Council of the European Union

Brussels, 1 March 2016
(OR. en)

6586/16

ECOFIN 157
UEM 58
SOC 103
EMPL 62
COMPET 77
ENV 103
EDUC 46
RECH 35
ENER 47
JAI 143

COVER NOTE

From:	Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director
date of receipt:	26 February 2016
To:	Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of the European Union
No. Cion doc.:	SWD(2016) 71 final
Subject:	COMMISSION STAFF WORKING DOCUMENT Country Report Belgium 2016 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances

Delegations will find attached document SWD(2016) 71 final.

Encl.: SWD(2016) 71 final

EUROPEAN
COMMISSION

Brussels, 26.2.2016
SWD(2016) 71 final

COMMISSION STAFF WORKING DOCUMENT

Country Report Belgium 2016

Including an In-Depth Review on the prevention and correction of macroeconomic imbalances

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EXECUTIVE SUMMARY

This country report assesses Belgium's economy in the light of the European Commission's Annual Growth Survey published on 26 November 2015. The survey recommends three priorities for the EU's economic and social policy in 2016: re-launching investment, pursuing structural reforms to modernise Member States' economies, and responsible fiscal policies. At the same time, the Commission published the Alert Mechanism Report that initiated the fifth annual round of the macroeconomic imbalance procedure. The Alert Mechanism Report identified Belgium as warranting a further in-depth review.

The Belgian economy has been recovering at a slow pace. After having settled at around 1.3 % in 2014 and 2015, real growth is forecast to rise to 1.7 % in 2017 as companies start reaping the benefits of improved competitiveness and employment growth provides broader support to household spending. At the same time, a less supportive external environment risks delaying the transmission of improving competitiveness into export, investment and job growth. Lower growth compared with pre-crisis performance is in line with lower estimates for potential growth as a result of weakened productivity growth. A fall in potential growth entails long-term risks, particularly in view of the challenges Belgium faces as regards the long-term sustainability of its public finances.

Belgian companies are deeply integrated in the global economy, trading actively in intermediate goods. Intermediates account for two thirds of domestically produced value added, among the highest in the EU, while the share of final products is among the lowest. Given the very open nature of the economy, losses in export market shares experienced since the turn of the century are particularly relevant. This trend was mainly driven by goods exports. Weakened external competitiveness was aggravated by exports being oriented mainly towards less dynamic markets. In addition, exported goods are concentrated in the lower half of the quality spectrum, with Belgium lagging behind its neighbours in terms of top quality products. The negative trend in market shares has been halted in recent years, though accumulated losses remain substantial. This stabilisation signals that efforts to improve competitiveness are starting to pay off.

Specialisation in market segments with a higher exposure to price competition is difficult to reconcile with the country's high labour costs. The latter reflect the economy's high productivity but also the fact that high overall taxes weigh especially heavily on labour. Labour costs, which have an important signal function for international companies, are relatively high in Belgium. Moreover, labour costs have risen rapidly in the past owing to certain features of the wage-setting system. Excessively high margins for real wage increases and the transmission of high inflation through the general practice of automatic cost-of-living adjustments drove these increases. The fact that underlying inflation is structurally higher than in neighbouring countries mainly reflects rises in service and retail prices. To halt the decline in competitiveness and its negative impact on export performance and employment, the Belgian authorities have intervened in the wage-setting process in recent years. Wage moderation measures have been imposed, including suspension of wage indexation schemes.

The Belgian labour market is characterised by a stagnating and comparatively low overall employment rate, with large differentials between regions and population categories. While the unemployment rate is expected to fall from 8.3 % in 2015 to 7.4 % in 2017, job creation has fallen short of past growth rates. At 67.3 %, the overall employment rate remains below the EU and euro area averages. As a result of rapid deindustrialisation, the share of manufacturing jobs has decreased, while the share of employment in non-market services has risen steadily over the past 15 years. This change in the composition of employment partly accounts for the observed fall in productivity growth.

The transition towards a more knowledge-intensive and innovation-driven economy is advancing slowly. The strengths of Belgium's research and innovation system do not translate into general economic performance as effectively as they might. Business R&D is concentrated in a limited number of high-tech industries. Despite the low barriers to setting up a company, Belgium has a notably low start-up rate and performs poorly in terms of company dynamics. Certain service markets show unwarranted restrictions and rigidities, which helps explain for example the upward price pressures in the retail sector.

Public finances did not come out of the crisis unscathed. A prolonged debt reduction effort was aborted by the support provided to the financial sector and the accumulation of high deficits. The deficit reached a peak of more than 5 % of GDP in 2009 and the subsequent reduction of the deficit has been slow, with a deficit hovering around 3 % in recent years. Public debt is set to remain at around 107 % of GDP in 2016. In 2017, a lower deficit and higher nominal growth are projected to reduce the public debt.

Overall, Belgium has made some progress in addressing the 2015 country-specific recommendations. Over the past year, it has reformed its pension and old-age social security system to raise the effective retirement age. However, there has been limited progress towards an enforceable distribution of fiscal targets among the various levels of government. Some progress has been made in reforming the tax system, notably by shifting taxes from labour to other tax bases. Some progress has also been made on the overall functioning of the labour market. Incentives to work have been strengthened by measures to reduce the tax wedge — the difference between total labour costs and take-home pay — and changes in the unemployment benefit system. Nevertheless, specific population groups still face barriers to entering or re-entering the labour market. Finally, progress in making wage formation more responsive to the business cycle and changes in productivity has been limited.

Regarding the progress in reaching the national targets under the Europe 2020 Strategy, Belgium is performing well in R&D investment and reducing early school leaving, while more effort is needed as regards employment, greenhouse gas emissions, renewable energy, energy efficiency, tertiary education attainment and poverty.

The main findings of the in-depth review contained in this report, and the related policy challenges, are as follows:

- **Government measures to correct for the loss in competitiveness have been bearing fruit.** External cost competitiveness has been improving for several years, especially in the manufacturing sector, thanks to wage moderation efforts. The ongoing correction is reflected in favourable labour cost developments relative to peer countries, with wages advancing broadly in line with low productivity. This positive trend is expected to continue due to further cuts in employer social security contributions in the context of the tax shift. As a result, related macroeconomic risks should recede further.

- **Despite this positive trend, a number of deeply-rooted issues concerning wage formation and the build-up of inflationary pressure remain unaddressed.** These issues risk cancelling out the recent improvements in cost competitiveness. Ensuring a more formal link between wages and productivity would help to lock in recent gains and prevent recurrence of past problems. Moreover, the comparatively high inflation risks triggering inflation-wage cycles, undermining the sustainability of automatic wage indexation. The inflation gap with the neighbouring countries is projected to widen again in 2016.

- **Low productivity growth is associated with a mediocre performance on a number of aspects that constrain the economy's long-term growth potential.** Despite its high-quality public research system, for example, Belgium has relatively few fast-growing firms in innovative sectors. Furthermore, the business climate is hampered by administrative and regulatory burdens which inhibit company expansion, while restrictions hold back market dynamics for business services. Moreover, there are shortcomings in the efficiency of the justice system, with a low penetration of information and communications technology. Together, these factors constitute significant barriers to private investment.

- **Substandard infrastructure and lasting bottlenecks undermine productivity growth and investment.** These factors also make the country less attractive to foreign investors and aggravate the congestion problem. Transport infrastructure and energy represent the country's most acute investment gaps. The absence of a long-term vision for the energy sector, may have created a climate unsupportive to investments in non-subsidised generation capacity.

- **Both non-financial corporations and the government have relatively high debts.** However, associated macroeconomic risks are found to be generally contained in the short term. First, risks are tempered by the private sector, with the economy's total financial assets exceeding total debt. Second, the indebtedness of non-financial corporations is explained by the presence of financial subsidiaries of international groups. Large financial flows within these groups distort the debt figures of non-financial corporations. Third, the resumption of primary surpluses, the relatively long average maturity of the debt stock, and low financing costs mitigate short-term sustainability risks.
- **Long-term debt reduction hinges on a further consolidation of public finances.** The existing budgetary coordination mechanisms do not appear sufficiently effective, given the decentralised government structure, the absence of hierarchy between different levels of government, and the fact that there is no commitment to predefined targets. Belgium has made progress in reforming its pension system. Still, safeguarding long-term sustainability depends on further adjustments and structural reforms in other areas to lift economic growth.

Other key economic issues analysed in this report which point to particular challenges for Belgium's economy are:

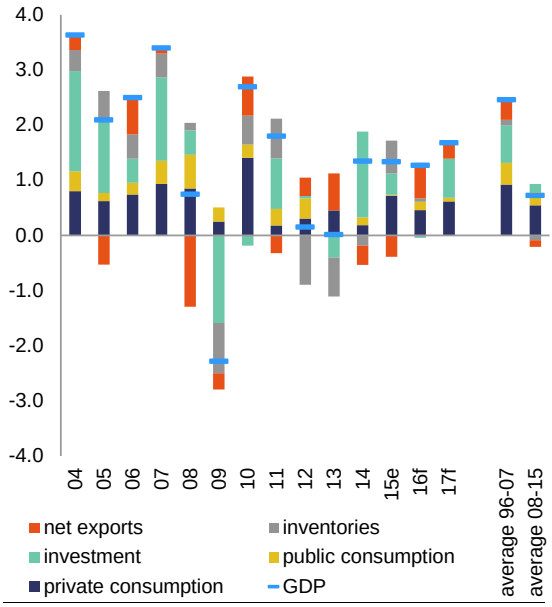
- **High labour costs hamper job creation while various entry and re-entry barriers for low-skilled young people, older people and people from migrant backgrounds result in underutilised labour potential.** Financial incentives, employment support and activation policies are not always fine-tuned to raise the employment rate of these people. The wage moderation policies enacted and the recent tax shift are likely to push up employment growth, provided they are not neutralised by nominal wage increases. Spikes in marginal tax rates upon entering or re-entering the labour market create inactivity and low wage traps for second income earners and specific household types such as singles and single parents, although measures to reduce the tax wedge are being phased in. Extending careers to further reduce early labour market exit also remains a particular challenge. This highlights the importance of policies to promote active ageing and to support demand for older workers.
- **While the risk of poverty has decreased for older people during the crisis, it has increased for specific groups.** These include low-skilled people and very low-work-intensity households. People from migrant backgrounds are particularly exposed to poverty.
- **Educational inequality linked to socio-economic background is amongst the highest in the EU.** The disparity in learning outcomes already starts during early childhood education. The reforms currently being introduced are designed to tackle this, reduce early school leaving, and improve the quality and relevance of the vocational system. Completing these reforms could facilitate a smoother transition towards a knowledge-intensive and increasingly service-oriented economy and alleviate skills mismatches and persistent labour shortages in certain occupations.
- **The recently adopted tax shift will gradually reduce the tax wedge on labour.** Reductions in personal income taxation and employers' social security contributions will help narrow the gap. Nevertheless, the tax system remains complex, with tax bases eroded by specific exemptions, deductions and reduced rates. These imply revenue losses, economic distortions, and a heavy administrative burden. The tax shift also does not seem to be neutral from the budgetary point of view. There is still scope for improving the design of the tax system by further broadening tax bases, allowing both for lower statutory rates and fewer distortions. There is considerable potential for a green tax shift which stems, among others, from the favourable tax treatment of company cars and fuel cards, which contribute to pollution and congestion.
- **Belgium faces rising peak-hour traffic congestion around the main economic hubs.** Congestion has economic costs linked to delays and lost productivity, fuel consumption, and air pollution. Barring a change in policies, Belgium is expected to fall short of its greenhouse gas emission reduction target.

1. SCENE SETTER: ECONOMIC SITUATION AND OUTLOOK

Economic outlook

The Belgian GDP has grown by 1.3 % both in 2014 and 2015. This modest growth rate is expected to continue in 2016, according to the Commission's 2016 winter forecast, with growth accelerating to 1.7 % next year, its best rate in many years.

Graph 1.1: **Breakdown of real GDP growth**

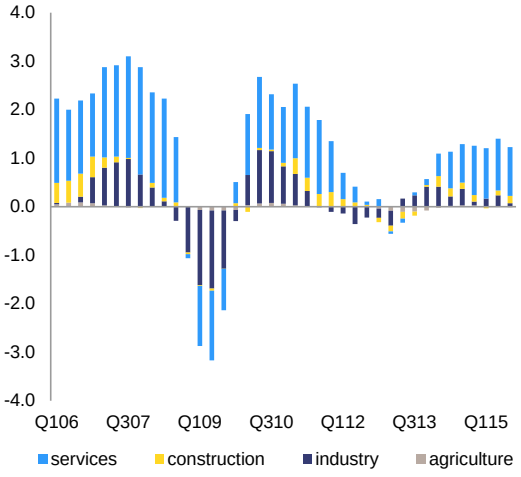


Source: European Commission

Private consumption is estimated to have risen by 1.4 % in 2015, making it the main growth driver (Graph 1.1**).** Wage growth has been curtailed in recent years, as will be discussed in more detail in Section 2.2. So far, low inflation pressures and income tax cuts have limited the impact on households' purchasing power. However, rising inflation is set to limit real income gains in 2016 and 2017, despite further tax cuts. As a consequence, consumption growth is projected to shift into a lower gear, growing by 0.9 % and 1.2 % respectively in 2016 and 2017.

In terms of sectoral activity, the Belgian economy has become ever more service-oriented, with services driving economic growth (Graph 1.2). This is a natural development in high-income, mature economies where services represent a growing share of consumption. However, both in terms of value added and employment, deindustrialisation has been more rapid and gone further in Belgium than in other comparable countries, as discussed in last year's report. Service sectors represent about 77 % of total economic activity, compared with 17 % and 6 % for the industry and construction sectors respectively. Primary activities represent less than 1 %.

Graph 1.2: **Contribution to value added growth (pps.)**

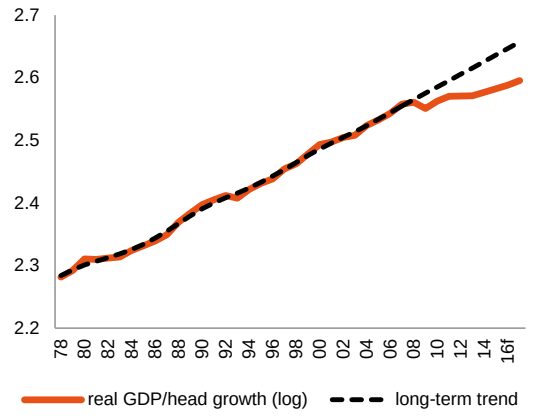


Source: European Commission

Potential growth

The Belgian economy has not been able to reach pre-crisis growth rates. During the decade preceding the onset of the crisis in 2008, GDP advanced by 2.5 % on average, with a minimum of 0.8 %. In contrast, growth has averaged just 0.7 % since 2008. Graph 1.3, which depicts real GDP per head, demonstrates how the sharp decline suffered in 2009 was quickly overcome. However, it also highlights the fact that the Belgian economy has not managed to return to its long-term growth path. This weakened performance is in line with lower estimates for potential output, a supply-side measurement of an economy's sustainable growth capacity. Indeed, potential growth averaged 2.2 % before 2008, while averaging 1.1 % since (Graph 1.4). Considering that growth has fallen short of this potential, a negative output gap of 0.8 % existed in 2015.

Graph 1.3: **Real GDP per head**



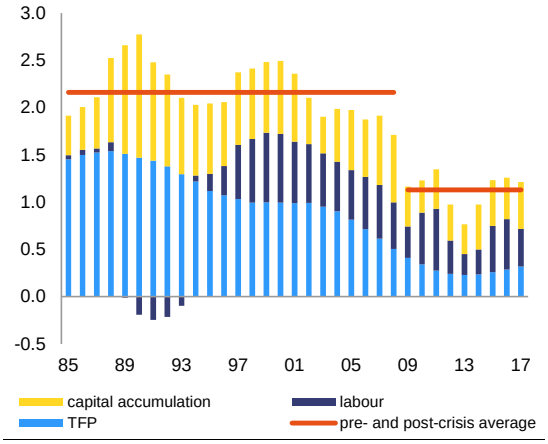
Source: European Commission

Lower potential growth estimates apply to the euro area as well, with an even larger decline than for Belgium. However, while the fall in potential growth in the euro area is more or less equally driven by decreasing contributions from capital, labour and total factor productivity (TFP), in the case of Belgium the sharp fall of total factor productivity clearly outweighs lower capital deepening. TFP has shown a long-term downward trend, having stabilised at a low level in recent years, according to Commission estimates.

Total factor productivity reflects an economy's efficiency in allocating the available labour and capital inputs and is considered to determine an advanced economy's long-term growth rate. Thus, low TFP gains show either that acquired productivity levels are already very high or that there are certain misallocations of resources within the economy. TFP is determined by the quality of inputs to human and physical capital, the general business climate, the allocative capacity of the economy through the labour and product markets, and innovation in its many aspects.

Lower contributions from capital deepening can be linked to ICT-related activities. These are weakly developed in Belgium compared with neighbouring countries. ICT activities generally feature the highest productivity growth inside the manufacturing industry. Unlike neighbouring countries, however, Belgium does not have an ICT manufacturing industry of its own and companies appear having difficulties to keep up with a rapidly shifting technological frontier ([1]). This impacts the performance and productivity growth of the wider economy with high-tech sectors producing weaker cascade effects.

Graph 1.4: **Breakdown of potential growth**



Source: European Commission

Cost competitiveness

Measures to improve cost competitiveness are starting to pay off. The international cost competitiveness of Belgian companies has been eroded by swift increases in labour costs in the past, coupled with lagging productivity. Most wages in Belgium are automatically adjusted for inflation. In addition, real wage increases can be granted within the margins agreed upon between social partners at national level. These margins are set on the basis of projections for inflation and wage growth in the three main neighbouring countries. This has resulted in dynamic wage growth.

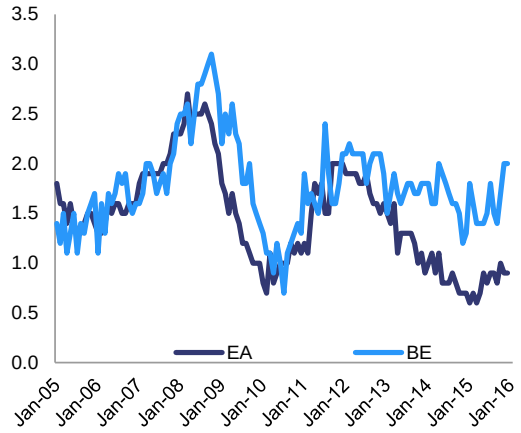
To correct for this and rein in wage growth, Belgian authorities intervened in the wage-setting process in recent years. These measures, their consequences and remaining policy gaps are discussed in Section 2.2 on labour costs. The issue of low productivity growth is raised in Section 2.3,

([1]) Biatour, B. & C. Kegels (2015), Labour productivity growth in Belgium — long-term trend decline and possible actions, Working Paper 6-15, FPB; van der Linden, J. (2015), A brief outline of Belgium's ICT industry — economic significance and position compared to the neighbouring countries, Working Paper 6-15, FPB.

which looks at innovation and the business environment.

High labour costs reflect overall high productivity but also the fact that the high overall tax level leans especially heavily on labour. To lower non-wage-related labour costs, the federal government has initiated a tax shift towards alternative tax bases. The scope and composition of this tax shift will be discussed in Section 3.2, which also deals with the overall design of the Belgian tax system.

Graph 1.5: **Core inflation (year-on-year %change)**



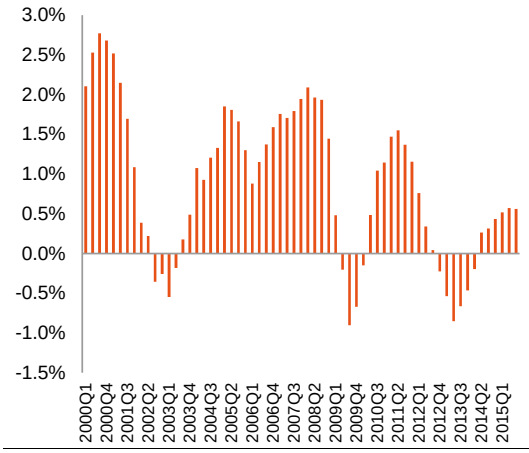
Source: European Commission

Inflation

Inflation reached a low point of -0.6 % in January 2015 and has been rising since. The average level of 0.6 % in 2015 is projected to climb to 1.4 % this year. At 1.6 % in 2015, core inflation — excluding prices for energy and unprocessed food items — has remained relatively high compared with other euro area countries (0.8 %; Graph 1.5).

Inflation has been a key driver of fast wage growth in the past. This had led to government efforts to keep price pressures under control through improved competition for energy and telecom products and by ensuring that surveyed inflation matches actual price developments. The decision to lower VAT on electricity in 2014 should also be seen in this context. However, the budgetary impact of this decision forced the authorities to backtrack in 2015, and this has directly increased inflation. Other government decisions have had similar effects. This is, for example, the case with increases in excise duties or the Flemish regional government's decision to pass on to final consumers the sizeable debt overhang from support to renewable energy.

Graph 1.6: **Employment growth (net year-on-year %change, employees only)**



Source: European Commission

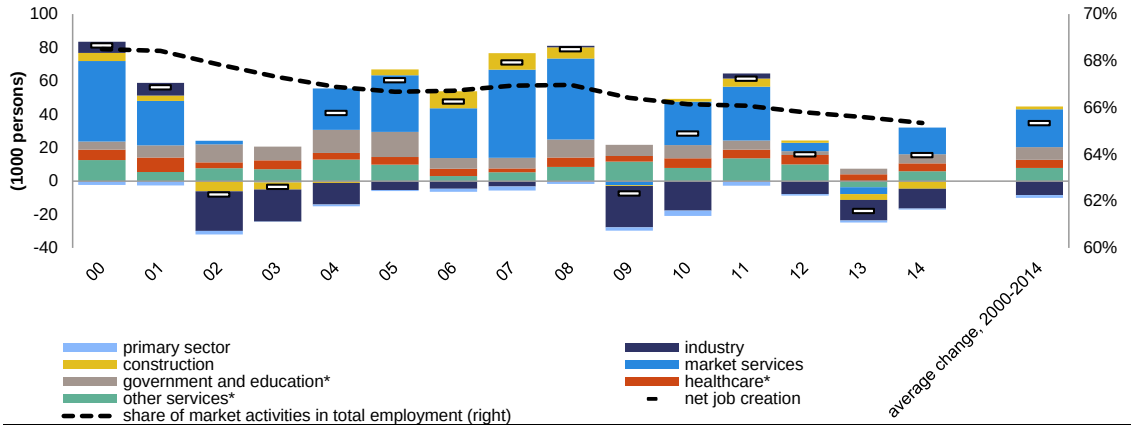
Labour market

Although it recovered quite smoothly after the first leg of the crisis, the labour market has made a more muted recovery after the second leg. Net employment growth has fallen short of past growth rates (Graph 1.6). The unemployment rate nevertheless started to fall in the second half of 2015. It is projected to fall further, from 8.3 % in 2015 to 8.0 % in 2016 and 7.4 % in 2017.

The structural shift towards a service-based economy is reflected in the composition of job growth. As shown in Graph 1.7, Belgian industrial jobs have declined steadily, and the crisis has only reinforced this trend. Job creation in the service sectors has more than compensated for these job losses. The change in the composition of employment helps explain the fall in productivity growth, which is generally lower for services. While this is an inherent feature of many services, also a lower exposure to competition plays a role.

A significant percentage of new service jobs are in non-market activities, such as the public sector, education and healthcare. Their share in total employment rose from 31 % in 2000 to 35 % in 2014, with these sectors representing almost

Graph 1.7: **Composition of net changes in employment**



*non-market services
Source: NBB

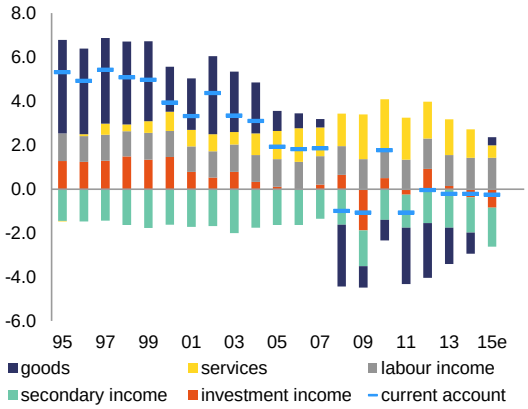
60 % of total job growth since 2000. Part of this strong employment growth is explained by population ageing and related healthcare needs (Graph 1.7). Furthermore, the subsidised service voucher system represents over a quarter of new jobs in market services, but seems to be approaching saturation point. As a consequence, the National Bank of Belgium estimates that as many as eight out of ten jobs created between 2000 and 2013 are at least partly funded by the government ([2]). This underscores the private sector's low job creation potential.

The Belgian labour market is characterised by a low overall employment rate and large employment differentials between regions and population categories. Labour market issues and links with the performance of the educational systems are analysed in Section 3.1. This section also discusses other socioeconomic developments, focusing in particular on those groups that are most underrepresented on the labour market.

The number of refugees rose sharply in the second half of 2015. The number of applications for asylum more than doubled compared with 2014. A peak was reached in September. The number of arrivals has decreased since but remains considerably above past levels. Most people seeking asylum in 2015 came from Iraq, Syria and Afghanistan.

([2]) NBB (2015), Annual Report 2014.

Graph 1.8: **Current account: composition over time**



- BPM5 methodology until 2007, BPM6 thereafter
- 2015 based on first nine months
Source: NBB

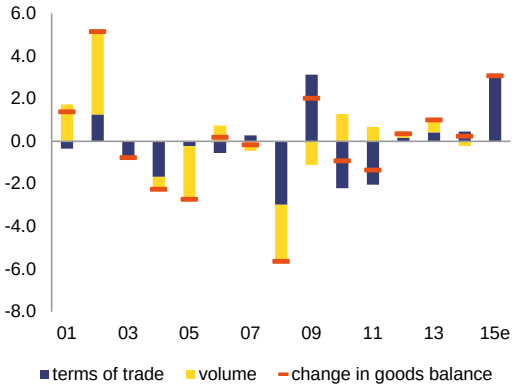
External position

In 2015 the goods balance shifted into surplus for the first time since 2007. The current account has recorded a modest average deficit of 0.3 % of GDP since 2008. This compares with an average surplus of 3 % between 2000 and 2007. As shown in Graph 1.8, goods and capital income are the most dynamic current account components ([3]).

([3]) Volatility for net investment income is caused by a different composition of external liabilities and assets, which caused diverging returns. The timing of dividend payments by a number of large companies also had a major negative impact in H1-2015.

Despite the Belgian economy's strong service orientation, goods still represent almost three quarters of gross exports. Services achieve a broadly stable surplus of almost 2 % of GDP ([4]). Considering that Belgium is a large net commodity importer, prices for energy and other commodities greatly influence the trade balance. However, steady terms of trade losses explain only half of the deterioration in the goods balance between 2003 and 2008. Strong import volume growth relative to exports was also a factor (Graph 1.9). Conversely, the improvement of the goods balance in recent years is due in equal measure to price and volume effects. In 2015, the decline in energy prices caused a particularly strong improvement in the terms of trade. The latest Commission forecast expects the goods balance to fall again in coming years, as import grows stronger on the back of higher domestic demand.

Graph 1.9: **Goods balance: breakdown of growth**



Source: European Commission

Belgium has a strong net creditor position. The country is a net lender to the rest of the world, meaning that external financial assets exceed liabilities. The balance between these two is the net international investment position. It has remained fairly stable at about 50-60 % of GDP, among the highest in the euro area. Belgium's robust external position means that continuing modest current account deficits would not jeopardise overall external sustainability. However, the internal distribution of assets and liabilities across economic sectors reveals a key structural feature of the Belgian economy: a private sector with a strong creditor status versus the entrenched debtor position of the public sector.

([4]) Two important patents caused a temporary rise in imports in 2014 and 2015. The impact in 2015 on the service and current account balances was more than 1 % of GDP.

