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COMMISSION STAFF WORKING DOCUMENT

Country Report Belgium 2020

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN CENTRAL BANK AND THE EUROGROUP

2020 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011

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EXECUTIVE SUMMARY

Structural reforms and targeted investment should contribute to more sustainable and inclusive growth in Belgium. Reforms in the areas of pensions, corporate and labour taxation, wage indexation, the labour market and the business environment have been introduced in recent years. Nevertheless, Belgium is still midway in this process and adopting and implementing further reforms is needed if it is to address remaining challenges, especially in the context of population ageing and subdued productivity growth. Addressing skills shortages, low innovation diffusion, as well as barriers to competition in the product and services market will help to boost productivity growth. Increasing the still relatively low labour participation, will also have a positive impact on public finances. Improving the composition and efficiency of public spending, notably through spending reviews, could create room for an increase in the share of growth-friendly expenditure, such as public investment. However, while reforms can be pursued at regional and communities level, the protracted situation of a caretaker government has led to an almost complete stop of the reform process at the federal level.([1])

Economic growth is set to gradually slow down. The economy grew at an average rate of 1.8% per year in the wake of the financial crisis although it has been trailing behind the euro area average since 2015. In 2019, GDP growth is expected to have stood at 1.4% of GDP against 1.2% in the euro area. Economic activity is forecast to moderate further to just above 1% in the near future. According to the latest Commission forecast, private consumption is set to continue driving economic growth, supported by robust fundamentals and offsetting a slowdown in investment growth. Net exports are forecast to weigh negatively on growth, amid subdued prospects of growth in world trade.

Employment growth remains robust. Almost 4.9 million people are expected to have been employed in 2019, the highest figure in the past 10 years. Recent employment growth is mainly concentrated among older workers and in the high skilled and – to a lesser extent - low-skilled professions. Wage and labour costs are expected to continue to grow moderately in the coming years. Combined with a drop in unemployment, wage increases are expected to support growth in households' disposable income, which has been sluggish in recent years.

The high level of public debt, combined with the structural budget deficit, limits the fiscal space available in case of an economic downturn. According to the Commission's 2019 Autumn Forecast, under a no-policy-change assumption, the general government headline deficit is expected to widen to 2.6% of GDP in 2021, following a notable improvement in 2017 and 2018 when the deficit was at 0.7 % of GDP. Some tax reforms adopted in recent years are expected to weigh on revenues. Rising age-related expenditure, notably due to higher pension, long-term care and health expenditure, will further worsen the headline deficit. Public debt is set to remain high at around 100% of GDP.

Belgium has significant investment needs in education, sustainable transport, energy, digital infrastructure such as 5G and social housing. Belgium's commitment to fully phasing out nuclear energy by 2025 means there is a need for major investment in power generation, as well as interconnection capacity, smart grids and storage. Addressing labour shortages, especially of employees with backgrounds and skills in science, technology, engineering and mathematics, will require investment in the training and education system. Important investments are on-going in suburban rail infrastructure and signalling. Renovating the old building stock, which predates the introduction of energy norms, will help Belgium meet its 2020 and 2030 emission reduction targets. There are important needs in terms of social infrastructure (early childhood education and care, social housing, schools) and workers in the social sector. Digitalisation of public services and justice, and the reinforcement of certain key enforcers and public bodies, would improve institutional governance.

([1]) This report assesses Belgium's economy in light of the European Commission's Annual Sustainable Growth Strategy published on 17 December 2019. In this document, Commission sets out a new strategy on how to address not only the short-term economic challenges but also the economy's longer-term challenges. This new economic agenda of competitive sustainability rests on four dimensions: environmental sustainability, productivity gains, fairness and macroeconomic stability.

Overall, Belgium has made limited ([2]) progress in addressing the 2019 country-specific recommendations, due in part to the lack of government with full powers at the federal level.

There has been some progress in the following areas.

- After remaining low for several years, government entities have designed and launched major multiannual investment plans in transport infrastructure.

There has been limited progress in the following areas.

- There is still ample room to improve the composition and efficiency of public spending, at all levels of government.
- Disincentives to work remain and there is still a need to strengthen the effectiveness of activation measures, in particular for vulnerable groups. Reforms have been initiated to improve educational outcomes and make the education and training systems more inclusive, but there is still a significant amount of work ahead. There have been initiatives to address skills mismatches, but more needs to be done.
- There are still barriers to competition in services.

There has been no progress in the following area:

- Coordination of fiscal policies of all levels of government.

Belgium performs well on a number of indicators of the Social Scoreboard supporting the European Pillar of Social Rights, although challenges remain. Belgium scores well on gender equality, childcare and fair working conditions. Nevertheless, a number of Pillar principles merit attention. The employment rate continues to be well below the EU average, mainly driven by poor labour market outcomes for specific groups. Moreover, the share of individuals living in low work intensity households continues to be high. Participation in adult learning is relatively low. Educational outcomes show considerable variation linked to socio-economic and migration background, but also between schools. Compared to other countries, people with disabilities are more at risk of poverty or social exclusion. Child poverty is high, in particular in Brussels.

Regarding Belgium's progress towards its national targets under the Europe 2020 strategy, the employment rate target of 73.2 %, although the country is getting closer, is still out of reach. Belgium has reached the targets for reducing early school leaving and increasing tertiary educational attainment. By contrast, additional efforts are needed to meet the targets for greenhouse gas emissions, renewable energy, energy efficiency and reducing the risk of poverty.

In terms of the United Nations' Sustainable Development Goals (SDGs), Belgium is progressing relatively well. While performing well in relation to good health and well-being (SDG 3), and reduced inequalities (SDG 10),more efforts are needed to progress on underachievement in reading, maths and science (SDG 4).([3])

Key structural issues analysed in this report, which point to particular challenges for the Belgian economy are the following:

Regulatory barriers and insufficient investment in infrastructure networks have weighed on productivity growth. Weak labour productivity growth can be observed both in manufacturing and services sectors, where Belgium has underperformed. Exit and entry rates of firms are among the lowest in the EU, in particular in services sectors, which are affected by high regulatory burden. The combination of high

([2]) Information on the level of progress and actions taken to address the policy advice in each respective subpart of a country-specific recommendation is presented in the overview table in the Annex.

([3]) Within the scope of its legal basis, the European Semester can help drive national economic and employment policies towards the achievement of the United Nations Sustainable Development Goals (SDGs) by monitoring progress and ensuring closer coordination of national efforts. The present report contains reinforced analysis and monitoring on the SDGs. A new annex (ANNEX E) presents a statistical assessment of trends in relation to SDGs in Belgium during the past five years, based on Eurostat's EU SDG indicator set.

regulation, high wage costs and labour market rigidities weighs on the retail sector's performance. In spite of recent reforms, professional and craft services continue to be highly regulated. Belgium risks lagging behind in 5G. Weak competition in the telecommunication sector, in particular in fixed network, leads to higher prices. Belgium performs well in railway freight, port and rail infrastructure, but scores low in road quality. Growing traffic volumes boosted by commuting subsidies like tax advantages create congestion and are putting land transport infrastructure under pressure while inland infrastructure investments remain low. Uncertainty remains over the opening of passenger rail services to competition.

- **Administrative burden, weak policy coordination and highly concentrated innovation are weighing on investment and productivity growth.** Belgium performs well in innovation, but the efficiency of the high level of public support for business R&D is not proven, as overall investment is high but remains concentrated in a limited number of large firms. The gap between the best and the least performing firms is widening, which might signal an insufficient diffusion of technological advances. Ineffective coordination between government levels and, ineffective evaluations processes combined with understaffing of key enforcers weigh on the regulatory environment and the delivery of a certain number of policies. The State's slow payments to businesses has significantly deteriorated. In addition, long delays for building permits, a costly property registration procedure and lengthy judicial proceedings are perceived as obstacles hindering business investment. Despite gradual improvements, insufficient digitalisation and a lack of resources remain a challenge for the justice system.

- **In spite of recent reforms, some structural challenges in the labour market remain unaddressed**. Recent economic growth has been job intensive. The employment rate reached a long-time high of 69.7% in 2018 and the unemployment rate fell at a record low of 5.5% of the active labour force. Nevertheless, the labour market remains characterised by a relatively low participation rate and remaining regional disparities in unemployment. The employment rate is particularly low for some groups such as low-skilled, older workers, people with a migrant background (in particular non-EU born women) and people with disabilities. Disincentives to work stemming from the taxation and social benefits systems further weaken the effectiveness of active labour market policies, including for those with a low earning potential.

- **A shortage of adequate skills hampers potential growth**. There are considerable shortages in professional, technical and scientific occupations. The mismatch between the skills demanded by employers and those offered by jobseekers leads to one of the highest vacancy rates in the euro area. Education and training systems may not be delivering all the skills needed in the labour market, in particular basic, language and digital skills. The shares of low and high achievers in basic skills show that the Communities have difficulties combining both equity and excellence in their education and training systems. The shortage of well-qualified teachers is increasing and the need for professionalisation is a growing concern. Reforms promoting efficiency and effectiveness could release resources for urgently needed investment. Reforms, such as the 'Pacte d'Excellence' in the FrenchCommunity, to reverse the decline in the educational outcomes are progressing slowly and will take time to achieve their full impact. However, participation in adult learning remains low, with a potential adverse impact on the skills mismatch. Seniority pay, among other elements, contributes to low job mobility.

- **There is room to make the taxation system greener, fairer, simpler and more sustainable.** Belgium has a high level of taxation, but also substantial tax expenditures. Their extensive use makes the tax system complex for businesses. The high level of taxation on labour weakens labour participation and discourages lifelong learning. The existence of the 'marital quotient' generates work disincentives for second earners. Some features of the taxation system for real estate hinder labour mobility and contribute to distort investment choices and overinvestment in real estate. Environmental taxes have increased but

there is scope for further alignment with carbon emissions. The company car scheme continues to provide adverse incentives in terms of mobility.

- **There is room for improving the composition and efficiency of public spending, in order to better support economic growth**. The structurally low level of public investment, considered key in boosting long-term economic potential, has resulted in a deterioration of the public net capital stock. The low level of public investment calls for an in-depth reflection on the quality of public finances through the implementation of spending reviews across all levels of government. Moreover, budgetary coordination is not sufficiently effective yet, as the 2013 cooperation agreement has not been fully implemented. Fiscal rules are scarce at subnational level, while Regions and Communities have important expenditure-recurring tasks.

- **Belgium faces substantial challenges in relation to the medium- and long-term sustainability of its public finances.** Concerns related to the high level of public debt and large age-related liabilities are compounded by the deterioration in Belgium's budgetary situation. The effective retirement age remains well below the statutory retirement age, in particular for civil servants. Spending on long-term care is also projected to increase substantially over 2016-2070.

- **Banks' vulnerabilities in relation to the residential real estate market have deepened in a context of deteriorating credit standards and rising household debt.** Faced with intense competition on prices, which squeezed their margins, banks have loosened their credit standards to increase lending volumes. The National Bank of Belgium has urged the financial sector to exercise more caution in granting risky mortgage loans. Though measures have been taken, the design of the Belgian macroprudential framework could hamper the decision-making process.

- **Belgium faces important investment and regulatory challenges for sustainable growth and to ensure the low-carbon transition.** . The Belgian National Energy and Climate Plan has low ambition in terms of energy targets. Large public and private investment needs have been identified and will be required to adapt mobility solutions, energy production and housing quality. Despite proactive policies, the building sector is responsible for a fifth of emissions in Belgium, notably due to the old age of the building stock and still low renovation rates. Road users pay around 43% (passenger) and 27% (freight) of their external and variable infrastructure costs .Intensive agriculture, especially in Flanders, and relatively high population density exert strong pressures on land and biodiversity.

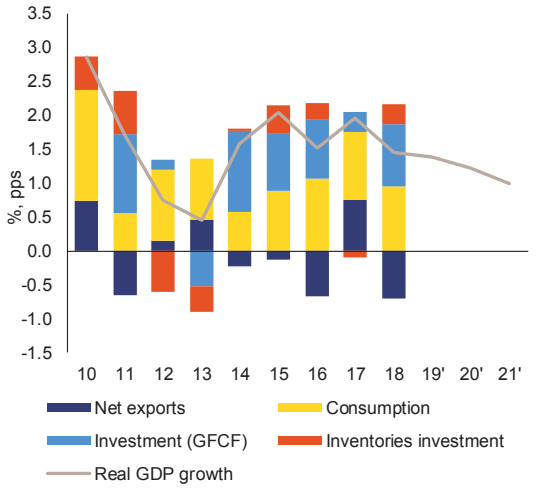
- **The low-carbon transition may impact vulnerable consumers, notably through energy prices, and employees in energy-intensive industries.** The energy bill remains high for low revenues households, partly due to distribution costs. The Commission's proposal for a Just Transition Mechanism under the next multi-annual financial framework for the period 2021-2027, includes a Just Transition Fund, a dedicated just transition scheme under InvestEU, and a new public sector loan facility with the European Investment Bank. It is designed to ensure that the transition towards EU climate neutrality is fair by helping the most affected regions in Belgium to address the social and economic consequences. Key priorities for support by the Just Transition Fund, set up as part of the Just Transition Mechanism, are identified in Annex D, building on the analysis of the transition challenges outlined in this report.

1. ECONOMIC SITUATION AND OUTLOOK

Economic growth

Growth is forecast to have eased to 1.4% in 2019 after a robust economic expansion of 1.5% in 2018. After growing at an average rate of 1.8% per year from 2014 to 2017, economic activity remained robust in 2018. The expansion was driven exclusively by rising domestic demand, as household consumption increased by 1.5% and investment by 4%. Net trade weighed negatively on growth, explaining most of the slowdown compared to 2017. According to the Commission 2020 Winter Forecast, economic activity in Belgium is forecast to have eased to 1.4% in 2019 , due to weaker domestic demand compounded by a drag from net export and inventories (Graph 1.1). This is mostly due to more moderate private consumption growth and to a large negative change in inventories.

Graph 1.1: **GDP growth and components**

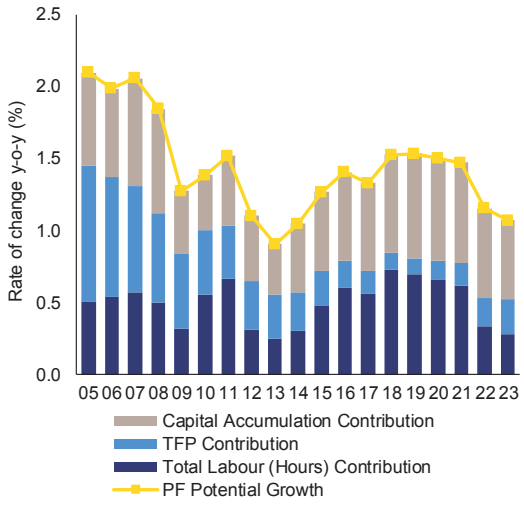


Source: European Commission

Economy activity is forecast to moderate further in 2020 and 2021. According to the Commission 2020 Winter Forecast, economic activity in Belgium is forecast to slow down further to 1.2% in 2020 and to 1.0% in 2021 (Graph 1.1). Domestic demand growth is forecast to rise slightly compared to 2019 as household consumption picks up pace, offsetting a slowdown in investment growth. Net trade is projected to make a negative contribution to growth in 2020 and 2021, as subdued world trade growth weighs on exports while rising domestic demand supports imports.

The recent revision ([4]) of national accounts shows that domestic consumption played a stronger role in the recent economic expansion. In 2019, the Belgian Institute of National Accounts published (Institut des comptes nationaux, 2019) a benchmark revision of its national accounts which slightly revised up average annual economic growth (+0.1pp of GDP per year between 1995 and 2017). Private consumption was revised up, among others due to a better estimate of financial services, housing expenditure and e-commerce spending.

Graph 1.2: **Potential growth estimates and components**



Source: European Commission

The moderate growth outlook is consistent with the current estimate for potential growth. In recent years, actual economic output has exceeded potential growth, estimated at around 1.5% over 2017-2019 (Graph 1.2), bringing the output gap to a positive 0.8% of GDP in 2018. Potential growth bottomed out at around 0.8% in 2013 and has since been trending upward, although it remains below the pre-2009 estimates. This is a feature Belgium shares with several Member States and, in general, the euro area as whole. Potential growth is

([4]) In line with the recommendations issued by Eurostat, Belgium, like most other EU countries, carried out a benchmark revision of its national accounts in 2019, covering statistical series dating back to 1995. In principle, this kind of revision takes place every 5 years and falls under normal procedures for improving the statistics.

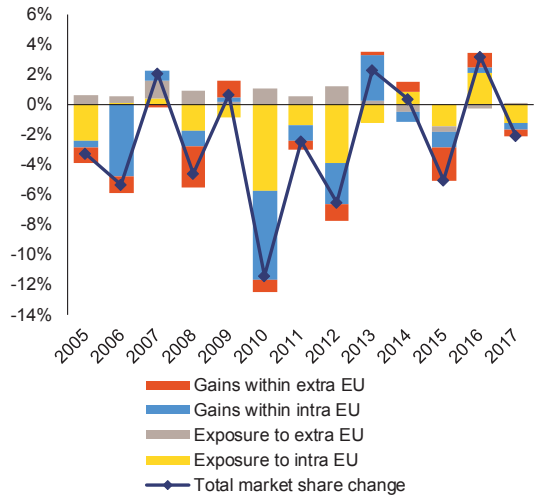
projected to broadly stabilise at 1.5% until 2021 and then decrease to about 1.1%. This is due to a much weaker contribution from labour, as population ageing weighs on the growth of the labour force.

Private consumption, supported by robust fundamentals, is set to continue driving economic growth. Private consumption grew by 1.5 % on average in 2013-2018, broadly in line with the trend observed since the early 2000s. This was achieved despite modest increases in real disposable income until 2016, which reflected a wage moderation policy aimed at correcting for past losses in cost competitiveness. Income growth has picked up since 2016 and is expected to rise further as wages are being adjusted for the cost of living through indexation. Some real wage increases have been agreed between social partners, while income tax cuts have also been introduced since 2016 as part of a multiannual tax reform. A relatively strong labour market performance is expected to continue contributing to growth in households' purchasing power. However, deteriorating consumer confidence is estimated to have slowed down household consumption growth in 2019 to 1.1 %. Combined with a rise in disposable income, this has led to a pick-up in the households saving rate. Household consumption is forecast to rise by 1.3 % in 2020 and 2021, which will stabilise the saving rate

Investment growth has been strong in recent years, but is forecast to moderate. Investment grew by 4.0% in 2018, slightly above the yearly average growth of 3.6% observed since 2014, and is expected to have grown by 3.4% in 2019. Business investment growth has been broad-based, underpinned by favourable financing conditions and substantial corporate liquidity reserves. It also reflected the need to address high capacity utilisation rates. However, the investment cycle is forecast to turn amid deteriorating confidence indicators and weaker order books, despite a recovery in January 2020. Household investment growth has remained relatively contained in recent years with an average 2.2% annual growth rate between 2013 and 2018. It is estimated to have picked up significantly to 6.5% in 2019 amid very favourable financing conditions, and is forecast to return to its past growth trend in 2020-2021. Public investment increased markedly in 2018 (13.3%) and is estimated to have grown very moderately in 2019 (1.8%), in line with the electoral cycle. It is forecast to grow by 6.2% in 2020 and 8.2% in 2021.

External trade is forecast to weigh negatively on growth, amid subdued world trade growth prospects. Net trade has made a negative contribution to growth on average since 2010, most notably in 2016 and 2018. The recovery of the goods balance in volume since 2009, though notable, has been insufficient to fully offset the steady decline in the balance of services in volume, which became negative in 2018. The subdued growth of world trade, notably among Belgium's main trading partners in the EU, has contributed to these developments. In addition, Belgium has lost export market shares over the past decade (Graph 1.3), both in goods and services, notably due to the lower dynamism of imports in its relevant export markets (see Section 3.4). This trend is expected to continue in 2020-2021 and be compounded by rising unit labour costs, which might negatively affect Belgium's price competitiveness.

Graph 1.3: **Changes in merchandise export market share**



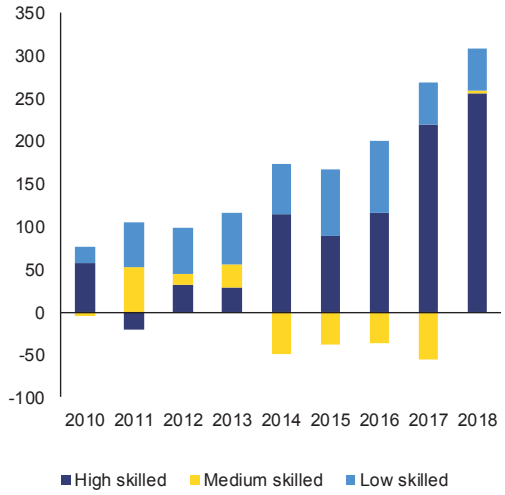
Source: European Commission

Labour market and social developments

Employment growth remains robust in spite of a slowdown in economic activity throughout the last year. In 2019, employment growth remained robust at 1.4%, but is likely to be restrained by a slowdown in economic growth due to a weakening of the world economy. More than 4.7 million

people are expected to be employed in 2019, the highest figure in the past 10 years. Employment growth is mainly concentrated among older workers, in the high skilled and – to a lesser extent - low skilled professions (Graph 1.4).

Graph 1.4: **Employment growth by occupation, cumulative, thousands**



Source: Eurostat

Despite the overall improvement in the labour market, outcomes vary widely across population groups and regions. Strong job creation combined with a limited increase in the working-age population, increased the employment rate to 70.7% in 2019Q3, one of the highest levels ever. However, the employment rate, which is held back by a low activity rate, remains below the Europe 2020 objective of 73.2%. Despite recent improvements for some groups, employment rates remain particularly low for the low-skilled, people with migrant background, older workers and people with disabilities. The unemployment rate has continued to decrease and reached 5.2% in 2019Q4. However, there remain large regional disparities in labour market outcomes. In 2018, the unemployment rate ranged from 3.4% in Flanders to 13.2% in Brussels. Further disparities exist with regard to long-term unemployment. In Flanders 33.9% of all unemployment is long-term unemployment, compared to 56.9% in Brussels and 56.2% in Wallonia. The share of temporary contracts increased to 9.8% in 2018, which is 1.7 pp. higher than in 2014, but below the EU average of 13.2%.

Income inequality and poverty are below the EU average. The income quintile ratio (S80/S20) in 2018 remained constant at 3.8, well below the EU average of 5.1 in 2017. The inequality-reducing impact of the tax and benefit system is high, substantially reducing market income inequality. An effective tax and benefit system also keeps the risk of poverty or social exclusion under the EU average (19.8% in 2018 compared to EU average of 21.9%), though the impact of social transfers keeps declining. Challenges remain in inequality of opportunity: the risk of poverty or social exclusion for children with low educated parents (65.1%) remains very high especially in comparison with children of higher educated parents (5.6%). Opportunities are also hindered by challenges in education and healthcare (see Section 3.3).

Prices, wages and costs

Inflation decelerated in 2019 and is expected to rise moderately in 2020. Headline inflation measured by the harmonised index of consumer prices fell from 2.3 % in 2018 to 1.2% in 2019, driven by lower energy and food prices. The prices of services and non-energy industrial goods grew at a slightly higher pace, supporting core inflation. According to the Commission 2020 Winter Forecast, headline inflation is expected to pick-up slightly to 1.4% in 2020 and to 1.5% in 2021, reflecting higher food and services prices. Core inflation is also expected to pick up from 1.6 % in 2019 to 1.7 % in both 2020 and 2021. The inflation gap compared to the euro area average has continued to narrow, from 1.6 pp in 2016 and closed in 2019, but is forecast to increase slightly to 0.1 pp in 2020 and 2021.

Belgium's real effective exchange rate increased in 2018, suggesting weaker price competitiveness. The real effective exchange rate ([5]) aims to assess a country's price or cost competitiveness relative to its main competitors in international markets, which depend not only on exchange rate movements but also on cost and price trends. Efforts to improve Belgium's price competitiveness, notably through wage moderation policies, helped decrease the real effective exchange rate from 2014 to 2016. However,

([5]) Deflated by the unit labour cost - 37 trading partners industrial countries.

Belgium's price competitiveness appears to have weakened as the rate increased in 2017 and 2018, amid rising inflation and unit labour costs.

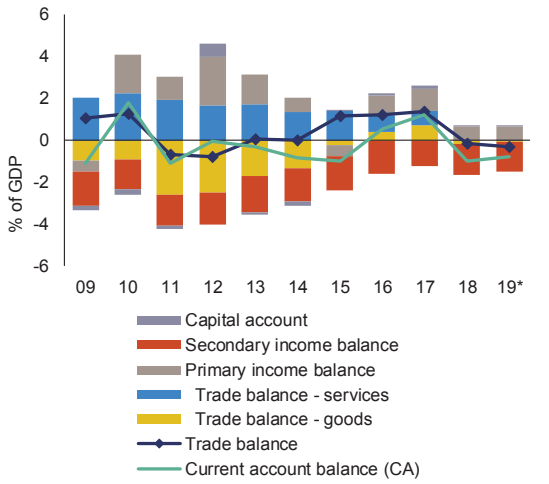
Wage growth is expected to remain moderate in the coming years. In the period 2019-2021, labour costs are expected to grow on average by 1.9% per year. The most important driver is inflation, which is passed on to wages via the system of automatic wage indexation. In addition, it is assumed that the maximum margin of 1.1% for negotiated wage increases in the period 2019-2020 will be fully used (see Section 3.4). Real wage growth has increased slightly by 0.3% in 2018, from 0.1% in 2017, in contrast with the negative growth recorded between 2013 and 2016. Combined with a decline in unemployment, wage increases are expected to enhance growth in disposable household income, which has been sluggish in the past years. According to the Commission autumn Forecast, unit labour costs are expected to continue growing by 1.8% per year on average, slightly above that of the euro area (1.6%).

The slowdown in productivity growth continues. Large private capital accumulation, a highly skilled workforce and strong innovation performance in some sectors (pharmaceuticals, minerals, chemicals) have contributed to a relatively high level of productivity. However, as explained in previous country reports (European Commission, 2019) labour productivity has grown very little in the past decade, broadly flattening since 2015. As in other advanced economies, this is largely due to the growing importance of services in the economy and to policies to increase the participation rate (including by the "service vouchers" measure). Policies to support total factor productivity growth are therefore expected to play an important role. Productivity is discussed in Section 3.4.

External accounts

The current account balance is expected to have remained negative in 2019. Belgium's current account balance fell from 1.2% of GDP in 2017 to -1.0% of GDP in 2018, and is forecast to remain negative at - 0.8% of GDP in 2019 (Graph 1.5). The current account balance is below its norm ([6]) and has been negatively affected by the relatively weak trade balance. The goods balance improved gradually and was positive from 2015 to 2017, although changes in oil prices go a long way in explaining this. In contrast, the services balance has recorded a steady deterioration. The primary income balance remained positive despite a significant deterioration in the net investment income balance, the latter stemming partly from higher revenue paid to foreign direct investors than that received from the rest of the world. From a sectoral perspective, the deteriorating savings position of corporations, in particular non-financial corporations, was the biggest reason for the decline of the net lending balance in 2018.

Graph 1.5: **External accounts developments**



Source: European Commission

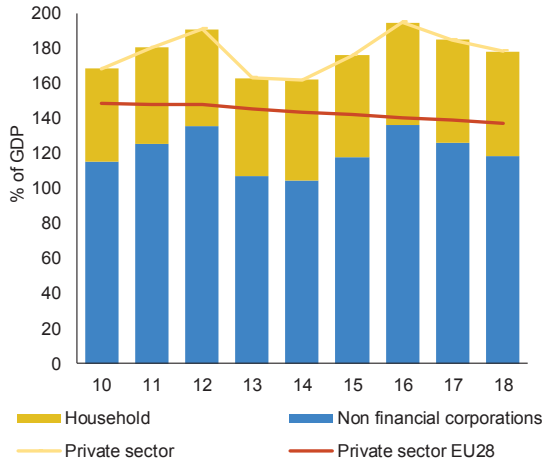
Belgium has a net creditor position in relation to the rest of the world. The balance between external financial assets and liabilities accounted for 41.3% of GDP in 2018, one of the highest figures in the EU. This surplus has decreased compared to 2017, when it reached 56.7% of GDP, mostly due to valuation effects. Belgium's net creditor position has its origin in the private sector, in particular Belgian households, which owned gross assets — foreign and domestic — representing 289% of GDP in 2018, with a net financial asset position of 225% of GDP.

([6]) The CA 'norm', or benchmark, of a country can be considered as the usual CA balance that prevails in countries with similar characteristics. For a detailed explanation, see Coutinho et al. (2018): "Methodologies for the Assessment of Current Account Benchmarks", European Economy Discussion Paper 86.

Private indebtedness

Private debt was relatively high at 179 % of GDP in 2018. The bulk of it is constituted by non-financial corporate debt, at 118.8 % of GDP in 2018 (Graph 1.6), a much higher level than what fundamental drivers would suggest. Non-financial corporation debt is also above the prudential benchmark (i.e. the level generally associated with heightened risks of banking crisis). Most of the increase since 2007, when non-financial corporate debt accounted for a more moderate 88 % of GDP, has been linked to cross-border intra-group lending, which is included in the consolidated figures in national accounts. The liabilities stemming from intra-group lending are estimated at around 62.8 % of GDP in 2018 and therefore push up the debt-to-GDP ratio. However, these liabilities are matched by an almost equivalent amount of assets and thus bear minor risks. Excluding intra-group lending, the debt of Belgian non-financial corporations is actually close to the various benchmarks, at about 60 % of GDP in 2018 (National Bank of Belgium 2019, p 110), suggesting that deleveraging needs are actually more modest. Cross-border intra-group lending has been stimulated by the notional interest deduction, an allowance for corporate equity within corporate income taxation. Nevertheless, recent changes made to the notional interest scheme are likely to render it less interesting for corporations.

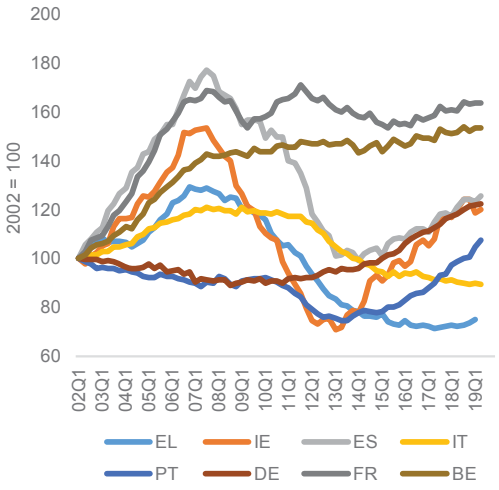
Graph 1.6: **Private indebtedness**



Source:

Household debt increased slightly and remains moderate, both as a share of GDP and of disposable income. Household debt has increased slightly to 59.7% of GDP, from 58.9% of GDP in 2017. It accounted for 104.1% of gross disposable income in 2018, up from 102.7% in 2017. This remains below what fundamental drivers would suggest is sustainable (see Section 3.2). However, it continues to rise above the level of the prudential benchmark (i.e. the level generally associated with heightened risks of banking crisis). In contrast, households' debt still account for a relatively modest share of their financial assets, at 21.2% in 2018, due to a very favourable aggregate net asset position.

