SHORT TERM UPDATE

4-08

Quarterly Newsletter December 2008

Headlines Belgian Economy

Special Topic in this issue
The Belgian financial system
at the onset of the crisis



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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 FPB has revised its medium-term outlook for 2008-2013 for the Belgian economy. For the 2008-2010 period, the outlook adopts the international economic scenario provided by the OECD outlook of November 2008. The uncertainty surrounding the results is exceptionally large and downside risks could prove to be greater than upside risks. The greatest downside risks include a longer than expected period of distress on financial markets, and that emerging markets could be hit harder than anticipated.

The outlook for Belgium shows average GDP growth reaching only 1.5% during the period 2008-2013 (1.9% for the period 2001-2007). This relatively weak performance is largely explained by weak GDP growth in 2008 (1.4%), a fall in economic growth next year (-0.3%) and a limited recovery in 2010. Over the period 2011-2013, GDP growth is expected to stabilise at a rate slightly above 2%, which might not allow the output gap to be completely closed by the end of the projection.

After dynamic growth in 2007, private consumption expansion should be much more limited in 2008 and 2009. From 2010 onwards, household demand growth should increase gradually and then stabilise at a rate close to 2%. After dynamic growth in 2008, gross fixed capital formation should slightly decrease in 2009, before recovering in 2010 and increasing by 2.4% on average during the 2011-2013 period. Given the unfavourable international environment next year, exports are expected to decrease in 2009. Over the period 2010-2013, exports should increase by 4.4% on average and the contribution of net exports to GDP growth is expected to be slightly positive.

The worsening of the economic situation should lead to a decrease in employment in 2009. In the medium term, employment should increase again, at a yearly rate reaching 0.8% at the end of the projection. With employment growth heavily affected by the adverse economic situation in the short run and in view of the increase in the labour force, the unemployment rate (broad definition) will soar to 12.9% by 2010 (against 11.9% in 2008), before levelling off at around 13.2% from 2011 onwards. Total administrative unemployment should stand at almost 700,000 persons in 2013 (65,000 persons more than in 2007).

Under the assumption of unchanged policy, the public accounts are expected to deteriorate markedly, with a net public financing requirement of 1.6% of GDP in 2009, 2.4% in 2010 and up to 2.6% in 2011-2013.

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

Editorial Board stu@plan.be

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Table of Contents

• The Belgian financial system at the onset of the crisis	3
• Economic outlook for 2008-2013, dated November 2008	5
Summary of Economic Forecasts • Economic forecasts for Belgium by different institutions • Economic forecasts for the euro area by different institutions	7
• Pursuing the Lisbon Strategy in Belgium • Policy objectives: productivity and employment • Policy objectives: openness and FDI • Policy objectives: environment • Micro-economic: R&D and innovation • Micro-economic: communications • Micro-economic: internal market and competition • Micro-economic: network industries • Micro-economic: taxation and business climate • Labour market: participation • Labour market: social cohesion • Labour market: education	8
 Quantifying environmental leakage for Belgium Analysis of public expenses and revenues for transport Wages and employment by level of education and occupation in Belgium (1999-2004) Branches of Belgian companies abroad: a survey over the period 1995-2005 Long-term financing of social security and its impact on the federal budget Other Recent Publications 	0
Research in progress	
Recent history of major economic policy measures	

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The Belgian financial system at the onset of the crisis

The financial system is a set of institutions that assume different functions in savings intermediation under specific prudential monitoring schemes. In the Belgian financial system, it is possible to distinguish the commercial banks, the investment banks, the collective savings management institutions, the insurance companies and the professional pension institutions (IRP), better known as pension funds. At the onset of the crisis described in the Short Term Update of November 2008, the structure of the Belgian financial system, given in Table 1, was the result of deep mutations since the beginning of the nineties as consequences of the achievement of the single European financial market.

Table 1 - Number of financial institutions in Belgium

Type of institution	1980	1990	2000	2007
Commercial banks	142	123	119	110
Under Belgian law with majority Belgian ownership	81	52	45	25
Under Belgian law with majority foreign ownership	35	36	27	27
From other EU Member States	10	20	34	49
From other countries	16	15	13	9
Investment banks			92	66
Belgian law			83	49
Other			9	17
Professional pension institutions			312	276
Other financial institution			4	9
Insurance companies			209	156
Insurance services without physical establishment			589	791

Source: Aperçu statistique du système financier belge, NBB, June 2008.

Under increasing competitive pressures, a large movement of concentration has occurred inside the Belgian financial system, often via mergers and acquisitions. Important changes among shareholders have also been observed. Over the last 15 years, the number of institutions has decreased but the foreign presence, mainly from other Member States of the European Union, has increased. The increase in foreign presence has not always taken the form of new establishments in Belgium, as illustrated by the number of insurance services delivered without physical outlets. Finally, in 2007, the Belgian financial system was dominated by 4 international financial conglomerates covering services offered by commercial banks, insurance companies and investment banks. In 2006, they accounted for 80% of banking assets and almost 50% of insurance premiums¹.

The rapid development of the financial sector is also underlined by the evolution of the Belgian financial deepness indicators. Banks' credit outstanding to the private sector GDP doubled between 1990 and 2006, reaching 0.78. However, its relative importance has remained largely below that observed in neighbouring countries such as France (0.94), Germany (1.09) or the Netherlands (1.69). This observation is partly explained by the role of the financial institutions in public sector financing. Indeed, the ratio of total assets of commercial banks on GDP gives a better picture of the development of the Belgian banks in the European environment. In 2007, this ratio reached 3.9 in Belgium, as against 3.1 in Germany and 3.8 in France and in the Netherlands². The impact of public financing is also visible in the development of the bond market. As a ratio to GDP (1.27), this market is one of the most developed in Europe, but mainly under the impulse of bonds that constitute the public debt. Indeed, the ratio of bond capitalisation of the private sector to GDP (0.34) shows a private bond market of the same importance as that of Germany (0.35) and far below that of the Netherlands (0.66).

Table 2 - Importance of the financial sector, Belgium, EU and US

	Belgium	EU	US		
Share in nominal value added at basic prices % of total sectors, period average					
1995-1999	6.17	5.32	6.56		
2000-2005	5.92	5.39	6.94		
Share in employment persons % of total sectors, period ave	rage				
1995-1999	3.73	3.16	4.30		
2000-2005	3.45	3.01	4.39		
Real value added average annual growth rate, %					
1995-2000	5.92	2.99	7.14		
2000-2005	2.71	2.40	2.35		
Hours worked average annual growth rate, %					
1995-2000	0.16	0.19	2.60		
2000-2005	-1.79	-0.03	0.01		
Productivity average annual growth rate, %					
1995-2000	5.76	2.80	4.54		
2000-2005	4.51	2.42	2.34		
Capital compensation in VA period average, %					
1995-1999	37.64	36.19	50.04		
2000-2005	40.03	38.23	51.69		

Source: EUKLEMS database, FPB's own calculations.

Remark: The EU is composed of Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Spain and the United Kingdom.

^{1.} Source: IMF, Financial sector evaluation program: Belgium, 2006

NBB, Contribution au bilan intégré des institutions financières montaires, 2008

The importance of the financial sector might also be partly illustrated by its share in value added and employment¹. The relative importance of the Belgian financial sector, both in terms of value added and employment has always been above the European average, while it has always been below the relative importance of the US financial sector (Table 2). In 2007, the number of persons employed in the financial sector in Belgium reached 139,100, of which 78,900 were employed by banks, 25,800 by insurance companies and 34,400 by financial auxiliary activities.

The same observation emerged from the comparison of two profitability indicators of the banking sector, the return on equity (ROE) and the cost-to-income ratio (Table 3). In 2006, the Belgian banking sector was characterised by relatively low costs as a proportion of income, only the UK banking sector presented a lower costs ratio. In Europe, the Belgian banking sector also appeared to be particularly profitable for its shareholders, as suggested by its high return on equity.

Contrary to the EU, Belgium and the United States recorded a fast acceleration of the real value added growth of the financial system over 1970-1995. However, since 2000, a slowdown has been observed in these three areas. The same development is not visible in terms of hours worked, which recorded, in the Belgian financial sector, only a slight increase over 1970-1995. Since 2000, a strong decrease has been visible in Belgium, while stagnation has been observed in the EU and the US. These respective evolutions of value added and hours worked have led the Belgian financial sector to achieve since 1995, large productivity gains that are higher than the productivity gains recorded in the EU or in the US.

The international comparison of the share of value added attributed to capital compensation in the financial sector shows that these productivity gains were allocated more to capital than to labour in the three areas as the share in this increased over the period considered.

Table 3 - Banks profitability indicators, 2006, %

	ROE	Cost-to-income ratio
Belgium	23.34	55.76
Germany	10.24	65.19
France	20.15	60.15
The Netherlands	14.55	68.09
United Kingdom	17.50	40.97

Source: European Central Bank, 2007, EU Banking system stability.

Remark: ROE is profit after tax on Tier 1 (all banks) and cost-to-income is given in % of total income (all banks).

In conclusion, profound changes, in the context of the achievement of the single European financial market, have, in a few years, transformed the Belgian financial sector into one of the most productive and profitable financial systems in Europe, leading to rapid consolidation and internationalisation. This sector has become a major economic player, sustaining economic growth. However, in the context of the current financial crisis, the link between this rapid development and the solidity and the soundness of the financial system is open to discussion. The crisis also demonstrates the main danger of concentration in a financial system: that of a market dominated by a few institutions that are too big to fail.

These indicators only partly capture the relative economic importance of the financial sector since one of the main economic functions of this sector is to organise the payment system, including monetary creation.

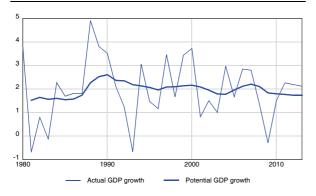
Economic outlook for 2008-2013, dated November 2008

In October and November the FPB prepared an update of its medium-term economic outlook from May 2008, covering the 2008-2013 period. This new outlook is a possible scenario for the calculations in the new Belgian Stability Programme. The projection takes into account the measures decided within the framework of the 2009 budget. It does not include economic policy decisions of December.

In the short term, substantial downward revision of the international environment

International growth has already declined in 2008, and for 2009 a recession is expected for most areas of the OECD, including the Euro area (-0.6% for the Euro area's GDP in 2009). European growth will be still modest in 2010 (+1.2% for Euro area GDP). After then, the Euro area's GDP growth should stabilise at a rate slightly above its potential. Based on this revised international environment¹ and on an updated short term forecast for Belgium, the new medium-term forecast for Belgium shows average GDP growth reaching only 1.5% during the period 2008-2013 (1.9% for the period 2001-2007). This relatively low performance is largely explained by weak GDP growth in 2008 (1.4%), a reduction of GDP level in volume in 2009 (-0.3%) and a continuingly limited recovery in 2010 (1.5%). Over the period 2011-2013, Belgian GDP growth is expected to stabilise at a rate slightly above 2%, which is not expected to allow the output gap to be closed completely by the end of the projection.

Graph 1 - Actual and potential GDP growth



Having been particularly dynamic in 2007, private consumption expansion should be much more limited in 2008 and 2009. The slowdown in 2008 is explained by a very limited increase in households' disposable income, whereas the poor performance in 2009 will reflect a rath-

er noticeable increase in the household savings rate. From 2010 onwards, growth in household demand should gradually increase, and stabilise at the end of the projection at a rate close to 2%. After dynamic growth in 2008, gross fixed capital formation should slightly decrease in 2009 before recovering in 2010 and increasing by 2.4% on average during the period 2011-2013.