Public finances

Belgium's public finances did not come out of the crisis unscathed. The headline balance turned red, reaching a deficit of more than 5 % in 2009. Belgian authorities have struggled to overcome this setback against the background of unimpressive growth and bouts of political impasse. The budgetary deficit is set to narrow slowly in the coming years, from 2.9 % of GDP in 2015 to 2.4 % in 2017. In structural terms — adjusting for the impact of the business cycle and one-off budgetary measures — progress is more limited though: from a structural deficit of 2.7 % of GDP in 2015 to 2.2 % in 2017.

Support to the financial sector and the accumulation of substantial deficits have been driving up public debt since 2008, aborting a lengthy debt reduction cycle. Debt dynamics have nevertheless been curtailed by the long-term trend of falling interest rates. These induce a reverse snowball effect which has absorbed part of the budgetary deficits. The rise in the debt ratio has levelled off further as the deficit has narrowed. Debt is expected to peak at 106.6 % in 2016 and fall to 105.6 % in 2017. Belgium's high public indebtedness, a persistent feature, is discussed in Section 2.4 on the macroeconomic implications of the public debt. The focus will be in particular on the interplay between public and private indebtedness, how the interlinkages with the financial sector have developed and how the long-term sustainability of public finances has improved following the recent pension reforms.

Box 1.1: Investment challenges

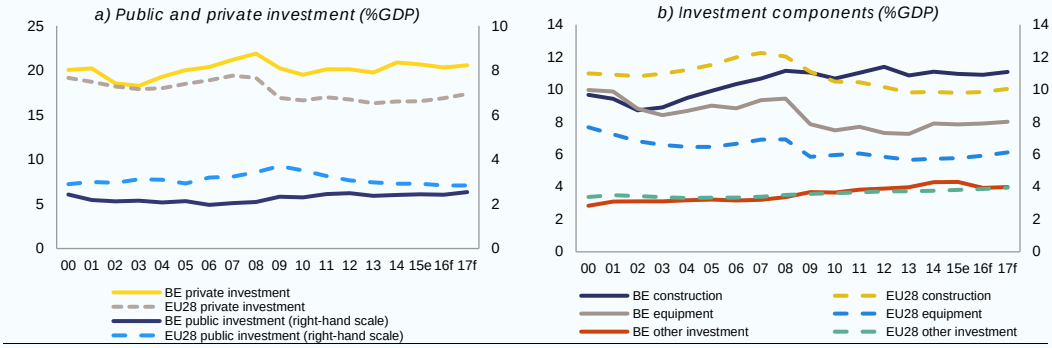
Macroeconomic perspective

Investment did not experience the steep decline observed in other countries in the wake of the financial crisis. Between 2000 and 2008, investment represented an average of 22.1 % of GDP, compared with 22.5 % since. Both private and public investment spending has proved resilient in recent years, as shown in Graph 1a, with modest improvements projected in 2016 and 2017.

Public investment has been structurally low for several decades, as a result of policy choices within a context of prolonged fiscal consolidation ([1]). It reached 2.4 % of GDP between 2008 and 2015, slightly up from a pre-crisis average of 2.1 % of GDP. Sustained cutbacks in investment budgets are reflected in net public investment (i.e. the capital stock corrected for use and wear), which has averaged zero since the 1990s (Graph 2a), eroding the quality of public infrastructure. For example, the World Economic Forum ranks Belgium 30th as regards 'quality of roads', a long way behind neighbouring countries.

Investment in construction has proven resilient compared with the EU (Graph 1b). Total construction spending rose from 9.8 % of GDP in 2000-2008 to 11.0 % of GDP between 2009 and 2015 (it fell from 11.4 % of GDP to 10.2 % of GDP in the EU). The disparity with the EU before the crisis was caused by the lower rate of non-housing construction in Belgium. Again, this highlights the country's infrastructure shortcomings. Despite sharp real price increases in the decade before 2008, Belgium did not experience a construction boom. Housing investment remained fairly stable relative to both GDP and disposable income. House price increases were driven essentially by taxation, interest rate developments and demographics, as discussed in last year's report. In real terms, Belgian house prices have hardly changed at all since 2010. The current low interest rate environment provides substantial support to prices.

Graph 1: **Investment trends**



Source: European Commission, 2016 winter forecast

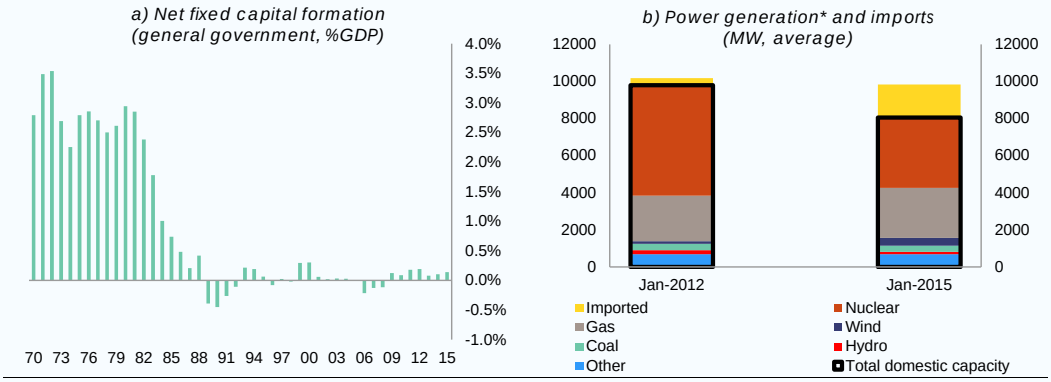
The component that has been least dynamic since the crisis is investment in equipment. It fell from an average of 9.2 % between 2000 and 2008 to 7.6 % between 2009 and 2015. This reflects the sluggish recovery in the euro area economy, which takes the greater part of Belgian exports. Investment in equipment has increased since 2014, however, and prospects for company investment have been brightening further. Favourable commodity prices and measures to reduce labour costs have been improving profit margins. Accommodating lending conditions further support the outlook for investment in equipment.

([1]) Infrastructure spending has often been implemented through public-private partnerships or through capital grants to nominally non-public entities.

(Continued on the next page)

Box (continued)

Graph 2: **Net fixed capital formation and power supply**



*transmission grid data (i.e. excluding energy units connected to the distribution grid, e.g. solar panels)

Source: European Commission; Elia

Assessment of barriers to investment and ongoing reforms

There are several major barriers to private investment in Belgium ([2]). For example, the country still has a labour cost disadvantage compared with its peers, despite considerable headway in recent years (see Section 2.1). For energy-intensive industries, energy costs may be more significant (see Box 2.1.1), while research activities depend on the availability of people with the right skills (see Section 3.1). Other factors affecting the general investment climate include regulatory requirements concerning property registration, labour legislation and construction permits for large projects (see Section 2.3), including in infrastructure and retail. The areas in which most investment is needed are transport infrastructure and energy production.

The transport network represents the most pressing investment gap. Belgium's geographical location, coupled with the presence of international organisations, has enabled the country to attract many distribution centres, logistic bases, and the international headquarters of various companies. However, there is a growing problem of peak hour congestion which undermines the country's attractiveness and entails important economic costs (see Section 3.3). Given the high concentration of economic activity around the capital and the ports, the most urgent challenges are upgrading basic rail and road transport infrastructure and eliminating missing links between the main economic hubs.

Another challenge relates to the adequacy of domestic power generation and the security of supply in general. Hampered by repeated interruptions, Belgium's ageing nuclear installations have become undependable sources, while the repeatedly revised timetable for phasing out the nuclear park has created a climate unsupportive to long-term investment decisions. This is reflected in higher imports (Graph 2b) and an increasingly impaired security of supply. Though short-term supply risks have abated (see Box 3.3.1), longer-term investment needs are still considerable. In addition to substantial new domestic production capacity and a further increase in interconnections ([3]), smart grids are needed to develop demand-side management. Bearing in mind the considerable lead time for large projects in the energy sector and the high need for replacement capacity during the next decade, swift action will be required.

([2]) See 'Member States Investment Challenges', SWD(2015) 400 final/2.
([3]) Though interconnections represented 17 % of the installed production capacity in 2014 (i.e. above the EU target of 10 %), diversifying connections might help alleviate supply risks (see Box 3.3.1). See 'Achieving the 10 % electricity interconnection target — Making Europe's electricity grid fit for 2020', COM(2015) 082 final.

Box 1.2: **Contribution of the EU Budget to structural change**

Belgium is a beneficiary of the European Structural and Investment Funds (ESIF) and can receive up to EUR 2.7 billion for the period 2014-2020. This is equivalent to 3.8% of the expected national public investment in areas supported by the ESI funds.

A number of reforms were implemented to satisfy ex-ante conditionalities and ensure successful investments and effective delivery of the Europe 2020 objectives and targets. The Brussels Capital region has still to fulfil action plans in order to meet the ex-ante conditionalities for investments in the domain of research, development and innovation. Where ex-ante conditionalities are not fulfilled by end 2016, the Commission may suspend interim payment to the priorities of the programme concerned.

In connection with Europe 2020 objectives, the ESI Funds in Belgium have a strong focus on promoting an innovation-friendly business environment, actions in the area of low carbon economy and actions in the field of employment, social inclusion and education. For instance programmes focus on making SMEs more competitive, improving innovation and research performance through developing synergies between businesses, R&D centres and higher education and stimulating the growth of the e-economy. Actions in the field of employment, social inclusion and education, will contribute to Belgium' EUROPE 2020 targets (reduction of poverty, reduction of early school leaving and reaching an employment rate of 73.2 % by 2020). Specific attention will be devoted to young people, in particular with the implementation of the Youth Employment Initiative in Wallonia and in Brussels.

Financing under the new European Fund for Strategic Investments (EFSI), Horizon 2020, the Connecting Europe Facility and other directly managed EU funds would be additional to the ESI Funds. Following the first rounds of calls for projects under the Connecting Europe Facility, Belgium has signed agreements for EUR 419 million for transport projects. For more information on the use of ESIF in Belgium, see: https://cohesiondata.ec.europa.eu/countries/BE.

Financial sector

Belgium did not have a lending boom before the financial crisis, nor did it experience a credit crunch similar to other euro area countries. Average credit growth to non-financial companies has nevertheless been low in recent years, though lower credit demand in a weak economy was seen as the main driving force behind this. Indeed, as credit demand started to rise in 2015, credit growth has followed. Lending is supported by a large deposit base, representing 80 % of GDP (euro-area average: 62 %). Recently, new inlays have levelled off somewhat, supposedly reflecting very low interest rates and a falling savings rate as households smoothen their consumption pattern.

The 2008 financial crisis and its aftershocks had a severe impact on the Belgian financial system. However, the crisis was not of domestic origin, there being no real estate bubble or unsustainable credit growth. Rather, it emerged that Belgian banks were heavily exposed to the toxic products permeating the global financial system and relied too much on volatile short-term funding. The authorities had to nationalise and subsequently recapitalise several major institutions, and provide loans and guarantee provisions. Part of this support has since been redeemed. In particular, the drawn-out resolution of the main problem bank, Dexia, continues to confront the Belgian state coffers with sizeable, though falling, contingent liabilities.

The solvency of the Belgian financial system has remained stable in recent years. The capital adequacy ratio reached 19.2 % in Q2-2015, compared with 16.1 % in the euro area. The debt to equity ratio has been pushed back by strengthening capital through equity rounds and profit retention. Banks have also refocused on less-risky core business activities. Total liabilities fell from a peak

Table 1.1: **Key economic, financial and social indicators — Belgium**

	2003-2007	2008	2009	2010	2011	2012	2013	2014	forecast 2015	2016	2017
Real GDP (y-o-y)	2.5	0.7	-2.3	2.7	1.8	0.2	0.0	1.3	1.3	1.3	1.7
Private consumption (y-o-y)	1.4	1.7	0.5	2.7	0.3	0.6	0.9	0.4	1.4	0.9	1.2
Public consumption (y-o-y)	1.3	2.8	1.1	1.0	1.3	1.5	-0.1	0.6	0.1	0.6	0.3
Gross fixed capital formation (y-o-y)	4.7	1.9	-6.6	-0.8	4.2	0.2	-1.7	7.0	1.7	-0.2	3.1
Exports of goods and services (y-o-y)	4.8	1.7	-9.4	10.3	6.7	1.8	1.6	5.4	2.8	4.3	5.3
Imports of goods and services (y-o-y)	4.9	3.6	-9.1	9.6	7.3	1.4	0.8	5.9	3.3	3.6	5.1
Output gap	0.9	1.8	-1.6	-0.2	0.2	-0.6	-1.3	-0.9	-0.8	-0.8	-0.4
Potential growth (y-o-y)	1.9	1.7	1.2	1.2	1.3	1.0	0.8	1.0	1.2	1.3	1.2
Contribution to GDP growth:											
Domestic demand (y-o-y)	2.0	1.9	-1.1	1.5	1.4	0.7	0.0	1.9	1.1	0.6	1.4
Inventories (y-o-y)	0.4	0.1	-0.9	0.5	0.7	-0.9	-0.7	-0.2	0.6	0.1	0.0
Net exports (y-o-y)	0.1	-1.3	-0.3	0.7	-0.3	0.3	0.7	-0.4	-0.4	0.6	0.3
Contribution to potential GDP growth:											
Total Labour (hours) (y-o-y)	0.5	0.5	0.3	0.5	0.7	0.4	0.2	0.3	0.5	0.5	0.4
Capital accumulation (y-o-y)	0.6	0.7	0.4	0.3	0.4	0.4	0.3	0.5	0.5	0.4	0.5
Total factor productivity (y-o-y)	0.8	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3
Current account balance (% of GDP), balance of payments	2.6	-1.0	-1.1	1.8	-1.1	-0.1	-0.2	-0.2	.	.	.
Trade balance (% of GDP), balance of payments	2.7	-1.3	1.1	1.3	-0.7	-0.8	0.0	0.3	.	.	.
Terms of trade of goods and services (y-o-y)	-0.5	-2.6	3.1	-1.6	-1.2	-0.3	0.0	0.0	1.6	0.2	-0.1
Capital account balance (% of GDP)	-0.2	-0.5	-0.2	-0.2	-0.1	0.6	-0.1	-0.3	.	.	.
Net international investment position (% of GDP)	35.5	51.8	57.5	65.2	60.9	51.8	51.9	59.3	.	.	.
Net marketable external debt (% of GDP) (1)	16.1*	23.7	36.5	43.7	43.5	37.7	33.5	25.9	.	.	.
Gross marketable external debt (% of GDP) (1)	240.4*	265.0	238.7	216.6	212.7	197.5	169.5	185.2	.	.	.
Export performance vs. advanced countries (% change over 5 years)	0.4	-0.9	-1.3	-4.2	0.8	-5.4	-4.1	-4.6	.	.	.
Export market share, goods and services (y-o-y)	-1.3	-1.8	1.1	-6.8	-2.2	-6.3	2.2	2.2	.	.	.
Net FDI flows (% of GDP)	-1.3	6.0	-12.4	-10.7	-6.1	5.5	0.9	2.6	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	9.3	10.0	11.4	8.2	6.6	6.4	5.0	5.1	.	.	.
Private credit flow (consolidated, % of GDP)	9.5	17.1	6.2	3.2	21.2	14.2	8.9	-4.1	.	.	.
Private sector debt, consolidated (% of GDP)	123.2	162.3	164.8	161.7	174.2	186.8	161.8	157.3	.	.	.
of which household debt, consolidated (% of GDP)	42.2	48.7	51.0	51.9	53.6	54.6	55.6	57.6	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	81.1	113.6	113.8	109.8	120.6	132.2	106.2	99.7	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	2.1	-0.8	1.5	4.8	2.0	4.2	2.7	2.8	3.6	4.0	4.1
Corporations, gross operating surplus (% of GDP)	24.3	24.3	23.7	25.5	25.5	24.5	24.4	24.8	25.6	25.9	26.1
Households, net lending (+) or net borrowing (-) (% of GDP)	2.9	3.0	4.8	2.7	2.1	2.0	1.2	0.9	0.8	0.8	0.7
Deflated house price index (y-o-y)	6.5	1.2	-0.1	1.4	1.0	0.2	0.1	-1.1	.	.	.
Residential investment (% of GDP)	5.7	6.5	6.1	6.1	5.8	5.9	5.7	5.9	.	.	.
GDP deflator (y-o-y)	2.1	2.0	0.8	1.9	2.0	2.0	1.3	0.7	1.2	1.5	1.6
Harmonised index of consumer prices (HICP, y-o-y)	2.0	4.5	0.0	2.3	3.4	2.6	1.2	0.5	0.6	1.4	1.7
Nominal compensation per employee (y-o-y)	2.5	3.7	1.1	1.4	3.1	3.2	2.6	0.9	0.5	0.4	1.8
Labour productivity (real, person employed, y-o-y)	1.4	-1.0	-2.1	2.0	0.4	-0.2	0.4	1.0	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	1.1	4.7	3.3	-0.7	2.7	3.4	2.2	-0.1	0.0	0.0	1.3
Real unit labour costs (y-o-y)	-1.0	2.7	2.4	-2.5	0.7	1.4	0.8	-0.7	-1.2	-1.4	-0.3
Real effective exchange rate (ULC, y-o-y)	1.0	3.2	0.2	-2.8	2.2	-0.7	3.4	-0.7	-4.0	-0.9	.
Real effective exchange rate (HICP, y-o-y)	1.1	2.7	0.5	-2.6	0.6	-2.3	1.5	0.3	-3.0	1.7	-0.4
Tax wedge on labour for a single person earning the average wage (%)	42.0	42.5	42.0	42.1	42.2	42.7	42.6	42.3	.	.	.
Taxe wedge on labour for a single person earning 50% of average wage (%)	26.0*	26.9	25.8	26.1	26.4	27.5	26.7	25.9	.	.	.
Total Financial Sector Liabilities, non-consolidated (y-o-y)	12.6	-4.2	-0.5	1.4	5.8	-5.3	2.0	4.0	.	.	.
Tier 1 ratio (%) (2)	.	10.8	12.6	14.1	13.3	14.8	16.9	15.5	.	.	.
Return on equity (%) (3)	.	-62.3	-8.0	10.8	-3.2	2.6	6.9	8.3	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	3.9	4.1	3.9	4.2	5.1	5.3	3.3	.	.	.
Unemployment rate	8.2	7.0	7.9	8.3	7.2	7.6	8.4	8.5	8.3	8.0	7.4
Long-term unemployment rate (% of active population)	4.0	3.3	3.5	4.1	3.5	3.4	3.9	4.3	.	.	.
Youth unemployment rate (% of active population in the same age group)	20.8	18.0	21.9	22.4	18.7	19.8	23.7	23.2	21.2	.	.
Activity rate (15-64 year-olds)	66.0	67.1	66.9	67.7	66.7	66.9	67.5	67.7	.	.	.
People at-risk poverty or social exclusion (% total population)	22.2	20.8	20.2	20.8	21.0	21.6	20.8	21.2	.	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	14.7	11.7	12.3	12.7	13.8	13.9	14.0	14.6	.	.	.
General government balance (% of GDP)	-0.8	-1.1	-5.4	-4.0	-4.1	-4.1	-2.9	-3.1	-2.9	-2.8	-2.4
Tax-to-GDP ratio (%)	45.3	45.5	44.8	45.2	45.8	47.0	47.9	47.6	46.9	46.7	46.6
Structural budget balance (% of GDP)	.	.	.	-3.9	-4.0	-3.4	-2.8	-2.9	-2.7	-2.4	-2.2
General government gross debt (% of GDP)	94.0	92.4	99.5	99.6	102.2	104.1	105.1	106.7	106.1	106.6	105.6

(1) Sum of portfolio debt instruments, other investment and reserve assets
(2; 3) domestic banking groups and stand-alone banks.
(4) Domestic banking groups and stand-alone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches.
(*) Indicates BPM5 and/or ESA95
Source: European Commission, winter forecast 2016; ECB

of almost 400 % of GDP in 2008 to around 270 % in October 2015 compared with around 300 % of GDP in the euro area (from a peak of 350 %).

2. IMBALANCES, RISKS, AND ADJUSTMENT ISSUES

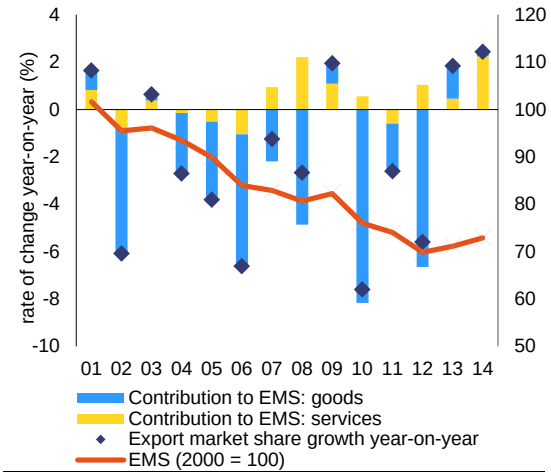
This section provides the in-depth review foreseen under the macroeconomic imbalance procedure (MIP) ([5]). It focuses on the risks and vulnerabilities flagged in the Alert Mechanism Report 2016. The section analyses the reasons behind the decline in competitiveness of the Belgian economy, government measures to moderate labour cost growth, and performance as regards innovation and business environment, key factors in raising productivity growth, the ultimate driver of sustainable wage and job growth. Macroeconomic risks stemming from high levels of both private and public debt are analysed as well, paying attention to issues with a bearing on the sustainability of public debt such as fiscal consolidation, pension reforms, and the fiscal framework. The section concludes with the MIP assessment matrix, which summarises the main findings.

2.1 COMPETITIVENESS, TRENDS AND PERFORMANCE

External trade performance

Belgium's share of global export markets has declined for most of the past 15 years, as Graph 2.1.1 **shows.** Almost a third of market shares were lost between 2000 and 2012, as export growth fell short of world import growth. However, matters have improved since 2013, with increased market shares for both goods and services. While the downward trend has been halted, the accumulated loss remains substantial: 27 % of international market shares were lost between 2000 and 2014. Over the same period, the market shares of France, the Netherlands and Germany fell by 29 %, 11 % and 5 % respectively.

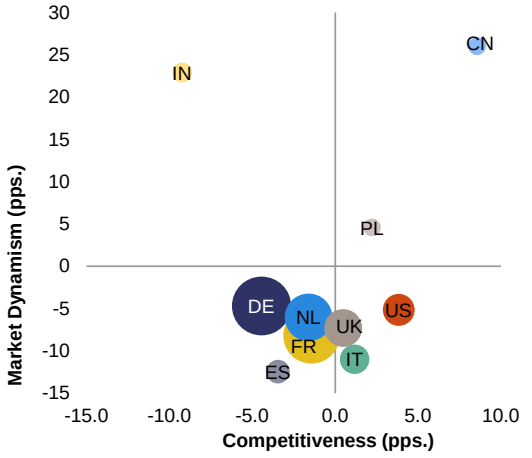
Graph 2.1.1: **Export market shares (XMS) for goods**



Source: European Commission

The trend of falling market shares was driven by goods exports, with the export performance of services remaining broadly stable. As services account for only a small share of total exports, their performance did not offset losses in the goods balance. The relatively weak growth in goods exports reflects both volume and price developments. While the volume shows that Belgian exports are outpaced by global demand, price developments suggest that the average price received for these exported products has risen less than average international prices.

Graph 2.1.2: **Market dynamism and competitiveness of goods exports for top-10 countries (2000-14)**



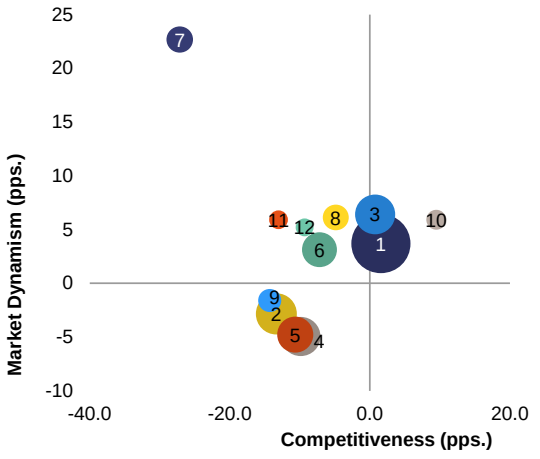
The bubble size reflects the country's relative importance to Belgium.
Source: European Commission

Export market share dynamics can be broken down on the basis of two approaches: a geographical and sectoral/product approach. The geographical breakdown for 2000-2014 (Graph 2.1.2) shows how Belgian companies export mainly towards countries whose import growth is less dynamic than global imports. The

([5]) According to Article 5 of Regulation no. 1176/2011.

impact of this orientation, which can be considered largely exogenous, was reinforced by additional losses suffered on average on these markets, in particular Germany, France and the Netherlands, Belgium's main trading partners. This more endogenous development points to the existence of a problem of competitiveness. Graph 2.1.3 presents the sectoral breakdown. On the one hand, Belgium has products for which world demand has grown at an above-average rate. On the other hand, this favourable initial product specialisation could not prevent heavy market share losses, as Belgian products were generally outcompeted, suggesting quality problems. Important sectors such as the chemical and refined petroleum sectors performed better than most other sectors, but mostly in the years before the onset of the crisis in 2008.

Graph 2.1.3: **Market dynamism and competitiveness of goods exports for top-12 sectors (2000-14)**



- 1 chemicals; 2 machinery & electrical; 3 mineral products; 4 vehicles, aircraft & vessels; 5 metals; 6 plastics & rubber; 7 precious stones; 8 foodstuffs; 9 textiles; 10 instruments
- The bubble size reflects the country's relative importance to Belgium.

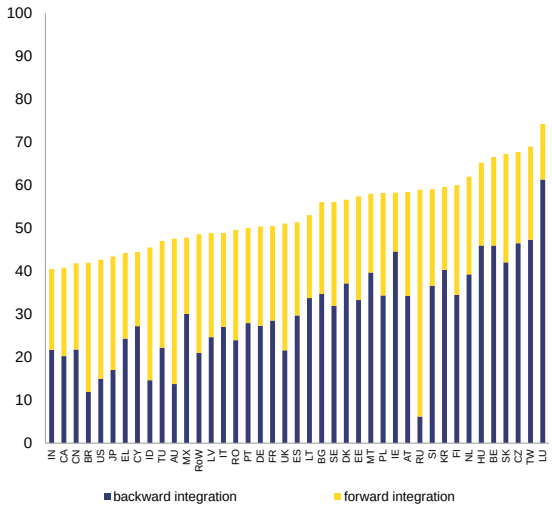
Source: European Commission

Global value chains

Direct import and export flows recorded in gross trade data do not tell the full story of competitiveness. Production processes have become increasingly fragmented as they are split up and scattered across countries. This has led to high export growth which overestimates the related income gains, as they comprise the value generated at all production stages. This is particularly so for countries that rely heavily on trade in imported intermediates, often small open economies such as Belgium. Domestic value added gives a better idea of the actual income generated by gross trade.

Belgium is deeply integrated in global value chains. The participation index shown in Graph 2.1.4 sums foreign suppliers (backward integration) and buyers (forward integration) of a country's intermediate products. The backward indicator shows the foreign value added share of each country's gross exports. These are imported inputs that feed into domestic production. The forward indicator shows the share of a country's exports that is further transformed in the global value chain and thus embedded in gross exports of third countries. Combined, both indicators provide an idea of the degree to which a national economy is integrated in global value chains.

Graph 2.1.4: **Integration in international production chains (2011)**

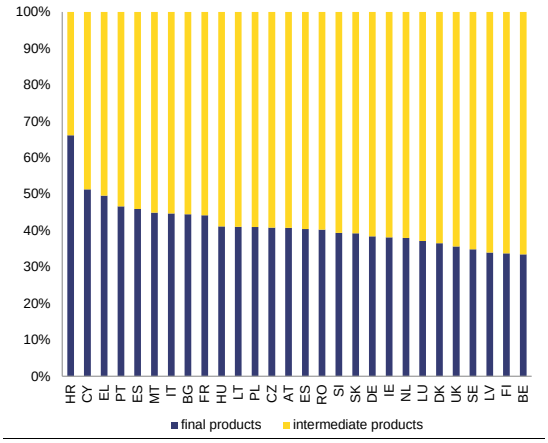


Source: European Commission (based on WIOD)

The extent to which countries can take advantage of integration in international production chains varies across countries. Small and open countries source more intermediate goods from abroad so that the foreign value added of exports is generally higher than in larger or more resource-rich countries. This is also the case for Belgium. Food products, textile products, paper products and chemical products have the highest domestic value added among goods, over two-thirds of gross exports.