Graph 1.7: **Deflated house price index, index 2002Q1=100**



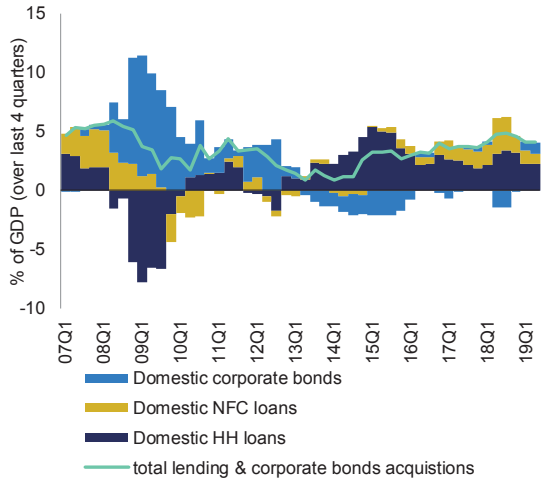
Source: European Commission

Housing prices have increased moderately in recent years. Real house prices, as measured by the house price index, have increased by 1.1% year-on-year as of 2019 Q2, broadly in line with their evolution in recent years (1.2% per year since 2015). This moderate expansion follows a period of strong growth of about 5% per year from 1998 to 2007. Over the past few years, Belgian housing prices have grown much more slowly than those in neighbouring countries (Graph 1.7). Nevertheless, some indicators point to overvaluation risks in the Belgian residential real estate market (see Section 3.2).

Credit growth has remained robust and broad-based. Total net credit to the non-financial private sector accounted for 4.5% of GDP on a yearly basis as of 2019 Q2, slightly below the level recorded in 2018 but above the average annual

credit growth of previous years (see Graph 1.8). Credit growth is predominantly driven by corporate lending, although credit to households registered a robust growth in 2018 before slowing down in the first half of 2019. The cost of credit in Belgium has continued to diminish and has gradually aligned with that registered in the euro area, both for corporations and households (see Section 3.2).

Graph 1.8: **Monetary and financial institutions lending to the non-financial private sector**



Source: European Commission

Public finance

The government deficit is expected to deteriorate. According to the Commission's 2019 Autumn Forecast, the general government deficit is expected to have increased to 1.7% of GDP in 2019, following a notable improvement in 2017 and 2018 when the fiscal deficit was recorded at 0.7% of GDP. The deterioration is expected to have been driven both by a decrease in revenue of 0.9% of GDP and an increase in expenditure of around 0.2% of GDP. Some tax reforms adopted in recent years are expected to have weighed on revenues. Corporate income tax revenue is expected to decrease in 2019 as it reverts to trend after a temporary peak in 2017 and 2018. In addition, a cut in personal income tax has taken effect as part of measures to shift taxation away from labour. Furthermore, weaker macroeconomic conditions are expected to weigh on the growth of the tax base. On the expenditure side, rising social benefits and transfers in kind, notably due to higher pensions and health expenditure, further worsened the headline deficit. Under a no-policy-change assumption, the headline deficit is expected to further widen to 2.3% of GDP in 2020 and to 2.6% of GDP in 2021, respectively.

Public debt is forecast to stabilise at close to 100% of GDP. After peaking at 107.0% of GDP in 2014, public debt fell gradually to 100% of GDP in 2018. According to the Commission 2019 Autumn Forecast, the debt-to-GDP ratio is expected to have fallen to 99.5% of GDP in 2019 and to hedge up to 99.6% in 2020 (see Section 3.1).

Regional disparities

Inter- and intra-regional disparities remain high in Belgium. They concern various economic dimensions including GDP per head and GDP growth, employment and unemployment as well as competitiveness (see Section 3.4).

Sustainable Development Goals.

Belgium is overall an average performer in achieving the Sustainable Development Goals. According to Eurostat's Sustainable Development Goals (SDGs) indicators (see Annex E), over the past 5 years Belgium has been making uneven progresses. Belgium performs well with regard to industry, innovation and infrastructure (SDG 9) thanks to the relatively high R&D expenditure as share of GDP and the share of employment in high and medium-high technology manufacturing and knowledge-intensive industries, despite going slightly backwards in sustainable transport. Belgium is also good performer in health and well-being (SDG 3) in line with the high standard of its health system, where all indicators apart one are above the EU average and in reduced inequalities (SDG 10) thanks to its tax and benefit system. However, in relation to waste generation and management, Belgium performance is mixed as good indicator for the recycling and circular material use are offset by a larger (than EU average) production of waste per capita. Finally, Belgium has well above-average nitrates and phosphate pollution problems.

Table 1.1: **Key economic and financial indicators – Belgium**

	2004-07	2008-12	2013-16	2017	2018	forecast 2019	2020	2021
Real GDP (y-o-y)	3.0	0.7	1.4	2.0	1.5	1.4	1.2	1.0
Potential growth (y-o-y)	2.1	1.4	1.2	1.3	1.5	1.5	1.5	1.5
Private consumption (y-o-y)	1.6	1.5	1.8	1.8	1.5	.	.	.
Public consumption (y-o-y)	1.4	1.3	0.5	0.3	0.9	.	.	.
Gross fixed capital formation (y-o-y)	6.0	0.2	3.6	1.3	4.0	.	.	.
Exports of goods and services (y-o-y)	5.7	0.8	4.9	5.3	1.2	.	.	.
Imports of goods and services (y-o-y)	5.9	1.3	5.2	4.4	2.1	.	.	.
Contribution to GDP growth:								
Domestic demand (y-o-y)	2.4	1.1	1.5	1.3	1.9	.	.	.
Inventories (y-o-y)	0.5	0.0	0.1	-0.1	0.3	.	.	.
Net exports (y-o-y)	0.2	-0.3	-0.1	0.7	-0.7	.	.	.
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	0.5	0.5	0.4	0.6	0.7	0.7	0.7	0.6
Capital accumulation (y-o-y)	0.6	0.5	0.5	0.6	0.7	0.7	0.7	0.7
Total factor productivity (y-o-y)	0.9	0.5	0.3	0.2	0.1	0.1	0.1	0.2
Output gap	1.2	-0.4	-0.4	0.9	0.8	0.4	-0.1	-0.6
Unemployment rate	8.2	7.6	8.3	7.1	6.0	5.5	5.4	5.3
GDP deflator (y-o-y)	2.0	1.6	1.7	1.7	1.5	1.6	1.9	2.0
Harmonised index of consumer prices (HICP, y-o-y)	2.1	2.5	1.0	2.2	2.3	1.2	1.4	1.5
Nominal compensation per employee (y-o-y)	2.7	2.5	1.0	1.8	1.9	1.7	1.8	2.1
Labour productivity (real, person employed, y-o-y)	1.7	-0.1	0.8	0.3	0.1	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	0.9	2.6	-0.1	1.5	1.8	1.8	1.7	1.9
Real unit labour costs (y-o-y)	-1.1	0.9	-1.7	-0.2	0.3	0.2	-0.2	-0.1
Real effective exchange rate (ULC, y-o-y)	0.2	0.3	-2.0	1.7	1.2	-1.4	-0.7	0.1
Real effective exchange rate (HICP, y-o-y)	0.3	-0.3	-0.5	1.6	2.3	-1.2	-0.7	-0.5
Net savings rate of households (net saving as percentage of net disposable income)	10.7	9.9	6.0	5.2	4.8	.	.	.
Private credit flow, consolidated (% of GDP)	9.3	11.7	10.5	0.1	0.8	.	.	.
Private sector debt, consolidated (% of GDP)	125.2	176.2	174.0	185.0	178.5	.	.	.
of which household debt, consolidated (% of GDP)	44.1	53.0	57.3	58.9	59.7	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	81.1	123.2	116.7	126.1	118.8	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	2.6	4.2	3.6	2.3	2.0	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	1.3	1.5	2.4	0.9	-1.1	-0.1	0.4	0.8
Corporations, gross operating surplus (% of GDP)	24.2	23.6	24.4	25.8	25.6	25.7	26.1	26.3
Households, net lending (+) or net borrowing (-) (% of GDP)	3.6	3.8	1.6	1.1	0.9	1.1	1.0	0.9
Deflated house price index (y-o-y)	6.8	0.8	0.4	1.7	1.0	.	.	.
Residential investment (% of GDP)	5.9	6.1	5.8	5.7	5.8	.	.	.
Current account balance (% of GDP), balance of payments	2.3	0.1	0.9	1.2	-1.0	-0.8	-0.9	-1.0
Trade balance (% of GDP), balance of payments	2.5	-0.2	0.7	1.4	-0.2	.	.	.
Terms of trade of goods and services (y-o-y)	-0.5	-0.6	0.6	-0.6	-1.0	0.1	0.3	0.3
Capital account balance (% of GDP)	-0.2	0.0	0.0	0.1	0.0	.	.	.
Net international investment position (% of GDP)	35.6	49.9	46.9	56.7	41.3	.	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (1)	.	58.4	53.5	46.5	36.6	.	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (1)	.	241.1	197.5	191.4	185.9	.	.	.
Export performance vs. advanced countries (% change over 5 years)	0.4	-2.8	-8.4	-1.7	-3.4	.	.	.
Export market share, goods and services (y-o-y)	-2.5	-3.3	0.3	-0.3	-1.0	-0.7	-1.8	-2.0
Net FDI flows (% of GDP)	-2.0	-3.0	1.7	5.6	1.9	.	.	.
General government balance (% of GDP)	-0.7	-3.9	-2.7	-0.7	-0.7	-1.7	-2.3	-2.6
Structural budget balance (% of GDP)	.	.	-2.8	-1.7	-1.8	-2.1	-2.4	-2.2
General government gross debt (% of GDP)	92.8	100.4	105.6	101.8	100.0	99.5	99.6	100.0
Tax-to-GDP ratio (%) (3)	45.6	46.2	47.4	46.7	46.9	46.0	45.8	45.7
Tax rate for a single person earning the average wage (%) (4)	42.0	42.6	41.9	40.6	39.9	.	.	.
Tax rate for a single person earning 50% of the average wage (%) (4)	25.8	27.3	24.7	21.5	20.1	.	.	.

(1) NIIP excluding direct investment and portfolio equity shares.
(2) Domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(3) The tax-to-GDP indicator includes imputed social contributions and hence differs from the tax-to-GDP indicator used in the section on taxation.
(4) Defined as the income tax on gross wage earnings plus the employee's social security contributions less universal cash benefits, expressed as a percentage of gross wage earnings.

Source: Eurostat and ECB as of 4-2-2020, where available; European Commission for forecast figures (Winter forecast 2020 for real GDP and HICP, Autumn forecast 2019 otherwise).

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Since the start of the European Semester in 2011, 60% of all country-specific recommendations addressed to Belgium have recorded at least 'some progress' ([7]). ''Limited' or 'no progress' has been made on 40% of the recommendations (see Graph 2.1). Substantial progress has been achieved by reforming the wage bargaining framework to safeguarding and restore the cost-competitiveness of the economy, and the recommendation on increasing the resilience of the financial sector has been fully implemented. Important measures were adopted as well in the areas of pensions, labour market (Jobs deal) and taxation, including the reform of the corporate taxation and the 'Tax shift'.

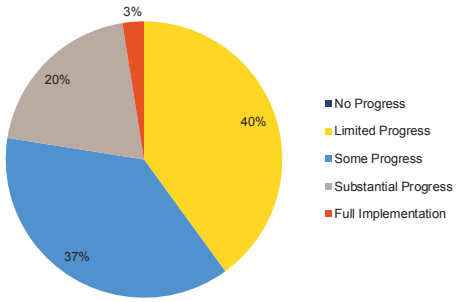
Since 2011, Belgium has made some progress in strengthening public finances. However, a more structural budget consolidation could have been undertaken, as a significant share of the improvement stemmed from a reduction in interest spending thanks to low interest rates. In the absence of additional measures, the general government deficit is projected to widen in the near future. Meeting the target of a structurally balanced budget has been repeatedly postponed now to 2021 by the Federal Government. The public debt-to-GDP ratio peaked at 107.0 % of GDP in 2014 and is forecast to have declined below 100% in 2019. However, it remains high and is not expected to decrease further in the near future, contributing to fiscal sustainability risks.

Measures have been introduced to address the projected increase in age-related expenditure, yet the sustainability of the pension system remains a challenge. Since 2012, age and career length requirements for early retirement have been repeatedly increased. In 2015, legislation was passed increasing the statutory retirement age by two years : it will increase from 65 to 66 years from 2025 and will increase to 67 as of 2030. In addition, the option of leaving the labour market prematurely through the system of unemployment with company allowance has been progressively tightened. Smaller pension reforms concerned civil servant pensions, for example the reduction of preferential accrual rates and the way years of study are taken into consideration.

([7]) For the assessment of other reforms implemented in the past, see in particular section 3.

The continued decline in total factor productivity is an obstacle to potential growth. Limited progress in lifting restrictions on competition in services, in alleviating a rather heavy administrative burden on companies, in broadening the diffusion of technological advances, combined with a low resource allocation have constrained the growth contribution of total factor productivity. By contrast, the implementation of various labour cost moderation policies has been successful in stimulating job creation, leading to an increasing labour participation rate and a record-low unemployment rate. Similarly, the contribution of capital deepening to the potential growth estimate remained stable compared to the pre-crisis years thanks to resilient private investment counterbalancing the low level of public investment.

Graph 2.1: **Overall multiannual implementation of 2011-2019 CSRs to date**



* The overall assessment of the country-specific recommendations related to fiscal policy excludes compliance with the Stability and Growth Pact.
** 2011-2012: Different CSR assessment categories.
*** The multiannual CSR assessment looks at the implementation since the CSRs were first adopted until the 2020 Country Report.

Source: European Commission

Investment is crucial to ensure longer-term growth. Although overall investment did not experience the steep decline observed in other countries in the wake of the financial crisis, the situation is far less positive when it comes to public investment. The latter has been structurally low for several decades, as a result of policy choices within a context of prolonged fiscal consolidation. Sustained cut in investment budgets have resulted in net public investment averaging zero since the 1990s, eroding the quality of public infrastructure (see Section 3.4). The political

agreement on a national pact for strategic investments, the announcement of an inter-federal energy pact in 2017 and calls to agree an inter-federal mobility strategy could provide renewed impetus for investment, including in energy and transport infrastructure.

Belgium has made limited progress in addressing the 2019 country-specific recommendations. There has been no progress on distributing fiscal targets among the various levels of government in a way that can be enforced. Limited progress has been also made on improving the composition of public expenditure, although regional governments are making progress in introducing spending review mechanisms in their budgetary process. Meanwhile, some progress was made in fostering investment in transport through the National Pact for Strategic Investment, an increase in infrastructure investment is projected. There has also been limited progress on vocational education and training, quality of education reforms with regard to performance and inclusiveness, although the Communities are phasing in education reforms (e.g. reforms covering several sectors in the Flemish Community and the French Community's 'Pacte d'Excellence'). There is limited progress on reducing the financial disincentives to work, implementing labour market reforms with regard to disadvantaged groups and addressing skills mismatches. Limited progress has been made in fostering investment in knowledge-based capital, even if measures vary in scope at regional, community and federal level. Limited progress has been made in lifting barriers to competition in services. For certain professional services, regulatory restrictions continue to hamper competition. Also, limited progress has been made in improving the functioning of the retail sector for the benefit of businesses and consumers. Finally, limited progress has been made in improving mobility.

Upon request from a Member State, the Commission can provide tailor-made expertise under the Structural Reform Support Programme to help design and implement growth-enhancing reforms. Since 2018, such support has been provided to Belgium for more than 20 projects. In 2019, several projects were delivered on the ground. The Commission, for example, supported the Port of Antwerp's efforts to address road congestion through a more efficient use of rail and waterways. Moreover, the Service provided support for the introduction of spending reviews in Flanders through a pilot project and technical advice on how to systematically introduce spending reviews in the budgetary process. This has informed the Flemish government's plan to carry out regular spending reviews In 2019, work started on exploring the use of spending reviews at the federal level, strengthening the fiscal coordination between the different levels of government, and reducing the administrative burden for citizens and businesses in the Brussels Region.

Table 2.1: Progress with the implementation of the 2019 CSRs[8]

Belgium	Overall assessment of progress with 2019 CSRs: Limited progress
CSR 1: *Ensure that the nominal growth rate of net primary government expenditure does not exceed 1.6 % in 2020, corresponding to an annual structural adjustment of 0.6 % of GDP. Use windfall gains to accelerate the reduction of the general government debt ratio. Continue reforms to ensure the fiscal sustainability of the long-term care and pension systems, including by limiting early exit possibilities from the labour market. Improve the composition and efficiency of public spending, in particular through spending reviews, and the coordination of fiscal policies by all levels of government to create room for public investment.*	Belgium has made **limited progress** in addressing the fiscal-structural part of CSR1[(1)]: • **Limited progress** in containing the projected increase in long-term care expenditure. • **Limited progress** in pursuing the envisaged pension reforms. • **Limited progress** in improving the composition and efficiency of public spending, by carrying out spending reviews. • **No progress** in coordinate fiscal policies of all levels of government.
CSR 2: *Remove disincentives to work and strengthen the effectiveness of active labour market policies, in particular for the low-skilled, older workers and people with a migrant background. Improve the performance and inclusiveness of the education and training systems and address skills mismatches.*	Belgium has made **limited progress** in addressing CSR2 • **Limited progress** in removing disincentives to work and strengthening the effectiveness of active labour market policies. • **Limited progress** in improving the performance and inclusiveness of the education and training systems. • **Limited progress** in addressing skills mismatches.
CSR 3: *Focus investment-related economic policy on sustainable transport, including upgrading rail infrastructure, the low carbon and energy transition and research and innovation, in particular in digitalisation, taking into account regional disparities. Tackle the growing mobility challenges, by reinforcing incentives and removing barriers to increase the supply and demand of collective and low emission transport.*	Belgium has made **limited progress** in addressing CSR3 • **Some progress** in fostering investment in rail infrastructure. • **Limited progress** in promoting energy transition and a low carbon economy • **Limited progress** in promoting R&D. • **Limited progress** in reinforcing incentives to use collective and low emission transport.
CSR 4: *Reduce the regulatory and administrative burden to incentivise entrepreneurship and remove barriers to competition in services, particularly telecommunication, retail and professional services.*	Belgium has made **limited progress** in addressing CSR4 • **Limited progress** in reducing the administrative burden. • **Limited progress** in removing barriers to competition in services, in particular telecommunication, retail and professional services.

(1) This overall assessment of CSR1 does not include an assessment of compliance with the Stability and Growth Pact.

Source: European Commission

For CSR3 the regulatory framework underpinning the programming of the 2021-2027 EU cohesion policy funds has not yet been adopted by the co-legislators, pending inter alia an agreement on the multiannual financial framework (MFF).

Box 2.1: EU FUNDS AND PROGRAMMES TO ADDRESS STRUCTURAL CHALLENGES AND TO FOSTER GROWTH AND COMPETITIVENESS IN BELGIUM

The financial allocation from the EU Cohesion policy funds ([1]) for Belgium amounts to € 2 billion in the current Multiannual Financial Framework with a national co-financing of €2.6 billion. This total investment of €4.7 billion is equivalent to around 0.2 % of the GDP annually. By the end of 2019, some €4.3 billion (around 91% of the total amount planned) were allocated to specific projects and €1.6 billion were reported as spent by the selected projects ([2]), showing a level of implementation below the EU average.

EU Cohesion policy funding supports structural challenges in Belgium. The Cohesion Policy programmes for Belgium have allocated € 526 million for smart growth, € 358 million for sustainable growth and sustainable transport and € 1.1 billion for inclusive growth. In 2019 following a performance review ([3]) € 240 million have been made available for Belgium.

EU Cohesion policy funding is contributing to major transformations of the Belgian economy by promoting growth and employment via investments, among others, in research, technological development and innovation, competitiveness of enterprises, sustainable transport, employment and labour mobility. By 2019, investments driven by EU Funds have already led to 165 new research projects supported to market products. Support was already decided for 20,380 enterprises including 5,345 start-ups, generating 9,845 new jobs. ESI funds contributed to the reduction of greenhouse gas emissions by 15,958 tons of CO_2. The ESF provided specific and tailor-made support for young people not in education, employment or training. Thanks to the European Social Fund (ESF) and Youth Employment Initiative more than 150,000 young people have benefitted to date from targeted support for their integration in the labour market. The ESF also reinforced improved access to and development of training support, including through dual learning. To make skills and qualifications more relevant to the job market, the ESF improved access to dual training for more than 222,000 people.

For instance, in order to address the issue of youth unemployment, the Public Employment Service in Brussels implements a specific action, the Youth Guarantee Service, dedicated to assist young people at the end of their studies with a job, a traineeship or a training within four months after their registration. Benefiting from a total support of € 3.4 million (of which 50 % ESF), this service has accompanied 17,500 young people between 2014-2018. Likewise, TechnoCampus is a training center for future jobs in Hainaut-Namur. With a total cost of € 2.7 million (ERDF € 1.1 million), it proposes a wide range of trainings covering the most important competences for the enterprises of the industrial sector.

Agricultural and fisheries funds and other EU programmes also contribute to addressing the investment needs. The financial allocations from the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF) in the current Multiannual Financial Framework amount to € 648 million and € 41.7 million respectively (€1.4 billion and €68 million in total cost respectively). In addition, Belgium also benefits from other EU programmes, such as the Connecting Europe Facility, which allocated EUR 638 million to specific projects on strategic transport networks, Horizon 2020, which allocated EU funding of EUR 2.3 billion (including 496 SMEs with about EUR 359.3 million).

EU funding contributes to mobilization of private investment. ESI funds supported programmes alone mobilise additional capital by allocating about € 283 million in the form of loans, guarantees and equity. As of end of 2018, 7 % of the ESI funds were paid in a form of financial instruments.

EU funds already invest on actions in line with the Sustainable Development Goals (SDGs). In Belgium European Structural and Investment Funds support 12 out of 17 SDGs and up to 97 % of the spending is contributing to those goals.

([1]) European Regional Development Fund (ERDF), European Social Fund (ESF) and Youth Employment Initiative.
([2]) Available at: https://cohesiondata.ec.europa.eu/countries/BE.
([3]) Under the performance review (Article 22 of Regulation (EU) No 1303/2013), 5-7% of overall resources allocated are released to performing priority axes of the operational programmes, which includes national co-financing.

3. REFORM PRIORITIES

3.1. PUBLIC FINANCES AND TAXATION

3.1.1. FISCAL POLICIES

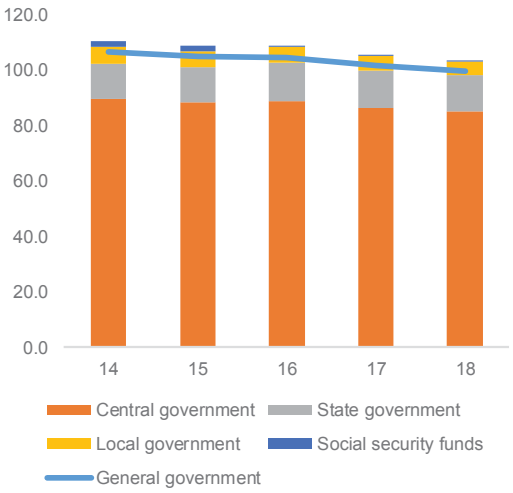
The Belgian general government deficit is projected to increase. The headline deficit is estimated to have increased from 0.7% of GDP in 2018 to 1.7% in 2019 and is projected to increase further to 2.3% of GDP in 2020 according to Commission 2019 Autumn Forecast. Revenue growth is expected to be affected by a drop in corporate and personal income taxation as well as by a lowering of social security contributions in the context of the 'tax shift', a multi-year tax reform reducing the tax pressure on labour. Expenditure growth is expected to be driven by rising social benefits and social transfers, in line with the trend observed in previous years.

The fiscal stance is expected to have become expansionary in 2019, with the structural balance deteriorating. From a deficit of 3.9% of GDP in 2011, the structural balance improved to a deficit of 1.8% of GDP in 2018. However, this improvement is expected to have come to a halt in 2019 with the structural balance deteriorating by 0.3 pps of GDP. This is forecast to be repeated in 2020, resulting in an expansionary fiscal stance. Up to 2018, more than half of the structural balance improvement stemmed from a reduction in interest spending, thanks to low interest rates. In its stability programme of April 2019, Belgium confirmed its target of a balanced structural budget but postponed its achievement by one year to 2021. Due to the protracted period with a caretaker government, no measures were undertaken in 2019 to resume the consolidation effort.

Public debt has declined further, but is expected to stabilise at its currently high level. Debt declined to 100% of GDP in 2018, from a peak of 107% of GDP in 2014. Public debt is expected to have decreased further in 2019 to 99.5% of GDP, but is forecast to rise again in 2020 to 99.6% of GDP according to the Commission 2019 Autumn Forecast. Combined with the structural budget deficit, high debt limits the authorities' scope for new or countercyclical policies in case of a downturn. The projected increase in age-related spending, if left unaddressed, would amplify those risks.

The bulk of the debt and of its recent decrease is at federal level. The decomposition of debt across the different government tiers shows that in 2018 85.2% of the overall debt was held by the federal government. The social security sector has almost no debt (0.4% of total debt). The regions and local governments debt have reached 13.2% and 5.1% respectively (see Graph 3.1.1). The decrease in public debt since its peak in 2014 was mostly due to the efforts of the federal government and of the social security sector.

Graph 3.1.1: **Breakdown of gross public debt**



Note: Figures for general government debt are consolidated across all entities. This explain why the sum of the debt of all entities does not equal the level for the general government.
Source: European Commission

3.1.2. COMPOSITION OF PUBLIC SPENDING

Total public expenditure as a share of GDP had decreased, but remains among the highest in the euro area. While decreasing since its peak in 2012 at 56.5% of GDP, it still stood at 52.1% of GDP in 2018 compared to 47.0% of GDP in the euro area. France and Finland were the only euro-area countries with a higher level of public spending, respectively at 56.0% and 53.1% of GDP. Interest spending contribute to the higher level of total public expenditure, due to Belgium's high public debt. Primary expenditure (total public expenditure net of interest payments) stood at 50.0% of GDP in 2018, also well above the euro area average of

45.2% of GDP. Only France, Finland and Denmark recorded a higher level of primary expenditure in 2018.

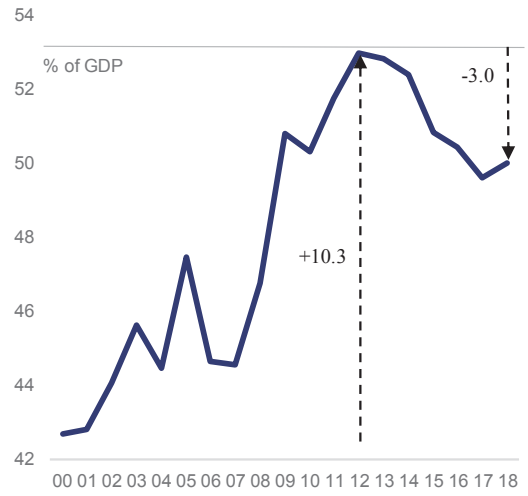
Expenditure started to increase again in 2018. It increased from 51.8% in 2017 to 52.1% of GDP. Public investment increased by 0.2 percentage point of GDP in 2018 compared to the previous year. As the increase was not financed by saving in other spending items, this halted a downward trend that started in 2013. Total spending decreased steadily from a peak of 56.5% of GDP in 2012 to 51.8% in 2017. The consolidation benefitted from lower interest spending thanks to low interest rates. The implicit interest rate on public debt shrank from 3.5% to 2.3% of GDP over the same period of time.

The recent expenditure consolidation only partially counterbalanced previous increases. In 2018, primary expenditure stood 7.3 percentage points of GDP higher than its level in 2000 (see Graph 3.1.2). Primary expenditure increased by 2.2 pp. in the euro area over the same period of time. The increase in social spending ([9]) explained more than half of the increase (around 4 percentage points of GDP). The remaining share stems from an increase in compensation of employees (+1.1 percentage points) and in subsidies (+2.0 percentage points). Belgium spends comparatively more than the euro area average on public wages and subsidies to the private sector (see European Commission, 2019).

Despite significant investment needs, public investment barely increased and remained below the euro-area average. Belgium has important investment needs in social housing, education (see Section 3.3), sustainable transport, energy and digital infrastructure (see Section 3.4). However, in line with previous electoral cycles, in 2018 gross fixed capital formation increased to 2.6% of GDP from 2.4% in the previous year. The increase is mostly due the regional and local governments, while investment from the federal government barely changed. At 2.6% of GDP, public investment in Belgium remains below the level in France (3.4%) and the Netherlands (3.3%), but above Germany (2.4%).

([9]) Social spending is measured as the sum of social benefits other than social transfers in kind and social transfers in kind supplied to households via market producers.

Graph 3.1.2: **Evolution of primary expenditure**



Source: European Commission

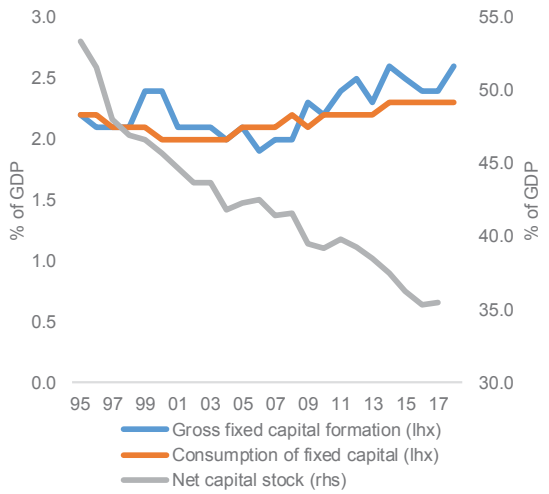
A prolonged policy of low public investment has resulted in a depletion of the public net capital stock. Public investment in Belgium has merely compensated for the depreciation of the existing capital stock since 1995 (see Graph 3.1.3). As a result, the public net capital stock has declined by 15 percentage point of GDP since 1995. Germany initially experienced a similar evolution, but since 2006 the drop has halted. By contrast, France managed to slightly increase its capital stock over the same period.

The operationalisation of the National Pact for Strategic Investment could help increase the overall level of public investment by improving the coordination, including budgetary, of the different investment plans. The regions and communities plan to increase their investment rates. Almost 90% of public investment is carried out by the federated entities (regions and communities) and local authorities, reflecting the distribution of competences across the different tiers of government. Nevertheless, their overall investment has remained rather stable since 2000, hovering at around 2% of GDP ([10]). Regional governments have announced major investment plans in their programmes. However, these are expected to be deficit-increasing as they do not

([10]) It slightly increased in 2018 in line with previous electoral cycles.

appear to be financed by an increase in revenues nor by a decrease in other expenditure. ([11])

Graph 3.1.3: **Evolution of public net capital stock**



Source: European Commission

3.1.3. SPENDING REVIEWS

Spending reviews could contribute to improving the composition and the efficiency of public spending and make it more growth friendly. Belgium's high level of public spending coexists with a low level of public investment. Spending reviews could serve as a key tool for reprioritising expenditure towards spending outlays that better meet the country's economic and societal goals. By unlocking efficiency gains, they can generate savings without constraining growth.

Budgetary processes currently does not fully satisfy the prerequisites for introducing spending reviews. Budgets of the federal and federated entities tend to present spending without making a link to policy objectives and therefore hampering their evaluation. With the exception of Flanders, annual budgets rather than multiannual budgets are produced. More collaboration between budgetary and policy-oriented departments at different administrative levels would notably allow for a better exchange of data as basis for proper evaluations.

Important expenditure-incurring tasks have been devolved to regions, communities and local authorities. The sixth state reform in 2016 devolved some competencies and related resources to the regional authorities. In 2018, about 32.6% of total public expenditure was spent at regional and community level and 13.2% at local level with health care and social protection being the biggest items ([12]). It is the responsibility of each level of government to make efficient use of public money, in particular as Belgium has no hierarchy of norms between its different levels of government. The devolution of an increasing share of spending responsibilities from the Federal Government to the Federated entities combined to the need for the latter to upgrade the regions' infrastructure call for a continued scrutiny of their expenditure in order to identify potential efficiency gains[13].

