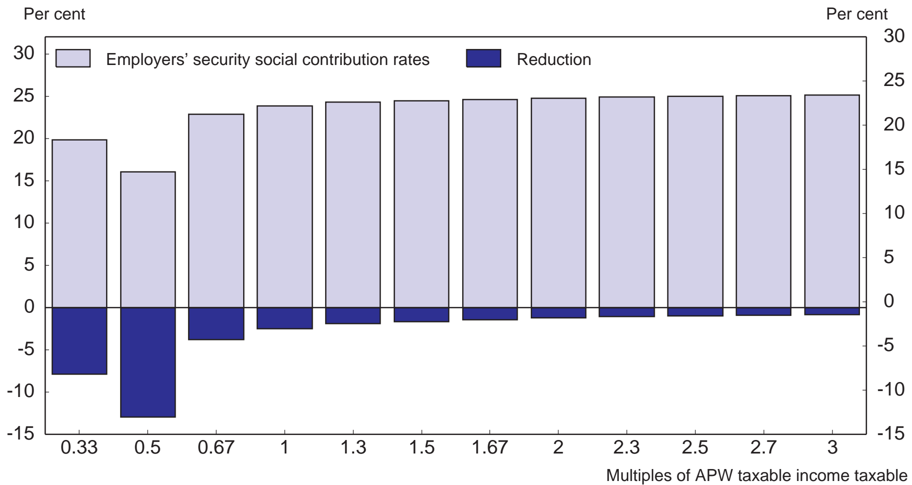
Table 12. **Budget cost of reductions in social security contributions**
Euro million

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Employers									
Reductions in social security contributions	1 490	2 531	2 927	3 113	3 352	3 606	3 714	3 746	3 831
Structural	1 237	2 266	2 667	2 791	3 005	3 227	3 314	3 323	3 385
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.

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 16). Buoyant economic conditions were undoubtedly also a factor, especially in view of the decline in this ratio in 2001.

Figure 15. **Employers' social security contribution rates, 2002**
Per cent of gross labour costs



Source: Federal Ministry of Employment and Labour.

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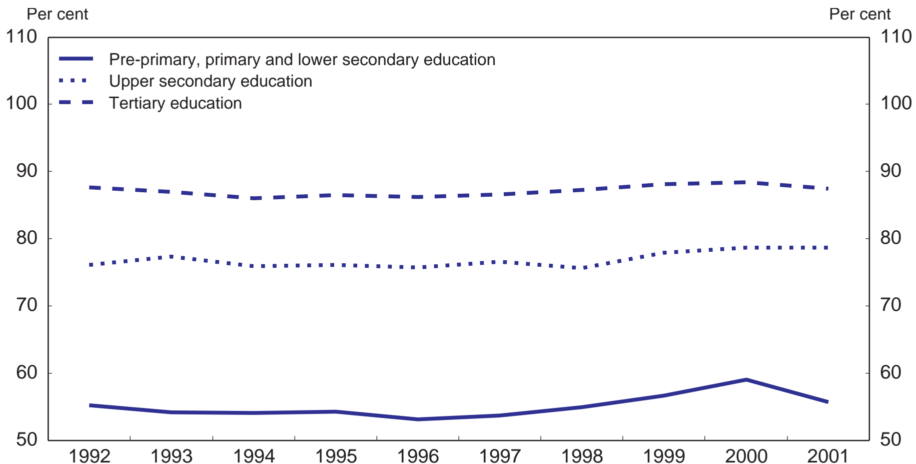
Figure 16. **Employment ratios by level of educational attainment**
Per cent of population[1]



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

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

Starting in 2000, more emphasis was placed on stimulating labour supply by reducing unemployment traps.[42] 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); *prorata* cuts were also made for part-time workers on the basis of the number of hours worked.[43] 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.[44] 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 3 from 80 per cent to 100 per cent and by a number of other measures to facilitate the transition to employment.[45]

The government built on these measures with the introduction of a non-wastable tax credit for low incomes from labour[46] in the context of the personal income tax reform of August 2001 (see Annex II).[47] 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[48] and is expected to cost € 0.45 billion (2001 prices)

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when fully 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.[49]

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 13).[50] 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.[51] 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.

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 17). 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.

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

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Table 13. **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).

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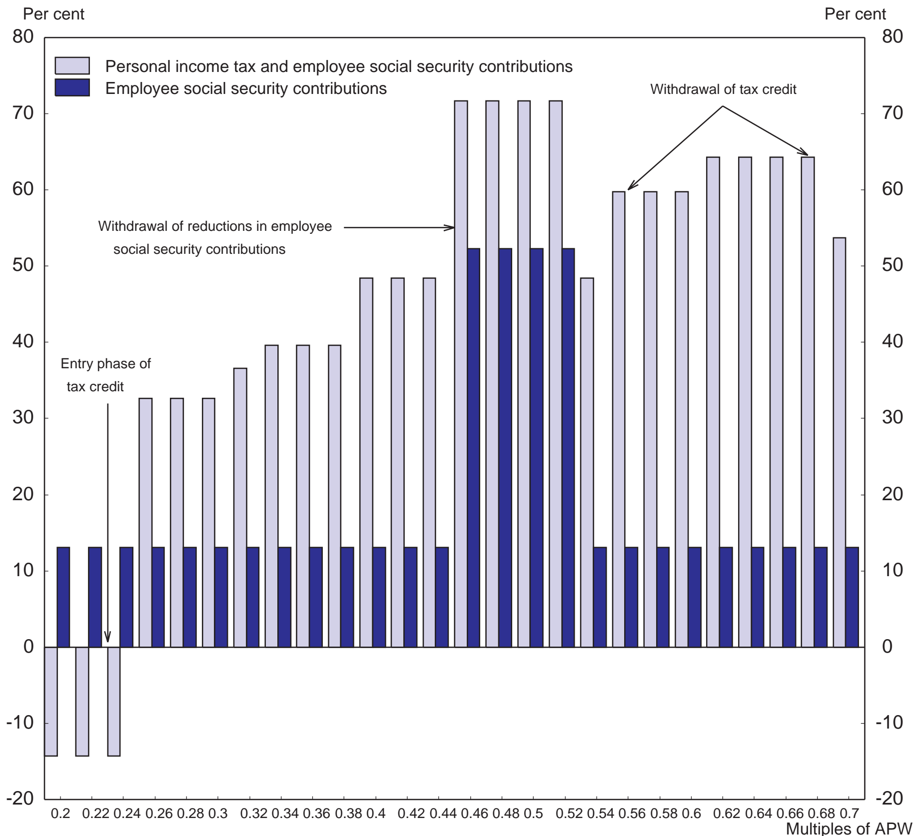
Figure 17. **Marginal effective tax rates on low salaries after the tax reform**



Source: Federal Ministry of Employment and Labour.

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.

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.[52] Second, 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.[53] 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.

Using a macroeconomic model with feedback effects,[54] 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 11). 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

Taxation of stock options was reformed two years ago, when preferential rates at grant were introduced.[55] 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.[56] 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[57] are met for options with an expiry date of up to five 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.[58] 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 14). 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.

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Table 14. **Valuing unquoted stock options**[1]

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.

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

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,[59] 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.[60, 61] It has to be seen whether external benefits warrant these tax expenditures.

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

A *wide range of goods and services is exempt from* VAT

The standard rate is 21 per cent, which is high by international comparison (Table 15). 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

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Table 15. **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*.

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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

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[62] while dividends from companies qualifying for reduced corporate income tax rates are taxed at somewhat lower rates.[63] 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

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 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

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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

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

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.

subject to the same tax treatment as employee contributions to second pillar schemes.

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

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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

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 18). 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.