Exports are expected to decrease in 2009, given the very weak international demand addressed to Belgium for next year. Exports should then increase by 4.4% on average over the period 2010-2013 and the contribution of net exports to GDP growth is expected to be slightly positive during this period. After a sharp decrease in 2008, the external surplus should grow again and reach 1.5 % of GDP in 2013 (i.e. far from the levels that could still be observed at the end of the nineties).

Inflation will be largely below 2%, on average

The inflation rate will be largely below 2% in the medium term. The main factors that account for this are limited wage increases (lower than productivity gains), a sharp decrease in international commodity prices at the beginning of the projection, followed by a moderate increase from 2010 onwards and an output gap remaining negative for the whole projection.

Increase in the unemployment rate

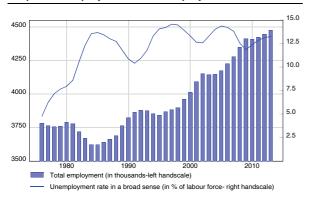
In 2008, despite slower demand, employment creation has continued. The worsening of the economic situation should, however, lead to a decrease in employment in 2009 (for the first time since 2002). In the medium term, employment should increase again at a yearly rate that will reach 0.8% at the end of the projection. The employment rate will slightly decrease in 2009, stagnate in 2010 and increase again afterwards to reach 63.3% in 2013 (as against 62.9% in 2007). The evolution of employment will be accompanied by ongoing structural shifts in the sectoral composition of employment, with manufacturing incurring a further loss of 35,000 jobs and market services gaining 184,000 jobs, bringing its share in total employment to 61.2% in 2012 (43.2% in 1980 and 59.2% in 2007).

Labour force growth (0.7% on average per year: an increase of 231,000 persons) is expected to be rather robust, but will decelerate slightly towards the end of the projection period. Approximately half of the increase in the labour force may be accounted for on demographic grounds, and is entirely the result of net incoming migration from abroad. Incoming migration has increased

The international environment of our updated projection is based on the latest Economic Outlook published by the OECD at the end of November.

substantially since the beginning of the decade and is according to the latest population outlooks for Belgium - expected to remain at a historically high level in the medium run. The other half of the increase in labour supply may be attributed to changes in behaviour, resulting in structural rises in female activity rates and in both male and female activity rates at the top of the age scale, the latter trend being encouraged by government policy designed to boost activity.

Graph 2 - Employment and unemployment



Broad administrative unemployment decreased considerably in 2008 (-32,000 persons), with the unemployment rate dropping from 12.6% to 11.9%. However, with employment growth heavily affected by the adverse economic situation, the unemployment rate will soar to 12.9% by 2010, before levelling off at around 13.2% from 2011 onwards. Total administrative unemployment is expected to stand at almost 700,000 persons in 2013 (65,000 persons more than in 2007).

Deficit for public finances for the whole projection period

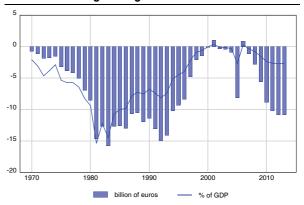
The general government's finances were slightly negative in 2007 (a deficit of 0.3% of GDP). The deficit could deepen appreciably in the coming years: 0.8% of GDP in 2008, 1.6% in 2009, 2.4% in 2010 and up to 2.7% in 2011-2013. For the first time since 1993, the gross public debt ratio increased in 2008 due to the government's interventions in financial institutions and, thereafter, should decrease only slightly, due the reappearance of deficits.

The worsening of the economic conditions plays a significant role in this deterioration. The cyclical component of the budget, at its top in 2007 (0.7% of GDP), should decline in 2008 and become negative in 2009 (-0.8% of GDP in 2009, -0.9% in 2010). The cyclical component will improve in the medium term, but the trend fiscal policy remains broadly expansionist, which will prevent the deficit from significantly decreasing.

The erosion of the cyclically-adjusted primary surplus is mainly due to an increase in social spending, particularly health care and pensions expenditure, against a background of limited potential economic growth and thus limited room for manoeuvre in the budget. However, social security should only record small deficits due to programmed increases in transfers from the federal authority (alternative financing). The highest deficits would therefore be located in the federal authority. Under a constant policy assumption, the communities and regions (considered globally) would remain close to balance, but the local authorities would be in deficit.

The objectives set out in the April 2008 Stability Programme (a budget surplus of 0.3% of GDP in 2009, 0.7% in 2010 and 1.0% in 2011) now appear to be completely obsolete due to the economic downturn. The government is currently preparing an update to the Stability Programme, taking into account the new macroeconomic framework and the Belgian contribution to the European recovery plan proposed by the European Commission in November 2008.

Graph 3 - Net lending (+) or net borrowing (-) of the general government



Key figures for the updated medium-term economic outlook in November 2008 (period averages- changes in volume unless otherwise stated)

unic unices offici wise stated			
	1991 2000	2001 2007	2008 2013
Potential export market	6.7	5.8	4.5
Private consumption	2.0	1.4	1.3
Public consumption	1.8	1.7	2.0
Gross fixed capital formation	1.8	3.1	2.2
Stock building (contribution to GDP growth)	0.1	0.1	0.0
Final domestic demand	2.0	1.9	1.7
Exports	4.9	3.1	3.3
Imports	4.6	3.0	3.6
Net exports (contribution to GDP growth)	0.3	0.1	-0.1
GDP	2.1	1.9	1.5
Private consumption prices	2.1	2.1	2.0
Household real disposable income	1.3	1.0	1.7
Domestic employment (annual changes in '000)	22.6	37.1	26.4
Unemployment, FPB definition ^a			
- thousands	599.5	633.3	697.9
- % of labour force	12.6	12.6	13.2
Current account balance (% of GDP) ^a	4.2	2.4	1.6
General government financing capacity (% of GDP) ^a	0.0	-0.3	-2.6

a. end of period

Economic forecasts for Belgium by different institutions

	GDP-	GDP-growth		Inflation		Inflation Government Balance		ent Balance	Date of
	2008	2009	2008	2009	2008	2009	Update		
Federal Planning Bureau [1]	1.4	-0.3	4.6	1.6	-0.8	-1.6	11/08		
INR/ICN [1]	1.6	1.2	4.7	2.7	-		09/08		
National Bank of Belgium [2]	1.4	-0.2	4.6	1.9	-0.9	-1.7	12/08		
European Commission [2]	1.4	0.1	4.7	2.5	-0.5	-1.4	11/08		
OECD [2]	1.5	-0.1	4.6	1.9	-0.7	-1.3	11/08		
IMF [2]	1.4	0.2	4.6	2.8	-0.4	-1.3	10/08		
ING [1]	1.4	-0.5	4.5	2.0	-0.4	-2.0	12/08		
Fortis Bank [2]	1.4	-0.5	4.5	1.7	-0.9	-2.0	12/08		
Dexia [1]	1.3	-0.1	4.6	1.7	-0.5	-1.1	11/08		
KBC Bank [1]	1.4	-0.5	4.3	0.6	-0.6	-1.6	12/08		
Deutsche Bank	1.3	-2.3	4.5	1.2	-0.5	-3.8	12/08		
IRES [1]	1.5	8.0	4.6	2.4	-0.4	-1.1	10/08		
Consensus Belgian Prime News [2]	1.6	1.3	4.5	2.4	-0.4	-0.7	09/08		
Consensus Economics [2]	1.3	-0.2	4.5	2.4	-		12/08		
Consensus The Economist [2]	1.3	-0.4	4.5	2.1			12/08		
Consensus Wirtschaftsinstitute [2]	1.5	0.3	4.8	3.4	-0.6	-0.9	10/08		
Averages									
All institutions	1.4	0.0	4.6	2.1	-0.6	-1.6			
International public institutions	1.4	0.1	4.6	2.4	-0.5	-1.3			
Credit institutions	1.4	-0.4	4.5	1.7	-0.6	-1.9			

^[1] Inflation forecasts based on the evolution of the national index of consumer prices

Economic forecasts for the euro area by different institutions

	GDP-	growth	Inflation		Government Balance		Date of
	2008	2009	2008	2009	2008	2009	update
European Commission	1.2	0.1	3.5	2.2	-1.3	-1.8	11/08
OECD	1.1	-0.6	3.4	1.4	-1.4	-2.2	11/08
IMF	1.2	-0.5					11/08
ING	1.1	-0.1	3.4	1.9			11/08
Fortis Bank	1.0	-0.2	3.4	1.8	-1.3	-2.3	11/08
Dexia	1.1	-0.3	3.4	1.9			11/08
KBC Bank	0.9	-0.5	3.3	1.5			11/08
Deutsche Bank	0.9	-2.5	3.3	1.2	-1.5	-4.3	12/08
Goldman Sachs	0.9	-1.4	3.3	0.4	-1.7	-2.7	12/08
Morgan Stanley	0.9	-1.0	3.3	1.5	-1.1	-3.1	12/08
Consensus AIECE	1.3	0.8	3.4	2.4	-0.5	-0.9	10/08
Consensus Economics	1.0	-0.9	3.3	1.4			12/08
Consensus Wirtschaftsforschungsinstitute	1.1	0.2	3.5	2.6	-1.3	-1.8	10/08
Consensus The Economist	0.9	-0.9	3.2	1.5	-		12/08
Averages							
All institutions	1.0	-0.5	3.4	1.7	-1.3	-2.4	
International public institutions	1.2	-0.3	3.5	1.8	-1.4	-2.0	
Credit institutions	1.0	-0.9	3.3	1.5	-1.4	-3.1	

Collaborating institutions for The Economist:

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

^[2] Inflation forecasts based on the evolution of the harmonised index of

Pursuing the Lisbon Strategy in Belgium

When compared to other developed countries, Belgium is characterised by a relatively high level of hourly labour productivity, but a relatively low employment rate. A factor behind this may be the relatively high cost of labour, partly determined by the continuing high tax wedge. Furthermore, the productivity performance may be determined by the high standard of education, compared to other Member States, although participation in science and technology programmes and life-long learning could be further improved. In other areas that may determine productivity, such as ICT, innovation, technology, venture capital and market regulation, Belgian performance is close to the EU average. Except for market regulation, however, performance in these areas has slackened during recent years at both the European and the Belgian levels. A further factor behind the relatively low employment rate could be the relatively low level of entrepreneurship.¹ Part-time work and the average retirement age have come close to the EU average but may be further improved given the performance of countries such as the Netherlands and the UK. Youth unemployment is still relatively high.

Despite the slackening performance in the areas named above, performance in many other areas is improving at both the Belgian and EU levels, but targets are still far from being met. For Belgium, the improvements have been strong in environmental issues, the information society and market regulation. Improvements have also been made in education, employment for specific target groups, fiscal pressure on labour and the creation of the internal market. The performance of network industries produced mixed observations: positive for railways and postal services; negative for energy and telecommunications. In a few areas, performance is worsening: these are innovation, poverty risk and entrepreneurship. The following table indicates to what extent the targets set by the EU for specific indicators have been met.

Table - Performance with respect to EU targets*

Indicator	Target	Belgium	EU average	Best pract.
Total employment rate	70%	62%	65%	DK NL
Employment of older workers	50%	34%	45%	SE EE
Emission of greenhouse gases**	-7.5%	-6.0%	-2.7%	DE UK
R&D expenditure as $\%$ of GDP	3%	1.9%	1.8%	SE FI
Transposition deficit	1%	1.4%	1.0%	BG SK
Participation in life-long learning	12.5%	7.2%	9.5%	SE DK

Source: Eurostat (Structural indicators) and European Commission (DG Internal Market)

Background to the benchmarking

The FPB annual benchmarking of structural economic performance puts Belgian efforts to pursue the Lisbon Strategy into perspective by comparing them with the performance of its neighbouring countries and with the EU averages.

