Quarterly Newsletter of the Federal Planning Bureau

Short Term Update (STU) is the quarterly newsletter of the Belgian Federal Planning Bureau. It contains, in English, the main conclusions from the publications of the FPB, as well as information on new publications, together with an analysis of the most recent economic indicators.

HEADLINES BELGIAN ECONOMY

The latest update of the FPB's medium-term outlook for Belgium is pointing towards GDP growth of 2.3% on average from 2004 to 2008. This development can be largely accounted for by domestic demand, whereas the role of (net) exports is expected to be more limited. After moderate growth in 2003, the evolution of private consumption should be more dynamic during the 2004-2008 period, particularly thanks to a favourable development in households' disposable income (stimulated especially by reductions in personal income tax). The growth in gross fixed capital formation should reach an average of 2.9% during the period 2004-2008, notably reflecting the expansion in business investment. Export growth should be 5.1% on average, compared with growth of 5.6% in our potential export markets: the structural loss of export market share should be confirmed.

Inflation should be below 2% in the medium term, thanks to moderate wage increases compatible with productivity gains, cuts in social security contributions and the extension of production capacity.

Employment is expected to show a gradual improvement: an average increase of 34,000 jobs should be seen during the 2004-2008 period. The unemployment rate in a broad sense should decrease from 14.2% by mid-2003 to 12.8% in 2008, a large proportion of the labour expansion being absorbed by growth in the labour force.

Given the present prospects for future economic growth, assuming no policy change but taking into account the most important measures decided within the framework of the 2004 budget, the financing capacity of public administrations should go into deficit in the medium term (0.5% of GDP in 2008). The goal of a positive financing capacity (0.3% of GDP in 2007) is not expected to be reached without additional budgetary measures. Nevertheless, the total public debt to GDP ratio should continue to fall, going down by about 17 percentage points between 2002 and 2008.

STU 4-03 was finalised on December 4th 2003.

The Federal Planning Bureau (FPB) is a public agency under the authority of the Prime Minister and the Minister of Economic Affairs. The FPB has a legal status that gives it an autonomy and intellectual independence within the Belgian Federal public sector.

FPB activities are primarily focused on macro-economic forecasting, analysing and assessing policies in the economic, social and environmental fields.

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Personal income tax reform and wage formation in Belgium

The impact of the current personal income tax reform on wages, value added and production is assessed. During the transition phase, the effects will be more modest than in the medium or long run because of both the delayed impact on wages and the gradual nature of the tax cut.

The fiscal reform

The personal income tax reform, which is to be implemented gradually in the fiscal years 2002-2005 (personal income revenue years 2001-2004), was set up as a multi-tier measure, comprising changes in various tax parameters. In addition to the personal income tax reform, the surcharge income tax ('crisis levy' / 'bijkomende crisisbijdrage' / 'contribution complémentaire de crise') was to be phazed out gradually during the 2000-2003 period[1]. When fully introduced, both initiatives will amount to 1.6% of GDP in 2005. As a result, the personal income tax rate is expected to be lowered by 3.12 percentage points in 2005 and beyond, starting with a 0.53 percentage-point cut in 2001 (table 1).

In the federal government's policy manifesto of October 2000, it was argued that the fiscal reform was intended to help contain the cost of wages and to increase the disposable income of the working population. The manifesto stated that the personal income tax cut would moderate gross wage demands in the central bargaining round that would set wages and other labour market conditions for 2001-2002. Other aspects of the fiscal reform were explicitly designed as incentives to labour supply, particularly at the lower end of the wage distribution. The upward pressure on domestic prices - in response to the rise in purchasing power and induced labour-market tensions - and the resulting adverse effects on international price competitiveness were implicitly assumed to be minor or of limited relevance in view of quantitatively similar tax cutting measures abroad. Importantly, the emphasis on the effects of cutting personal income taxes on wage bargaining - while reductions in social-security contributions (SSCs) were also put in place - reflects the federal government's belief that the choice between a cut in payroll taxes or SSCs matters when it comes to wage formation. This belief is partially corroborated by economic theory and empirical evidence of the non-equivalence of payroll taxes and SSCs in the short run, despite the long-run equivalence of labour taxes.

1. Saintrain M. (2001), La réforme de l'impôt des personnes physiques, Federal Planning Bureau, Working Paper 01-01.

Adopting a counter-factual approach, the FPB has used its new macroeconometric labour-market model of the market sector[2] to examine what would happen if the fiscal reform were not implemented. Since the model does not distinguish different wage categories, the wage level specific aspects of the fiscal reform could not be taken into account. Crucially, according to the econometrics of the model, the tax incidence on employers and employees is an intermediary case between zero impact on wages (where employees bear the full burden due to lower take-home wages if taxes are raised) and maximum impact on wages (where employers bear the full burden due to higher wage costs if taxes are raised).

The macroeconomic effects

In the absence of the fiscal reform, the income-tax and hence the wage-wedge would be higher, implying higher equilibrium real wages, lower real take-home wages, and lower real value added and employment in the long run[3]. Unemployment would be higher because of both the general drop in economic activity and the fall in the price of capital relative to labour. The upward pressure on real wages, initiated by the wage-wedge rise, would be strengthened by the rise in labour productivity (which is due to the rise in the capital-labour ratio) and in the replacement rate between the average real unemployment benefit (which is unaffected by assumption) and the average real take-home wage (which would fall). The decrease in labour-market tensions - resulting from the rise in unemployment - would reduce the upward pressure on real wages to some extent. Since - for a given number of unemployed - the number of vacancies that could be scrapped would exceed the fall in the number of jobs, the bottle-neck in matching supply and demand on the labour market would become less se-

2. Joyeux C., Hendrickx K., Masure L., Stockman P. (2003), *Een nieuw macro-econometrisch arbeidsmarktmodel: schatting, basissimulatie en arbeidsmarktbeleidsimulaties*, Federal Planning Bureau, Working Paper 13-03.
3. The labour market model exists in two versions, reflecting differences in wage formation. In the right-to-manage version, derived from a collective wage bargaining framework, a decrease in labour-market tensions, causing downward pressure on the wage, is measured by a drop in the unemployment rate; in the job-search model, derived from rent-sharing between employers and employees in response to differences in information about productivity and job opportunities, lower labour-market tensions are measured by a rise in the unemployment-vacancies ratio. The differences between the two models only become obvious in the medium and long run because of the slow adjustment in the two models. Therefore - and because of the rapid succession of significant shocks in the income-tax rate over 2000-2005 - the two model versions initially predict similar results; only after 2010 do the differences between the two become apparent. According to the right-to-manage model (job-search model), non-implementation of the fiscal reform would raise the equilibrium real wage by +1.7% (+2.6%), depress employment by -2.4% (-3.5%), real value added by -1.6% (-2.2%) and the real take-home wage by -2.7% (-1.5%) in the long run.

vere. The rise in the labour cost - including matching cost - would therefore be less than than the rise in wages. Due to mark-up price setting, the value-added price would follow the rise in domestic factor costs, triggering a rise in consumer prices and prices of investment goods as well.

During the transition to the new long-run equilibrium, short-run real wages would tend to rise due to the push of the higher long-run equilibrium wage rate and because of the direct impact of the higher income tax rate. Nominal wages and hence nominal take-home wages would be propped up by the rise in the price of goods. Initially the negative effects on employment and value added would be modest, but these would become increasingly significant. Aggregate demand would fall as a consequence of the value-added price rise (and the resulting loss of international price competitiveness) and the fall in households' real disposable income. The fall in households' real disposable income would be accounted for by the fall in market-sector employment and by the drop in real take-home wages.

Effects on wage growth

Non-implementation of the fiscal reform would have had implications for wage growth in 2001-2002 and 2003-2004. Assuming that the fiscal reform was discounted at the time when the wage benchmark was centrally negotiated, the negotiated wage growth for 2003-2004 would have had to be higher in absence of the fiscal reform to satisfy employees. As for the wage growth seen in 2001-2002, wages would have been higher through either the effect on central wage bargaining (if the fiscal reform had been anticipated) or the wage drift (if the fiscal reform had not been fully anticipated). The required additional accumulated increase in nominal hourly wages over 2001-2004 is assessed to be between 2.2 and 2.3 percentage points, i.e. about 0.5 percentage points on a yearly basis on average. This figure takes into account the gradual nature of the fiscal reform and the sluggish response in the goods and production factor markets and therefore understates the long-run impact on wage growth. It is uncertain whether the outcome without the fiscal reform would have met the requirement that the wage growth rate should not exceed wage growth abroad - the essence of the policy of wage benchmarking in Belgium - and hence would have had the government's blessing.

Tax incidence: sharing the tax burden

Wages and the take-home wages in real terms gauge the impact on employers and employees. On first impact, the burden of the income tax rise would fall mainly on the employees and to a lesser extent on the employers. In 2001, real take-home wages (i.e. after allowing for the consumer price increase) would have fallen by 0.53% in the right-to-manage economy (or 0.56% in the job-search economy) whereas real wages (i.e. after allowing for the value-added price increase) would have risen by 0.29% (or 0.25%). Some of the tax burden would be passed from employees to employers in the job-search model between 2005 and 2010 but not in the right-to-manage model. In the job-search model, the fall in real take-home wages would amount to 2.4% in 2005 but only 1.7% in 2010 whereas real wages would rise by 2.1% in 2005 and 2.5% in 2010.

Table 1 - Effect on the market sector if the fiscal reform is not implemented (2001-2010)

	Right-to-manage wage formation			Job-search wage formation		
	2001	2005	2010	2001	2005	2010
Personal income tax rate[a]	0.53%	3.12%	3.12%	0.53%	3.12%	3.12%
Price and wage levels (percentage difference over baseline)						
- Nominal wage	0.30%	2.78%	3.57%	0.26%	2.76%	4.28%
- Real wage (deflated by the value-added price index)	0.29%	2.13%	2.00%	0.26%	2.14%	2.51%
- Real take-home wage (deflated by the consumer price index)	-0.53%	-2.42%	-2.32%	-0.56%	-2.42%	-1.73%
Production (percentage difference over baseline)						
- Value added (constant prices)	-0.11%	-0.69%	-0.99%	-0.11%	-0.68%	-1.01%
- Capital stock	-0.03%	-0.31%	-0.34%	-0.03%	-0.31%	-0.33%
- Employment	-0.14%	-1.20%	-1.69%	-0.14%	-1.21%	-1.92%

a. Percentage-point difference over baseline; defined w.r.t. gross wage; because of the one-year up to two-year delay in bringing prepayed tax revenue in line with the proper rate, a system involving prelevies and tax refunds, the reformed income tax law is assumed to take full effect in 2005 rather than 2004.

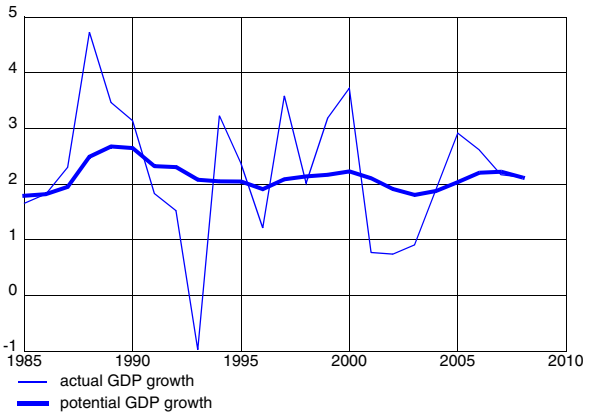
Economic outlook 2003-2008 for November 2003

In October the FPB prepared an update of its medium-term economic outlook in April 2003, covering the 2003-2008 period. This new outlook should serve as the macroeconomic basis for the calculations in the new Belgian Stability Program (prepared for the 2003-2007 period). This projection was completed in November to take into account, as far as possible, the measures decided within the framework of the 2004 budget.

Updated medium-term economic outlook based on revised short-term evolution and on less sustained development in potential markets in the medium term.

Based on an updated short-term forecast (see economic forecasts for 2003-2004, September 2003) and slightly revised growth in potential export markets in the medium term, the new medium-term forecast shows average GDP growth reaching 2.1% during the 2003-2008 period. As in the economic forecast for May 2003, this development can largely be accounted for by domestic demand. The role of (net) exports is expected to be more limited.

Graph 1 - Actual and pontential GDP growth



After moderate growth in 2003, private consumption should evolve in a more dynamic way during the 2004-2008 period, particularly thanks to a favourable development in households' disposable income (boosted in particular by reductions in personal income tax). The average growth in gross fixed capital formation should be 2.9% during the 2004-2008 period, notably reflecting the expansion in business investment.

Growth in exports is expected to be negative in 2003, due to the unfavourable international context and a decreasing share of the export market. Afterwards, growth in exports should be 5.1% on average and the contribution of net exports to GDP growth should be equal to 0.2%. The external surplus should reach 5.4% of GDP in 2008 (partly due to the recovery in the terms of trade). The level of the external surplus also reflects abundant domestic savings and a public financing capacity near to equilibrium.

Inflation remains below 2%

Limited wage increases (compatible with productivity gains) and a moderate increase in imported costs are the main factors accounting for the inflation rate remaining broadly below 2% in the medium term. Moreover, a negative output gap in the first few years of the projection will help to keep inflation low.