Taxation of owner-occupied housing is low

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 5 years,[64] interest on borrowings is deductible up to the amount of imputed rentals[65] and most capital repayments qualify the taxpayer for a small tax reduction. These 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 19).[66]

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.[67] 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.

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

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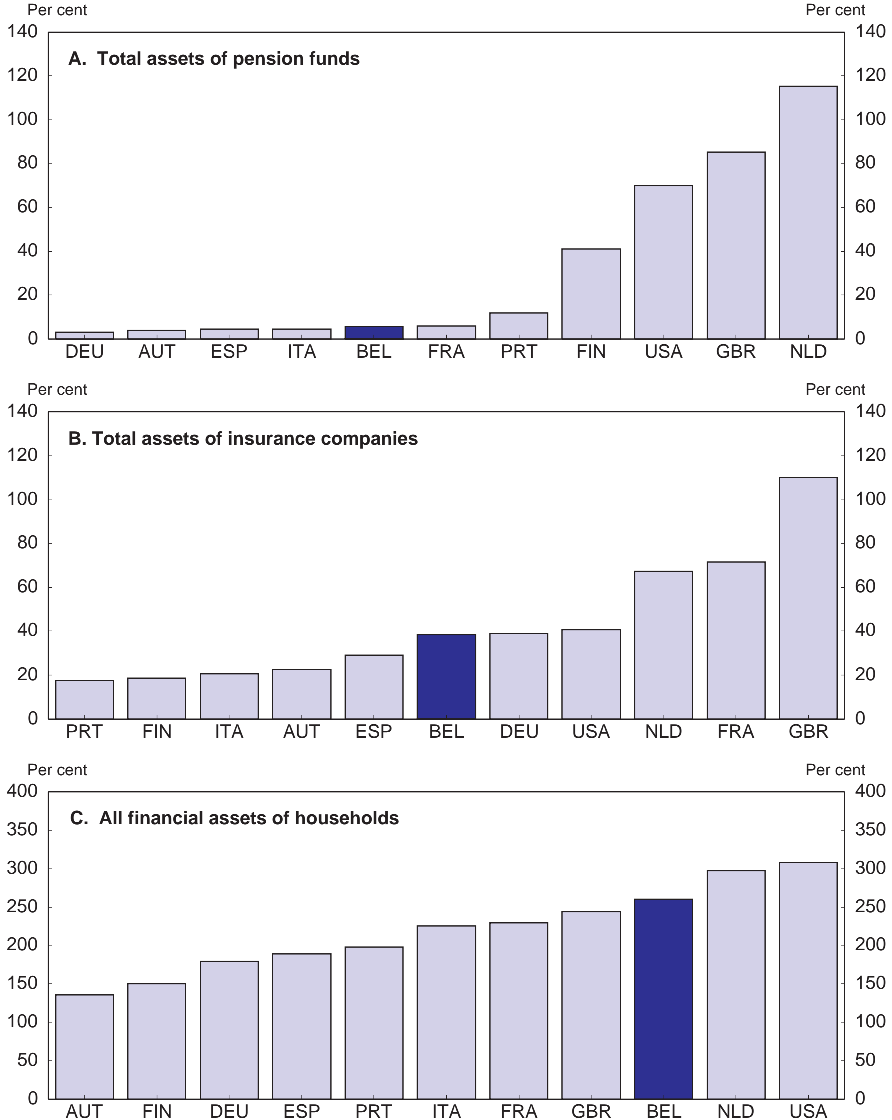
Figure 18. **Gross assets of pension funds and insurance companies and financial assets of households**[1]

Per cent of GDP, 2000



1. France, Finland and Spain: Pragma Consulting (1996) for pension funds. USA household financial assets in 2001 were 247 per cent of GDP.

Source: Eurostat and OECD, *Institutional Investor*, Yearbook 2001.

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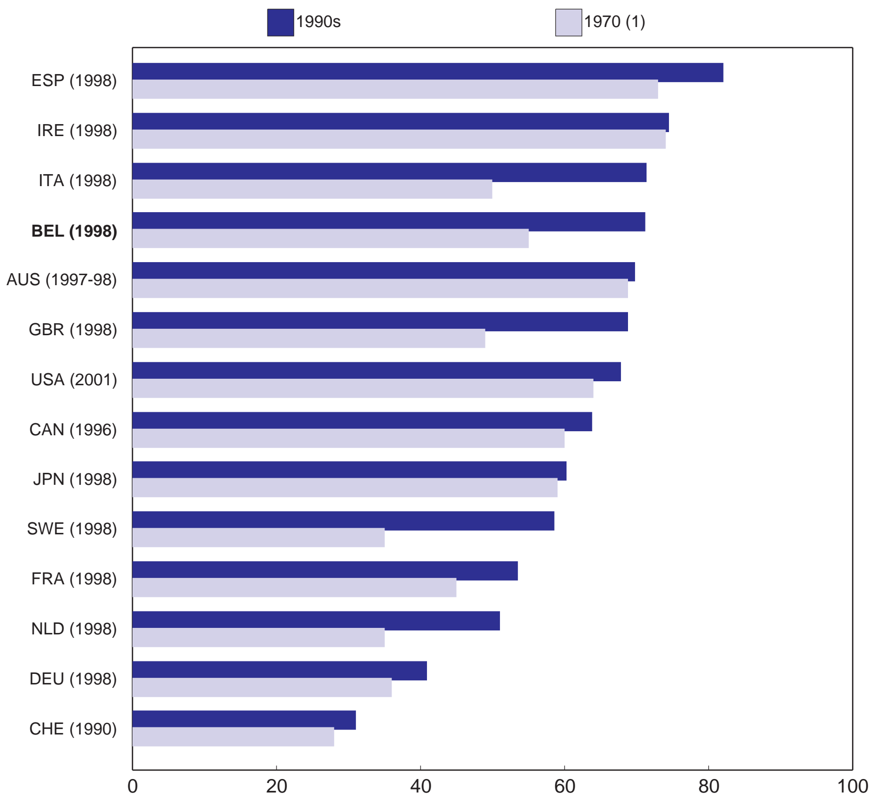
Figure 19. **Share of owner-occupied housing in selected OECD countries**



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

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.[68] 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 a principal residence.[69] 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,

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Table 16. **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.

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.

Taking account of taxation of imputed rentals, rates, property registration fees,[70] 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 16). These rates, which are based on real returns, are higher than on other long-term investments (notably second pillar investments)[71] but lower than on other financial investments.[72]

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

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).[73] 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.

Widening of the corporate income tax base started in the 1990s, raising effective rates and making the tax system more neutral[74]

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

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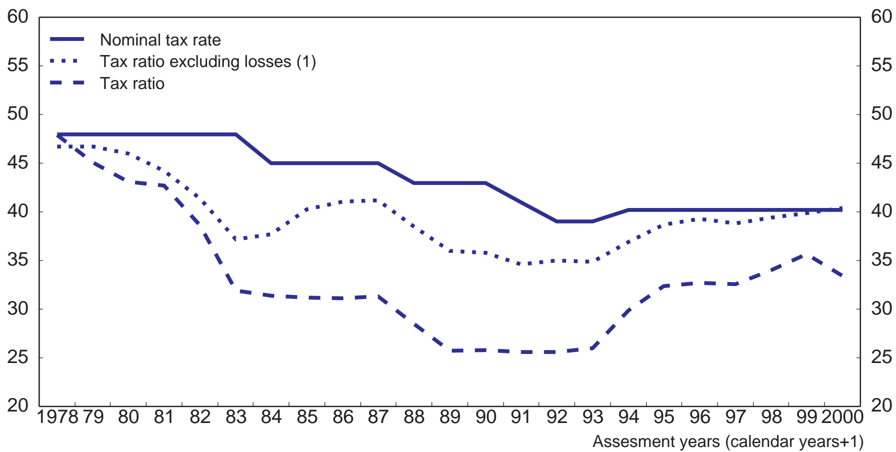
Figure 20. **Corporate income-tax rate and tax ratio**



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

Source: Valenduc (2002a).

share of corporate profits as reported in the national accounts) (Figure 20). 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 supérieur 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).[75] These measures substantially reduced tax expenditures and base erosion from abuse of provisions to avoid double taxation of foreign-source income (Table 17). 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[76] had increased almost to the nominal tax rate (see Figure 20). 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 (1998a) approach to measuring the marginal effective company tax rate,[77] Belgium now figures in a group of countries with an intermediate gap (of 4-6 percentage points) between the nominal- and average-effective corporate tax rate (Figure 21). The current corporate income tax reform continues along the same lines (see below).