Economic and political triggers

The Lisbon Strategy aims to strengthen the economic structure of the EU in order to create jobs and growth. One of the key ways of achieving this is to further reform product, labour and capital markets. The functioning of these markets is assumed to have an impact on the levels of economic growth and employment in the medium and long term. Good performance in these areas is expected to have a positive impact on competitiveness and on the allocation of labour and capital.

Since the mid-term review of 2005, each Member State has drawn up clear policy objectives in three-year National Reform Programmes (NRP). These objectives are based on a set of Integrated Guidelines (IG) for structural measures. The Member States make annual progress reports on their implementation. The present set of these reports was submitted to the EU in October 2008 and was peer reviewed in November.

Overview of this issue

This issue gives an international benchmarking of structural reform in Belgium. Like the NRP, it follows the new IG as closely as possible, but is limited to the micro-economic and labour market guidelines. No macroeconomic guidelines are covered. The overview starts with the ultimate policy objectives: productivity, employment, openness and environment. It is followed by the microeconomic indicators and labour market indicators of structural reform, respectively. Note that openness is considered an objective since it is expected to have a positive impact on the cross-border allocation of labour and capital.

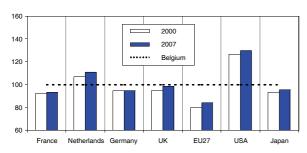
Half of the indicators are drawn from the Structural Indicators database of Eurostat. This database covers many issues related to economic structure and has been built to monitor the progress of the implementation of the IG and to detect best practices. Comparisons with the EU average generally refer to the EU27, but in certain cases reference is still to the EU25 or EU15. Where sufficient data is available, reference is also made to the US and Japan.

Note that what is 'better' or 'worse' from the perspective of market performance may be the opposite from other perspectives. Here, all interpretations have been made from the perspective of market per-

^(**) Eu15 activity caused by the economic transition. For further definitions and explanations, see the respective indicators on the following pages. (**) EU15 only, since performance in NMS is also related to serious cutbacks in manufacturing activity caused by the economic transition. The average EU15 target is -8%.

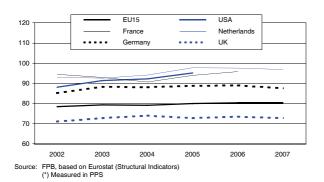
Policy objectives: productivity and employment

Graph 1 - GDP per capita, in PPS (Belgium=100)

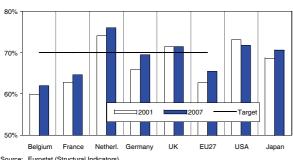


Source: FPB, based on Eurostat (Structural Indicators)

Graph 2 - GDP per hour worked (Belgium=100)*

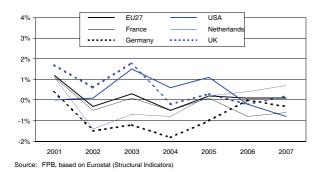


Graph 3 - Total employment rate*



e: Eurostat (Structural Indicators) (*) The number of persons aged 15 to 64 in employment, divided by the total population of the same age group.

Graph 4 - Real GDP growth differential with Belgium



As shown by the comparison of GDP per capita in PPS, Belgium is one of the European countries with the highest annual rate of wealth creation per person. However, this good performance is still almost 11% below the Dutch level and 30% below the US level. Moreover, the relative position of the Belgian economy against all the countries presented in Graph 1 deteriorated between 2000 and 2007.

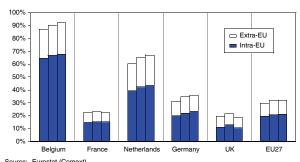
Per capita GDP growth can be due to growth of labour utilisation and growth of GDP per hour worked. GDP per hour worked in Belgium is one the highest in the world, illustrating the well-known high level of Belgian productivity. However, a deterioration of Belgium's relative performance can be observed for the most recent years: Belgian GDP per hour worked in 2006 was 24.4% higher than the EU15 average, as against 27.4% in 2002. This relative deterioration seems to have ceased in the last year as Belgian GDP per hour worked was 24.7% higher than the EU15 average in 2007. Some other European countries succeeded in improving their relative position over this period, as illustrated by Graph 2. This is clearly the case of France and of the Netherlands.

In spite of the clear progress in the employment rate over the last two decades, the situation of the Belgian labour market remains unsatisfactory, especially at the threshold of an economic downturn. After rising sharply during the second half of the nineties, the Belgian employment rate remained stable at around 60% until 2004. In 2007, it reached 62%, one of the highest levels in many years, but still 3.4%-points below the European average and some 8%-points below the EU target line. Between 2000 and 2007, a clear increase in the employment rate was also registered in France, Germany, the Netherlands and in the EU27 as a whole. The United Kingdom stabilised its employment rate at the high level of 71.5%, which is close to the US level (71.7%).

The convergence of real GDP growth to the high rate observed in Europe in 2006 is no longer visible in 2007. Most European economies, including Belgium, as well as the United States, had already recorded a deceleration in their growth in 2007, while the Netherlands and the United Kingdom were able to maintain acceleration. With a real GDP growth of 2.8% in 2007, Belgian performance was slightly above that of the US, France and Germany but below the growth rate reached by the United Kingdom (3.0%) and the Netherlands (3.4%).

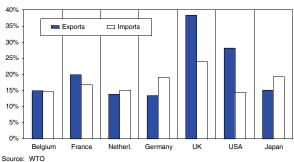
Policy objectives: openness and FDI

Graph 5 - Degree of openness, in % of GDP (2005-2007)*



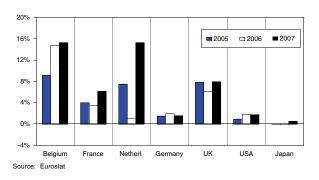
(*) Average value of exports and imports of goods, valued in current prices

Graph 6 - Share of commercial services in trade, 2007*

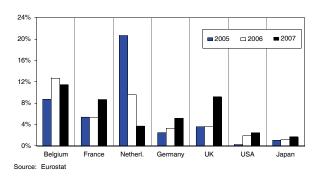


(*) Trade is derived from balance of payments statistics and does not correspond to the merchandise trade statistics given elsewhere. It is likely that for most economies trade in commercial services is understated.

Graph 7 - Inward FDI, in % of GDP



Graph 8 - Outward FDI, in % of GDP



The growth of world merchandise exports in volume traditionally outpaces the growth of world GDP in volume. According to WTO figures, this has been true for all years over the period 2000-2007, except 2001. However, world merchandise export growth has slowed down since 2004. The annual growth rate in volume stood at almost 10% in 2004, and it was down from 8.5% in 2006 to less than 6% in 2007. For Belgium, the export growth rates were generally lower between 2004 and 2007. At the peak in 2004, the growth rate of Belgium's merchandise exports was 7.5%, while in 2007 it was only 5.2%. It may be expected that the recent financial crisis will lead to a further slowdown in merchandise trade growth in 2008 and future years at the world level and for Belgium.

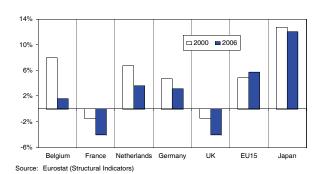
World service trade rose faster than world merchandise trade in 2007. However, even though the service sector accounted for more than 60% of world value added, the share of services in total trade was still less than 20%. For Belgium, this share even turned out to be lower than 15% in 2007, and, as shown in Graph 6, this is comparable to shares reported for its neighbours, Germany, France and the Netherlands. In terms of this indicator, the UK is clearly outperforming continental countries. But it remains to be determined whether this is due to the strength of the UK's service trade or to the weakness of its merchandise trade.

It is a widely-held belief that trade in commercial services will become more important in the future, favoured by technological developments that enhance the tradability of services and by liberalisation. The growth expectations are strongest for computer and information services and other business services. Overall, commercial services trade has more than doubled in value for Belgium over the period 1995-2006. A look at the composition of Belgian service exports shows that travel services are the most important category, followed by other business services. The share of both computer and information services and of other business services was on the rise between 1995 and 2006.

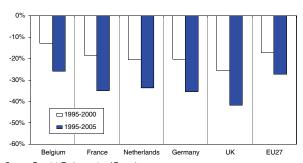
Finally, world FDI flows have soared in recent years, with a doubling in value between 2005 and 2007. For Belgium, the increase has proved much less spectacular and a peak was already attained in 2006. Nonetheless, the country remains the frontrunner in terms of the share of FDI in GDP – both for outflows and for inflows. However, overall, FDI flows for Belgium and the world as a whole can reasonably be expected to have fallen very substantially in 2008 in the wake of the financial crisis.

Policy objectives: environment

Graph 9 - Greenhouse gas emission deviations from 2010 target

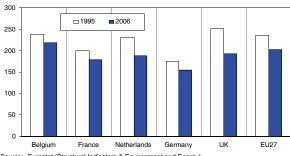


Graph 10 - Emission of tropospheric ozone precursors, % change*



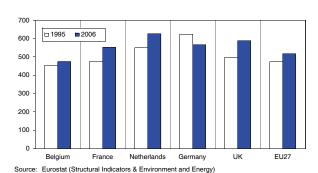
Source: Eurostat (Environment and Energy)
(*) Non-Methane Volatile Organic Compounds (NMVOC) equivalents

Graph 11 - Energy intensity*



Source: Eurostat (Structural Indicators & Environment and Energy)
(*) Consumption of energy, measured of kilograms of oil equivalents per EUR 1,000 of GDP at constant 2000 prices

Graph 12 - Municipal waste collected, in kg/person



was still 96% of the EU27 average.

Regarding biodiversity, in 2007 a full 100% of the species and habitats listed in Annexes I and II to the habitats directive were covered by the protection sites proposed by Belgium. This is higher than all its neighbouring countries, except the Netherlands. The population of farmland birds decreased by 28%, however, between 1995 and 2005, while in the EU25 this decrease was only

8%.

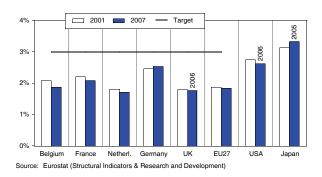
As regards air pollution, Belgium showed a mixed performance in comparison with its neighbouring countries and the EU27. Decreases in acidifying substances and tropospheric ozone precursors were only slightly smaller than those for the EU27, but clearly less pronounced than for its neighbouring countries. Between 1995 and 2005, Belgium achieved a decrease of 31% in acidifying emissions, and of 26% in tropospheric ozone precursors, while the corresponding average decreases in its neighbouring countries were of 36% for both types of air pollution. As concerns particulate matter, Belgium achieved a 2% decrease in urban population exposure between 2001 and 2006, while urban population exposure in the EU27 increased by 8% over the same period. To meet its Kyoto protocol obligations, Belgium needs to obtain an average decrease in its greenhouse gas emissions over the 2008-2012 period of 7.5% of the 1990 level. Belgium outperformed its neighbouring countries over the more recent years, and by 2006 it was already closer to its target than Germany and the Netherlands. This result was obtained despite the high energy intensity of its economy. The decrease of 8% in this energy intensity between 1995 and 2006 was smaller than the corresponding decrease for the EU27.

Due to the low rate of connection of the population to waste water treatment, water pollution was also higher in Belgium than in its neighbouring countries. 40% of the groundwater sampling sites contained over 50 milligrams of nitrates per litre, whereas this was the case for only 13% of sites, on average, in the neighbouring countries. Furthermore, although water abstraction decreased by 8% between 1990 and 2005, this decline was smaller than in most of its neighbouring countries.

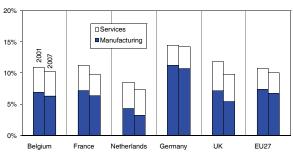
As concerns waste generation, Belgium outperformed its neighbours. While municipal waste collected per person in the EU27 increased by 9% between 1995 and 2006, in Belgium it increased by only 5%. As a consequence, municipal waste collected per person in Belgium in 2006 was only 92% of the EU27 average, whereas in 1995 it was still 96% of the EU27 average.