A look at the composition of domestic value added clearly shows Belgium's orientation towards intermediates (Graph 2.1.5). Intermediates account for two thirds of domestically produced value added, a share which is among the EU's highest. This means that Belgium has one of the EU's lowest shares of final products. From this it can be concluded that, compared with other EU countries, Belgium mainly produces inputs for other countries and generates relatively few final products itself. These findings tie in with earlier country reports which highlighted Belgium's comparatively low volume of capital goods exports and showed that their share of total exports had been declining.

Graph 2.1.5: **Composition of domestic value added content in gross exports (2011)**



For countries with a large (small) tourism sector the share of final products is generally higher (lower). The share of intermediates remains broadly the same for BE when only manufactured exports are taken into account.
Source: OECD

Value chain analysis puts into perspective the low share of services in gross exports. Aside from their direct contribution to trade, services also contribute indirectly, as they represent a substantial share of inputs into the production of goods. This is especially true for Belgium, where services accounted for almost 45 % of the value of manufactured exports in 2011, second only to France. Business services and wholesale, retail and hotels are the main service types embedded in manufactured exports, with smaller contributions by transport and telecoms, and finance and insurance. The sectors with the highest services content of exports are food products, textiles and apparel, basic metals, and motor vehicles ([6]).

Services thus represent a significant part of Belgium's integration within value chains. This highlights how service activities, even when they do not engage directly in international trade, nevertheless matter for overall external competitiveness, as they have cascade effects.

Quality of export goods

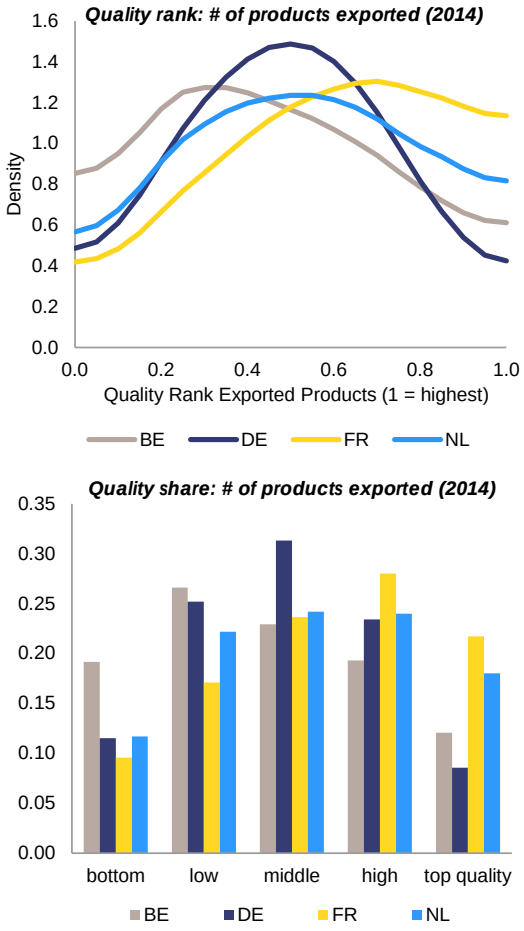
Product quality is arguably the prime non-price component of competitiveness, as it largely determines, together with cost parameters, consumer demand for a product. As shown in Graph 2.1.6, the average quality of the Belgian product range is skewed to the left. This means that Belgium exports mainly lower quality goods. This specialisation has been stable in recent years, according to estimates. Average quality in the neighbouring countries is higher: Germany and the Netherlands are situated in the medium range, while French exports are concentrated more at the upper end of the quality spectrum ([7]).

Belgium lags behind its neighbours in terms of export of top quality products, ranking 25th in the EU. The opposite holds for products at the bottom of the quality scale, which account for a larger share of Belgian goods exports, according to these estimates.

This orientation towards below-average quality, lower value-added market segments makes Belgian export performance more dependent on cost factors, as these segments are subject to tough price competition. Developing the most specialised production stages along value chains helps to ease such pressure. Doing so depends on a broad range of conditions, linked to innovation and technology content, company creation and growth, product and process development, trade participation, and factors conducive to a supportive business environment. These are discussed in Section 2.3.

([6]) OECD-WTO, Trade in value added, 2015.
([7]) When the distribution is done in terms of export value, Belgium, France and the Netherlands are situated in the broad medium range; Germany in the upper medium. The findings for top quality products are the same in value as in number of products, with Belgium ranked 22nd in the EU.

Graph 2.1.6: **Product quality estimate (exported goods)**

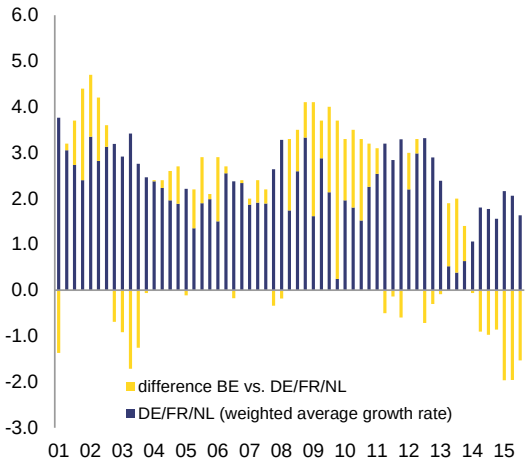


The quality of a good is subjective (quality as perceived by consumers in a particular market, the EU market in this case) as reflected in prices, not the intrinsic quality of a product. See di Comité, Thisse and Vandenbussche (2014) & Vandenbussche (2014) for a description of the approach taken to the quality indicators discussed.
Source: European Commission

Cost parameters

Between 2004 and 2013, Belgian companies had to cope with fast wage increases, starting from a high level. Hourly labour costs are among the highest in the EU, and they are the highest in the euro area. Graph 2.1.7 highlights how wage growth in Belgium almost always outstripped wage growth in the neighbouring countries between 2004 and 2013, with especially large differences in 2009-2010. During this decade, the average annual increase in labour costs reached 2.8 % in Belgium, compared with 2.4 % in the euro area and 2.1 % in the neighbouring countries, mainly as a result of slower growth in Germany. Since the start of 2014, a trend reversal has emerged, with labour costs growing by 0.5 % on average, compared with 1.4 % in the euro area and 1.7 % in the neighbouring countries. The drivers behind the relatively fast wage growth in the past and the slowdown observed in recent years are discussed in Section 2.2, which takes a close look at wage-setting and the policy measures enacted.

Graph 2.1.7: **Quarterly hourly labour cost (% change year-on-year; business sector)**



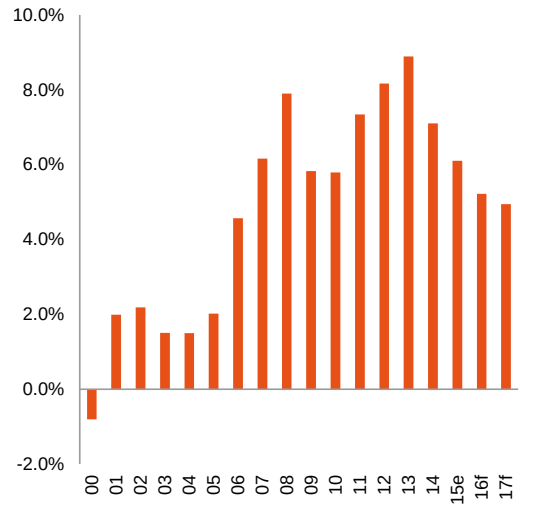
Source: European Commission

For purposes of competitiveness, wage levels and growth rates need to be assessed against domestic productivity levels and growth rates ([8]). Both are confronted within the concept of unit labour costs (ULC), which provide a prime indicator of cost competitiveness for activities in which labour is the predominant cost factor. It has been found that together with non-cost elements such as quality, unit labour costs affect the export performance of Belgian companies — particularly as regards labour-intensive activities — and the propensity to start or stop exporting ([9]). Unit labour costs and tax levels also affect a country's capacity to trigger new, productive investments.

([8]) However, within the Belgian framework of cost competitiveness monitoring, it is wage growth relative to Germany, France and the Netherlands since 1996 that is scrutinised (see Section 2.2).

([9]) Decramer et al. (2015), How do exporters react to changes in cost competitiveness?, NBB Working Paper 276.

Graph 2.1.8: **Difference in unit labour cost level: BE vs. Germany, France and the Netherlands**



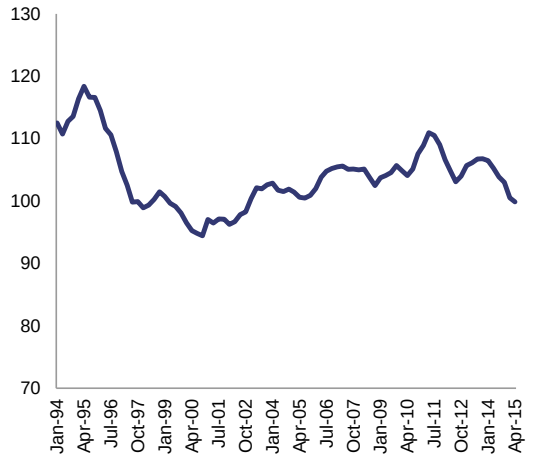
Source: European Commission

While the Belgian economy is among the most productive in the euro area, productivity growth has been declining. In the past, a high aggregate productivity level broadly compensated for high wage costs. As shown in Graph 2.1.8, around the turn of the century absolute unit labour cost levels were in line with the average in the neighbouring countries. However, a combination of lower productivity growth compared to peers and, in particular, the higher nominal wage growth mentioned previously resulted in a gradual build-up of an absolute unit labour cost differential ([10]). This loss in relative cost competitiveness reached a peak of around 9 % in 2013 and has started to decline since. According to the latest Commission forecast, the gap narrowed to 6 % in 2015 as wage growth slowed notably, and is projected to continue declining further in 2016-2017.

The size of the misalignment between productivity growth and wage growth varies across sectors. As shown in Graph 2.1.10, manufacturing sectors have had higher wage growth than service sectors since 2001. At the same time, though, productivity has also grown much more rapidly in manufacturing sectors, meaning that, overall, unit labour costs have kept pace better with those in neighbouring countries. They grew by 3 % in 2001-2014, which is less than in the euro area and the Netherlands, but more than in Germany (1 %) and France (2 %), the two main trading partners. The weighted difference with the neighbouring countries peaked in 2011 and has declined since. This is expected to continue in coming years.

The improving cost competitiveness in the manufacturing sector is illustrated in Graph 2.1.9, which shows the real effective exchange rate. The latter is calculated against a group of 37 industrialised countries and deflated by unit labour costs in the manufacturing sector. Following an appreciation up to 2011, the indicator has depreciated. It was close to the long-term average in the first half of 2015, also helped by the strong depreciation of the euro, in particular against the dollar since 2014.

Graph 2.1.9: **Real effective exchange rate**



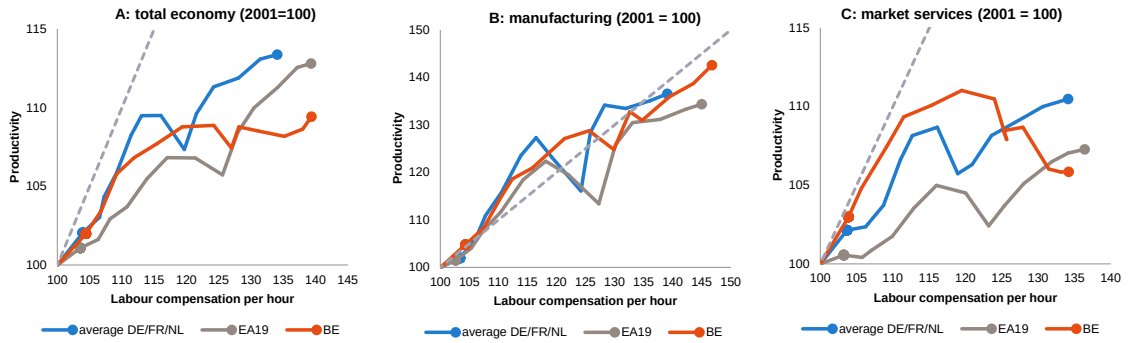
deflator: manufacturing ULC; weighted for 37 industrialised countries; long-term average = 100
Source: European Commission

There are indications that productivity in the manufacturing sector has partly adjusted to strong wage growth, rather than wages rising in proportion to productivity gains. Despite high productivity and a high productivity growth rate in the manufacturing sector ([11]), Belgium has

([10]) This difference in absolute unit labour costs — possibly adjusted for certain wage subsidies — is probably a better measure of the development of cost competitiveness in BE relative to the neighbours than wage growth alone.

([11]) The shift from ESA 1995 to ESA 2010 for the construction of the National Accounts involved the classification of R&D expenditure as investment, which has a positive impact on value added and productivity. The impact of this

Graph 2.1.10: **Trends in unit labour cost components (2001-2014)**



Source: European Commission

experienced more deindustrialisation than comparable countries. This applies both to employment and to the share in total value added, as discussed in last year's report. Faced with high labour costs, Belgian industrial companies thus appear to have increased their capital-intensity by automating production. This helps to preserve a cost-productivity balance, but entails shedding jobs as labour is replaced by capital to reach a new equilibrium. This would help explain the ongoing job losses in Belgian industry mentioned in Section 1, with ever fewer, ever more productive companies remaining. Clearly, if such a mechanism is indeed at play, this raises concerns from an employment point of view as competitiveness is preserved at the cost of lower employment. The kind of labour most affected by intensive automation are low-skilled tasks. As discussed in Section 3.1, low-skilled people have a particularly low employment rate in Belgium.

Unit labour costs for Belgian service sectors developed unfavourably in the past decade. Most countries show a sizeably higher unit labour cost growth in service sectors than in manufacturing sectors (Graph 2.1.10). This sectoral dimension is explained by the nature of many services, which makes productivity gains harder to achieve. However, for Belgium this gap is higher as a consequence of low productivity growth in the service sectors since 2001. In the past ten years, productivity growth has even stagnated. This suggests that competition in the services sectors is on average lower in Belgium, though the creation of many low-productive jobs through the service voucher system might also help explain stagnating productivity growth. Considering the high intermediary consumption of services by exporters highlighted above, this risks saddling manufacturing sectors with a cost disadvantage.

new approach on productivity was, on average, higher for Belgium than for neighbouring countries.

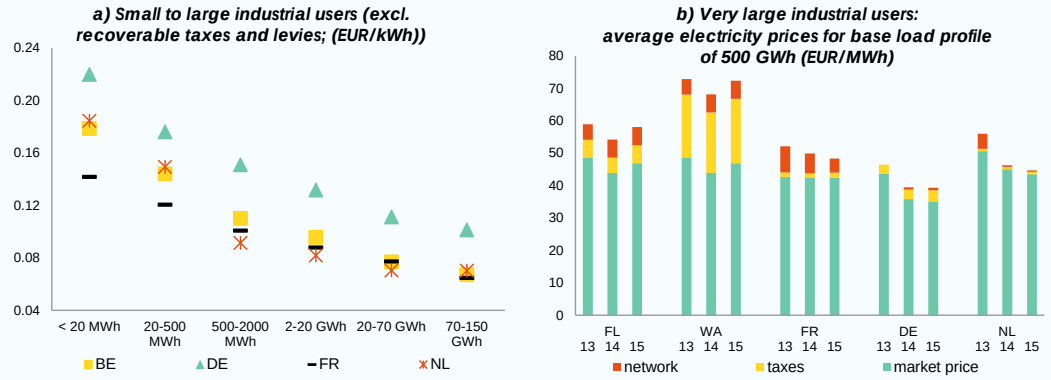
Box 2.1.1: Electricity costs for industrial users

For large companies active in the chemical or petrochemical sector — of which there are many in the Antwerp port area — with an annual electricity consumption of the order of 1000 GWh, energy rather than labour represents the bulk of total costs for certain products. That is why competitive energy prices are of vital importance.

While gas prices for industrial customers are considerably lower than in neighbouring countries and among the lowest in the EU, the picture for electricity prices is different. For average company profiles (Graph 1a) prices are competitive compared with those in neighbouring countries. Prices in Wallonia are higher because of charges linked to regional public service obligations for companies not directly connected to the transmission grid ([1]).

Prices for the largest industrial users are substantially higher than in the neighbouring countries (Graph 1b). This is the case both in Flanders and Wallonia. In addition to higher market prices for the energy itself ([2]), higher taxes and network costs contribute to the higher price level for the largest users in Belgium. Companies in some neighbouring countries with a large and stable consumption profile generally enjoy substantial discounts of up to 90 % of standard network tariffs, subject to strict monitoring by the energy regulator ([3]). Price increases in 2015 were driven by the rising price of the energy component — which fell on average in the neighbouring countries, compared with 2014 — and higher levies linked to the strategic reserve generation capacity (see Box 3.3.1) and renewable energy policies.

Graph 1: **Electricity prices for industrial users**



Source: European Commission; Deloitte/Febeliec

Plans to introduce an energy norm analogous to the wage norm have not been put into practice so far. The purpose of such a norm would be to ensure price alignment with neighbouring countries for companies by monitoring the various price components. It is questionable, however, whether such a norm would work in practice. Moreover, there is a risk that introducing an energy cost norm would undo the liberalisation of the energy market, and it would need to be compatible with the European legislative framework on the internal energy market. As monitoring the commodity component might imply excessive interference with domestic energy markets, this could further reduce willingness to invest in new capacity (see Box 3.3.1).

([1]) Pwc (2015), A European comparison of electricity and gas prices for large industrial consumers; study commissioned by CREG. Electricity prices (in October 2014) were assessed for three profiles: an annual demand of 25 GWh with a connection to the distribution grid, 25 GWh with a connection to the transmission grid, and 250 GWh with a connection to the transmission grid.

([2]) Following the announcement made at the end of 2015 that nuclear capacity was to be fully restored, wholesale market prices have fallen.

([3]) Deloitte (2015), Benchmarking study of electricity prices between Belgium and neighbouring countries; study commissioned by Febeliec.

2.2. LABOUR COSTS

Wage formation

The centre of gravity for wage-setting in Belgium is situated at sectoral level, with national standards providing for a high level of coordination among sectors. At national level, the *Loi relative à la promotion de l'emploi et à la sauvegarde préventive de la compétitivité* ('Law of 1996') specifies the basis on which social partners set the 'wage norm' every two years. This norm determines the maximum real wage increase allowed at sectoral level. It is set on the basis of wage developments in the main trading partners (see Box 2.2.1). Nominal wage adjustments for inflation and pay scale increases (due to seniority or promotion) are not affected by the wage norm. The precise arrangements for the latter type of wage adjustments are usually laid down in sectoral collective bargaining agreements. Aside from the wage norm covering the entire private sector ([12]), the national 'guaranteed minimum monthly income' ([13]) also limits wage-setting at intersectoral, sectoral and company levels.

As the wage-setting process has resulted in faster wage growth than in the countries of reference, the wage norm has failed its purpose. This was partly because predicted real wage growth in these countries was overestimated (particularly for Germany), and no adjustment was made afterwards. Moreover, inflation has repeatedly exceeded expectations and outpaced price pressures in neighbouring countries, where automatic cost-of-living adjustments are less widespread than in Belgium. This explains the entrenched wage growth differential until 2014 that was highlighted in Section 2.1.

In addition, the existing framework limits the scope for wage restraint and adjustment through real wages. Wage indexation and the wage norm put a floor and a ceiling respectively on total wage growth. Wage negotiations are effectively limited to this bandwidth for all companies. As a consequence, during an economic downturn, when wage restraint could be warranted to limit job losses, wage growth proves hard to control.

A third problem with the Belgian macroeconomic wage coordination is the poor alignment between wage and productivity trends. While this might not have been a problem in earlier times when productivity grew rapidly, the dwindling of productivity gains has changed the analysis. This is reflected in unit labour cost trends (see Section 2.1). To halt the deteriorating cost competitiveness reflected in this and other indicators, the Belgian authorities have sought to curb wage growth.

Corrective measures

The degree of national coordination has further increased in recent years as the authorities intervened in the wage-setting process to slow down wage growth. Already in 2011-2012 (0.3 %) and 2013-2014 (0.0 %) the wage norm was set by the federal government, as social partners failed to reach an agreement. For 2015-2016 a draft agreement supported by all but one of the social partners was written into legislation by the government. It allows for modest wage increases in 2016 (0.8 %). At the same time, the government enacted a temporary suspension of wage indexation.

Sectoral wage indexation schemes have been effectively suspended as of April 2015 and will only be reactivated once the health index has risen by 2 % ([14]). The health index is a measurement of core inflation and is the mandatory benchmark for all indexation schemes. While the timing of the loss varies from sector to sector, the measure will eventually result in a real wage loss of 2 % for almost all employees.

([12]) Wage-setting in public companies performing an economic role has also been covered by the wage norm since 2015.

([13]) While not fully equal to a minimum wage as usually defined and established by law, in practice it is close to it and has the same legal value. The guaranteed minimum monthly income applies unless the relevant sectoral collective bargaining agreement has set a higher threshold, which is often the case.

([14]) In fact, the government is freezing the health index with indexation continuing but on the basis of this skimmed index.

Box 2.2.1: **The Central Economic Council: role within the wage-setting process**

The Belgian Central Economic Council (CEC) has the task of supporting social dialogue by providing social partners with analysis and advice on socioeconomic matters. One of the fields it covers is the monitoring of competitiveness developments, with a particular focus on wage costs. Its role is enshrined in the Law of 1996 framing macroeconomic wage policies in the country.

The Belgian CEC is managed by the social partners. It comprises a political council and a technical secretariat providing input to the council. Of the 54 council members, 48 represent social partner organisations. These interest representatives are nominated by their respective organisations and appointed by the federal government for a renewable term of four years. The six other co-opted members have an academic background and are directly appointed by the government. The council's composition reflects the Belgian consensual consultation model.

The Law of 1996 stipulates that the CEC is to publish a twice-yearly report on developments regarding employment and labour costs in Belgium and the reference countries, Germany, France and the Netherlands. Structural aspects of the country's external competitiveness are also to be included in the analysis, as are possible suggestions for improvement.

Aside from this general monitoring of economic developments, the CEC plays an important role in determining the biennial wage norm. Every two years, the CEC presents a *Technical Report* in which it proposes the available margins for nominal labour cost growth over the next two years and makes separate projections for inflation. The CEC compares the growth in Belgian labour costs with that in neighbouring countries, which gives the existing wage gap ([1]). The base year for this exercise is 1996, the year when the wage norm was introduced by the said Law on macroeconomic wage policies. Absolute labour cost levels are thus not considered, nor are any wage cost differentials that existed before 1996. In addition, an estimate is made of labour cost growth in the neighbouring countries over the next two years. The wage gap and these projections together determine the available margin presented in the Technical Report.

The CEC's calculations provide the starting point for subsequent negotiations between social partners to set the wage norm — within the broader context of an *Interprofessional Agreement* within two months of publication of the Technical Report. The norm sets an upper ceiling for wage increases over the next two years. Collective agreements negotiated at lower levels must comply with this. Since wage increases resulting from indexation schemes and wage scales laid down in collective bargaining agreements are always guaranteed, the wage norm corresponds to the maximum increase in real wages.

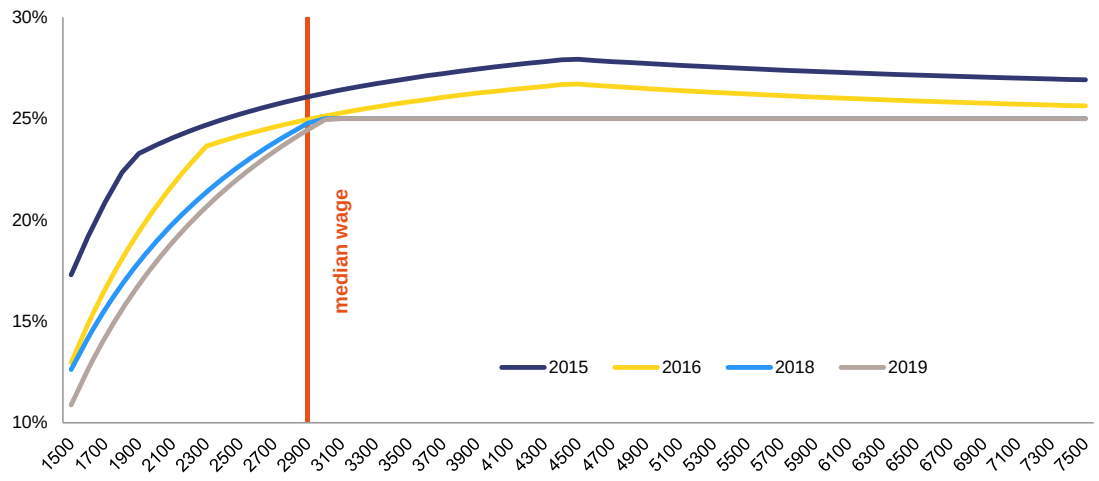
([1]) 1.5 % in 2015, according to the Technical Report published in December 2015.

Taken together, government measures have resulted in a marked slowdown of wage growth in recent years. Fading price pressures in 2013-2014 also helped in this respect. Measures to correct disproportionate past wage growth through wage moderation are thus bearing fruit, improving the country's economic performance and its attractiveness to foreign investors. Moreover, Belgian authorities have pursued a tax shift away from labour, to lower non-wage labour costs. The precise design and composition of this tax shift is discussed in Section 3.2.

Between 2016 and 2019, private sector employers will benefit from general social security reductions amounting to about EUR 2 billion and specific ones of about EUR 1 billion. The most prominent measure is the planned reduction of the maximum facial rate of employers' social security contributions from 32.4 % to 25 %. However, it is worth noting that actual rates are already some way below this theoretical maximum. This reflects a series of existing structural reductions and wage subsidies that put the actual rate between 17.3 % and 27.9 %. These reductions and wage subsidies will help bring the facial rate down to 25 % for the highest wages. Graph 2.2.1 depicts the resulting effective rates in 2015, 2016, 2018 and 2019.

As of 2018, effective rates will be 25 % or less for all employees, with additional reductions for

Graph 2.2.1: **Expected trend in the actual rate of employers' social security contributions as a percentage of gross wages (2015-2019)**



additional reductions apply to (continuous) shift work, new hires by SMEs or the construction sector (only as of 2020)
Source: FEB

low to medium wages in 2019. For higher wages, the contribution rate will thus be reduced by up to 3 percentage points (pps.). by comparison with the 2015 level, whereas the rate on the lowest wages will fall by almost 7 pps., mostly as early as 2016. Aside from lowering effective rates, the government plans also have the merit of simplifying the system and aligning the facial rate with a reduced real rate. Deductions and wage subsidies have resulted in a complex system. The planned changes will therefore also make the system easier for foreign investors to understand.

The highest potential for job creation lies in the reduction of the employers' contribution for low-paid jobs — which are generally performed by the lower skilled. Indeed, Belgium's high labour costs are particularly detrimental to jobs with low productivity, given the mismatch between both. This keeps down the employment rate of low-skilled people in Belgium (see Section 3.1). With this in mind, the government's decision to pursue the largest reduction in contributions on wages at the lower end of the wage scale is likely to maximise the employment effect.

Labour cost growth in 2016 will be further constrained by these measures, even if wage indexation schemes are reactivated once the 2 % real wage cut is a reality. Total labour costs per private sector employee would rise by 0.4 % in 2016. This compares with 0.5 % in 2015, which was already the lowest in over two decades. As discussed in Section 2.1, the slowdown of wage growth results in flat unit labour cost growth in 2014-2016. This implies an improvement in cost competitiveness, since unit labour cost growth is more dynamic in other countries.