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Table 17. **Tax expenditures, nominal and effective corporate income tax rates**

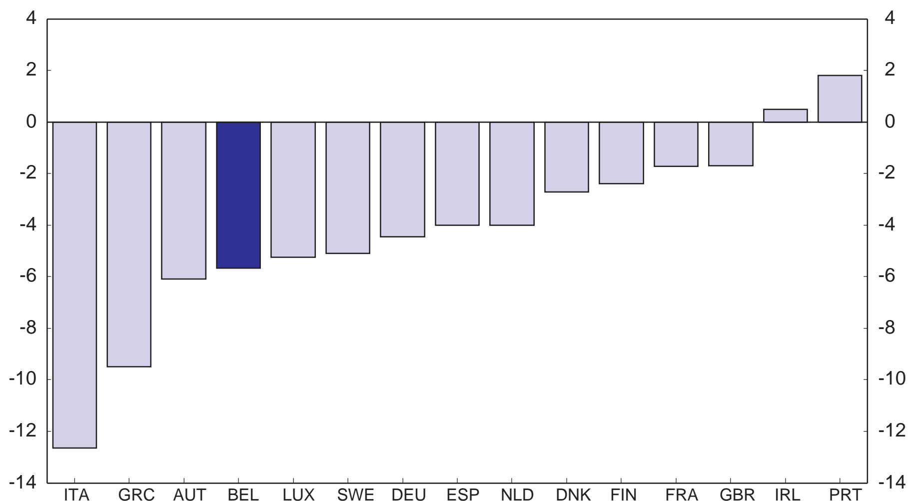
Per cent

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.

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[78] was enhanced by the changes to

Figure 21. **Gap between effective and nominal corporate income tax rates**



Source: European Commission (2001a).

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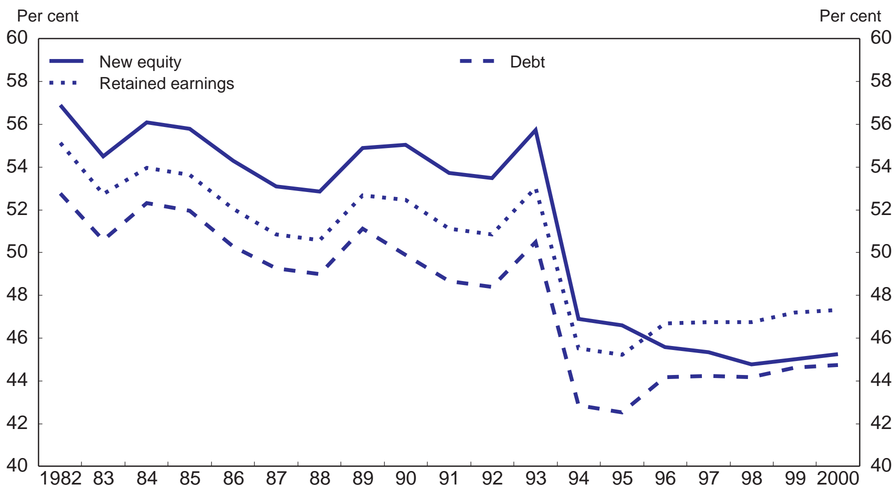
the participation exemption system and the move from a fixed notional tax credit to the effective withholding tax paid on interest received from abroad.

Debt financing continues to be tax-preferred for SMEs

Until 1996, the AETR (based on the Devreaux and Griffith, 1998a, methodology and assuming a closed economy framework[79]) 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 22). 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

Figure 22. **Average effective tax rates for small and medium enterprises**[1]



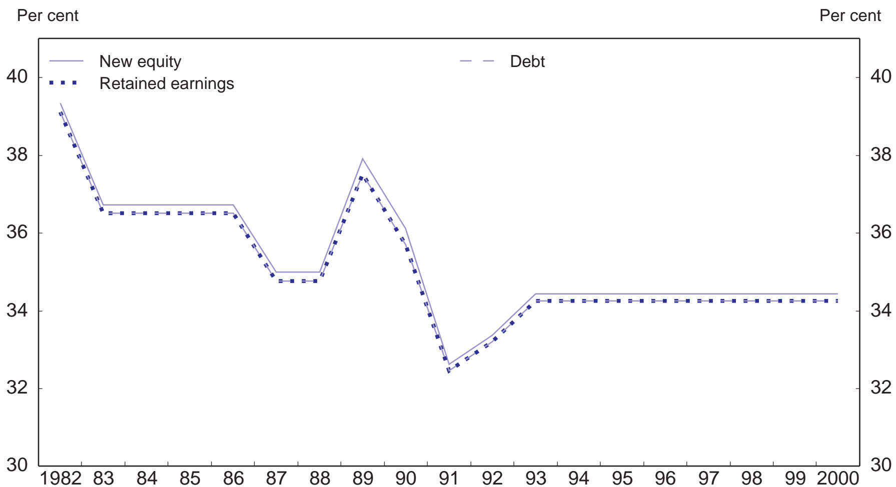
1. With fixed inflation and interest rates.
Source: Valenduc (2002a).

has encouraged firms to adopt riskier financial structures than they would have in the absence of taxation.

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

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 23). 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 23. **AETR for parent-subsidiary case**[1]



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

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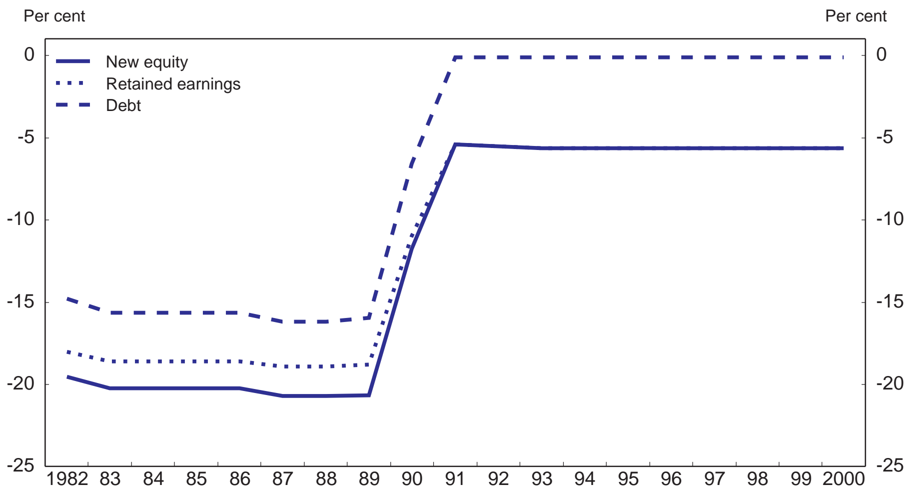
Financing a subsidiary by new equity or retained earnings is tax-preferred when a Belgian co-ordination centre is involved

Large companies using a co-ordination centre[80] 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 24). 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.