Micro-economic: R&D and innovation

Graph 13 - R&D expenditure, as % of GDP



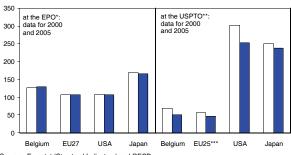
Graph 14 - Share of MHT sectors in total employment*



purce: Eurostat (Statistics on high-tech industries and knowledge-intensive services)

(*) MHT = medium- and high-technology sectors (NACE: 24, 29-35, 64, 72, 73)

Graph 15 - Patent applications per million inhabitants



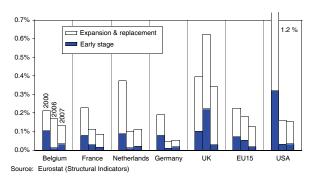
ource: Eurostat (Structural Indicators) and OECD

(*) Priority date, close to invention date

(**) Date of grant, on average 3 years aftre the priority application is filed.
(***) No data for EU27

(***) No data for EU27

Graph 16 - Venture capital investment as % of GDP



Innovation is a major source of productivity growth in the long term and consequently plays an important role in economic growth. It depends directly on the level of R&D activity. That is why reinforcing R&D and innovation systems is vital if Europe wants to foster competitiveness and become a more dynamic knowledge-based economy. In 2007, R&D intensity in Belgium (1.87% of GDP) was slightly above the EU27 average (1.83% of GDP), but was largely lower than the performances of France, Germany, USA and Japan. After a fall in Belgian R&D intensity since 2001, a stabilisation is observed in 2007.

Belgian firms financed R&D at a level of 1.10% of GDP in 2005¹, which was above the European average. Large firms are responsible for the majority of R&D activity and have played an important role in the recent fall in Belgian R&D expenditure. R&D intensity financed by the public authorities reached 0.45% of GDP, which was significantly below the European average for 2005 (0.63%) and equivalent to the level achieved by Belgium in 2001.

R&D activities and innovation are concentrated in the medium- and high-technology sectors (MHT). In 2007, the MHT sectors represented 10.2% of total employment in Belgium, which was slightly above the European average (10.0%) and slightly below the level achieved in 2001.

The number of patent applications is an indicator of the exploitation of R&D activities. In the last available year, the number of patent applications from Belgium filed with the European² and US³ Patent Offices was above the European average. Belgium was also largely above the European average in terms of number of high-tech patent applications at the EPO.

Easy access to venture capital promotes the dissemination of innovation. In 2007, investment in Belgium in venture capital amounted to 0.14% of GDP, which was very close to the European average (0.13%) and the USA (0.16%) and above the levels achieved by its neighbours, with the exception of the UK. After a decreasing trend in early stage investment since 2000 in Belgium, a strong increase was recorded in 2007. A decrease was, however, observed in investment in expansion and replacement. For both investments, the percentages observed in Belgium in 2007 were equivalent to those of the European average.

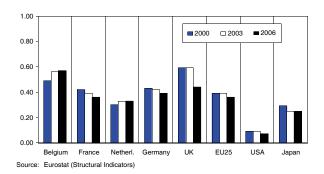
^{1.} Most recent data available.

^{2.} By priority date

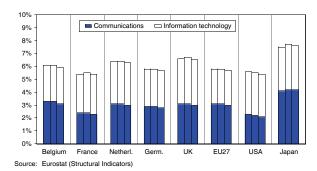
^{3.} By date of grant

Micro-economic: communications

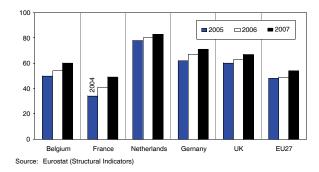
Graph 17 - Local call charge per 10 min. (EUR, VAT incl.)



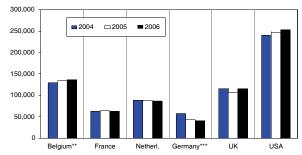
Graph 18 - Expenditures on ICT as % of GDP (2005-2007)



Graph 19 - Internet connections per 100 households



Graph 20 - Number of domestic letters per worker*



Source: FPB/BfP, own calculations based on data from UPU (*) Because of different data definitions, country-by-country comparisons may not be

(**) 2005-2007, calculated from data issued by DePost/LaPoste (***) Break in data series for employment

In the Belgian electronic communications market, dominant positions are held by the fixed and mobile incumbents and by the largest mobile competitor. Unbundling of DSL lines seemed to have taken off in 2006. During that year, the number of unbundled lines rose from less than 1% to 3.7% of the total number of lines. The number of active mobile subscriptions reached the equivalent of 89% of the population by the end of 2006. As concerns further market reform, in July 2008 the incumbent's ADSL2+ network was opened to competition. In November 2008, the federal government took measures to strengthen the market regulator (BIPT/IBPT) and to raise the number of mobile licences. Both measures will take effect from 2009.

The rising trend for prices for telephone calls in Belgium has levelled off since 2003. The fixed incumbent's nominal prices have not changed during 2004-2006, but prices have nevertheless fallen in neighbouring countries. Belgian local calls were the second most expensive of the EU25 Member States in 2006 (after Slovakia). With regards to national and international call charges, however, Belgium occupies a midway position.

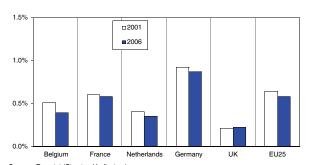
ICT expenditure covers both equipment and services, and amounts to about 6% of GDP in Belgium, which is slightly higher than the EU27 average. Among the neighbouring countries, the Netherlands and the UK have performed better but have not attained the Japanese level of 7.6%. It should be noted that US expenditure has fallen below the EU27 average, which is due to lower communications expenditure.

The rate of internet access among households is rising along with the penetration of computer equipment. At the end of 2006, the latter reached 60% at EU27 level. The former was close to surpassing 50%, and indeed did so in 2007. For Belgium, these figures were 57% and 54%respectively. Broadband access in Belgium progressed to 93% of household connections during 2007. The number of broadband business connections remained stable at 89%. Low-speed ADSL charges are about the same as in neighbouring countries, but standard ADSL (8 Mbps and more) is significantly more expensive.

During 2006 and 2007, a new network of postal sorting centres was opened. This may have been a trigger for the productivity increase from 128,000 to 136,000 items per FTE of the incumbent's mail division between 2005 and 2007. Nevertheless, Belgium and the other EU countries are far behind the productivity achieved in the US, although the comparability between countries is restricted owing to geographical and statistical differences.

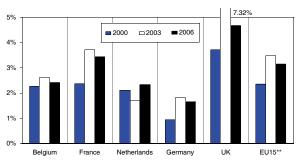
Micro-economic: internal market and competition

Graph 21 - State aid, as % of GDP*



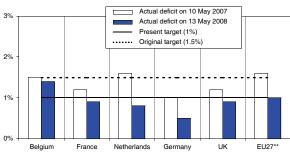
(*) Total state aid, excluding support for railways, but including support for agriculture and fisheries

Graph 22 - Openly advertised public procurement, as % of GDP*



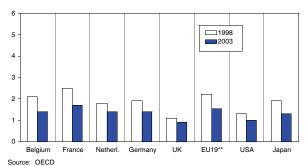
Eurostat (Structural Indicators) (*) Advertised in the Official Journal of the European Communities (**) 2006: EU25 is 0.12%-point higher than EU15

Graph 23 - Transposition deficit of internal market directives*



European Commission, DG Internal Market (*) Percentage of internal market directives that have not yet been transposed into national w, after the transposition deadline.(**) Unweighted average, and EU25 for 2007

Graph 24 - Index of product market regulation, scale 0-6*



(*) The stronger the regulation, the higher the index (**) Unweighted average of EU15 and Poland, Czech Republic, Slovak Republic and ngary (1998: no index for Luxembourg and the Slovak Republic)

Since 2003, Belgium has ranked among the countries giving the lowest state aid per euro of GDP. During the years before, Belgium's level was around the 0.5% mark, but in 2003 a fall to 0.4% was observed. In 2005 only Greece, Luxembourg, Italy, the UK and the Netherlands gave less. In the EU25, state aid gradually fell from 0.67% of GDP in 2002 to 0.58% in 2006.

In 2001, the Stockholm European Council asked Member States not only to reduce state aid but also to redirect aid towards horizontal objectives. For every year since 1997, Belgium has achieved or been close to the 100% horizontal objective. The only other countries that have achieved this objective are Luxembourg, the Czech Republic and the three Baltic states. As laid down in the State Aid Action Plan 2005-2009, Belgian aid was granted to SMEs, R&D activities and regional development. Other countries have other priorities for aid allocation, such as saving energy and protecting the environment.

Openly-advertised public procurement in the EU15, as a percentage of GDP, has more than doubled since 1995. On average, 2003 was a peak year, but this was partly caused by a one-off very high performance for the UK (7.3%). In Belgium it has been stable at around 2.4% since 1999. Among the EU15 countries, Belgium thus fell from 5th position in 1999 to 10th in 2006 (19th in the EU25). Of the former EU15 countries, Greece had the highest percentage in 2006 (5.5%), but half of the New Member States achieved even higher percentages.

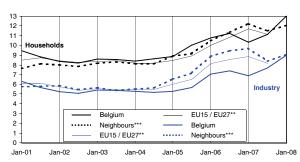
After the EU27 average transposition deficit of internal market directives fell for the first time below the 1.5% target in December 2006, the European Council set a new 1% target, to be reached in 2009. Belgium has made a small step towards achieving that target. Its deficit fell from 1.5% in May 2007 to 1.4% in May 2008. Besides Belgium, eight other member states still have to achieve the 1% target. Among these are only three New Member States.

Belgium has played a part in the impressive progress on overall product-market reform. This includes reforms on state control, barriers to entrepreneurship and barriers to trade and investment. This progress has been made by all OECD members, with Belgium remaining very close to the average of the EU15 plus the largest four New Member States. The UK, the US and Australia kept their leading positions. The OECD is presently working on a 2007 update of the indicators.

Source: Conway, P., V. Janod & G. Nicoletti, 2005, Product Market Regulation in OECD Countries: 1998 to 2003. Economics Department Working Papers No.419. OECD, Paris

Micro-economic: network industries

Graph 25 - Gas prices in EUR/GJ, net of taxes*



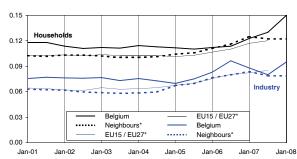
ent and Energy)

(*) There is a break in series: from July 2007 the standard consumer groups have been re fined. For households, 83.7 GJ/year became 20-200 GJ/year. For industry, 41,860 GJ/vear became 10.000-100.000 GJ/vear

(**) Up to 2005 for EU15

e of French, Dutch, German and UK prices, the latter converted by

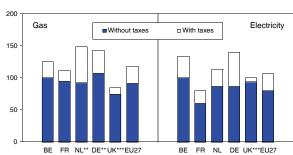
Graph 26 - Electricity prices, in EUR/kWh, net of taxes*



Source: Eurostat (Structural Indicators & Environment and Energy)

(*) The same notes as given in Graph 25 apply. For households, 3,500 kWh/year became 2,500-5,000 kWh/year. For industry, the categories 500-2,000 and 2,000-20,000 MWh/yea stead of 2,000 MWh/year. The graph gives the average bets

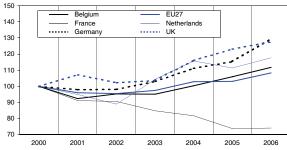
Graph 27 - Energy prices for households (1 January 2008; Belgium=100)*



Eurostat (Environment and Energy)
(*) Standard consumer group for gas 20-200 GJ/year, for electricity 2,500-5,000 kWh/year

*) Converted by Eurostat from GBP to EUR

Graph 28 - Freight transport by rail (tkm, 2000=100)



Source: FPB/BfP, own calculations based on European Commission (DGET)

The evolution of gas prices is mainly driven by oil prices. Until mid-2004, gas prices for industry (see Graph 25 for a definition) were moving close to the EU15 average. The increase in prices of the past few years was less pronounced than in other countries until the end of 2006. The 2007 evolutions might be disguised by a break in the dataseries, but the price advantage built up since 2004 seems to have been taken away. When taxes are included, there has been hardly any change in ranking over the last few years. Electricity prices for industry (see Graph 26 for a definition) were above those of other countries for years. The price increases observed since 2004, however, started later than in other countries. A decrease of 8% was even observed over 2004, but was followed by a 34% increase up to early 2008. With taxes included, Belgium's position did not change, but a divergence from the EU27 average was observed during 2005-2006 because of tax increases.