Policy gaps

Preventing recurrence of past problems hinges on a reform of the wage-setting framework. As mentioned above, two main factors drove fast wage growth in the past: relatively high inflation and lower-than-assumed real wage increases in the neighbouring countries. Yet cost-of-living adjustments through wage indexation and real wage growth under the margin set by the wage norm have not been fundamentally reformed.

Although the government intends to revise the Law of 1996, little progress has been made so far. Plans include setting future wage norms by taking account of both projections for the next two years and developments in the previous two years. In addition, individual companies' compliance would be monitored more closely, and automatic correction mechanisms — for which the Law provides, but which have never been applied — would be introduced to deal with overshoots caused by failure to comply with the wage norm or

because the latter was set at a too high level, as has been the case in the past. All these elements would strengthen the wage-setting process. A number of additional elements could be considered as well.

Monitoring of labour cost competitiveness could be expanded to take account of productivity trends as well. The main purpose of the revised law should be to prevent wage growth from outpacing productivity. This is not guaranteed in the current set-up of the wage-setting process, as the wage norm focuses on nominal wage trends, linking them to wage trends in neighbouring countries. Expanding the monitoring of labour cost competitiveness to include unit labour costs as well would ensure that macroeconomic wage policies factor in all relevant determinants of cost competitiveness**.** There would also be less need for ex post corrections if wage growth were based entirely on past wage trends in neighbouring countries.

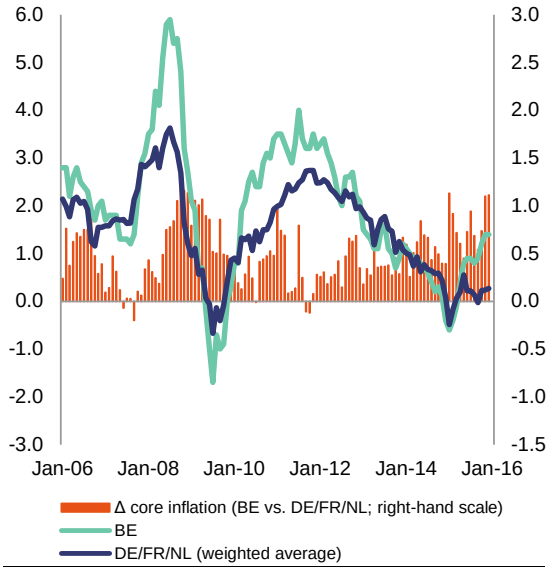
Built-in safeguards would help to avoid non-wage labour cost reductions from being cancelled out in subsequent wage-setting rounds. The Law of 1996 benchmarks the change in total labour costs rather than gross wages. As a consequence, efforts to lower non-wage labour costs in the form of social security contributions risk creating an apparent scope for wage increases under the Law of 1996. To some extent, this is what may have happened on some occasions in the past as authorities repeatedly lowered employers' social security contributions to facilitate negotiations between social partners. This built-in upward pressure would need to be kept in mind when revising the 1996 Law.

The use of all-in agreements at sectoral level could be promoted to mitigate the adverse effects of spiking inflation. Such agreements cap nominal wage growth, whereas the wage norm currently caps real wage growth. All-in agreements were actively used in some sectors in 2007-2008. They neutralise the effect of unexpected rises in inflation.

Inflation

Over the past decade, inflation has been an average of 0.2 percentage points higher than in the euro area and 0.4 percentage points than the neighbouring countries. Energy prices were the main culprit until 2011, but increased competition and dynamism on the domestic energy market — and international price developments — have brought prices more into line. After narrowing in recent years, the gap started to widen again in 2H-2015 (Graph 2.2.2). This re-emerging divergence in inflation raises concerns. While inflation averaged between 0.1 % and 0.2 % in the neighbouring countries in 2015 (0.0 % in the euro area), prices rose by 0.6 % in Belgium. This gap is projected to widen further in 2016.

Graph 2.2.2: **Inflation: HICP (% change year-on-year)**



Source: European Commission

The structural difference in underlying inflation undermines the sustainability of widespread wage indexation. If automatic cost-of-living adjustments are to be maintained in some form, the drivers behind this difference need to be forcefully addressed. If not, past problems risk re-emerging, and the corrective measures taken in recent years (real wage freezes and suspension of indexation agreements) might be necessary again in the future.

Authorities have sought to lower inflationary pressures in recent years. As discussed in previous country reports, these efforts included competition-enhancing measures in the energy and telecommunications sectors and a reduction in VAT on electricity. In a similar vein, a number of parametric changes were applied to the health index calculation formula to reflect actual

consumption patterns and product prices more accurately. These attempts to bring down the inflation differential with neighbouring countries were successful to some extent. The Belgian inflation rate converged towards the levels observed in the main trading partners between 2012 and 2014 (Graph 2.2.2).

Since the beginning of 2015, however, the inflation differential with neighbouring countries and the euro area has started to increase again. Part of this increase is linked to government measures in the area of energy prices, such as the reversal of the reduction in VAT on electricity or the increase in excise duties, but these cannot account for the entire difference.

Graph 2.2.3: **Inflation: services (% change year-on-year)**

Source: European Commission

Core inflation, which excludes energy and unprocessed food items, also differs substantially and persistently from that in the neighbouring countries (Graph 2.2.2). The main reason for this is higher growth in prices for services. The sticky service inflation illustrated in Graph 2.2.3 can be related to two specific factors with second round effects, reflected in higher core inflation. First, automatic wage indexation feeds through into service prices, as wages represent a high share of factor costs for services. Second, the practice of formal and informal price indexation is widespread in the service sector. According to the National Bank's 2012 study on indexation, for about 25 % of all services, prices are directly indexed by means of inflation, generally the health index.

Direct price indexation exists for rental prices, insurance fees, and rail transport, for example. Furthermore, many other companies apply a rule of thumb when setting prices, including adjusting prices in line with recent consumer price increases. This is more common in sectors less exposed to competition, i.e. services. The second-round effects these practices produce come to the fore in the relation between the health index and service prices. The correlation in 2006-2014 between the health index in the current month 'm' and inflation for services in month 'm+7' amounted to 0.8. The link weakens when the health index slows down, highlighting the downward rigidity of service prices.

The sub-optimal functioning of certain product markets, particularly in the retail trade, also contributes to the inflation differential. Price levels for both food and non-food products have been found to be substantially higher in Belgium than in neighbouring countries ([15]). Moreover, this gap has widened over the years, with prices rising faster in Belgium. The Federal Planning Bureau has identified the size of the Belgian market, purchasing conditions, labour costs and VAT rates as factors that could explain the absolute price difference ([16]). In addition, Belgian distributors' business strategies may stand in the way of price decreases, while consumers' higher quality standards could justify price differences ([17]). Yet at the same time, high population density and labour productivity are seen as having a mitigating impact on prices, as does the relatively higher presence of soft and hard discounters in Belgium. Taken in conjunction, these factors might indeed justify a somewhat higher price *level* in Belgium by comparison with neighbouring markets. However, they do not account for the higher price *growth* observed, especially in recent years, with standard

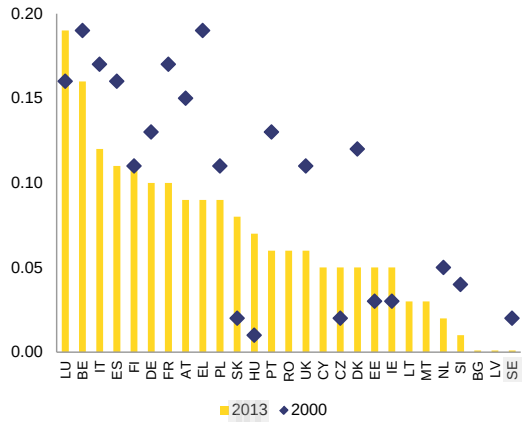
([15]) In 2012 prices for food and non-food items were 11.7 %, 8.6 % & 6.5 % higher than in the Netherlands, Germany and France. Source: Price Observatory (2014), INR/ICN Annual Report 2013. Data for shops > 400 m², excluding hard discounters.

([16]) van der Linden, J. (2012), Consumptieprijzen in België en de buurlanden, Working Paper 13-12, FPB.

([17]) Price Observatory (2015), INR/ICN, Annual Report 2014.

VAT rates in neighbouring countries having converged towards the Belgian level and favourable labour cost developments.

Graph 2.2.4: **Mark-ups in the retail sector**



Source: European Commission (Thum-Thysen & Canton, 2015)

High price-cost margins might also help explain price and inflation differences in the Belgian retail sector. Calculations by the Price Observatory (2015) for Belgium and the neighbouring countries found that, depending on the approach, the Belgian retail sector had the highest or second highest average operating margin in 2008-2012. The Belgian retail trade sector appears to have one of the highest price-cost margins in the EU (Graph 2.2.4). Such mark-ups are important indicators of frictions in goods markets and for capturing the degree of competition in product markets ([18]). In general, registration and licensing regulations seem to affect mark-ups in the retail sector the most ([19]). Regulation and competition in the retail sector are discussed in Section 2.3.

([18]) Griffith, R. & Harrison, R. (2004): The link between product market reform and macro-economic performance, European Commission, Economic Papers 209.

([19]) Thum-Thysen, A. & Canton, E. (2015), Estimation of service sector mark-ups determined by structural reform indicators, European Commission, Economic Papers 547.

2.3. INNOVATION AND BUSINESS ENVIRONMENT

R&D and innovation

Investments in intangible assets such as R&D go to make up what is known as knowledge-based capital ([20]). Unlike physical capital investments, intangible investments benefit from positive knowledge spill-overs and economies of scale. Investments in knowledge-based capital drive innovation and facilitate production of sophisticated products and services which are hard to copy and which guarantee participation in global value chains. Moreover, investments in knowledge-based capital play an important role in spreading ideas from global frontier firms to domestic firms by encouraging take-up of new technologies.

There is a consensus in Belgium about the critical importance of fostering the innovation-based competitiveness of Belgian businesses. This has been reflected by all political entities in the development of sophisticated and comprehensive policy mixes at national and regional levels and in significant budgetary efforts. At federal level, tax incentives for R&D are a major tool, which accounted in 2013 for two thirds of total public support to business R&D. However, public support policies remain fragmented, and lack of coordination between public authorities prevents trans-regional synergies from being fully exploited ([21]).

Belgium appears to be broadly on track to meet the Europe 2020 R&D intensity target of 3 %. R&D expenditure as a percentage of GDP has been increasing continuously since 2005. It came to 2.5 % of GDP in 2014, which is above the EU average. Most R&D spending stems from the business sector (1.8 % of GDP in 2014) and is concentrated in a limited number of industries, particularly high-tech ones (mainly pharmaceuticals and electronics). This suggests that Belgian industries that are already R&D-intensive have more incentive to accumulate knowledge-based capital than other industries ([22]).

However, indicators for innovation output give a mixed picture. While Belgium's public research system is performing well (4th position in the EU for the percentage of highly cited publications and 6th for the number of international scientific co-publications in relation to the size of the population), it appears not to translate sufficiently into innovation output and economic performance (Graph 2.3.1). Belgium's shortcomings, both in terms of its performance within the EU and in terms of innovative development, lie in its limited capacity to generate intellectual property rights and in the indicators capturing the 'economic effects' of innovation activity. Of these, only 'employment in knowledge-intensive activities' is above the EU average ([23]).

A critical issue is the lack of fast-growing firms in innovative sectors. High-growth firms make a significant contribution to job creation. With a share of employment in high-growth enterprises of only 5.9 %, Belgium is well under the EU average of 9.1 % (Belgium ranks 23rd in the EU for this indicator). In addition, many fast-growing Belgian firms do not operate in innovative sectors, but in sectors such as construction and transport. On the sub-indicator of the innovation output indicator ([24]) measuring the extent to which fast-

([20]) Three main categories of intangible assets are usually measured by: Computerised information (which includes software and databases), innovative property (covering R&D, design, mineral exploration, financial innovation and artistic originals) and economic competencies (including advertising, marketing research, own-account organisational capital and training). Corrado, C., Haskel J. and Jona-Lasino, C. (2014), Knowledge Spill-overs, ICT and Productivity Growth, IZA Discussion Paper n° 8274.

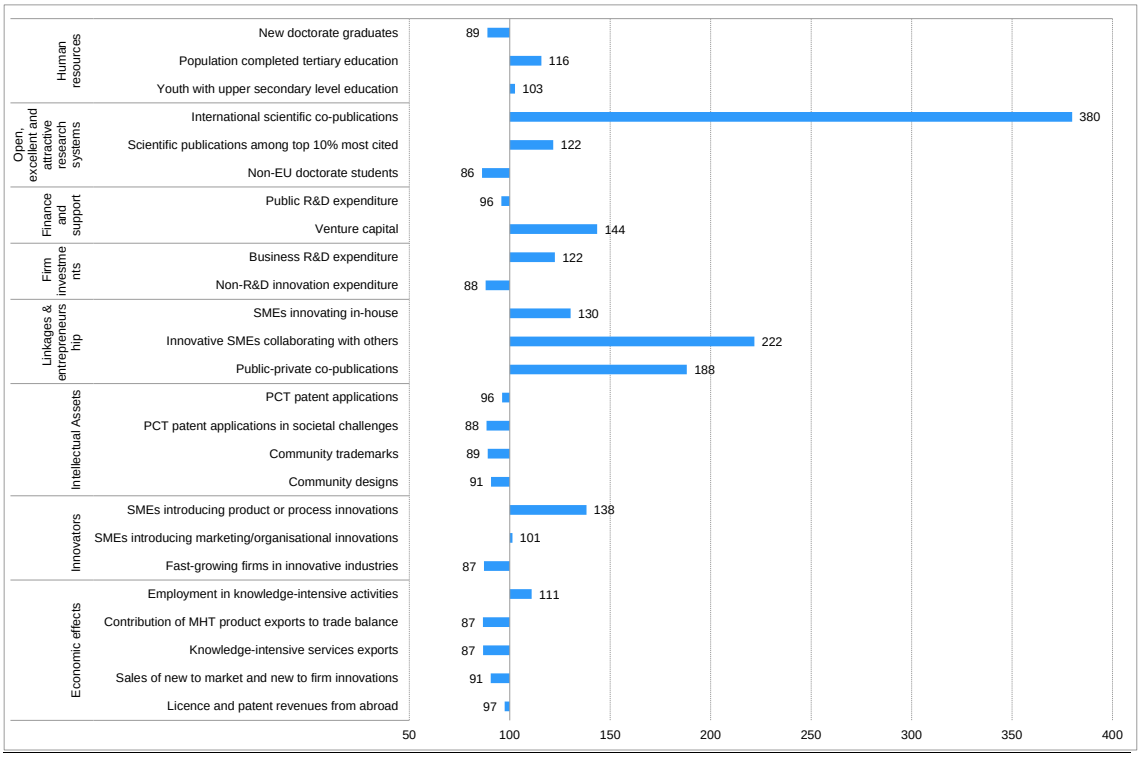
([21]) The main responsibility in Belgium for R&I policy and funding is with the regions and communities. The regions are the main source of innovation and business R&D support, while the communities are the main sources of scientific research support. The federal level does not function as an umbrella body above regional and community levels, but is an additional layer alongside the regions and communities. Taken together, there are five active levels of public governance for R&I policy (the Flemish government responsible for both community and regional policy).

([22]) Biatour, B. & Kegels, C. (2015), Labour productivity growth in Belgium Long-term trend decline and possible actions, Federal Planning Bureau Working Paper 06-15; Dumont, M. (2015), Evaluation of federal tax incentives for private R&D in Belgium: an update, Federal Planning Bureau Working Paper 05-15.

([23]) It must be noted that in this dimension, the below EU average performance in the share of medium to high technology exports and the share of knowledge-intensive services in services exports can be explained by the large volume of exports in some logistics, transport and trade-related services, which are linked to its geographical intermediation role and which are classified as non-knowledge-intensive.

([24]) The innovation output indicator measures the extent to which ideas stemming from innovative sectors are capable of reaching the market, providing better jobs and making

Graph 2.3.1: **Innovation performance in Belgium relative to the EU (EU = 100)**



Source: European Commission (Innovation Union Scoreboard 2015)

growing enterprises operate in innovative sectors, Belgium therefore scores below the EU average (16.9 vs. 18.8).

As human capital is the main engine of knowledge-based capital, a specific issue to be watched is the percentage of new science and engineering graduates, which is particularly significant in innovative, knowledge-based economies. In Belgium, the rate of tertiary education graduates in science, technology, engineering and mathematics per thousand population aged 25-34 lies far below the EU average — and the figures for France and Germany — even though it has risen slightly since 2008. This result is particularly worrying because, with the increasing use of intangible assets in the economy and with demographic ageing, new graduates will play a critical role in maintaining the available stock of highly skilled workers.

At community and regional levels, various measures have been taken to tackle the low share of new science and engineering graduates. In Flanders joint efforts involving the policy domains of science and innovation on the one hand, and education and training on the other, have been launched to increase the number of students in science, technology, engineering and mathematics (STEM subjects) and encourage them to opt for a career in exact sciences or technology (the STEM 2012-2020 Action Plan, see Section 3.1). The latest progress update shows some positive trends, notably with regard to the inflow and throughput rates in scientific and/or technology-oriented higher education. Progress is slow however among secondary school pupils and women ([25]). Wallonia's Beware Fellowships

Europe more competitive. The indicator is a composite of four sub-indicators and focusing on four policy axes: growth via technology (patents); jobs (knowledge intensive employment); long-term global competitiveness (trade in mid/high-tech commodities); and future business opportunities (jobs in innovative fast-growing firms).

([25]) STEM Monitor 2015.

support researcher mobility and promote awareness of science and technology among young people. The Marshall Plan 4.0 aims to align the supply of graduates in Wallonia better to business needs. One way it does this is to set up an inventory of 'professions of the future'. Policy attention has also increasingly turned towards attracting foreign researchers, in Flanders (Odysseus, Pegasus 2), Wallonia (Ulysse) and the Brussels Capital Region (Attract).

Business environment and entrepreneurship

Although Belgium provides a generally welcoming environment for SMEs and it is relatively easy to start a company ([26]) the country has a comparatively low start-up rate and performs poorly in terms of entrepreneurship and company dynamics. This hampers the necessary renewal of its economic fabric and the transition towards a more knowledge-intensive and innovation-driven economy given the key role of entrants in the formation of new ideas. This can be related to a higher 'fear to fail' rate in Belgium (49.4 %) than in the EU as a whole (40.7 %) and is not restricted to certain segments characterised by higher entry conditions, but applicable to the entire Belgian economy. Moreover, some tax aspects deter company dynamics.

Late payments by other companies and by public bodies hinder the ability to expand activities. The average payment term allowed by Belgian companies to other companies is 31 days, while it takes an average of 44 days for actual payment to take place. Delays are still worse when dealing with the public sector.

New initiatives and measures have been introduced to improve the low level of entrepreneurship readiness, addressing key areas such as education, mentoring, coaching, business plans, support to female and immigrant entrepreneurs and business transfers. In 2015 the federal government announced a 'Start-up plan' designed to help young innovative companies. It aims to make access to finance easier for starters via a tax shelter for start-ups, fiscal incentives for crowdfunding and lower labour and digital investment costs for starting companies. Such tax relief is an upfront incentive and could be a good way of attracting new investors, as the benefit is granted at the time of the investment decision, irrespective of investment performance. While the package is comprehensive and well targeted, the measures will need monitoring, particularly as the tax advantages should not amount to mere windfall gains or open loopholes. However, the package represents additional tax expenditure in a country where this is already an issue (see Section 3.2). In Flanders, thanks to the updated Action Plan 'Entrepreneurial education for 2015-2019', Flemish students with entrepreneurial ambitions will be able to obtain, from 2016, a 'certificate of management knowledge' while studying at a university or college. This is a formal requirement to start a business for people without a bachelor's degree, or who have not yet finished their undergraduate studies. The Entrepreneurship 3.15 plan of the Walloon region, published in December 2013, aims to develop entrepreneurial skills at an early stage by creating links with schools or higher education institutions, supporting teachers and encouraging the development of entrepreneurial schools.

To incentivise SMEs and independents to hire, the government has abolished employer contributions for the first (newly-hired) employee for an indefinite period. The existing reduction for the first five employees will apply for the 2nd to 6th new hire. The deduction for investments by SMEs, reintroduced in 2014 and 2015, becomes permanent as of 2016, and the rate goes up from 4 % to 8 % for new investments. These measures are expected to provide impetus to small companies: the National Bank estimates that this package will create 3 000 jobs over the next five years.

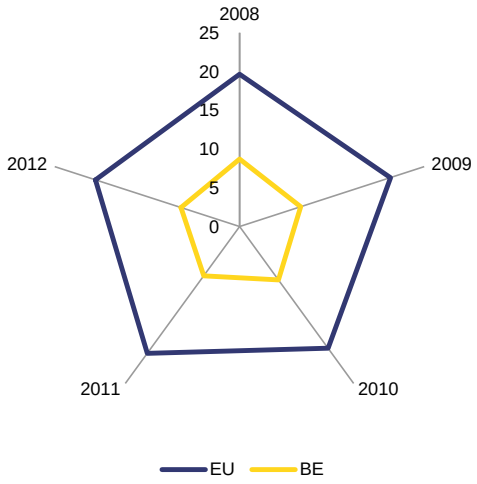
A single market for services

High regulatory barriers impede efficiency in several service sectors in Belgium. Overall

([26]) The World Bank's *Doing Business 2016* report ranks Belgium 7th among the EU for the ease of starting up a company in 2015. It takes 5 days to register and formally operate a private company compared with 10 on average in the EU and fewer procedures are also involved. Although online procedures have been simplified through electronic applications such as 'e-Depot' there is still some potential for simplification. In addition, paid-in minimum capital requirement for a small- to medium-sized limited liability company are relatively demanding compared to the EU in general.

regulation of professional services is among the most restrictive in the EU. Problems stem from restrictive authorisation requirements — companies are sometimes unable to provide a range of services due to multidisciplinary restrictions — insurance obligations and requirements as regards the legal form and shareholding. Occupations subject to such access and conduct barriers are architecture, accountancy and the real estate agents. Progress in lifting the most restrictive barriers, which is the prerogative of the regions, has been limited.

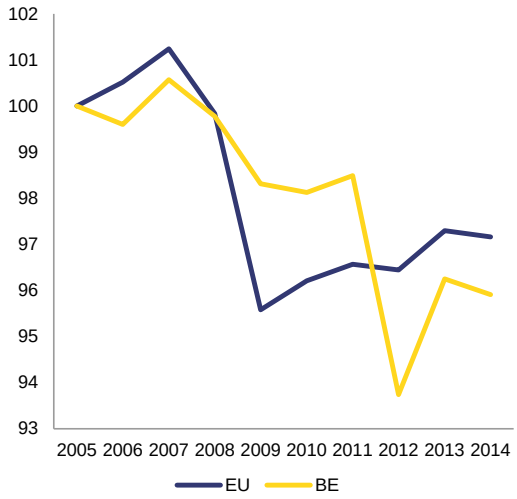
Graph 2.3.2: **Churn rates in business services — BE and EU averages (2008-2012)**



Source: European Commission

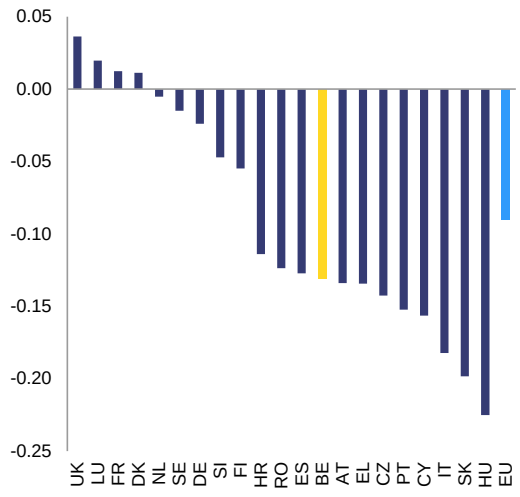
As a result, Belgium experiences subdued market dynamics and low competition in business services. Market entry rates and churn rates stand significantly below EU averages (Graph 2.3.2). Productivity in business services has deteriorated in recent years, endangering the competitiveness of these services (Graph 2.3.3). Finally, there are barriers to efficient allocation of resources in important business service sectors. This is confirmed by a significant negative level of allocative efficiency in these sectors (Graph 2.3.4) ([27]). Removing such barriers would enable productive companies to grow and capture higher market shares, and also create new opportunities for service providers to enter the market.

Graph 2.3.3: **Labour productivity developments in business services — BE and EU (2005-2014)**



Source: European Commission

Graph 2.3.4: **Allocative efficiency index for business services**



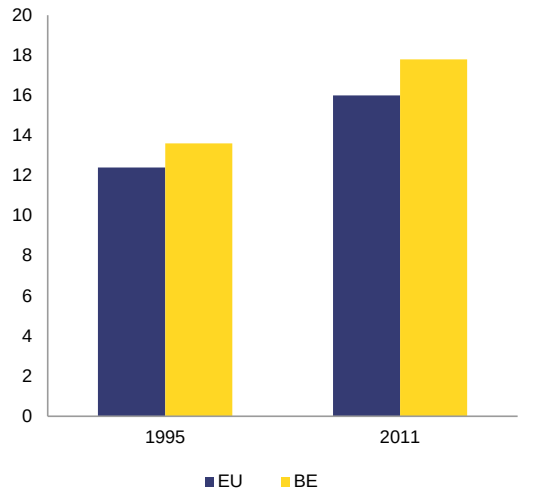
Source: European Commission

Improved efficiency and competition are key, given that business services are becoming

([27]) A positive (negative) number for allocative efficiency means that resources (employment) are allocated in a more (less) efficient way across the different categories of firm size relative to the baseline. Negative numbers show that there are forces in the economy that prevent competition from working properly, such as excessive regulation, rent-seeking, ineffective procurement and clientelism.

increasingly important as an input into Belgian industry. Almost 18 % of the value created by Belgian manufacturing comes from business service inputs (Graph 2.3.5). This is one of the highest shares among Member States. Improving the performance of business services will therefore have positive effects on other sectors as well. In the context of a mutual evaluation exercise, Belgian authorities have made an assessment of the restrictions on access to and exercise of regulated professions. The report concludes that no reform is at present needed but several analyses are underway to further assess the need to revise the regulation in place.

Graph 2.3.5: **Share of business services in the manufacturing value chain**



Source: WIOD; wiiw calculations; ECSIP, Study on the relation between industry and services in terms of productivity and value creation, 2014.

There is also scope to improve competition in the retail sector. Regulation of retail distribution in Belgium is considered 'less competition-friendly' by the OECD's Product Market Regulation. The recent regionalisation of competences does not seem to have brought a simplification so far. Points on which Belgium records more regulation and operational restrictions than peer countries are: regulation of large outlets, protection of existing firms, shop opening hours, and promotions and discounts. This suggests how fostering competition in the retail sector might induce positive price and productivity effects. In addition, the forthcoming Market Monitoring Survey finds that Belgian consumers are significantly less satisfied than the EU average with the number of retailers or products they can choose from. This is specifically the case for fast-moving retail markets, which provides further signs of a lack of competition in the sector ([28]).

Access to finance

In general, Belgium performs well on access to finance for SMEs. One reason for this is that there are public support schemes to increase credit availability through loan guarantees. Rejections of loan applications and unacceptable offers are among the lowest in the EU. Obtaining finance is less of a problem for Belgian SMEs than for their EU peers, thanks to cost premiums for small loans over large ones that are much lower than average and the lowest interest rates for many years. In fact, finding skilled or experienced staff is generally considered a more pressing problem than access to finance ([29]). The federal government has been promoting initiatives to improve the transparency and predictability of the credit process for SMEs through a binding code of conduct. SMEs with financial disputes can call on the Ombudsman to mediate with their bank and come to a solution.

However, micro-enterprises and start-ups continue to have difficulty in accessing bank credit to start their activities. The main reasons for this are the lack of collateral and own funds, and their limited capacity for repaying loans ([30]).