Subnational fiscal rules are scarce. According to the Commission database ([14]) existing fiscal rules in Belgium cover the general government, the social security sector and the local authorities. There are no fiscal rules covering the regional government.[15] Of the different kind of fiscal rules, expenditure rules for regional governments in federal states could be easier to be envisaged in light of their higher share in general government expenditure.

The cost-efficiency ratio of several public services could be improved. A recent analysis of the National Bank of Belgium (Cornille, D. et al., 2017) pointed to education (see Section 3.3), health (see infra) and mobility (see Section 3.4) policies as area where further efficiency gains could be pursued. There is also room to improve Belgium's rank in certain public services for

([11]) The Court of Auditor pointed out this behaviour in its recent report on the 2020 budget of the Walloon region, available at: https://www.ccrek.be/FR/Publications/Fiche.html?id=b088674b-983f-44e2-851d-31f0ce0b19cc. This is also true for the Flemish Region, for the French Community and for the Brussels Region.

([12]) Source: Eurostat; total spending net of transfers to other government tiers as a share of general government spending.

([13]) During the latest State reform, the federated entities, for certain of the transferred competencies, received less resources from the federal level than originally used, requiring certain efficiency gains on behalf of the federated entities.

([14]) Fiscal rule database, available at: https://ec.europa.eu/info/publications/fiscal-rules-database_en.

([15]) Flanders has approved a debt-norm at the end of 2016. Accordingly, the debt should be limited to a maximum of 65% of current revenues.

businesses (see Section 3.4.2) digital public services to citizens and justice (see Section 3.4.4). Belgium performs well in health, but strengthened prevention (see section 3.3) and a more appropriate use of services and pharmaceuticals(see infra) could improve overall efficiency, and reduced inequalities.

Flanders announced its intention to roll out spending reviews after having carried out a spending review pilot exercise in 2018-2019. With the support of the Commission a spending review on services vouchers *(dienstencheques/titres services)* and a technical analysis of how to systematically introduce spending review in the budgetary process ([16]) were finalised in 2019. The new Flemish government announced its intention to roll out spending reviews further with the aim to conduct at least one in every policy domain within every legislature. The Federal level, Brussels and Wallonia have recently shown interest in introducing spending reviews, even if at different extent.([17]) The French Community has currently no plans to introduce spending reviews.

3.1.4. FISCAL FRAMEWORK

The current budgetary framework put the burden of the fiscal consolidation on the federal government. Final expenditure by the federal government represents only a limited share of its total expenditure. The service of the debt and the transfers to the other government tiers represented the bulk of it in 2018 (respectively 1.9% and 17.1% of GDP). Large transfers to the social security sector, to compensate for insufficient own revenues, put an additional strain on the federal government budget. These transfers are expected to increase (see Table 3.1.1) ([18]) given the projected increase in ageing cost (see Section 3.1.5) and in particular of pension and health care.

Table 3.1.1: **Government size by subsector in 2021, (% of GDP)**

	Federal	Social security	Regions	Local government	Total
Total revenues	**24.8**	**21.9**	**19.2**	**7.1**	
Own revenues	*24.2*	*14.7*	*8.0*	*3.8*	*50.6*
Transfers from other govern. tiers	*0.7*	*7.2*	*11.2*	*3.4*	
Total expenditure	**26.7**	**22.1**	**19.6**	**7.1**	
Final expenditure	*7.4*	*19.8*	*16.9*	*6.9*	*51.0*
Transfers to other govern. tiers	*17.7*	*2.3*	*2.5*	*0.1*	
Interest payments	*1.6*	*0.0*	*0.2*	*0.0*	*1.9*
Headline balance	**-1.9**	**-0.2**	**-0.4**	**0.1**	**-2.4**

Source: European Commission

Budgetary coordination is not sufficiently effective yet, as the 2013 cooperation agreement has not been fully implemented. As described in previous country reports, Belgian federated entities and the federal government signed a cooperation agreement in 2013 to ensure effective budget coordination. The Concertation Committee did not approve but merely 'took note' of the overall fiscal trajectory presented in the 2019 Stability Programme and the postponement of the achievement of fiscal target to 2021 by all government levels. Although this is a step back compared to the formal approval of the fiscal trajectory expressed in 2018, this is explained by the national and regional elections in May 2019. A lack of agreement on the targets at each level of government may undermine the viability of the overall trajectory towards the medium-term objective. It also prevents the Public sector borrowing requirements section of the High Council of Finance from effectively monitoring compliance with these targets (see High Council of Finance, 2018, pp 13-14).

The 2013 Cooperation Agreement entrusted the High Council of Finance to advise and supervise all government levels on their budget trajectories in order to effectively implement the European Union's Fiscal Compact. The High Council of Finances (HCF) aims to promote coordination and discipline in the design and implementation of fiscal policy in the context of a federal state structure. In this regard, the 2013 Cooperation Agreement entrusted it with a double

([16]) Available at: https://fin.vlaanderen.be/sites/default/files/atoms/files/MC_Flanders_-_Technical_Assistance_Mission_Report_%20Master%20V5.pdf.

([17]) The Federal level has studied the possibility of introducing spending reviews in the budgetary process with the support of the European Commission. The Bruxelles-Capital Region announced steps to increase the quality and efficiency of its spending, including the possibility to introduce spending reviews in its budgetary process. Similarly the Walloon Region decided to operationalise a budget 'base-zero' by not later than 2021.

([18]) Based on forecasts from the Federal Planning Bureau as in 'Perspectives économiques 2019-2024'.

role. ([19]) First, the Public Sector Borrowing Requirement section of the High Council (HCF-PB) contributes to the budgetary policy through its recommendations for the budget targets of general government and its sub-sectors, including subnational government.([20]) Second, the HCF-PB is entrusted with an important supervisory and advisory role in the area of budgetary policy that extends beyond the central government.

However, the reinforcement of the autonomy of the High Council of Finance (HCF) has not been fully implemented yet. The Royal Decree of 23 May 2018 provided for a reinforcement of the staff of the High Council of Finance. It increased the number of full-time staff to 10, equally representing the federal state and the federated entities (regions and communities). However, due to the presence of a caretaker government, the measure has not been implemented yet.

3.1.5. DEBT SUSTAINABILITY ANALYSIS AND FISCAL RISKS

Belgium's rapidly ageing population is expected to put increasing pressure the country's budgetary situation. The most recent projections of the Study Committee on Ageing (High Council of Finance, 2019) point to ageing-related expenditure items increasing by 5.6 percentage points of GDP by 2070. The 2018 Ageing Report (European Commission, 2018b), projected a comparable increase of 5 percentage points of GDP.

Short-term sustainability challenges are limited in spite of the high public debt ratio. Short-term sustainability is assessed by the indicator S0([21]). Both the fiscal and the financial competitiveness sub-indexes stand below their respective critical threshold, so that the overall S0 indicator does not flag a significant risk. This low short-term risk is consistent with the 'AA stable' rating given to Belgian government debt by the three major credit rating agencies.

In the medium term, Belgium's fiscal sustainability risks are high. According to the baseline scenario in the debt sustainability analysis (see Annex B), at unchanged policies, the public debt ratio is projected to remain high at 97.4% of GDP in 2030, the last projection year. The favourable snowball effect (i.e. the difference between the implicit interest rate on government debt and the nominal growth rate of the economy) is expected to more than counterbalance the impact from the negative primary balance. The S1 sustainability indicator([22]), indicates a high medium-term risk, mainly due to insufficient fiscal effort. This indicator implies that a cumulative gradual improvement in the Belgian structural primary balance of 4.1 percentage points of GDP, relative to the baseline scenario, would be required over 5 years (starting from 2022) to reduce the debt ratio to 60% of GDP by 2034. Specifically, 3.4 percentage points of the required fiscal adjustment would be due to the debt ratio's distance from the 60% reference value, and 1.1 percentage points to the projected increase in age-related public spending. This would be only partially counterbalanced by the favourable initial budgetary position (defined as the gap to the debt-stabilising primary balance). Adhering to the existing fiscal rules ([23]) would significantly reduce the public debt-to-GDP ratio compared to a baseline scenario of unchanged fiscal policy (Graph 3.1.4).

Over the long-term, Belgium is deemed to be at medium fiscal sustainability risk. The long-term fiscal sustainability indicator S2 ([24]) shows that an improvement in the structural primary balance of 4.8 percentage points of GDP would be required to stabilise the debt-to-GDP ratio over the long-term.

([19]) The 2013 Cooperation Agreement of 13 December 2013 is available at: http://www.ejustice.just.fgov.be/mopdf/2013/12/18_3.pdf

([20]) Recommendations by the HCF-PB Section are typically limited to budgetary targets. No advice is given on specific consolidation measures aimed at reaching these targets, nor does the Section provide estimates of the budgetary or macroeconomic impact of such measures.

([21]) The S0 indicator aims at an early detection of fiscal stress stemming from risks within a one-year horizon, making use of the signalling power of its components.

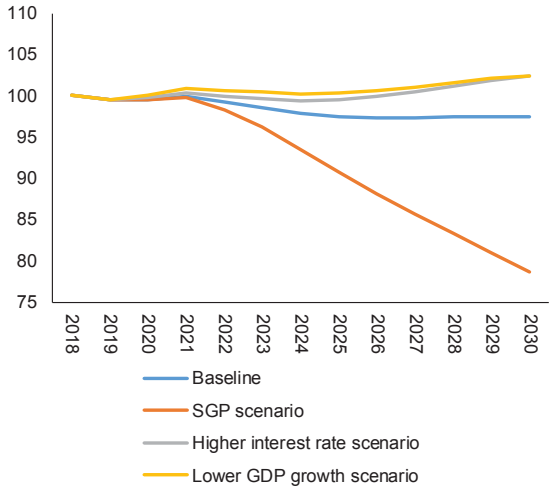
([22]) The S1 indicator measures the required fiscal adjustment needed between 2022 and 2027 to bring the public debt ratio down to 60% of GDP by 2034.

([23]) Defined as full compliance with the requirements of the preventive arm of the SGP and convergence with the medium-term objective).

([24]) The S2 indicator shows the adjustment to the current structural primary balance required to fulfil the infinite horizon inter-temporal budget constraint, including paying for any additional expenditure arising from an ageing population.

This is mostly due to the projected increase of ageing costs (contribution of 4.0 percentage points of GDP, mainly from higher spending on pension and long-term care) and to a lesser extent to the unfavourable initial budgetary position (0.8 percentage points of GDP). Moreover, under more adverse scenarios involving more dynamic age-related expenditures, the sustainability gap S2 indicator would increase to 6.5 percentage points of GDP, thus pointing to high long-term fiscal risks. Vulnerabilities linked to the high debt burden, as captured by the debt sustainability analysis, already result in overall high sustainability risks in the long term ([25]).

Graph 3.1.4: **Public debt medium-term projections and scenarios (% of GDP)**



Source: European Commission

Pension

Pension expenditure is projected to increase by almost 3 percentage points of GDP by 2070. Over the same time span, pension expenditure in the EU is projected to decrease by 0.2 pp. on average. (European Commission, 2018b).

The bulk of this increase will materialise in the short to medium term with an increase of 2.4 percentage point of GDP by 2040 (European Commission, 2018b). The latest projections of the Monitoring Committee ([26]) confirm that the steady increase in pension spending is already kicking in. ([27]) According to the report, pension outlays will increase by 22.6% between 2020 and 2024, and over the same period health care spending will increase by 23.9%.

The effective retirement age remains substantially below the statutory retirement age, in particular in the public sector. At 61.7 years for men and 60.1 for women in 2017 the effective retirement age was substantially lower than the statutory retirement age of 65 years ([28]). Despite of recent reforms tightening eligibility criteria for early retirement which resulted in an increase in the employment rate of older workers (see section 3.3), in 2017 a substantial share of pensioners was younger than 65 years. In the public sector, 53.8% of civil servants draw a pension at the age of 60 or earlier (58.8% for women). In the private sector, even if the share of people leaving the labour market with a pension before the age of 60 is lower (15.1% of employees and 9.6% of self-employed people), a significant share of employees (34.4%) and self-employed (37.7%) leaves before the age of 65)[29].

An agreement on the reform of 'arduous job' could not be reached. The previous government attempt to find an agreement on a definition of an 'arduous job' covering both the private and the public sectors failed. However, social partners drew up a detailed list with categories of arduous professions in the civil service. The current system in the public sector of preferential career fractions and preferential schemes (with lower early or statutory retirement age) would have been replaced by the new system for arduous jobs, under which fewer civil servants would qualify (about 50% instead of more than 60%).

The build-up of complementary pension remains low, in spite of recent government measures. In 2018, measures were adopted to promote supplementary pension schemes. One of

([25]) For a detailed discussion of the approach to the overall long-term sustainability challenges see the 2019 Debt Sustainability Monitor, 2020).

([26]) The Monitoring Committee is a technical committee of the Belgian Federal administration in charge of monitoring the execution of the budget and providing updated fiscal projections.

([27]) Comité de monitoring : estimation de la situation budgétaire pour 2020-2024, page 142. Available at: https://bosa.belgium.be/fr/actualites/comite-de-monitoring-estimation-de-la-situation-budgetaire-pour-2020-2024.

([28]) Recent reforms have increased the legal retirement age to 66 years as of 2025 and to 67 as of 2030.

([29]) Federal Pension Service, as provided by Cellule Strategique Pension/Beleidscel Pensioen.

the measures allows independent workers to build up a supplementary pension, similar to the existing possibilities for self-employed company managers. A second measure introduced mixed pensions in the public sector, attributing pension rights as an employee for the period as a contractual agent and a public sector pension for the period as a statutory civil servant([30]). A third measure allows employees, who do not benefit from a supplementary pension organised by their employer or sector or whose supplementary pension plan is insufficient, to ask their employer to make deductions from their salary in order to build up a (higher) supplementary pension.

Health care

Total public health spending has increased slowly in recent years and there is room to improve its efficiency in specific areas, notably prevention ([31]). Health spending accounted for 10.3% of GDP in 2017, up from 8.9% in 2006, which is above the current EU average of 9.8% ([32]). Public spending accounted for 77% of overall health spending (close to the EU average of 79%). The remaining spending comes from direct out-of-pocket spending (18%) and voluntary health insurance (5%). Population ageing will continue to exert pressure on health and long-term care systems ([33]). The reduction in the ceiling for health public spending growth since 2013 has contributed to keeping the growth rate in line with GDP growth. While efficiency gains have been achieved in hospitals, promoting more appropriate use of services and pharmaceuticals could help to free up resources to respond to these growing needs. Networks of hospitals are being created, while e-prescriptions and medical data exchange are being developed (see Section 3.4.4). Another challenge is to strengthen primary care and improve care coordination – in particular for people with chronic conditions.

([30]) Moreover, the legal framework has been adapted to encourage administrations, including local authorities and public enterprises to develop a supplementary pension regime for their contract agents. The federal government has already committed itself to establish a supplementary pension for its contractual staff.

([31]) Belgium allocates 2.2% of overall health expenditure to organised prevention programmes, which is less than the EU average of 3.1%.

([32]) State of Health in the EU – Country Health Profile 2019.

([33]) The reduction in the ceiling for health public spending growth since 2013 has contributed to keeping the growth rate in line with GDP growth.

Long-term care

Spending on long-term care is expected to increase significantly in the long term (European Commission, 2018b). It stood at 2.3% of GDP in 2016 (above the EU average of 1.6%) and is projected to increase steadily to 4.0% in 2070 according to the 'Ageing Working Group reference scenario'. The increase will be even more significant (up to 5.8%) according to the 'Ageing Working Group risk scenario', which accounts for additional cost drivers in terms of demography and health status.

The underlying pressure coming from ageing still challenges long-term fiscal sustainability in the current structure of service delivery. Belgium's density of residential beds for over-65 years old is among the highest in the EU. This has decreased from 2011 to 2014, but went up again from 2015 to reach 68 beds (per 1,000 65+ years old) in 2018, and the need is projected to further increase in the future. Whereas Belgium has already started to strengthen the use of home care and a process to ensure that only those who actually need it have access to residential care, there seems to be room for additional efficiency gains, based on available indicators, to respond to the future fiscal sustainability challenge. To assess the current use of resources, KCE, the Belgian Health Care Knowledge Centre, has developed an indicator (ELD-5) to monitor whether/to what extent independent users and those with low levels of dependency (category 0 and A respectively on the Katz scale), for whom institutionalisation may be unnecessary or at least premature, are currently receiving residential care. Though on a positive trend, with a steady decline from 32% in 2011 to 25% in 2018, these data indicate that there is still room for improvement in light of differences observed between the regions. In Brussels, more than one third (34%) of elderly people living in residential structures still have some autonomy. In Flanders, this proportion does not exceed 20% ([34]).

The current governance model seems to guarantee spending oversight but not control.

([34]) Devos C, Cordon A, Lefèvre M, Obyn C, Renard F, Bouckaert N, Gerkens S, Maertens de Noordhout C, Devleesschauwer B, Haelterman M, Léonard C, Meeus P. Performance du système de santé belge – Rapport 2019 – Synthèse. Health Services Research (HSR). Bruxelles: Centre Fédéral d'Expertise des Soins de Santé (KCE). 2019. KCE Reports 313B. D/2019/10.273/33.

Most of the competences for long-term care have now been almost devolved to the regions, meaning budgetary and quality control mechanisms are now decentralized too. Federal institutions retained responsibility for overarching activities related to the social protection system, e.g. managing statistics to monitor and report on current and projected dynamics of spending and participating in international reporting activities in this regard (Federal Public Service Social Security, Federal Planning Bureau), however the lack of a centralised approach may weaken the effectiveness of overall expenditure control. For the part which is still a federal competence, there are different monitoring systems in place. Different bodies are involved in the elaboration and execution of the budget, and there are checks built in into the system (e.g. a budgetary control commission); in addition, corrective action is foreseen in the event of general budget overrun.

3.1.6. TAXATION

Belgium has a high level of taxation, but also substantial tax expenditures. In 2017, Belgium tax revenues represented 44.8% of GDP (EU average 39.2%), however the share of tax expenditure in most tax categories is high (23.1% of personal income tax receipts; 13.4% of corporate income tax receipts; 32.3% of value-added tax receipts)([35]), which reduces the efficiency of the tax system. Some 47% of the foregone tax revenue resulting from tax expenditures supports social measures (e.g. pensions). The rest covers employment (13.5%), real estate (15.9%), R&D (8.3%) and specific sector provisions (6.4%). In addition, tax expenditures are not subject to spending reviews and do not appear to undergo impact assessments, resulting in a low efficiency for some of them (e.g. R&D tax schemes – see section 3.4), while others create economic, social or environmental distortions (cf. infra). The complexity of tax law, also because of tax expenditures, weights in the business environment (see Section 3.4.1).

Some tax expenditures create a certain number of economic and social distortions. For instance, the existence of 'marital quotient' helps create work disincentives for second earners (see Section 3.3). Moreover, most tax expenditures, like the tax deductibility of service vouchers and housing loans interest deductibility on secondary residence, disproportionally benefit high-income earners[36]. Mortgage tax deductibility has contributed to drive the increase in private debt (see Section 3.2). ([37]) While well-designed tax expenditures can be justified and enhance positive spill overs and welfare, they may cause economic distortions and not be the most cost-efficient means of achieving economic and social policy goals.

Some tax expenditures also lead to undesirable environmental consequences. Although alternative tax expenditures (e.g. the 'cash-for-car' and 'mobility budget') were introduced in 2018 and 2019, recent data from the human resources provider from the social secretariat show that very few taxpayers opted for the cash for car system ([38]), which in the meantime has been ruled unconstitutional by the Constitutional Court and is therefore annulled ([39]). The favourable company car scheme therefore continues to provide adverse incentives in terms of road travel. The deductibility of fuel costs is particularly harmful, since it induces employers to cover the cost of fuel consumed for private purposes ('fuel card'). Employer-purchased fuel encourages the use of company cars for private purposes and runs counter the incentives provided by energy and vehicle taxation to reduce fuel consumption (European Commission, 2017).

([35]) Inventory of federal tax expenditures' available at https://finance.belgium.be/en/figures_and_analysis/figures/federal_tax_expenditures_report

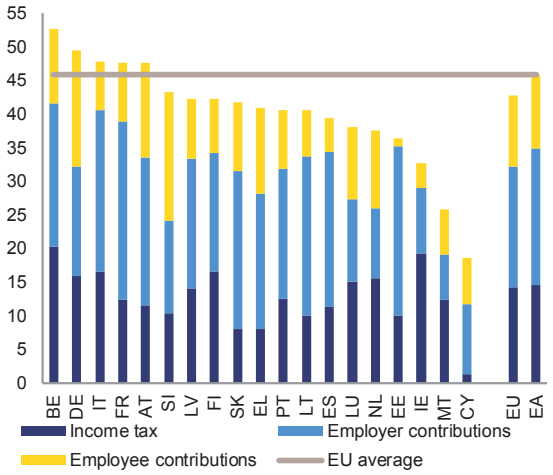
([36]) In Flanders, the tax deductibility of service vouchers was decreased from 30% to 20% as of 1 January 2020.

([37]) Flanders has followed Brussels in deciding to phase out by 2020 the mortgage deductibility *woonbonus* scheme.

([38]) 268 employees for the last quarter of 2018 and 407 employees in the first quarter of 2019.

([39]) The cash for car scheme. The judgment maintains the consequences of the scheme until new legislation is introduced, at the latest until 31 December 2020.

Graph 3.1.5: **Tax wedge on average wage, single earner (2018)**



Source: European Commission

The high level of taxation on labour weakens labour participation and discourages participation on lifelong learning. The tax reform that took place in several steps between 2016 and 2020 ([40]) reduced the tax wedge for the lowest income earners. In particular, the labour tax wedge for those earning 50% of the average wage decreased by 6.2 percentage points from 2015 to 2018. However, for those earning the average wage, the tax wedge remains the highest in the EU (Graph 3.1.5). Although the personal income tax system offers several tax brackets, the latter are rather narrow. As a consequence, even average income earners are subject to the highest income tax rates (45 and 50%), limiting the real progressivity of the system. Moreover, tax brackets are not systematically indexed to inflation. Overall, high labour taxation not only contributes to the financial disincentive to work, it also discourages participation in lifelong learning, since an important share of the additional income is taxed away (see Section 3.3).

Environmental taxes have increased, but there is still scope to better aligning taxation to carbon emissions, possibly also increasing tax revenues ([41]). Environmental taxes increased from 2.5% of GDP to 2.7% of GDP in 2018thanks to the alignment of excise duties on diesel with those on petrol. However, energy taxes do not reflect the carbon content of fuels and therefore do not foster the most energy-efficient fuels and technologies (see Section 3.5.1). In particular, excise duties on fossil fuels used for heating (gas oil, natural gas, etc.) are low and set at the EU minimum level ([42]). Beyond the company car scheme, there are gaps in vehicle taxation which do not allow to fully address negative environmental externalities and congestion, and to raise revenues (see Section 3.5.1). Professional transporters and agriculture still benefit from a reduced excise rates on diesel.

In spite of recent measures, transaction taxes on immovable property remain high in Belgium, hindering amongst other negative effects, labour mobility. These taxes are among the highest in the EU at 2.3% of GDP (1.0% average in the EU) in 2018 ([43]). According to the 2020 World Bank Ease of Doing Business Report, the process of transferring a property has become the most expensive among the EU Member States at 12.7% of the property value (Luxembourg being at second place with 10.1%). High transaction taxes on immovable property contribute to hamper the functioning of the real estate market, increase commuting and appear to have an effect on labour mobility. Moreover, reliance on transaction taxes generates a more volatile revenue stream. Further shifting away from transaction taxes towards recurrent property taxes would maintain a constant level of revenue while reducing economic distortions and commuting congestion([44]).

([40]) Taxes on labour, including social contributions, are being reduced in several steps between 2016 and 2020, while others, mainly consumption taxes, have been increased, partially compensating for the labour tax cuts.

([41]) Excise duty rates on diesel have been aligned with those on petrol. Moreover, since 1 April 2016 onwards the three Belgian Regions have started levying a kilometre charge for heavy goods vehicles with a maximum authorised mass of more than 3.5 tonnes. The annual revenues of this levy in 2018 were estimated at € 712.7.

([42]) The Energy Taxation Directive 2003/968EC (ETD) lays down the EU rules for the taxation of energy products used as motor fuel or heating fuel and of electricity. It sets minimum levels of taxation and lays down the conditions for applying tax exemptions and reductions. The ETD, however, does not require taxation to be based on the carbon dioxide emissions and energy content of the different fuels covered.

([43]) Other taxes on property. Taxation trend in the European Union, 2020.

([44]) The Walloon and Brussels-Capital regions increased the transaction tax deduction for first dwellings in 2017, while keeping the tax rate at 12.5%. Flanders reduced the transaction tax rate for the purchase of the first dwelling from 10% to 7% in 2018 and to 6% in 2020 (and even to 5% for very important energetic renovations) and abolished the Woonbonus (mortgage tax relief).

The current tax rules governing housing contribute to overinvestment in real estate as compared to other types of investment (see Section 3.2)**.** Differentiated tax rates and tax expenditures for several types of capital investment, make the tax system complex and lead to misallocation of capital. While mortgage tax deductibility for primary residences is now abolished in all regions except Wallonia, it still applies for secondary residences and rented housing ([45]). In addition, income from rented housing benefits from a favourable tax treatment as compared to income from other types of investment. Rental income from housing property located in Belgium is taxed based on the outdated cadastral income (indexed value of 1975 estimated income), which is on average substantially lower than the actual rental income received. Calculation by the European Commission's Joint Research Centre have estimated that taxing the net rental income would have a positive budgetary and redistributive impact (see Box 3.1.1). Any reform should, however, be carefully considered against the background of (rental) housing market policies, of the overall country taxation system and the possible impact on the real estate market.

([45]) The mortgage tax deductibility for primary residences is governed at the regional level, while the deductibility of interests on buy-to-let housing loan is a federal matter.

Box 3.1.2: Unequal tax treatment of rental income taxation

Unlike in most EU Member States, rental income is taxed based on a fictitious amount rather than the received housing rent in Belgium. ([1]) The tax treatment of rental income depends on the purpose for which the property is used. When immovable property is rented out for professional purposes, the actual rental income received is added to the personal income tax base. Related expenses are estimated to 40% of the rental income received and tax deductible. When immovable property is rented out for housing purposes, not the actual rental income but 140% of the indexed cadastral value (since 1991) is used to calculate the tax base. The cadastral value is on average approximately 20% to 25%[2] of the actual rental income received. Incurred related expenses are not tax deductible but a standard deduction of 40% applies.

A substantial amount of tax revenue is lost due to the current tax treatment of rental income. Based on EUROMOD, the budgetary and redistributive effect of the current tax treatment of housing rents was quantified by comparing it to a scenario in which households' actual rental income is subject to personal income tax. Results show that taxing actual rents under the personal income tax system, would generate additional tax revenue of approximately 0.15% of GDP on an annual basis.

Moreover, the overall distributional effects of the current tax system seem regressive[3]. Given that some properties are over-valued while others are under-valued, the use of outdated cadastral values also entails distributional concerns. Since high-income earners own relatively more immovable property than low-income earners, they benefit most from the favourable tax treatment of rental income. Moreover, given the progressive tax rate schedule in Belgium, they benefit proportionally more than high-income earners. Hence, taxing actual rental income would mainly affect the highest income groups.

Finally, the current tax treatment does not incentivise property owners to invest in the maintenance of their rented property. Currently only financing costs for acquiring rental housing can be deducted from the tax base. Other expenses related to the rental activity, like maintenance costs, are not tax deductible. Granting tax deduction to maintenance and renovation costs could stimulate the building sector. Moreover, it could help reduce the informal economy, as invoices would be needed for the tax deduction to apply. In addition, deductibility of renovation costs could improve the quality and the energy efficiency of the housing stock and help easing the energy transition.

([1]) Only Greece, Croatia, the Netherlands, Slovenia, Romania, Finland and Sweden tax rental income separately from other personal income, often at a flat rate. Italy, Latvia, Malta and Poland have a two track system where the taxpayer can chose whether the rental income is taxed separately at a flat rate (without any deductions) or under the personal income tax system.

([2]) European Commission, « Press Releases – Taxation: European Commission asks Belgium to revise its taxation of property income from abroad", 22 March 2012, https://europa.eu/rapid/press-release_IP-12-282_en.htm?locale=en

([3]) EUROMOD simulations are based on survey Statistics on Income and Living Conditions (EU-SILC data) and cover a sample of the household population. Using administrative data may provide different simulation results.

3.2. FINANCIAL SECTOR

3.2.1. BANKING SECTOR AND INSURANCE

The financial sector appears relatively sound, but its profitability is under pressure. Banks solvency is good, with a capital adequacy ratio relatively stable at 18.5% in June 2019. Credit quality is high, with low non-performing loans ratios. Nevertheless, banks are only moderately profitable, with a return on equity ratio of 8.2% in 2018, in continuous erosion since 2016. Banks' challenges remain largely the same as last year: persistently low interest rates, a cost-to-income ratio among the highest in the EU, a relatively high banking tax, the obligation to pay a minimum interest rate (0.11%) on regulated savings accounts which puts net interest margins under pressure in the current low interest rate environment, digitalisation, compliance costs and intense competition.

Table 3.2.1: **Domestic banking groups and standalone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches**

	2016	2017	2018	2019q1	2019q2
Non-performing loans	3.2	2.7	2.3	2.1	2.0
o/w foreign entities	2.6	2.3	2.2	2.0	2.0
o/w NFC & HH sectors	4.2	3.6	2.9	2.9	2.7
o/w NFC sector	4.8	4.3	3.7	3.6	3.4
o/w HH sector	3.7	3.0	2.3	2.3	2.1
Coverage ratio	43.7	42.7	44.1	44.3	43.1
Return on equity(1)	8.9	8.8	8.2	5.5	8.6
Return on assets(1)	0.6	0.7	0.6	0.4	0.6
Total capital ratio	18.8	19.0	18.8	18.2	18.5
CET 1 ratio	15.7	16.2	15.6	15.0	15.2
Tier 1 ratio	16.2	16.9	16.5	16.0	16.3
Loan to deposit ratio	88.0	90.2	93.2	89.1	90.5

(1) Annualised data for q1 and q2.
Source: ECB - CB2 - Consolidated Banking data - European Commission calculations

In order to maintain profitability and productivity, the financial sector has significantly reduced its headcount, its number of branches and invested in digitalisation. The total employment in the financial sector has been declining from 144,200 employees in 2001 to 117,800 employees in 2018, and this trend has accelerated since 2015. Likewise, the number of branches has dropped continuously from 7,358 in 1997 to 2,983 in 2018. In parallel, banks have embarked on digitalisation. A survey (Bégasse, P., 2018) shows that Belgian banks have a relatively positive outlook on the way they will manage the challenge of digitalisation. On average, large banks tend to have more developed approaches towards the new business models and supporting technologies, although there are significant differences in approach and maturity between banks. Banks' biggest weakness is their legacy IT systems, which make it difficult to implement changes. It is difficult for bank to attract the necessary staff resources, which leads to a lack of in-house skills that are needed to evolve. Smaller Belgian banks are being forced to act as 'followers' on the market as they lack the financial capacity to experiment with the abundance of fintech solutions that are being developed. Moreover, fintech companies are somewhat reluctant to collaborate with smaller banks due to their limited customer base to test innovative solution, despite the will and interest shown by these banks to establish such partnerships.