For households, the price of gas basically followed the same trend as for industry and for other countries. The 2007 price increase, however, made it rise well above that of the neighbouring countries. Electricity prices converged to the EU15 and EU27 averages until mid-2006. After then, they strongly rose, whereas they stabilised in the neighbouring countries.

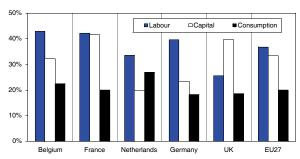
When taxes are included for households, remarkable differences appear. Taxes on gas in the Netherlands and on electricity in Germany are very high, raising prices above those of other countries. Taxes in the UK are very low, strengthening its position among the cheapest of the analysed countries. Taxes on electricity in Belgium increased significantly during 2004.

Between 2000 and 2006, freight traffic by rail increased significantly in Germany and the UK, while it increased only moderately in Belgium and fell dramatically in France. According to the Rail Liberalisation Index 2007, the former two countries then ranked among the top four most liberalised countries in the EU27, whereas Belgium and France were ranked 18th and 23rd, respectively. From the 1970s to the 1990s there has been a downward trend in the market share of rail traffic. Although adequate data are not available, the recent traffic growth points to a stabilisation of that market share.

Kirchner, C., 2007, Rail Liberalisation Index 2007, IBM. Note that Cyprus and Malta have no railways, so France is actually ranked third last

Micro-economic: taxation and business climate

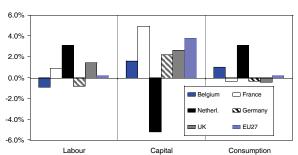
Graph 29 - Implicit tax rates (2006)*



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

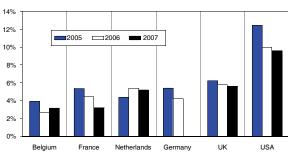
(') Ratio of total tax revenues of the category (labour, capital, consumption) to a proxy of the potential tax base defined using the production and income accounts of national accounts.

Graph 30 - Changes in implicit tax rates, %-points (2002-2006)



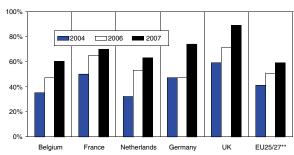
Source: European Commission, The structures of the taxation system in the EU

Graph 31 - Total entrepreneurial activity index, in %*



Source: London Business School (Global Entrepreneurship Monitor)
(1) Percentage of the population survey that is either actively involved in starting a new venture or is the owner or manager of a business that is less than 42 months old

Graph 32 - E-government online availability *



Source: Eurostat (Structural Indicators)

(*) Percentage of the 20 basic services which are available online

(**) EU25 for 2004 and 2006; EU27 for 2007

The evolution of Belgian tax receipts in relation to its tax base has been influenced by a number of policy measures. In 2000, a major tax reform was aimed at direct taxes for persons. Tax brackets were adjusted, the rates changed, deductions and exemptions were modified. The overall effect was a reduction in the implicit tax rate on wages with effects that stretched to 2006. Employers' social security contributions were also reduced. All this resulted in a reduction of the implicit tax rate on labour. Between 2002 and 2006, the reduction amounted to 0.9%-points. No other country that was taken into consideration in the comparison reduced its implicit tax rate in a stronger fashion. For 2007, further measures that reduced taxes on labour were taken (overtime work and employment of researchers).

The implicit tax rate on capital income was influenced by the 2006 "notional interest on corporate capital" measure, which aims at stimulating the self-financing capacity of enterprises. Its full impact should be seen in 2007-2008.

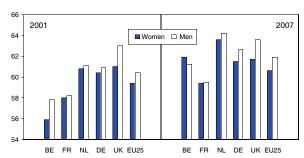
While capital taxation (at 32.3%) is slightly lower than in the EU27 (33.3%), consumption (at 22.4%) and (especially) labour taxation (at 42.8%) remain significantly higher. The implicit tax rate on consumption has been stable over time for most countries, except for the Netherlands where a considerable increase of 3.1%-points was observed. This was due to increases in VAT and environmental taxes. In this last area (proportion of environmental taxes as a share of GDP), Belgian taxes are low in comparison to the EU average.

Entrepreneurial activity is traditionally low in Belgium. In 2007, a small increase in the total entrepreneurial activity (TEA) was observed (defined as the percentage of the adult population involved as owner or manager in nascent or new firms). While the proportion for nascent firms (i.e. younger than three months) was close to the EU average, the proportion for new firms was particularly small.

E-government on-line availability (which measures the percentage of the 20 basic services that are on-line) has increased strongly in Belgium in the last few years, as in many other European countries. The use that Belgian individuals make of the available resources remains relatively small, whereas Belgian companies use them at a level that is similar to the EU average. Broadband availability remains higher in Belgium than in the EU, which points to possibilities for further increases.

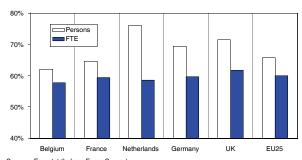
Labour market: participation

Graph 33 - Average exit age from the labour force



Source: Eurostat (Structural Indicators) and European Commission (DG Employment)

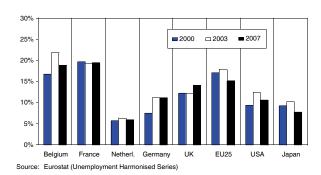
Graph 34 - Employment rate of persons versus FTE (2007)* **



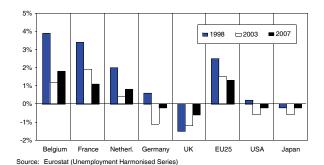
Source: Eurostat (Labour Force Survey)

(*) FTE = full-time equivalents. (**) Males and females aged 15-64

Graph 35 - Youth unemployment rate (-25 years)



Graph 36 - Unemployment rate, gender gap females-males



The Belgian female employment rate has been going up constantly since the beginning of the nineties and is catching up with the European average. In 2007, it amounted to 55.3%, which is still 3%-points under the European average¹.

The Belgian employment rate for older workers (+50 years) is one of the lowest in Europe (34.4% in 2007, as against 44.9% in the EU25). It has been rising since the mid-nineties and catching up with the EU25 average, but not yet sufficiently (European target: 50% by 2010). Because of the strong increase, especially for women, the average exit age from the Belgian labour market, at 61.6 years in 2007, is no longer the lowest in the EU and has caught up with the European average (61.2 years). The 'Generation Pact' drawn up by the federal government intends to raise the legal age of conventional early retirement to 60 in 2008 (the average exit age for men was already at 61.2 years in 2007). It also contains measures aimed at keeping older workers in work.

Expressed as full-time equivalents, employment rates at the European level are less dispersed than employment rates per person. It shows the diversity of scope for reduced-time work (part-time, temporary work, etc.) in the Member States. Part-time work is widespread in the Netherlands, where the employment rate decreases from 76% when calculated per person to 58.6% when calculated in full-time-equivalent units. Part-time work is also widespread in the UK and in Germany. The scope for reduced-time work in Belgium is close to the European average. In 2007, the full-time-equivalent employment rate amounted to 57.7%, which is 2.3%-points under the European average (EU25).

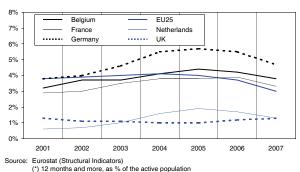
At the beginning of the decade, youth unemployment increased in many European countries as well as in the US. This increase can be explained by weak economic growth. In Belgium this factor countered efforts to improve young people's inclusion, notably through the measures of the Generation Pact. Although it has diminished since 2004, the youth unemployment rate still remains high in Belgium (18.8%), at 3.7%-points above the EU25 average in 2007.

As far as the gap between the male and female unemployment rates is concerned, a downward trend can be noted across Europe. The gender-linked difference in Belgian unemployment rates has decreased clearly since the end of the nineties. In 2004, it went up again and stabilised at about 2%. In 2007, it decreased at 1.8%, which was above the European average (1.3%).

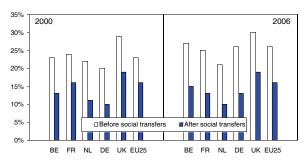
For the overall employment rate, see the section "Productivity and employment" above.

Labour market: social cohesion

Graph 37 - Long-term unemployment rate*



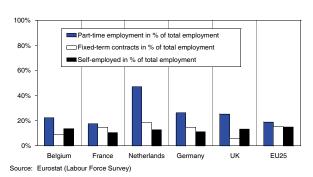
Graph 38 - At risk of poverty rate*



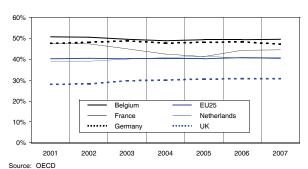
Eurostat (Structural Indicators)

Eurostat (structural indicators) (*) Share of persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income (after social transfers).

Graph 39 - Diversity of contractual and working time arrangements (2007)



Graph 40 - Taxation of low-wage earners*



(*) Income tax on gross wage earnings plus the employee's and the employer's social se curity contributions, expressed as a percentage of the total labour costs of the earner, de-fined as gross earnings plus the employer's social security contributions plus payroll taxes (where applicable). This structural indicator is available only for single persons without chil dren earning 67% of the APW. The long-term unemployment rate is an indicator of the effectiveness of active and preventive measures for stimulating the inclusion of disadvantaged people in the labour market. The position of Belgium improved until 2001 and then worsened. Since 2005, the Belgian rate has exceeded that of the Union (for the first time since 1999). The German rate has clearly got worse. Since 2006, the situation has improved in European countries, except for the UK.

Between 2000 and 2006 there was a rise in the poverty risk rates. This also indicates weaker inclusion of those most excluded from the labour market. The deterioration in poverty risk rates was strongest in Belgium and Germany, whereas the rate in the Netherlands slightly decreased. Social transfers correct the primary distribution of incomes, thus reducing the risk of poverty. The size of these transfers varies from country to country: in 2006, it was relatively large in Belgium, France and the UK, which still has the highest risk of poverty.

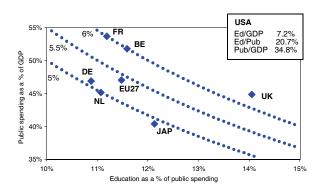
The diversity indicator shows how flexible employment legislation is with respect to the diversity of contractual and working-time arrangements. The Netherlands has the highest indicator as a result of the intensive application of part-time labour, which is on an almost completely voluntary basis (only 5% of Dutch part-time workers report involuntary part-time work). France has the lowest indicator, and, surprisingly, Germany seems to have higher results than UK. The flexible working possibilities that result from Belgian legislation and its increasingly intensive use bring Belgium close to the European average.