While access to start-up phase funding seems adequate compared to other European countries, the financing of later growth phases is less successful. Overall, risk capital, including start-up capital, is still weakly developed in comparison with international leaders and relative to the available investment opportunities. This is especially striking in view of the vast financial assets of the Belgian private sector, which are predominantly channelled through the banking sector to a small set of mostly risk-averse saving tools. Mobilising some of these savings could help

([28]) Market Monitoring Survey 2015, to be published in Consumer Markets Scoreboard 2016 (forthcoming).
([29]) ECB, Survey on the access to finance of enterprises in the euro area (SAFE), different editions.
([30]) SPF Economie (2014), P.M.E., Classes moyennes et Energie - Etude sur le financement des PME.

develop a deeper market for the financing of higher risk projects. It could, for instance, enable more use to be made within Belgium of basic research at Belgian research centres and universities.

Policy measures have been taken at both federal and regional level to give SMEs easier access to credit and foster private investment. These include microcredit, spin-off funding, access to equity, venture capital and business angels, and specific investments in creative industries. Efforts have also been made to fill the gaps in the legal framework for crowdfunding. Simplified legal requirements on prospectuses and an increase in the accepted amount for private investors seek to foster this form of finance and make it more appealing to casual investors. In Flanders, measures have been taken to support the business angels network, and Wallonia has introduced a new equity platform.

Responsive administration

Once companies are operating, a number of factors seem to discourage growth in Belgium. According to the World Bank's *Doing Business* indicators, the time and cost involved in transferring and registering property remains the biggest challenge in this area. The costs of transferring property are almost three times the EU average. Moreover, the transfer process is over a month longer. Big projects, in particular, often incur long administrative delays, given long procedural lead times for examination and evaluation.

Companies still consider the complexity of recurrent administrative procedures as a substantial problem for doing business in Belgium. The World Economic Forum's Global Competitiveness Index 2015 ranks Belgium 119th out of 140 countries for burden of government regulation. Compliance with permits, regulations and reporting is considered very burdensome. Eight EU countries perform worse; Belgium ranks behind France, while the Netherlands and Germany score much better. The Commission's Industrial Performance Scoreboard came to a comparable conclusion. An excessive administrative burden is a significant impediment for smaller businesses, which often have to outsource to specialised service providers as they do not have the resources or expertise to comply with regulation.

Several measures have been presented at the different levels to simplify administrative procedures and reduce the reporting burden on businesses, particularly small ones. A regulatory impact assessment, including an 'SME test', has been made mandatory for all federal draft regulation. Planned simplifications relate to the introduction of digital procedures and e-services, such as e-invoicing, e-salary slips, digital meal vouchers and electronic certificates for public procurement. According to the Digital Scoreboard (2015), digital public services are the only dimension assessed in which Belgium does not perform notably better than the EU average. To lighten the heavy administrative burden, the regions could also introduce and systematically apply regulatory impact assessments and the 'SME test'.

A recent study evaluated the 'quality' of Belgian legislation by criteria such as consistency, stability, clarity, effectiveness and the amount of paperwork that laws involve ([31]). It concludes that, tangible progress has been made over the past decade, although it has been limited over the last five years. A survey conducted at the same time among Belgian companies by the federal employers' organisation, FEB, reported no net improvement in the administrative burden. Progress with regard to e-procedures was outweighed by the increased complexity of labour legislation, social security and tax administration, and by a general lack of consistency across legislation.

Effective justice

There is substantial scope for improving the effectiveness of the justice system. In terms of efficiency, the rate of resolution of litigious civil and commercial cases is unsatisfactory. For administrative cases it is among the lowest of all Member States that provided data to the 2016 EU Justice Scoreboard. As courts resolve fewer cases

([31]) Idea Consult (2015), De kwaliteit van de regelgeving in België: knelpunt of hefboom voor competitiviteit?, study ordered by Fédération des entreprises de Belgique. Belgium is compared with Germany, France, the UK, the Netherlands, Denmark, Switzerland and Canada.

than they receive, this could lead to growing case backlogs. The time needed to resolve administrative cases at first instance is 625 days, which puts Belgium fifth from the bottom out of all reporting Member States. Since this is the first time that Belgium has reported efficiency data on the operation of its justice system, they cannot be analysed on the basis of a comparison with previous data.

The potential offered by ICT is not being exploited in the judiciary ([32]). The limited possibilities for online submission of claims, and the narrow scope of monitoring and evaluation of court activities, and of training of judges, are the main shortcomings in the justice system ([33]). This is all the more problematic given that Belgium has more incoming civil and commercial litigious cases per 100 inhabitants than any other EU country.

In March 2015 the government presented a comprehensive reform of the justice system to parliament. Its various components, which are scheduled for adoption by 2019, include initiatives to improve the use of ICT. As a first step, a reform of the civil procedural law entered into force in October 2015 which enables courts, lawyers, bailiffs and notaries to communicate electronically with each other in a legally valid manner.

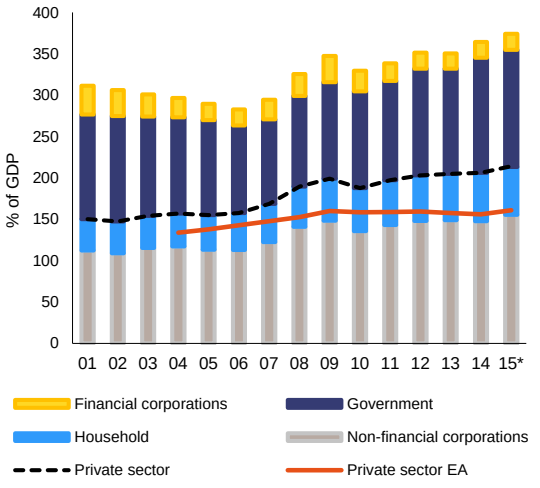
([32]) Council of Europe, Challenges for judicial independence and impartiality in the member states of the Council of Europe, January 2016.
([33]) 2016 EU Justice Scoreboard (forthcoming).

2.4. INDEBTEDNESS

Recent trends and macroeconomic risks

The Belgian economy has high levels of both private and public debt. Public debt, which rose between 2008 and 2014, is estimated to have fallen in 2015 to around 106 % of GDP (compared to an average of 93 % in the euro area), thanks to the reimbursement of a loan by the financial institution KBC (0.8 % of GDP). However, it is expected to rise again in 2016, contrary to the trend in the euro area. Strategies to put the public debt on a downward path have failed so far. Firstly, budgetary targets have often been missed, with only a limited improvement in the headline balance in recent years. The reasons for this are adverse economic circumstances and a lack of structural improvement, despite a strong decline in interest expenditure as explained below. Secondly, both low inflation and subdued economic growth have made it more difficult to reduce the debt-to-GDP ratio (denominator effect). Thirdly, the statistical reclassification of some investment vehicles within the general government sector has increased public debt levels, especially at regional level.

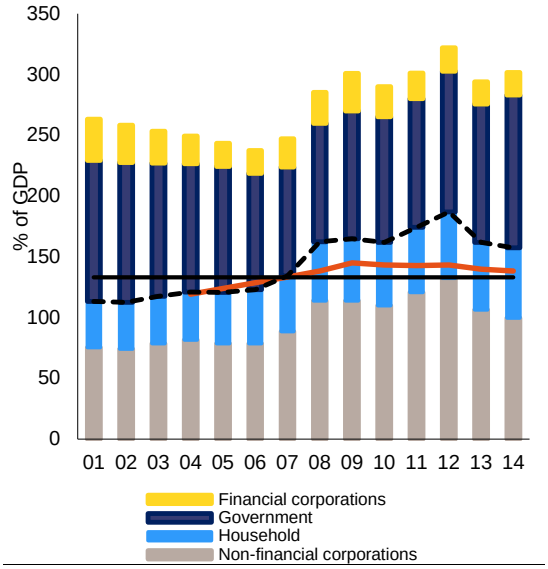
Graph 2.4.1: **Breakdown of debt by sector (non-consolidated)**



Source: European Commission

Private debt is also relatively high, with (consolidated) debt at 157 % of GDP in 2014 compared to 138 % of GDP in the euro area. This stems mainly from the high indebtedness of non-financial corporations, which exceeds the euro area average, both in non-consolidated (Graph 2.4.1) and in consolidated terms (Graph 2.4.2) (respectively 148 % of GDP and 100 % of GDP in Belgium, compared to 96 % of GDP and 79 % in the euro area). After strong positive credit flows between 2011 and 2013, net credit flows to non-financial corporations turned negative in 2014 (see Graph 2.4.3), contributing to a drop in the debt-to-GDP ratio of non-financial corporations.

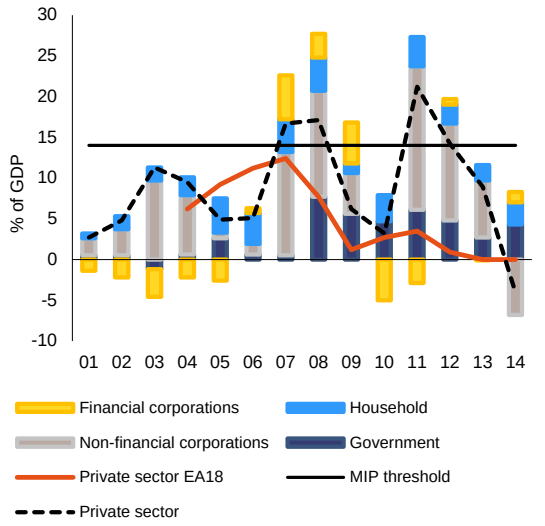
Graph 2.4.2: **Breakdown of debt by sector (consolidated)**



Source: European Commission

Previous country reports have showed that this high level is explained by substantial intra-group lending, which is encouraged by the allowance for corporate equity ('notional interest deduction') in the corporate income taxation. This intra-group lending is not fully neutralised in the consolidated figures as some of it consists of cross-border operations. Moreover, since the changeover to the ESA2010 methodology for national accounting, some financial subsidiaries are no longer classified as non-financial corporations but as financial corporations, so their lending to non-financial subsidiaries of the same group is also included in the consolidated debt figure. Such intra-group loans do not bear macroeconomic risks for the Belgian economy, but are purely accounting operations inside big corporations.

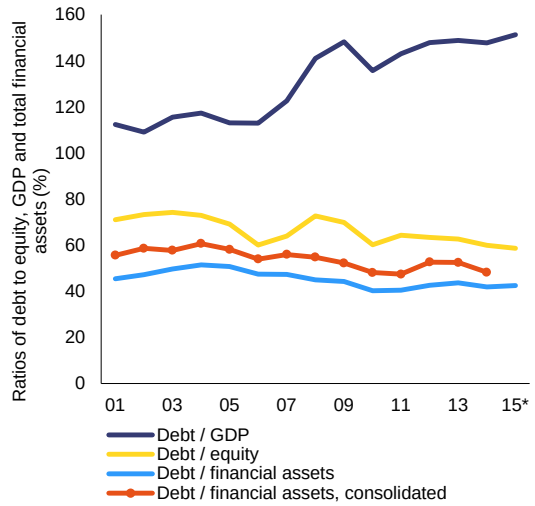
Graph 2.4.3: **Credit flows**



Source: European Commission

The increase in debt of non-financial corporations went hand-in-hand with an accumulation of financial assets. The debt-to-equity and debt-to-financial assets ratios therefore show a broadly flat trend over the last decade (Graph 2.4.4), in contrast to the trend in the debt-to-GDP ratio.

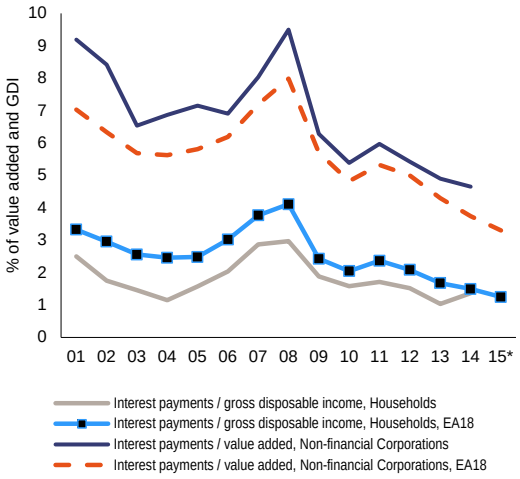
Graph 2.4.4: **Leverage of non-financial corporations**



Source: European Commission

Household debt continued to increase, supported by positive credit flows, from around 40 % of GDP before the crisis to 58 % now. While it remains below the euro area average of 60 % of GDP, the difference has been narrowing since 2010, when deleveraging in the euro area started. The increase in Belgium is entirely due to an increase in mortgage loans.

Graph 2.4.5: **Interest burden**

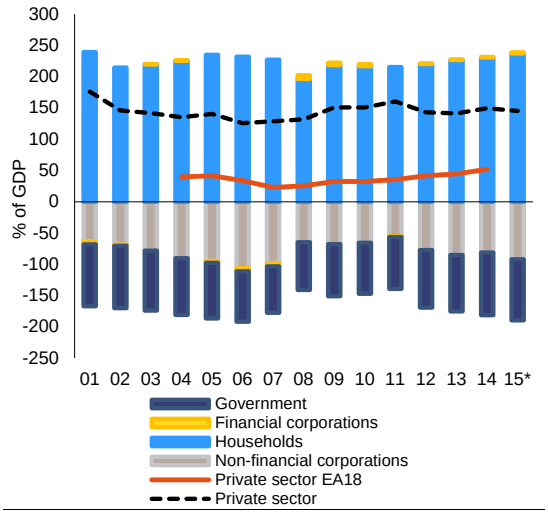


Source: European Commission

Both households and corporations have benefited from the low market rates to reduce their interest burden in recent years, despite the rise in debt levels (Graph 2.4.5). Over 60 % of outstanding mortgage-related household debt, which constitutes the bulk of household debt, is contracted at a fixed rate. This means that a sudden rise in market rates would only gradually affect the interest burden of households, so risks are contained.

Macroeconomic risks related to the high debt levels are also tempered by the overall net financial asset position of the economy (50 % of GDP compared to a net debt position of 10 % of GDP on average in the euro area) (Graph 2.4.6). The net financial debt of the non-financial corporations and government is more than offset by the high net financial wealth of Belgian households, which has increased steadily since 2012.

Graph 2.4.6: **Net asset breakdown**



Source: European Commission

Interlinkages between the public and financial sector

Interlinkages between the public and the financial sector exist in both directions. The Belgian government sector still carries sizeable contingent liabilities due to guarantees granted to the financial sector, although they have been substantially reduced since 2012. The only outstanding guarantee is now the scheme for Dexia, which is partly owned by the Belgian state. The amount of guaranteed liabilities peaked in February 2015 at EUR 42 billion (10.3% of GDP) and has gradually fallen since then, to EUR 32 billion (7.5% of GDP) at the beginning of February 2016.

Belfius, one of the four large banks on the Belgian market, is owned by the federal state while the insurance company Ethias is owned by federal and regional authorities. New capital needs of these corporations might adversely affect government gross debt levels. As part of its financial recovery plan ([34]), the insurer Ethias increased its subordinated debt by converting EUR 250 million of perpetual bonds in June 2015 and raising an additional EUR 150 million of subordinated bonds in October 2015. At the end of 2015, KBC reimbursed the last instalment of state aid it received in 2009 (EUR 2 billion of capital and EUR 1 billion of compensation).

Conversely, Belgian banks and insurance companies are sensitive to a possible widening of spreads on Belgian government debt. The concentration of Belgian banks and insurers' assets on domestic bonds increased strongly between 2010 and 2012, when they sharply reduced their exposure to public sector bonds from peripheral euro area countries. Even though the concentration decreased somewhat afterwards, it remains relatively high. At the end of 2014, Belgian banks held around EUR 120 billion of Belgian public debt instruments, representing 52 % of their total public debt holdings and 12 % of total bank assets. Moreover, the assets of Belgian insurance companies show a home bias, with Belgian government bonds amounting to EUR 57 billion or 55 % of total public sector bonds considered as covering assets.

As provided for by the Capital Requirements Directive IV and the Belgian Banking Law, the National Bank of Belgium has decided to apply capital surcharges to the eight Belgian banks designated as other systemically important institutions ([35]). According to the Belgian banking association, this new capital surcharges should not necessitate any new capital raise for its members in the short term. Apart from Dexia and Axa Bank Europe, Belgium's eight systemically important institutions were profitable in 2014. Their capital adequacy ratios are relatively comfortable, ranging from 14.7 % to 24.8 %, while their Fitch ratings range from BBB+ (Belfius) to AA+ (Euroclear). Asset quality is improving as their non-performing loans ratios are low and decreasing, ranging from 2.30 % (Belfius) to 9.54 % (KBC Group).

The high legal interest rates on supplementary pensions (so-called 'second pillar' pensions) could negatively impact life insurers' solvency. In October 2015, social partners agreed to lower

([34]) In the context of the EU-wide Stress Tests conducted in 2014 by the European Insurance and Occupational Pensions Authority, the National Bank of Belgium (NBB) had found that Ethias will have a particularly low solvency ratio under the Solvency 2 prudential requirements that enter into force in 2016. In that context, the NBB had requested from Ethias to draft a financial recovery plan.

([35]) 0.5 % for BNP Paribas Fortis, KBC Group, ING Belgium, and Belfius Bank; 0.75 % for Axa Bank Europe, Argenta, Euroclear and The Bank of New York Mellon (BNYM).

the interest rate to be guaranteed by employers from 3.25% (and even 3.75% for contributions by employees) to minimum 1.75 %. In January 2016, the government from its side lowered the maximum interest rate for long term life insurance contracts to 2%, which is above the rate of 1.5% recommended by the National Bank of Belgium. However, if the current very low interest rate environment is to endure, employers and insurers might still face challenges to realize the guaranteed return over the lifespan of the contract.

Focus on the public debt

As mentioned above, Belgium's gross public debt level substantially exceeds the threshold of 60 % of GDP of the macroeconomic imbalance procedure and Stability and Growth Pact. Subdued economic growth and a lack of structural improvement have led to budgetary targets being systematically postponed in recent years and to further increases in public debt. Moreover, the particularly low inflation environment in recent years — through its impact on the development of the denominator in the debt-to-GDP ratio — has contributed to a negative debt snowball effect. Lower interest rates, on the other hand, have translated only gradually into lower implicit interest rates on the outstanding debt stock (see below).

Around 83 % of Belgium's public debt is at central level, and it is almost entirely denominated in euro. The average maturity of central government's debt portfolio increased markedly in recent years, from around 6 years at the beginning of 2010 to almost 8 years at the end of 2015, which tempers interest rate risks. The implicit interest rate declined gradually over the same period, from around 4 % to 2.8 %. Around 16 % of the central government debt needs to be refinanced in 2016 and is thus subject to interest rate risks. Refinancing risks will rise slightly in 2017 as a relatively large number of bonds mature in that year.

While the macroeconomic risks of the high public debt are tempered by the healthy state of the private sector, the high government debt level remains a vulnerability for the economy, as it reduces the government's leeway for stabilizing economic policies. Moreover, the high debt service could drive out more productive government expenditure. Lastly, with its high public debt, Belgium finds itself in a more challenging starting position to cope with the expected budgetary impact of an ageing population. While most of the public debt is at federal level, this level also bears the bulk of age-related expenditure such as pensions and healthcare. Responsibilities for long-term care have recently been devolved to the communities.

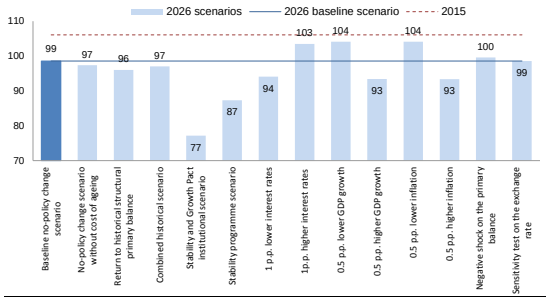
Unexpected events or an adverse interest snowball due to low growth or an increase in interest rates could affect public debt developments. In the short term (within one year), Belgium does not appear to face any significant risk of fiscal stress arising from its fiscal or its macro-financial situation ([36]). Nevertheless, some variables point to possible short-term challenges, such as the level of gross financing needs and the relatively high share of public debt held by non-residents (around 60 % in October 2015).

In the medium term (10 years), sustainability risks appear to be high because debt is expected to remain around 100 % of GDP at unchanged policy and because of the sensitivity to possible shocks in nominal growth and interest rates (Graph 2.4.7). Jointly simulated macro-financial and fiscal shocks point to nearly 40% probability that the debt ratio in 2020 will exceed the 2015 level, entailing high risks given the high starting level. High medium-term risks also emerge from the analysis of the sustainability gap indicator S1 ([37]), due to the current debt level, and, to a lesser extent, due to the projected age-related public spending. A cumulated fiscal adjustment of 3.8 pps. of GDP, relative to the baseline scenario (at unchanged policy), would be required between 2017 and 2022 to reach the reference value of a 60 % debt-to-GDP ratio by 2030.

([36]) European Commission (2016), Fiscal Sustainability Report 2015, European Economy Institutional Paper, no. 18.

([37]) The S1 indicator measures the required fiscal adjustment needed between 2017 and 2022 to drive the public debt ratio down to 60 % of GDP by 2030.

Graph 2.4.7: **Alternative projections of gross public debt — 2026 (% GDP)**



(1) see http://ec.europa.eu/economy_finance/publications/eeip/pdf/ip018_en.pdf for details about the different scenarios
Source: European Commission

In the long term, there would appear to be medium fiscal risks, given the unfavourable initial budgetary position and the projected cost of ageing (see below). At unchanged policy, a fiscal adjustment of more than 2.7 pps. of GDP would be required to ensure the sustainability of public finances in the long run, mainly due to the projected increase in age-related expenditure, such as long-term care, pensions and, to a lesser extent, healthcare. Thus, although the recent pension reforms have substantially reduced the projected rise in public pension spending, curbing the projected increase in age-related spending further through reforms would improve fiscal sustainability in the long term.

Key factors in successful debt reduction are thus a return to sufficiently high primary budget surpluses, an increase in potential GDP growth and structural reforms to keep expenditure growth —particular that due to ageing — under control. While the sale of government assets could also bring down gross debt levels, it would have no impact on net debt levels, as the debt reduction would be offset by a reduction of the assets held by the government. In addition, it could also have an adverse impact on future dividend revenues from state-owned companies.

According to the Commission's 2016 winter forecast, Belgium's structural budget deficit is projected to fall to 2.4 % of GDP in 2016. Under the current economic circumstances, this is insufficient to reduce the level of the debt. Bringing the structural budget balance to the Medium-Term Objective of a surplus of 0.75 % of GDP would put the debt level on a downward path and pre-finance part of the projected ageing costs. An additional consolidation effort of almost 3 % of GDP would therefore be needed.

Since the tax burden is already relatively high, there seems to be little scope to increase overall revenues substantially without damaging competitiveness and employment. Nevertheless, there are several areas (see Section 3.2) where streamlining the tax system might generate some additional revenues or create positive externalities. Examples include making more use of environmental taxation and abolishing the favourable tax treatment of company cars.

Primary government expenditure rose considerably between 2008 and 2013, when it peaked at 52.3 % of GDP. It has gradually fallen since then as a result of consolidation measures and reforms, a trend which is expected to continue in the coming years. A fundamental rethinking of the way the government works might bring additional savings on top of the traditional linear cuts. Safeguarding productive public investment from the consolidation effort would avoid a negative impact on future economic growth.

Given the decentralised government structure and the absence of hierarchy between different levels of government, a successful consolidation strategy requires an efficient budgetary coordination. Belgium has therefore been recommended to ensure that fiscal targets are binding on all government levels. So far, the country has made only limited progress on this front. The Cooperation Agreement concluded at the end of 2013 has not yet fully been implemented, of the main reason for this being the failure to agree a binding distribution of the targets included in the 2015 Stability Programme. Consequently, the Public Borrowing Section of the High Council of Finance, which is tasked with monitoring, inter alia, compliance with the agreed distribution of targets, cannot play its monitoring role to the full. This means that it cannot activate the correction mechanism in the event of significant deviation as laid down in the Cooperation Agreement. Better coordination could make the consolidation strategy more credible and could be conducive to more efficient and sustainable public finances. Furthermore, the more

extensive responsibilities conferred on the High Council of Finance (Public Borrowing Section) by the Cooperation Agreement also require concrete arrangements to ensure the High Council's autonomy vis-à-vis the various governments and the Ministry of Finance.

In recent years, Belgium has made important progress in reforming its pension system. However, pensions still require attention, especially given the high level of public debt. The law of August 2015 on the rise in pensionable age, the conditions for early pensions and the minimum age for survivors' pensions establishes a new minimum age and career lengths criteria for ordinary pensions. The government has also announced its intention to introduce a credit-based pension system allowing for automatic adjustment mechanisms in response to demographic and/or economic developments.

According to the projections of the Ageing Working Group, pension expenditure is projected to rise by 1.3 percentage points (pps.) of GDP between 2013 and 2060, compared to 3.3 pps before the 2015 reforms. The difference is mostly due to the pension reform itself (-1.6 pps. of GDP), while other measures, namely the index jump and lower public employment (-0.4 pps. of GDP) will also curb growth in expenditure. This improvement in ageing projections might also lead to a lower minimum medium-term objective in the context of the Stability and Growth Pact. Moreover, more sustainable public finances could create budgetary space for public investment.

To sum up, the debts of both non-financial corporations and the government are relatively high in Belgium. On the other hand, household debt is fairly limited, and the economy is overall in a healthy net asset position, which limits the macroeconomic risks. Moreover, the relatively high debt of non-financial corporations is explained by the presence of financial subsidiaries of large groups in Belgium. Large financial flows inside these groups distort the debt figures of Belgium's non-financial corporations. Belgium's high public debt is currently not considered as an imbalance from a macroeconomic point of view, but remains a budgetary challenge. To safeguard sustainability, further consolidation efforts are needed to bring down the deficit and put the debt on a firm downward path. Given the decentralised government structure and absence of hierarchy between different levels of government, a successful consolidation strategy requires efficient budgetary coordination.

2.5. MIP ASSESSMENT MATRIX

This MIP Assessment Matrix summarises the main findings of the in-depth review in the country report. It focuses on imbalances and adjustment issues relevant for the macroeconomic imbalance procedure.