Employment growth not sufficient to reduce the unemployment rate significantly

Another crucial result of the forecast concerns employment. After a small decrease in 2003, employment should grow by about 34,000 jobs each year during the 2004-2008 period (as compared with an increase of 43,000 jobs, on average, during the 1996-2002 period). This result can be explained by the favourable macroeconomic context, with GDP growth recovering from only 0.9% in 2003 to an average of 2.3% during the 2004-2008 period. Limited wage increases (introduced as a hypothesis within the framework of the 1996 law on the promotion of employment and safeguarding competitiveness) should also help to create employment. Finally, various measures in favour of employment, notably the new reductions in social security contributions (and also activation and insertion programs) and working time reduction should also play a role.

The decline in industrial employment should continue, with the number of jobs lost in manufacturing industry reaching 34,000 during the 2003-2008 period. At the same time the number of jobs created in market services should exceed 200,000, bringing the share of employment in market services to more than 58% of total employment (43% in 1980 and 50% in 1990).

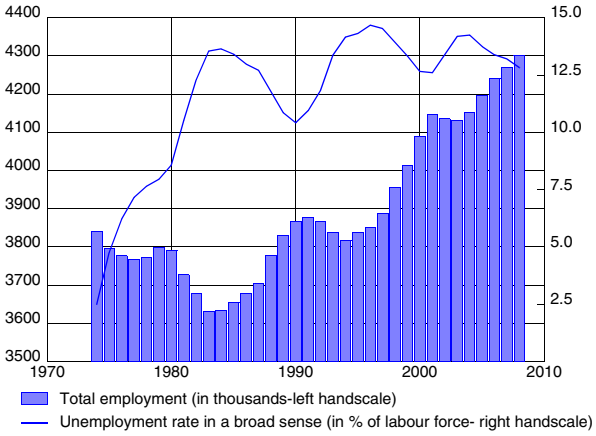
The population of working age will increase considerably (by 162,500 persons) during the 2003-2008 period, mainly because the sparsely populated generations that were born during the Second World War will be leaving the population of working age. The overall participation rate is favourably influenced by the increase in female participation rates, but suffers from adverse demographic changes (increasing share of older age groups) within the population of working age.

Given the strong increase in the population of working age, renewed net job creation from 2004 onwards gives

rise to only modest increases in the employment rate. The employment rate falls for two consecutive years in 2002 and 2003, before gradually rising from 61.6% in 2003 to 62.7% in 2008. The employment rate in the older age groups (50 and above) has been growing and will continue to grow above average. In combination with the demographic changes in favour of this age group, this will lead to a marked increase in the proportion of persons aged 50-64 in the working population (from 18.6% in 2002 to 21.5% in 2008).

Given the considerable increase in the labour force, net job creation will only just be sufficient to gradually force unemployment in absolute terms back to its 2002 level. The unemployment rate should still increase in 2003 (from 13.3% to 14.2%) and in 2004, but should then drop to 12.8% in 2008. Due to the implementation of recent policy measures (aimed at discouraging access to early retirement schemes for people on unemployment benefits), the proportion of active job seekers within the wider group of unemployed people will increase.

Graph 2 - Employment and unemployment



Public finances not balanced in the medium term

As usual, the exercise assumes that policy remains unchanged but takes into account (as much as possible) the measures decided within the framework of the 2004 budget.

The public accounts should be balanced in 2003-2004, partly due to one-shot measures, but a deficit should appear afterwards, fluctuating at around 0.8-1.0% of GDP in the 2004-2007 period. The equilibrium is not expected to have been restored completely by the end of the forecast period (with a deficit still amounting to 0.5% of GDP).

The medium term target of the Government (a structural financing capacity of 0.3% of GDP in 2007) is not expected to be reached without additional measures. Nevertheless, the total public debt to GDP ratio should continue to fall, going down by about 17 percentage points between 2002 and 2008 (this ratio should be equal to 89% in 2008).

The reappearance of a public deficit from 2005 onwards will be accounted for by declining receipts (as a % of GDP - the decline of receipts is particularly pronounced in 2005 and 2006). Entity I (federal authorities and social security), though benefiting from the reduction in interest charges, will be affected by the reduction in both the income tax burden and social security contributions. Entity II (Communities, Regions and Local authorities) should maintain a positive financing capacity throughout the whole forecasting period.

Table 2 - Key figures for the updated medium-term economic outlook in October 2003 (period averages - changes in volume unless otherwise stated)

	1991-1995	1996- 2002	2003-2008
Potential export market	5.8	6.0	5.2
Private consumption	1.7	1.9	2.0
Public consumption	1.5	2.0	1.8
Gross fixed capital formation	-0.4	2.5	2.8
Stock building (contribution to GDP growth)	0.1	0.0	0.0
Final domestic demand	1.2	2.0	2.2
Exports	4.0	4.3	4.1
Imports	3.6	4.2	4.3
Net exports (contribution to GDP growth)	0.4	0.3	0.0
GDP	1.6	2.2	2.1
Private consumption prices	2.3	1.8	1.4
Real disposable income households	2.1	1.1	2.0
Domestic Employment (annual changes in '000)	-5.7	42.4	27.8
Unemployment rate FPB definition (end of period)			
thousands	649.1	647.4	640.5
% of labour force	14.3	13.4	12.8
Current account balance (% of GDP, end of period)	5.7	5.0	5.4
General Government financing capacity (% of GDP, end of period)	-4.3	0.0	-0.5

a. end of period

Economic forecasts for Belgium by different institutions

	GDP-growth		Inflation		Government Balance		Date of
	2003	2004	2003	2004	2003	2004	Update
Federal Planning Bureau	0.9	1.8	1.6	1.4	.	.	9/03
INR	0.9	1.8	1.6	1.4	.	.	9/03
National Bank of Belgium	1.0	.	1.2	.	-0.6	.	6/03
European Commission	0.8	1.8	1.5	1.6	0.2	-0.4	10/03
OECD	0.7	1.9	1.5	1.4	0.2	0.0	11/03
IMF	0.8	1.9	1.4	1.4	-0.5	-0.2	9/03
ING	0.8	1.9	1.5	1.4	0.2	-0.2	10/03
Fortis Bank	0.8	1.9	1.7	1.8	0.2	-0.2	10/03
Dexia	1.0	2.0	1.7	1.8	-0.6	-0.1	9/03
KBC Bank	0.8	1.9	1.5	1.1	-0.6	-0.2	9/03
Morgan Stanley	1.1	2.1	1.6	1.9	0.1	-0.5	12/03
Petercam	0.75	1.5	1.5	0.8	0.1	0.0	11/03
IRES	0.8	1.6	1.6	1.4	-0.6	-0.7	9/03
DULBEA	0.5	1.8	1.25	1.0	-0.75	-0.75	9/03
Consensus Belgian Prime News	0.8	1.7	1.5	1.4	-0.5	-0.2	9/03
Consensus Economics	0.6	1.6	1.5	1.4	.	.	11/03
Consensus The Economist	0.9	1.8	1.5	1.3	.	.	11/03
Consensus Wirtschaftsinstitute	0.9	1.6	1.5	1.5	-0.4	-0.1	10/03
Averages							
All institutions	0.8	1.8	1.5	1.4	-0.3	-0.3	
International public institutions	0.8	1.9	1.5	1.5	0.0	-0.2	
Credit institutions	0.9	1.9	1.6	1.4	-0.2	-0.2	

Economic forecasts for the euro area by different institutions

	GDP-growth		Inflation		Government Balance		Date of
	2003	2004	2003	2004	2003	2004	update
European Commission	0.4	1.8	2.1	2.0	-2.8	-2.7	10/03
OECD	0.5	1.8	1.9	1.7	-2.7	-2.6	11/03
IMF	0.5	1.9	2.0	1.6	-3.0	-2.8	9/03
Fortis Bank	0.4	1.9	2.1	1.7	-2.7	-2.5	11/03
Dexia	0.4	1.9	2.0	1.8	.	.	11/03
KBC Bank	0.3	1.6	2.1	1.6	-3.1	-3.5	11/03
Goldman Sachs	0.5	2.6	2.1	1.7	-2.7	-2.5	11/03
Morgan Stanley	0.6	2.0	2.1	2.0	-3.0	-2.7	12/03
Consensus AIECE	0.5	1.8	1.9	1.7	-2.8	-2.8	10/03
Consensus Economics	0.5	1.7	2.0	1.6	.	.	11/03
Consensus Wirtschaftsforschungsinstitute	0.4	1.7	2.0	1.7	-2.8	-2.7	10/03
Consensus The Economist	0.4	1.8	2.0	1.6	.	.	11/03
Averages							
All institutions	0.5	1.9	2.0	1.7	-2.8	-2.8	
International public institutions	0.5	1.8	2.0	1.8	-2.8	-2.7	
Credit institutions	0.4	2.0	2.1	1.7	-2.9	-2.8	

Collaborating institutions for The Economist:
ABN Amro, Deutsche Bank, EIU, Goldman Sachs, HSBC Securities, KBC Bank, Merrill Lynch, J.P. Morgan, Morgan Stanley, Nordea, Primark Decision Economics, BNP Paribas, Royal Bank of Canada, Citigroup, Scotiabank, UBS.

Wirtschaftforshungsinstitute:
Deutsches Institut für Wirtschaftsforschung (Berlin), Information- und Forschungsinstitut (München), Hamburgisches Welt-Wirtschafts Archiv (Hamburg), Institut für Weltwirtschaft (Kiel), Rheinisch-Westfälische Institut für Wirtschaftsforschung (Essen), Institut für Wirtschaftsforschung (Halle)

Introduction to structural economic performance

This Newsletter presents the second annual review of structural developments in the goods and services markets in the Belgian economy. The review consists of an international benchmarking process with 36 indicators.

The rationale for analysing structural developments

Economic growth and prosperity are determined in the medium and long term by structural characteristics such as market functioning, labour participation, education and innovation. Good performance on these characteristics is expected to have a positive impact on competitiveness and the allocation of labour and capital. In turn this should move the economy towards a higher growth path. For this reason, reinforcement of the economic structure is given due attention in economic policy. At the EU level this is best expressed by the Lisbon objective to become the most dynamic and competitive economy in the world. One of the key ways of achieving this is to reform the products, labour and capital markets.

This Newsletter annually reviews a set of 36 indicators divided into three categories:

- **Key indicators**: openness to trade and FDI, productivity, prices, labour cost, state aid and internal market development;
- **Framework conditions**: education spending and levels, use of ICT, spending on R&D, innovation, venture capital and fiscal burdens;
- **Network industries**: penetration rates, price developments, modal split and productivity.

The policy framework

The market reform measures to be taken are set out by the EU. Since 2000, the Council annually lays down a set of Broad Economic Policy Guidelines (BEPG) that cover a wide range of economic policy areas, one of which is market reform.[1] The BEPG consist of both EU-wide and country-specific recommendations.

As far as the policy areas of this review are concerned, the following measures are taken.[2] More effective co-ordination of the transposition of internal market directives into Belgian law was put in place. A process of personal income tax cuts was started. A further reduction in the wage wedge has come from cuts in social security contributions, aiming at specific groups. There have been several reforms in network industries, although completion of these reforms will still take some years.

Summary of Belgium's performance

In international benchmarking there can sometimes be ambivalence about the interpretation of 'better' and 'worse'. For example, high wages are better for consumers but worse for the competitive position. Here, 'better' and 'worse' are interpreted from the perspective of market performance.

In general, Belgium does not perform better or worse than the other Member States. When individual indicators are considered, however, there are differences. Compared to the EU average, Belgium performs well in terms of productivity per hour worked, transposition of internal market directives, the number of people with higher education and broadband penetration. Belgium performs poorly on indicators for taxes on labour, state aid and network industry prices (except gas, where its performance is close to the EU average).

Considering the evolution of the indicators, Belgium has caught up with the EU average for consumer prices, R&D expenditure and openly advertised public procurement. In 1995 its performance on these three indicators was worse than the EU average but in 2001 it was equal or even better. A recent price reform halved the gap between domestic electricity prices and the EU average from 16 to 8%.

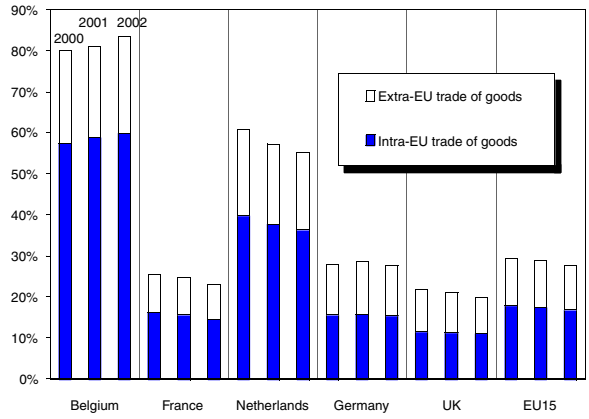
When benchmarking Belgium against its neighbouring countries rather than the EU average, the above conclusions basically remain the same. Nevertheless there are often remarkable differences between individual countries. One factor worth mentioning is the consumer price convergence mentioned above: Belgium, France, the Netherlands and Germany have followed the same convergence pattern. In all four countries a 10% gap compared with the EU average was eliminated between 1995 and 2001.

For those indicators where sufficient data was available, a benchmarking process against the USA and Japan was carried out. In comparison with Belgium, but also against the EU as a whole, the USA and Japan perform better in terms of R&D, innovation, telephone prices and venture capital. It should be noted from the graphs that this often means 'very much better' and not just 'better'.