Innovative and adaptable forms of work organisation should be reconciled with security and health at work. The indicator of the number of serious accidents has diminished within Europe. In Belgium, the occurrence of such accidents is one of the lowest in Europe and is dropping rapidly.

In Belgium, as in Germany, the tax burden on low-paid workers remains high, even though it has slightly decreased since the end of the nineties due to tax reforms and targeted measures aimed at cutting personal social security contributions.

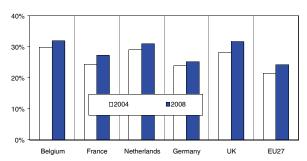
Labour market: education

Graph 41 - Public spending on education (2005)*



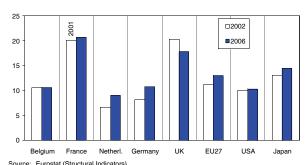
Source: Eurostat (Education) and European Commission (AMECO)
(*) On both public and private institutions, and for all levels

Graph 42 - People with higher education*



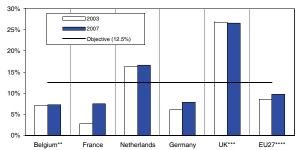
Eurostat (Labour Force Survey) (*) Percentage of people aged 25-64 who completed higher education (ISCED 5-6) in the cond quarter

Graph 43 - Graduates in science & technology, in 56%



(") Number of persons per 1,000 of population aged 20-29 who graduated in science and technology at post-secondary level (ISCED 5 and above) during the given year

Graph 44 - Participation in life-long learning* **



Source: Eurostat, (Structural Indicators) (*) % of people aged 25-64, in annual averages of quarterly data
(**) Break in series for 2004

Human capital is a crucial factor in a knowledge-based economy, where ideas and knowledge are central elements in the innovation and growth process. Moreover, the availability of a skilled labour force is essential for competitiveness. For the optimal utilisation of human capital, it is necessary to provide training opportunities throughout careers and to anticipate shortfalls in the supply of specific skills.

Within the EU27, the proportion of public expenditure on education is relatively high, even in countries with a small share of public spending in terms of overall GDP. In Belgium, a relatively high proportion of public spending is allocated to education. In 2005, 6.0% of GDP (shown along the curved dotted lines in Graph 41), or 11.6% of total public expenditure, was devoted to education. In both cases this is above the European average (5.4% of GDP spent on education in 2005) and the level in Japan (4.9% of GDP spent on education in 2005) but below the level in the US, where in 2005 expenditure on education amounted to 7.2% of GDP.

With regard to the supply of advanced skills, the percentage of people aged between 25 and 64 with tertiary education is considerably higher in Belgium (31.9% in 2008) than the EU27 average (24.1%) and is still increasing. However, due to large variations in educational systems, differences between countries must be interpreted carefully. Because of their important role in the national innovation system, the supply of new graduates with training in science and engineering is of great interest. Although this share has increased during recent years, it is still significantly lower than in France, the UK, the EU27 and Japan, but higher than in the Netherlands and the US.

In a context of continuously developing technology and business practices, it is essential, for social and competitive reasons, that people can acquire new knowledge and skills at any time in their working lives. As such, the notion of life-long learning covers all learning activities undertaken in a wide range of environments in order to improve knowledge and skills. These may be related to personal, social or employment objectives. Participation in life-long learning, after having improved significantly in Belgium up to 2004, dropped again, from 7.5% in 2006 to 7.2% in 2007. Moreover, the participation rate is still below the EU27 average (9.7%) and the Lisbon objective (12.5% by 2010).

Quantifying environmental leakage for Belgium

The study illustrates the deficiency of the production approach as a tool for measuring a country's responsibility for international environmental impacts. A use approach is presented as a more suitable tool. In fact, a better grasp of international trade may reveal environmental leakage when a country specialises in the production of environmentally friendly products and has environmentally unfriendly products that it consumes produced abroad. The paper shows that in the period 1995-2002 Belgium was on average a provider of air emission intensive products for the rest of the world. Environmental leakage was mostly negative. However, by 2002, Belgian imports had become considerably more air emission intensive than its exports than in 1995.

Several international environmental problems, of which the most well-known is global warming, are tackled by means of production-linked emission abatement targets, such as the ones specified in the Kyoto Protocol which aims to reduce greenhouse gas emissions. A possible problem that may arise with such production-linked emission abatement targets is that some industries in countries involved in such policies might consider the costs of these policies too much of a burden and might choose to move environmentally harmful production processes (or parts thereof) abroad, where environmental commitments are less binding.

In order to limit as much as possible such environmentally inspired offshoring of productive activities, one may embrace a use approach and consider the emissions linked to domestic use instead. Hence, we have calculated air emissions linked to domestic use for Belgium in the period 1995-2002, and compared these emissions with air emissions linked to production as provided in the Belgian environmental accounts (NAMEA Air). The difference between both approaches is equal to the balance of embodied emissions in trade (BEET). The BEET is also equal to the difference between emissions linked to imports and emissions linked to exports. Values for the emissions linked to trade are obtained by means of input-output analysis.

Dividing the BEET by the emissions linked to production results in percentage values for environmental leakage (EL). When EL for a particular country is positive, this implies that the products used in this country are more environmentally harmful to produce than the entire spectrum of products it produces itself. When EL is negative, the opposite is true. For the observation period, our calculations revealed high figures for Belgian EL, which varied considerably across the pollutants and over the years. The majority of the values for the BEET, and thus of EL, were negative. This implies that Belgium acted as a producer of environmentally harmful products for the rest of the world.

The input-output analysis enables us to pinpoint the industries for which the output was responsible for EL, be it negative or positive. The few cases of positive leakage were mainly caused by industries such as agriculture and forestry. Turning to the pollutants for which the EL was negative, the paper considers 14 categories of pollutants, such as fluorinated greenhouse gases, acidifying emissions and photochemical emissions. For instance, focussing on the pollutant that has received the broadest media coverage, CO₂, the average negative leakage of 6% was mainly caused by the basic metals industry, the chemical industry, the other non-metallic mineral products industry, and land transport.

During the period 1995-2002 Belgium was on average a producer of "dirty" goods for the rest of the world. However, by 2002 the EL turned positive for more types of air pollution than before. Moreover, the Belgian environmental terms of trade show that in 2002 the Belgian air emission intensiveness of exports was no longer higher than the air emission intensiveness of its imports. This latter finding is associated with a clear increase in Belgium share of extra-EU imports in total imports. This might be interpreted as an indication of environmentally-inspired offshoring, with air emission intensive activities moving to places outside the EU-15, where environmental rules are less stringent. However, the available data do not allow further investigation in order to determine whether environmental concerns are the main driver of the change in the import mix.

"Quantifying environmental leakage for Belgium", A.Sissoko, G. Vandille, Working Paper 19-08, October 2008.

Analysis of public expenses and revenues for transport

This study presents some of the results of the recently published transport satellite accounts (TSA) in order to provide an initial estimate of public expenditure and public revenue linked to transport in 1995 and 2000. From this information, the possibility to estimate net public transfers towards the different transport modes has been analysed.

Total public expenditure linked to transport amounted to EUR 8.4 billion in 1995 and to 9.3 billion in 2000. In 2000, infrastructure expenditure accounted for 67% of the total expenditure, passenger transport for 26% and freight transport for 7%. Road transport corresponded to 64% of total transport public expenditure, rail to 20% and local public transport to 9%. Public expenditure for passenger transport concentrated on rail (40%), on local public transport (30%), and on road (25%). Public expenditure for freight transport concerned almost exclusively road transport. Public expenditure for infrastructure was split up as follows: 75% for road, 16% for rail, 5% for maritime transport and 4% for inland navigation.

Taxes and fees from transport amounted to EUR 7.1 billion in 1995 and to 9.6 billion in 2000. For these two years, value added tax (VAT) represented about 40% of public revenues from transport. In 2000, businesses paid 29% of all taxes linked to transport, households, 64%, and government departments, 7%. Passenger transport accounted for 80% of these taxes, freight transport for 15% and infrastructure for 7%.

As to the estimation of net public transfers from government to transport (defined as the difference between public revenue and expenditure), the working paper explains why TSA are not the most appropriate tool for building such an indicator. Some concepts used in the TSA are not relevant to carrying out this type of analysis (distribution of infrastructure charges, concept of capital expenditure, notion of total costs, non-integration of external costs, etc.).

Furthermore, some fundamental notions of public finance are not really compatible with analysing net public transfers for transport. First, the concept of budgetary universality (i.e. the principle that taxes and revenues are recorded separately, without a particular link between the two) is in contradiction with such an indicator: taxes from transport are a contribution to the general budget, not the counterpart of infrastructure funding or of internalization of external costs. Secondly, the State fulfils different functions: via taxation, funds are raised, revenues between people are redistributed or market inefficiencies reduced (internalization of external costs). Transport policies cannot be judged only with budgetary criteria in mind. Moral, economic, social and environmental considerations must also be taken into account in order to judge the appropriateness of a transport policy. Moreover, a surplus may be the result of prices that are regulated and that do not necessarily reflect efficiency.

To judge adequately a transport policy, one must make a social cost-benefit analysis. Such an analysis measures the impact of a change in transport policy, in terms of welfare, on users, producers, public administrations and on externalities. The PLANET and LIMOBEL models, developed by the FPB, allow such an analysis to be made.

The net public transfers for transport amount to EUR 3.6 billion and concern mainly rail (1.8 billion) and local public transport (0.9 billion). 70% of the net public transfers benefit businesses. More than 60% of the net public transfers concern freight transport. This information is based on many assumptions and must therefore be interpreted with care.

"Analyse des dépenses et recettes publiques de transport" (study financed by the convention "Activités de support à la politique fédérale de mobilité et transports" between the Federal Planning Bureau and the Mobility and Transport Federal Public Service),

M. Nautet,

Working Paper 20-08, September 2008.

Wages and employment by level of education and occupation in Belgium (1999-2004)

In this paper, trends in wages and employment by level of education and occupation are analysed for Belgium for the period 1999-2004. Over the period considered, the level of wages - but not wage growth - appears to be significantly correlated with the level of education. In contrast with most previous studies, information on occupation has been taken into account. Occupation seems to explain a substantial part of the variance in the wage level as well as in wage growth. The results support a task-based view of technological change and off-shoring, which by stressing the content of tasks as the major determinant of labour demand, questions a straightforward link - often assumed - between job opportunities and the level of education.

The skill premium (i.e. the wages of high-skilled workers relative to the wages of low-skilled workers) increased dramatically in the United States and the United Kingdom in the 1980s and 1990s. A number of continental EU countries (e.g. Germany, the Netherlands and Sweden) also witnessed rising wage inequality - though less pronounced - but in some EU countries inequality hardly changed (e.g. Finland) or even decreased (e.g. France). Data for Belgium show no strong increase in the skill premium for the period 1980-2005.

Proponents of a task-based view of technological change and offshoring argue that activities for which ICT is used intensively, for which the knowledge involved is codified rather than tacit and for which face-to-face contact is not required, are less bound to a given location as they can be performed anywhere and the output can be easily transferred through ICT networks worldwide. The distinction between different types of tasks cannot be perfectly matched with the level of education required to perform the tasks. Whereas low-skilled services occupations such as restaurant workers, health aides, cleaners, janitors and hairdressers may have reasonable job opportunities, high-skilled occupations such as physical, mathematical and engineering science professionals and computing and business professionals are seen to be potentially affected by offshoring.

As the Structure of Earnings Survey contains information on the International Standard Classification of Occupations (ISCO) classification of workers as well as on the International Standard Classification of Education (ISCED), it is possible to discriminate between the impact of education and the impact of occupation on wages using a so-called human capital earnings regression. Estimations for Belgium over the period 1999-2004 sug-

gest that when accounting for statistically significant occupation effects, the marginal return to education increases for low levels of education and decreases for higher levels of education.