Table 2.5.1: **MIP Assessment matrix (*) — Belgium**

	Gravity of the challenge	Evolution and prospects	Policy response
	Imbalances (unsustainable trends, vulnerabilities and associated risks)		
Competitiveness	External performance has deteriorated since 2000, as illustrated by global market shares losses. Analysis points to problems of competitiveness and quality *(pp. 13-14).* Unit labour costs (ULC) have risen fast as a result of low productivity growth and, in particular, fast wage growth. Fast wage growth can be attributed to the wage-setting system. Margins for real wage growth were repeatedly set too high. Inflation also repeatedly exceeded expectations and inflation in neighbouring countries. This was transmitted through the general practice of automatic wage indexation. Together these factors eroded the effectiveness of the highly coordinated wage-setting system *(p. 20).* The structural difference in core inflation with neighbouring countries undermines the sustainability of wage indexation. It is mainly caused by higher price growth for services *(p. 24)* and a suboptimal functioning of the retail market (*p. 24; 30).*	The downward trend has been halted in 2013. Accumulated losses remain substantial, though: 27 % of market shares were lost between 2000 and 2014 *(p. 13).* The absolute ULC gap reached a peak of 9 % in 2013 and narrowed to 6 % in 2015 *(p. 17).* Since Q2-2014 a trend reversal has emerged with a marked slowdown in hourly labour cost growth. In the first nine months of 2015 they rose by just 0.1 %, compared with 2.0 % in the neighbouring countries *(p. 16).* Labour cost growth is set to remain muted in 2016 with modest wage growth offset by reductions of non-wage labour costs. Following a fading of price pressures in 2013-2014, which helped to contain wage growth, inflation has risen gradually. It is forecast to increase from 0.6 % in 2015 (0.0 % in the euro area) to 1.4 % in 2016 (0.5).	The slowdown in labour cost growth follows measures to temper wage growth: (i) real wage increases have been curtailed since 2011; (ii) a suspension of wage indexation schemes since April 2015, entailing a real wage correction by 2 %; (iii) a tax shift to lower non-wage labour costs, including sizeable social security reductions for employers in 2016-2019 *(pp. 20-22).* Locking in the gains made and preventing past problems from reoccurring hinges on a reform of the wage-setting framework. Remaining policy gaps relate to (i) enacting the envisaged reform of the Law of 1996; (ii) a better reflection of productivity in wage-setting; (iii) addressing the drivers behind the inflation differential to prevent price-wage cycles (*pp. 22-24*).
	Low productivity growth has important consequences given the absence of a direct link with wage growth. It can be related to a mediocre performance on a number of aspects that constrain the economy's long-term growth potential: - a low share of fast-growing firms in innovative sectors in spite of a high-quality research system *(p. 26)*; - a shortage of skilled professionals, notably in sciences and engineering *(p. 27)*; - a business climate hampered by low levels of entrepreneurship readiness *(p. 28)*, a heavy administrative burden that inhibits company expansion *(p. 31)*, regulatory barriers in the services sectors *(p. 28)* and the quality of judicial processes *(p. 32)*; - a deteriorating quality of public infrastructure as a result of structurally low public investment in combination with the failure to timely address bottlenecks *(pp. 9-10)*. These elements play a role in the swelling congestion problem *(p. 57).*	Belgium is broadly on track to meet the R&D intensity target of 3 % *(p. 26)*. Public support remains fragmented *(p. 26).* The percentage of graduates in science, technology, engineering and mathematics (STEM) is far below the EU average *(p. 27).* The administrative burden does not appear to have been reduced. Progress with regard to e-procedures was outweighed by the increased complexity of labour legislation, social security and tax administration, as well as a general lack of consistency across legislation *(pp. 31-32).* Public investment reached 2.4 % of GDP in 2008-2015, slightly up from a pre-crisis average of 2.1 % of GDP. Net public investment has on average been zero since the 1990s, eroding the quality of public infrastructure *(pp. 9-10).*	Comprehensive innovation policies have been put in place and a budgetary effort has been made in favour of R&D *(p. 26).* Measures were taken to promote STEM curricula *(p. 27).* Efforts were made to simplify administrative procedures and reduce the reporting burden on (small) companies. Intended simplifications relate to the introduction of digital procedures and e-services *(p. 31).* The government has presented a comprehensive reform of the justice system, scheduled for adoption by 2019 *(p. 31).* A timely and resolute approach to address infrastructure bottlenecks would help to lift productivity growth. The same holds for further product market reforms, in particular in the services sector *(pp. 29-30).*

(Continued on the next page)

Table (continued)

Public debt	A steady decline of the public debt ratio ended in 2007, at 87 % of GDP, as the authorities were forced to support failing financial institutions and the economic crisis pushed public finances deep into the red. Subdued economic growth and low inflation have also hampered efforts to stabilise public debt since *(p. 33).* A high public indebtedness could create macroeconomic vulnerabilities considering that it reduces the government's fiscal space and requires high taxation to service the debt burden *(p. 36).* Negative feedback channels exist through sizeable contingent liabilities related to financial sector guarantees (8 % of GDP at the end of 2015) and a concentration of Belgian banks and insurers on domestic bonds *(pp. 35-36).*	Public debt has exceeded 100 % of GDP again since 2011. In recent years debt has stabilised at around 107 % of GDP *(p. 33).* Planned fiscal consolidation and higher nominal growth should allow a reduction of the debt ratio as of next year. However, in the longer term the reduction of the debt ratio is hampered by the impact of an ageing population *(p. 37)* Contingent liabilities linked to the financial sector are set to decrease further, thereby gradually lowering related risks. Medium-term sustainability risks appear manageable given low financing costs, the resumption of primary surpluses and the relatively long average maturity of the debt stock. Macroeconomic risks are further tempered by the net creditor position of the private sector *(pp. 35-36).*	Strict implementation of budgetary plans and pension reform plans is a prerequisite for putting the debt on a firm downward path and ensuring sustainable public finances in the long run. The pursuit of a sufficiently ambitious structural reform agenda would support this process as it would lift growth in the long run.

Conclusions from IDR analysis

- Belgium's external performance has been hampered by a prolonged deterioration of competitiveness. On the one hand, productivity growth has dwindled, reflecting bottlenecks in innovation, business environment and public infrastructure. On the other hand, wages moved fast because of the wage-setting system. The crisis interrupted the long cycle of public debt reduction and saddled public finances with sizeable contingent liabilities.
- While the loss of external competitiveness continues to pose macroeconomic risks, the magnitude of these risks has been declining in recent years. Public debt has stabilised at a high level. Debt reduction implies a more demanding fiscal effort amid a context of subdued nominal growth. Several factors significantly temper associated macroeconomic risks in the short term.
- Corrective measures have narrowed the relative labour cost gap. Continued wage restraint and the reduction of social security contributions are set to result in further competitiveness gains in the coming years. However, preventing new gaps from emerging hinges on reforms of the wage-setting framework. Regarding public indebtedness, continued fiscal consolidation will be needed to put the debt on a firm downward path and ensure long-term sustainability.

(*) The first column summarises 'gravity' issues which aim at providing an order of magnitude of the level of imbalances. The second column reports findings concerning the 'evolution and prospects' of imbalances. The third column reports recent and planned relevant measures. Findings are reported for each source of imbalance and adjustment issue. The final three paragraphs of the matrix summarise the overall challenges, in terms of their gravity, developments and prospects, and policy response.
Source: European Commission

3. ADDITIONAL STRUCTURAL ISSUES

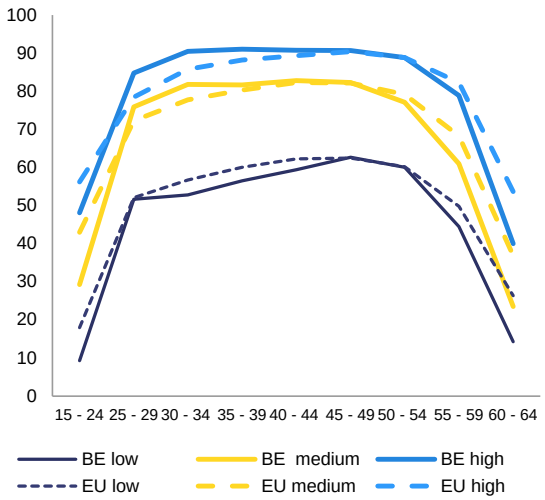
In addition to the macroeconomic imbalances and adjustment issues addressed in section 2, this section provides an analysis of other structural economic and social challenges for Belgium. Focusing on the policy areas covered in the 2015 country-specific recommendations, this section analyses issues related to the labour market, the taxation system, and transport, energy, and environment.

3.1 LABOUR MARKETS, SOCIAL POLICIES, SKILLS AND EDUCATION

Labour market

The Belgian labour market has shown a mixed performance in recent years. While the unemployment rate has consistently remained below the EU average, the employment rate has stagnated at around 67 %. This compares with Belgium's employment target of 73.2 % by 2020 and the euro area average of 69.3 % in Q3-2015. After several quarters of decline, employment started growing again from Q1-2014, albeit at a slower pace than elsewhere in the EU.

Graph 3.1.1: **Employment rates in function of skills levels and age (2014)**



Source: European Commission

The Belgian labour market also stands out for its sizeable employment differentials between various groups. The employment rates of prime age middle and highly qualified workers are generally above average (Graph 3.1.1), while low skilled workers, older workers, second generation migrants and young people clearly underperform in this respect (Table 3.1.1). Bringing the respective employment rate of these specific groups in line with the EU averages would yield substantial increases in the overall employment rate of Belgium.

Table 3.1.1: **Employment rate for Belgium and EU for different labour force population groups**

group	Population in Belgium (in thousands)	Employment rate (in %)	
		Belgium	EU
Low skilled	1609	46.6	51.8
Young people	694	39.6	48.4
Young - low skilled	109	33.7	42.6
Young medium skilled	406	37.4	47.9
Older workers	1405	42.7	51.8
2nd generation migrants	680	59.5	67.9
Labour force population	6639	67.3	69.2

note: groups are not mutually exclusive
Source: European Commission

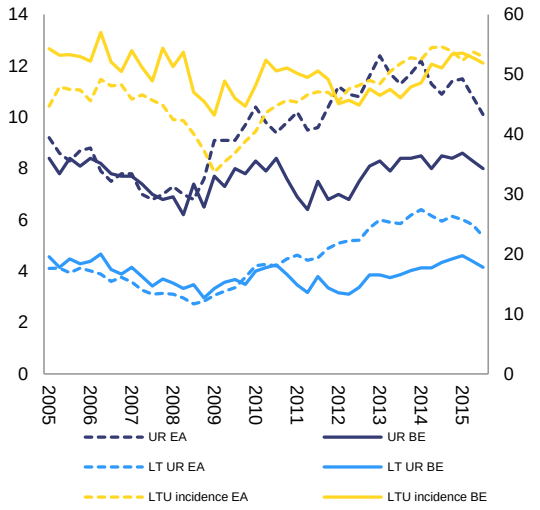
Belgium's unemployment rate has remained broadly stable in recent years and below the euro-area average. The long-term unemployment rate — the share of long-term unemployment in the total labour force — hovered around 4 %, whereas the euro area rose from 4.3 % to 5.3 % between 2010 and Q3-2015. However, long-term unemployment incidence — the share of long-term unemployment in total unemployment — rose to 52 % of total unemployment in Q3-2015 (Graph 3.1.2).

Belgium continues to face low labour utilisation, sizeable and persistent labour shortages and skill mismatches. Job vacancy rates remained high throughout the crisis and were the highest in the EU in Q3-2015. The dispersal of employment and unemployment rates across broad skills groups is among the highest in the EU, indicating the presence of skills mismatches. The latest European Company Survey found that about 60 % of Belgian firms claimed to have difficulties in finding staff with the necessary skills ([38]). Belgian employers

([38]) This is the 5th highest level in EU. Cedefop (2015), Skill shortages and gaps in European enterprises: striking a

are among those who most frequently reporting skills shortages as the greatest challenge in filling vacancies. Moreover, for the last ten years, the list of the hardest jobs to fill has hardly changed. Skilled trade workers top the list of workers most sought after in the three regions.

Graph 3.1.2: **(Long-term) unemployment rate (LHS) and long-term unemployment incidence (RHS)**



Source: European Commission

The policy response at federal level has focused on reducing overall labour costs, strengthening financial incentives to work and activating older workers. With regard to the latter, the authorities have taken further steps since the beginning of 2015 to gradually phase out early exit through the old-age social security system by tightening eligibility requirements and making re-entry into the labour market a more attractive option. It has also enacted a rise in the pensionable age from 65 to 67, to take effect by 2030. To boost overall employment growth, the government has pursued and accelerated the wage moderation policies initiated under the previous legislature and started gradually reducing the employer's social security contributions (see Section 2.2.). To reduce disincentives to work, the 2012 reform of the unemployment benefit system stipulated that benefits would fall more steeply over time. Subsequent steps focused on low wage earners (work bonus ([39])), older workers and the part-time unemployed. In addition, other measures, such as raising the ceiling for professional costs, or some of the tax shift provisions, also help reduce the tax wedge on labour by lowering personal income taxes ([40]).

These measures should help reduce the unemployment, inactivity and low wage traps which, according to the latest available data, remain high. They are particularly sizeable for single parents and people living alone, especially at lower wage levels. In 2013, the inactivity trap for second income earners (i.e. the rise in effective tax rates for those moving from inactivity to employment) was, at 49.2 %, the second highest in the EU. Belgium has the highest low-wage trap for second income earners (when the second earner's income rises from 33 % to 67% of the average wage or when a part-time worker increases his/her hours) in the EU, at 58.8 %. Both traps are measured for a second income earner in a family with two children where the principal earner earns the average wage ([41]). Both traps reflect the joint income taxation for cohabiting or married couples through the so-called *'marital quotient'* ([42]). This tax advantage for couples can discourage second income earners from engaging in the labour market or increasing the number of hours worked. It mainly affects women, whose part-time employment rate as a percentage of total female

balance between vocational education and training and the labour market.

([39]) The 'social work bonus' is a reduction of the low-waged employee's social security contributions. This means net income can be increased without affecting the total labour cost. The 'fiscal work bonus' is a fiscal mechanism to prevent this extra income from being taxed away. Both instruments have been reinforced several times in recent years. The two latest reinforcements entered into force in August 2015 and January 2016. Further increases have been agreed for 2019.

([40]) Such as the twofold increase of the ceiling for tax deductible professional expenses (as of 01/2015 and as of 01/2016), and the stepwise scrapping of the 30 % income tax bracket (as of 01/2016 and to be completed by 2019).

([41]) They are defined as the rate at which the additional gross income of a transition from inactivity to paid employment or of working additional hours is taxed.

([42]) In principle, spouses are taxed separately. The marital quotient allows cohabiting or married partners to pool their earnings and to assign part of the taxable income earned by the partner with the highest income to the partner who has no income or only a limited income of their own. As a consequence, it is taxed at a lower rate, given the progressive nature of personal income taxation. However, the couple can no longer benefit from the marital quotient if the partner with the lower earned income earns more than 30 % of the couple's total earned income.

employment is far above the EU average (41.4 % vs. 32.8 % in 2014).

The three regions and the German speaking Community are simplifying, streamlining and reforming the employment policy instruments. As a result of the 6th State Reform ([43]), various additional employment policy levers have been transferred to the regional and community levels as of July 2014, including monitoring of job search requirements, apprenticeship support schemes as well as employment incentives for specific target groups. As aggregate labour market figures for Belgium hide stark regional differences, the devolution of power has triggered reflections on how to optimize the fit between the existing target group policies and the regional labour market realities. In Flanders, the government has proposed a Draft Decree beginning of 2016 which retains reduced employer social security contributions for low- and middle schooled workers below the age of 25 (subject to a wage ceiling), for workers above the age of 55 and for people with a disability. The regional social partners, meanwhile, have concluded an agreement which aims for a thorough streamlining of the various qualitative support measures for those most removed from the labour, including through in-company learning *("werkplekleren")*, job coaching *("tijdelijke werkervarings-programma's")*, as well as subsidized work experience and apprenticeship programmes *("individuele beroepsopleidingen")*. Whether or not some type of employment incentive for long-term unemployed between the age of 25 and 55 is to be maintained is currently still being discussed between the government authorities and the social partners. In Wallonia, government and social partners have reached agreement on an encompassing reform which refocuses the transferred employment incentive schemes on the activation of benefits of young and long-term unemployed and reduced social security contributions for older workers. Job seekers below the age of 25 will benefit from a wage subsidy upon recruitment for a period of maximum 3 years. The benefit is granted to all young unemployed without a secondary education degree as well as to those who have such a degree but remain jobless for at least 6 months. After 18 months of unemployment, young job seekers qualify for a higher level of support as well as individualised coaching upon re-entry in the labour market. A similar support scheme, albeit limited to two years, will apply to the long-term unemployed (> 12 months), independent of their age. Employment demand for older workers will be supported by means of reduced social security contributions, the importance of which increases with age. Finally, the agreement also provides for wage subsidies for SMEs in specific sectors. These regionalised employment incentive schemes are to become applicable at the latest by 2017. Thus, following the greater emphasis being placed on activation and personalised support, and the transfer of control tasks, all public employment services will have to cope with increased workloads. This will test their capacities and organisations.

Young people

Youth unemployment, though falling, is still well above its pre-crisis level and above the EU average. Young people with a low educational attainment are particularly affected, with an unemployment rate of 42.9 % against a euro-area average of 33.0 % in Q3-2015. Long-term youth unemployment is increasing and remains a challenge in particular for the low-skilled (with a rate of 22.1 % vs. 17.1 % in the EU).

Education inequalities and poor educational outcomes partly explain the observed underperformance in terms of youth unemployment. This is particularly true in a context of rapid technological change and de-industrialisation, with a shift of labour demand towards high-skilled occupations ([44]). Early school-leaving rates have been falling but are still amongst the highest in the EU in Wallonia and Brussels (see below). The same holds true for the rate of young people neither in employment nor in education and training (NEETs), with high levels

([43]) The devolved employment incentives include the reductions of employer's social security contributions and the activation of benefits of the unemployed. Taken together, these two types of schemes represent a total budget of over EUR 1.2 billion. Structural reductions of employers' social security contributions and targeted exemptions of the withholding tax for night and team work remained federal.

([44]) Ilaria Maselli, 'The Evolving Supply and Demand of Skills in the Labour Market', *Intereconomics: review of European economic policy*, Vol. 47, 2012, 1, pp. 22-30.

recorded in Wallonia (14.7 %) and Brussels (15.8 %), compared to an EU average of 12.5 %. Moreover the Belgian NEETs population includes a higher share of inactive young people compared with the EU average ([45]).

High labour costs also create barriers to entry into the labour market for young people starting their careers. When making hiring decisions, employers typically assess the total labour cost against the expected productivity of the potential new recruit. Therefore, in practice, low-skilled young people may be priced out of the labour market, although this is to some extent compensated for by targeted reductions of employer social security contributions ([46]). In this respect, the decision by the federal government to further decrease non-wage-related labour costs at the lower end of the pay scale in the framework of the initiated tax shift might help improve the employment prospects of young people.

To strengthen the financial incentives to take up employment and to limit abuse, the federal government has reformed the insertion allowance for young job seekers ([47]). Its duration was limited to 36 months and eligibility was made conditional on obtaining a secondary school diploma or equivalent. As a result, the number of young people receiving this allowance fell by about 9 000 between June 2014 and June 2015. However, over the same period, the number of people drawing the living allowance rose by about 3 000, suggesting that part of this target group has turned to social welfare centres for support.

To raise the youth employment rate, both preventive and corrective policies are needed. The flow of low-skilled young people onto the labour market needs to be stemmed. At the same time, demand for low-skilled workers needs to increase, and the transition from education to work should be made smoother. It remains to be seen what impact the recent reform of legislation to protect employment will have, in particular as regards the transition from education to work, as the abolition of a trial period in regular contracts was accompanied by a shorter notice period.

Older workers

Older workers represent the single biggest labour reserve, reflecting the very low activity and employment rates of 55-64-year-olds, despite recent increases. Although their employment rate has increased in recent years (44.7 % in Q3-2015), it remains one of the lowest in the euro area, 9 percentage points below average. The duration of working life remains among the shortest in the EU, at 32.6 years vs. 35.1 years for the euro area on average in 2014. While the unemployment rate of people under 50 years of age has started to fall, it is still rising for the over-50s; moreover, the share of long-term unemployment among this group was 73 % in Q3-2015, well above the euro-area average of 65 %.

Drivers of underperformance include mismatches between pay scales and productivity. In Belgium, collective bargaining agreements covering white-collar workers frequently include progressive wage scales, in which seniority is used as a proxy for individual productivity developments. Belgian firm-level data, however, suggest that higher shares of older workers adversely affect productivity ([48]). This may reflect a lack of investment in updating skills — participation in lifelong learning is indeed low — but possibly also a lack of investment in the workplace to maintain employability and productivity. Against this background, industry-wide pay scales with a strong reliance on seniority tend to make individual firms less likely to hire older workers.

Generous early exit schemes have also provided the wrong incentives to both employers and employees. However, consecutive reforms of the

([45]) EUROFOUND, The diversity of NEETs (forthcoming), preliminary results presented at the September 2015 Peer Review on 'Targeting NEETs — key ingredients for successful partnerships in improving labour market participation', Oslo, 24-25 September 2015.

([46]) OECD (2015), *Focus on Minimum Wages after the crisis: making them pay*. Together with France, Hungary and the Netherlands, three other countries with relatively high social levies or payroll taxes, the ratio of minimum-to-median labour costs in Belgium is pressed down by concessions for low-wage employees.

([47]) The insertion allowance is given (subject to some conditions) to young people who have not contributed enough to the unemployment insurance scheme to benefit from it.

([48]) Vandenberghe et al. (2013), Ageing and employability. Evidence from Belgian firm-level data. 40: 111-136.

early retirement and old-age unemployment systems have tightened minimum age and career conditions and strengthened availability to work requirements. The authorities have enacted a rise in the pensionable age to 67 by 2030. In 2015, the government also increased the minimum age and contribution period entitling workers to take early retirement. In addition, the early retirement service credit was phased out from 2015 in the public sector, and the minimum entry age for company allowance schemes increased from 60 to 62 years.

As a result, the share of people exiting early from the labour market through pensions, disability or unemployment schemes has declined by around 10 percentage points since 2000 for the 50-64 age bracket. The most significant decreases are observed in the area of pensions and unemployment schemes exempt from job search requirements, whereas the take-up of disability schemes has increased ([49]). In addition, the number of persons on unemployment benefits with company top-ups has declined from nearly 118 000 in 2010 to 95 000 in Q3-2015.

At the same time, employment opportunities for the older workers remain scarce, as shown by the large increase in unemployment rates since activation requirements for this group were strengthened and by the very low transition-to-work rates of the older unemployed.

In such a context, measures supporting labour market demand for older workers, and their integration in the workplace, become crucial. The need to support demand is recognised by the regional authorities who intend to pursue and strengthen the employment incentive schemes for older workers devolved from the federal level.

People with a migrant background

The labour market integration of people originating from non-EU countries is very poor. Contrary to what happens in neighbouring countries, the second generation does not succeed in closing the gap ([50]). Of the Members States, Belgium has, after Greece, the highest employment rate gap between second-generation non-EU migrants and people without a migrant background ([51]). These population groups record high unemployment as well as low activity rates, particularly among women. When in employment, people with a migrant background are over-represented in precarious jobs and receive lower wages. This can be explained by a number of factors such as low educational attainment and qualification levels, gender roles, discrimination and segmentation of the labour market ([52]).

A large share of the population with a migrant background remains inactive. The inactivity rate of people originating from outside the EU is at least double that of people of Belgian origin, with proportions around 40 % for people with a north African or sub-Saharan background, far above the 15 % recorded for people without a migrant background. Immigration into Belgium for non-labour motives such as family reunification or asylum is an important explanatory factor. In addition, the financial incentives for second income earners (particularly low-skilled women with children) may not be sufficient in the case of low-wage jobs, and add to the difficulties on the labour market, particularly for low-skilled young people.

People with a migrant background, especially the low-skilled, face discrimination on the labour market. Perception of discrimination is amongst the highest in Belgium, and discrimination is at least partly determined by the expected negative reactions of future co-workers and customers. Discrimination at recruitment plays a bigger role for lower-skilled jobs, while skills shortages lead to less discrimination for higher-skilled jobs ([53]).

The current inflow of refugees adds to the previous migration waves and increases the integration challenges. Since May 2015, the

([49]) OECD Economic survey Belgium 2015.
([50]) Corluy et al. (2015), The labour market position of second generation immigrants in Belgium, NBB Working paper 285.
([51]) Eurostat, LFS 2014 ad hoc module Migration and labour markets.
([52]) Socioeconomic monitoring report 2015.
([53]) Baert et al. (2013), Do employers discriminate more if vacancies are difficult to fill? Evidence from a field experiment, IZA DP 6562; Baert, S. & A.S. De Pauw (2014), Is ethnic discrimination due to Distaste of Statistics?, IZA DP 8319.

number of applications for asylum has risen sharply with most applicants coming from Iraq, Syria and Afghanistan. The number of applications doubled in 2015 with more than 35 500 applications compared with 17 000 applications in 2014 ([54]). This highlights the importance of rapidly tackling specific issues such as recognition of qualifications or skills, or language training provision. The federal government and the social partners have agreed to reduce the period before refugees can access the labour market after arrival and registration in Belgium from six to four months ([55]).

Long-term unemployed

The incidence of long-term unemployment is high, with risk factors relating to age, skills levels and the duration of the period of unemployment. The long-term unemployed form an important labour reserve of over 200 000 people, although it is a very heterogeneous group, and there are big differences between regions as well. Long-term unemployment is growing fastest among older workers, also reflecting tightened labour market availability requirements. For the young long-term unemployed, the probability of finding a job depends mainly on skill levels, whereas skill levels have less impact on older workers. Given the challenges they face, people with a migrant background are more likely to be long-term unemployed.

In a context of rising long-term unemployment, it is essential to combine activation and support for access to the labour market. Across the country, social welfare centres offer a wide range of services to the long-term unemployed. Their social activation strategy has become well-established practice and reaches participants from less-advantaged groups. Collaboration between employment and social services is generally strong, although not uniformly developed across municipalities and target groups.

([54]) Commissariat Général aux Réfugiés et aux Apatrides, statistiques d'asile.

([55]) Provided a set of requirements are met regarding proof of registration, work permit and a registration form from the municipality. The Council of State has been requested its opinion.

Social inclusion

The overall social situation in Belgium has remained relatively stable in the last few years but this hides a growing divide between groups. No progress has been made towards the Europe 2020 target of reducing the number of people at risk of poverty and social exclusion. While the risk of poverty has fallen among older people during the crisis, it has increased for specific groups in the active population, such as low-skilled people and those living in very low-work intensity households, the share of which is above the euro area average (14.6 % vs. 11.9 %). People with a migrant background are particularly exposed to poverty with Belgium having the highest at-risk-of-poverty gap in 2014 between native-born people and non-EU immigrants (33.6 percentage points compared with an average gap of 17.7 percentage points in the euro area).

The reform of unemployment benefits is affecting the social assistance budget. The number of people receiving the jobseeker's allowance has fallen by nearly 40 %, with about 35 000 fewer people receiving it in June 2015 as compared to June 2014. However, over the same period, the number of people drawing a living allowance rose by about 13 000. This increases pressure on social welfare centres and local social budgets.

The level of child poverty remained broadly stable and below the EU average during and after the crisis, but persistent poverty has increased from 6.8 % in 2007 to 12.4 % in 2014. The number of children living in low-work-intensity households is above the EU average ([56]), as a result of the low employment rate, and a significant social gradient for children under two attending childcare services (see below).

Structural barriers, such as unequal access to social services, prevent further reduction of poverty or social exclusion. They range from participation in quality early childhood education and care to education and healthcare, in addition to participation in the labour market.

([56]) This is up to 49 % of the children in low-work-intensity households with low-skilled parents against a euro-area average of 26.8 %.

Although Belgium has higher use of formal childcare for age group 0-3 (46 %) by comparison with the EU average (27 %) and the Barcelona target (33 %) some issues of childcare availability remain. Almost all existing childcare facilities have waiting lists. Moreover, due to a growing population particularly in the larger cities, overcrowding is increasing, lowering the quality of early childhood education and care. Furthermore, the number of income-related places in out-of-school care services remains very small, and there are concerns about the quality of these services ([57]). Shortages of affordable and quality childcare and out-of-school care could induce second income earners (often women) to take parental leave or work part-time, with a negative impact on household income. Although the regions are developing plans to fight poverty and social exclusion, success also depends on the coordination between policies, in particular employment, education, social inclusion, migration and housing.

Education and lifelong learning

Belgium is facing wide performance gaps between schools and high levels of educational inequality in basic skills performance linked to socioeconomic and migrant background. The challenges are early school-leavers' poor basic skills and the mediocre academic performance of pupils in initial vocational education and training. There are marked differences in basic skills performance ([58]) and in early school-leaving rates between the communities and regions. Moreover, according to Pisa results, even after taking the socioeconomic background into account, Belgium has one of the largest performance gaps between students with a migrant background and those without. The difference between the languages spoken at home and at school largely explains the performance gap.

Inequality already starts in early childhood education and care. Despite a high overall participation rate in early childhood education for children from 3 years onwards, lower participation rates and less regular attendance are observed in specific target groups. Early childhood education and care vary in quality. Disadvantaged pupils are more at risk of being channelled into special needs education and vocational pathways and of leaving school with at most a certificate of lower secondary education, resulting in skills levels not relevant to labour market needs ([59]).