1. From 2003 the frequency has changed into a triennial issue. The present set thus covers 2003-2005.
2. Source: The annual Cardiff-reports, 2000-2003 (*Economic Reform of the Products, Services and Capital Markets: Belgian Report for the European Union*).

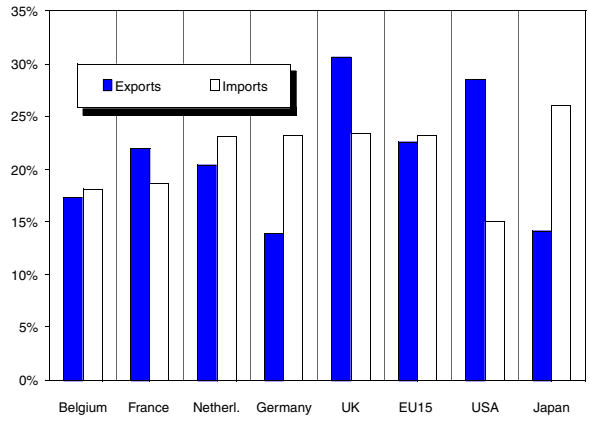
Key Indicators: openness

Graph 1 - Degree of openness, in % of GDP, 1999-2001



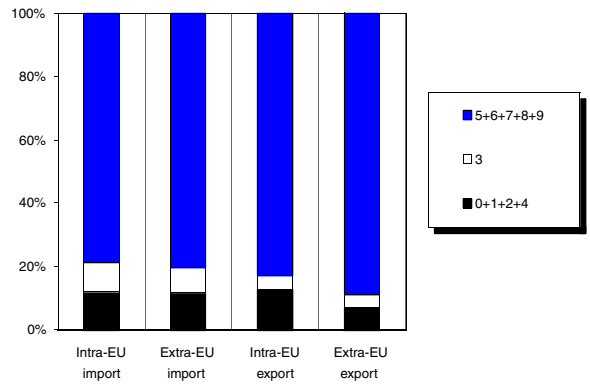
Source: Eurostat, Comext, NewCronos

Graph 2 - Share of commercial services in trade, 2001



Source: WTO *
(*) Trade in goods is derived from balance of payments statistics and does not correspond to merchandise trade statistics given elsewhere. It is likely that, for most economies, trade in commercial services is understated.

Graph 3 - Sectoral composition of Belgian trade, 2001*



0 = Food and live animals
1 = Beverages and tobacco
2 = Crude materials, excluding fuels
3 = Mineral fuels etc.
4 = Animal and vegetable oils and fats
5 = Chemicals
6 = Basic manufactures
7 = Machines and transport equipment
8 = Miscellaneous manufactured goods
9 = Goods not classed by kind

Source: Eurostat, Comext
(*) According to the SITC3-classification

The 1990s were a decade of exceptionally high trade growth. Between 1990 and 2000, the average annual real growth rate of world trade in goods (7.0%) was far in excess of the average growth rate of worldwide production of goods (2.0%) and of world GDP (2.0%). This is a sign of a strong trend towards the fast global opening of goods markets. A cyclical downturn has, however, occurred in recent years. In 2001, the volume of world goods trade shrank for the first time since the beginning of the 1980s (-0.5%). A gradual recovery started in 2002 with world goods trade growing by approximately 2.5%. Trade in goods for the EU – including intra-EU trade – has tracked world trade in goods closely during the years 1990 to 2002 and on average it has also been above GDP growth in the Union. The same was true for the trade performance of the Belgian economy during that period.

In 2002, the degree of openness – calculated as the average share of imports and exports of goods in GDP – reached 83% in Belgium. This was far higher than the EU15 average (28%) and also a lot higher than for comparable economies like the Netherlands (55%), Denmark (29%) or Ireland (61%).

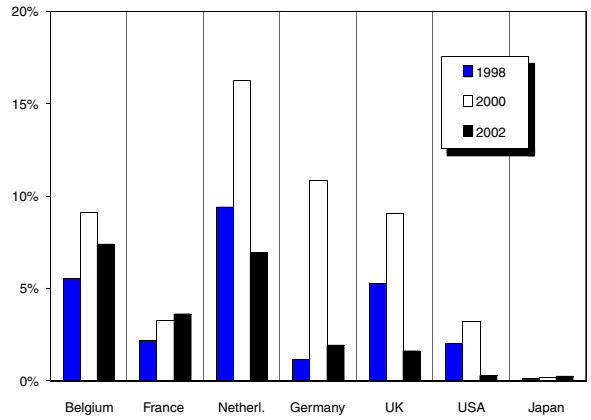
Belgium's foreign trade has traditionally been very much directed towards the EU. In 2002, 70.9% of its imports of goods came from, and 72.6% of exports of goods went to its partner countries within the EU. On average, in 2002, intra-EU imports accounted for 60.2% of the total imports of goods of the EU15 and intra-EU exports made up 61.6% of the total exports of goods of the EU15.

Although probably understated, the share of services in total trade lies between 15% and 25% for all countries on Graph 2 and has been fairly stable over the last couple of years. For Belgium this share is below the EU average for both imports and exports.

Belgium's sectoral trade pattern for goods is dominated by the class of manufactured products (SITC 5+6+7+8+9) for imports as well as for exports. Within this class, chemical products, basic manufactures and machines and transport equipment represent the largest shares. The changes in the sectoral trade pattern are very small from one year to the next.

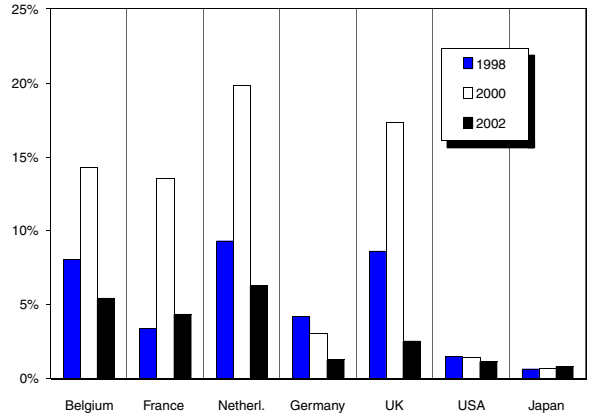
Key indicators: foreign direct investment

Graph 4 - Inward FDI in % of GDP



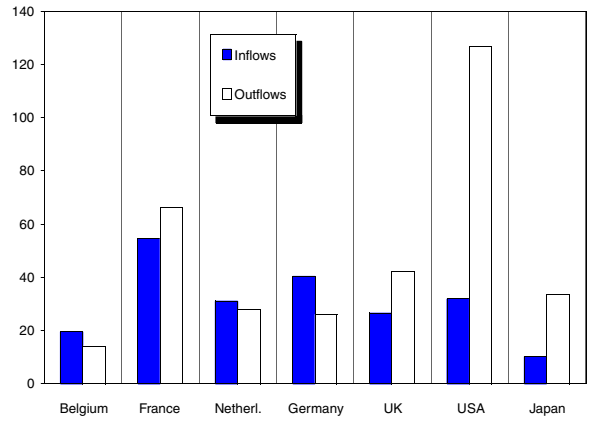
Source: Eurostat (NewCronos), NBB/BNB and UNCTAD

Graph 5 - Outward FDI in % of GDP



Source: Eurostat (NewCronos), NBB/BNB and UNCTAD

Graph 6 - Foreign direct investment flows in billion EUR, 2002



Source: UNCTAD

Foreign direct investment (FDI) has increasingly become a key indicator of progress made in market integration. Like trade, FDI contributes to fostering competition in national markets, thereby increasing the downward pressure on prices. It may also lead to improvements in product quality and to technological spillovers. Governments have therefore become very keen to attract FDI flows to their country. Indeed, a recent OECD study shows that barriers to FDI have been gradually lowered in all OECD countries over the last 20 years.[1] The study evaluates various types of barriers to FDI such as limits on the holding of foreign equity or screening by public authorities and quantifies them in order to construct an index, which allows to rank OECD countries according to the restrictiveness of their FDI barriers. This ranking shows that, in 2000, a bulk of EU countries including Belgium had the comparatively lowest barriers to FDI – a fact, which reflects progress made towards the completion of the internal market and Belgium's strong integration in this internal market.

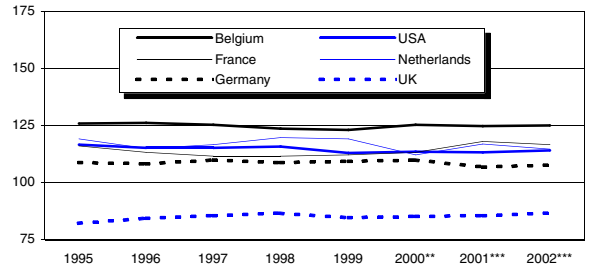
The late 1990s was a period of extremely high growth of worldwide FDI flows – far in excess of world trade growth during the same period. Inflows as well as outflows of FDI all over the world almost tripled between 1997 and 2000. After a peak in 2000 there has been a fast decline in FDI flows in 2001 and 2002 in the wake of the global economic downturn. Nonetheless, this decline should only be seen as a correction after the exceptional peak of 2000 and not as a change in trend given that FDI flows in 2002 were still much higher than in 1997.

The USA, Germany and the UK have witnessed the sharpest fall in their FDI inflows since 2000, while Belgium has maintained its level of FDI inflows. The strongest declines in FDI outflows between 2000 and 2002 were seen in France and the UK. During the same period Belgian FDI outflows also fell relatively sharply. These developments have had an important impact on the share of inward and outward FDI flows in GDP. This share has decreased for all countries in the sample except for Japan. But for the latter, both inflows and outflows are tiny compared to the size of its economy (respectively 0.2% and 0.8% of its GDP in 2002). For Belgium, on the other hand, FDI inflows and outflows amount to respectively 7.4% and 5.4% of its GDP in 2002. This implies that Belgium is a net importer of FDI.

1. Golub, S., 2003, Measures on Restrictions on Foreign Direct Investment for OECD Countries, *Economics Department Working Paper* No.357. OECD, Paris.

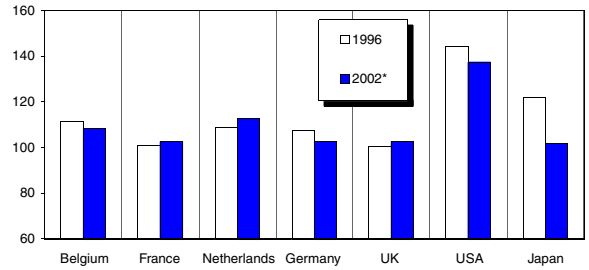
Key indicators: productivity and prices

Graph 7 - Productivity per hour worked (EU15=100)*



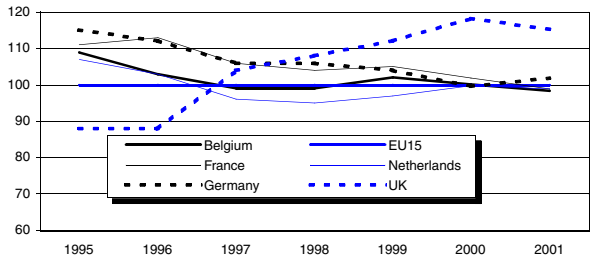
Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Measured as GDP in PPS, (**) Estimates, (***) Forecasts

Graph 8 - GDP per capita, in PPS (EU15=100)



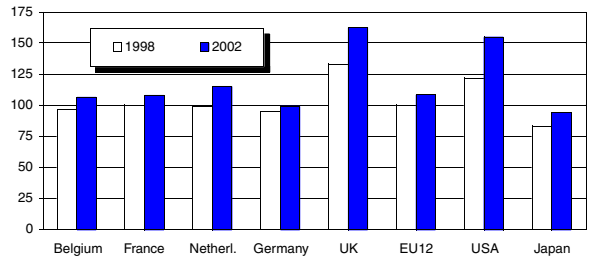
Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Forecasts

Graph 9 - Price index of private final consumption (EU15=100)



Source: Eurostat, NewCronos (domain Prices and Purchasing Power Parities)

Graph 10 - Labour cost per unit of value added (1995=100)*



Source: European Commission, Ameco database
(*) Nominal unit labour cost per unit of real value added, in common currency (Ecu/EUR)

Labour productivity in Belgium, measured on Graph 7 in the form of GDP per hour worked, has been higher than in the other countries. By specifically comparing the figures for 2002, it can therefore be seen that labour productivity in Belgium is 25% higher than in the EU15. Such a high level of productivity per hour worked to some extent offsets the impact of high wages and has fostered the competitiveness of the Belgian economy.

In terms of GDP per capita, however, Graph 8 shows that the difference between Belgium and the EU15 has become even smaller. Specifically that difference was only 8% in 2002. In that respect, the Dutch economy has even overtaken the Belgian economy where income per capita has been stagnant since the beginning of the nineties. More generally, convergence between European countries seems to be greater in terms of GDP per capita than GDP per hour worked.