Whereas the level of wages was significantly correlated with the level of education over the period 1999-2004, the growth in wages was not. In contrast, occupation can explain part of the variance in wage growth. The statistically significant coefficient for physical and engineering science associate professionals (ISCO 31) seems to corroborate the task-based view as it contains computer associate professionals (ISCO 312), which appears on an OECD list of occupations that are potentially affected by offshoring. The significant coefficient for high-skilled teaching professionals (ISCO 23) and medium-low-skilled personal and protective services workers (ISCO 51) seems at odds with the task-based view as these occupations do generally not perform the kind of routine tasks that can be easily offshored, although transportation ticket and reservation agents - very close in definition to travel attendants and related workers (subgroup ISCO 511) - features on a list of occupations considered to be potentially affected by offshoring in the US.

There are some indications - in line with evidence for other OECD countries - that the labour market in Belgium is being polarized between high-wage occupations at the high end and low-wage occupations at the low end of the skill spectrum. At the same time the average level of education has increased in most occupations. It is not clear whether this indicates skills upgrading required by technological and organizational change that is matched by a rising overall level of education or whether it suggests over-qualification, i.e. workers being employed in jobs that do not fully make use of their acquired skills and education. In addition to some problematic aspects of a polarisation of the labour market, the finding that job opportunities cannot be perfectly matched to the level of education clearly complicates government policies that aim to match labour demand with the supply of skills, as a policy that simply aims to raise the average level of education does not seem warranted.

"Wages and employment by level of education and occupation in Belgium (1999-2004)",

M. Dumont,

Working Paper 22-08, December 2008.

Branches of Belgian companies abroad: a survey over the period 1995-2005

The Federal Planning Bureau has developed the so-called Belmofi database, which contains data on foreign branches of Belgian companies. The data are for 1995, 2001 and 2005 and this working paper concentrates on 2005.

Surveys carried out in 1994 and 1997 on the relocation of Belgian companies abroad provided the initial material for setting up the Belmofi database. A branch is a company in which the parent company has a share of at least 10%, which enables it to weigh on the branch management significantly. The shareholding also needs to show some consistency through time, which implies the existence of a long-term relation between the parent company and the branch. This definition corresponds to the internationally acknowledged definition of foreign direct investment. The information in this report relates to companies that have published annual accounts that give information about their activities in the year 2005. A comparison was made with 1995 and 2001. The methodology for constructing these databases has not changed, as foreign branches in which Belgian parent companies have a share of at least 10% were systematically included.

In 2005, the Belmofi database counted 6,056 parent companies established in Belgium, which amounted to 1.9% of the total number of annual accounts in Belgium. The share of the gross value added of these parent companies in the total for non-financial enterprises amounted to 34.2% in 2005. Together, these parent companies had 17,876 branches abroad.

Over the period 1995-2005, parent companies showed no major changes in their investment attitude: they mainly invested in Europe, especially in the four neighbouring countries on the European continent. Half of all branches were established there and France attracted the greater part of investments from Belgian companies, with a share of 21-22% during the period studied. When comparing the results of the 1995 and 2005 surveys, one finds that the number of branches increased by 94% and the number of parent companies by 64%. The annual average growth of the number of foreign branches amounted to 6.9% and the number of parent companies amounted to 5.1% over that period. The increase in the number of businesses and their foreign branches was stronger among companies owned by a Belgian group than among those belonging to a foreign group. In a period of ten years, the number of foreign branches linked to Belgian multinational companies doubled.

The number of branches rose in almost all European countries. On the other hand, their number decreased

mainly in African countries. In 2005, barely 6% of the branches were established in developing countries, in which the gross national income per capita is less than USD 3,595. Over the period 1995-2005, the percentage fell by 3.4%-points. In 2005, the most popular developing country was China. In 1995, it was Tunisia. The largest investments in developing countries are focused on the exploitation of plantations, the exploitation of minerals, breweries, and the manufacture of textiles and clothes.

Most of the parent companies with foreign branches are limited companies. The Belgian public utility companies are also well represented abroad. Belgian companies usually keep a firm hold on their branches (for 81% of the branches, the Belgian company is the major shareholder, with a 50% interest or more).

It is mainly the large Belgian companies that have foreign branches: 53% of companies with more than 1,000 employees in Belgium have branches abroad. The major multinationals usually have their head office in the "Brussels-Capital Region": 70% of the employment in foreign branches depends on a parent company located in Brussels. Flemish companies own the largest number of foreign branches. Finally, the sector to which the parent company belongs is also important. In 2005, the then two largest Belgian bank insurance groups, Fortis and KBC, were among the ten companies with the highest number of employees abroad. The top ten also included the following multinationals: the two food retailers, Delhaize Group and Louis Delhaize; Solvay (chemicals); D'Ieteren (automobile distribution); the largest brewery, INBEV; the agro-industrial group, SIPEF; and two holding companies: the RHJ International group and NPM-CNP, i.e. companies belonging to the Frère Group. With the exception of Louis Delhaize, all of these companies were quoted on the Brussels Stock Exchange.

The statistics relating to foreign direct investment stocks show that in 2005, Belgian companies reached the top 20 in 28 countries. In 14 of them, our small country was among the top 10 of the foreign direct investment countries. As the financial crisis has evolved into a global economic crisis, the outlook for foreign direct investment will shrink in 2008. The OECD forecasts a decline in international merger and acquisition activity of 29% from the record levels reached in 2007.

"Internationalisering van de Belgische economie: analyse op basis van de filialen van Belgische ondernemingen in het buitenland tussen 1995-2005",

H. Spinnewyn,

Working Paper 23-08, December 2008.

Long-term financing of social security and its impact on the federal budget

This study deals with the long-term financial sustainability of social security's budget and its impact on the federal government's budget as well as on the general government's budget. It also takes into account the various financing mechanisms for social security, for example the Ageing Fund and the alternative financing of health expenditure.

For several years, the High Council of Finance (HCF) has recommended building up reserves in order to cope with the future budgetary cost of ageing, thus preventing the derailment of Belgium's public finances.

The strategy recommended by the HCF aims to gradually reduce the public debt by building up budget surpluses. The Law of 5 September 2001 guaranteeing the setting up of an Ageing Fund provides for the financing of the Fund by means of budget surpluses. During the period 2010-2030, the Ageing Fund should guarantee the funding of the increase in expenditure under the various statutory public pension schemes.

Due to transfers from the Ageing Fund, social security should be capable of financing the increase in pension expenditure within the general scheme. Besides the transfers, the usual contributions, donations and the alternative financing, a new system of financing the obligatory health insurance budget became operational in 2008. This additional alternative financing compensates for the difference between health insurance expenditure and the revenue from the other sources for health insurance.

The study presents two budgetary policy scenarios. The first scenario is a constant policy scenario. In the second scenario, i.e. the normative scenario, the sub-sectors' balances fixed in the Stability Program 2008-2011 and the budgetary goal recommended by the High Council of Finance in its advice of March 2007 for the period from 2012 onwards are achieved through an adjustment of the primary surplus.

In the constant policy scenario, in the absence of a budgetary surplus the Ageing Fund is no longer financed from 2007 onwards and pension expenditure is only covered for a very limited period. Nevertheless, the social security budget should remain balanced until 2025 and then increasingly deteriorate. Besides this, the balance of the federal government's budget will deteriorate almost constantly. First, the debt of the federal government is expected to reduce until 2030 and then increase continuously afterwards. The general government finances will not do well either. In spite of net lending and reserves in Entity II (local authorities, Communities and Regions), the general government's net borrowing will increase and the public debt will undergo a snowball effect.

The normative scenario assumes compliance with the recommended HCF strategy. In 2020, the necessary budgetary effort of the general government should amount to almost 2% of GDP. In such a case, the general government debt should, in the long run, stabilise at a low level. The strategy thus seems to be efficient in safeguarding the financial sustainability of the general government. Yet it creates an imbalance between the federal government and social security. Without having to make extra efforts, social security should run budgetary surpluses even in the period when ageing strikes the hardest. After 2036, these surpluses should, however, turn into deficits because the Ageing Fund will be depleted. In such a scenario, the federal government (including the Ageing Fund) would have to make substantial budgetary efforts in order to achieve the budgetary goal of Entity I.

This study shows that the HCF strategy is efficient in safeguarding the financial sustainability of overall public finances, provided that substantial budgetary efforts are made. As the federal government has to provide the deposits in the Ageing Fund, it seems it is up to this authority to make the necessary budgetary efforts. At the moment, such a situation is unsustainable without efforts from the other authorities, and especially from the Communities and the Regions, which are likely to record surpluses.

"De financiering van de sociale zekerheid op lange termijn en haar gevolgen op de financiën van de federale overheid - Le financement à long terme de la sécurité sociale et ses conséquences sur les finances du pouvoir fédéral",

N. Fasquelle, M.-J. Festjens, Th. Père, M. Saintrain, B. Scholtus, S. Weemaes, Working Paper 24-08, December 2008.

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"Prévisions économiques 2009 -Economische vooruitzichten 2009"

Working Paper 18-08, September 2008

"Raming van een regionaal input-output system voor België - Evaluation d'un système entrées-sorties régional pour la Belgique" L Avonds

Working Paper 17-08, September 2008

"Growth and Productivity in Belgium" B. Biatour and C. Kegels

Regional Economic Outlook 2007-2013, 2008

"Perspectives économiques régionales 2007-2013 - Regionale economische vooruitzichten 2007-2013" D. Bassilière (FPB), D. Baudewyns (FPB), F. Bossier (FPB), I. Bracke (FPB), F. Caruso (IWEPS), K. Hendrickx (FPB), D. Hoorelbeke (SVR)

Planning Paper 106, August 2008

"Comptes satellites des transports en 2000 - Activités de support à la politique fédérale demoblité et transports / Satellietrekeningen transport in 2000 - Activiteiten ter ondersteuning van het federale mobiliteits- en vervoersbeleid"

M. Nautet

The NIME Outlook for the World Economy, August 2008

"Medium-Term Prospects for the World Economy, Period 2008-2015. Focus: The US housing market crisis"

P. Van Brusselen

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"Scénarios de transition vers un développement durable à l'horizon 2050. Note de prospective réalisée pour le "Printemps de l'environnement" sur base du 4e Rapport fédéral sur le développement durable - Scenario's voor transitie naar een duurzame ontwikkeling tegen 2050. Toekomstverkennende nota gerealiseerd voor de 'Lente van het Leefmilieu' op basis van het vierde Federaal rapport inzake duurzame ontwikkeling"

Task Force on Sustainable Development

Working Paper 15-08, August 2008

"Organisation de l'exercice participatif de prospective à l'horizon 2050 préparatoire au 4° Rapport fédéral sur le développement durable - Organisatie van de participatieve oefening inzake toekomstverkenning tegen het jaar 2050 ter voorbereiding van het vierde Federaal rapport inzake duurzame ontwikkeling"

Task Force on Sustainable Development

Working Paper 14-08, August 2008

"Examen des méthodes et analyse de 6 projets de prospective participative. Etude préliminaire au 4° Rapport fédéral sur le développement durable"

N. Zuinen and P. Delbaere

Working Paper 13-08, August 2008

"Elementen van toekomstverkenning in de adviezen van de Federale Raad voor Duurzame Ontwikkeling van 2002 tot 2005. Analyse ter voorbereiding van het vierde Federaal rapport inzake duurzame ontwikkeling"

J.-M. Frère

Working Paper 12-08, June 2008

"Langetermijn vooruitzichten van transport in België: Referentiescenario en twee beleidsscenario's -Perspectives à long terme du transport en Belgique : Scénario de référence et deux scénarios alternatifs" Federal Planning Bureau and Mobility and Transport Federal Public Service,