Too many young people leave education with low qualifications. Although the nationwide early-school-leaving rate has been falling (9.8 % compared to 11.1 % for the EU), regional discrepancies persist, and levels observed in Wallonia (12.9 %) and in Brussels (14.4 %) are still amongst the highest in the EU (compared to 7 % in Flanders). Boys and students taking initial vocational education and training are overrepresented amongst early school leavers. There is a strong correlation between early school leaving rates and the area where the pupil lives, the language spoken at home and the mother's level of education.

The most disadvantaged schools lack experienced teachers and head teachers, in the context of an increasingly diverse and multicultural population. Research findings confirm that for nursery and primary schools, school segregation tends to go hand-in-hand with unequal access to human, material and social resources ([60]). In addition, survey results ([61]) show that collaborative teaching is not well developed and that a limited proportion of teachers seem to assign work to students on the basis of their individual needs. Pupils with a migrant background make up a higher proportion of the pupils' population (15.1 %) than the OECD

([57]) The out-of-school care sector has high staff turnover and relies heavily on voluntary workers. These factors hamper the sector in improving its professionalism and the quality of its services.

([58]) According to Pisa 2012, the proportion of low achievers is far below the OECD average in the Flemish Community, close to the average in the German-speaking Community, and above the average in the French-speaking Community.

([59]) Regards économiques (2013), 'Le chômage des jeunes en Belgique, Diagnostic et remèdes clés', UCL, IRES, no. 108; Hoj, J. (2013), Enhancing the inclusiveness of the labour market in Belgium, eco/wkp(2013)1 no. 1009.

([60]) Poesen-Vandeputte, M. & I. Nicaise (2015), Rich schools, poor schools. Hidden resource inequalities between primary schools, Educational Research, 57:1, 91-109.

([61]) For the Flemish Community only: TALIS 2013 the OECD Teaching and Learning International Survey. For the French-speaking Community: Pacte pour un enseignement d'Excellence (2015).

average (12 %). Reports confirm their unequal distribution between schools.

Evidence raises questions about the structure of initial vocational education and training provision, and its relevance to labour market needs ([62]). An important challenge is to substantially increase the share of work-based learning, by making this form of learning more attractive and improving the rules governing it. According to the latest available data, the share of work-based students in upper secondary initial vocational education and training in Belgium is just 4.3 %, compared with an EU average of 26.5 %.

Major education reforms to improve basic skills and develop inclusive quality education, to lower grade repetition and to improve initial vocational education and training are at an early stage. The French-speaking Community has launched an ambitious reform (2015-2025) of early childhood education and across all levels of its compulsory education system. The German-speaking Community is pursuing reforms of its secondary education system. In the Flemish Community, the 2013 reform of secondary education is progressing, although some important decisions are still to be taken. Moreover, the Flemish STEM action plan for 2012-2020 is designed to increase the number of secondary and higher education students in science, technology, engineering and mathematics, and to encourage more students to opt for a career in the exact sciences or technology. The ongoing education reforms in the other two communities also aim to address those challenges. Finally, with considerable differences in approach and scope, all three communities have launched a strategy or measures to fight early school leaving. They are also revising their priority education policies.

Participation in lifelong learning is low in Belgium. In 2014, participation in training or education in the four weeks preceding the survey averaged 7.1 % for people aged between 25 and 64 in 2014, compared with an EU average of 10.7 %. Moreover, participation by low-skilled people is particularly low, at 3 % in 2014. This could be an issue, as the share of the adult population with less than upper secondary education remains high (26.2 % compared to 24 % in the EU). As in all other Member States, participation in lifelong learning is higher among younger than among older workers. According to the Adult Education Survey, only 46 % of employed persons participate in formal and non-formal education and training, which is a long way below Germany (56.7 %), France (57.5 %) and the Netherlands (69.7 %), and below the EU average (48.6 %) and the euro-area average (53.3 %).

Insufficient development of lifelong learning seems to be combined with significant means. The Adult Education Surveys conducted in 2007 and 2011 suggest that there is not enough interest in lifelong learning: relatively few of those interviewed had searched for information on education and training or were aware of methods for documenting skills and qualifications for employment purposes. Time conflicts between training and work were rarely considered to be an obstacle. However, the actual amounts invested in lifelong learning vary considerably, depending on the statistical source used; they range from 1 % of labour costs according to the 2010 social balance sheets, to over 2 % according to the expert group on competitiveness and employment, and even 2.4 %, which would be well above the EU average. Moreover, the share of employees participating in in-service vocational training courses is above the EU average, as is the share of enterprises that encourage training. In addition, a number of other provisions such as time credit (federal), training vouchers (Flanders), or language vouchers (Brussels) have been introduced to encourage the provision and uptake of training.

Although measures have been taken and plans are being developed, success in improving the performance of the labour market and social indicators will depend on coordination between policies, in particular employment, education, social inclusion and migration and integration. This also implies better coordination and cooperation among all levels of Belgian government. Remaining inactivity and low wage traps could be addressed by tackling the remaining inefficiencies in the benefits system and by

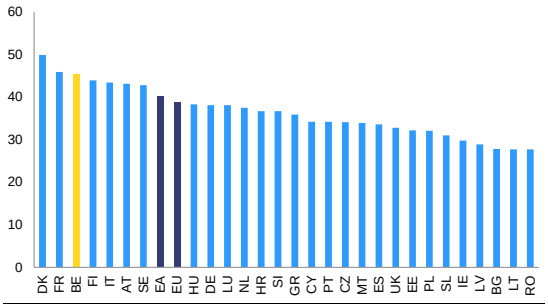
([62]) The upper secondary stages in the French-speaking community offer 217 basic group options. Nearly half of pupils are found in only 10 of the 178 options in the last years, and the 108 less popular ones account for only 7 % of pupils; in the Flemish Community there are 256 fields of study.

removing spikes in the effective marginal tax rates for specific household types. In parallel, well-targeted employment support and activation policies continue to be needed to improve the employment rate of older workers, low-skilled young people, and people with a migrant background. Policies to promote active ageing and to support demand for older workers would help to further reduce early exit from the labour market. Education and training policies are essential in addressing skills mismatches and early school leaving. Pursuing or speeding up the ongoing education reforms designed to reduce the early school leaving rate, tackle educational inequalities and improve the quality and relevance of the vocational system could help ease the shift towards a knowledge-intensive and increasingly service-oriented economy.

3.2. TAXATION

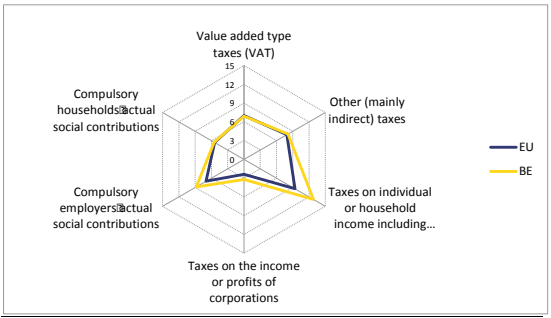
The overall tax burden is high in Belgium, and particularly skewed towards labour. Revenue from taxes and social contributions amounted to 45.3 % of GDP in 2014, compared to an EU average of 38.8 %, which puts Belgium amongst the highest in the EU (Graph 3.2.1) ([63]). A relatively high share of tax revenues stems from social contributions and personal income taxes (Graph 3.2.2), resulting in a high tax wedge on labour. This has a major impact on cost competitiveness and weighs on employment. It also contributes to financial disincentives to work in specific types of household.

Graph 3.2.1: **Total receipts from taxes and compulsory social contributions, 2014 (% of GDP)**



Source: European Commission

Graph 3.2.2: **Tax revenues in Belgium by main taxes, compared with the EU, 2014 (% of GDP)**



Source: European Commission

Tax reform

To tackle this, the federal government adopted measures in July 2015 to shift taxes away from labour. These come on top of other relevant measures adopted earlier in the context of the 2015 budget. The statutory rate for the employer's social contributions will gradually decrease from the current 33 % to 25 %. In practice, the statutory rate is rarely applied, as subsequent governments have introduced reduced rates and wage subsidies for some types of workers and industries, such as lower wage-earners, young and elderly workers, researchers and workers performing shift and night work. A proportion of these wage subsidies will be offset by the reduction in the statutory rate. Moreover, there will be larger specific reductions for SMEs, the self-employed, and night and shift work. Employees' social contributions will also come down further, owing to an increase in the social work bonus for low wage-earners. In personal income taxation, higher tax deductions for professional costs and a reform of tax scales should increase workers' take-home pay, especially for the low-waged. Overall, the labour tax cuts that have been announced represent EUR 11.5 bn by 2020, or 2.2 % of GDP. This could reduce the implicit tax burden on labour ([64]) by around 3 percentage points by 2020 (it stood at 43.5 % in 2014).

The cuts in taxes on labour that have been announced will be financed by a series of tax increases on consumption and non-labour income, by stepping up the fight against tax fraud and tax evasion, and by spending cuts in the federal administration. Lastly, the government is also counting on the positive effects it expects the tax shift to have on economic growth and employment to finance the tax cuts.

Consumption is the main source of new tax revenues. First, excise duties on alcohol, tobacco, diesel and soft drinks will increase gradually between 2016 and 2018. The reduced VAT rate of 6 % on electricity, introduced in 2014, has been brought back to the standard rate of 21 % since September 2015. This reduced rate had a high budgetary cost and was a harmful environmental incentive.

([63]) The tax-to-GDP ratio used includes taxes collected by EU institutions – in the Belgian case, this means that around 0.2% GDP of pure EU labour taxes are included. Voluntary and imputed social contributions are not included.

([64]) The implicit tax rate on employed labour is the sum of all labour taxes and actual employees' and employers' social contributions divided by their gross theoretical base (total compensation of employees increased by payroll taxes). The rate given for 2014 includes (payable) tax credits. Excluding these, the rate amounts 43.1 %.

Alternative revenues are also expected from higher taxation on income from capital. The tax changes include a rise in the withholding tax rate on dividends, interest income and royalties from 25 % to 27 %, a reform of the taxation of real estate funds, and the introduction of a new tax on short-term realised capital gains. Although capital losses would not be deductible from this new tax, the limited scope (shares in listed companies, warrants and options; realisation within six months after acquisition) might result in tax avoidance and seems to limit the revenue potential.

Lastly, efforts to combat tax fraud and tax evasion are also expected to increase revenue. However, while some measures are designed to prevent fraud ('fraud-proof cash registers' in restaurants and bars), others are implemented further downstream and appear to be stop-gaps. This applies, for example, to the carat tax, a special set of tax arrangements to benefit the diamond industry, and to the permanent tax regularisation scheme, with increasing penalties over time, which is expected to be introduced in 2016. Furthermore, as of 2015 the transparency tax is expected to allow the taxation of foreign legal structures with separate legal personality (trusts for instance) established abroad, not subject to taxation and with no real economic activity.

The regional governments have, to varying degrees, also introduced changes to the tax system. The three regions have made changes to transaction taxes for property taxes, and made housing tax incentives in personal income taxation (mortgage deductions) less generous. The latest reform of the state allows the regions to decide on social security reductions for specific target groups. Both the Flemish Region and the Walloon Region have outlined their plans for reform but measures still need to be adopted (see Section 3.1.). The Brussels Capital Region has outlined measures to shift taxes from labour to immovable property, to be implemented in 2016 and 2017. The main features are a reduction in personal income taxation and gift taxes on immovable property, while other immovable property taxation is generally shifted towards more recurrent taxation. Lastly, the kilometre charge for trucks will be implemented as of 1 April 2016 by all three regions (see Section 3.3).

The various measures outlined above shift taxes away from labour, as recommended by the Council in its country-specific recommendations to Belgium over the past few years. The lower tax burden on labour is expected to improve competitiveness and the functioning of the labour market, and will therefore support growth and employment. Moreover, the abolition of the reduced VAT rate on electricity and the planned equalisation of excise duties on diesel and petrol remove some environmentally harmful features.

However, the tax shift only partially exploits opportunities to shift taxes to more growth-friendly tax bases, including an environmental tax reform and the abolition of environmentally harmful subsidies. A striking example is the favourable tax treatment of company cars and fuel cards (see Box 3.2.1), which has substantial negative externalities in terms of congestion and pollution. Despite the high overall tax burden, revenues from environmentally related taxes are currently among the lowest in the EU (2.1 % of GDP in 2014, compared with an EU average of 2.5 %), especially from energy taxes (1.2 % of GDP against an EU average of 1.9 %). As a consequence, environmental taxes constitute only 4.5 % of total tax revenues, against 6.3 % in the EU. There thus seems to be considerable potential for additional revenue from environmental taxes in Belgium.

So far, the tax 'shift' outlined by the federal authorities does not appear to be budgetary neutral. According to the National Bank of Belgium and the Federal Planning Bureau, the total cost of the tax decreases is expected to amount to 2.2 % of GDP by 2020 ([65]). Ex ante, only 0.9 % of GDP is financed by new revenue measures. Part of the gap is expected to be financed through the positive impact on growth and employment. This being said, the simulations of the National Bank and the Federal Planning Bureau show a remaining gap of respectively 0.4 % of GDP and 1.0 % of GDP by 2020. Further deficit-reducing measures, on top of those required to meet the medium-term objective, may thus be needed. This includes

([65]) National Bank of Belgium (2015), Incidence macroéconomique sur l'économie belge du scénario de tax shift élaboré par le Gouvernement; Federal Planning Bureau (2015), Effets macro-économiques et budgétaires des mesures de tax shift du gouvernement fédéral.

regional level, which is directly affected by federal cuts in personal income taxation. Moreover, it remains to be seen what certain new financing measures, such as the fight against fraud or tax evasion, will yield.

Tax design

While the tax shift measures constitute considerable progress towards lowering the tax burden on labour, Belgium's tax system remains complex. While statutory tax rates are generally high, the effective tax rates are often much lower, due to a plethora of tax expenditures ([66]). Tax reductions, exemptions and deductions add to the complexity of the tax system and thus compliance costs. Tax expenditures also entail costs in terms of revenue foregone and may create efficiency losses and economic distortions. Moreover, they tend to be particularly difficult to repeal and are even likely to grow over time. The latest available data (income year 2012) show that the revenue foregone at federal level amounted to around one quarter of federal tax revenues (7 % of GDP), mainly from reduced VAT rates and tax deductions in personal income taxation (e.g. for pension savings and for a single owner-occupied dwelling) ([67]). As of 2015, the some tax expenditure ceilings have been frozen, and the deduction for the own dwelling has been made less generous (see above). Although in some cases there may be good reasons for implementing tax expenditures, e.g. they might operate as tax incentives that correct for market failures or provide incentives to internalise positive external effects, some types of tax expenditures can lead to welfare losses by distorting investment and consumption choices. It is therefore important to assess tax expenditures regularly. Some of the goals might be achieved more efficiently through targeted spending programmes.

In personal income taxation, spikes in the effective marginal tax rates could give rise to labour market traps. For example, the ceiling to benefit from the so-called '*marital quotient*' can discourage second earners from engaging in the labour market or increasing the number of hours worked ([68]). Consequently, this feature adds to inactivity and low wage traps for second earners, which are among the highest in the EU, and affect in particular women (see Section 3.1).

The varying taxation of investment instruments encourages biases towards regulated saving accounts at the expense of more long-term or riskier investment. The liquidity preference in investment (partially reflecting the build-up of precautionary savings as well as the low interest rate sensitivity of household investment) is exacerbated by the tax exemption on regulated savings accounts. This tax exemption favours the banking system over other sources of finance on capital markets, especially equity, which may hold back funding for innovative high-value projects Moreover, an overgrown banking sector relying excessively on short-term funding may lead to financial stability risks.

As in many Member States, the different tax treatment of debt and equity financing distorts financing choices in favour of debt. The allowance for corporate equity partly addresses the debt-equity bias in corporate income taxation by combining the deductibility of interest costs on debt with a deduction of a notional return to equity, making corporate income taxation slightly more neutral with respect to financing choices. However, the allowance for corporate equity has been declining over the last years and will continue to do so in 2015 and 2016 given the continuous fall of the reference rate (the 10-year Belgian government bond rate). Besides, there are no

([66]) Tax expenditures can take a number of forms (e.g. allowances, exemptions, rate relief, deferrals, and tax credits). As instruments for promoting specific social or economic policies, they are functionally closely related to direct spending programmes. Tax expenditures are generally categorised by tax base (e.g. VAT, personal income tax, or corporate income tax) and often grouped according to i) the type of relief (e.g. allowances, rate relief, exemptions), ii) purpose (support to low income earners, housing, etc.) or iii) sector (households, businesses, or agriculture).

([67]) Estimate for the income year 2012, for which the revenue foregone reached EUR 26 bn at federal level, See 'Inventaire des exonérations, abattements et réductions qui influencent les recettes de l'Etat', September 2015 update.

([68]) This feature of the personal income tax calculation for couples assigns part of taxable income from the partner with the highest income to the partner without an income of their own, or with a limited own income. As a consequence, it is taxed at a lower rate given the progressive nature of personal income taxation. However, the couple can no longer benefit from the marital quotient when the partner earns more than 30 % of the couple's total earned income.

adequate anti-abuse clauses to prevent the framework's being abused for aggressive tax planning, so that it does not fully address all distortions with respect to choices such as profit shifting and cross-border structures ([69]).

Finally, several other features of Belgium's tax system can also be used in aggressive tax planning structures ([70]). In particular, the absence of anti-abuse rules ([71]) is noted. Tax features such as the excess profit rulings scheme and the patent box can prompt or facilitate aggressive tax planning in the absence of sufficient safeguards. In this context, the Commission has found the excess profit tax scheme for multinational companies to be illegal under state aid rules, which means that any corporation tax unpaid under the scheme must be recovered ([72]).

All in all, the tax measures implemented or announced by the Belgian authorities constitute a sizeable shift away from labour. However, scope remains for a more comprehensive tax reform to broaden the tax base and remove inefficient tax expenditures. If the design of the tax system were improved to close loopholes, this could also make taxation more fair and improve the overall situation of public finance.

([69]) See, for instance, Zangari, E. (2014), Addressing the Debt Bias: A Comparison between the Belgian and the Italian ACE Systems, Working Paper N. 44; Ramboll Management Consulting and Corit Advisory (2016), Study on Structures of Aggressive Tax Planning and Indicators. Final report, Taxation paper No 61.

([70]) For an overview of the most common structures of aggressive tax planning and the provisions (or lack thereof) necessary for these structures to work, see Ramboll Management Consulting and Corit Advisory (2016), Study on Structures of Aggressive Tax Planning and Indicators, European Commission Taxation Paper No 61. The country-specific information provided in the study gives the state of play by May/June 2015.

([71]) An example is the lack of Controlled Foreign Companies rules. Furthermore, while the tax authority is generally fighting hybrid loans and the qualification of the income (interest or dividend), no linking rule exists, and there is a lack of rules to counter mismatches in tax qualification of domestic companies or partnerships and those of a foreign state.

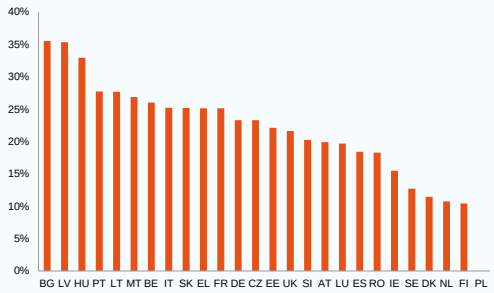
([72]) See: http://europa.eu/rapid/press-release_IP-16-42_en.htm.

Box 3.2.1: **Tax treatment of company cars: fiscal and environmental costs**

While both social security contributions and personal income taxes are relatively high in Belgium, the taxation of the benefit-in-kind associated with the personal use of a company car is particularly favourable, both for employers and employees. As a consequence, employees are often provided with company cars (often accompanied with a fuel card) as a way of reducing the marginal tax rate. For the employee, the main tax advantage lies in the low value (around 9 % of the listed price on average) used to compute the taxable benefit of personal use of a company car. Hence, employees are taxed on an estimated benefit-in-kind that is considerably less than the real value of using a company car. This favourable tax treatment represents a generous subsidy for the private use of company cars, with a 25 % gap between the cost to the company and the taxable benefit as compared to the car price (Graph 1) ([1]). Moreover, the benefit-in-kind is not subject to employee social security contributions. Employers, on the other hand pay a solidarity charge, which, however, is substantially lower than the social security contribution rate that would be payable on other types of remuneration, as there is no link between the solidarity charge and the value of the fringe benefit or the overall wage level.

Advantageous tax treatment for company cars has a high budgetary cost in terms of revenue foregone, estimated at approximately 0.9 % of GDP annually ([2]). Moreover, the Belgian company car scheme has considerable welfare costs. These affect both the individual, by reducing expenditure choices, and society in general, by aggravating congestion and pollution. The current tax treatment favours road travel and risks diluting the incentives to reduce fuel consumption provided by energy and vehicle taxation. It also imposes welfare costs on society, in terms of congestion, air pollution, and greenhouse gas emissions. This is of particular concern as Belgium has a serious and growing problem with peak hour congestion and is expected to miss its 2020 greenhouse gas emission target by 6 pps. (see Section 3.3).

Graph 1: **Subsidy for private use of company cars (2014)**



Source: European Commission

Phasing out favourable tax treatment for company cars and fuel cards, by better reflecting the full value of the benefit and the negative external costs, could thus have multiple benefits. To avoid increasing labour costs or lowering wages, the additional tax revenues could be used to reduce the overall tax burden on labour. Alternatively, a mobility budget available to employees to use as they wished could remove some of the perverse incentives of the existing framework for company car taxation.

([1]) This indicator measures the income tax subsidy to the employee as the difference between the cost to the employer of providing a car (including taxes, insurance and maintenance costs, and fuel costs) and the benefit-in-kind on which the employee is taxed under the personal income tax system. It does not reflect the way the benefit is treated for social security purposes. See Wöhlbier et al. (2016).

([2]) Harding (2014) estimates the income tax revenue foregone at EUR 2 bn (0.5 % of GDP), while the special social security scheme for company cars leads to a loss in social security revenues estimated at around EUR 1.75 bn (0.4 % of GDP) (Courbe, 2011).

3.3. TRANSPORT, ENERGY AND ENVIRONMENT

Road and rail transport

Located centrally, Belgium has a dense road and rail network which is well integrated into major European transport infrastructures. This location, supported in particular by its port infrastructure, makes Belgium a very good location for logistics clusters and distribution centres. This is confirmed by the 2014 global Logistics Performance Index from the World Bank, on which Belgium ranked third.

However, this position is threatened by increasing road congestion, the lack of adequate road maintenance, missing links, and road safety issues ([73])**.** Opportunities lie in the increased availability of alternative fuel infrastructure and intelligent transport systems. As regards rail transport of passengers and freight, the key issues are market access, infrastructure bottlenecks, punctuality of trains and the construction of the Brussels Regional Express Network.

Belgium is Europe's most congested country in terms of hours wasted ([74]) or delay (the negative effect of uncertain or longer delivery times, missed meetings, business relocations and other congestion-related effects). The problem is most pronounced during peak hours and around Brussels and Antwerp, although interurban congestion is also an issue in Belgium. Other economic costs caused by traffic congestion include fuel costs, lost productivity, lost workdays, air pollution, clinic visits and medication costs. In addition, the large share of diesel passenger cars (amounting to 67 % in Belgium, compared to an EU average of 41 % in 2013 ([75])) contributes significantly to high concentrations of particulate matter and NO2, causing premature deaths.

There is a pressing need for a more comprehensive approach to congestion problems in Belgium. The intention to tackle congestion announced in the federal and regional government agreements still needs to be turned into tangible measures, although some ad hoc measures have been taken to improve matters. A smart road pricing system for trucks is to be operational as of April 2016. However, the introduction of a system for heavy duty trucks alone will not have a significant impact on congestion, because cars are the main users of road infrastructure ([76]) and the potential for time-differentiated congestion charging for passenger cars remains unaddressed ([77]). Phasing out favourable tax treatment for company cars would considerably improve the environmental and economic effects in terms of congestion costs and pollution (Box 3.2.1).

Belgium invests less in road infrastructure and road maintenance than the EU average. As a percentage of GDP, investment is now lower than in the 1990s. In contrast to most other countries, motorways' share of total road length has fallen in Belgium. This, together with the comparatively low amount of investment in Belgian road maintenance, could explain the deteriorating World Economic Forum satisfaction ranking ([78]).

There are currently two main road infrastructure projects planned in Belgium: the termination of the Antwerp ring road and the upgrading of the Brussels ring road. The aim in completing the Antwerp ring road, the Oosterweel trajectory, is to alleviate congestion, improve traffic conditions and make Antwerp and its port more agreeable places to live and work. The start of the project has been continually delayed by procedural issues, but is currently scheduled for 2017. Upgrading the northern section of the Brussels ring road would involve creating special lanes for local and transit traffic. There are concerns that an initial reduction in congestion could attract new traffic, ultimately leaving

([73]) Belgium has a much higher road fatality rate than the neighbouring countries, with 62 reported deaths per million inhabitants (compared to an EU average fatality rate of 51 and a rate of 28 for the Netherlands). Of these fatalities, 18 % are caused on motorways.
([74]) http://www.inrix.com/scorecard/key-findings-us/.
([75]) http://www.acea.be/statistics/tag/category/passenger-car-fleet-per-capita.
([76]) Federal Planning Bureau (2014), Analyse de l'impact de différents schémas théoriques d'une taxe routière en Belgique, Working Paper 14-09.
([77]) Flanders still intends to assess the possibility of a kilometre charging system for passenger cars without Wallonia's support.
([78]) World Economic Forum, Global Competitiveness Index Data Platform.

congestion unchanged and actually increasing pollution ([79]).

Belgium has activities planned and ongoing with regard to the clean power for transport Directive and the intelligent transport systems Directive ([80]). A Benelux declaration on alternative fuels was signed in October 2015, promoting collaboration in the roll-out of infrastructure for alternative fuels between the three countries. Intelligent transport systems are planned in the context of optimum road use, traffic and travel data (e.g. multimodal route planners, real-time traffic information services, carpooling and car-sharing) as well as road safety and security applications.

The transport sector was responsible for 21 % of total greenhouse gas emissions in 2012. If it does not change its policies and use flexible mechanisms, Belgium is expected to miss its greenhouse gas emission reduction target by 6 pps. in 2020 (as compared to 2005). Although some measures have been announced earlier or have been implemented since 2015 ([81]), more resolute action has been hindered by the lack of an internal climate agreement between the federal and regional authorities. Such an agreement was finally reached in December 2015. It covers both the distribution of efforts to reduce emissions and increase renewable energy levels, and revenues from auctioning emission allowances under the EU emissions trading system. It is now vital to implement the agreement and update existing policies where necessary.

([79]) OECD Economic survey Belgium (2013), Better use of infrastructure to reduce environmental and congestion costs.

([80]) Road transport, road infrastructure, road safety and public transport (except railway) lie mostly within the regions' remit. Federal responsibilities include the railway network, a limited number of road safety aspects and vehicle regulation.

([81]) In 2015, a climate responsibility mechanism involving all the regions was introduced. It sets out a multiannual reference trajectory for reducing greenhouse gas emissions in all regions up to 2030, in the residential and tertiary building sector (excluding industrial buildings). In addition, the federal government plans to establish an 'energy pact', underpinned by a common energy vision with the regions, on the basis of consultation with stakeholders. The pact's overarching goal would be to guarantee the supply of clean and affordable energy for the next 20-25 years.

Energy

Belgium's economy is energy-intensive, and import dependency for all fuels, in particular gas and petroleum products, stands above the EU average. Measures to encourage investment in energy efficiency remain important, as they would improve its economic efficiency, reduce its import dependency, strengthen the balance of payments position, reduce the economy's vulnerability to external price shocks and cut greenhouse gas emissions. To meet its indicative primary and final energy consumption target by 2020, Belgium will have to take stronger measures.

Though Belgium has made good progress in renewables development, it is unclear whether its policies and tools are sufficient and effective in meeting their renewable energy objectives. The renewables share in final energy consumption reached 8 % in 2014, enabling Belgium to exceed its 2013/2014 interim targets. However, further progress is still needed if Belgium is to reach its 2020 target of 13 % of final energy consumption.