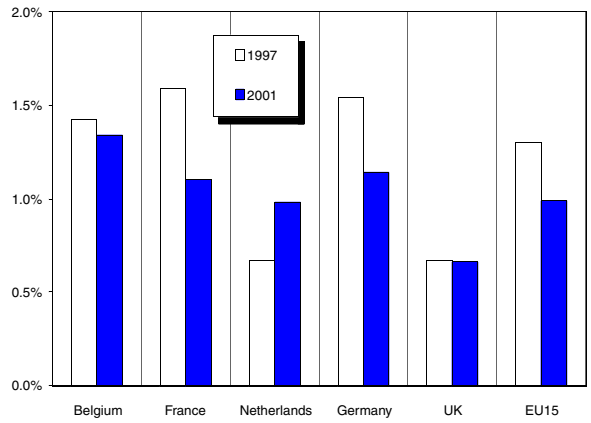
It is also noteworthy that the USA has a significantly higher GDP per capita than European countries, this difference between the USA and Europe being influenced by the discrepancy in the number of hours worked and in the employment rate.

Another way to assess the possible convergence between countries of the EU is to compare their price levels. Graph 9 compares relative price levels in 5 European countries from 1995 onwards. The convergence towards the EU price index is strong for the countries in the Euro area, although their price index was about 10% above the European average at the beginning of the period. A strong currency has pushed UK prices well above average for the last few years.

To assess the international cost competitiveness of the Belgian economy, look closely at Graph 10 which displays nominal unit labour cost (ULC) in common currency - i.e. total labour cost per unit of real value added in Euro - in comparison with 1995. ULC in Belgium has increased slightly less than in the European Union since 1995. The increase in ULC in Belgium since 1998 has, however, been slightly faster than in the European Union. In short, Belgium's intra-euro area cost competitiveness is slightly better from a longer term perspective, but not over the last few years.

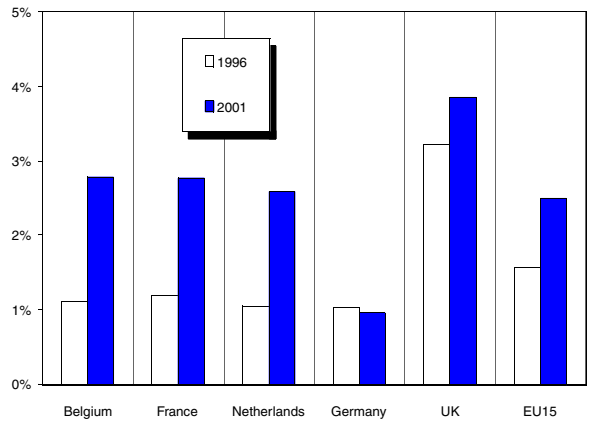
Key indicators: internal market

Graph 11 - State aid, as % of GDP



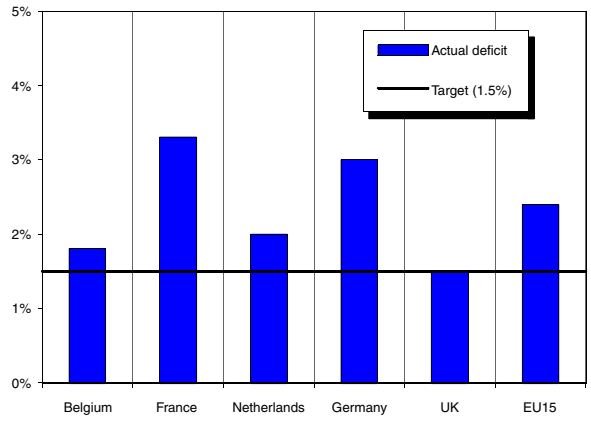
Source: European Commission, DG Competition

Graph 12 - Openly advertised public procurement, as % of GDP*



Source: Eurostat, NewCronos (domain Structural Indicators)

Graph 13 - Transposition deficit of internal market directives (15 April 2003)*



Source: European Commission, DG Internal Market
(*) Percentage of internal market directives that has not yet been transposed into national law, although the transposition deadline has been passed.

The figures used for Graph 11 reveal that state aid in the EU has declined from 1.3% of GDP in 1997 to 1.0% in 2001. Belgium is following the trend but lagging behind as state aid in 2001 still amounted to 1.3% of GDP, down from 1.4% in 1997.

Subsidies to the transport sector are worth mentioning because they absorbed 46% of State aid in the European Union in 2001, almost exclusively for the railway network. Aid to the railways accounted for more than 60% of total aid in Belgium, Luxembourg and the Netherlands.

The Stockholm European Council in 2001 asked Member States not only to reduce State aid but also to "redirect aid towards horizontal objectives". Thus, the share of EU aid granted for horizontal objectives - including cohesion objectives such as aid for regional development – therefore increased, between the years 1997-1999 and 2001, from 59% to 71% of total EU aid less agriculture, fisheries and transport. The figure for Belgium in 2001 was 99%.

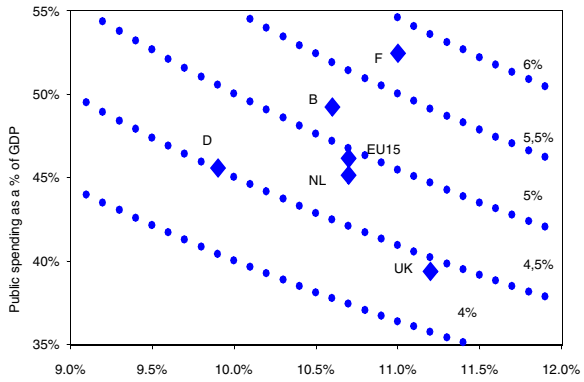
Another area in which a move is being made towards an internal market is the increasing amount of openly advertised public procurement whose value as a percentage of GDP in EU15 rose between 1996 and 2001, as shown in Graph 12. As regards the position of Belgium, significant progress has been made so that, from a low degree of opening amounting to only 1% of GDP in 1996, it is now - at 2.8% of GDP - above the EU average.

It should also be stressed that the estimate in Graph 12 only covers procurement for which tenders have to be published in the Official Journal, i.e. procurement in excess of the European thresholds. The figure may underestimate the actual degree of opening as it does not include procurement that falls below the thresholds of the relevant Directives but is nevertheless openly advertised by national authorities.

To assess the progress towards the completion of the Single Market Program, one should also consider the rate at which Member States transpose, in their national legislation, directives and regulations relating to the Internal Market. Graph 13 shows the so-called transposition deficit, i.e. the number of directives not yet transposed in Member States' law as a percentage of all directives pertaining to the Internal Market. The European Council required the Member States to keep their deficit to 1.5% or below, but only 5 countries – Belgium is not among them – meet this target.

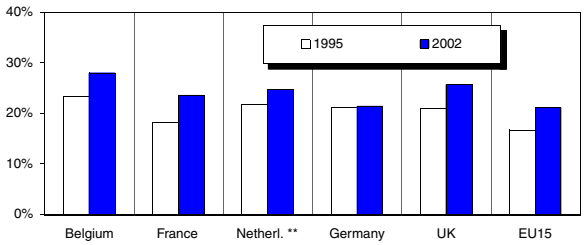
Framework conditions: education

Graph 14 - Public spending on education (2000)



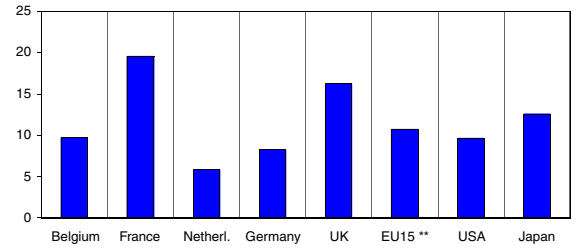
Source: Eurostat, NewCronos (domain Education)

Graph 15 - People with higher education *



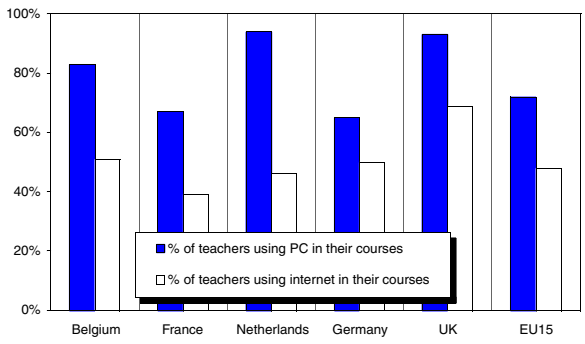
Source: Eurostat, NewCronos (domain Labour Force Survey)
(*) Percentage of people aged 25-64 who completed higher education (ISCED 5-6)
(**) 1996 instead of 1995

Graph 16 - Graduates in science & technology, in ‰ (2000)*



Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Number of persons per 1000 of population aged 20-29 who graduated in science and technology at post-secondary level (ISCED 5a and above) during the given year
(**) EU15 excluding Greece

Graph 17 - Use of ICT at school, all levels (2002)



Source: European Commission, Eurobarometer Flash

In a knowledge-based economy, where ideas and knowledge are central factors in the innovation and growth process, a country must take care of its educational level. Moreover, the availability of a skilled labour force is also an essential condition for competitiveness. To achieve optimal utilisation of human capital it is necessary to monitor trends so that shortfalls in the supply of specific skilled persons can be anticipated. It is also in the interest of the countries to provide training possibilities during a person's professional career.

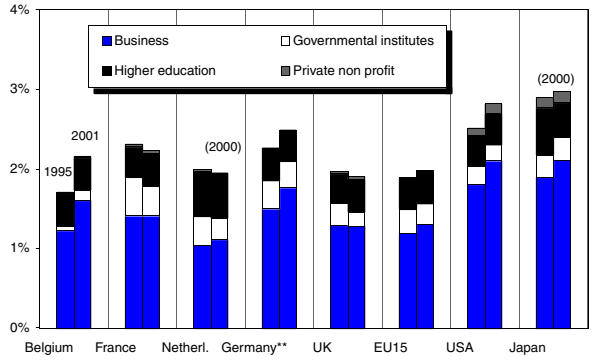
Belgium has quite a high level of public investment in education. In 2000, about 5.2% of GDP was devoted to education, which is higher than the European average. Graph 14 shows public spending on education as a percentage of GDP along the curved dotted lines. This reference makes it possible to account for this ratio in Belgium by two factors, shown on the horizontal and vertical axes. On the one hand, the Belgian authorities devote about 10.6% of their budget to education, although this is lower than the EU15 average. Although this share has risen in 2000 in most European countries, the percentage fell in Belgium. On the other hand, public spending is a large component of GDP at around 50%, which is higher than in most other European countries.

With regard to the highly skilled population, the percentage of people aged between 25 and 64 who are educated to tertiary level is relatively high in Belgium (Graph 15). This indicator, which is a measure of the supply of advanced skills, is significantly higher than the European average. Due to large discrepancies between educational systems, however, differences among countries must be interpreted carefully. Because of their critical role in the national innovation system, the supply of new graduates with training in Science and Engineering (‰ of the 20-29 year old age group) is of great interest. This share, which shows large differences between sexes, is significantly lower in Belgium than in France and the UK, but still higher than in Germany and the Netherlands (Graph 16).

The use of information and communication technologies has been introduced successfully in Belgian classrooms. In 2002, 83% of Belgian teachers were using computers in their courses (Graph 17). This proportion is higher than the European average. Note that those results come from a survey rather than a census.

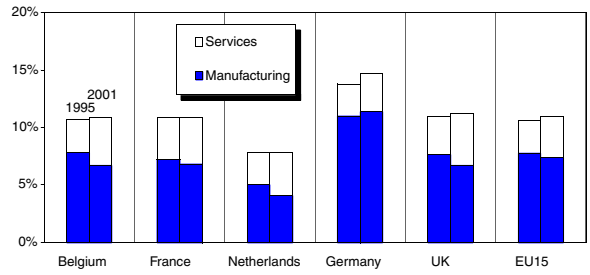
Framework conditions: R&D and innovation

Graph 18 - R&D expenditure by sector, as % of GDP*



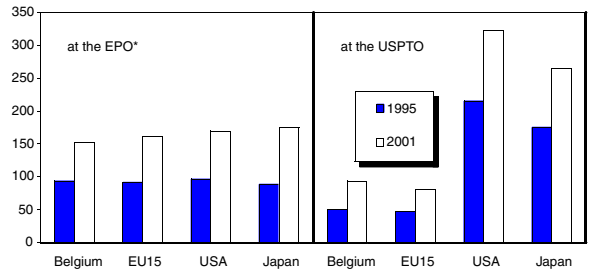
Source: Eurostat, NewCronos (domain R&D Expenditure and Personnel)
(*) Sectors are defined as 'institutional' sectors, (**) 2001 is estimated

Graph 19 - Share of MHT sectors in total employment*



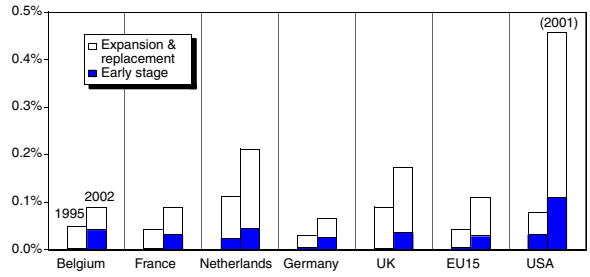
Source: Eurostat, NewCronos (domain Employment in High Technology Sectors)
(*) MHT = medium- and high-technology sectors

Graph 20 - Patent applications per million inhabitants



Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Provisional values for 2001

Graph 21 - Venture capital investment as % of GDP



Source: Eurostat, NewCronos (domain Structural Indicators)

Due to the rapid diffusion of new technologies and growing competition in the markets, R&D and innovation have become one of the most important factors in economic development. Given this and the widening gap between the EU and the USA, the European Council is intending to make Europe the most competitive and dynamic knowledge-based economy in the world. Increasing R&D expenditure to 3% of GDP (by 2010) is one of the main targets in order to pursue this objective. Two-thirds of these investments must be funded by the private sector, which has almost been reached in Belgium (64% of the total investments in 2001).