The contributions to the Belgian Deposit Guarantee Scheme (DGS) are not invested into a segregated and diversified portfolio of low-risk assets. As explained in previous country reports (European Commission, 2018a, 2019a) and in the IMF's 2017 Financial Sector Assessment Program, the absence of a ring-fenced and autonomous DGS is not optimal from a financial stability perspective. The annual contributions to the Belgian DGS directly enter the federal budget as tax revenues and contribute to improve the government headline balance. However, if the DGS needs to intervene and compensate depositors, Belgium will have to finance the entire cost of the intervention from the budget. Moreover, in light of the delayed privatisation of Belfius, state ownership in the financial sector (namely in Belfius, BNP Paribas, bpost, Dexia and Ethias) remains substantial and aggravates spill-over risks between the sovereign and the financial sector. Dexia still constitutes a sizeable, but relatively stable contingent liability of €32.9 billion (7.4% of GDP) for the Belgian state.

Insurers' average solvency has slightly deteriorated due to an interest rate curve lower than ever, but remains broadly satisfactory. The average Solvency Capital Requirement coverage ratio dropped from 219% in December 2018 to 196% in June 2019, but some individual players present much lower ratios, close to 100%, or even below 100% without the volatility adjustment. Like in other Member States, this ratio may sometimes benefit significantly from particular adjustments of the Long-Term Guarantee

package ([46]) and may overestimate the actual solvency since the shock for negative basic risk-free interest rates is assumed to be nil ([47]). As a consequence of the low interest rate environment, life insurers have expanded further their unit-link business. They have also increased their exposure to the real estate markets, which might have been partly encouraged regulatory arbitrage, since capital requirements for counterparty risk can sometimes be lower for insurers than for banks. Several (re)insurers have recently received a license and opened an office in Brussels in order to facilitate their access to the single market. This relocation of activities led to an increase in non-life gross premiums of about 25% in 2019 and represents a sizable additional workload for the National Bank of Belgium which has scaled up its resources accordingly. Furthermore, the new tax advantage granted to legal protection insurance as of 1 September 2019 is expected to have a positive impact on the profitability of those insurers active in this line of business.

Access to finance

Lending to non-financial corporations has continued to grow in 2019 at a much faster rate than GDP. Although it has decreased since last year, the year-on-year growth of loans to euro area non-financial corporations corrected for sales and securitisation has been consistently the highest in the euro area for a while (7.2% in December 2019 compared to 3.2% in the euro area). Against this background, on 28 June 2019 the National Bank of Belgium decided to increase the countercyclical buffer rate for credit risk exposures to the Belgian private non-financial sector as from 1 July 2020([48]).

([46]) The long-term guarantees (LTG) measures were introduced in the Solvency II Directive to ensure an appropriate treatment of insurance products that include long-term guarantees.

([47]) In the standard formula of Solvency II, the Solvency Capital Requirement for interest rate risk is calculated on the basis of two scenarios: one in which the interest rate curve goes up, and the other in which the interest rate curve goes down. However, in this latter scenario, if the interest rates are already negative for some maturities (which is the case today), the negative shock on the curve is assumed to be 0 for those maturities. In other words, the standard formula assumes that a currently negative interest rate cannot become even more negative in the future.

([48]) https://www.nbb.be/en/articles/national-bank-belgium-sets-countercyclical-buffer-rate-05

Banks' vulnerabilities in relation to the residential real estate market have deepened in a context of deteriorating credit standards and rising household debt. The Belgian mortgage market is characterised by strong competition on prices, where any individual attempt to significantly increase the commercial margin is immediately sanctioned by a decline in market share. Faced with squeezed margins, banks have loosened credit standards like the loan-to-value ratio or the maturity to increase their volumes (for details see National Bank of Belgium, 2019, pages 24-25). As a consequence, lending to households has grown dynamically for several years around 6% year-on-year, which is significantly above GDP growth. ([49]) Furthermore, the exposure of banks to companies active in the construction and the commercial real estate has increased significantly in recent years.

Belgian banks' exposures to the Belgian real estate and construction sector has increased significantly in recent years. The strong dynamism in the residential real estate market is reflected in the significant increase of bank credit to companies in the real estate sector. Between the end of 2007 and the end of 2018, the share of Belgian mortgage loans in total assets increased from 8% to 21%. At the same time, the importance of loans to companies active in the construction and real estate sector increased from 2% to 5.5% over the same period of time ([50]). Belgian banks are also indirectly exposed to the commercial real estate market. For instance, they also grant loans to companies active in other sectors for which commercial real estate (such as offices, shops, etc.) is provided as collateral.

Banks may have become more vulnerable to an increase in interest rates. According to the National Bank of Belgium, by redirecting their balance sheet to more (fixed-rate) lending and (retail) deposit funding, banks might have widened their exposure to interest rate risk. Although they typically use interest rates derivatives to hedge the

([49]) In the last months of 2019, there has been an exceptional surge in the number of new mortgages, partly explained by the decision by the Flemish government to abolish the 'woonbonus' scheme in 2020. See: https://www.nbb.be/fr/articles/la-banque-nationale-enregistre-en-octobre-61-de-credits-hypothecaires-de-plus-quun

([50]) National Bank of Belgium, Financial stability report 2019, page 24.

interest rate risk, "it is not excluded that banks, in their search for yield in the current low interest rate environment, have been inclined to increase their duration gaps by leaving a larger share of their positions unhedged" (National Bank of Belgium, 2019, page 65). By doing so, their transformation margin and net interest income can increase when interest rates remain low. However, this strategy is risky because a larger duration gap makes banks more vulnerable to a large and abrupt interest rate increase.

On 25 October 2019, the National Bank of Belgium urged the financial sector to exercise more caution in granting risky mortgage loans. The European Systemic Risk Board concluded on 10 July 2019 that the macroprudential measures that are in place in Belgium are partially appropriate and partially sufficient to address the vulnerabilities on the residential real estate market. Therefore, on 23 September 2019 it recommended ([51]) the activation of legally binding borrower-based measures targeting the new production of loans, in complement to the existing capital-based measures targeting the existing stock of loans (see (European Commission, 2019a) for details on the existing national measure under Article 458 of the Capital Requirement Regulation). As a first step, the National Bank of Belgium decided ([52]) to establish new prudential expectations based on the 'comply or explain' principle, asking banks and insurers to be more cautious about granting loans with a very high loan-to-value ratio particularly for buy-to-let loans, and setting out expectations for certain combinations of specific risks. These supervisory expectations came into force on 1 January 2020. Activating binding borrower-based measures will only be considered envisaged as a potential second step should these supervisory expectations prove insufficient. However, the introduction of such binding measures could be complicated by Belgium's design of the macroprudential framework, which requires the government to impose binding borrower-based measures (on recommendation by the National Bank).

The Belgian venture capital market is close to the EU average in terms of volumes. Venture capital might benefit from the launch of the Belgian Growth Fund in June 2019 and from a more neutral taxation framework. The Belgian Growth Fund launched in June 2019, is a fund of funds, and focuses on later stage venture capital rather than start-ups. The first closing of July 2019 delivered €213 million, but the Fund targets an ultimate size of € 300-400 million. The goal of the Belgian Growth Fund is to increase the size of the funds and to provide diversification and leverage to participating institutional investors. The remaining major obstacle to equity financing remains the biased tax framework, namely the persistence of a debt-equity tax bias, although partially corrected with the new incremental Notional Interest Deduction ([53]), the existence of a tax incentive for savings and the rigid design of the long-term savings and pension schemes.

Green finance has received more attention from the investors, the financial industry and the regulators. Sustainable investments are estimated to have increased from €7.7 billion in 2013 to €24 billion in 2017 (Van den broeck, R., et al., 2018). Febelfin ([54]) launched a quality standard for sustainable and socially responsible financial products on 7 February 2019, in order to qualitatively and quantitatively increase the level of socially responsible and sustainable financial products, and to mainstream its principles towards traditional financial products. From a prudential perspective, the National Bank of Belgium sent, at the end of 2018, a questionnaire to banks on the various risks associated with climate change. According to their replies, although financial institutions seem to be aware of the potential risks, they have so far made relatively little progress in quantifying and integrating them into their risk management. The share of green investments in their portfolio also seems very limited. Nevertheless, institutions are indicating their willingness to contribute to a more sustainable economy (National Bank of Belgium, 2019).

([51]) https://www.esrb.europa.eu/news/pr/date/2019/html/esrb.pr190923~75f4b1856d.en.html

([52]) https://www.nbb.be/en/articles/national-bank-urges-financial-sector-exercise-more-caution-granting-risky-mortgage-loans

([53]) However, in the current incremental system, the Notional Interest Deduction is limited to the average annual increase in equity over a period of five years.

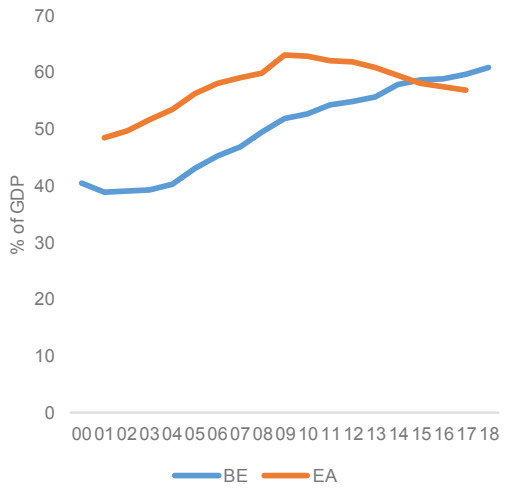
([54]) The Belgian federation of the financial sector.

3.2.2. PRIVATE DEBT

The level of private debt (as per cent of GDP) declined compared to its peak in 2016, nevertheless it remains high. The private debt ratio set at 178.5% of GDP in 2018, down from 194.8% in 2016. Household debt accounted for 59.7% of GDP versus 118.8% for non-financial corporations. The decline was on the back of a reduction in non-financial corporations' debt, while households' debt continued to increase steadily. High corporate debt is mainly driven by the intra-group debt of multinationals (see Section 1).

Mortgage debt is the main driver of household debt, accounting for 86% of total household debt in 2018. At the end of 2018, outstanding mortgage loans amounted to more than € 200 billion, about four times the amount at the beginning of 2000. This increase is explained both by a rise in the number of outstanding contracts and by the constant increase in average amounts borrowed, which is correlated with the increase in house prices. Between 2000 and 2018, the average amount borrowed for the purchase of a house increased from less than €75,000 to nearly €160,000.

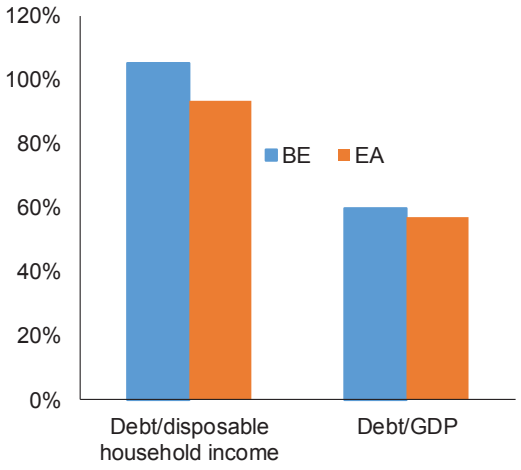
Graph 3.2.1: **Evolution of households debt**



Source: European Commission

Belgian house prices currently present signs of a limited overvaluation. After a period of dynamic growth between 1998 and 2008 (5% average annual increase) house prices have risen by 2.2% on average annually in nominal terms since 2008 and by 0.7% per year in real terms. Steadily increasing house prices might explain part of the increase in households' debt, as the latter is mostly mortgage-based. Traditional indicators (price to income, i.e. affordability and price-to-rent i.e. dividend) signal a potential 20% overvaluation gap of Belgian house prices. However, a more sophisticated indicator developed by the European Commission (Philiponnet, N. et al., 2017), which takes into account housing demand and supply fundamentals like interest rates shows no evidence of overvaluation, whereas the National Bank of Belgium valuation model only finds a moderate overvaluation (5.9%) (National Bank of Belgium, 2019).

Graph 3.2.2: **Households indebtedness, selected indicators**



Source: European Commission

The tax framework might also have played a role in the increase in housing prices and in mortgage debt by providing borrowers with several significant tax incentives (see Section 3.1.6). The decision of the Brussels and the Flemish regions to phase-out their mortgage tax advantages is a step in the good direction as it reduces incentives to borrow. However, there still remain tax incentives for borrowers at federal ([55]) and regional level ('chèque-habitat' in Wallonia).

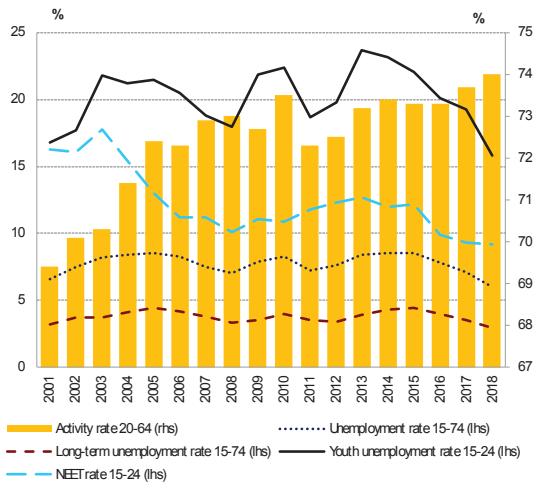
([55]) « Réduction d'impôt pour épargne à long terme / belastingvermindering voor het langeterminsparen » and « deduction fédérale d'intérêts / federale intrestaftrek ».

3.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

Labour market

Despite a slowdown in economic growth, the labour market continued to improve, although at a slower pace. The activity rate increased by 0.8 percentage points to 74.5% (2019Q3) compared to 2017, driven in particular by increased labour market participation among older workers (Graph 3.3.1), but remained well below the EU average (78.7%). Employment growth continued to be strong, pushing the employment rate up to 70.6% in 2019Q3, one of the highest levels ever. In 2018 and the first half of 2019, unemployment fell faster than predicted, reaching 5.2% in 2019Q3 (European Commission, 2019b). A decline in the unemployment rate was also recorded for some of the vulnerable groups, including the young (down from 18.5% in 2017Q3 to 13% in 2019Q3) and the long-term unemployed (down from 3.1% in 2017Q3 to 2.2% in 2019Q3). Further improvements in labour market outcomes are held back by a gradual increase in labour shortages.

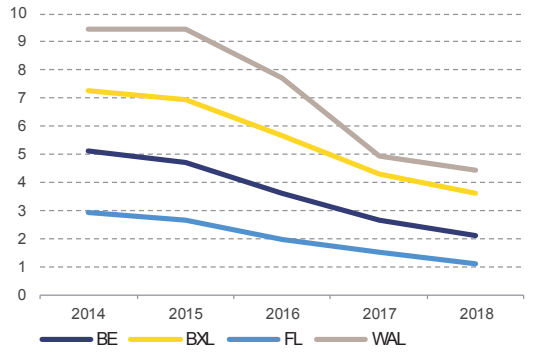
Graph 3.3.1: **Key labour market indicators**



Source: Eurostat

The labour market is tightening as reflected by the high vacancy rate and the record low unemployment rate. After reaching a record high level of vacancies in the first quarter of 2019, the vacancy rate (i.e. number of vacancies per occupied job) declined slightly to 3.4% in the third quarter of 2019. There are large disparities between sectors and occupations, with the highest vacancy rates in ICT (6.2%), technical and administrative professions (6.5%) and construction (4.9%). At the same time, the number of jobseekers decreased (in line with lower unemployment rates), leading to a substantial drop in the number of jobseekers per vacancy. While in 2014, there were five jobseekers for one vacancy, this dropped to only two jobseekers per vacancy in 2018. Labour shortages are most pronounced in Flanders, where in 2018 there was a one-to-one ratio of jobseekers to vacancies (Graph 3.3.2).

Graph 3.3.2: **Number of jobseekers per vacancy, by region**



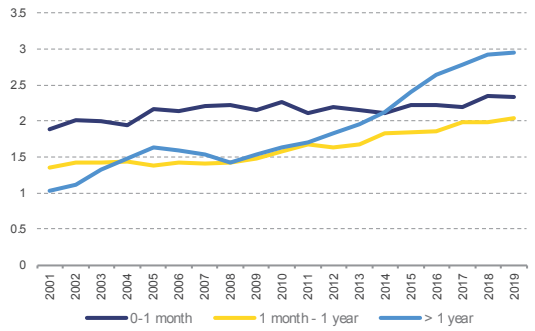
Source: Eurostat

Population ageing and a low level of labour market participation worsen the tightening of the labour market. Only three out of four people of working age (20-64) are active on the labour market (74.5%), which is below the EU average of 78.7% in 2019Q3. Activity rates are particularly low for young people and older workers. The low activity rate among young people (20-24) is explained by high enrolment in tertiary education, but also by the fact that the time students take to complete higher education is relatively long (OECD, 2019a). Past reforms that strengthened conditions for early retirement resulted in a gradual increase in the employment rate for older workers (50.3% in 2018) and the effective retirement age (61.7 years for men and 60.1 years for women in 2017). However, the gap with the employment rate of prime-age workers (30.1 pps) and the gap with the statutory retirement age (3.3 years for men and 4.9 years for women) remain among the largest in the EU.

The share of the private sector salaried employment that is absent from work as a result of long-term illness continues to increase albeit at a lower rate. Between 2001 and 2019, the share of private sector salaried employment that was ill for more than 1 year increased from

1.36% in 2001 to 2.95% in 2019 (Graph 3.3.3). Only part of this increase can be explained by population ageing and increased female labour market participation (which increased eligibility for social assistance) (Saks, 2017). In past years, the federal government introduced a new re-integration trajectory and increased financial incentives to work for beneficiaries of disability benefits if they took up part-time employment. Furthermore, the use of formal and informal re-integration trajectories increased, as well as the share of long-term ill workers who take up employment progressively (Verlinden, 2019; Acerta([56])). A drawback of the current system is that the formal re-integration trajectory requested by the employer can only start after 4 months of continuous absence, while studies have shown that the chances of successful integration decline with the length of the absence (Belin et al., 2016). Moreover, figures on the rising share of employees that report psychological fatigue ('stress at work') (from 28.8% in 2007 to 36.8% in 2019 in Flanders) point to the importance of preventing sickness absenteeism among those who continue to work but are at risk of future sick leave (Bourdeaud'hui et al. 2019).

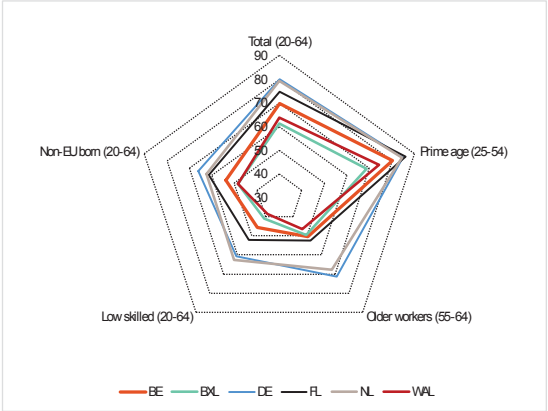
Graph 3.3.3: **Share of private sector salaried employment that is ill, by duration of the illness**



(1) Data refer to the first six months of every year and include only employees of companies with fewer than 1000 employees.
Source: Securex

There are large inequalities in labour market outcomes between population groups and regions. In 2018, the overall employment rate (20-64) for Belgium was 69.7%, well below the EU average (73.2%). There are, moreover, large disparities between population groups and regions. In Flanders, the employment rate for workers aged 25-54 years old exceeded 86% in 2018, which is higher than the levels in the Netherlands and Germany (Graph 3.3.4). However, the overall employment rate (20-64) was lower, held back in particular by the low employment rates of the low-skilled, non-EU born and older workers (also impacting pension expenditure – see section 3.1.5). In Brussels and Wallonia, labour market outcomes are significantly worse for all these groups, also as compared to neighbouring countries. Addressing unequal labour market outcomes would be an important step to make further progress on SDG 8 (decent work) and 10 (reducing inequality).

Graph 3.3.4: **Employment rates, by population groups and regions (2018)**



Source: Eurostat

Despite some progress, the non-EU born continue to face poor labour market outcomes. In 2018, the employment rate among the non-EU born was on the rise (53.9%, compared to 52.0% in 2017), in particular in Flanders (+5 pps) and among those that arrived recently (less than 5 years) in Belgium (+6.8 pps). Despite this recent improvement, the employment rate of non-EU born remains 18.1 pps below the level of natives (compared to 19.0 pps in 2017). In particular, non-EU born women face a very low employment rate (44.9%) and a high gap compared to native women (23.8 pps). The overall low employment rate for non-EU born is driven both by high unemployment rates (three times as high as for natives) as well as a very low activity rate among non-EU born women (52%). This impacts strongly on the social situation of non-EU born (see below).

The labour market situation also remains unfavourable for native-born with foreign-born

([56]) Available at: https://www.acerta.be/nl/over-acerta/in-de-pers/op-vijf-jaar-tijd-hervatten-bijna-dubbel-zoveel-belgen-het-werk-geleidelijk-na-ernstige-ziekte-of-ongeval

parents. This group has higher rates of unemployment and people not in education, employment or training, explained partly by their on average lower educational outcomes, but also by other factors including discriminatory practices (FOD Werkgelegenheid, Arbeid en Sociaal Overleg, 2020; 2014 ADM LFS). Moreover, when in employment, they are more often affected by over-qualification and precarious contracts. In particular, for the children of two non-EU born parents, the chance to succeed on the labour market is lower (Piton and Rycx, 2020).

The employment rate of people with disabilities remains well below the EU average. In 2018, the employment rate of people with disabilities (20-64) was 31.6%, ranging between 46% in Flanders and 31.1% in Brussels. According to the Belgian labour force data, more than one in four (27%) non-employed people with disabilities indicate that they would be able to work if they would receive some support measures, in particular they indicate that adjustments to the type of tasks or workload are still lacking. Another 27% indicated that they do not need additional support to take up employment. This underlines the importance of adopting, in cooperation with the social partners, effective and comprehensive integration strategies across the different levels of competency.

Labour income is highly taxed, affecting incentives to work and to participate in adult learning (see Section 3.1.6). In its government agreement, the Flemish government announced the introduction of a job bonus of maximum €50 per month for a full-time worker earning up to €1700 per month and phased out for earnings up to €2500 per month . The effects on work incentives still have to be analysed, in particular the effect on existing low-wage traps. High tax rates on labour may reduce incentives to invest in lifelong learning as they reduce the return on investment. For second earners, disincentives to work are aggravated by the existence of the 'marital quotient'. ([57]) Overall, calculations by the European Commission's Joint Research Centre show that abolishing the marital quotient could increase the labour market participation of women by 1.6%, while the impact on the labour market participation of men is expected to be negligible. The abolition of the marital quotient would particularly affect take-up of work by non-working spouses and second earners working relatively little hours (less than 16 hours)([58]), while having a small negative effect on the disposable household income in all income deciles. ([59])

There remain financial disincentives to work for beneficiaries of social benefits with a low earning potential. In particular, beneficiaries living in a single household receiving disability income support, unemployment (at the minimum level) and minimum income benefits face financial disincentives to increase their hours worked. This is reflected by the flat curve up to a labour participation of at least 15 days per month (Graph 3.3.5). In contrast, there are no financial disincentives for the beneficiaries of disability social insurance benefits to take up part-time employment after the 2018 reform of the benefit system. There are differences in the level and financial incentives provided by the various social benefit schemes, which do not always reflect differences in needs. For example, beneficiaries of unemployment benefits who do not work receive €170 (or 19%) more than those earning the minimum income, while income positions are reversed from the moment that the beneficiary works more than 3 days per month. In order to reduce unemployment- and inactivity traps, the Flemish government plans to make social benefits fully income dependent and no longer depend on someone's employment status.

Furthermore, while unemployment benefits decrease over time, Belgium remains the only Member State in which they are unlimited in time. While this enables the Public Employment Services (PES) to monitor more closely those who are both without a job and not eligible for minimum income support, it may potentially reduce the effective activation of jobseekers when

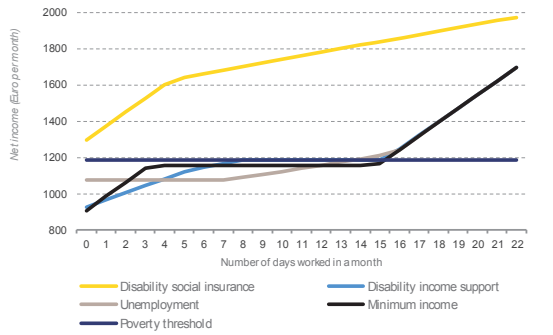
([57]) This feature of the personal income tax calculation for couples assigns part of taxable earned income from the partner with the highest earned income to the partner without a low or not earned income. The transferred amount is capped to 30% of the couple's total earned income and to 11110 € for 2020 (yearly indexed amount).

([58]) Household type simulations were performed using the OECD tax and benefit model.

([59]) Calculations by the European Commission's Joint Research Centre, based on the EUROMOD model, show the impact is expected to be the largest for households with a disposable income between the second (-0.7%) and the fifth decile (-0,4%), leading to a small increase in the at-risk of poverty rate (+0.3 pps).

combined with relatively lenient benefit eligibility (OECD, 2018). Moreover, unemployment benefits for long-term unemployed are not means-tested. The announced reform of the unemployment benefit system (i.e. making benefits more degressive) has been put on hold and will need to be monitored in terms of work incentives. In addition, no information is available on the potential spillovers to the minimum income scheme if unemployment benefits were limited in time.

Graph 3.3.5: **Low wage traps for different social benefits (for a single earner household working at the minimum wage), (2019))**

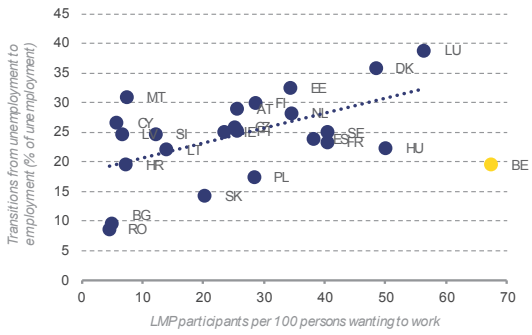


Source: Mimosis micro simulation model

There are concerns about the effectiveness of activation measures. This is reflected by the fact that despite high participation in active labour market policies, the transition rate from unemployment to employment remains low (Graph 3.3.6), in particular for the most vulnerable jobseekers. As a result, long-term unemployment remains relatively high, at around 48.7% of total unemployed people in 2018. However, there are large regional differences. In Flanders, 33.9% of all unemployment is long-term unemployment, while in Brussels and Wallonia it accounts respectively for 56.9% and 56.2% of all unemployment. Flanders has announced the introduction of community work for those actively looking for employment while unemployed for more than 2 years despite having followed a guided trajectory to employment. However, several studies have pointed to the negative effects of similar measures, including crowding out of regular employment and low transitions to the regular economy (e.g. Schepers and Nicaise, 2015).

The introduction of a system to determine a jobseeker's distance to the labour market may strengthen the provision of individualised support. In Flanders, the Public Employment Service (PES) has rolled out a pilot project to assign a profiling score to each jobseeker using data-mining techniques, so called 'statistical profiling'. This score measures the likelihood that a jobseeker will find employment in the next 6 months. It can be used to strengthen the provision of individualised guidance and the type of action required to ensure a swift (re-)entry to the labour market (Desiere et al. 2019). In Wallonia, the Forem is planning to further strengthen its provision of individualised support by 2021.

Graph 3.3.6: **Correlation between the transition rate (2018) and participation in ALMPs (2017)**



Source: DG EMPL LMP database and Eurostat

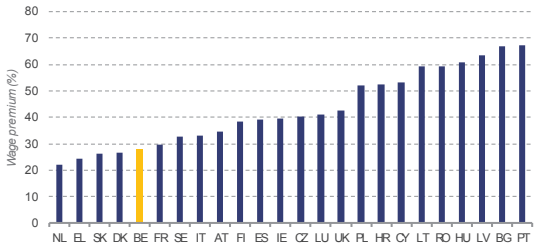
Public employment services offer a wide variety of measures, suggesting that there may be scope to streamline the offer. There is a lack of systematic and publicly available impact evaluations of key programmes in all regions (see for example Desiere et al., 2019). Increasing labour shortages will further strengthen the need for a comprehensive approach coordinated across policy domains to target those that are the furthest from the labour market and help them to get back into work.

The regions continued to take measures on the integration of recently arrived third-country nationals. In Flanders, on the one hand some measures provided for in the new coalition agreement may make the integration process more difficult (e.g. by making the newly arrived pay for the integration courses and delaying their access to certain long-term care allowances or social housing). On the other hand, measures announced in the new coalition agreement such as the

automatic registration with the PES and increased provision of language training are likely to improve the chances for migrants to find a job. In Wallonia, the Forem has put together a number of services available to migrants (including skills screening, language training, recognition and validation of qualifications) and improved capacity building as well as collaboration with other public organisations. In Brussels, Actiris will deploy specialised job coaches to support recently arrived migrants, improve access to language training, put in place 'social interpretation' ([60]) and partnerships with civil society organisations to promote the recognition of foreign diplomas or to support mentoring.

Further measures to fight discriminatory practices are being implemented. Actiris is tackling discrimination based on a regional 'diversity plan', an anti-discrimination desk ([61]) supporting jobseekers facing discriminatory practices and a reform of the regional diversity instruments will come into effect on 1 January 2020 focusing on raising awareness among businesses about diversity, tackling discrimination and taking corrective action in the event of a conviction. There is no evidence yet about the impact of the "mystery calls by social inspectorates" measure or the Royal decree (approved end 2018) regarding positive actions by employers.

Graph 3.3.7: **STEM wage premium (as% of the wage of a non-STEM worker; average 2014-2017)**



Source: Commission calculations based on EU SILC microdata

Education and training systems may not be delivering all the skills needed in the labour market. There are considerable shortages in professional, technical and scientific occupations due to the low number of graduates in science, technology, engineering and mathematics (STEM) (see Section 3.3.2). Shortages are also observed in health care, education and training. However, increasing shortages in some sectors are not reflected in wage developments. In 2016-2018, there was no correlation between the change in the vacancy rate and the change in hourly wages across sectors. In STEM ([62]) occupations in particular, the wage premium is among the lowest in the EU (Graph 3.3.7).

The overall level of basic skills is good in Flanders, but skills are under-used in the workplace. Adults in Flanders are more proficient in literacy, numeracy and problem solving in technology-rich environments than adults in most other OECD countries. However, particularly in small and medium-sized enterprises (SMEs), the use of literacy and especially numeracy skills at work is relatively weak (OECD 2019b). The lack of PIAAC ([63]) data for Brussels and Wallonia does not allow for these regions to be assessed.

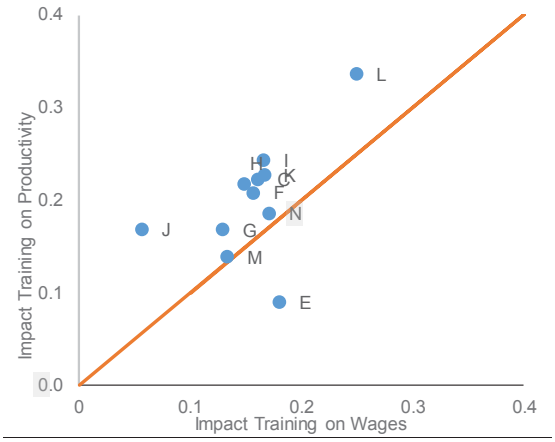
([60]) Enables the jobseeker to be accompanied by an interpreter during his first face-to-face contacts with PES' job coaches (Actiris).

([61]) Guichet anti-discrimination / Anti-discriminatieloket http://www.actiris.be/ diversite/tabid/959/language /fr-BE/Guichet-anti-discrimination.aspx.