The corporate income tax system discourages investment in Belgium

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, 2001a). The importance of taxation in location decisions is confirmed in a recent empirical review of the literature (OECD, 2001a), where it is concluded that direct investment flows have become

Figure 24. **Change in AETR resulting from the use of a Belgian co-ordination centre**[1]



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

more sensitive to effective tax rates. Recent studies (Devreux and Griffith, 1998b; 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, 1998a). 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 18).

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

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.

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

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 20).

Tax reform is also aimed at supporting the development of SMEs

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

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Table 18. **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 (2002a).

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Box 2. Corporate income tax reform

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

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).

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;*

– Depreciation rates are to be less favourable by aligning them with the exact timing of the investment (*prorata 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 19);
- 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.

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.

Table 19. **New company tax scales for SMEs**

Per cent

Taxable profits (in euros)	Former rates	New rates	New global rates (including ACS[1])
0 to 24 789	28	24.25	24.98
24 790 to 89 242	36	31	31.93
89 243 to 322 262	41	34.5	35.54
> 322 262	39	33	33.99

1. Additional crisis surcharge.
Source: Ministry of Finance

* 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.

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Table 20. **Direct investment tax incentives at a corporate 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 18. 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 (2002a).

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.[81] Both the reduction in progressive rates and the 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

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).[82] 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[83]

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

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

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

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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

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

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

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,

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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

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

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

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

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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.

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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.

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Notes

1. Exports of goods comprise 85 per cent of exports of goods and services.
2. The reclassification of public radio and television enterprises from the market sector to the government administration sector also reduces measured growth in consumption expenditures in 2002. This change in national accounts classification was made following the decision to transfer control over television licence fees to the regions. This reduced the share of own revenues for those enterprises below the minimum required to be classified as an enterprise. Consequently, television licence fees are recorded in the national accounts as a tax, not private consumption, and collective private consumption expenditure now only includes the value of inputs.
3. This is based on a partial elasticity of private consumption with respect to financial wealth of 5 per cent.
4. Direct listed share holdings only accounted for 8.3 per cent of households' financial assets at the end of 2001. Taking into account some assets directly linked to listed shares, the proportion rises to 12.3 per cent if equity mutual funds are taken into account and to 15.9 per cent if index-linked mutual funds are also included.
5. There is normally a three quarter delay between commitments with architects and construction getting underway.
6. This includes unemployed persons entitled to a benefit, young workers during the waiting period, voluntarily registered persons and other unemployed jobseekers.
7. This reduced inflation by 0.3 percentage point in April and will have the same effect in October. The fact that the trimmed mean of underlying inflation (see Figure 9), which excludes extreme price movements such as that related to the abolition of the television licence fee, is falling underlines that other factors are also contributing to the decline in underlying inflation.
8. The health index excludes petroleum products for transport and cigarettes and alcohol from the consumer price index.
9. It should be noted a monetary conditions index abstracts from many important factors in the monetary transmission mechanism, including asset prices, long-term interest rates and the credit channel. However, it is doubtful that taking these factors into account would alter the current assessment of monetary conditions.
10. The initial autumn 2000 projection by the National Accounts Institute ("Budget économique") expected GDP growth to be 3.1 per cent in 2001 but the government decided to base the Federal budget on 2.5 per cent growth. Unlike in many other countries of the euro area, the government in Belgium has been providing itself with a safety margin since several years to meet the budget target even in case of lower-than-projected GDP growth ("golden-hamster-principle"). Over the cycle, this should ensure

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government projections that are at best cautious and at worst realistic. A variety of the hamster principle was to neglect that the implicit interest rate on public debt had come down until mid-2001.

11. Other one-off government receipts and negative outlays equivalent to 0.3 per cent of GDP occurred in 2001 and therefore do not affect the two-year comparison 2000-02. Sales of public buildings and restitution by private companies of reductions in social security contributions under the "Maribel" arrangement (incompatible with EU legislation), contributed 0.3 per cent of GDP. The auction of UMTS licenses held in 2001 yielded another 0.2 percentage point. This was less than in other European countries due to the small size of the Belgian market, the unexpected withdrawal of a fourth bidder and the date of the auction well after the peak in telecommunication share prices.
12. The OECD estimates for Belgium of the GDP-elasticity of direct tax revenues from households and of current expenditure are 1.3 and 0.4, respectively (Van den Noord, 2000, p. 19). The OECD measure of the adjusted fiscal balance is cruder than Bouthevillain *et al.* (2001) in that it does not take into account changes in the composition of growth in GDP by expenditure in different years (*e.g.* stronger-than-average consumption *versus* stronger-than-average export growth) although these might affect the government budget balance.
13. The implicit interest rate on public debt came down only in 2002. In 2001 it remained stable as the rate on bonds with a maturity of up to one year increased – this rate follows reductions in market rates by the ECB with a time lag – and the share of long-term debt in total debt kept rising. Interest payments relative to GDP came down in 2001 on average because of the significant fall in the debt-to-GDP ratio in the course of the year 2000 and a moderate further reduction in 2001.
14. In general the funds available to Ministries are not spent to 100 per cent. A constant utilisation rate of credits implies a special saving effort in Ministries, which had seen their budget reduced and in those, where the credit utilisation rates for whatever reason had been low in 2001.
15. Another net stimulus of 0.1 per cent came from regional and local initiatives. The Flemish region abolished the radio and television fee, reduced registration taxes from 12.5 to 10 per cent and granted a one-off tax reduction by € 62 on revenues of 2000. These Flemish measures were partly offset by increases in personal income tax supplements levied at the municipal level.
16. Net VAT receipts usually swing around substantially at cyclical turning points, since refunds have a longer lag than gross receipts. Nevertheless the deterioration of revenues between 2000 and 2001 appeared to be extraordinary. The sustained buoyancy of refunds (driving down net receipts) can be explained partly by the strength of exports in the second half of 2000 when the domestic economy had already cooled down. After the announcement of tighter controls by the government in July 2001 refunds fell sharply suggesting that the measure was a success. Refunds have been corrected since mid-2001, leading to growth in net VAT receipts during the first nine months of 2002 (+2.4 per cent) despite sustained weakness in the economy.
17. The remaining part of the margin was dedicated to spending priorities identified in the fields of Community finance, social security, and social transfers to the poor.
18. These calculations are based on primary expenditure deflated with the national index of consumer prices.
19. Potential output is projected to grow by an average 2.3 per cent in the 2002-04 period.
20. The OECD output gap for Belgium (in per cent of potential GDP) averaged 0.1 from 1997 to 2001 but only –1.5 from 1992 to 1996 (whole decade: –0.7).