During 2000 and 2001, R&D expenditure grew faster in Belgium than in the European Union and in most of its competitors. Most of the growth came from R&D expenditure in enterprises. R&D investment represents 2.17 % of GDP in 2001, which is still above the European average. In spite of the increased efforts of all Belgian authorities since 2000, the public contribution to R&D is still below that of its main competitors.

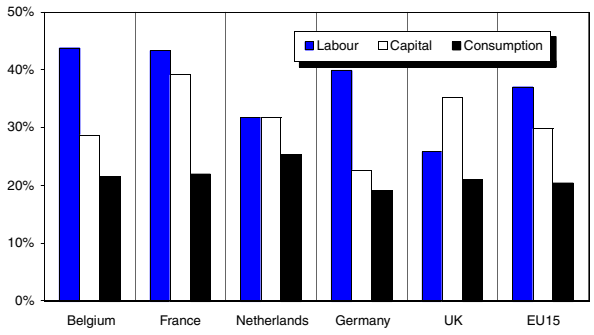
R&D and innovation activities are generally concentrated in the medium and high tech branches (MHT). Despite a concentration in medium high-tech activities just above the European average, the lack of innovation activities in enterprises remains a weakness in the Belgian innovation system.

The evolution of patents is a sign of the intensity of research. In Belgium, the number of patent applications filed with the European and US Patent Office (EPO and USPTO) per million inhabitants has increased by more than 60% and 85% respectively during the 1995-2001 period. In 2001, Belgium is placed above the European average for the USPTO and slightly below the European average for the EPO.

Easy access to venture capital facilitates the diffusion of innovation. In Belgium, investments in venture capital amounted to 0.09% of GDP in 2002, which is lower than the European average (0.11%). Investments at the early stage of development are, however, higher than the European average in Belgium and higher than the levels achieved by its neighbours, with the exception of Netherlands. Investments in venture capital by high-technology firms are also higher in Belgium than in the majority of Member States and than the European average (more than 80% above the average in 2001). In Belgium, banks and public authorities are very important direct investors in the field of venture capital.

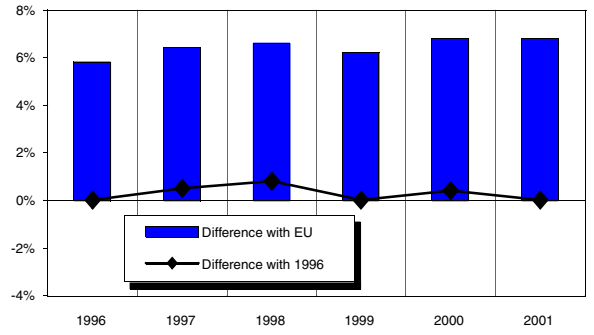
Framework conditions: taxation

Graph 22 - Implicit tax rates (2001)



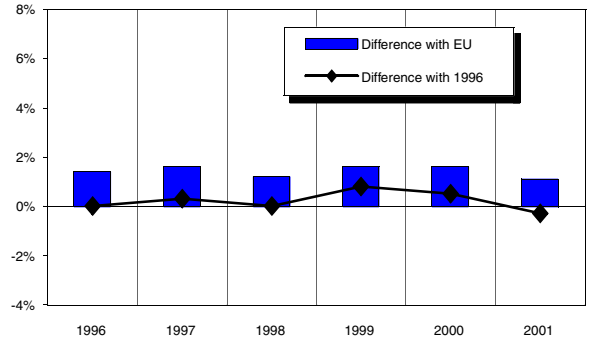
Source: European Commission, The structures of the taxation system in the EU

Graph 23 - Implicit tax rate on labour in Belgium, %-points



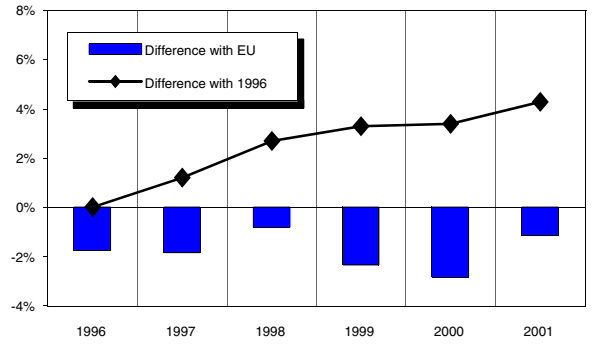
Source: European Commission, The structures of the taxation system in the EU

Graph 24 - Implicit tax rate on consumption in Belgium, %-points



Source: European Commission, The structures of the taxation system in the EU

Graph 25 - Implicit tax rate on capital in Belgium, %-points



Source: European Commission, The structures of the taxation system in the EU

The implicit tax rates on capital and consumption were close to the EU average in 2001, while the tax rate on labour remained significantly higher in Belgium (43.8% of labour costs, as compared with an EU average of 37%).

In comparison to the three main trading partners, Belgium's implicit tax rates on capital and consumption were higher than in Germany but lower than in France and the Netherlands. With regard to labour, Belgium had the highest implicit tax rate of the three countries.

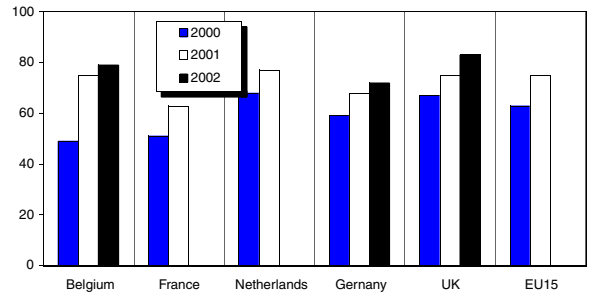
In retrospect, looking at the past six years, the differences between the tax rates in Belgium and the EU are not changing significantly. Year by year changes in the Belgian rates are also not very important, except for the implicit tax rate on capital (see below). Nevertheless, some important changes in the Belgian tax legislation on labour and capital can be pointed out.

Taxation on labour consists of personal income taxes and social security contributions. In Belgium, successive cuts have been introduced in social security contributions since the mid 1990s, accounting for some 3 billion euro in 2002 (about 3% of gross wages). During the 1995-2000 period, however, these cuts were offset by increases in personal income taxes. From 2001 onwards, reductions in personal income taxes have contributed to a decline in the global taxation on labour. This decline should continue in the coming years, due to both additional reductions in personal income taxes (in the framework of the reform decided in 2001, which accounts for about 1.3% of GDP when fully implemented, i.e. from tax year 2005 onwards) and new cuts in social security contributions (about 400 million euro in 2004 and 840 million euro per year from 2005 onwards).

It is difficult, for conceptual reasons, to interpret the evolution of the implicit tax rate on capital: the numerator incorporates very heterogeneous categories of levies and the denominator is also a flow concept whereas certain taxes relate to stocks. The implicit rate of corporate income taxation, however, (as part of the total taxation on capital) has been on the rise in recent decades in Belgium. To a certain extent, this rise reflects the developing impact of reforms introduced from the early 90's onwards aiming at broadening the tax base, and increases in tax controls since the mid 90's. The corporate income tax reform decided in 2002 provides for a lowering in the statutory rates from 2003 onwards (from 39% to 33% for the normal rate) and for new tax base-widening measures.

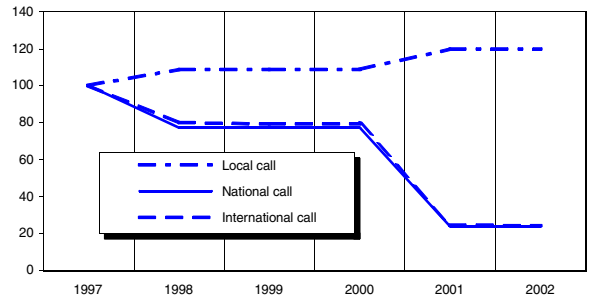
Network industries: telecommunications

Graph 26 - Mobile phone subscriptions per 100 inhabitants



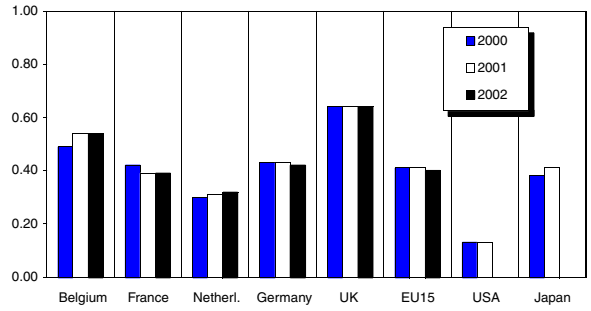
Source: Eurostat, NewCronos (domain Communications)

Graph 27 - Price of telephone calls in Belgium (1997=100)



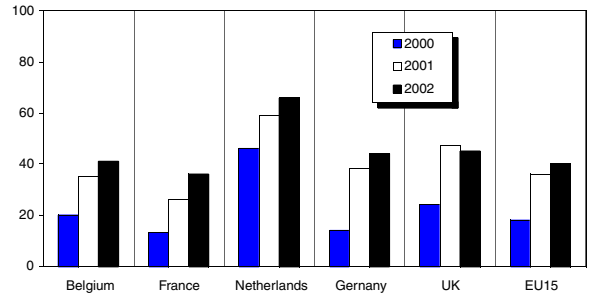
Source: Eurostat, NewCronos (domain Communications)

Graph 28 - Local call charge per 10 min. (EUR, VAT incl.)



Source: Eurostat, NewCronos (domain Communications)

Graph 29 - Internet connections per 100 households



Source: Eurostat, Newcronos (domain Information Society Statistics)

At the end of March 2003, in Belgian fixed telephony, 49 operators owned licences to operate a public network and 29 operators obtained authorisations to provide voice telephony services. This means a clear fall in the number of market participants in fixed voice telephony. The dominant position of the incumbent, Belgacom, is however still progressively being eroded, more rapidly in the international than in the national calls market. On the local loop the incumbent has a very dominant position, and the process of unbundling has only recently been accelerating.

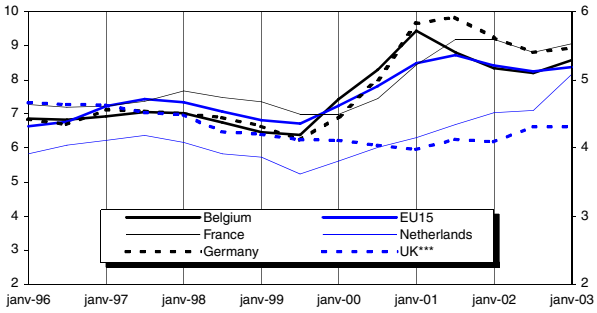
In mobile telephony, number portability, which has been in force since October 1st 2002, has helped to increase competition between the three operators. At the same time, the diffusion of mobile telephony has continued to increase strongly: the penetration rate reached 79% at the end of 2002 after being only 31% at the end of June 1999 (see Graph 23). The BIPT controls the prices of the two operators judged to have significant market power (SMP): Proximus, the incumbent's subsidiary, and Mobistar. In July, Proximus announced the technical opening of its UMTS network in July while the two other licensed operators (Mobistar and Base) realised the technical opening in September, thereby complying with the legal deadline. The commercialisation of UMTS is scheduled not to take place before 2005.

As illustrated by the Graph 24, last year was a year of stabilisation in price trends. Prices of national and international calls have stopped their decline while local call tariffs have interrupted their ascending trend. Since the same evolution has been recorded in most European Member States, the relative position of Belgium in terms of telecom prices has not changed (see Graph 25).

The number of Internet connections continued to increase in 2002 but at a slower pace than during previous years as shown in Graph 26. At the end of 2002, Belgium had 1.7 million connections, which means an annual increase of 19% after 24% in 2001 and 56% in 2000. The same trend seems to be visible in 2003. The Belgian market is gradually reaching maturity.

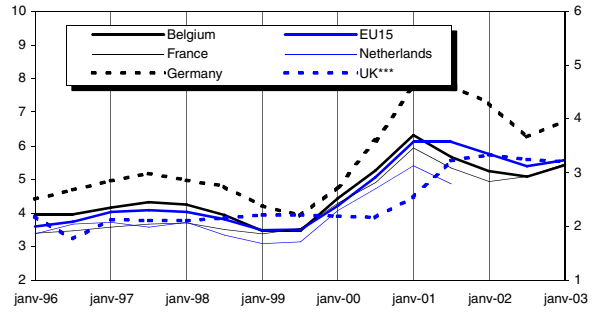
At the opposite end, the rate of penetration of broadband access is clearly higher than in the rest of Europe. With 60% of all connections established via this high-speed access (DSL and cable) as in June 2003, Belgium occupied a leading position in Europe.