I. Mayeres

Working Paper 11-08, June 2008

"Determinants of innovation in a small open economy: the case of Belgium"

B. Biatour and C. Kegels

Working Paper 10-08, April 2008

"The Planet Model: Methodological Report, Planet 1.0"

R.Desmet, B. Hertveldt, I. Mayeres, P. Mistiaen, S. Sissoko

Working Paper 9-08, March 2008

"Trade-based measures of offshoring: an overview for Belgium"

B. Michel

Research in Progress

Wage formation

New approaches based on detailed micro-data are being developed to better understand determinants of wage formation in Belgium and increase accuracy of related forecasts.

contact: labour@plan.be

Macroeconomic, budgetary and GHG emissions prospects

Using a consistent modelling approach, medium-term macroeconomic - including labour market - and budgetary prospects, as well as the future evolution of greenhouse gas (GHG) emissions, are investigated. Trends in the forces driving economic growth are analyzed. A consistent regional-national version of the model is being developed in collaboration with experts from the regional governments of Brussels, Flanders and Wallonia.

contact: hermes@plan.be

Determinants of total factor productivity growth in Belgium

Research is under way to look into two specific determinants of total factor productivity (TFP) growth in Belgium: innovation through R&D and market competition.

contact: productivity@plan.be

General equilibrium modelling

A general equilibrium model (GEM) for Belgium is under construction. The model will be a long-term model with a particular emphasis on the link between transport and the economy.

contact: transport@plan.be

Globalisation

The research on globalisation is aimed at identifying worldwide trends in international trade and foreign direct investment and at measuring the impact of these movements on the Belgian economy at the industry level. Special attention is paid to offshoring and its consequences for the labour market in Belgium.

contact: regulation@plan.be

Input-output tables

The FPB is preparing Input-Output tables for 2005. These are compiled using the Economic System of Accounts ESA95, and will be methodologically comparable to the tables for 1995 and 2000. The National Accounts Institute will transmit the data to Eurostat. The tables should be available in a 60-commodity disaggregation by the end of 2009.

contact: inputoutput@plan.be

The long-term budgetary and social challenges of ageing

Different aspects of the long-term dynamics of acute health care, long-term care and pension expenditure are being scrutinized. A long-term model is being used to project the budgetary consequences of ageing in different macroeconomic and demographic scenarios, notably in the framework of policy processes aimed at designing budgetary objectives (at national and European levels). Furthermore, the social dimension of pension benefits is being investigated using micro approaches, in particular a microsimulation model.

contact: maltese@plan.be

Consequences of the financial crisis

Different aspects of the macroeconomic implications of the financial crisis are being investigated, notably by updating the short- to medium-term prospects for the Belgian economy. The implications of the decrease in real estate prices on the US economy - using the international economy model, NIME - are being tentatively assessed.

contact: modtrim@plan.be, nime@plan.be

Employment in the civil service

The question of whether the level and the structure of employment in government bodies in Belgium is appropriate has been raised regularly. A research project at FPB has been initiated to address this question.

contact: pubfin@plan.be

Recent history of major economic policy measures

December 2008

The federal government has revised its public finances objectives, given the deterioration in macroeconomic conditions (economic growth below zero in 2009) and the budgetary cost of a stimulus package decided upon to supplement the role of the automatic stabilizers. In 2009, the general government is expected to record a maximum deficit of 2% of GDP. The deficit should be reduced to 1% of GDP in 2010. A balanced budget is expected in 2011, turning into a surplus of 1% of GDP in 2012.

The stimulus package agreed at the federal level costs about 0.6% of GDP (about EUR 2 billion a year) and aims at reducing the cost of labour, supporting purchasing power and fostering investment.

Labour cost reductions (in the form of exemptions from payments of the withholding tax on wages) will be increased by EUR 455 million in 2009 and by an additional EUR 600 million in 2010. The rate of the reduction for night-time and shift-organised labour will be raised from 10.7% to 15.6% as of 2009. The reduction for overtime work will apply to 130 overtime hours instead of the current 65 hours. Reductions for researchers will also be increased. The rate of the across-the-board wage subsidy introduced in 2007 will be raised from 0.25% to 0.75% in June 2009 and to 1% in January 2010.

The cash accounts of businesses will also benefit from temporary payment facilities in 2009, allowing them to be in arrears in payments of taxes and social contributions without penalty. Moreover, the government has decided to accelerate the refund of VAT in 2009 and to speed up payments on the invoices it receives.

To support households' purchasing power, employers in the private sector will be allowed to pay, free of tax or social security contributions, a lump sum wage bonus of maximum EUR 125 in 2009 and EUR 250 in 2010 per worker, on top of the wage norm agreed in the interprofessional agreement for 2009-2010. Both the replacement rate and the ceiling of unemployment benefits for temporary lay-offs will be increased. In 2009, the government will grant a one-off EUR 30 lump sum reduction on the electricity bill of all households.

Housing investment will be fostered through an extension of the 6% reduced VAT rate to the first tranche of the building costs of a new house, to the cost of rebuilding after demolition in all areas in Belgium (and not only in specific areas as is currently the case) and to the construction of public social housing. The personal income tax reduction for building insulation will be broadened. The government will speed up public investment in the railways or other public infrastructure.

The Walloon government adopted an "anti-crisis plan" (Plan d'actions anti-crise). Its financing largely relies on public-private partnership arrangements. The principal decisions relate to an increase in the funding of the public investment companies by drawing on households' savings through a tax reduction, the front-loading of investments in local public transport and road infrastructure, measures to facilitate access to credit, and initiatives in the Region's area of competence in labour policy.

In the electricity sector, Electrabel and E.ON will swap 1,700 MW of production capacity. This will make E.ON the third largest producer in Belgium, with a 12% share of capacity. The transaction should stimulate competition and fits into the 'pax electrica' agreement concluded in 2006 by the then federal government and Electrabel parent company Suez. In air transport, the European Court of Justice ruled that the facilities given to Ryanair by the Walloon authorities are not unlawful state aid. In 2004, the European Commission had imposed a EUR 4 million fine on Ryanair for supposed unlawful state aid.

The ECB lowered its main refinancing rate by 75 basis points to 2.5%

November 2008

The Flemish government agreed on an "economic impulse plan" (Vlaams Economisch Impulsplan). It will be financed within the existing budget framework and will not affect the Region's zero-debt-ratio. The main provisions of the plan concern the facilitation of access to credit and venture capital, labour policy initiatives (as regards, inter alia, market intermediation, outplacement in case of restructuring, and training) and measures aimed at accelerating the implementation of public and public-private investment schemes.

The federal government took two measures in electronic communications that will come into force after parliamentary approval in 2009. First, the market regulator, BIPT/IBPT, will be strengthened. For example, the procedure for imposing a fine will become easier, and fines may become higher. Furthermore, it will acquire more powers for intervention in the market. In the cases that occur, its defence before the Court of Appeal will become less elaborate. Second, eight or more additional mobile licences will be issued. The licences will be meant essentially for data transmission and will include the first licence for a fourth-generation network.

The ECB lowered its main refinancing rate by half a percentage point to 3.25%

Recent history of major economic policy measures

October 2008

The federal and regional governments injected capital into the following financial institutions in the form of either participation or loans: Fortis (14.9bn EUR), Dexia (2bn EUR), Ethias (1.5bn EUR) and KBC (3.5bn EUR). The federal government also offered the banks, on payment of a fee, a state guarantee for their borrowings on the interbank market.

European countries have decided to raise deposit insurance to a minimum of EUR 50,000, the Belgian government has opted to raise the amount insured from EUR 20,000 to EUR 100,000.

As a result of the rise in consumer prices, the maximum gross wage for which employees' SSC deductions apply, has been raised, as from September, to EUR 2,203.72 per month, up from EUR 2,118.21; the maximum wage for which the flat SSC deduction (standing at EUR 185.00 per month since October 2008) applied has been raised to EUR 1,362.90, up from EUR 1,309.59.

The Flemish "Job rebate", the Flemish Region's rebate on personal-income taxes on income arising from labour, will be gradually raised for revenue earned (taxed) in 2008 (2009) and 2009 (2010). The maximum rebate will be raised and the income ceiling will be lifted.

At the October budget conclave, the federal government announced its objectives for public finances in 2009. These are based on assumptions of 1.2% economic growth (1.6% in 2008) and 2.7% inflation (4.7% in 2008).

The federal government finances are expected to record a deficit in 2009 of 0.5% of GDP, roughly unchanged as compared to the 2008 target (a deficit of 0.6% of GDP). The targeted surplus in the social security budget should fall to 0.2% of GDP in 2009 (0.4% of GDP in 2008). State governments, as well as local governments, are expected to achieve a surplus of 0.2% of GDP. Communities, regions, local authorities and the social security would thus compensate for the deficit of the federal government, keeping the finances of general government balanced (which is also the targeted outcome for 2008).

The 2009 budget diverges from the target for general government of 0.5% of surplus GDP, as defined in the Ageing-fund law (December 2005) and in the Stability Program (April 2008). However, this slippage needs to be understood in the light of the negative output gap arising in 2009 from the economic downturn.

The 2009 budget partly relies on non-structural receipts, among which are the remuneration paid by banks for the state guarantee on their borrowings on the interbank market, dividends from public enterprises and an additional contribution from the energy sector.

The government intends to keep the growth of expenses strictly under control. Retiring civil servants will not be (fully) replaced. Contributions to public enterprises will be restrained (esp. railway investment). A price reduction on medicines will be imposed on the pharmaceutical industry. The purchase price of household vouchers for domestic services will be raised from $\[\in \]$ 7.00 to $\[\in \]$ 7.50 per hour, compensating for an increase in the remuneration at which service providers can redeem the vouchers.

The budget allows for a rise in development co-operation expenditures, an extension of the heating aid for gas and electricity costs, new initiatives in health care (esp. for chronic diseases) and welfare increases in social allowances (anticipating and supplementing the allocation of the 2009-2010 envelope defined in the 2005 Generation Pact). In June, pensions in the wage-earners' scheme will be raised by 3% (minimum pensions), 2% (pensioners for 15 years and more) or 1.5% (other pensioners). The means-tested minimum and other low benefits will also be raised by 2% in June. Pensions in the self-employed schemes will be raised by EUR 20.00 per month as from May and again by 0.5% or 0.7% in August.

On the income side, the budget introduces a tax on flight tickets and plans to increase excise duties on road fuel, in the event of (and offsetting half of) drops in fuel prices. The fight against tax fraud will be reinforced. The federal "job rebate" will be strengthened through a new rise in the tax-deductible work-related expense allowance targeted at the lower income scale (this measure will be applied through a one-month-a-year decrease in the pay-as-you-earn income tax on wages, in May 2009).

After approval by the European Commission, the Capacity Allocation Service Company for Central Western Europe (CASC-CWE) has been established by the transmission system operators of Germany, France and the countries of Benelux. This marks a major step in electricity market coupling within this region. From November, CASC-CWE will provide cross-border capacity allocation services at the interconnectors. The objective is to offer a one-stop-shop for market players in order to harmonise long-term auctions of transmission capacity.

The European Commission sent a letter to the market regulator for electronic communications, BIPT/IBPT, requesting better enforcement of the regulatory measures for the wholesale market for fixed telephony, and a new market analysis within one year. Behind this letter is the continuing insufficient level of competition. Although many conditions for a competitive market have been fulfilled, regulation seems to be insufficiently enforced to create a real competitive market.

On October 8th, the ECB lowered its main refinancing rate to 3.75%. This move was coordinated with the Federal Reserve and four other central banks. Each institution lowered benchmark rates by 50 basis points.