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21. The level of tax revenues reshuffled to the communities as a percentage of GDP will be higher by 0.3 in 2005, 0.6 in 2010, and 1.1 in 2020 compared with the level in 2001.
22. This results from a sensitivity analysis by the NBB.
23. This projection does not yet take into account government plans to take over gradually the debt of the national Railway Company. A first step of debt assumption equivalent to about 2 per cent of GDP is planned for the end of 2004, provided that the debt-to-GDP ratio remains below 100 per cent after the debt takeover.
24. By contrast, spending pressures are going to ease in the field of security after full implementation of the police reform.
25. As the Flemish Region has decided tax cuts, the scope for the Walloon and Brussels Regions reaching their targets by tax increases is limited by inter-regional tax competition.
26. The regions, however, being the responsible authority, do subscribe to the commitment to convince the local authorities to respect their budgetary targets.
27. For an individual benefits are based on 1.33 per cent of career average earnings per year of employment, with a maximum of 45 years employment taken into account. A married couple can choose between a pension based on the earnings of each spouse or can draw the highest of the two pensions increased by 25 per cent. Earnings more than 27 per cent above the pay of the average production worker do not give the right to a pension.
28. Past earnings have not always been up-rated in line with average earnings and not all employees work for 45 years.
29. For people with career-average earnings less than 40 per cent of average pay, there is a minimum pension equivalent to 30 per cent of the earnings of the average production worker, provided the person has worked for 15 years. Thus a low-paid person, earning 30 per cent of average earnings, would have a replacement rate of 80 per cent.
30. No matter how few years a person has worked, there is a guaranteed minimum pension that is equal to 20 per cent of average earnings. The share of pensioners receiving this minimum fell from 6.7 to 5.3 per cent of all pensioners between 1990 and 2001.
31. The legal retirement age for women is progressively raised to that for men. It will be 63 in 2003 and 65 in 2009.
32. 260 per cent of GDP compared with 244 per cent in the United Kingdom and 308 per cent in the United States.
33. Proceeds of the fund are invested in government bonds, as occurs with similar arrangements in the United States (the social security fund) and the Netherlands (the silver fund). In common with these other arrangements, transfers to the fund amount to an accounting entry within the public sector: they have no direct effect on the public debt ratio.
34. In April 2002 the Study Group on Ageing (*Comité d'Étude sur le Vieillissement*) published its first report (High Finance Council 2002). It was prepared by the Federal Planing Bureau (FPB) which serves as the Secretariat to the Study Group and ensures consistency of the scenarios with the FPB's medium-term macroeconomic projections (*e.g.* FPB, 2002b). The report was then used by another section of the High Finance Council (*Section "Besoin de financement des pouvoirs publics"*) in its annual report 2002 (July 2002), which gives general recommendations concerning the budgetary position.
35. Second-pillar pension benefits paid out as annuities are now also taxed at 16.5 per cent as lump sum withdrawals of accumulated savings. The complementary savings scheme (including employees' contributions to pension saving funds, life insurances

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and the second pillar) receive the following favourable tax treatment: a personal income tax reduction amounting to between 30 and 40 per cent; exemption from the withholding tax on interest (assumed to accrue at a rate of 4.75 per cent per year); and a tax rate on benefits of 17.5 per cent (see Chapter III, Box 1).

36. Measured on a System of National Accounts (SNA) basis for all levels of government.
37. 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.
38. 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*).
39. 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.
40. 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.
41. 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.
42. 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.

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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).

43. 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.

44. 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.

45. 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).

46. 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.

47. This reform is complemented by transforming deductions for dependants into refundable 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.

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

49. 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.

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

51. 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.

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52. 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

53. 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.
54. 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.
55. 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.
56. 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.
57. 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;
   - 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.

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58. 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.
59. 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.
60. 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.
61. 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 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.)
62. 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.
63. 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.

64. 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.
65. 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 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).
66. Incidentally, the high rate of owner-occupied housing is another factor to take into account when considering the adequacy of Belgians' savings for retirement.
67. 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.
68. The second principal residence must be bought within two years of the sale of the first.
69. 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.
70. These are 12.5 per cent. It is assumed that the property is held indefinitely.
71. As noted above, effective tax rates are negative on second pillar savings.
72. 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).
73. 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.
74. This and a number of the following sections on corporate taxation draw heavily on Valenduc (2002b).
75. 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.

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- 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).

76. 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 (2002b, p. 60) for more information.

77. 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.

78. 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.

79. 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.

80. 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, 2002a).

81. 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.

82. 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

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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.

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

84. Series have been smoothed with a Hodrick Prescott filter up to and including 2001. To mitigate the so-called endpoint problem, series have been extended up to 2005 on the basis of projections in the OECD *Economic Outlook* 72 (OECD, 2002a) and by the Federal Planning Bureau (FPB, 2002). A lambda of 30 was chosen to obtain a symmetric distribution of filtering weights up to 2001. At this lambda for annual data, for cycle lengths up to nine years, at least 90 per cent of the cyclical components is excluded from the original series (Bouthevillain *et al.*, 2001).

85. These data at the branch level were only available for 1995.

86. Figures calculated by Kegels *et al.* (2002) before the upward revision of employment figures in November 2002.

87. Aggregate figures on employment and participation rates in this section incorporate the upward revision in November 2002 (by around 3 percentage points). Revised disaggregate data are not yet available.

88. Percentages on the basis of the European Labour Force Survey. Other goals are halving the number of youngsters with only primary education and an increase in the employment rate of women to 60 per cent.

89. In 2000, the employment rate, measured in terms of persons, was about 3 percentage points lower than in the OECD and even 9 percentage points lower than in the Netherlands. Already before the upward revision of employment data, however, Belgium ranked more favourably, if employment rates were measured in full time equivalents (relative to the Netherlands, for instance, the lag would decrease to 2 percentage points European Commission, 2002a).

90. Due to these exemptions in 2001 only 57 per cent of the persons entering the early retirement programme were replaced.

91. The official pre-pension age is 60, but social partners are allowed to set a minimum age of 58 in sectoral agreements. The pension age for women is being progressively raised to 65 by 2009.

92. According to Cockx (2001), the chances to find a job are particularly small for low-skilled workers, for which there is insufficient demand. In 2000, the unemployment rate among Belgians born outside Europe was about 35 per cent (Federal Ministry of Employment and Labour, 2002a).

93. OECD (2002c). Figures refer to 1999 and have been calculated using purchasing power parities.

94. This is due to lower tax rates, higher child and other allowances and lower municipality taxes. Other allowances may concern the costs of healthcare, electricity and public transport.

95. In that case the number of years worked must be at least 15 years.

96. Université catholique de Louvain (2000); OECD (1998a). Workers with a tertiary degree had a 17 per cent higher wage than workers with a secondary education.

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97. HEC (2002), p. 122. According to the broader national definition, used by the Federal Ministry of Employment and Labour, the unemployment rates were 7.9, 17.1 and 19.8 per cent respectively (September 2002).
98. The above figures imply that an increase in outward mobility of Walloon workers by around one-quarter (from 20 to 25 per cent) would halve the unemployment rate in the region.
99. The cost of commuting by public transport is, however, limited. Reimbursements by employers are fully deductible from personal income taxes up to a commuting distance which in 2003 will be raised from 25 to 50 km.
100. For more details on the measures taken up till 2000, see Federal Ministry of Employment and Labour (2001).
101. Social security contributions by workers with a monthly wage below € 1 500 (around half a million employees), are to be further lowered in 2003, resulting in net income increases of up to 4 per cent, part of which would lead to a further reduction in the replacement rate.
102. Having worked for at least 20 years is a condition many women under the previous scheme did not meet, but those already in the old scheme were allowed to switch to the new scheme.
103. The bonus corresponds with the wage for 2 hours (age 45) to 6 hours (workers 55 and over).
104. In 1999, 11 000 unemployed lost their benefit because the duration of their inactiveness exceeded the average duration of their reference group of unemployed by more than 50 per cent.
105. Communication by the Federal Ministry of Employment and Labour.
106. Since January 2002 these jobs are integrated in the so-called ACTIVA plan.
107. *http://meta.fgov.be/pdf/pd/frdf25h.pdf*
108. Federal Ministry of Employment and Labour, Press release 28-08-2002
109. Vouchers represent a subsidy of € 30 for each amount of € 30 spent by a firm on training. In 2001, for vouchers the government had reserved some € 50 million.
110. The budgetary cost in 2000 was around € 50 million.
111. For 2001 and 2002 the total increase was limited to 6.4 per cent, except for very well performing industries, which were allowed to increase wages by an additional 0.6 per cent.
112. Written communication by the Central Economic Council.
113. In Belgium a merger is subject to notification if at least two of the firms involved have a turnover higher than € 15 million and at the same time the combined Belgian turnover exceeds € 40 million.
114. For example, in 2001 only two mergers notified earlier led to a Phase II investigation. No merger decision was appealed against at the Brussels Court of Appeal. This compares with a total of 48 notified mergers. During the eight years from 1994 to 2001, 5 decisions not to approve a merger were taken, 32 cases are outstanding (OECD, 2002d, p. 6).
115. In the Netherlands, the turnover threshold for the individual firms engaging into a merger was lifted from € 14 million to € 30 million in 2002.