Resource efficiency

The 2016 Annual Growth Survey underlined that Member States should improve efficiency in resource use and bring forward a more circular economy. Although there is no comprehensive national programme for a circular economy in Belgium, both Flanders and Wallonia are making headway on this broad challenge. Belgium performed slightly better on resource productivity than the EU average in 2013. It is among the EU's top performers as regards waste management, with a recycling rate for municipal waste of 55 % in 2013 (the EU average in 2013 was 41.8 %). Belgium's water exploitation index is around 30 % of available resources, partly due to the high use of cooling water for electricity production ([82]). Additional progress could be made by introducing new economic instruments to promote waste prevention, by avoiding incinerating reusable or recyclable waste, and by making the reuse and recycling of waste more economically attractive. Phasing out subsidies for incineration might also support a shift towards environmental taxes.

([82]) European Commission (2016 forthcoming), EU Resource Efficiency Scoreboard 2015.

Box 3.3.1: Security of supply

As highlighted in last year's report, Belgium faces major challenges as regards the adequacy of its domestic power generation and the security of supply in general. The reasons for this are the retirement of unprofitable gas-fired plants, the rising share of intermittent capacity, and the repeated and prolonged outage of a large proportion of Belgium's nuclear capacity. To avoid the risk of black-outs, the authorities have created a strategic reserve for the period between November and March. This reserve consists of shut down gas-fired plants and companies willing to switch off machines in the event of imminent scarcity. It is only if these additional reserves are depleted that a scheme for controlled load shedding is to be activated ([1]).

The federal regulator, CREG, highlights how this strategic reserve, while contributing to the security of supply in the short term, does not compensate for the absence of long-term market price signals that would lead to new domestic investments ([2]). While fears of scarcity have been reflected in temporary price hikes on the wholesale electricity market, CREG points out there would have to be many more such peaks to trigger investments in large units and that the strategic reserve is no replacement for sufficient capacity to cover demand under normal circumstances.

Nuclear generation was restored to full capacity in recent months, and the two first nuclear plants scheduled for mothballing were authorised to continue operating. Legal proceedings have been brought against both decisions. Although these measures have lowered short-term supply risks, repeated interruptions have made Belgium's ageing nuclear power stations an undependable source. Belgium is one of the world's most nuclear-dependent countries, as nuclear plants represent about half of installed domestic capacity. The start of the exit from nuclear power has been repeatedly delayed — from 2015 to 2016 to 2022 — while a full phase-out is still scheduled for 2025. This implies that half the country's total domestic capacity is to be shut down within as little as three years. As a result, investment needs are concentrated in 2020-2025 ([3]).

The absence of a coherent long-term vision for the energy sector and the lasting uncertainty surrounding the timing of the nuclear exit has led to a climate unsupportive to long-term investment decisions, given that amortised nuclear plants are highly profitable. This underscores how a clear, feasible timetable for the planned nuclear phase-out is needed so that lost capacity can be replaced in good time. New investment has been mainly in renewable sources, which could benefit from significant subsidies. Offshore windfarms under development could replace up to one third of the nuclear capacity lost, leaving a significant shortfall that needs to be closed through a combination of energy efficiency measures, additional domestic capacity and better connections with grids in other countries. Germany and the Netherlands have structural generation surpluses, though Belgium's main links are with the French grid. The envisaged ALEGrO link with Germany should help in this respect ([4]). The scheduled expansion of interconnectedness will also help balance the Belgian system, given the rise in intermittent energy production. The same would hold for the further development of demand-side and storage management tools.

In other words, Belgium urgently needs a comprehensive view of its long-term energy landscape and roadmap to arrive there. Authorities have the ambition of reaching an inter-federal 'energy pact' for the next 20-25 years, though little progress has been made so far.

([1]) According to a study by the federal regulator, there was never a real risk of shortage in the winter of 2014-2015. Even if there had been more extreme weather conditions, the strategic reserve would have sufficed, and it would have been activated for only one day. At the same time, Belgium imported record amounts of electricity.

([2]) CREG (2015), Study on the measures to be taken in order to ensure an adequate volume of conventional production means to assure Belgium's electricity security of supply.

([3]) FPB (2014), Het Belgische energiesysteem in 2050: Waar naartoe?

([4]) The ALEGrO link with Germany and the subsea Nemo link with the UK, the first direct connections with both countries, are the largest planned projects to strengthen interconnectivity. Both have a capacity of around 1000 MW and are scheduled to become operational by 2019 at the earliest.

ANNEX A

Overview Table

Commitments	Summary assessment ([83])
2015 Country-specific recommendations (CSRs)	
CSR 1 Achieve a fiscal adjustment of at least 0.6 % of GDP towards the medium-term budgetary objective in 2015 and in 2016. Use windfall gains to put the general government debt ratio on an appropriate downward path. Complement the pension reform by linking the statutory retirement age to life expectancy. Agree on an enforceable distribution of fiscal targets among all government levels.	Belgium has made **some progress** in addressing CSR 1 (this overall assessment of CSR1 does not include an assessment of compliance with the Stability and Growth Pact): • **Some progress** has been made in putting the debt ratio on a downward path. Consolidation measures have been taken at all levels of government to reduce the budget deficit. However, the targeted structural improvement has not been reached. In addition, headline deficit targets have also been revised upwards, as economic growth is lower than previously expected. Unfavourable economic conditions, notably modest economic growth and particularly low inflation, have made it more demanding to put the debt-to-GDP ratio on a downward path. Belgium implemented growth-enhancing structural reforms which are expected to contribute to debt reduction in the medium/long term. • **Some progress** has been made in linking the retirement age to life expectancy. The federal parliament adopted the last part of the pension reform agreed in 2014, notably an increase in the statutory retirement age to 66 years in 2025 and 67 in 2030. On the other hand, no automatic or semi-automatic link has been introduced to adapt the pension age or other parameters further to take account of demographic changes. The government is considering introducing a points system which would facilitate parametric changes. • **Limited progress** has been made towards an enforceable distribution of fiscal targets among the various levels of government. The Cooperation Agreement reached between the different levels of government at the end of 2013, which formalises fiscal policy coordination, has

([83]) The following categories are used to assess progress in implementing the 2015 CSRs:
No progress: The Member State (MS) has neither announced nor adopted measures to address the CSR. This category also applies if the MS has commissioned a study group to evaluate possible measures.
Limited progress: The MS has announced some measures to address the CSR, but these appear insufficient and/or their adoption/implementation is at risk.
Some progress: The MS has announced or adopted measures to address the CSR. These are promising, but not all of them have been implemented and it is not certain that all will be.
Substantial progress: The MS has adopted measures, most of which have been implemented. They go a long way towards addressing the CSR.
Fully implemented: The MS has adopted and implemented measures that address the CSR appropriately.

	not been fully implemented The distribution of the fiscal trajectory for the general government in the 2015 Stability Programme is only indicative, and no formal distribution of targets has been agreed. This hampers the strengthened monitoring role of the High Council of Finance, as it cannot assess compliance with agreed targets as provided for by the Cooperation Agreement.
CSR 2 Adopt and implement a comprehensive tax reform broadening the tax base, shifting the tax burden away from labour and removing inefficient tax expenditures.	Belgium has made **some progress** in addressing CSR 2. • Measures have been taken to reduce the tax wedge on labour through decreases in personal income taxation and social security contributions. Employers' social security contributions will gradually decrease, from maximum 32.4 % to maximum 25 % for the highest wages between 2016 and 2018, and from 17.3 % to 10.9 % for the lowest wages between 2016 and 2019. These reductions will partly replace existing wage subsidies. Specific reductions for SMEs and self-employed people will be enlarged. There will be cuts in personal income taxation to increase take-home pay and strengthen purchasing power: the ceiling for tax-deductible professional expenses will be raised a second time (to EUR 4 210 from 2016). Income between EUR 8 711 and EUR 12 400, which is currently taxed at 30 %, will be taxed at 25 %. The lower limit of the 45 % tax bracket will be raised, widening the 40 % tax bracket. • To finance this tax shift away from labour, tax bases have been broadened and taxes that distort growth less have been raised. This applies especially to taxes on consumption. The reduced VAT rate for electricity was abolished in September 2015. Excise duties on alcohol, tobacco, diesel and soft drinks will gradually increase between 2016 and 2018. New revenues will also come from increased capital taxation, notably: higher withholding taxes on dividends, interests and royalties; a new speculative transaction tax on short-term capital gains on shares; and the reform of the taxation of real estate investment funds. Regional governments are implementing a system of kilometre-based road charging for heavy duty vehicles. In 2016, the Brussels Capital Region abolished the regional poll tax of EUR 89. This will be financed by a 12 % rise in recurrent immovable property

	taxes. • Some tax expenditures have been removed or reduced. The reduced VAT rate for electricity was abolished in September 2015. The Walloon government reformed the deduction for owner-occupied housing and made it more focused on low and middle-income owners. The Brussels Capital Region is to abolish the personal income tax deduction for owner-occupiers with a single home in 2017. Instead, buyers will be entitled to a reduction in registration duties of up to EUR 22 500 for a dwelling they intend to occupy (provided that it is their only one), subject to certain limits.
CSR 3 Improve the functioning of the labour market by reducing financial disincentives to work, increasing labour market access for specific target groups and addressing skills shortages and mismatches.	Belgium has made **some progress** in addressing CSR 3: • Incentives to work have been strengthened by several measures to reduce the tax wedge (increased tax credit for low-waged workers and a higher ceiling for tax-deductible professional costs) as well as by parametric reforms of the unemployment benefit system affecting part-time workers and elderly unemployed people in particular. Additional measures to reduce the tax wedge have been adopted but have yet to enter into force. Several measures have been taken to gradually reduce social security contributions as of 2016 (see CSR 2). • Working arrangements between Flemish and Brussels regional employment services were strengthened in October 2015. Under the altered cooperation agreement, Flanders (VDAB) will have the authority to organise the entire job mediation trajectory (from training to job placement) for unemployed Brussels residents seeking employment for which knowledge of Dutch is required. • In Flanders, the government has proposed a Draft Decree beginning of 2016 which retains reduced employer social security contributions for low- and middle schooled workers below the age of 25 (subject to a wage ceiling), for workers above the age of 55 and for people with a disability. • In Wallonia, government and social partners have reached agreement on an encompassing reform which refocuses the transferred employment

	incentive schemes on the activation of benefits of young and long-term unemployed and reduced social security contributions for older workers. • The French Community launched in 2015 a major reform of its education system which should address educational inequalities and improve the vocational and training system. A reorganisation in ten geographical areas of the latter has started and the dual learning system was streamlined in September 2015. • The Flemish Community is pursuing its secondary education reform. Key decisions related to vocational and training are yet to be taken. A new action plan to strengthen the fight against early school leaving was adopted early 2016 in parliament. The implementation of the STEM action plan is moving forward.
CSR 4 Restore competitiveness by ensuring, in consultation with the social partners and in accordance with national practices, that wages evolve in line with productivity.	Belgium has made **limited progress** in addressing CSR 4: • While considerable progress has been made on correcting the historic labour cost gap, progress on revising the wage-setting framework is less tangible. A reform of the Law of 1996 on the national wage-setting framework, announced in the 2014 government agreement, has not been enacted so far. Discussions of the projected reform continue between the social partners.
Europe 2020 (national targets and progress)	
Employment rate target set in the 2015 NRP: 73.2 %.	The employment rate stood at: • 67.2 % in 2012; • 67.2 % in 2013; • 67.3 % in 2014. Belgium has fallen a long way behind the trajectory towards the 2020 employment target.
R&D target set in the 2015 NRP: 3 % of GDP (including budgetary costs of federal tax measures in favour of R&D staff, estimated at 0.18 % of GDP in 2020 by BE).	Gross domestic expenditure on R&D (% of GDP): • 2.36 % in 2012; • 2.42 % in 2013;

	• 2.46 % in 2014. On the basis of recent trends, Belgium is broadly on track to reach the 2020 R&D intensity target.
Greenhouse gas emissions, national target: -15 % in 2020 compared with 2005 (in non-ETS sectors).	According to the latest national projections submitted to the Commission and taking into account existing measures, it is expected that the target will be missed: -9 % in 2020 compared with 2005 (i.e. a projected shortfall of 6 percentage points).
2020 renewable energy target: 13 %.	Share of renewable energy in gross final energy consumption: • 7.4 % in 2012; • 7.9 % in 2013; • 8.0 % in 2014. Belgium has made good progress on developing renewables, exceeding the 2013/2014 interim targets. However, the distance to the target remains considerable. With a 4.9 % share of renewables in transport in 2014, Belgium is halfway in achieving the binding 2020 target of 10 % in transport.
Energy efficiency, 2020 energy consumption targets: • 43.7Mtoe (primary energy consumption); • 32.5Mtoe (final energy consumption).	Gross inland consumption of energy: • 47.3Mtoe in 2012 (final consumption: 35.0Mtoe); • 48.6Mtoe in 2013 (final consumption: 36.2Mtoe). Belgium is not on track to meet its national energy efficiency targets, either for final or for primary energy consumption.
Early school leaving (ESL) target: 9.5 %.	Young people leaving education and training early (percentage of the population aged 18-24 with at most lower secondary education and not in further education or training): • 12.0 % in 2012; • 11.0 % in 2013; • 9.8 % in 2014. Early school leaving is below the EU average (9.8 % compared with 11.2 %) and close to the 2020 target of 9.5 %.

	The improvement in the average masks wide disparities between subgroups of the population and between regions. The rate among young people from migrant backgrounds is twice the overall rate.
Tertiary education target: 47 %.	The tertiary educational attainment rate stood at: • 43.9 % in 2012; • 42.7 % in 2013; • 43.8 % in 2014. Belgium's rate significantly exceeds the EU average (37.9 % in 2014). However, the gap between the national target and the actual figure has remained broadly constant over the years.
Target for reducing the number of people at risk of poverty or social exclusion, expressed as an absolute number of people: 380 000 (base year 2010: 2 235 000).	The number of people at-risk-of-poverty or social exclusion (x 1 000 persons) stood at: • 2 356 in 2012; • 2 286 in 2013; • 2 339 in 2014. The number of people at risk of poverty or social exclusion rose again in 2014. To meet the 2020 target, the reduction would have to be as much as 484 000 people between 2014 and 2020. Some subgroups of the population are disproportionately at risk.

ANNEX B

MIP scoreboard

Table B.1: **The MIP scoreboard for Belgium**

			Thresholds	2009	2010	2011	2012	2013	2014
External imbalances and competitiveness	Current account balance, (% of GDP)	3 year average	-4%/6%	0.0	-0.1	-0.1	0.2	-0.4	-0.1
	Net international investment position (% of GDP)		-35%	57.3	65.1	60.8	51.7	51.6	57.2
	Real effective exchange rate - 42 trading partners, HICP deflator	3 years % change	±5% & ±11%	3.9	0.5	-1.6	-4.3	-0.3	-0.5
	Export market share - % of world exports	5 years % change	-6%	-9.1	-11.5	-7.3	-15.1	-11.7	-10.7
	Nominal unit labour cost index (2010=100)	3 years % change	9% & 12%	10.1	7.5	5.3	5.5	8.5	5.6
Internal imbalances	Deflated house prices (% y-o-y change)		6%	-0.1	1.4	1.0	0.2	0.1	-1.1p
	Private sector credit flow as % of GDP, consolidated		14%	6.2	3.2	21.4	14.2	-0.1	1.0
	Private sector debt as % of GDP, consolidated		133%	164.8	161.7	174.0	186.8	180.7	181.4
	General government sector debt as % of GDP		60%	99.5	99.6	102.2	104.1	105.1	106.7
	Unemployment rate	3 year average	10%	7.5	7.7	7.8	7.7	7.7	8.2
	Total financial sector liabilities (% y-o-y change)		16.5%	-1.6	-0.5	7.4	-6.3	-3.7	4.9
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)		-0.2%	0.4	0.6	-0.4	0.0	-0.2	1.0
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)		0.5%	-0.7	0.3	0.2	-0.1	-0.2	0.8
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)		2%	1.4	3.6	0.7	-2.1	1.3	4.5

Flags: p: provisional.
Note: Figures highlighted are those falling outside the threshold established in the European Commission's Alert Mechanism Report. For REER and ULC, the first threshold applies to euro area Member States.
Source: European Commission

ANNEX C

Standard Tables

Table C.1: **Financial market indicators**

	2010	2011	2012	2013	2014	2015
Total assets of the banking sector (% of GDP)	310.8	316.7	280.1	260.1	275.1	262.6
Share of assets of the five largest banks (% of total assets)	74.9	70.8	66.3	64.0	65.8	-
Foreign ownership of banking system (% of total assets)	59.4	64.3	64.1	65.4	65.6	-
Financial soundness indicators:						
- non-performing loans (% of total loans)[1)]	2.8	3.3	3.8	4.3	4.4	4.0
- capital adequacy ratio (%)[1)]	19.3	18.5	18.2	18.7	17.6	18.2
- return on equity (%)[1)]	10.6	1.2	3.4	16.0	7.9	9.7
Bank loans to the private sector (year-on-year % change)	-2.4	-1.4	-1.2	6.2	9.1	6.8
Lending for house purchase (year-on-year % change)	6.6	-1.9	6.0	10.1	19.5	12.1
Loan to deposit ratio	62.4	60.1	56.6	58.2	59.6	62.3
Central Bank liquidity as % of liabilities	2.7	6.9	5.4	2.5	1.6	1.0
Private debt (% of GDP)	161.7	174.0	186.8	180.7	181.4	-
Gross external debt (% of GDP)[2)] - public	55.6	50.1	41.7	56.5	67.7	68.8
- private	90.1	103.6	78.3	103.5	102.4	106.7
Long-term interest rate spread versus Bund (basis points)*	71.9	162.5	150.5	84.0	55.0	34.4
Credit default swap spreads for sovereign securities (5-year)*	94.9	173.2	124.8	36.3	31.0	30.0

1) Latest data Q2 2015.
2) Latest data September 2015. Monetary authorities, monetary and financial institutions are not included.
* Measured in basis points.
Source: IMF (financial soundness indicators); European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Labour market and social indicators**

	2010	2011	2012	2013	2014	2015 (4)
Employment rate (% of population aged 20-64)	67.6	67.3	67.2	67.2	67.3	67.2
Employment growth (% change from previous year)	0.6	1.4	0.4	-0.4	0.3	0.7
Employment rate of women (% of female population aged 20-64)	61.6	61.5	61.7	62.1	62.9	62.9
Employment rate of men (% of male population aged 20-64)	73.5	73.0	72.7	72.3	71.6	71.4
Employment rate of older workers (% of population aged 55-64)	37.3	38.7	39.5	41.7	42.7	43.8
Part-time employment (% of total employment, aged 15 years and over)	24.0	25.1	25.1	24.7	24.1	24.8
Fixed term employment (% of employees with a fixed term contract, aged 15 years and over)	8.1	9.0	8.1	8.2	8.7	9.1
Transitions from temporary to permanent employment	36.1	32.5	43.2	38.2	33.4	-
Unemployment rate(1) (% active population, age group 15-74)	8.3	7.2	7.6	8.4	8.5	8.5
Long-term unemployment rate(2) (% of labour force)	4.1	3.5	3.4	3.9	4.3	4.4
Youth unemployment rate (% active population aged 15-24)	22.4	18.7	19.8	23.7	23.2	21.9
Youth NEET(3) rate (% of population aged 15-24)	10.9	11.8	12.3	12.7	12.0	-
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	11.9	12.3	12.0	11.0	9.8	-
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	44.4	42.6	43.9	42.7	43.8	-
Formal childcare (30 hours or over; % of population aged less than 3 years)	19.0	20.0	27.0	25.0	-	-

(1) Unemployed people are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.
(2) The long-term unemployed are peoples who have been unemployed for at least 12 months.
(3) Not in education, employment or training.
(4) Average for first three quarters of 2015. Data for total unemployment and youth unemployment rates are seasonally adjusted.
Source: European Commission (EU Labour Force Survey)

Table C.3: **Labour market and social indicators (continued)**

Expenditure on social protection benefits (% of GDP)	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Sickness/healthcare	8.1	8.0	8.1	8.3	8.3	-
Invalidity	2.1	2.1	2.1	2.2	2.4	-
Old age and survivors	11.4	11.0	11.3	11.3	11.7	-
Family/children	2.3	2.2	2.2	2.1	2.2	-
Unemployment	3.7	3.7	3.6	3.6	3.4	-
Housing and social exclusion n.e.c.	0.2	0.2	0.2	0.2	0.2	-
Total	28.5	27.9	28.4	28.6	28.9	-
of which: means-tested benefits	1.5	1.4	1.4	1.5	1.6	-
Social inclusion indicators	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
People at risk of poverty or social exclusion[1] (% of total population)	20.2	20.8	21.0	21.6	20.8	21.2
Children at risk of poverty or social exclusion (% of people aged 0-17)	20.5	23.2	23.3	22.8	21.9	23.2
At-risk-of-poverty rate[2] (% of total population)	14.6	14.6	15.3	15.3	15.1	15.5
Severe material deprivation rate[3] (% of total population)	5.2	5.9	5.7	6.3	5.1	5.9
Proportion of people living in low work intensity households[4] (% of people aged 0-59)	12.3	12.7	13.8	13.9	14.0	14.6
In-work at-risk-of-poverty rate (% of persons employed)	4.6	4.5	4.2	4.5	4.4	4.8
Impact of social transfers (excluding pensions) on reducing poverty	45.3	45.3	45.0	44.8	42.6	43.6
Poverty thresholds, expressed in national currency at constant prices[5]	10892	10977	11029	10815	11163	11140
Gross disposable income (households; growth %)	1.8	0.7	2.0	2.6	0.5	1.1
Inequality of income distribution (S80/S20 income quintile share ratio)	3.9	3.9	3.9	4.0	3.8	3.8

(1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).
(2) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
(3) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home warm enough, iii) cope with unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.
(4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.
(5) For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes).
Source: For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table C.4: **Structural policy and business environment indicators**

Performance indicators	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Labour productivity (real, per person employed, y-o-y)						
Labour productivity in industry	0.25	6.86	-0.32	-0.05	2.93	3.61
Labour productivity in construction	2.86	0.47	-1.69	1.50	0.37	1.63
Labour productivity in market services	-1.65	1.74	0.22	-1.16	0.01	0.38
Unit labour costs (ULC) (whole economy, y-o-y)						
ULC in industry	1.77	-5.56	2.82	3.87	0.06	-1.46
ULC in construction	1.56	-0.14	1.36	1.40	1.10	-2.41
ULC in market services	3.59	-0.62	1.46	3.70	1.83	0.14
Business environment	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Time needed to enforce contracts(1) (days)	505	505	505	505	505	505
Time needed to start a business(1) (days)	4.0	4.0	4.0	4.0	4.0	4.0
Outcome of applications by SMEs for bank loans(2)	0.29	0.45	0.48	0.68	0.54	0.36
Research and innovation	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
R&D intensity	1.98	2.05	2.15	2.36	2.42	2.46
Total public expenditure on education as % of GDP, for all levels of education combined	6.57	6.58	6.55	6.60	na	na
Number of science & technology people employed as % of total employment	48	50	50	50	50	52
Population having completed tertiary education(3)	29	31	30	31	32	33
Young people with upper secondary level education(4)	83	83	82	83	83	84
Trade balance of high technology products as % of GDP	0.20	0.37	0.22	0.14	0.33	0.51
Product and service markets and competition				**2003**	**2008**	**2013**
OECD product market regulation (PMR)(5), overall				1.64	1.52	1.39
OECD PMR(5), retail				4.68	4.56	4.06
OECD PMR(5), professional services				2.52	2.47	2.47
OECD PMR(5), network industries(6)				2.84	2.08	1.84

(1) The methodologies, including the assumptions, underpinning this indicator are shown in detail here: http://www.doingbusiness.org/methodology.
(2) Average of the answer to question Q7B_a. '[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?' Answers were codified as follows: zero if the respondent received everything they applied for, one if they received most of it, two if they received only a limited part of it, three if their application was refused or rejected. Responses to the effect that the application is still pending, or that the respondent doesn't know the answer, are treated as missing values.
(3) Percentage of the population aged 15-64 having completed tertiary education.
(4) Percentage of the population aged 20-24 having attained at least upper secondary education.
(5) Index: 0 = not regulated; 6 = most regulated. The methodologies underpinning the OECD product market regulation indicators are shown in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
(6) Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time needed to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.5: **Green growth**

Green growth performance		2009	2010	2011	2012	2013	2014
Macroeconomic							
Energy intensity	kgoe / €	0.18	0.19	0.18	0.17	0.17	-
Carbon intensity	kg / €	0.39	0.40	0.36	0.35	0.35	-
Resource intensity (reciprocal of resource productivity)	kg / €	0.50	0.49	0.51	0.46	0.45	0.46
Waste intensity	kg / €	-	0.19	-	0.20	-	-
Energy balance of trade	% GDP	-3.2	-3.7	-4.6	-5.0	-4.5	-3.9
Weighting of energy in HICP	%	10.90	11.24	11.02	11.71	11.29	10.91
Difference between energy price change and inflation	%	-12.9	4.7	14.6	3.3	-5.8	-8.0
Real unit of energy cost	% of value added	12.8	14.9	16.7	-	-	-
Ratio of labour taxes to environmental taxes	ratio	10.9	10.7	10.6	11.2	11.8	11.8
Environmental taxes	% GDP	2.2	2.2	2.2	2.1	2.1	2.1
Sectoral							
Industry energy intensity	kgoe / €	0.20	0.23	0.23	0.21	0.21	-
Real unit energy cost for manufacturing industry	% of value added	54.1	64.2	75.4	-	-	-
Share of energy-intensive industries in the economy	% GDP	11.19	12.03	11.85	11.61	12.33	12.43
Electricity prices for medium-sized industrial users	€ / kWh	0.11	0.11	0.11	0.11	0.11	0.11
Gas prices for medium-sized industrial users	€ / kWh	0.03	0.03	0.03	0.03	0.04	0.03
Public R&D for energy	% GDP	0.01	0.01	0.01	0.01	0.01	0.01
Public R&D for environment	% GDP	0.02	0.02	0.01	0.01	0.01	0.01
Municipal waste recycling rate	%	95.8	97.4	96.8	96.0	98.3	-
Share of GHG emissions covered by ETS*	%	37.5	38.4	38.4	37.0	37.9	38.0
Transport energy intensity	kgoe / €	0.60	0.60	0.58	0.55	0.56	-
Transport carbon intensity	kg / €	1.57	1.54	1.48	1.38	1.41	-
Security of energy supply							
Energy import dependency	%	75.5	78.0	75.8	76.1	77.5	-
Aggregated supplier concentration index	HHI	16.0	16.4	22.0	13.7	17.3	-
Diversification of energy mix	HHI	0.29	0.29	0.28	0.27	0.27	-

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2005 prices)
Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)
Carbon intensity: greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR)
Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)
Waste intensity: waste (in kg) divided by GDP (in EUR)
Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP
Weighting of energy in HICP: the proportion of "energy" items in the consumption basket used for the construction of the HICP.
Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change).
Real unit energy cost: real energy costs as a percentage of total value added for the economy.
Environmental taxes and labour taxes: from European Commission, 'Taxation trends in the European Union'
Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR).
Real unit energy costs for manufacturing industry: real costs as a percentage of value added for manufacturing sectors.
Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP.
Electricity and gas prices for medium-sized industrial users: consumption band 500–20 00MWh and 10 000–100 000 GJ; figures excl. VAT.
Municipal waste recycling rate: ratio of recycled municipal waste to total municipal waste.
Public R&D for energy or for the environment: government spending on R&D (GBAORD) for these categories as % of GDP.
Proportion of greenhouse gas (GHG) emissions covered by EU Emission Trading System (ETS): based on greenhouse gas emissions (excl. land use, land use change and forestry) as reported by Member States to the European Environment Agency Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR).
Transport carbon intensity: greenhouse gas emissions in transport activity divided by gross value added of the transport sector.
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels.
Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.
Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels.
* European Commission and European Environment Agency
Source: European Commission (Eurostat) unless indicated otherwise