Graph 30 - Domestic gas prices in EUR/GJ, net of taxes* **



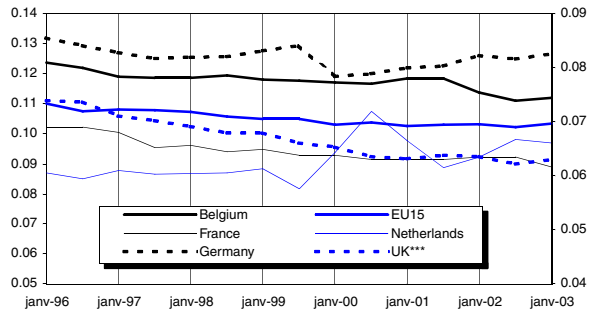
Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Standard consumer group: domestic consumer 83.7 GJ/year
(**) Up to 1999 measured in Ecu/GJ, (***) £/GJ, right-hand scale

Graph 31 - Industrial gas prices in EUR/GJ, net of taxes* **



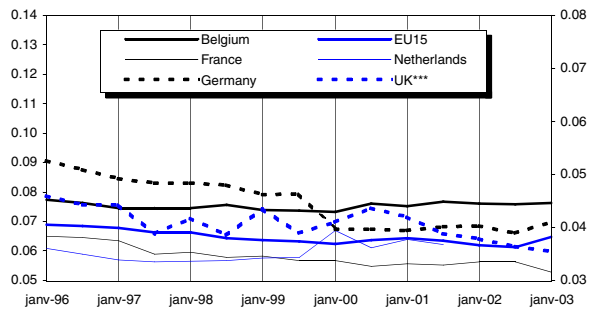
Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Standard consumer group: industrial consumer 41860 GJ/year
(**) Up to 1999 measured in Ecu/GJ (***) £/GJ, right-hand scale

Graph 32 - Domestic electricity prices in EUR/kWh, net of taxes* **



Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Standard consumer group: domestic consumer 3500 kWh/year
(**) Up to 1999 measured in Ecu/kWh (***) £/kWh, right-hand scale

Graph 33 - Industrial electricity prices in EUR/kWh, net of taxes* **



Source: Eurostat, NewCronos (domain Structural Indicators)
(*) Standard consumer group: industrial consumer 2 GWh/year
(**) Up to 1999 measured in Ecu/kWh, (***) £/kWh, right-hand scale

After a remarkable rise in gas prices during 1999-2000 resulting from an increase in oil prices accentuated by a high US dollar exchange rate, gas prices on the continent declined steadily until July 2002 and then rose again until January 2003, as did oil prices. Until the beginning of 2001, gas prices for the two standard consumer categories as defined by Eurostat (see the graphs) were higher in Belgium than in all its neighbouring countries except Germany, and also higher than the EU average. During 2001 and 2002, however, Belgian gas prices fell faster than those in other countries, moving below or close to the EU average, depending on the category of consumers. This trend can be traced back to price reforms aimed at several gas price reductions for captive users. It is interesting to note that when taxes are included in the prices, the ranking shown in the graphs is not significantly modified.

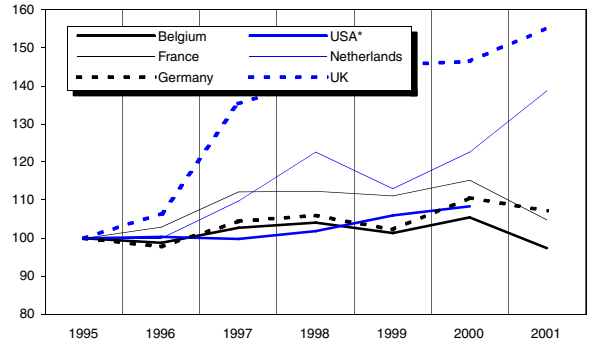
In the case of electricity prices, the downward effect of significant price reforms over 1999-2002, combined with the evolution of natural gas prices (natural gas is used to produce electricity) has led to a stabilisation in electricity prices for domestic customers in Belgium during 1999-2001, then to a decrease until mid 2002 and finally to a slight increase during the second half of 2002. Despite the overall declining trend during 1999-2002, electricity prices for households are still among the highest and above the EU average. Nevertheless, electricity prices with taxes put Belgium at the level of the EU average.

On the other hand, electricity prices for selected industrial customers increased slightly in Belgium during 1999-2002 (+3.4%), while they decreased in almost all other Member States. As a result, electricity prices for this consumer group remain higher than those for its European competitors. Belgium's position is unchanged when taxes are included except at the beginning of 2003 when prices with taxes in Germany become as high as those in Belgium.

Average EU gas and electricity prices compare differently to prices in the USA and Japan: for natural gas, the average EU prices are close to the prices paid by US industry but higher than for American households, on the contrary, they are far lower than in Japan for both categories of customers. As to electricity, the average EU prices charged to industry and households are higher than in the USA, but lower than in Japan.

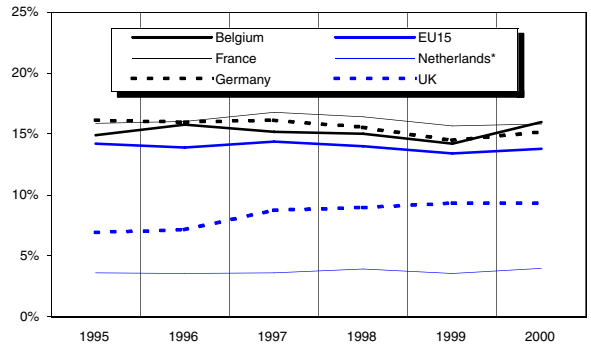
Network industries: railways

Graph 34 - Freight transport by rail (tkm, 1995=100)



Source: European Commission DG Energy and Transport, NMBS/SNCB (Belgium) and Eurostat (USA), (*) Referring to the 10 largest operators only (91% of the market)

Graph 35 - Market share of freight transport by rail (tkm)*



Source: European Commission, DG Energy and Transport
(*) Market share of land transport modes (excluding shortsea shipping)

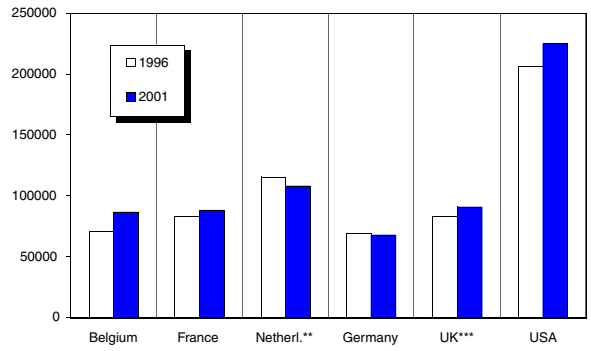
Since 1990, especially as a consequence of just-in-time industrial organisation to reduce stocks and working capital, and also specialisation within the EU, goods transport increased by 2.7% per year on average with a marked acceleration in 1997 and 1998. Between 1995 and 2002 rail transport in the EU15 grew by 7%. In Belgium, freight traffic by rail has been more or less stable since 1995. In France and Germany it has increased slightly. Strong growth was seen, however, in the UK (50%) and the Netherlands (20%). It should be noted that the UK, Germany and the Netherlands have already opened their rail freight markets.

In the growing transport market, stable rail traffic in Belgium implies a falling market share. Compared to other transport modes (road, inland waterways and pipelines) this share accounted for 16% in 2000 while it still accounted for 20% in 1990. Despite the strong growth in rail transport in the UK and the Netherlands, the share of rail transport in total freight transport was, compared to the EU15 (13.8%) rather small, 9% and 4% respectively. For the Netherlands this is offset by a large share of inland waterways (42%). In the EU as a whole the market share of railways in the goods transport market declined from 18% in 1990 to 14% in 2000 and is expected to decline to 9% by 2030.[1]

1. European Commission, 2003, *European Energy and Transport: Trends to 2030*. Brussels.

Network industries: postal services

Graph 36 - Labour productivity of postal services*



Source: FPB/BfP, own calculations based on data from De Post and UPU
(*) Average number of postal items per employee
(**) Figures for the Netherlands include international service - dispatch. Based on the 1996 figures this may have overestimated the figures for the Netherlands by about 3%
(***) 2000 instead of 2001

The number of postal items sent and received in Belgium increased by 8.4% between 1996 and 2001. In the same period, the number of employees of the incumbent (De Post) decreased by 11.5%. These developments led to an improvement in productivity in terms of items delivered per employee by more than 23% during the period 1996 and 2001. Although Belgium and other European countries are far behind the productivity achieved in the USA, Belgium is getting close to the productivity measured in the UK and France. According to De Post, there was no growth in letter post traffic in 2002 (decline of 5.3%). This can be explained mainly by the substitution of traditional letter post traffic for electronic mail. The forthcoming market opening is expected to increase competition in Belgium since some foreign competitors are already operating on the Belgian market.

Climate change and economics

This paper analyses climate change from an economic perspective. In accordance with economic theory, the main cause of climate change can be explained by the absence of markets for the services provided by the atmosphere.

The paper briefly discusses the reduction commitments agreed upon in the Kyoto Protocol in order to tackle this problem. It subsequently goes on to discuss the various market-based policy instruments that can be used to meet these Kyoto Protocol obligations. Emissions trading and taxes on greenhouse gas emissions are presented as cost-minimising instruments to lower emissions of greenhouse gases. Not only are the strengths and weaknesses of each individual instrument analysed but also the implications of using a mix of these instruments in the context of the Kyoto Protocol. This paper provides an economic background for those less familiar with these mechanisms. Policy-makers are the main target audience of this paper. It should allow them to better understand how they can utilise emissions trading and taxes efficiently within their climate change strategies.

While many papers limit themselves to explaining the virtue of one specific policy instrument, this paper goes beyond such an incomplete framework. It tries to give some insights in a complicated question that policymakers will face in the coming years:

"How can the use of a mix of different policy tools, tailored to suit the various regulated sectors, minimise the cost of limiting or reducing emissions for society as a whole, and what part can the flexibility included in the international Kyoto Protocol through international emissions trading play in this?"

For the first time countries are going to be legally obliged to limit their greenhouse gas emissions. This paper is a useful tool for those who will have to formulate an efficient response to this challenge. It is a result of the participation of the Task Force Sustainable Development of the Federal Planning Office in the Global Change Program of the *Federal Public Planning Service – Science Policy* in the context of a inter-disciplinary project named CLIMBEL (Climate change and instruments for emissions abatement in Belgium). The inter-disciplinary group included the *Center of Operations Research and Econometrics* of the *Université Catholique de Louvain*, the *Institut d'Astronomie et Geophysique George Lemaître*, the *Centre du droit de la Consommation* of the *Université Catholique de Louvain* and the *Center for Economic Studies* of the *Katholieke Universiteit Leuven*.

"A user's guide to economic instruments and international climate change policy: What role can they play in a Belgian climate change strategy?", W. van Ierland,
Working Paper 3-03, November 2003.
The paper will be available in Dutch and French in January 2004.

Bio-demographic aspects of ageing and use of care by the elderly

In the framework of the AGIR project carried out by the ENEPRI network and co-financed by the European Union, the Federal Planning Bureau has collected and analysed Belgian data about the evolution of the population within the period 1950-2050, the age when major life events occur and fitness at all ages through health life expectancy and disability-free life expectancy (Working Paper 10-03). Then, work has been done on the demand for and supply of health and nursing care for the elderly, also analysing the evolution of household composition and the labour market for women in particular, which are two factors influencing the possible provision of informal care (Working Paper 11-03).

The Belgian Federal Planning Bureau is one of the research institutes taking part in the AGIR project (Ageing, Health and Retirement in Europe) co-financed by the European Union under the Fifth Research Framework Programme and carried out in collaboration with seven other institutions in the ENEPRI network, with which the FPB is associated. The aim of the AGIR project is to study the extent to which the health and fitness of elderly people have improved, how elderly people make use of health care and the effects that ageing and the health status of the elderly can have on the decision to retire and on the future evolution of public health care and pensions expenditure. The FPB 's Working Papers 10-03 and 11-03 reflect the Belgian contributions to working packages 1 and 2 respectively of the AGIR Project.

Working Paper 10-03

After a thorough analysis of the evolution of the Belgian population as far back as 1950 and forecasts up to 2050, and looking at its basic components, especially fertility and mortality, various different ratios, the evolution of life expectancy at different ages, modal and median life duration, Working Paper 10-03 describes how ages at major events have changed in the past. Those events might be: completion of school, access to the first job, household formation, first child, retirement age and first widowhood.

Finally, Working Paper 10-03 sheds light on morbidity. Using the Belgian Health Interview Surveys, it synthesizes perceived health and disability on the basis of healthy life expectancy and disability free life expectancy. It also tries to evaluate whether there has been a reduction or increase in morbidity, or, in other words, whether people live longer in better or in worse health.

"The AGIR project: Ageing, Health and Retirement in Europe. Bio-demographic aspects of ageing: Data for Belgium", J. Mestdagh, M. Lambrecht, Working Paper 10-03, July 2003.

Working Paper 11-03

The objective is to study the use of health and nursing (long-term) care by the elderly, also making a distinction between care in institutions and informal care.

The first section analyses the demand for health care through contacts with doctors or specialists, admissions to hospital and duration of stays there. The second section examines the supply of health care, looking at the number of doctors, nurses, and so on.

Since the provision of informal health care depends largely on household composition and the extent to which people can rely on family members to take care of them, the third section studies the composition of households: average number and civil status of people in a household, number of elderly people living in their children's household.