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116. This gives other stakeholders (service providers without network and consumers) a chance of articulating their interests.
117. This requirement is met in Belgium by the annual reports of the regulators for the electricity and gas markets (CREG) and of the telecommunications and postal sectors (BIPT).
118. Another measure to increase the personal distance between the regulator and the regulated firm consists in sector-to-sector job rotation within the regulation agency, a common practice in the German Cartel Office.
119. See Knieps (2000, p. 20) for technical progress and Kumkar (2000b, p. 374) for finding optimal allocation rules for network access revenues by a learning process.
120. The benefits of bringing telecommunications and electricity regulation under a common roof are discussed in Kumkar (2000, pp. 26-27).
121. In the Netherlands, for example, the regulation agency for electricity and gas is affiliated to NMa, the overall competition authority. It is also interesting to note that the Australian Competition and Consumer Commission regulates access pricing in several sectors including telecommunications.
122. Due to technical, administrative and legislative barriers, trains lose most of the travel time at boundaries. The average speed of international rail freight haulage is only 18 km/hour (European Commission, 2001c, p. 28).
123. Market entry is prevented by falling marginal and huge sunk costs in infrastructure management, *i.e.* this stage of railway service production is a natural monopoly, whereas traction presents ample scope for competition. In analogy to air traffic, some authors consider capacity management and security services as a separate stage of production "in between", since fixed costs are not sunk, making the market for these services contestable and thus removing the static inefficiency implied by its monopolistic provision (Knieps 1996). At each stage, vertical disintegration involves efficiency gains from actual or potential competition, which have to be assessed against higher co-ordination costs.
124. The somewhat better result for Belgium from input distance function estimates in Coelli and Perelman (2000) is called into question when using the stochastic frontier method (rather than a deterministic approach) to account for cross-country differences in exogenous factors (Trujillo 2003, forthcoming).
125. One insight from a comparison between the six studies reported is that results are sensitive to the measure chosen. Rank correlation coefficients for the ten countries covered by all six studies are broadly positive (but mostly below 0.5) only after ignoring the Gathon-Pestieau results. This makes the consistently low performance of Belgian railways all the more striking.
126. This holds in application of the theory of effective tariff protection, which states that lower tariffs on inputs than on final goods and services strengthen the protection for domestic value added. In the current situation, tariffs on goods imports are virtually zero whereas access to essential service input markets is nearly prohibitive.
127. A vertically disintegrated network owner maximises revenues from (regulated) user fees and therefore has an incentive to get a maximum number of trains on his network. In a vertically integrated firm such a strategy would cost market shares to the in-house transport services branch and joint profit maximisation would account for the trade-off between the market share of own transport services and revenues from third-party access.

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128. Already in 1998 the European Commission noted the insufficiency of mere accounting separation, since it leaves incumbent railway undertakings closely linked to infrastructure managers who control access (European Commission, 1998).

129. Unit costs are likely to come down following liberalisation. Reform experience in other countries (*e.g.* Germany) shows that niche market suppliers are capable of providing transport services at terms accepted by customers on routes given up by the former incumbent (OECD, 2001h, p. 80).

130. One motivation for cheap transports is to combat labour market mismatches. However, this is better achieved with specific labour market and labour tax policies (Chapters III and IV). Besides, receipts from pricing congestion can be used to lower distortionary taxes on labour.

131. Belgian households still pay higher electricity prices than the EU average (they used to have among the highest prices in the European Union), whereas companies pay less than the EU average according to the authorities.

132. In most cases, Electrabel is a capital co-owner in these trusts ("*intercommunales mixtes*").

133. In line with an OECD-wide trend, fixed charges were increased and bundled with set-up charges – occurring when the first time unit costs more than subsequent units – in the basic subscription. In terms of prices, Belgacom *de facto* abolished the distinction between local and long-distance calls (OECD, 2001b, p. 171). The incumbent, which has still a 95 per cent market share for long distance calls, reduced prices for national calls in 2001 from € 1.74 (ten minutes call) to € 0.54. On the other hand, the price of local calls increased from € 0.49 to € 0.54, staying among the highest of the EU (32 per cent higher than the EU average. These price evolutions initiated by the incumbent may have created difficulties for other operators mainly active on international and long distance calls. More recently, new types of subscriptions combining a higher monthly fee with some amount of free time were introduced together with moderate increases of variable charges for national calls.

134. Press Release by the Ministry of Telecommunications of 6 February 2002. *http://belgium.fgov.be/fr_index.htm*. This calculation system also applies to binary access services for large band Internet access.

135. This means that gross costs for public services provision, currently estimated at € 62 to 86 million, would have to be lowered by the receipts from fees for public services and the intangible benefits in terms of enhanced visibility.

136. Currently the incumbent firm takes more time than agreed on for breakdown services and for connecting new users to the network (BIPT 2002).

137. Measured in US dollars at purchasing power parities (PPP), the average costs of 40 hours Internet use per month at peak hours increased by 44 per cent between September 2000 and August 2001. This is more than what could be explained by the "rebalancing" of local call prices by incumbent operators observed in many OECD countries (OECD, 2001b, p. 173). For off-peak Internet use, the price increase reached 12 per cent over the same period.

138. Demand pressures also contributed to a quicker coverage of the territory. The ombudsmen of the telecommunication sector reported 333 complaints in 2001 referring to non-availability of high-speed Internet access.

139. An SSL protocol is to encrypt information before transmitting it *via* the Internet to protect client data but also to ensure privacy of information subscribers pay for, thereby overcoming the failure inherent to markets for information (OECD, 2001b, p. 103).

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140. According to an EU-wide survey, uncertainties about the conditions of use appear to be the main obstacle for e-purchasing, whereas high costs are the main obstacle for e-sales (OECD, 2002e, p. 2).
141. They usually consist of an initial connection charge, a monthly rental charge including an unlimited or limited amount of free flows and – in the latter case – a charge per Megabyte beyond the threshold.
142. On a more positive note, users of Belgacom ADSL Internet access are exempted from initial charges, and the monthly charge ranges on an intermediate position among incumbent suppliers within the OECD area (OECD, 2001i, p. 53). Note, however, that price comparisons in the field of broadband Internet access have to be interpreted with caution due to the huge diversity of service qualities – especially connection speeds. Assuming that a Belgian user remains below the included allowance, he gets about 15 Kbps per USD PPP spent, which is the eighth most competitive offer by all incumbent firms in the OECD.
143. In North America, non-metered access is the standard pricing model. In Australia and New Zealand, broadband access usually implies a per-unit cost beyond specified thresholds. However, in all four countries flat rates are applied to the traditional dial-up connections (PSTN), by which most persons got acquainted to the Internet in recent years.
144. About one-quarter of the subsidy is to cover the costs for a number of free financial services la Poste delivers. Discussion is under way to replace the subsidy by a universal banking service funds financed by all banks.
145. La Poste took away most of the market shares from a private competitor in a classical business-to-business mailing service by combining this mailing service with preferential general mail tariffs. The European Commission stopped this practice considering it as an abuse of dominant position (European Commission, 2002d, p. 32).
146. A characteristic of the Basle II Accord is that capital requirements will become more responsive to banks' individual risk profiles. A number of banks will have to increase their own funds; others will be allowed to relax them. Yet the repercussions of Basle II on the banking sector as a whole will be limited, according to preliminary results from the NBB's quantitative impact study (NBB, 2002b, p. 136).
147. The Banking Supervision Committee, composed by ECB staff and national regulators, is in charge of macro-prudential co-operation. Regarding international co-operation on the micro-prudential level, an EU directive on financial conglomerates is being prepared by the EU Commission. In the meantime, given the presence of two bi-national conglomerates, the BFC and OIC signed Memoranda of Understanding with other national authorities.
148. In this context, the CFS will have to decide which activities should be pooled and manage these pooled activities. The modalities of this pooling of resources will have to be precised in a protocol between the three institutions. If this protocol is not signed six months after the appointment of the new Boards, the Minister of Finance may impose a pooling of resources.
149. The Minister of Finance backs such a merger (L'Echo of 11 July 2002).
150. See OECD, 2002f, pp. 8-9, for further details.
151. This becomes especially likely when the managers of a subsidiary and of the controlling firm are the same persons. A typical case of tunnelling with a Belgian subsidy (Flambo) as the loser is described in Wymeersch (1993).