([62]) STEM professions are defined by as those working in occupations with ISCO-88 codes 21 (Science and engineering professionals), 25 (Information and communications technology professionals), 31 (Science and engineering associate professionals) and 35 (Information and communication technicians) cfr Caprile et al. (2015) and De Coen et al. (2018). The STEM premium measures the adjusted wage premium based on the monthly earnings of a full-time employed worker controlling for age, gender, education level and sector. Non cash-payments are included in the analysis, while managers and part-time workers are excluded from the non-STEM workers.

([63]) The Programme for the International Assessment of Adult Competencies (PIAAC) is a programme of assessment and analysis of adult skills.

Graph 3.3.8: **Potential wage and productivity growth by sector from increased training (2008-2017)**



Note: *The letters refer to the NACE codes.*
Source: Figures updated based on Konings and Vannormelingen (2015)

Participation in adult learning remains low. In 2018, 8.5% of the population (25-64) had participated in adult learning (compared to 11.1% in the EU), despite a large number of training courses on offer from a variety of suppliers, including sector funds. Investment in training, however, has a positive impact on wages and in particular on productivity in Belgian firms (Graph 3.3.8). On average across all sectors, increasing the trained work force by 10 percentage points increased wages by 20% and productivity by 23% between 2008 and 2017. The impact is the largest in the non-manufacturing sector.

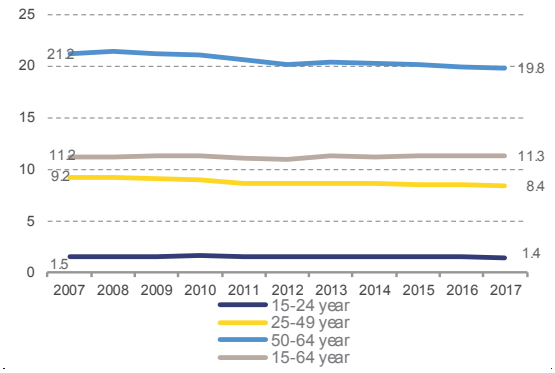
There are several drivers, like seniority pay and taxation, which may contribute to the low participation in adult learning. Evidence from Flanders suggests that a key driver behind low participation rates is the large share of the population not willing to participate in adult education (82% vs. 76% on average across OECD-PIAAC countries). The main barriers to participation are work, childcare and family responsibilities, while the cost of training was the least cited across all OECD countries. In addition, returns on investments may be smaller in Belgium due to low-wage dispersion, high income taxation, seniority payments and shorter working careers. There is also uncertainty on the returns due to low levels of pay transparency because of the relatively large share of fringe benefits (such as company cars). Moreover, there are concerns that the incentives currently provided do not reach those that would benefit the most, such as the low-educated and older workers (OECD, 2019b).

The 2017 Law on Workable and Agile Work changed the training obligations for employers, but it is still too early to evaluate its impact. Before the introduction of the Law, private companies needed to invest 1.9% of the yearly wage mass in training. The 2017 Law replaced this system by a training obligation of minimum 5 days on average per full-time equivalent at the sectoral level (target to be achieved through a growth path). However, the Law does not include an enforceable individual entitlement (except in some cases) nor the guarantee that the training will be provided for those most in need. Small and medium-sized companies (fewer than 10 employees) are exempted from the training obligation.

The Flemish government announced in October 2019 a plan to introduce individual learning accounts (*individuele leer- en loopbaanrekening*) It also announced the intention to establish a platform for lifelong learning where the Departments of Work, Education and Economy in cooperation with the social partners will develop a common vision, ambitions and goals. These measures aim to promote a culture of lifelong learning and to stimulate willingness to learn. In this sense, these initiatives build upon and further develop the reformed Flemish training incentives (including paid educational leave and training vouchers), which were launched in September 2019. They complement the educational database that gives an overview of all training programmes which can be paid for using the Flemish paid educational leave and training vouchers.

The recognition of skills is high on the policy agenda. The French-speaking part of Belgium has implemented new measures to support upskilling pathways, including an online tool for validation, created partnerships with key operators to support the mutual recognition of learning outcomes, and opened up access to the first certifying pathways. In Flanders, measures include the development of a validation instrument and the creation of a register of all the centres that perform validation. Recognition of skills may be an important channel to help workers born outside the EU to integrate in the labour market.

Graph 3.3.9: **Job seniority by age bracket**



Source: European Labour Force Survey (adaptation Steunpunt werk)

Seniority pay, among other elements, contributes to low job mobility. Job mobility is low as compared to the EU average. The share of workers 5 years or more in the same job is 64.5% (compared to 59.7% in the EU). The average time that an employee has spent in the same job has decreased in the past 10 years for all age brackets with the most significant percentage decrease among older workers (50 – 64), (Graph 3.3.9). However, the average time spent in the same job remained constant at 11.3 years as a result of the composition effect due to ageing of the workforce. Seniority pay, which is significant for employees in Belgium (see European Commission, 2019), can in turn create disincentives to change jobs. Low job mobility is also influenced by factors like mobility hurdles (see Section 3.4) and long notice periods. Low job mobility in turn contributes to weaker technology diffusion across firms and increases the productivity dispersion between the most and least productive firms (see Section. 3.4.1).

Education and training

The competence level of pupils/students in basic skills is well above EU-average but has decreased in the Flemish Community, while it remains around the EU-average in the French Community. International (PIRLS) and community-level assessments show a long-term decrease in basic skills. While nationally the PISA2018 ([64]) average outcomes remain above the EU average in reading, mathematics and science, they confirm the long-term downward trend, especially in the Flemish Community for all basic skills and all types of achievers. In the French Community, average outcomes have remained relatively stable compared to 2015, closing the gap with the decreasing EU average.

The shares of low and high achievers in basic skills show that the Communities have difficulties combining both equity and excellence. Nationally, about one out of five 15 year-olds is underachieving in science (20%), reading (21.3%) and mathematics (19.7%) (European Commission, 2019a). While the Flemish Community ranks second in the EU for the share of top achievers in all three subjects, at national level low achievers in all three domains – those failing to meet minimum standards required in all three subjects - represent 12.5% ([65]) (above the EU average of 11%) ([66]). Reading has worsened in all three communities, while there were some improvements for mathematics and science in the French Community ([67]). However, mathematics and science remain above the EU and national averages. In the Flemish ([68]) and German-speaking ([69]) Communities, the share of low performers remain below the EU average for reading and mathematics. Nationally, the share of top achievers is increasing slightly in reading (9.5% compared to EU average of 8.9%). The decrease in mathematics (15.7% compared to 11.2%) and science (8% compared to 10%) is worrying for future growth and innovation.

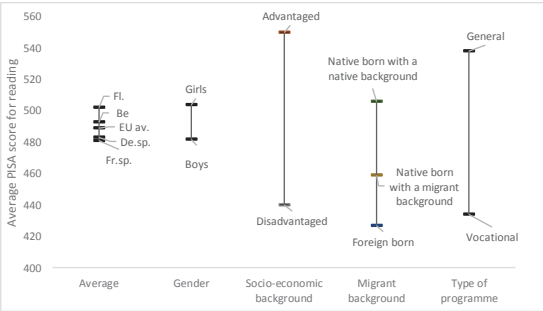
The gap in educational outcomes linked to socio-economic and migration background remains high in both Communities and has not significantly narrowed over the last decade. Educational inequality linked to socio-economic background in the Flemish and French Communities is among the highest in the EU (gap in reading of respectively 110 and 107 points on the PISA scale, equivalent to 2.5 years of schooling) (see Graph 3.3.10). In the Flemish Community the difference in reading performance

([64]) Programme for International Student Assessment of the OECD (OECD, 2019).

([65]) PISA (OECD), 2018, table BI.B1.27.
([66]) EU average without Spain.
([67]) Mathematics (22.8%; -1.2 pps), science (22.6%; -0.5 pps), reading (23.8% ; +1.2 pps).
([68]) Mathematics (17.3%; + 0.4 pps), reading (19.3%; + 2.2 pps) and science (18%; + 0.9 pps).
([69]) Reading (20.6%; + 6.3 pps) and science (20 %; + 5.8 pps), mathematics (15.1%; -2 pps).

between pupils with a migrant and non-migrant background after accounting for socio-economic status is among the highest in the EU (32 PISA points), but is low in the French Community (11 points). These results suggest that targeted policies and measures are needed to address the diversity challenges (see below) and promote equity.

Graph 3.3.10: **Average PISA score for reading, by region, gender, type of programme and socio-economic and migrant background**



40 PISA points correspond to one year of schooling
Source: OECD PISA results 2018

The difference in educational outcomes of 15-year olds between schools is one of the largest within the EU in both Communities. This is the case both for schools with a high concentration of students with a migrant background (41 compared to EU average of 22 points) and between advantaged and disadvantaged schools (155 compared to EU average of 130 points). The gap in reading performance between general and vocational programmes is significantly above the OECD average (98 compared to 68 points), suggesting that vocational education and training is not delivering the necessary basic skills and highlighting the pitfalls of early tracking into academic and vocational education training strands. Addressing the above-mentioned challenges will contribute to progress on SDG 4 (quality education).

Belgium will lower the age of starting compulsory education to five from 2020/2021. Although enrolment in early childhood education and care (ECEC) increased further to 98.7% in 2017, attendance is lower for children with a migrant background or with low-skilled parents in large cities. The Flemish Community has increased the budget per child to the same amount as at primary level, has introduced an additional child allowance for regular participation and has set up a system to monitor attendance. The new government will propose new measures to ensure that all children acquire a sufficient level of Dutch before entering primary school and to guarantee sufficient ECEC staff. The French Community has introduced free ECEC for 3-year-olds, increased the number of teachers and support professionals over 2017-2019 and will introduce a first curriculum of initial key competences as of 2020/2021.

Measures are being taken in all Communities to further reduce early school leaving, which is closely linked with grade repetition. In 2018, early school leaving dropped to 8.6% nationally (EU average of 10.6%), with a significant decrease in the Brussels region to 10.7% (-2.2 pps). Higher rates are nonetheless recorded among people with a migrant background and from disadvantaged socio-economic groups. Early school leaving is also closely linked with grade repetition (among the highest in the EU at 48% in the French Community and 29% in the Flemish Community). In the French Community, a comprehensive plan to address early school leaving, supported by the European Social Fund, will be implemented as of 2021-2022. In the Flemish Community, there are plans to extend a pilot project that links the databases of the Ministries of Education and of Employment to allow a better follow-up of early leavers.

The need to better address increased diversity and complex challenges is high. Belgian classrooms are more diverse than the EU average: they have high numbers of students with a migrant or disadvantaged background, refugees and students with special needs. The proportion of teachers who report that they are well prepared to teach in a multicultural and/or multilingual setting is lower than the EU average. School principals are more likely than in other EU countries to report shortages of qualified teachers (46.5% versus 24.6%) and teachers competent to teach students with special needs (55.6% versus 37.8%) (all references TALIS (2018) (OECD, 2019h)). The high persistent poverty and child deprivation rate, particularly in the Brussels' Region and to a lesser extent in Wallonia, require a "whole school approach" with the support of local authorities (Guio and Vandenbroucke, 2019).

The shortage of well-qualified teachers is increasing and the need for professionalisation is a growing concern. Despite salaries comparable to those with a similar level of education, only 5.3% of teachers in the French Community and 25.8% in the Flemish Community (compared to 17.7% at EU level) feel their profession is less valued. The Communities are taking ad hoc measures to address the growing teacher shortages (European Commission, 2019c). There is scope to strengthen continuous professional development (European Commission, 2019c); the latter is not recognised as important for career development. Administrative tasks are considered as high. There is no attractive career path and the challenges such as very diverse classrooms and temporary assignments for young teachers are substantial. In the Flemish Community, recent measures include intensive initial coaching and quicker permanent appointments of young teachers, and collaborative teacher platforms, while the reformed teacher training and the flexible offer for lateral-entry into the teaching profession was implemented as of September 2019. The planned reform of the initial teacher training in the French Community has been postponed by 1 year.

In 2018, Belgium reached its Europe 2020 national target for tertiary education attainment of 47%, but disparities remain strong between regions and groups.([70]) People with tertiary-educated parents are nine times more likely to complete tertiary education than those with low-educated parents. The attainment gap between people with disabilities and those without far exceeds the EU average (25.4% compared to 10.2 pps). Although 49.2% of native-born population had completed tertiary education, only 35% of the non-EU born population had done so. The gap in tertiary completion rates between students with a vocational upper secondary qualification and those with a general qualification is one of the largest among OECD countries (38% compared to 64% in the French Community, 52% compared to 83% in the Flemish Community compared to 58% compared to 70% across OECD countries)(OECD, 2019a).

([70]) Nationally 47.6%. In the Brussels region, tertiary attainment reaches 56.2%, while this is 48.2% and 42.5% in Flanders and Wallonia, respectively.

There is scope for improving equity, effectiveness and efficiency in higher education. Belgian universities (11 out of 12) perform strongly on research, knowledge transfer, international orientation and regional engagement (U-Multirank, 2019). Completion rates at bachelor's level (within the theoretical duration) are below the OECD average (OECD, 2019b). Course dropout and year repetition remain high (De Witte and Hindriks, 2018), reflecting the lack of appropriate student guidance in an open education system and the difficulty of excluding applicants with inadequate skills. The development of graduate tracking is still at an early stage. There is also scope for a (further) development of dual learning and more and better targeted) adult learning (e.g. STEM, OECD 2019b in both Communities. An evaluation of the higher education decree ("*décret paysage*") is planned in the new government programme of the French Community. The new Flemish government is planning measures to improve graduation time, the rationalisation of the study offer and the funding system.

The Communities are taking action to increase the uptake of science, technology, engineering and mathematics (STEM) studies, but there is scope for more comprehensive strategies to meet future labour market demand. In 2017, Belgium remained 26th in the EU for tertiary graduates in STEM (16.7%) and last for female graduates in ICT. The lack of STEM graduates and adequate STEM skills among the broader working population hampers Belgium's growth prospects, in a context of digitalisation and the transition to a low-carbon economy. In the French Community, though a number of initiatives are being launched to promote STEM uptake, but an overall strategic plan is lacking. In the Flemish Community, implementation of the STEM action plan for 2012-2020 is progressing well (Onderwijs Vlaanderen, 2019), but the number of STEM secondary graduates in technical and vocational paths has stagnated since 2010, leading to shortages on the labour market (see infra). The STEM-platform has issued recommendations for a new Action Plan 2020-2030 (Onderwijs Vlaanderen, 2019). Belgium could face additional shortages in ICT graduates by 2030 (Gonzalez Vazquez, I., et al., 2019.

Education spending in Belgium is among the highest in the EU. Public expenditure on education represented 6.3% of GDP in 2017, just behind Sweden and Denmark. Belgium has the second highest share of spending on employee compensation in the EU (80.9% of public education expenditure in 2017 compared to the EU average of 62%). The pupil/teacher ratio in schools is below the EU average at 10.7 compared with the EU average of 12.9 (OECD 2017). There is room to rationalise the educational offer in secondary education, including in vocational education and training, to develop synergies between networks, to improve teachers' time allocation for their different tasks and to conduct policy evaluation.

Investment needs for modern education infrastructure and digital equipment are high, but there is no inventory of infrastructure (Court of Auditors, 2019b). At 5.5% of public education spending, the share devoted to education infrastructure is below the EU average of 6.4%. The school population is expected to grow in waves until 2035. Despite significant investments in school infrastructure in the Flemish Community and the adoption in 2018 of the Digital Strategy for Education by the French Community, there is a further need for innovative learning environments in all Communities**.** Digital infrastructure, equipment and related training for teachers are particularly needed in the French Community.

Reforms promoting efficiency and effectiveness could release resources for urgently needed investment (and contribute to progress on SDG 4). Comparing Belgium's spending with other 'high spending' countries suggest that better educational outcomes should be possible (see also the 2019 country report). In the French Community, budgetary plans show that education expenditure from 2019 to 2024 will increase sharply ([71]), suggesting that feedback effects and savings will be needed to implement successfully the ambitious list of priorities of the Community Policy Declaration (2019-2024) ([72]). The successful implementation of the Pact will depend on continuous political commitment and financing, but also on finding sufficient and committed teachers, giving them stronger pedagogical support, and on the new initial training programme for teacher. The first positive reforms of the Pact are currently being rolled out They aim at reinforcing the school and system governance and reducing performance gaps between schools, as well as measures to strengthen French language learning for newly arrived pupils and vulnerable French-speaking pupils (see also Education and Training Monitor (European Commission, 2019c)). The Flemish Community has implemented positive reforms in secondary education and in all other sectors for the 2019/2020 school year. They include the decrees on Higher Vocational education and on the reform and financing of Adult Education; the modernisation of secondary education: new attainment targets should be gradually rolled out between 2019 and 2024, starting with the 1st year of secondary education and better transition to labour market and higher education; full roll out of dual learning in secondary education and special needs education (see ETM 2019 and Annex A).

Participation in work-based learning remains low. In 2017, the employment rate of recent vocational educational and training graduates was 76.7%, below the EU average of 79.5%. The share of learners in work-based learning in 2017 stood at only 6%, far below the EU average of 27% (UOE, 2017). All regional entities in charge of vocational education and training in Belgium have initiated reforms to develop dual learning in recent years, but it is important that the quality of these initiatives, the adequacy of coaching support provided by companies, guidance provided by schools and the learning outcomes of the apprentices are closely monitored, with corrective measures taken when needed. According to a recent analysis (Cedefop, 2019), there are concerns that the reform in the French Community resulted in less flexibility and more bureaucratic procedures. The Cedefop analysis makes several recommendations to improve the dual learning system. The ratio of graduates to enrolment is much below the EU average (16% compared to 31%), suggesting high dropout rates and a need to strengthen initial vocational education and training.

([71]) Lecuivre, E. and oth. 2019

([72]) These priorities include: strengthening the Pact for Excellence in Education; reforms of vocational educational and training and work-based vocational training; special needs education; the teacher enrolment procedure (decree 'Titres et fonctions'); funding of higher education; increased support for principals; adaptation of Initial teacher training; and sustainable school infrastructure.

Social policies

Belgium scores well in terms of equality (SDG 10). The income quintile ratio (S80/S20) in 2018 remained constant at 3.8, well below the EU average of 5.2. The tax and benefit system has a high impact on reducing inequality, bringing down market income inequality by 10.7 pps.

The at-risk of poverty or social exclusion rate is below the EU average, but pockets of poverty remain. The at-risk-of-poverty or social exclusion rate (AROPE) further decreased and reached 19.8% in 2018, which is below the EU average of 21.9%. However, some groups are disproportionally affected and the impact of social transfers on poverty reduction is flagged as 'to watch' on the Social Scoreboard. For example, the AROPE rate of non-EU born is more than 32pps higher than for natives, the largest gap across the EU in 2018. While severe material deprivation is very low for natives (3.1%) it is rather high for non-EU born (14.7%). Monetary poverty (AROP) increased slightly from 15.9% in 2017 to 16.4% in 2018 for the general population and it should remain stable in 2019([73]). The AROP rate is high among people with low qualifications (18-64) (32.1%), the non-EU born (18+) (42.3%), people with disabilities (16-64) (21.7% in 2017) and people living in very low-work-intensity households (0-59) (72.8%), suggesting a strong correlation between low employment rates and the prevalence of poverty. Addressing these pockets of poverty would lead to further progress on SDG 1 (no poverty) and 10 (reducing inequalities).

The at risk of poverty or social exclusion rate for children remains high and continues to increase (23.2% in 2018 compared to 22.0% in 2017). In particular, the risk of poverty for children with foreign-born parents (39.5% in 2018) is around four times higher than among children with native-born parents. Child poverty and deprivation is particularly high in Brussels with more than 40% of children living in a poor household and more than 30% lacking three or more basic items (Guio et al. 2019). Moreover, there is a strong increase in the persistent at-risk of poverty rate, which increased from 9.1% in 2013 to 14.8% in 2018.

([73]) Experimental flash estimates produced by Eurostat for income year 2018. https://bit.ly/34HOcIG.

People with disabilities face challenges with respect to poverty, educational attainment and employment outcomes. The transition to a more rights-based approach is slow. There is no coordinated de-institutionalisation strategy, although increased autonomy for people with disabilities is included in the reform agenda of every federated entity.

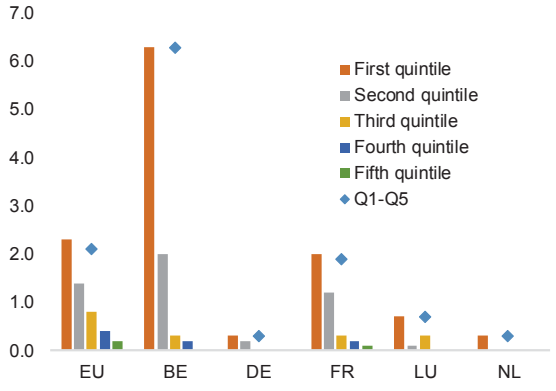
The Belgian health system performs well in providing acute care in hospitals, but many aspects of broader public health and prevention policies could be strengthened to improve health and reduce health inequalities. Life expectancy at birth reached 81.6 years in Belgium in 2017 and remains above the EU average, although it is lower than in many western European countries. Inequalities in life expectancy in Belgium exist not only in terms of gender but also of socioeconomic status. Life expectancy for men with the lowest level of education at age 30 was about 6 years lower than for those with the highest level; the difference was a little smaller among Belgian women but still more than 4 years. This education gap is lower than the EU average for men and similar to the EU average for women, but higher than in most other western European countries (European Commission/OECD, 2019). It can be explained at least in part by differences in living standards and exposure to risk factors.

A stronger and more co-ordinated prevention policy could help to bridge some of the health inequalities. Heath inequalities can be explained at least in part by differences in living standards and exposure to environmental and behavioural risk factors. Some behavioural risks have been addressed (e.g. tobacco), but challenges remain (e.g. alcohol, obesity). Preventable mortality is slightly lower than the EU average, while treatable mortality is much lower. There remains scope for more coordination between the federal level, which is responsible for healthcare and the regions, which are responsible for prevention.

Self-reported unmet need for medical and dental care are significantly higher for people with a low income. In 2018, 6.8% of the population (16+) in the lowest income quintile (vs. 2.2% in the total population and 0.5% in the highest income quintile) reported to have experienced a self-reported unmet need for medical care, mainly because of financial

constraints (Graph 3.3.11). This is a decrease as compared to the level in 2016 (8.5%), but an increase of 1.5 pps as compared to 2011. The gap in self-reported unmet medical needs between the poorest and the richest quintile is above the EU-average and the largest of all western EU countries. The self-reported unmet need for dental care is even larger (10.8% in the lowest vs. 1.4%. in the highest income quintile). Self-reported unmet need for medical care in the lowest income quintile is highly correlated with low-work intensity, growing financial constraints and severe material deprivation. Several recent measures and initiatives aim to limit the total amount of personal contributions that a patient has to pay, and to improve the financial accessibility and affordability of healthcare for vulnerable groups, including by a right to increased health insurance reimbursement (Van Lancker et al., 2017).

Graph 3.3.11: **Self-reported unmet needs for medical examination by main reason declared ("Too expensive") and income quintile (2018 data, % quintile population, inter-quintile differences (Q1-Q5))**



Source: European Commission calculation based on EU-SILC data

Social housing remains a concern, in particular for those on the private rental market. About 8.6% of the population spends 40% or more of its household income on housing, which is below the EU average of 10.4%. However, there are large differences between regions and population groups. The housing cost overburden rate is higher for those renting on the private market (33.8% as compared to 27.4% for the EU average) and those living in Brussels. There are long waiting lists for social housing in 2018. In Brussels, the number of households on waiting lists) even exceeded the actual available social housing stock. The government agreements of all federated entities have announced investments in social housing. In Brussels, for example, a 'Housing Emergency plan' will be drawn up in 2020. This plan aims to provide effective housing solutions for 15,000 households. It will consist of additional investments in social housing as well as extending the social rental agencies and providing housing allowances. In Flanders, the government proposes to introduce a residence requirement in the municipality (10 years of residence of which 5 years uninterrupted) for social housing. This condition risks reducing access for vulnerable groups, such as refugees, and having a negative impact on labour mobility.

Box 3.3.3: The importance of skills in the Belgian labour market

In a context of a tightening labour market, employers are finding increasingly difficult to find employees with the right skills (see Section 3.3). Moreover, globalisation, demographic and technological changes are having a profound impact on labour markets across the Member States, including Belgium. A declining working age population means that, addressing skills shortages will become more and more challenging, but also more important for spurring the sluggish Belgian productivity growth, facing digital transformation, as well as enabling the green transition. It is therefore a key lever for sustainable economic and wage growth.

In 2018, in spite of recent reforms, Belgium recorded the highest level of **macro-economic skills mismatches ([1])** across the EU (25 %). This result is driven primarily by the combination of a low employment rate of low-educated people and a relatively high share of low-educated people in the population. This result holds across the entire working-age population, including for young individuals (Graph 1). The low employment rate of low-skilled people is linked to financial disincentives to work, the low effectiveness of activate labour market policies, the poor attractiveness of some low-skilled professions in terms of working conditions, and people lacking the appropriate skills. In addition, the high vacancy rate in Belgium indicates that there are considerable **labour shortages ([2])**, in particular in some sectors.

Challenges related to macro-economic skills mismatches

The level of basic and digital skills among young people is worrying. About one out of five pupils at the age of 15 (more than one out of five in the French Community and less than one out of five in the Flemish Community) failed in 2018 to perform basic mathematics, reading or science tasks (PISA 2018). This strongly affects individuals' chances of coping with fast-paced technological change, and developing as citizens (see Section 3.3). For pupils with a socio-economic disadvantage or migrant background, this share increases to 37.1% and 37.6% in reading. In parallel, results for digital skills across language communities also dropped over 2015-2017, in particular for young individuals. The root causes of some skills mismatches and loss of talent can be traced back to early education and care. Access to high quality early childhood education and care and to inclusive and equitable compulsory education reduce the risk of a delay in literacy competences, grade repetition and early school leaving.

Belgium performs only on EU average in terms of entrepreneurial skills. While Belgium has a specific strategy, entrepreneurial education and training in compulsory schooling only scores 2.0 (EU average of 1.9) on a scale of 1-5 best ([3]). The 2018 EU Entrepreneurship Education Survey shows that respondents scored below the EU average on self-efficiency and entrepreneurial activity in the last 12 months.

Overall, while multilingual skill levels in Belgium are above the EU average, a better knowledge of Dutch outside Flanders would help fill in vacancies in this region and increase job mobility. In 2016, 78.5% of the Belgians know at least one additional foreign language, which is well above the EU average of 64.6%, while 33% know two or more foreign languages. 88% of students were learning two or more languages. However, there are large regional disparities. In bilingual Brussels, there has been a gradual decline in the share of the population with a good knowledge of Dutch. This is partly linked to increased migration, but knowledge of Dutch is also declining among native Belgians. Moreover, while French is the obligatory second language in Flemish secondary schools, Dutch as a second language is optional only in the French-speaking Community, with the exception of Brussels (where Dutch is the obligatory second language in all French-speaking schools, just as French is obligatory in all Flemish ones). A better knowledge of Dutch outside the Flemish region could help address skills mismatches in Flanders and increase cross-regional job mobility to which also the collaboration between the regional public employment services (PES) is contributing. In particular in Flanders, the large volume of vacancies combining both technical and language skills remains a challenge.

Shortages persist in professional, ICT, technical and scientific occupations as the number of graduates in science, technology, engineering and mathematics ('STEM') remains low (see Section 3.3). Moreover, a substantial share of STEM graduates (25%) in Flanders started in a non-STEM occupation (De Coen et al., 2018). Overall, STEM workers experience lower unemployment rates and higher wages (Goos et al. 2013). However, in Belgium the wage premium for those working in STEM occupations is relatively

low and those working in STEM occupations work longer hours and experience more stress at work. Information on the potential of STEM studies remains scattered and is mainly limited to young secondary school students. Furthermore, previous studies have shown the importance of triggering interest in STEM at an early age in pre-primary and primary education, which is not systematically the case in Belgium.

ICT has the highest vacancy rates in Belgium, but also outside the ICT sector digital skills are becoming increasingly important. While there are small improvements in terms of the number of ICT specialists, upskilling and reskilling of workers to meet the challenges posed by digitisation remains an issue. Also, for several years now there are no real improvements in terms of the basic digital skills (61%) and basic software skills (62%) of the population. There is a slight improvement in terms of the above basic digital skills (34%) (Digital Scoreboard).

Forward looking actions

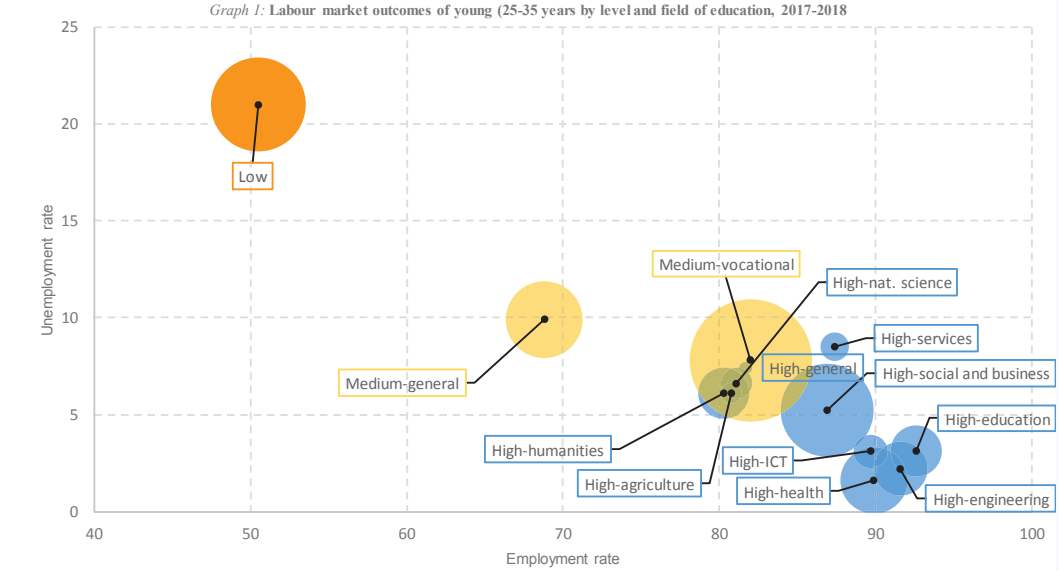
Apart from the current skills mismatches and labour shortages, stock needs to be taken of the challenges and opportunities that lie ahead.

Skills anticipation and foresight in Belgium is fragmented and dispersed over all levels of governance with little co-ordination at the federal level. At federal level, the Federal Planning Bureau, the High Council for Employment and the FOD WASO are the leading authorities, including for providing socio-economic and employment studies. At regional level, each authority is responsible for the main skills anticipation activities and dissemination of relevant results. In addition, the regional Public Employment Services and Skill Centres provide information designed to support the study choices of prospective students by the up-skilling and re-skilling of workers and/or jobseekers; the provision of education and training offers; and job search activities (Skill Panorama, 2017).

The **large number of actors involved and the low level of cooperation** leads to a variety of different forecasting and intelligence outputs. This makes it difficult for target groups to extract relevant information, especially at the national level. However, in particular in the digital sector, the pace of transformation requires coordinated efforts from all public and private stakeholders to address the growing labour shortages. There is no evidence that skills anticipation intelligence is used in policy-making at national level, but it is used to develop regional and sectoral training strategies, and education and training offers at regional and provider levels. In addition, regional campaigns have been launched to raise awareness of jobs where there are shortages (Skill Panorama, 2017). There is scope to optimise further the role of sector funds in this context, through additional cooperation and exchange of best practices and trainings available both among sector funds and between sector funds and other key lifelong learning actors, such as the PES, the regions, and competency centres.