The fourth and last section considers developments in the labour market. Participation rates and the evolution of part-time employment are linked to the possible provision of informal care. As more women enter the labour market, they have less time to care for others and this may be why more elderly people have to fall back on institutional care; yet the proportion of women working part-time also increases, which may mean that they then have more time to care for others, whether these are children or elderly people.

"The AGIR project: Ageing, Health and Retirement in Europe. Use of health care and nursing care by the elderly: Data for Belgium", J. Mestdagh, M. Lambrecht, Working Paper 11-03, July 2003.

On temporary recruitment subsidies in Belgium

This working paper analyses two employment measures designed to temporarily subsidise the recruitment of certain categories of job seekers in Belgium through a reduction in employers' social security contributions.

The first measure ("plans plus/plusbanen") is mostly aimed at creating employment by giving financial assistance to self-employed people when recruiting their first employees. To be eligible, the recruit must be a job seeker receiving unemployment benefits or a job seeker (without benefits) for at least one year. The recruitment subsidy granted to the employer lasts for three years. The second measure ("plan avantage à l'embauche/voordeelbanen") specifically targets the recruitment of job seekers who are having major difficulties finding a job, particularly the long-term unemployed. This time the subsidy lasts for two years, and its amount varies according to some of the characteristics of the recruits.

Descriptive analysis of the duration of employment shows that beneficiaries of these two measures have less difficulty staying employed following their subsidised recruitment than non-beneficiaries. Nevertheless, after the first year, the employment exit rates of the two groups tend to converge and they are similar from the seventh quarter onwards. Thus, the measures being studied mostly stabilise the route taken by the benefici-

aries in the labour market during the first year. Moreover, our data shows that there are important differences between the two measures in terms of the profile of the beneficiaries. Long-term unemployed job seekers benefit significantly less from the "plans plus" than from the "plan avantage à l'embauche".

The econometric analysis confirms these results. After controlling for observed and unobserved characteristics of the workers, their employers and the type of job, it appears that the two measures significantly reduce the probability of leaving employment. This impact is greater for the "plans plus" than for the "plan avantage à l'embauche". The potential presence of selection bias may, however, lead to overestimation (underestimation) of the impact of the "plans plus" ("plan avantage à l'embauche"). Nevertheless, our results are similar to those of other studies using Belgian data that show that temporary subsidies do not lead to the creation of precarious jobs.

"Effets de certains subsides temporaires à l'embauche: une analyse micro-économique des plans plus et du plan avantage à l'embauche, M. López-Novella,
Working Paper 16-03, September 2003.

The making of the economic budget

This paper describes the institutional framework behind the so-called 'economic budget' and gives an overview of its uses. The economic budget refers to the short-term macroeconomic forecasts that serve as background for the preparation of the Federal Government's Revenue and Expenditure Budget. The paper also summarizes the methodology behind these forecasts and the instruments developed for the purpose of producing the economic budget.

The law of 21 December 1994 creates the Institute for National Accounts (INR/ICN) and defines its tasks. This Institute is responsible for the publication of official statistics on the past (national accounts and input-output tables, for instance) and also for the economic budget. The various tasks of the Institute are distributed to one of the three associated institutes, namely the National Statistical Office (NIS/INS), the National Bank of Belgium (NBB) and the Federal Planning Bureau (FPB). The preparation of the economic budget has been assigned to the FPB. The final approval and publication of the economic budget is done under the responsibility of the Board of Directors of the INR/ICN, after recommendations are received from a Scientific Committee, which includes the most important users of the economic budget.

The budgetary process takes place in two stages. In September of each year, an economic budget is prepared which serves as background for the next year's public revenue and expenditure budget. In February, an updated forecasting exercise is carried out which forms the basis for the budgetary controls in that year. Accordingly, the forecasting horizon of the economic budget is four to six quarters.

To allow the Government and Federal Agencies to prepare their budgets, a large number of macroeconomic variables have to be forecast. Both volumes and prices are important for the purpose of estimating public revenues and expenditures. Other crucial information concerns the breakdown of GDP from the angle of expenditure (into consumption, gross capital formation, exports and imports) and income (into wage sum, mixed income and gross operating surplus). It is also vital to gain some insight into the different stages in the economic process (generation, distribution, redistribution and use of income, and capital accumulation) in which economic agents (households, firms, general government and the rest of the world) are involved. Finally, the economic budget provides a detailed overview of expected developments in the labour market.

The quarterly macroeconometric model Modtrim serves as a central tool for producing the economic budget. The principal exogenous variables in the model cover the international environment (world trade, international prices of goods and services, oil prices, equity prices, exchange rates and interest rates), the socio-demographic context and the macroeconomic policy framework. A quarterly model is very well suited to business cycle analysis and short-term forecasting, for three main reasons. Firstly, working with a quarterly instead of a yearly model makes it possible to integrate explicitly all the quarterly information available. Secondly, using quarterly data means that carry-over effects can be taken into account much more precisely. Thirdly, the lag structure in relationships between economic variables can be captured more accurately.

Despite the fact that structural macroeconometric models have come under heavy fire during the past two dec-

ades, a number of factors have persuaded us to stick to traditional structural modelling. First of all, non-structural models (such as vector autoregressive models) can only produce acceptable forecasts for a limited number of endogenous variables on a very short forecasting horizon. Secondly, structural models not only deliver forecasts, but also play a pedagogical role because causal relationships between different economic aggregates can be explained, which can be useful in communication with policy-makers. Finally, such models make it possible to test the effects of alternative hypotheses relating to exogenous variables and the impact of policy measures.

The model's results, however, are adjusted on the basis of experts' views and are also adapted to take into account all the relevant information which cannot be incorporated directly into the model (including information summarized in a set of leading indicators). This additional information is introduced into the model through add-factors. This leads to a new model solution which is again scrutinized by the various sectoral teams. The advantage of this kind of strategy is that coherent macroeconomic forecasts are produced without relying solely on the behavioural equations of the model.

"De opmaak van de economische begroting: een handleiding", "Tout savoir sur la confection du budget économique", L. Dobbelaere, B. Hertveldt, E. Hespel, I. Lebrun, Working Paper 17-03, October 2003.

Input-output tables: an analysis tool

According to the terms of the law of December 1994, the Institute for National Accounts has given the task of compiling input-output tables to the Federal Planning Bureau. In accordance with the Eurostat calendar, the table for 1995, compiled according the European system of accounts ESA 1995, was transmitted in early 2003. This working paper is an extension of the input-output technique, focusing on its most common applications.

As a reminder, the input-output table describes in great detail the activities involved in domestic production and the transactions involved in the products of an economy. It points out the inter-relationships between the various industries by revealing goods and services used in the production of other goods and services, and the final uses of products. It also indicates the production cost structure of various industries.

The input-output table therefore constitutes a useful analysis tool. Indeed it makes it possible to calculate direct indicators relative to the structure of the economy. On top of this, according to specific assumptions, it makes it possible to measure the direct and indirect effects of external shocks on the various industries involved in the economy. The cumulated costs and the multipliers developed in this working paper are two of the analyses usually carried out on the basis of the input-output table. The cumulated costs technique transforms the elements of final demand into remuneration of national production factors and intermediate imports. In other words, the technique cumulates the value added absorbed in the process of manufacturing a product and all the value added needed to produce the inputs needed by this product. This is balanced by the imports. The multiplier compares the cumulated effect, which is calculated in this way, with the direct effect that can be measured directly.

The direct indicators calculated in this study provide a general overview of the cost structure of the Belgian economy in 1995, the level of productivity of goods and services and the degree of exposure to international competition.

The results of the cumulated costs analysis indicates which products or components of locally produced commodities for final demand have the more content in terms of value added or intermediary imports. The exercise extends to the study of the energy and information contents of the various final uses elements. It shows the relatively high energy content of goods and the relatively high information content in services and investments.

The last section deals with the multipliers of production, value added and employment. For example, it was found that industry induced some 250,000 jobs in services in 1995, and that final demand in services was more labour-intensive (19 jobs /million euros) than demand for goods with 11 jobs /million.

"Quelques applications à l'aide du tableau entrées-sorties 1995", L. Avonds, V. Deguel, A. Gilot, Working Paper 18-03, October 2003.

An attempt to compare the input-output tables for 1990 and 1995

This paper is the result of an attempt to compare the input-output tables for 1990 and 1995. The aim, of course, is to discover economic changes. This research was done with the necessary caution because the tables have different underlying accounting systems.

A comparison between the new input-output table for 1995 (published in February 2003) and the previous one for 1990 is hampered by the different backgrounds of the two tables. The new table for 1995 is based on the new system of national accounts, characterized by different concepts, classifications, definitions and basic statistics. When comparing the two tables, as they are published in their descriptive form there is a danger of drawing the wrong conclusions. In order to get around this difficulty a special version of the table for 1995 was produced. In this version the table for 1995 was converted as far as possible to the rules of the old system of national accounts.

A further remedy was to carry out a comparison of the analytical forms of the table for 1990 and the special version for 1995 rather than the descriptive ones. Analytical forms of input-output tables reproduce so-called cumulated cost structures of industries (including indirect effects of suppliers) while descriptive tables only reproduce direct cost structures. All this could not, however, completely eliminate the underlying conceptual differences between the two tables. Caution is therefore still required in the interpretation of the results.

It is immediately obvious that the total final uses of domestic output have a slightly higher content of value added in 1995. The reason for this is clear. The share of services in final uses has increased and services have a higher value added content than goods.

Goods producing industries generally show increased value added content. A majority of these industries do have a higher recourse to foreign suppliers within their own sector of activity but this phenomenon is surpassed by a greater increase in the intermediate use of domestically produced business services.

In general a lower content of value added can be seen in those industries that produced services in 1995. They also showed higher intermediate use of domestically produced business services but this increase was weaker than in the goods producing industries and is generally more than compensated by the higher total content of intermediate imports. The latter is caused not only by greater use of foreign suppliers within their own activity branch but also by changes specific to each industry.

"Een poging tot vergelijking van de Input-Outputtabellen van 1990 en 1995", L. Avonds
Working Paper 19-03, October 2003.

An Economic Analysis of the Production and Distribution of Alcoholic Beverages

This paper shows the evolution of the demand for and production of alcoholic beverages between 1995 and 2000 and measures the GDP contribution and employment generation of the production and distribution of alcoholic beverages in Belgium in an input-output framework.

The first part shows the production, import, export and domestic use of beer, malt and distilled and non-distilled alcoholic beverages for the years 1995 and 2000. The data shown are consistent with data from the national accounts for 1995 and 2000. In 2000, brewers represented almost 94% of value added in the alcoholic beverages industry.

The production of beer rose in the period 1995-2000, despite a stagnation of domestic use in value terms. The increase in the production level is fully attributable to the increase in exports of beer. Between 1995 and 2001, beer exports saw an annual growth rate of 7.8%, which is more than the growth rate of 5.6% in the food and beverages industry as a whole. The first part also gives figures for direct value added creation by the alcoholic beverages industry. This industry's share of total value added fell from 0.35% in 1995 to 0.30% in 2000. This was due to a fall in production of other alcoholic beverages.

The second part draws upon the 1995 Belgian input-output table to compile the contribution to GDP of the production and distribution of alcoholic beverages.

The domestic production of alcoholic beverages was estimated to make a GDP contribution of 0.72%. This involves a direct effect of 0.53% and an indirect effect (through its chain of suppliers) of 0.19%. The difference between the 0.53% of GDP and the 0.35% of total value

added mentioned earlier is accounted for by excise and VAT tax revenues on the domestic use of alcoholic beverages produced in Belgium.

The direct and indirect employment created by the production of alcoholic beverages was estimated at 14,494 persons, which is 0.37% of total employment in 1995.

With respect to the distribution of alcoholic beverages, a distinction was made between the distribution margins realised by the wholesale and retail trade, and the implicit distribution margins realised by hotel, restaurant and beverage serving services. A further distinction was made between distribution margins on alcoholic beverages produced in Belgium and those on imported alcoholic beverages.

Thus, the distribution of domestically produced alcoholic beverages by wholesalers and retailers contributed about 0.17% to GDP, while the implicit distribution margins on alcoholic beverages by hotel and restaurant services were estimated at 0.97% of GDP. These percentages include direct and indirect effects, as well as VAT and other tax revenues. The distribution margins and taxes on imported alcoholic beverages are responsible for an additional 0.39% of GDP.

The total employment generated by the distribution of alcoholic beverages, was estimated at 91,821 persons, which is 2.39% of total employment. This number includes 15,787 persons involved in the distribution of imported alcoholic beverages. These employment figures include self-employed persons and part-time workers.

"Een economische analyse van de productie en distributie van alcoholische dranken", "Une analyse économique de la production et de la distribution de boissons alcoolisées"
L. Avonds, B. Van den Cruyce,
Working Paper 20-03, November 2003.

Geographical and urban dynamics of employment in Belgium: main driving forces and impact of ICT

This paper should be seen as the second step in a study on the impact of Information and Communication Technologies (ICT) on the geographical concentration of economic activities in cities, which is being financed by the Belgian Federal Science Policy Office. After a first working paper carrying out a descriptive analysis of geographical and urban concentration of economic activities in Belgium, the present study tries to test some determinants explaining the geographical and urban pattern of employment growth in Belgium, using an econometric model and data on wage and salary earners from townships covering the 1987-2000 period.