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152. The strongly negative correlation between minority protection and ownership concentration around the world (La Porta *et al.*, 1998) further strengthens the relevance of this point.

153. Kortum and Lerner (2000) show that $1 of venture capital generates 5 to 10 times as many patents as $1 of R&D investment in big companies.

154. In case of *ex ante* subsidies promising and less promising projects get the subsidy due to asymmetric information and moral hazard problems. By contrast, payments that are made conditional on success (*ex post* subsidies) would increase private actors' marginal utility of additional efforts.

155. This is particularly obvious for interest subsidies. In case of a well-established big company the probability of bankruptcy is low even if an innovative project fails. Thus the subsidised credit crowds out a normal bank credit. This is different for a start-up the survival of which depends on the success of the innovative project. Bank credits are generally not available in this case and the venture capitalist asks for high dividends to compensate his high risk. If part of the investment is financed by a subsidised loan, the outcome is the same in case of failure but the start-up has to pay back less high dividends in case of success.

156. Further insights of the study are that regulations themselves are the major source of dissatisfaction and that often interactions with the administration depend on the person contacted and decisions lack explanation.

157. The harmonisation of conditions for cuts in employers' social security contributions provides a successful example of how not only the readability but also the *content* of legislation can be made less complex.

158. First an indicator of the burden is obtained as a weighted average of "marks" for various aspects (*e.g.* fees, proper guiding information, number and readability of forms, possibility of electronic exchange). This indicator is then multiplied with the frequency of the formality and the number of persons concerned (OECD, 2001j, p. 45).

159. More than 80 projects were implemented at the time of writing. About the same number of further projects are scheduled until 2005 (*http://premier.fgov.be/topics/reports/sav/mix-corr.ppt*).

160. The government shall not ask the citizen one and the same information twice. Agency B shall get an information from Agency A rather than from the citizen.

161. Technological foundations of e-government include a metropolitan area network for Brussels, Internet portals for citizens and companies and a "back-office" with the Business Crossroads Databank for data exchange between government agencies. Further elements are a single identification number for citizens and companies, the electronic identity card, and a public key infrastructure for interactive communication.

162. The policy preparation unit, composed by civil servants, provides technical expertise and policy options. The policy council, composed by the Minister, the president and managers of the FGS, and external experts, gives strategic advice and controls the implementation of measures.

163. Moreover, the current economic environment of low activity is favourable to the implementation of the reform as finding the high number of ICT consultants needed to modernise information systems and provide training services is much easier than during in a boom.

164. This incentive mechanism was implemented for the senior level of ministerial staff under the "at risk pay" scheme in Canada and led to conditional pay rises of between 15 and 25 per cent. The lessons learned include that corporate priorities should be

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precise enough to enable executives of making comparable, measurable and "stretching" commitments that cannot vary arbitrarily between services (OECD, 2002h).

165. Such concerns led the OECD Ministerial Council to ask the Organisation to initiate peer reviews of sustainable development.

166. Such a cost is similar to that estimated for Austria and France in 1996. The estimated cost of particle pollution is much lower in Switzerland, reflecting lower use of diesel vehicles in that country (Künzli *et al.*, 1999). However it is extremely difficult to separate the cost of particle pollution from that of other pollutants (Sommer *et al.*, 2000). Consequently, these estimates are best seen as overall estimates of the car air pollution. About three-quarters of these health costs relate to the value placed on the loss of life, the remainder being reduced morbidity costs. The value placed on loss of life would be markedly less if it were to reflect just lost income and consumption, rather than the willingness-to-pay to avoid death as revealed by labour market and survey data.

167. A study concluded that dioxin emissions from an incinerator in the vicinity of Antwerp did not produce any statistically significant effect on human health (Nouwen *et al.*, 2001). Exposure to dioxin was even found to decline while incineration activity increased twofold.

168. The ceilings for Belgium under the EU agreement are lower than its commitments within the framework of the UNECE convention on long-range transboundary pollution.

169. The higher estimate refers to initial Commission proposals which were slightly more demanding than the objectives in the final version of the directive. The lower estimate refers to a scenario with significantly less demanding objectives than in the directive.

170. The issue is complicated, however, by the fact that some pollution avoidance technologies result in higher energy consumption which in the absence of appropriate pricing of carbon emissions could compromise the least cost achievement of Kyoto limits. Consequently, requirements regarding both greenhouse gases and conventional air pollutants should be simultaneously implemented for comparable time horizons and the regional systems should be connected with each other and with wider international efforts through permit trading.

171. The EU auto/oil policy will limit the sulphur content of motor fuels to 50 parts per million by 2005. US regulations require diesel fuel to contain less than 15 parts per million by 2007.

172. For diesel cars, there is an excise compensating duty (*taxe compensatoire d'accise*) in addition to a higher annual vehicle tax (*taxe de circulation*). This tax penalty on diesel cars is offset, on average, by the lower duty on diesel fuel for motorists insofar as they do more than 22 000 kilometres per year. There is also a registration fee which has to be paid when the car is bought (*taxe de mise en circulation*). Between 2003 and 2005 that fee will be differentiated in favour of less polluting cars, with a permanent reduction for liquid petroleum gas (LPG) powered cars. Over the same period, the registration fee will cease to be higher for EURO4 compliant diesel cars.

173. By 2010, motorcycles may account for 14 per cent of hydrocarbon emissions but only 2½ per cent of road traffic by 2010. Currently, the emissions of hydrocarbons from the average motorcycle are the equivalent of those from 200 cars compliant with present EU standards.

174. Diesel-engined cars with almost zero particulate emissions are currently price competitive on European markets. In the United States, significant progress has been made in

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the development of filters for diesel trucks (EPA, 2002). Even without these advances on the cost side, benefits of a major reduction in particles emitted by trucks were estimated to be 17 times greater than the costs (EIA, 2000).

175. This does not mean that Belgium transport prices take into account all externalities. A major one, congestion, is not adequately reflected in prices (Prost *et al.*, 2002). Fuel taxes are not well suited for internalising congestion costs which would better be contained through road pricing.

176. The only exceptions are federal taxes and the regulation of product quality for which the federal government is responsible within the limits of EU internal market rules.

177. In Flanders, only one out of ten existing landfills for household waste is planned to operate after 2010. In Wallonia, a public enquiry to identify new landfill sites ended in 1999 with the decision not to create new landfills. The Brussels-Capital region has no space available for new landfills.

178. FOST Plus does not intervene directly to either collect or recycle waste in contrast to the position in Germany. Moreover, there is competition amongst recycling companies. There is, however, a lack of transparency in determining the payments that are made to recyclers and local authorities.

179. This increase reflects one-off investment costs, while the amount of recycled packaging waste subsidised by FOST Plus rose by just 21 per cent in the same period.

180. Municipal waste collection and treatment costs € 155 per household (€ 62 per person). Just under 5 per cent of this cost is met by regional subsidies.