The need for **environmentally sustainable growth** and thus **a green transition** will inevitably have an impact on the skills required across a wide range of sectors. Such skills relate to knowledge and competences required by resource-efficient processes and technologies (Skill Panorama, 2017). It is becoming increasingly important to include such future skill requirements and the policy implications of the green transition in Belgium's skills planning and anticipation activities, especially since climate action policies are expected to create about 60.000 additional jobs in Belgium (increase by up to 1 % of total employment) (European Commission, 2019d). This would make Belgium the Member State benefitting the most from climate action policies.

Graph 1: **Labour market outcomes of young (25-35 years by level and field of education, 2017-2018**



Note. The size of the balloons represents the weight of each group in the population.
Source: European Commission calculations based on microdata from the Labour Force Survey.

([1]) Macro-economic skills mismatches refer to the relative dispersion in employment rates across population groups with different educational attainment.
([2]) Labour shortages reflect a market equilibrium where the demand for labour exceeds the available supply, at particular wage and working conditions.
([3]) European Innovation Scoreboard 2019.

Box 3.3.4: **Monitoring performance in light of the European Pillar of Social Rights**

The European Pillar of Social Rights is a compass for a renewed process of upward convergence towards better working and living conditions in the European Union. It sets out twenty essential principles and rights in the areas of equal opportunities and access to the labour market; fair working conditions; and social protection and inclusion.

The Social Scoreboard supporting the European Pillar of Social Rights points to some employment and social challenges in Belgium. In the last years, economic growth as well as reduced possibilities for early retirement have contributed to a record high level of employment. However, the employment rate remains significantly below the EU average. Moreover, there are large disparities between regions and population groups. In particular, low-skilled people, older workers, people with a migrant background and people with disabilities are under-represented on the labour market. Tackling low employment rates will require effective activation of jobseekers as well as part of the inactive population. Effective activation measures could include addressing remaining financial disincentives to work, further tightening the conditions for early retirement, raising job mobility, upskilling, and increasing participation in lifelong learning On the positive side, Belgium performs better than the EU average in terms of gender equality and childcare provision. The gender gap in inactivity due to care responsibilities is below the EU average. However, financial disincentives to work remain, including for second earners.

Low labour market participation contributes to poor social outcomes for specific groups as well as to inequalities of opportunities. Although declining, the share of people living in very low-work intensity households (12.1%) is still well above the EU average (9.1%) and the large majority of them (72.8%) is at risk of poverty. Child poverty remains high, in particular in Brussels, with one of the greatest differences in the EU between children with highly and low educated parents. Educational outcomes are still strongly determined by the socio-economic and migrant background of pupils.

Belgium has increased flexibility with regard to parental leave, leave for medical assistance and palliative care to support the work-life balance of employees. Since June 2019, more flexibility has been introduced for parental leaves. This can now be taken in the form of half a day per week or a whole day every two weeks, whereas before it could only be taken full time, part-time or one day per week. In addition, employees can take full-time parental leave on a weekly basis, whereas previously this was only possible for a minimum of one month. An employee wishing to take part-time parental leave is able to take leave on a monthly basis, as opposed to the two-month minimum applied in the past. Flexibility has also been introduced on full compassionate leave, which can be taken up on a weekly basis, whereas previously it needed to be taken in periods of minimum one month.

3.4. COMPETITIVENESS AND INVESTMENT

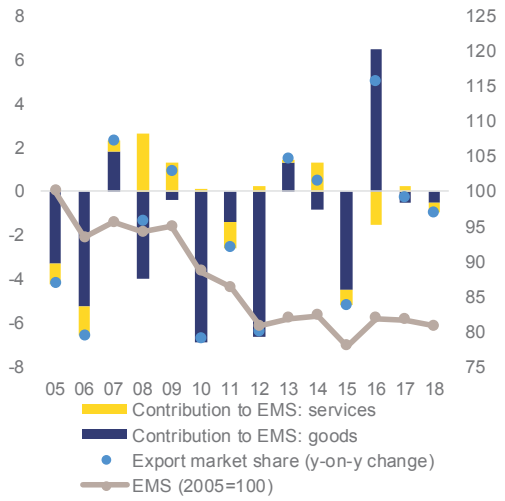
3.4.1. COMPETITIVENESS, PRODUCTIVITY AND INNOVATION

External trade performance

Belgium's export market share has stabilised since 2012. As shown on Graph 3.4.1 almost a fifth of its export market share was lost between 2005 and 2012, as other exporting countries (in particular China) were emerging. However, its export market share has broadly stabilised since then. While the downward trend has come to a halt, the accumulated losses remain substantial.

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 (see also National Bank of Belgium, 2019).

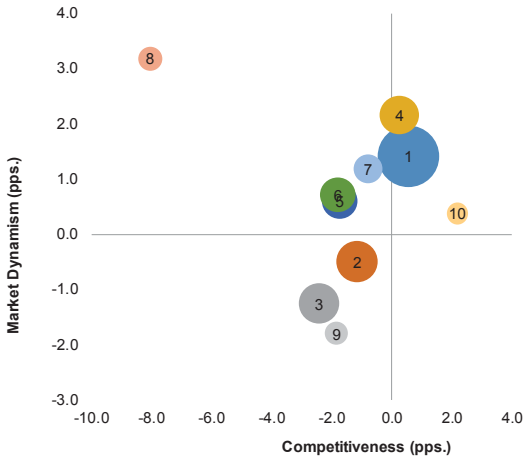
Graph 3.4.1: **Export market share**



Source: European Commission

Belgium is facing difficulties to take advantage of its product specialisation. Belgium has products for which world demand has grown at an above-average rate. This favourable initial product specialisation could not prevent heavy market share losses, as Belgian products were generally outcompeted, suggesting non-cost competitiveness issues. 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 (see Graph 3.4.2), and now face the major challenge of transitioning towards a low-carbon economy (see Section 3.5).

Graph 3.4.2: **Market dynamism and competitiveness of goods exports for top-10 sectors (2000-2018)**



Note: The size of the bubbles indicates the weight of this destination on total export of the country at the end of the period. Market dynamism stands for the difference between the annualized growth rates of World imports (proxied by World exports) per market and global World imports (proxied by World exports). Competitiveness stands for the difference between the annualized growth rates of the selected country exports per market and World imports (proxied by World exports) per market. 1 chemical products; 2 vehicles, aircraft & vessels; 3 machinery & electrical; 4 mineral products; 5 metals; 6 plastics & rubber; 7 foodstuffs; 8 precious stones; 9 textiles; 10 instruments & watches; note: the size of the bubble reflects the relative importance of the sector for BE exports (only the 10 biggest sectors labels are displayed)

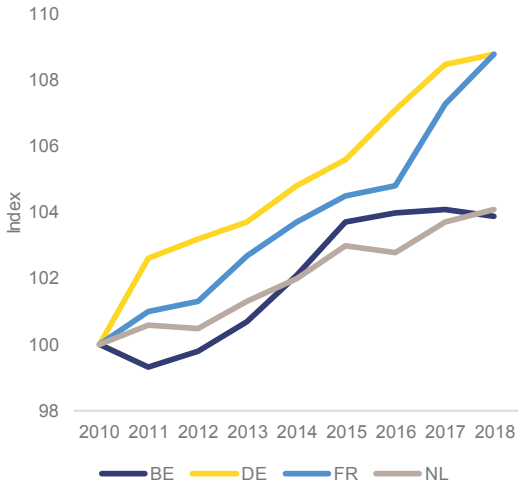
Source: Comtrade, European Commission calculations

Productivity

Belgian productivity growth has slowed down compared to its neighbouring countries. While Belgian labour productivity is among the highest in the EU, it has grown at a slower pace since 2010 compared to France, Germany and the Netherlands (see Graph 3.4.3), particularly since 2015. Labour productivity dynamics has been less favourable in the last years in services, where Belgium has been underperforming compared to France and Germany, than in manufacturing. Furthermore, this lacklustre labour productivity growth has been accompanied by a low total factor productivity growth (TFP), which has grown at slower pace than in the Netherlands, France and Germany since 2011.

The Belgian slowdown in productivity can be explained both by structural factors, factors common across developed countries, and by some country-specific characteristics. According to a recent report by the OECD, ([74]) factors common to other developed economies include the growing importance of services in the overall economy, the weaker technology diffusion across firms, the growing dispersion of productivity performance between the most and the least productive firms, the structural decline in business dynamism, and the ageing of the population. Specific national factors include notably the presence of large skill mismatches (see Section 3.3), the structurally low public investment (see Section 3.1) and the relatively weak efficiency of R&D (see below).

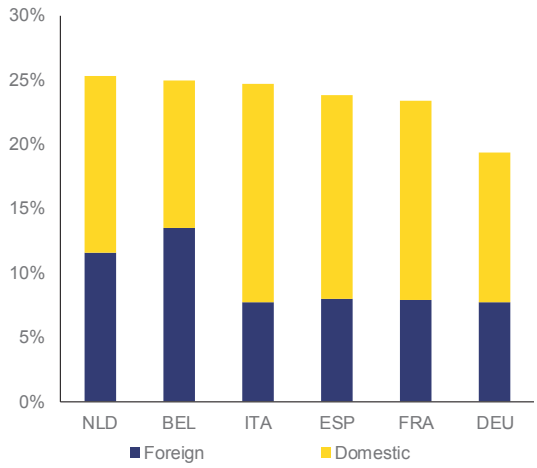
Graph 3.4.3: **Productivity growth (2010 = 100)**



Note: Real productivity per hours worked
Source: European Commission

Services sectors are particularly important in the Belgian economy. The share of services in terms of activity and employment in Belgium is higher than in the neighbouring countries, with services representing 78% of value added in 2018 and 81% of total employment in 2017. Moreover, Belgian intermediate use of market services ([75]) in its manufacturing production remained broadly stable between 2000 and 2014 (from 24% to 25%), but higher than in Germany and France (19% and 23%, respectively) and broadly in line with the Netherlands (25%). The market services used in Belgian final production of manufacturing are to a similar extent domestically produced and imported (see Graph 3.4.4).

Graph 3.4.4: **Services content of manufacturing (in 2015) in percent**



Source: European Commission based on OECD ICIO tables

Cost developments in both domestic and foreign services sectors could weigh heavily on Belgian competitiveness. Given that across countries, services tend to be characterised by a lower productivity growth than manufacturing sectors, the high weight of the services sectors in the economy and their relatively high costs negatively affect the evolution of the aggregate unit labour cost. While the foreign cost evolution in market services is an external factor for the Belgian economy, the domestic labour cost in Belgium has increased faster than in most of the neighbouring countries since the 2000s and remained among the highest in the EU([76]). High domestic unit labour costs in the service sectors, partly driven by market rigidities, also indirectly impacts the competitiveness of the manufacturing sectors([77]).

Productivity dispersion between the most and the least productive firms has increased in Belgium. The performance of the least productive

([74]) OECD, 2019, In-depth productivity review of Belgium.
([75]) Market services cover sectors G-K in ISIC Rev. 3 classification.
([76]) Recent wage moderation could have contributed to improve the cost-competitiveness of the Belgian firms (see also Cheliout S. and oth; 2019).
([77]) See Connell et al. (2019) for an application using Belgian data as to how wholesalers have an important role in the export performance of manufacturing firms.

firms is important in explaining aggregate productivity growth given that they account for a considerable share of the economy. In Belgium, labour productivity and the total factor productivity gap between the top 10% and the bottom 10% of firms have increased in the last decade, which might be a signal of weak diffusion of technological advances and/or low resource reallocation. For example, using Belgian data, Dhyne. E. et al. (2018) find that IT investment explains around 10% of productivity dispersion across firms. Finally, the average share of high-growth enterprises in Belgium is lower than the average (see infra).

The churn rates of firms in Belgium are among the lowest in the EU, pointing to insufficient market responsiveness. Business dynamism is important for productivity-enhancing reallocation, which affects the aggregate productivity. Firms' churn rates in Belgium, i.e. the sum of the birth rates and death rates of firms in a given period, are among the lowest in the EU. The entry rates decreased particularly in the market service sectors, which are affected by high regulatory burden and complexity, including sector-specific regulation hindering growth in a number of services (see Section 3.4.2)([78]). In addition, the increasing number of firms that are 'distressed' (so-called 'zombies') has increased since the crisis, pointing to possible bottlenecks in the exit or restructuring of firms.

High skills shortages and skills mismatches are weighing on potential growth. Belgium is characterised by a high vacancy rate, which can largely be attributed to the lack of skilled workforce. According to the OECD, labour shortages in Belgium arise primarily, but not only, in high-skilled occupations. These skills imbalances can affect aggregate labour productivity, as they slow down the adoption of new technologies, delay production and increase labour market turnover. Job mobility in Belgium is low as compared to the EU average (see Section 3.3). As a result, potential output would be higher if skills were usedmore effectively (see Section 3.3 for more details on labour market and education performance, including the box on 'selected issues').

Productivity at regional level

There are significant productivity gaps both within and between Belgian regions. The most productive region is the Brussels-Capital Region (hereafter 'Brussels'), where labour productivity per capita reached 164% of the EU average in 2017. Among other factors, the composition of the labour force (high share of tertiary educated workers) and the economic concentration (linked to the metropolitan role of Brussels) might help explain the high productivity in Brussels. Flanders comes behind, notably with Antwerp as the third most productive province of the country (154% of the EU average). Wallonia has a lower productivity on average. In addition, intra-regional disparities are significant. For instance, productivity in the province of Limburg in Flanders stands only at 117% of the EU average, while the Walloon Brabant is at 158% of the EU average, ranking as the second most productive province of Belgium. The labour productivity of the other Walloon provinces ranges between 104 and 111% of EU average.

The Belgian regions aim to increase productivity and competitiveness through regional cluster policies, which help create innovative tools and boost the abilities of firms. Since 2016, Flanders has focused on spearhead clusters and innovative business networks. For its part, Wallonia has presented its 2019-2024 Investment Plan (€5 billion) in which about €1 billion is earmarked for R&I projects. In Brussels, six thematic clusters aim at accompanying business in their developments.

The reform of the wage norm

In 2017, Belgium reformed its process of wage determination ([79]). The principal aim of the reform was to better safeguard cost competitiveness and keep wage growth in line with that in Belgium's main trading partners (the Netherlands, France and Germany), and eventually

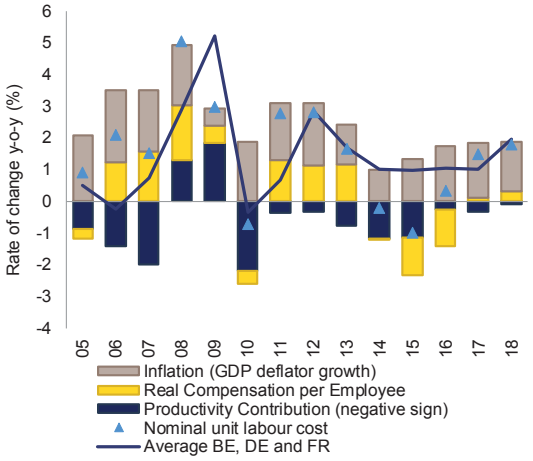
([78]) Business dynamism has declined in Belgium between 2000 and 2014 in both manufacturing and services. However, the decline in number of companies being set up has been reversed since 2014 and 2019 saw a record number of new companies being set up.

([79]) 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.

to recover part of the cumulated past competitiveness losses.

A preliminary assessment of the wage developments confirms that the reform has largely accomplished its goals. The official wage gap between Belgium and its three neighbouring countries was estimated at 1.2% in 2017. ([80]) This gap is expected to have contracted in 2018 to 0.9%, as the labour cost growth in Belgium was more moderate than in the neighbouring countries. In this regard, the Interprofessional Agreement covering 2017-2018, the first one to reflect the new and stricter rules of the revised wage norm bill ([81]), set an upper limit of 1.1% for sectoral and company-level wage increases for the following 2 years.

Graph 3.4.5: **Unit labour cost decomposition**



Source: European Commission

However, the revised wage norm does not take account of productivity trends. The current set-up of the wage-setting process does not guarantee against wage growth outpacing productivity, 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. The report of the Central Economic Council estimated the wage gap corrected for differences in the level of labour productivity at 1.2% in 2017, signalling that the recent wage moderation policies contributed in almost closing the labour cost gap with the neighbouring countries.([82])

Overview of the business environment and business dynamics

In spite of government efforts, the administrative burden on firms remains heavy, notably in tax and labour law. While Belgium is one of several leading EU Member States where only three procedures are required to start a business according to the 2019 World Bank Ease of Doing Business report, the Federal Planning Bureau estimates the administrative burden at some €7 billion (1.6% GDP), most of which resulting from compliance with tax and labour law (Kegels, C., 2018). The tax system is also complex, also because of the various tax expenditures (see Section 3.1.6) and its burden is increasing.The payroll management for a company in Belgium is complex, in particular for companies that need to manage the various regional systems. There is room to improve the quality of the legislation and of the legislative process (Conseil Central de l'Economie, 2020 – see also section 3.4.4).

Business creation has been eased in the previous legislature, notably thanks to reforms of the company law and the digitisation of public services. A revision of the company code ([83]) entered into force in 2019. It simplifies the creation of companies, substantially reduces the number of legal forms for companies, removes the minimal capital requirements for setting up private limited liability companies and cooperatives, yet strengthens the protection of creditors (e.g. through financial plans, liquidity tests). The involvement of a notary is required for business registration.

([80]) Conseil Central de l'Economie, 2019, Rapport technique sur la marge maximale disponible pour l'évolution du coût salarial, pages 11-12

([81]) The revised wage norm bill was approved by Parliament in March 2017. The Inter-professional Agreement was signed by the national social partners and the National Labour Council in February 2017.

([82]) Conseil Central de l'Economie, 2019, 'Le handicap des coûts salariaux'. In this regard, it is worth to note that the report from the Central Economic Council draws the attention towards some methodological issues in the estimation of productivity as used in the note.

([83]) The new Code of Companies and Associations is applicable since 1 May 2019. For existing companies, the new code will apply as from 1 January 2020, with the possibility to opt in earlier and with a transitional period to adapt companies' statutes until 2024.

Belgium has launched initiatives to promote e-government and to facilitate business-to-government transactions in some procedures (see infra-section on digital public services). For the year 2019 this reform seems to have created many additional business, principally in the liberal professions. Social partners are currently reviewing the system of collective dismissal.

The insolvency framework has undergone a major reform in 2018, but certain features still need to be addressed to facilitate entrepreneurship. The expansion of the scope of the insolvency framework to all business is a positive development. However, there is room to improve certain features. For example, currently only debtors can initiate insolvency procedures (not creditors), and most cases continue to require court involvement. Furthermore, no special (simplified) out-of-court settlement procedure exists for SMEs.

The heavy administrative burden, the low quality of some public services and late payments weigh on entrepreneurship. However, overall Belgium ranks only 45th out of 190 assessed economies, with long delays for electricity connections (171 days), building permits (212 days, hence ranking 168th – see section 3.4.2. - including 75 days for water connection), notably because of long duration of appeals (see Section 3.4.4) and low performance in registering property (ranking 143). The process of transferring a property is the third slowest in the EU at 56 days and the most expensive in the EU at 12.7% of the property value. The Belgian State's slow payments to businesses deteriorated compared to the previous year and is a liability to its business environment.

Innovation and business dynamics

There is room to further improve the already well performing Belgian R&I system. In the 2019 European Innovation Scoreboard, Belgium is part of the group of 'strong innovators' in 6th place in the EU. Belgium has a very attractive research system with a strong science base and strong universities (see Section 3.3). R&D expenditure in the private sector is relatively high, although mainly concentrated in a few multinational companies. On the other hand, at 0.7% of GDP the level of business R&D performed by SME's is among the highest in EU. SMEs are strong innovators and have strong linkages with their partners according to the EU innovation scoreboard. Enterprises providing ICT training are also amply represented. Belgium R&D intensity increased remarkably from 1.9% in 2007 to 2.8% in 2018, mostly thanks a growth in business R&D intensity (from 1.3% to 2.0%). However, non R&D innovation expenditures are relatively low. The public R&D intensity increased too (from 0.54% in 2007 to 0.8% in 2018), but remains slightly below that of most other Member States with a similar level of economic development.

The efficiency of government support for business R&D could be improved. Belgium has the second highest level of government support for business R&D among OECD countries. Direct government funding of R&D is close to OECD average, while indirect R&D support through tax incentives is especially large. Recent analyses by Dumont (2019), the OECD (2019b) and the Belgian Court of Auditors (2019a) show that the efficiency of public R&D schemes could be improved. The OECD points in particular to the fact that these schemes do not demonstrate strong 'additionality', in terms of extra R&D expenditure expected to translate in net job creation, new investment and innovation. Digitalisation of the economy was also identified in the National Pact for Strategic Investment as one of the priority avenues for boosting productivity and innovation.

Improving R&D governance by increased coordination and systematic assessment of policies remain a challenge for the system (Cincera, M. & Kelchtermans, S., 2020)**.** The R&I governance system in Belgium is rather complicated with multiple governments at federal, regional and community level responsible for (parts of) R&I policy. This multi-level governance of the Belgian system creates specific challenges (Boekholt, P. et al., 2011) such as the risk of sub-optimal scale of public-private investments that may create disincentives for structural co-operation between the leading research performers and businesses at an inter-regional level. Co-operation and coordination mechanisms for international issues exist mainly at operational level, while co-operation and coordination on national issues is more sporadic.

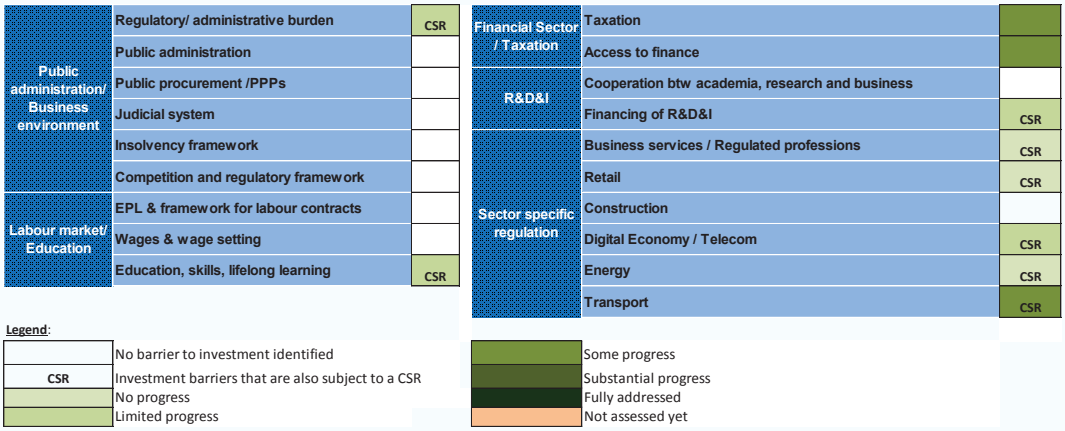
Belgium's weaknesses in terms of entrepreneurship and company dynamics do not allow it to draw maximum economic benefit from the strength of its R&I system. The renewal of the Belgian company population is slower than in peer countries. With only 2.8% of people employed in fast-growing innovative enterprises in 2016, Belgium is well under the EU average of 5.2% and ranks 25th in the EU for this indicator. Moreover employment in all fast-growing enterprises as a share of total employment in 2015 was 10.2% compared to 15.2% for the EU28 (see Graph 3.4.6).

Box 3.4.5: Investment challenges and reforms in Belgium

Section 1. Macroeconomic perspective

The total investment in Belgium in 2018 was above the average of the euro area (23.8 % of GDP compared to 20.8%) and higher than in neighbouring countries. Moreover, over the last decade investment in Belgium increased by 1 percentage point of GDP, while by contrast in neighbouring countries investment as a share of GDP remains below its pre-crisis level. However, despite the relatively overall good performance of private investment, the level of public investment remains low. More specifically, while investment in equipment and construction, as a share of GDP, have remained broadly stable over the past decade, the investment in intellectual property increased by 0.9 % of GDP, contributing largely to raising the investment ratio. Amid benign financing conditions, investment is expected to increase and account for a slightly higher share of GDP in 2020.

Section 2. Assessment of barriers to investment and ongoing reforms



Even though progress has been made to reduce barriers to private investment in Belgium (for example, by reducing the labour cost handicap), a more ambitious liberalisation of regulated professions and business services is needed in light of the increasing importance of services as input for the manufacturing sector (see Section 3.4.2). Furthermore, Belgium low labour participation, limited job mobility and a high degree of skill mismatches result in one of the highest job vacancy rates in the EU. As a result, job offers for critical occupations take longer to fill (see section 3.3). In addition, regional disparities are significant and they need to be taken into account (see Section 3.4.3).

Selected barriers to investment and priority actions underway

The complex investment decision-making process due to fragmentation of competencies regarding investment between multiple layers of government combined with the need to pursue fiscal consolidation, has led to a low level of public investment for a protracted period of time (see Section 3.1). In addition to this, the deteriorating quality of the country's public infrastructure, affects the country's competitiveness. Regional governments plan to boost their investment, however at cost of loosening their fiscal discipline by announcing the exclusion of some large investment projects from their deficit targets.

Impact of the Juncker Plan in Belgium

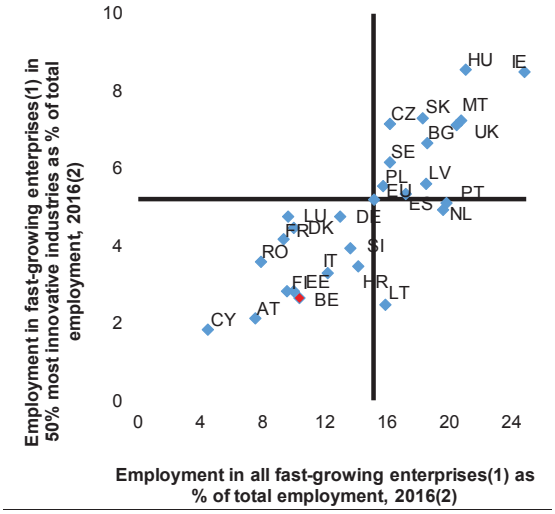
The EU supports investment in Belgium also via the European Fund for Strategic Investments (EFSI). By October 2019 total financing under the EFSI amounted to EUR 1.6 billion, intended to trigger EUR 8.4 billions in additional investments. By the end of 2020, EFSI and other EU financial instruments will come under the roof of the new InvestEU programme that promotes a more coherent approach to financing EU policy objectives and increases the choice of policy implementation options and implementing partners to

tackle country specific market failures and investment gaps. In addition, under InvestEU, Member States can set-up a national compartment by allocating up to 5% of their structural funds to underpin additional guarantee instruments supporting the financing of investments with a higher level of local specificities. InvestEU will be policy-driven and focus on four main areas, all relevant for Belgium: Sustainable Infrastructure, Research, Innovation, and Digitisation, Small Businesses, and Social Investment and Skills. Reflecting the federal structure of Belgium, promotional banks and agencies have been set up at federal([1]) and regional ([2]) levels to support private sector initiatives and implement specific sectoral policies, through a range of loan and guarantee products using both own resources as well as EU financial instruments. The Flemish region's promotional institution, PMV, has shown interest in becoming an implementing partner for InvestEU.

([1]) Société Fédérale de Participation et d'Investissement / Federale Participatie- en Investeringsmaatschappij.
([2]) Société Régionale d'Investissement de Bruxelles, Société Régionale d'Investissement de Wallonie/SOWALFIN, Participatie Maatschappij Vlaanderen.

According to a recent analysis, the average share of high growth enterprises in Belgium is about 9% compared to 11% in the EU (Flachenecker, F. et al., 2020)**.** Moreover, in the period 2009-2017, more than half of Belgian firms that became 'high growth firms' in terms of employment only remained in that category for 3 years. Hence, it is difficult to become a high growth firm, but even more challenging to remain one. This phenomenon could be traced back to several sources, including rigidities in the business environment, heavy administrative burden, a limited appetite for private risk as well as limitations in the availability of highly-skilled professionals who could be either recruited by fast-growing enterprise or themselves create innovative enterprises.

Graph 3.4.6: **Employment in fast-growing enterprises in 50% most innovative industries and employment in all fast-growing enterprises, both as % of total employment, 2016**



Source: European Commission

Start-ups lack specific support and face personnel shortages Recent policy schemes to encourage and support entrepreneurship in Belgium has been developed, and in the final years of the current legislature additional policy initiatives were taken to improve the guidance for fast growing enterprises. However, there is no specific policy instrument targeting fast growing enterprises in Belgium, but numerous policy schemes to support innovative firms that can grow at high rates or for high growth firms that often are engaged in innovative activities (Cincera, M. & Kelchtermans, S., 2020). Attracting the right people seems to be by far the most significant barrier that impedes firms from growing faster, followed by increased competition and the lack of management capacities.

The shortage of highly skilled professionals, notably in sciences and engineering, and the lack of 'knowledge entrepreneur' hampers Belgian growth prospects. The share of the population aged 25-64 which completed tertiary education was at 47.4% in 2018, which is relatively high compared to the EU average of 40%. However, Belgium lags behind in terms of graduates in science, technology, engineering and mathematics (STEM) (see Section 3.3). Belgium also scores below the EU average in terms of entrepreneurial skills (see Box 3.3.1).

Digitalisation

Belgium scores well in the integration of enabling digital technologies into businesses, but it stagnates in e-commerce. Belgium is one of the best ranked in the EU for the integration of digital technologies into business ([84]). In important areas such as cloud computing and big data, there has been a clear increase compared to the previous years: 3% increase in big data and 11% in cloud computing. In 2019 28% of Belgian SMEs were selling online. However, the figures are stagnating in terms of e-commerce turnover and online cross-border sales.

Digitisation is actively supported by several public and private initiatives (e.g. Digital Wallonia and Radicaal Digitaal in Flanders) and there are efforts to make the regulatory framework fit for digital transformation. In order to further promote digitisation for SMEs, an awareness raising campaign was launched in 2019.

3.4.2. MARKET INTEGRATION AND INVESTMENT QUALITY

Regulated Professions/Services

The regulatory restrictiveness of professional services remains fairly high. At federal level, liberal professions continue to be highly regulated (including accountants, tax advisors, real estate agents, architects, etc.), as indicated by the Commission's Restrictiveness Indicator ([85]) and confirmed by the OECD Indicators of Product Market Regulation 2018 ([86]). Among the most problematic restrictions are mandatory training requirements, mandatory chamber membership requirements, insurance requirements and corporate structure requirements, which could obstacle investment (see also European Commission, 2019a). The analysis carried out by Belgium to assess potential reforms of requirements specifically imposed on legal persons providing services has not yet led to concrete reforms. The 2019 merger between the two professional bodies regulating and supervising accounting and tax advice services is a welcome step, however it did not lead to the expected simplification of rules on access to these professions. Finally, although notaries seem to have a similar degree of regulation to that of many other Member States (except the Netherlands) and are present throughout Belgium, their regulated fees for real estate transactions are at the very high end of the scale. Notaries charge regulated fees for the registration of companies.

Construction sector

Labour shortages and cumbersome building permit procedures are holding back growth in the construction sector. Belgium faces a shortage of about 20 000 construction workers every year. Posted workers account for up to 20 % of the construction workforce. The labour shortage hamper the potential important role that the construction sector could play in reaching the 2030 target for reducing greenhouse gas emission by contributing to the renovation of the old and low-energy performing Belgium housing stock (see Section 3.5). Access to finance does not appear to be a problem (see Section 3.2). Companies of all sizes perceive credit constraints as low and according to the latest surveys, financing conditions are positively assessed.