For the period under investigation, we observe, as in many industrialized countries, stronger employment growth on the fringe of cities and even outside city regions than in city centres. In other words, the urban polarisation of employment in Belgium is continuing to decline, following the trends already seen for the location of households. Testing factors found in the literature to account for this, we prove that the geographical evolution of final demand is indeed one of the main driving forces of employment location, especially in the tertiary sector. Other important determinants are location near the international airport in Zaventem, local tax levels on properties, and above all the area growth of business parks in the inner and outer periphery of urban centres. The growth of economic activities is taking a more extensive spatial form, and this makes the urban centres relatively unattractive because they have already reached saturation levels.

Several problems are associated with employment sprawl: weakening of agglomeration effects on innovation and productivity, sharp reduction of green fields, a growing number of "brownfields" in some urban centres, and above all foremost unsustainable patterns of transport for both goods and persons, leading to congestion and pollution. We therefore propose some policy recommendations promoting the attractiveness of urban centres and encouraging an efficient organisation of future job locations, by differentiating firms on the basis of their mobility profiles. The level of urban amenities also needs to be improved in order to attract new firms,

and in a second stage the creation of new office space can be carefully considered.

In a final part we study the impact of ICT on job location: does it foster further urban depolarisation or can it bring jobs back to city centres? Examining the location of ICT-linked activities for the recent 1994-2000 period reveals two opposite effects: ICT producing branches are growing more quickly in urban centres, but ICT using branches prefer a location on the fringe of city regions. These opposite trends need to be further assessed and confirmed on a longer time span before considering some policy implications.

"Dynamique géographique de l'emploi en Belgique. Déterminants et impact des TIC", J. Decrop,
Working Paper 21-03, November 2003.

Subsidiaries of Belgian companies in foreign countries: the Belmofi-database

This working paper describes how the 'Belmofi' database was updated. The Belmofi database contains the subsidiaries of Belgian firms that are based in foreign countries. This study also gives an overview of the conclusions that can be drawn from this database. An abstract of those conclusions is given below. Special attention has been paid to subsidiaries of Belgian firms in developing countries.

A number of different sources have been used to update this database. First, the consolidated annual accounts of firms were used as basis for the database. Then information from an internal database of the Central Balance Sheet Office was added. In a next step information from the KULeuven was integrated. Finally, the information collected from embassies was added. All this information is collected from active firms in 2001.

The Belmofi database includes 15,742 foreign subsidiaries from 4,886 parent companies. These subsidiaries cover 144 countries around the world. The subsidiaries are mainly concentrated in Europe. Belgium's neighbouring countries are attracting a particularly large number of firms; half of the total amount of subsidiaries are based in those countries. Limited companies, companies with more than thousand employees and companies that are based in Brussels are more likely to have a subsidiary abroad. Compared to the services sector, the industrial sector has the biggest share of parent companies with subsidiaries abroad.

Belgian companies invest most in developed countries. Only 7.8% of the subsidiaries are based in developing countries (these countries are classified by gross national income per capita). The amount of subsidiaries in developing countries rose by only 9% during the last 6 years, in comparison to a total rise in the number of subsidiaries of 71%. The preferred developing countries are China and Romania; those two countries also saw the biggest rises. Developing countries attract relatively more Belgian parent companies from the industrial sector than from the services sector.

When comparing the 1995 results with those for 2001, not many changes are seen in the geographical distribution of the subsidiaries, but there has been a general rise in the number of subsidiaries and parent companies.

"Filialen van Belgische ondernemingen in het buitenland: De BELMOFI-databank", A. Joos, H. Spinnewyn,
Working Paper 22-03, December 2003.

Other Recent Publications

Economic forecasts 2004, September 2003
(available in Dutch and French)

"Informatie- en communicatietechnologie in België: Analyse van de economische en sociale impact" / "Les technologies de l'information et de la communication en Belgique : analyse des effets économiques et sociaux". June 2003, Kluwer - Mechelen.
G. Dekkers, C. Kegels (Eds.)

Planning Paper 93, June 2003
"De Belgische Milieurekeningen - Les comptes environnementaux en Belgique"
G. Vandille, B. Van Zeebroek

Working Paper 9-03, July 2003
"The international transmission of shocks - Some selected simulations with the NIME model"
E. Meyermans

Working Paper 12-03, August 2003
"An assessment of the risks to the medium-term outlook of the Belgian international economic environment - Simulations with the NIME model"
E. Meyermans, P. Van Brusselen

Working Paper 13-03, September 2003
"Een nieuw macro-econometrisch arbeidsmarktmodel: schatting, basissimulatie en arbeidsmarktbeleids-simulaties"
K. Hendrickx, C. Joyeux, M. Lopez-Novella, L. Masure, P. Stockman

Working Paper 14-03, September 2003
"Een macro-economische evaluatie van de werkgeversbijdrage-verminderingen in 1995-2000"
C. Joyeux, P. Stockman - Augustus 2003

Working Paper 15-03, August 2003
"TIC, nouveaux standards transactionnels et fiscalité. Défis et perspectives"
M. Saintrain

Research in progress

The NEMESIS model

In collaboration with a network of European research institutions, the FPB is developing an international macro-sectoral econometric model. Present developemnts include an extension to new geographical areas (US, Japan) and an upgrade of the modelling of public finances. A new baseline and variants concerning energy, environment and R&D policies are being prepared.
contact: fb@plan.be

Cities and regions

The aim of the research is to get an insight in the specialisation and dynamism of cities and regions in Belgium. Structural changes in the sectoral composition of the Belgian economy is taken into account. On a regional level, the Belgian regions are compared with some other major European regions. On a city and town level, a study on the factors determining the location of economic activities and the location of households is undertaken.
contact: dd@plan.be

Long-term energy projections

The FPB is updating its long-term energy projections for Belgium. The aim is to describe the present situation and make projections up till 2020/2030 for energy demand and supply. Alternative scenarios (renewable energy, nuclear energy, transport demand, etc.) will also be analysed. The results will be presented in a colloquium at the beginning of next year.
contact: dg@plan.be

Reforms in network industries

The FPB analyses the economic impact of reforms in network industries in Belgium. The aim is to get a better understanding of the main economic mechanisms at play, to benchmark the Belgian situation with other European countries and to quantify the economic impact of the reforms.
contact: jvdl@plan.be

The NIME model

The NIME model is the macro-econometric world model of the FPB. On-going research includes a new specification for the natural rate of unemployment, labour supply, and gross capital formation, and the introduction of a separate block for the EU accession countries. Future studies will focus on the impact of labour market policies and on medium term scenarios for the Belgian international economic environment.
contact: em@plan.be, pvb@plan.be.

Recent history of major economic policy measures

October 2003

The European Commission has taken a major step in the modernisation of EU competition policy by inviting Member States and all interested parties to comment on a new Regulation adopted by the EU Council. This regulation will come into force in May 2004. It is a thorough overhaul of the implementation of the anti-trust rules, and will have far-reaching effects on the way the national competition authorities work.

The 2004 federal budget contains measures implementing different policy initiatives from the July 2003 government agreement. They mainly involve the timing and the mechanism involved in the new reductions in social security contributions (SSC), different tax measures and decisions relating to new expenditure in health care insurance.

A package of additional employer SSC reductions has been announced, amounting to 0.4bn euro in 2004 and 0.8bn euro in 2005. Some of these will be delivered by modifying the technical parameters for structural SSC, while other initiatives will target specific labour categories: at the very low-wage end, at the very high-wage end on top of the structural reduction in employer SSCs, and young poorly skilled first-time job-seekers. The previously planned and budgeted streamlined system of employer SSC reduction programmes will take effect from 2004 onwards.

Employment should also benefit from a number of other measures (extension of the service voucher system, etc.).

The government intends to reinforce the fight against tax evasion and to ensure an improvement in the collection of taxes. Moreover, the government is planning to introduce a special temporary tax aimed at legalizing financial assets held abroad which have illegally escaped taxation until now. These measures account for about 1.1bn euro in the 2004 budget. Besides other one-shot measures, measures accounting for about 0.4bn euro include significantly higher increased energy and tobacco taxation and increases in certain financial asset-related taxes.

The increase in health care public expenditure (4.5% in real terms in 2004) is aimed at meeting the growing needs of the sector (mainly financing of hospitals and health care workers). There are also some new, smaller measures targeting specific categories of (young) sick people and specific diseases (chronic diseases etc.).

Thanks to a financial transfer from Belgacom (3.6bn euro in 2003 and 1.4bn euro in 2004) in exchange for the take-over of its pension charges by the State, the government expects the budget to be in surplus in 2003 (0.2% of GDP) and in balance in 2004.

September 2003

The federal and regional governments reach an agreement on the prefinancing of railway infrastructure. This means that the regions are given some flexibility in stating their priorities in the execution of the 2002-2014 investment plan.

August 2003

The European Commission considers that a 300 euro million capitalisation for the postal incumbent (De Post/La Poste) does not constitute unwarranted state aid, because the company still finances parts of its public service obligations from its own funds.

July 2003

The new coalition at the federal level presents a new medium term budgetary framework: for public administrations as a whole, the budget should be in balance in 2003 and 2004 and move towards a surplus (0.3% of GDP in 2007). The public debt ratio should be below 90% in 2007, taking the Belgacom pension fund into account and including the debt of the national railways company (7.8 billion euros). Social security should be in balance, and an increased contribution from the Regions and the Communities towards the budgetary consolidation is envisaged.

This budgetary framework should be consistent with a real average growth rate in primary expenditure by the federal administration of 1.2% yearly and new investment in public enterprises (notably the national mail and railways companies). The tax burden should continue to decline, mainly thanks to the gradual implementation of the 2001 personal income tax reform. Increased taxation on energy consumption should be compensated by a reduction of some lump-sum taxes on vehicles. Financial assets invested abroad and having hitherto escaped taxation, could be legalized by paying a special tax and reinvesting them in Belgium.

With regard to social security, provision is made for a real average growth rate in public expenditure on health care of 4.5% yearly and new reductions in social security contributions from 2004 onwards (0.8 billion euros); the new coalition plans to increase some benefits (ceilings, minimum benefits) and to improve social insurance for the self-employed.

Job creation should be encouraged by various measures, notably through lower social security contributions. An "employment conference" will be set up and should lead to the implementation of a package of eight measures proposed by the government. The new coalition expects employment to be increased by 200,000 during the next four years.

June 2003

The ECB decides to lower its main refinancing rate by 50 basis points, from 2.5% to 2.0%.

The opening of the electricity and gas markets was completed in the Flanders region, which covers two thirds of the Belgian population. All Flemish customers, both industrial and household, now have a free choice of energy supplier. To avoid an excessively dominant position being occupied by the incumbent (Electrabel) the national competition authority initiated some measures, including the auction of part of the incumbent's virtual production capacity.

October 2002

The federal budget also includes a 300 million euro increase in capital for the postal company De Post / La Poste. This sum will come from the Federal Participation Company, and had already been reserved for De Post for a few years. It will be used for modernisation of the company.

A more complete overview of "Recent history of major economic policy measures" is available on the FPB web site (http://www.plan.be)

Abbreviations for names of institutions used in this publication

BIPT/IBPT	Belgian Institute for Postal services and Telecommunications
EPO	European Patent Office
NBB/BNB	National Bank of Belgium
NMBS/SNCB	Belgian National Railway Company
OECD	Organisation for Economic Co-operation and Development
UNCTAD	United Nations Conference on Trade and Development
UPU	Universal Postal Union
USPTO	United States Patent and Trademark Office
WTO	World Trade Organisation

Glossary / Other Abbreviations

Broadband	High-speed telecommunications link
DSL	Digital Subscriber Line: broadband connection via a classical, analogous telephone line
FDI	Foreign Direct Investment: investments in domestic assets and equity by foreign economic agents, and foreign assets and equity by domestic agents
GJ	Billion joule: measure of the energy content of gas
GWh	Million kWh
HICP	Harmonised Index of Consumer Prices (harmonised among the Member States of the EU)
ICT	Information and Communication Technologies
Implicit tax rate	Effective tax rates, obtained by relating the broad categories of tax revenues to the corresponding taxable bases
ISCED	International Standard Classification of Education
Local loop	The last section of a telecommunications network, giving direct connection to the premises of the customer
MHT	Medium and high-technology sectors: chemicals, chemical products, all machinery and equipment, post & telecommunications, computer services, research & development (NACE 24, 29-35, 64, 72 and 73)
Openness	Ratio of the average of imports and exports to GDP
PPS	Purchasing Power Standard: a fictive 'currency' unit that eliminates differences in purchasing power, i.e. different price levels, between countries
Public procurement	Purchases of consumption and investment goods (and services) by public authorities, *i.e.* works, supplies and services
Science & technology	Life sciences (ISC42), physical sciences (ISC44), mathematics and statistics (ISC46), computing (ISC48), engineering and engineering trades (ISC52), manufacturing and processing (ISC54) and architecture and building (ISC58)
SITC	Standard International Trade Classification
State aid	Transfer of State resources to private and public enterprises
Statutory corporate tax rate	Legal tax rate on profits
tkm	Tonne kilometer: measure for goods transport activity
Transposition deficit	Percentage of internal market directives that has not yet been turned into national law, although the transposition deadline has been passed
UMTS	Universal Mobile Telecommunications System
VAT	Value Added Tax
Venture capital	Capital that provides long-term, committed, risk sharing equity to help unquoted companies to grow and compete.