181. For 2002, the threshold is set at 240 kilograms per inhabitant and the tax rate is € 35 per tonne. The introduction of this levy may have been one reason behind the fall in the collection of mixed waste from 310 to 175 kg per capita between 1998 and 2000.

182. Euro per tonne for plastics and euro per tonne for other drink containers against euro per tonne for incineration.

183. According to FOST Plus's annual report, a 4 per cent increase in quantity of material recycled would result in a 40 per cent increase in cost.

184. Such a difference between the actual and optimal recycling rate led the Chairman of FOST Plus to write "Is this additional cost still justified when one takes into account the existence of other environmental black spots, especially in the light of the larger social context?" and "Is it not a waste of time and energy to consider packaging as the scapegoat on the debate on the environment?" (FOST Plus, 2002).

185. In this section, the year 2010 is a synonym for the target period 2008-12 for which all policy commitments pertaining to the Kyoto protocol are formulated.

186. In the Walloon region, CO_2 emissions by energy-producing industries fell by 28.8 per cent from 1990 to 1993 (Federal Department of the Environment, 2002).

187. The forecast that the target is missed at current policy settings is not very sensitive to the assumption on energy prices. If oil and natural gas prices were 20 per cent higher, the final energy consumption would lie 3 per cent below the baseline projection in 2007 (FPB, 2002, p. 109).

188. House insulation and building insulation, energy audits and certification are the main actions that will be carried out, in order to reduce the contribution of residential warming and industrial consumption to total CO_2 emissions.

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189. In its Regional Development Plan the Brussels Region sets a target of 20 per cent reduction for road traffic by 2010 compared with 1999. Besides the RDP the Brussels Region has a Mobility Plan with the objective of stabilising the number of car trips in the morning rush hour at its 1991 level by 2005.
190. The broad aim is to enhance the technical and environmental performance of transport (through "green" taxes).
191. Moreover, worse congestion mitigates the ecological benefits from the expected reduction in road use as lower speed and more stop-start-driving boost CO_2 emissions per vehicle (OECD, 2002i, p. 35).
192. Operational rail subsidies should not only be removed on competition policy grounds. Oversupply of public transport results in higher emissions than adequately priced private transport (Sustainable Mobility Programme, 2001).
193. A co-operation agreement on the implementation of the national climate plan and the co-ordination of the international reporting obligations should be launched early in 2003.
194. United Nations Framework Convention on Climate Change (UNFCCC).
195. To increase the efficiency of such a measure, EU governments should ensure that a considerable share of emission permits would be auctioned rather than grand-fathered.
196. This section provides a short follow-up on assessments and recommendations of the previous *Survey* (OECD, 2001f). It will therefore deal with sewage in the Brussels region, bathing water in the Walloon region and effects from livestock on groundwater quality in Flanders, although each region has policies on other water quality issues than those described here.
197. Following a legal action by the EC, the Walloon region and the EC reconsidered the classification of bathing zones. There is still some disagreement since the EC identifies 21 bathing zones down from 30.
198. Article 174 section 3 of the EU Treaty requires such a review.
199. A large information campaign also helped to obtain better surface water quality in some rural areas.

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List of acronyms

AAS	Agency of Administrative Simplification
ACS	Additional Crisis Surcharge
ADSL	Asymmetrical digital subscriber line
AETR	Average effective tax rate
ALE	Local employment agencies
APW	Average Production Worker
BFC	Banking and Finance Commission
BIPT	Belgian Institute for Postal services and Telecommunication (Regulator of post and telecommunications)
BPG	Belgian Post Group
BRP	Business re-engineering programmes
CFS	Council for Financial Stability
CO	Carbon monoxide
CO2	Carbon dioxide
CREG	Regulator of the electricity and gas market (*Commission de régulation de l'électricité et du gaz*)
DSL	Digital Subscriber Line
ECB	European Central Bank
EEA	European Environment Agency
EMEP	Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe
FGS	Federal Government Service
FPB	Federal Planing Bureau
FTE	Full-time equivalent
GHG	Greenhouse gas
HEC	High Employment Council
ICT	Information and communications technology
INS	National Institute of Statistics
KWh	Kilowatt hour
LNG	Liquified natural gas
LPG	Liquid petroleum gas
METR	Marginal effective tax rate
MFP	Multifactor productivity
MNE	Multinational enterprise
NBB	National Bank of Belgium
NMVOC	Non-methane volatile organic compound
NO2	Nitrogen dioxide
NOx	Nitrogen oxides
OIC	Office for Insurance Control

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ONEM	Federal body administering unemployment benefits (*Office national de l'emploi*)
PM	Particulate matters
PPP	Purchasing power parities
PSTN	Public Switched Telephone Network
SBIC	Small business investment companies
SME	Small-and-medium-sized enterprises
SNA	System of National Accounts
SNCB	Belgian National Railway Company (*Société nationale des chemins de fer belge*)
SO2	Sulphur dioxide
SOx	Sulphur oxides
SSC	Social security contributions
SSL	Secure socket layer
TSO	Transmission System Operator
ULCM	Unit labour costs in the manufacturing sector
VAT	Value added tax
VDAB	*Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding* (placement service of the Flemish region)
VOC	Volatile organic compound

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BASIC STATISTICS OF BELGIUM, 2001

THE LAND

Area (1 000 km²)	30.5	Major urban areas (thousand inhabitants)	
Agricultural area (1 000 km²)	13.4	Brussels	964.4
		Antwerp	931.6
		Liège	584.4
		Ghent	496.6

THE PEOPLE

Population (thousands)	10 263	Total labour force (thousands)	4 494
Inhabitants per km²	337	Total domestic employment (thousands):	4 148
Net increase (31.12.2 000)	24 048	Agriculture	28
Net migration (thousands, 31.12.2 000)	14	Industry and construction	838
		Other	3 282

PRODUCTION

Gross domestic product (billion euro)	254	Gross domestic product by origin, at market prices (per cent):	
Gross domestic product per head (US$)	22 189		
Gross fixed investment:		Agriculture	1.3
Per cent of GDP	20.7	Industry	19.5
Per head (US$)	4 601	Construction	4.7
		Other	74.5

THE GOVERNMENT

General government (per cent of GDP):		Composition of the House of Representatives	
Current expenditure	46.3	(number of seats):	
Current revenue	46.9	Liberals	41
Gross debt	108.6	Socialists	33
		Christian-socials	32
		Ecologists	20
		Others	24
		Last election: 13.6.1999	

FOREIGN TRADE

Exports of goods and services (per cent of GDP)	85.6	Imports of goods and services (per cent of GDP)	82.0
Main exports (per cent of total), SITC, Rev. 3 :		Main imports (per cent of total), SITC, Rev. 3 :	
Iron and steel products (67 + 68)	5.8	Iron and steel products (67 + 68)	4.2
Chemical products (5)	19.8	Chemical products (5)	18.3
Machinery and equipment (71 to 77)	14.9	Machinery and equipment (71 to 77)	18.0
Textile products (65)	3.2	Textile products (65)	1.9
Transport equipment (78 + 79)	15.2	Transport equipment (78 + 79)	12.9
		Energy (3)	8.7

THE CURRENCY

Irrevocable conversion rate :	40.3399	Currency units of euro per US$, average of daily figures:	
		Year	1.1166
		December 2002	0.9817

Note: An international comparison of certain basic statistics is given in an annex table.

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

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The economic situation and policies of Belgium were reviewed by the Committee on 18 November 2002. The draft report was then revised in the light of the discussions and given final approval as the agreed report by the whole Committee on 19 December 2002.

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The Secretariat's draft report was prepared for the Committee by David Carey, Hubert Strauss, Gerrit van den Dool and Boris Cournède under the supervision of Andreas Wörgötter.

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