Despite these shortages, there are large discrepancies in reforming the entry requirements for craft/construction services across the regions. Flanders abolished qualification requirements for a large range of professions (27). Wallonia only for five of them. In Brussels there has been very little reforms on qualification requirements. Discussions have

([84]) Digital Economy and Society Index Report 2019 - Integration of Digital Technology.
([85]) COM/2016/0820final.
([86]) http://www.oecd.org/economy/reform/indicators-of-product-market-regulation/.

started between the regions on a cooperation agreement to facilitate the free flow of professionals across the regions but this has not resulted in any progress so far. In 2018, uncollectable receivables were most often associated with the insolvency of customers in the construction sector. In 2014, 61% of construction companies wrote off debt, as they were not able to collect it. A 2018 survey showed that for 30.4% of Belgian construction firms, this was due to the high costs associated with pursuing a payment.

Long delays to obtaining a building permit are a barrier to investment in construction, notably for the renovation of the existing housing stock. On national scale, the average number of permits issued per month has hardly increased since 2000 and has stabilised between 2,000 and 2,500 new homes and buildings to renovate and about 4,500 authorised projects on a monthly basis. In 2016, the renovation rate of the housing stock stood at 0.44%.([87]) In Brussels, the recent reform of the Code on Land Use (CoBAT) has tightened the deadlines for the administration to respond to building permit requests, while in Flanders the digitalisation of building permits is on-going. In Wallonia, the timeframe for obtaining a building permit was reduced by the reform of the land use code.

Retail

The cumulated effect of a high regulation, high wage costs and labour market rigidities is weighing on the performance of the retail sector. In a context of deep technological transformation and increasing global competition, cost competitiveness and regulatory flexibility are crucial factors for retailers to respond to these challenges. In retail, the wage cost handicap in Belgium compared to the neighbouring countries has increased affecting the sector's external competitiveness. The low flexibility of labour regulation as well as discrepancies between rules across regions add to the complex business environment, potentially affecting innovation capacity and weighing on the sector's performance, in particular productivity. E-commerce sales of Belgian firms are stagnating (cf. infra).

The sector has among the lowest churn rates of all Member States. While the merger between Delhaize and the Dutch retailer Ahold as well as the market entry of the Dutch supermarket chain Jumbo onto the Belgian market had a positive impact on market dynamics in the large-scale grocery retail sector ([88]), non-food large-scale retail still displays a high level of concentration and very low churn rates.

The retail sector remains highly regulated. According to the OECD Product Market Regulation indicator 2018, Belgium has the fourth highest level of retail restrictions in the EU. These results are not far from those of the Commission's Retail Restrictiveness Indicator ([89]) where Belgium scored as one of the most restrictive Member State for the operational environment for retailers (but is average for establishment restrictions). Rules on shop opening hours, sales promotions, discounts and distribution channels for non-prescription medicines contribute to this score. Regulations governing the authorisation process to open a shop are the competence of the regions and have been simplified in recent years. Wallonia has evaluated the system in place to further amend the rules. Flanders has planned to set up a monitoring system to assess the efficiency of the 2018 reform.

High prices in retail affect consumers. The 2018 report of the Price Observatory showed that retail prices in supermarkets are significantly higher than in neighbouring Member States. In addition to the identified operational restrictions and structural issues of the Belgian market (its small size), other underlying reasons include labour market rigidities, commercial strategies of main market players, the prohibition to sell at loss as well as territorial supply constraints ([90]) (practices of private operators resulting in high purchasing costs for retailers). The effects of new market entries on consumer prices have not been analysed.

([87]) Conseil Centrale de l'Economie, 2019, Etat des lieux en matière de soutenabilité environnementale, page 12.

([88]) The 5 biggest players account for 86% of the modern grocery retail market compared to 66% in France, 64% in Germany and 58% in the Netherlands. Modern grocery retail market covers hypermarkets, supermarkets, discount stores, convenience stores and forecourt stores. Euromonitor, 2018.

([89]) See Communication from the Commission 'A European retail sector fit for the 21st century', Brussels, 19.4.2018, COM(2018)219 final and Commission's SWD(2018)236 final of 19.4.2018, p. 101.

([90]) Belgian authorities are actively participating in a Benelux working group on this issue.

Transport

Belgium has a dense road and rail network, supported by an excellent port infrastructure, which is well integrated in European transport networks. According to the World Economic Forum's Global Competitiveness Report 2019, the quality of the transport infrastructure is good. In particular, port infrastructure has been highly regarded over the years and scores high in the World Economic Forum's ranking. However, Belgium scores rather poorly in terms of road quality and efficiency of rail services.

Growing commuter and freight traffic volumes are putting land transport infrastructure under increasing pressure, leading to congestion and declining air quality in inner cities. Increasing the size of infrastructure, however, is only part of the answer. Traffic volumes are boosted by large commuting subsidies (e.g. company car tax advantage - see sections 3.1.6 and 3.5). Policy options such as congestion pricing in road transport as well as the introduction of smart road pricing for private vehicles could be used to reduce the problem and address negative externalities in terms of environmental impact and cost to the economy.

The level of investments in inland transport infrastructure is among the lowest in the EU. In 2017, Belgium's investment rate of 0.4% of GDP was the third lowest in OECD. It was below the level of the neighbouring countries, namely France which invested 0.8% of its GDP in 2017, Germany at 0.6% and the United Kingdom at 1.1%. Investment in roads declined significantly in 2017 (from €810 million in 2016 to €656 million).

The regions are planning to invest in the road network, urban transport and inland waterways, and Flanders has started to reform its public urban transport. The three regions, in particular Brussels, have designed and launched major multiannual transport infrastructure investment plans**.** In Flanders, the government has lifted the exclusive monopoly of the urban and urban-rural public transport operator De Lijn on intercity coach services and has announced that it intends to tender some parts of De Lijn's network. Investment in urban-rural transport is important to ensure access to business parks, which are mostly only accessible by car. Wallonia has planned investments to achieve the objectives of modal shift towards public transport, collective modes and active modes. Investments in rail, a federal competence, remain to be defined in the context of the formation of a new federal government and a new management for NMBS-SNCB. However, major investment in the RER-GEN regional express train network around Brussels will continue until 2031, as well as the implementation of the European Rail Traffic Management Signalling System, connection to ports and new of upgraded cross-border rail infrastructure projects.

Belgium's rail freight market is competitive. Belgium's rail infrastructure manager is institutionally independent of any freight or passenger railway undertaking. In recent years Belgium has experienced a significant increase in the number of competitors in the rail freight sector, which has resulted in Belgium ranking among the top five Member State in terms of the market share of non-incumbent freight operators in 2016 (almost 50%). In the passenger sector the most recently available information shows that in domestic traffic the market share of the incumbent NMBS-SNCB is still 100% (2016), indicating a lack of competition in the market.

The quality of passenger rail services has room for improvements and uncertainty remains over their opening to competition. Belgium scores rather poorly in railway services efficiency in the World Economic Forum 2019 Global Competitiveness Report. The market share of the incumbent NMBS-SNCB is still 100%, while 98.2% of all services are provided under public service obligations (PSO) through a directly awarded contract rather than through competitive tendering like in the Netherlands and Germany. The PSO compensation per train-kilometre is the second highest in the EU, behind France. Furthermore, a comparatively low share (36%) of the PSO compensation is recovered through passenger fares, weighting on public finances. The Belgian State and the NMBS-SNCB have still not reached an agreement on an updated version of the management contract, which sets out the different PSO and their remuneration. Such contract could be instrumental in introducing wide-ranging reforms in the operator. Finally, there is room to improve interconnection between rail and urban and regional public transport (TEC, De Lijn, MIVB-STIB).

Telecom

The Belgian telecommunication market remains characterised by a high level of concentration and weak competition. In any part of the country, the combined market share of Proximus (the incumbent operator) and of the regional cable operator is higher than 95% in the fixed market. ([91]) The provision of regulated access to fixed networks on terms permitting sustainable competition should also be conducive to enhanced competition on the mobile side and could be beneficial for the Belgian market, which is currently still dominated by bundles.

Belgian households pay higher prices than in peer countries. Belgium scores relatively low in the broadband price index, and stabilises at the 19th place, 4 points below the EU average. ([92]) The Belgian market is the second most expensive for triple play bundles including broadband, fixed telephony and television. Take-up of mobile broadband remains low, although the least expensive offer in Belgium for a basket of 1 GB and 300 calls is slightly below the EU average. Consumers seeking data-only subscriptions of 5GB and above find prices much more expensive than the EU average (IBPT, 2019).

Belgium risks lagging behind in 5G deployment, a critical enabler for attaining the Green Deal sustainability goals. Coordinated efforts between the federal level, the Regions and the Communities are needed to roll out 5G. Several factors are at play: the delay in the authorisation of the 5G pioneer bands, mainly due to the lack of consensus over the auction design, the division of 5G auction proceeds between the federal and community levels, the strict radiation limits (in particular in Brussels) different in each of the three regions, and the timely delivery of environmental permits for the deployment of antennae governed by the regions, as well as taxation of antennae by municipalities, in particular in Brussels, which can go to up to €10,000 per year per antenna. According to Belgian authorities, without adequate investment in the telecommunication infrastructure, telecommunication operators expect a saturation of mobile networks in Brussels by 2020.

Energy market

Belgium committed to fully phasing out nuclear energy by 2025, which will cause a major change in the present generation capacity mix. According to its final National Energy and Climate Plan (NECP)[93], Belgium will therefore increasingly depend on gas and renewable energy complemented by imports to ensure security of supply. This situation further emphasises the importance of applying the energy-efficiency first principle to counter this trend. As regards the diversification of energy sources and supply from third countries and the reduction of import dependency, the NECP foresees an increase in overall import dependency from 71% in 2020 to 86% in 2030 and an increase in net imports of gas by about 46%. In order to ensure security of electricity supply following the nuclear phasing out, Belgium intends to introduce a capacity remuneration mechanism. ([94])

At the same time, discussions continue on whether to further extend the operation of a limited number of nuclear power plants beyond 2025. If Belgian authorities would consider this option, such a decision would need to be taken in a timely manner to allow for the implementation of measures to ensure continued adherence to the highest standards of nuclear safety and to create a more predictable energy investment environment.

Extended maintenance outages at five of Belgium's seven reactors in 2018 raised security of supply concerns. The outages were offset mainly by imports from France and the Netherlands, with net imports in December increasing by 168% ([95]). Under the new outage schedule presented by Electrabel in January 2019, Doel 3, Doel4, Tihange 2 and Tihange 3 would all be available in the winter 2019-2020, providing 4

([91]) DESI 2019 - Belgium Telecom Chapters, https://ec.europa.eu/digital-single-market/en/news/2019-desi-report-electronic-communications-markets-overview-member-state-telecom-chapters.

([92]) European Commission, 2019 DESI index, Telecom chapter.

[93] The Commission will assess, in the course of 2020, the final National Energy and Climate Plan submitted by Belgium on 26 December 2019.

([94]) On 21 November 2019, Belgium submitted its implementation plan of the capacity remuneration mechanism to the Commission for review.

([95]) PLATTS Power In Europe, 2019-01-28.

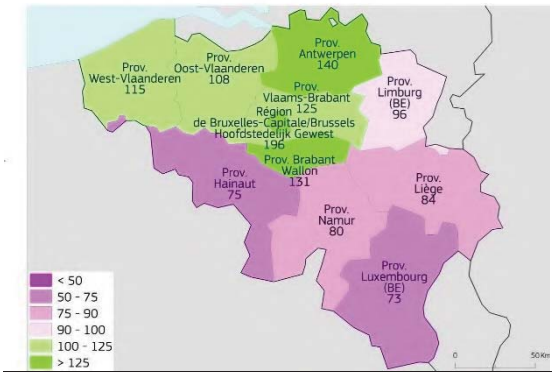
GW of baseload capacity to the market, thereby alleviating security of supply concerns, next to the commissioning of the NEMO cable, the 1 GW interconnection with the United Kingdom.

Retail electricity prices are above the EU average. In 2018, the energy supply component was higher than in 2017, notably due to the nuclear plants outages in December, but the price difference mainly comes from the distribution costs ([96]) which were among the highest in Europe in 2018. According to CREG, the energy bill remains high for low-revenue households, in particular single-parent homes, and for those who rely on electric heating. ([97]) In addition, the Court of Auditors found that the flanking measures of the Flemish region to combat energy poverty, while being well supported, only partially reach vulnerable households and so far lead too rarely to housing energy efficiency works ([98]).

3.4.3. REGIONAL DIMENSION

Although the average GDP per capita is higher in Belgium than in the EU, disparities between and within regions are significant. GDP per head in Flanders reaches 132% of the EU average while in Wallonia is around the EU average (with large differences ranging from the 131% of the province of Walloon Brabant to 73% of the EU average of the province of Luxembourg) (see Graph 3.4.7**)**. It is important to highlight the specific performance of Brussels, where GDP per capita corresponds to 216% of the EU average (cf. 3.4.3). However, real GDP growth between 2003 and 2017 has been higher in Flanders (+1.8%) and Wallonia (+1.3%) than in Brussels (+0.8%), which GDP growth rate is well below the national average (+1.5%). According to the 2019 Regional Competitiveness Index ([99]), the three most competitive provinces of Belgium are Brussels-Capital, Walloon Brabant and Flemish Brabant, all scoring 0.67. Hainaut is at -0.01, while the three Walloon provinces of Namur, Liège and Luxembourg range between 0.02 and 0.13. The Flemish provinces excluding Flemish Brabant, on their side, range between 0.45 to 0.61. R&D and innovation intensity appear to be among the factors explaining the difference in performance.

Graph 3.4.7: **GDP per head, 2017 – Index EU=100**



Source: Eurostat

3.4.4. GOVERNANCE AND INSTITUTIONAL QUALITY

The fragmentation of policy action is not offset by effective coordination, seeking out synergies, which makes the business environment more complex. Policy action is fragmented across the several levels of government (see Table 3.4.1). This increases the importance of effective and operational cooperation across the different government tiers. Seeking out and implementing possible economies of scale is also rendered more difficult in this way, because of the duplication of structures in a context of constrained public finances (see Section 3.1). A recent report (European Public Administration Country Knowledge, 2018) confirms that Belgium is one of the Member States that combines a high degree of fragmentation and a low level of coordination. Social partners consider that the lack of coordination and cooperation between the different government levels results in fragmented legislation, where coherence is lacking. This situation adds to the complexity of the business environment (see section 3.4.2). A recent report of the Central Council of the Economy also highlighted that businesses find it difficult to

([96]) Eurostat, electricity price components for an annual consumption in the range 2500 to 4999 kWh in 2018.
([97]) CREG study 14 November 2019.
([98]) Report of the Court of Auditors of October 2018 on results and evaluation of energy poverty measures in Flanders.
([99]) More information about the methodology is available at: https://ec.europa.eu/regional_policy/en/information/maps/regional_competitiveness/.

operate in a context where it is difficult to determine which rules are applicable to them ([100]).

Furthermore, not always effective policy coordination complicates the delivery of a certain number of policies and reforms. In the area of public finances and in particular public investment there is still no agreement on annual targets at all levels of government, in spite of the cooperation agreement signed in 2013 (see Section 3.1). Real estate taxation takes place at federal, regional and local level. Concerning health, scope remains for improving the coordination across the federal and federated entities to strengthen prevention. In the area of digital policy, the federal levels, regions and communities need to find common ground for the roll out of 5G and the regulation of telecom network and digital content (see infra). The municipalities and their taxation power on antennae and small cells also impact the 5G roll-out, as well as the competence of the regions in the area of radiation standards and environmental permits (see Section 3.4). Close cooperation between the French Community, competent for education, and the Brussels and Walloon regions, competent for vocational training, activation and digital infrastructure investments, is essential to address skills mismatches and labour market needs (see Section 3.3). Similarly, as already indicated in the 2019 country report, coordination between the federal level and the three regions is essential to deliver a consistent mobility vision, address climate change and implement a comprehensive environmental fiscal policy (see Section 3.5).

([100]) Conseil Central de l'Economie, Rapport Emploi-Compétitivité 2018-2019, pp.87-88. https://www.ccecrb.fgov.be/p/fr/697/lignes-directrices-pour-faire-face-aux-defis-socio-economiques-de-la-belgique

Table 3.4.1: **Distribution of competences between government tiers - Funding**

	Federal	Regional	Local
Economic affairs	*	*	
Defence	*		
Internal affairs (incl. Police)	*	*	*
Justice	*	*	
Finance/tax	*	*	
Environmental protection		*	*
Public utilites	*	*	*
Social welfare	*	*	*
Health	*	*	
R&D (incl. universities)	*	*	
Education		*	*
External affairs	*	*	*

Based on the note 'Public administration characteristics in Belgium', PPMI EY, 2018
The "Regional" level also covers Regions and Communities.
Source: European Commission

The lack of effective evaluation processes in the policy-making process further contributes to administrative and regulatory burden. Belgium adopted in the first half of the decade a number of reforms that strengthened the formal set up of its federal policy-making process (ex-ante and ex-post evaluations, consultations with social partners, sunset clauses – OECD, 2015). In spite of this reform, social partners still consider that impact assessments and evaluations are performed too late and incorrectly, weakening their influence in policy-making. Lacking resources pose challenges for the Council of State in ensuring the quality of legislation, given its significant workload and frequent short deadlines for delivering opinions. The Court of Auditors made concrete recommendations to give a central role to policy evaluations in the policy, management and budget cycle (Court of Auditors, 2018). Social partners have jointly urged the federal authorities to introduce a comprehensive strategy to improve the evaluation framework and the quality of regulation in order to reduce the administrative and regulatory burden in Belgium (Central Economic Council, 2020). To ensure independence of assessments, the OECD has suggested to involve the competition authority in ex-ante evaluations of new laws and regulations on regulatory restrictions in services (OECD, 2019b).

Some key enforcers and public bodies are understaffed to perform their tasks. Belgium carries an important responsibility in terms of market surveillance for the whole European Union,

as it is one of the main importers of goods in the Union, representing 7% of all EU product import goods. Market surveillance of the single market for goods is essential to protect consumers and to ensure a level playing field for businesses to compete. While there have been some recruitments, the Belgian Competition Authority still suffers from inadequate staffing, compared to competition authorities in neighbouring countries. ([101]) There are also important staffing needs in the area of justice (see infra) and rail transport regulation.

Digitalisation of public services

Belgium launched initiatives to promote e-prescriptions, medical data exchange and digital interactions with public administration, yet the overall value of users of e-Government reaches only 53% of the population – there is certainly room for improvement there. The relatively average ranking among EU member States is due to the fact that while Belgium performs very well in specific health related areas, such as medical data exchange (70%) and e-prescriptions (79%), other fields where citizens interact with public administration are lagging behind.

The Digital Transformation Office, at the federal level, has introduced services for digital identification (itsme) or to facilitate business to government transactions (Mercurius). The recently introduced "e-box", a secure digital mailbox for all Belgian citizens and companies could be an important opportunity to further improve electronic public administration services for business (currently 20th among EU Member States). In addition, the Flemish government continues to promote digital public services with the second edition of the Flanders Radical Digital program and continues the development of the digital platform www.vlaanderenonderneemt.be. The Brussels Region adopted in April 2019 an operational plan for the application of the "once only" principle in the collection by all regional and local administrations through the regional service integrator (Fidus). A new function of chief information officer (CIO) has been created in 2019 to pilot the Digital Wallonia Action Plan.

Justice

Improving the quality of the justice system, in particular regarding digitalisation, will require additional action. By the end of 2019, a unified coding system for court cases had been adopted by the College of Courts and Tribunals for nearly all courts. This will enable the first comprehensive collection of court data in 2020, thus allowing data-led management of human and financial resources in the judiciary. However, migration to the unified case-management system (MaCH) has not progressed due to delays in public procurement. By November 2019, a significant number of courts had not yet moved to MaCH (e.g. civil tribunals of first instance, commercial and appeal courts).

Lacking resources pose a challenge for the functioning of the justice system. A joint memorandum of the Constitutional Court, Court of Cassation and the Council of State highlights this issue. ([102]) A lack of resources and insufficient digitalisation hampers the efficient functioning of the prosecution services. The High Council of Justice continues its efforts to improve the quality of the justice system, including by promoting clear language in court rulings, better auditing of annual reports by court presidents, and developing a centralised system for complaints on the functioning of the justice system.

The rate of online publication of judgments is currently low. Recently adopted legislation provides for the online publication of judgments from 2020 onward, which currently remains low (2020 EU Justice Scoreboard (forthcoming)). However, the modalities of publication remain to be defined in consultation with the judiciary (e.g. anonymisation method, search tools).

Lacking resources for administrative justice cause significant delays, in particular for building permits and procurement procedures. Judicial review in cases involving building permits takes about 34 and 28 months for Brussels and

([101]) See also the opinion of the Central Economic Council to the 2019 report of the National Productivity Board (page 34).

([102]) Joint Memorandum by the Constitutional Court, Court of Cassation and the Council of State. http://www.raadvanstate.be//?action=doc&doc=1095

Wallonia, respectively. For Flanders, the length of judicial review has been reduced to 16 months at first instance (Raad voor Vergunningsbetwistingen), and takes about 10 months in appeal (before the Council of State). A case management reform envisages to allocate cases before the Raad voor Vergunningsbetwistingen depending on their complexity, which could further improve the efficiency.

3.5. ENVIRONMENTAL SUSTAINABILITY

3.5.1. CURRENT STATE OF PLAY

While Belgium's target under the Effort Sharing Regulation is to reduce greenhouse gas emissions by 35% below 2005 levels by 2030, it remains not on track to reach its 2020 climate change target of a 15% reduction below 2005 levels. In sectors not covered by the EU ETS reductions were limited to -10% in 2017. They are expected to go down further to -12% or 3 pp. short of the 2020 target of -15%. By 2030 Belgium expects GHG emissions to drop by -14% below 2005 levels in the absence of additional measures. This suggests that significant additional efforts will be required to reach the Belgian effort sharing target of -35%. Some regions have put forward higher levels of ambition. Brussels intends to reduce its emissions by 40% and Wallonia has set itself an economy-wide greenhouse gas reduction target of 55% below 1990 levels. Meanwhile, the 20.2% reductions achieved by 2017 relative to 1990 mostly materialised in the electricity and the industry sectors. The final Belgian National Energy and Climate Plan adopted in December 2019 sets out these measures as well as specific energy target, including a renewables share in final energy consumption of 17.5% (EU-wide target of 32%) and a 12% improvement in final energy consumption (EU ambition of 32.5%). These new energy targets are less ambitious than the targets set out in the draft Belgium National Energy and Climate Plan adopted in December 2018. The presence of a caretaker federal government could delay adoption and implementation of new federal policy commitments.

3.5.2. TACKLING CLIMATE CHANGE

Belgium's intermediate and longer-term climate commitments will require political decisiveness to work out concrete measures and benefit from the opportunities in terms of economic growth, job creation and health benefits. The inter-federal energy pact of December 2017 contains a number of preparatory elements for the integrated National Energy and Climate Plan, adopted in late 2019. In this plan, Belgium reconfirms its commitment to implementing the Paris agreement and evolve towards a carbon-free society. This transition relies heavily on investments in all GHG emitting sectors, including the share of renewable energy in the energy mix, in a context of nuclear phase-out (see Section 3.4.2). Crucial in its success will be the transformation of energy-intensive industries, such as the petro-chemical pole around Antwerp and steel around Liège and Ghent, decarbonisation of road transport through electrification and modal switch, and accelerating renovation rates in what is one of the oldest building stocks in Europe. Tapping opportunities in the circular economy can help, where Belgium is doing well despite insufficient efforts in promoting eco-innovation. A stable, predictable and coordinated legislative framework will be essential to mobilise the required private sector investments.

The employment impact of the Paris Climate Agreement is positive and among the highest in the EU. A study that investigates employment impacts in the EU of the policies necessary to meet the 2°C limit by 2050 shows a 1% increase in employment in Belgium or an additional 60,000 jobs as compared to the baseline scenario (European Commission, 2019d). The sectors which are expecting to benefit the most from the green transition are manufacturing sectors producing renewable technologies, construction, the circular economy as well as the service sector. The greening of the economy will create skills needs to be matched by adaptation of existing and future occupations. As such, the transition to a greener economy provides opportunities and needs for upskilling and reskilling of the workforce (European Commission, 2019d).

ETS sectors – energy production and industry

Achieving emission reduction targets in the energy sector will involve substantial investment. Belgium is committed to phasing-out its nuclear energy production by 2025, which would involve developing alternative energy generation capacity from renewable sources and from gas-fired power stations, as well as investments to increase energy efficiency and extend cross-border interconnections. The National Pact for Strategic Investment estimates the energy-related investment needs at €60 billion over the period 2017 to 2030 (or around 1% of GDP per annum).

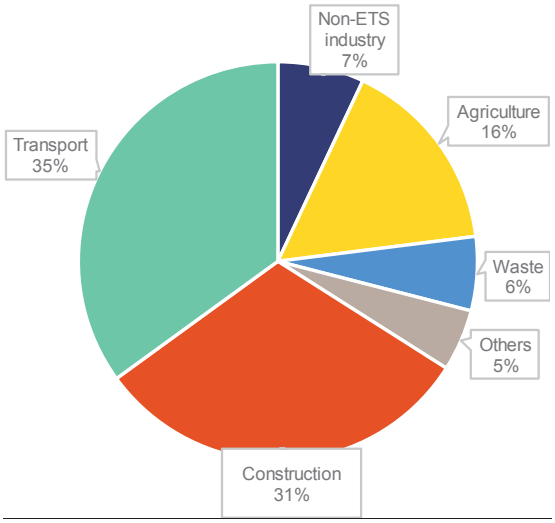
A significant share of greenhouse gas emissions in Belgium comes from energy-intensive industries, among other the petro-chemical

industry around Antwerp, but also traditional industries in Wallonia. Industrial emissions non-related to energy consumption make up 17.2% of emissions compared to 11.8% of industrial combustion. The petro-chemical industry in Antwerp (the second largest cluster in the world as indicated in Section 3.4, and one of the most important sectors in the Belgian economy) faces the double challenge of substantially reducing emissions (or purchasing emission allowances) while remaining internationally competitive. Beyond investments in renewable energy and improved energy efficiency, in a context of nuclear phase-out important investments in carbon capture, hydrogen and biomass-based feedstock might be needed to accompany the transformation of the sector. In parallel, greenhouse gases emissions intensity is higher in Wallonia, where traditional industries are located and where there is an on-going economic transformation (see infra). The highest greenhouse gas emission intensities are in Waremme (lime and plaster), Virton (pulp) and Mons (cement, fertilisers and electricity).

Non-ETS sectors – building, transport, agriculture and waste management

Renovation of the building sector is moving slowly in spite of proactive policies. The building sector is responsible for more than 30% of non-ETS GHGs emissions in Belgium. Belgium ranked low in relation to the energy performance of its existing housing stock ([103]), which is rather old with 80% of the stock built before the introduction of energy norms. In the existing plans and strategies, the renovation of buildings and sustainable construction take a central part, and renovation rates should gradually increase above the meagre 0.4% recorded in 2016. The National Pact for Strategic Investment estimated (with some significant degree of uncertainty) that total required investment for public buildings at about €33 billion by 2040, corresponding to an annual investment of more than €1.6 billion. Investment needs to the complete building stock (including residential buildings) are an order of magnitude higher, around €325 billion ([104]). To achieve this, developing innovative financing mechanisms will be important, in particular for households that will be faced with high initial investment costs. Furthermore, the Court of Auditors underlined that the prescribed energy norms of new buildings in Wallonia are too low for meeting the renovation objectives (Court of audit, 2019). Renovation is also held back by bottlenecks affecting the construction sector like long building permit delays and shortages in adequately skilled construction workers (see Section 3.4.3). Furthermore, the energy consumption of the sector still mostly relies on fossil fuels.

Graph 3.5.1: **Contribution of non-ETS sectors (%, 2016)**



Source: European Commission

The transport sector is responsible for 35% of non-ETS greenhouse gas emissions in Belgium. A recent study by the European Commission ([105]) estimates the total external costs of transport for road, rail and inland waterways in Belgium at €27 billion annually, which corresponded to 7% of Belgium's GDP in 2016. These external costs include costs related to accidents, environment (air pollution, climate change, the costs related to energy production, i.e. the well-to-tank emissions, noise, habitat damage) and, only for road, congestion costs amount to some €9 billion ([106]). Moreover, Hoornaert and Van Steenbergen (2019)

([103]) According to the European Commission's Building Database of the, in 2014 Belgium ranked 25th in relation to the energy performance of its building stock.

([104]) Energy National Investment Pact-Final Report, 2018, p.13 https://www.npsi-pnis.be/sites/default/files/final_report_energy.pdf

([105]) European Commission, June 2019, Study on sustainable transport infrastructure charging and internalisation of transport externalities, available at: https://ec.europa.eu/transport/themes/sustainable-transport/internalisation-transport-external-costs_en.

([106]) Handbook on the external cost of transport, 2019, p.128.

estimate the welfare gains from full internalisation of environmental and (road) congestion costs to be € 2.3 billion, of which € 1.3 billion in time gains and € 0.1billion in environmental gains by 2024.

Graph 3.5.2: **Building stock energy consumption, KWh/m² (2016)**

Source: BPE

External costs are not reflected in the same way across the different means of transport. Looking at taxes and charges paid by transport users (excluding fixed infrastructure costs), rail users pay 109% of their total external and variable infrastructure costs, whereas freight users only cover 20% of those costs. Road users pay around 43% (passenger) and 27% (freight) of their external and variable infrastructure costs. According to the 2018 Baromètre de l'Attractivité belge ([107]), 43% of companies think that traffic congestion has a negative impact on their decision to invest in Belgium. Baert and Reynaerts (2018) find that congestion costs in Brussels and Antwerp start to outweigh the usual agglomeration benefits, and thus negatively impact firm productivity in these regions.

Belgium plans to invest in developing low-carbon transport, but is lagging behind in electric mobility. Belgian regions have announced major multiannual investments plans in transport (see Section 3.4.3). Belgium's objective to increase the share of low-carbon transport will involve investing in multimodal mobility systems, strengthening and improving public transport and encouraging the use of soft (i.e. zero emission) mobility. This comprises completing the RER suburban train network around Brussels by 2031 and the purchase of the related rolling stock, as well as investing to improve rail users' customer satisfaction. It would also involve measures to further promote rail freight, notably by adapting key infrastructure. However, the uptake of electric or hybrid electric vehicles remains slow in Belgium. The market share of new passenger battery electric vehicles and plug-in hybrid electric vehicles has increased from below 0.5% in 2014 to more than 2.5% in 2017, but has slightly decreased in 2018 again. The need for considerable infrastructure investment to adapt roads to soft mobility (cycle lanes, park and ride schemes, etc.), to improve the quality and access to mobility-related data, notably to better allocate demand, has also been identified. According to the National Strategic Investment Pact, total investment needs in low-carbon transport could amount to €27 billion or 0.5% of GDP per year over the next decade.

There is room to make tax and the carbon pricing systems and subsidy structures more environment-friendly. Belgium annually spends €2.5 billion on fossil fuel subsidies compared with €1.5 billion on sustainable energy subsidies. Taxing fuels according to their carbon content and their full life cycle greenhouse gas intensity would help reduce GHG emissions, foster energy-efficiency and generate tax revenue. Certain excise duties for fossil fuels do not provide the right signal in terms of carbon emissions and energy-efficiency (see Section 3.1.6). On the other hand, electric cars are exempted (Flanders) or benefit from low (Brussels-Capital and the Walloon regions) purchasing and circulation tax.

Agriculture is responsible for 16% of the non-ETS GHGs emissions in Belgium. The total emissions of greenhouse gasses from agriculture (including cropland and grassland) decreased between 1995 and 2016 by 13%. However, the share of agriculture in the total net emissions has increased from 8% in 1995 to 9% in 2016. The (non-CO2) emission of CH4 and N2O per hectare of UAA in Belgium is 7.4 kilo tonnes of CO2 equivalent per 1000 hectare in 2015, which is far above the EU-average of 2.4.

3.5.3. ENSURING A JUST TRANSITION

In the absence of mitigating measures, the transition towards a low-carbon economy will

([107]) EY 2018, page17.

impact vulnerable consumers. A gradual phase-out with long term visibility and adequate flanking measures to ease the transition is likely to be necessary to ensure a successful transition. This is particularly the case for vulnerable consumers, where the impact could be mitigated through energy poverty measures, including where these are part of social policy. Higher energy costs could also create distributional effects. A study by the Federal Planning Bureau ([108]), on the impacts of respecting the non-ETS 2030 target of a reduction of 35%, projected that energy costs for households would rise by 3% per year on average in 2015-2040, compared to 2.4% in the reference scenario. In the context of the transition towards a low carbon mobility, investments in urban and urban-rural mobility are essential to ensure access to business parks, which are mostly only accessible by car (see section 3.4.2). From its side, the EU will monitor the impacts of climate policy on energy prices and expenditure, and has proposed a Just Transition Fund designed to ensure that the transition towards EU climate neutrality is fair by helping the most affected regions in Belgium to address the social and economic consequences and to alleviate transition costs.

The transition to a low-carbon economy will also impact economic activity in regions that combine energy-intensive industries and higher unemployment. This could include such sectors as energy intensive industries, the oil and gas sector and more. Regions formerly dependant on steel, textile or coal are still undergoing an economic transformation (e.g. provinces of Hainaut, Liège and Limburg), with relatively higher unemployment rates. It will be crucial to anticipate and mitigate these effects e.g. by monitoring possible distributional effects of climate policies and by introducing re-skilling and up-skilling measures. For Belgium, an objective formula in order to identify a region eligible for the just transition was based on the following criteria: a) emissions of regions with high carbon intensity (calculated according to an emissions/GVA ratio) and b) industrial employment in these regions. The Walloon government intends to bring stakeholders, including companies, trade unions, associations, research institutes, citizens and public authorities together to create a range of "employment-environment" clusters (“alliances”) in the area of construction, renewable energy, agriculture and food.

Given its high emission intensity, and taking into account the large regional and productivity disparities in Belgium, the likely socioeconomic impact of the low carbon transition and the fact that the former industrial transformation is still ongoing, the intervention of the Just Transition Fund would need to be concentrated on the Hainaut region. Many workers are employed by the emissions emitting industries in the province of Hainaut. The industrial sector employs 17.7% of the 414,905 employees of the province ([109]), notably in metal production, chemical industry, electricity sector and extractive industries (8,169, 3,662, 1,734 and 962 employees respectively). The province of Hainaut notably produces two-third of the Belgian cement ([110]). It should promote economic diversification and reskilling and increase the attractiveness of the region for investments in line with its smart specialisation strategy (RIS3), which identifies the sectors and activities with most potential. The Wallonia region (which includes Hainaut) is focussing its RIS3 investments on industrial processes and materials; health and food; sustainable development; mobility; and ICTs.

3.5.4. CIRCULAR ECONOMY

Belgium is among the best performers in the EU as regards waste management and has already reached the EU’s 2020 municipal waste recycling target. However, there are differences in separate collection rates between the regions, with the Brussels region performing much worst (43% in 2017 versus Flanders and Wallonia at 70%). This has been attributed to governance issues.

Belgium performs well on resource productivity (how efficiently the economy uses material resources to produce wealth). Circular (secondary) use of materials in Belgium stood at

([108]) FPB (2018) WORKING PAPER 5-18 https://www.plan.be/uploaded/documents/201805171245060.WP_1805_11575.pdf.

([109]) Available at: http://www.hainautstat.be/hainautstat/commentaires/Emploi.pdf

([110]) Available at: https://www.rtbf.be/info/regions/detail_le-hainaut-plus-gros-producteur-national-de-ciment?id=8205512.

18.9% in 2016, compared with the EU-28 average of 11.7%. However, Belgium performs below the EU average for people employed in the circular economy (1.12% of total employment in 2015 versus an EU average of 1.73%). The lack of specific skills continues to be an obstacle to innovation and entrepreneurship in the area of circular economy. In terms of notable regional initiatives on circular economy, Flanders launched new Green Deals on circular purchasing and circular construction. In Wallonia three competitiveness clusters created a common platform for plastic recycling and a Green Deal launched for circular purchasing. The Brussels Regional Programme for Circular Economy was on the outcome of the halftime evaluation. Furthermore, the Brussels Regional Innovation Plan is supporting innovative projects on green economy, and in this context has funded projects focusing on green chemistry and sustainable food production.

Effective price signals can support the investments needed to achieve Belgium's ambitions in terms of energy efficiency and renewable energy. One of the measures considered in the Belgian NECP is to come to an agreement across the federated entities on fiscal reforms to underpin the energy transition. An analysis will be conducted together with the federal and regional governments regarding climate energy taxation. This is a positive ambition, notably given that fossil fuel subsidies are still at a substantial level in Belgium. ([111])The effectiveness of such initiatives notably depends on the definition of adequate incentives, accessibility to citizens, and on measures to ensure investment decisions are made also in cases where only long term returns are expected. To illustrate, energy efficiency investments can benefit from mechanisms in line with the EU's Smart Finance for Smart Building Initiative and from access to mechanisms already in place, at European, national or regional level.

In budgetary terms, Belgium is among the countries that could benefit the most from introducing an ambitious carbon and energy taxation. A reform which would increase energy-related consumption taxes by removing reduced VAT rates on energy products and differentiate excise duty rates based on the GHG and energy content of each energy product has been simulated ([112]). In the case of Belgium, additional budgetary revenues would range between 0.2% and 0.9% of GDP.

A comprehensive and coherent environmental fiscal policy requires effective coordination between Belgium federated entities. The three different regions have made separate declarations reflecting their plans and ambitions to address climate change. While the Brussels Capital Region plans to achieve a GHG emission reduction of minimum 40% by 2030 compared to 2005 and commits to achieve the European goal of carbon neutrality by 2050, the Flemish government aims for a GHG emission reduction in the non-ETS sectors of 85% by 2050 compared to 2005. In Wallonia, the government intends to reduce GHG emissions by 55% by 2030 compared to 2005. Both Wallonia and the Brussels region intend to shift environmental taxation to encourage the use of less polluting cars. Flanders intend to further discourage the use of polluting cars, by basing its taxation as from 2021 on the new "Worldwide Harmonised Light Vehicle Test Procedure" which better measures pollution.

Other environmental challenges

Road transport congestion makes air quality in Belgium to be a cause for severe concern. As the European Environment Agency report for the year 2016 shows, there is a significant health burden due to poor air quality with 75,800 years of life loss (YLL) attributable to fine particulate matter concentrations (with 6.7 YLL/1000 residents). For 2017, limit values were reported as having been exceeded for nitrogen dioxide in two air quality zones in Brussels and Antwerp. Substantial progress was made in reducing particulate matter emissions with no exceedance of target values reported for 2017. Measures taken to reduce air pollution include the establishment of low

([111]) Commission Staff Working Document Accompanying the document "Report From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Energy prices and costs in Europe", COM(2019)1, p. 215

([112]) European Commission, 2019, Environmental taxes for sustainable and inclusive growth, Technical background note by Commission services for the Tax Dialogue of the Economic Policy Committee.

emission zones (LEZs) with putative fines in the Brussels Region and Antwerp and the extension of pedestrianised areas. A similar zone is planned for Ghent for 2020, and one is under consideration for Mechelen-Willebroek. In Wallonia a legal framework allowing municipalities to propose the creation of LEZs has been recently adopted. Regarding the company car regime, progress remains limited due to the low take-up of the cash for car system (which in addition has been annulled by the Constitutional Court) and of the mobility budget (see section 3.1.6). Progress has been limited as well concerning the reduction of congestion and promotion of more sustainable modes of transport (see section 3.4.2 and infra). Plans for a Belgian-wide km charge for passenger cars to follow the km-charge for lorries seem to be currently frozen due to policy contrasts between the three regions.

Belgium has launched several initiatives in green financing and adopted a wide range of tools that raise awareness, promote and systematise green public procurement at the federal and regional levels. In 2018, the federal level launched green bonds, Flanders sustainability bonds, and the Brussels region a fund for the circular economy.

Agriculture and land use

Belgium receives € 648 million from the European Agricultural Fund for Rural Development (EAFRD) for rural development for the 2014-2020 period. EAFRD funding leverages a further €678 million of public funding in Belgium. Approximately €500 million supports restoring, preserving and enhancing ecosystems related to agriculture and forestry.

In its government agreement for the legislature 2019-2024, Flanders has expressed its will to use funds from its allocation under the Common Agricultural Policy (CAP) to promote circular agriculture and ecological programmes. One of its ambitions is to reduce nitrate and phosphate concentrations in ground waters and rivers. Nitrates diffuse pollution from agriculture pressures is still significant in Flanders and requires serious efforts to reduce nutrient pollution. In Wallonia the measures currently in place to control nitrate levels have not yet fully achieved their purpose. Furthermore, average concentrations of phosphates in Belgian rivers are the highest in the EU. Such concerns are significant considering the transition towards a more sustainable agriculture. The agricultural area used for organic farming has increased during the last years and was in 2017 6.3% of utilised agricultural area which is still below the EU average (7.03%, 2017).

Land is under intense pressure in Belgium and had the second most fragmented landscape in the EU in 2015 ([113]). There is a small Natura 2000 network comprising 13% of the national territory, mainly south of the Meuse where it is a tourist attraction. The network is also found in urban areas such as the Brussels Region and Antwerp providing flood protection and human health benefits. The Flemish Government Agreement 2019-24 indicates that the "betonstop" initiative is no longer being pursued ([114]), whereas Wallonia intends to stop urban sprawl by 2050 ([115]). However, in Flanders, first steps have been taken towards the Strategic Vision on spatial planning including goals reducing additional land take and increasing spatial efficiency within existing settlement area.

([113]) European Environment Agency, Landscape fragmentation pressure and trends in Europe, 2019. The most fragmented is Malta.
([114]) Flemish Government Agreement, p. 216.
([115]) Walloon Government Agreement, p. 70.

ANNEX A: OVERVIEW TABLE

Commitments	Summary assessment ([116])
2019 Country-Specific recommendations (CSRs)	
CSR 1: Ensure that the nominal growth rate of net primary government expenditure does not exceed 1.6 % in 2020, corresponding to an annual structural adjustment of 0.6 % of GDP. Use windfall gains to accelerate the reduction of the general government debt ratio. Continue reforms to ensure the fiscal sustainability of the long-term care and pension systems, including by limiting early exit possibilities from the labour market. Improve the composition and efficiency of public spending, in particular through spending reviews, and the coordination of fiscal policies by all levels of government to create room for public investment.	Belgium has made **limited** progress in addressing country-specific recommendation 1 (this overall assessment of country-specific recommendation 1 does not include an assessment of compliance with the Stability and Growth Pact):
• Ensure that the nominal growth rate of net primary government expenditure does not exceed 1,6 % in 2020, corresponding to an annual structural adjustment of 0,6 % of GDP.	The compliance assessment with the Stability and Growth Pact will be included in Spring when final data for 2019 will be available.
• Use windfall gains to accelerate the reduction of the general government debt ratio.	The compliance assessment with the Stability and Growth Pact will be included in Spring when final data for 2019 will be available.
• Continue reforms to ensure the fiscal	**Limited Progress.** Competences for long-term care have been devolved to the regional level. Flanders intends to pursue a strict budgetary follow-up of

([116]) The following categories are used to assess progress in implementing the 2015 country-specific recommendations:
No progress: The Member State has not credibly announced nor adopted any measures to address the country-specific recommendation. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:
• no legal, administrative, or budgetary measures have been announced in the National Reform Programme or in other official communication to the national Parliament / relevant parliamentary committees, the European Commission, or announced in public (e.g. in a press statement, information on government's website);
• no non-legislative acts have been presented by the governing or legislator body;
• the Member State has taken initial steps in addressing the country-specific recommendation, such as commissioning a study or setting up a study group to analyse possible measures that would need to be taken (unless the country-specific recommendation explicitly asks for orientations or exploratory actions), while clearly-specified measure(s) to address the country-specific recommendation has not been proposed.
Limited progress: The Member State has:
• announced certain measures but these only address the country-specific recommendation to a limited extent; and/or
• presented legislative acts in the governing or legislator body but these have not been adopted yet and substantial non-legislative further work is needed before the country-specific recommendation will be implemented;
• presented non-legislative acts, yet with no further follow-up in terms of implementation which is needed to address the country-specific recommendation.
Some progress: The Member State has adopted measures that partly address the country-specific recommendation and/or the Member State has adopted measures that address the country-specific recommendation, but a fair amount of work is still needed to fully address the country-specific recommendation as only a few of the adopted measures have been implemented. For instance: adopted by national parliament; by ministerial decision; but no implementing decisions are in place.
Substantial progress: The Member State has adopted measures that go a long way in addressing the country-specific recommendation and most of which have been implemented.
Full implementation: The Member State has implemented all measures needed to address the country-specific recommendation appropriately.

sustainability of the long-term care	government spending based on ageing. Furthermore, spending related to ageing is regulated within a framework in which the 'growth norm' has been agreed and can be enforced. The Walloon region has put in place actions, including the adoption of decrees, to improve preventive cares. Moreover, it has been introduced the obligation for hospitals to be part of a network from 1 January 2020.
• and pension systems, including by limiting early exit possibilities from the labour market.	**Limited Progress.** Measures to contain pension expenditure have been adopted throughout the period 2014-2019. In spite of these measures, the projected increase in pension expenditure is one of the largest in the EU (European Commission 2018b Ageing report). An agreement on the reform of 'arduous job' could not be reached. The introduction of partial pension, which allow taking up a part of the pension rights while accumulating pension rights for the (partially) continued actvitity, will be discussed in the Parliament next year. In addition, to increase incentives to work, Flanders is planning to introduce of a 'job bonus', which aims to grant to all workers with a gross wage lower than EUR 1700, with an additional income of EUR 50 per month, with the bonus tapering off as wage increase and disappearing altogether for wage of EUR 2500 or higher.
• Improve the composition and efficiency of public spending, in particular through spending reviews,	**Limited Progress** The Bruxelles Capital region has announced plans to conduct a comprehensive gap analysis of its public financial management (PEFA) in order to introduce a multi-annual approach and to increase the link between budget, policies, and results. The completion of the PEFA review is planned by spring 2021 at the latest. Flanders, after completing a pilot project on spending review, is preparing the structural implementation of a spending review approach in its budgetary process. The Walloon region plans to start the evaluation of a number of policy measures, with a view to complete the exercise by 2021.
• and the coordination of fiscal policies by all levels of government to create room for public investment	**No Progress**. No agreement has been found between the different entities to coordinate fiscal policies. Flanders investment ambitions have been reflected in the 2020 budget, where an additional investment of EUR 100 million has been budgeted. The Walloon region issued green bonds to finance/refinance projects in favour of the climate and energy transition in the region. However, the planned increase in regional investment is not

	covered by additional revenues or saving in other expenditure, therefore it is expected to translate in a higher deficits.
CSR 2: Remove disincentives to work and strengthen the effectiveness of active labour market policies, in particular for the low-skilled, older workers and people with a migrant background. Improve the performance and inclusiveness of the education and training systems and address skills mismatches. • Remove disincentives to work and strengthen the effectiveness of active labour market policies, in particular for the low-skilled, older workers and people with a migrant background.	Belgium has made **Limited progress** in addressing country-specific recommendation 2. **Limited Progress**. In 2019, some measures have been implemented with the aim to increase labour market participation. However, most of these measures are part of earlier reforms and are already taken into account in previous assessments. At the federal level, the fall of the Belgian federal government in December 2018 and the ongoing negotiations for the formation of a new federal government since the elections of May 2019, resulted in stand-still of the federal government in current affairs in terms of the development of new initiatives to address the CSR. Some measures that were foreseen in the Jobsdeal, such as the increase in the degressivity of the unemployment benefits or the discussions to revise the system of seniority payments, have been put on hold. At the regional level, several measures have been announced in the 2019-2024 regional coalition agreements, in which all regional governments aim for a substantial increase in their employment rates. However, at this stage it is too early to make an assessment. In Wallonia, a reform is foreseen to increase the effectiveness of the public employment services (PES) by further individualising support to jobseekers. This is aimed to allow the PES to provide a more holistic approach for the most vulnerable jobseekers. In addition, a new employment incentive will be implemented for very long-term (more than 24 months) unemployed. In Flanders, a job bonus for low wage workers will be introduced in 2021 to increase the net return from employment. In addition, reduced tariffs for social services such as child care and public transport will be made income dependent to reduce the financial disincentive to take up low wage employment. Furthermore, access to PES services will be expanded to inactive individuals who are not eligible for unemployment benefits. A strategy to reach these individuals will be developed in the spring of 2020. To increase labour market participation, the potential of long-term ill persons

	to return to work will be assessed earlier. In Brussels, the government plans to introduce a "solution guarantee", which should ensure that every jobseeker is offered a job, a traineeship, a training or a recognition of competences. In addition, Brussels plans to introduce several measures to support the integration of vulnerable jobseekers, including older unemployed (55+) and people with disabilities. The ordinance of 11/16/2017 authorised the Brussels Region's labour inspection service, as of 1/1/2018 and strictly within the Brussels competences, to use practical tests and mystery calls as additional tools to detect discrimination on the Brussels labour market. Until today, no mystery calls have been used yet. In 2018, four practical tests, which did not deliver substantial proof of discrimination, were sent out by post.
• Improve the performance and inclusiveness of the education and training systems	**Limited Progress.** The overall assessment for Belgium is "limited progress" in addressing the 2019 CSR. The detailed assessment for the Communities is the following: Limited progress in the French Community. Some progress has been made in adoption (legal framework for the extended common curriculum) and (partial) implementation of reforms (early childhood education and care, governance of schools, principals and working time of teachers) to improve the performance and inclusiveness of compulsory education (Pact for Excellence in Education) in the French Community, but a sustained continuous and considerable amount of work is still needed to implement the 'Pact for Excellence', the French Community's flagship systemic school reform to improve basic skills, efficiency, governance and tackling inequalities. Elaboration, adoption and implementation of different measures under the different axes of the Pact are still required, including reforming vocational education and training (VET). While some reforms are still being elaborated, no to limited progress was achieved in the other sectors of education and training. The reform of the initial teacher training has been postponed by one year to 2021/2022. Some progress was achieved in the Flemish Community, mainly through implementation from September 2019 of measures and reforms agreed under the previous government in all sectors of education. These measures should show some results in the medium to long term, but a significant amount of work is still needed to fully address the CSR. No new measures, except

• and address skills mismatches.	increasing the budget for pre-primary and primary education, have been taken since the May 2019 elections. **Limited Progress**. In 2019, some measures have been implemented with the aim to address skills mismatches, including by increasing the number of STEM graduates. However, most of these measures are part of earlier reforms and are already taken into account for in previous assessments. At the federal level, the fall of the Belgian federal government in December 2018 and the ongoing negotiations for the formation of a new federal government since the elections of May 2019, resulted in stand-still of the federal government in current affairs in terms of the development of new initiatives to address the CSR. At the regional level, measures have been announced in the 2019-2024 regional coalition agreements, but at this stage it is too early to make an assessment. In Flanders, the Flemish government has announced its intention to introduce an individual learning account and to establish a platform for lifelong learning where the Departments of Work, Education and Economy in cooperation with the social partners will develop a common vision, ambitions and goals. These measures aim to promote a culture of lifelong learning and to stimulate the willingness to learn. They complement the educational database that gives an overview of all training programs for which the Flemish can use educational vouchers. In Brussels, the government plans to attract more participants in trainings by strengthening its policy on the "Poles de formation" and by introducing a "training income", which complements the benefit of the jobseeker with income that is related to the successful completion of the training. Furthermore, Brussels wants to strengthen language competences in cooperation with the other Communities. In all regions, the recognition of skills is high on the policy agenda. The French-speaking community has implemented new measures to support Upskilling Pathways, including an online tool for validation, partnerships with key operators to support the mutual recognition of learning outcomes, and fostered access to the first certifying pathways. In Flanders, measures include the development of a validation instrument and the creation of a register of all the centres that perform validation.
CSR 3: Focus investment-related economic	Belgium has made **Limited** progress in addressing

policy on sustainable transport, including upgrading rail infrastructure, the low carbon and energy transition and research and innovation, in particular in digitalisation, taking into account regional disparities. Tackle the growing mobility challenges, by reinforcing incentives and removing barriers to increase the supply and demand of collective and low emission transport.	country-specific recommendation 3.
• Focus investment-related economic policy on sustainable transport, including upgrading rail infrastructure,	**Some Progress.** Some progress has been made on investment-related economic policy on sustainable transport, including upgrading rail infrastructure. At federal level, major investment in the RER-GEN regional express train network around Brussels will continue until 2031, as well as the implementation of the European Rail Traffic Management Signalling System, connection to ports and new upgraded cross-border rail infrastructure projects. The three regions, in particular Brussels, have designed and launched multiannual transport infrastructure investment plans. The updated version of the Brussels multi-year public transport investment plan was updated and will involve €6 billion for the 2015-2028 period. The draft Brussels Sustainable Urban Mobility Plan was adopted in April 2019 and has been submitted for public enquiry till October 2019. In Wallonia, the mobility and infrastructure plan for investment in cycle path, water transport and increasing the quality and security of the existing road network was adopted in April 2019. In Flanders, the Flemish transport administration committed to invest €600 million in improving the traffic flow, and in cycling and water borne transport. Meanwhile though, Belgium still scores poorly in terms of road infrastructure.
• the low carbon and energy transition	**Limited Progress.** Belgium has made limited progress in implementing policies and measures in support of investment-related economic policy on the low carbon and energy transition. Latest 2018 verified greenhouse gas inventories data show a slight increase in emissions in comparison to the previous year. This contrasts with the high levels of ambition put forward for the medium term and the commitment to the Paris agreement. The energy efficiency and renewable energy targets in the final national energy and climate plan notified in December 2019 are below those that were included in the draft version of the plan the year before and show a low level of ambition. The law introducing a competitive tendering for the construction and

	operation of production facilities creates a legal framework for tendering new windfarms. Significant offshore wind capacity is in development in the Belgian Noth Sea. Brussels is investing in photovoltaic systems in public buildings in the frame of the Solarclick programme, which will run till end 2020. Belgium also ranks low in the energy performance of buildings, and in spite of some proactive policies, the renovation of buildings is moving slowly. Brussels has adopted its long-term renovation strategy in April 2019. Belgium committed to fully phasing out nuclear energy by 2025, which will cause a major change in the present generation capacity mix: at the same time discussions continue on whether to further extend the operation of a limited number of nuclear power plants beyond 2025, which does not contribute to a more predictable energy investment environment.
• and research and innovation, in particular in digitalisation, taking into account regional disparities	**Limited Progress.** Limited progress has been made on research and innovation, in particular on digitalisation, taking into account regional disparities. Research and development (R&d) expenditures in the private sector is relatively high, although it is concentrated in a few multinational companies. Despite an increase in public R&D intensity from 2007 to 2018, it remains below the increase in public R&D intensity in most Member Sates with a similar level of economic development. The R&D investment could be more widespread towards smaller firms. The efficiency of the R&D public schemes could be improved as these schemes are not based on 'additionality' principle, in terms of net job creation, new investment or extra earnings from innovation. The R&D governance system is complicated with multiple governments at federal, regional and community level responsible for (parts) of research and innovation (R&I) policy. Cooperation and coordination exist mainly at operational level regarding national issues. The shortage of highly skilled professionals, in particular in sciences, engineering and math, and the lack of "knowledge entrepreneur" hampers Belgian growth prospects. Finally, regions are conducting R&D programmes to support the low-carbon transition. In temrs of digitalisation, a policy framework with financing measures for promoting the uptake and deployment of Artificial Intelligence have been put in place in

	Flanders and Wallonia and a similar initiative was put in place in Flanders with regard to cybersecurity. Coordinated efforts between the federal level, the Regions and the Communities are needed to roll out 5G and Belgium risks lagging behind in 5G deployment.
• Tackle the growing mobility challenges, by reinforcing incentives and removing barriers to increase the supply and demand of collective and low emission transport.	**Limited Progress.** Despite some additional policies and measures foreseen in the final National Energy Climate Plan, so far limited progress has been made to tackle the growing mobility challenges, by reinforcing incentives and removing barriers to increase the supply and demand of collective and low emission transport. In Flanders, the government has lifted the exclusive monopoly of De Lijn on intercity coach services. Environmental taxes have increased, but there is still scope for better aligning taxation to carbon emissions, possibly also increasing tax revenues. Road users pay around 43% (passenger) and 27% (freight) of their external and variable infrastructure costs. In Flanders, the decree on "Basic Accessibility" was adopted by the Flemish Parliament in April 2019, but the implementation of proposed measures has been postponed till December 2021. Alternative tax expenditures (so-called 'cash-for-car' and 'mobility budget') were introduced in 2018 and 2019 respectively. However, recent data from the National Social Security Office suggest that very few taxpayers opted for the cash for car system, which was finally annulled by the Constitutional Court. The favourable company car scheme continues to provide adverse incentives that run counter tackling greenhouse gas emissions. Professional transporters and agriculture still benefit from a reduced excise rate on diesel. Deductibility of fuel costs ('fuel card') continues. High registration rights for immovable properties discourage commuters to move closer to their place of employment. Barriers to the supply of domestic rail services remain as 98.2% of all services are provided under public service obligation (pso) through a directly awarded contract rather than through competitive tendering.
CSR 4: Reduce the regulatory and administrative burden to incentivise entrepreneurship and remove barriers to competition in services, particularly telecommunication, retail and professional	Belgium has made **No** progress in addressing country-specific recommendation 4.

services. • Reduce the regulatory and administrative burden to incentivise entrepreneurship	**Limited Progress.** Limited progress has been made on reducing the regulatory and administrative burden to incentivise entrepreneurship. Belgium has introduced services for digital identification(itsme) or to facilitate business to government transactions (Mercurius). Belgium has launched initiatives to promote e-prescriptions, medical data exchange and digital interactions with public administrations. In Brussels, the recent reform of the Code on Land Use (CoBAT) has tightened the deadlines for the administration to respond to building permit requests, while in Flanders the digitalisation of building permits is on-going. Wallonia has introduced a SME voucher system. However, taxation remains complex for financial investments and property registration continues to be costly and long. Digitalisation of justice still requires additional action. The coordination of climate, energy, digital and transport policies is still a problem. Key enforcers in regulation, market surveillance or competition are still understaffed. Impact assessments are not integrated in the policy-making. The Belgian State's slow payments to businesses deteriorated compared to the previous year and is a liability to its business environment. A draft ordinance guaranteeing the application of the 'once only' principle in the collection by all regional and local administrations through the regional service integrator (Fidus) was adopted in third and last reading by the Government in December 2019. In Wallonia, the timeframe for obtaining was reduced by the reform of the land use code
• and remove barriers to competition in services, particularly telecommunication, retail and professional services.	**Limited progress** – Limited progress has been made in removing barriers to competition in services, particularly telecommunication, retail and professional services. On 2 May 2019, Belgium replaced the Code of economic law in the area of competition law, with the intent to improve compliance with competition law and the functioning of the Belgian Competition Authority. The new rules do not foresee a strengthening of the staff or material means of the authority. .

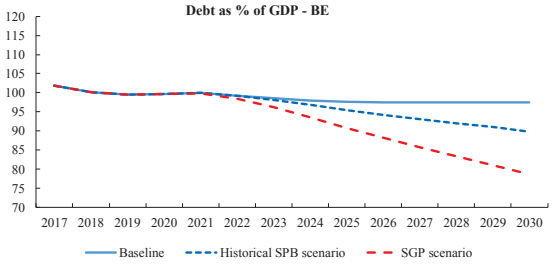
Europe 2020 (national targets and progress)	
Employment rate (20-64): 73.2 %.	The employment rate (20-64) increased to a record high level of 69.7% in 2018 (+ 1.2 pp compared to 2017), but remains well below the EU average (73.1%) and the 2020 target (73.2%). There remain large regional disparities in the employment with highest rate in Flanders (74.6%), followed by Brussels (61.4%) and Wallonia (63.7%).
R&D: 3 % of GDP.	Belgium R&D intensity increased remarkably from 1.9% in 2007 to 2.8% in 2018, mostly thanks a growth in business R&D intensity (from 1.3% to 2.0%). The public R&D intensity increased too (from 0.54% in 2007 to 0.8% in 2018), but remains slightly below that of most other Member States with a similar level of economic development.
Greenhouse gas emissions: -15 % in 2020 compared to 2005 (in the sectors not covered by the EU Emissions Trading System (ETS)).	Belgium is not on track to reach its 2020 climate change target. In sectors not covered by the EU ETS, reductions were limited to 10%. They are expected to reduce further by 2 or 3 pp., still short of the 2020 target of a decline of 15 % below 2005 levels.
Renewable energy: 13 %, with a share of renewable energy in all modes of transport equal to 10 %.	According to 2017 data, Belgium reached a share of 9.1% of energy from renewable sources in gross final consumption. Currently implemented renewable energy policies and already planned renewable energy policy initiatives are insufficient to trigger the required renewable energy volumes purely domestically.
Energy efficiency: 43.7 Mtoe primary consumption and 32.5 Mtoe final energy consumption	According to the 2017 data [NB: 2018 data will be available at the end of year], Belgium consumed 49,1 Mtoe of primary energy and 36,1 Mtoe of final energy. Industry is keeping the top position as the most consuming sector.
Early school leaving: 9.5 %.	In 2016, Belgium reached its Europe 2020 national target of 9.5% on early school leaving. Since then, the early school leaving rate further declined to 8.6% at national level. There are, however, large regional disparities with the highest rate in Brussels (10.7%), followed by Wallonia (9.9%) and Flanders (7.3%). The gender gap of 4.1 pps (with the higher rate of 10.6% for men) has increased and is now above the EU average (3.3 pps). The gap between non-EU (19.2%) and native-born (7.2%) is high and increasing. In 2018, the proportion of young people not in employment, education or training (NEET,

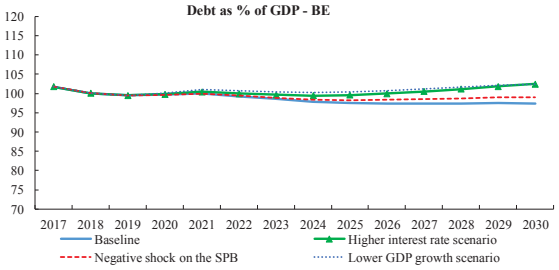
	15-24 years old) has decreased to 9.2%. However, also in terms of the NEET rate there are important regional differences. It is the highest in Brussels (13.3%) followed by Wallonia (10%) and Flanders (7.8%).
Tertiary education: 47 % of the population aged 30-34 years old.	In 2018, the proportion of 30- to 34-year old tertiary graduates reached 47.6%, surpassing its EU2020 target of 47% and well above the EU average of 40.7%. Tertiary attainment is the highest in Brussels (56.3%) followed by Flanders (48.2%) and Wallonia (42.5%). The gender gap of 13.9 pps (with the higher rate of 54.5% for women) has further increased (10.1 pps in 2017). The gap between non-EU born (35%) and native-born (49.2%) remains high, although decreasing.
Target for reducing the number of people at risk of poverty or social exclusion: - 380 000 compared to 2008.	The number of people at risk of poverty or social exclusion has continuously declined since 2014. Despite these improvements, the cumulative difference from 2008 remains positive in 2018 at 56 thousand individuals. As a result, it is highly unlikely that Belgium will obtain its target of reducing the number of people at risk of poverty or social exclusion by 380 thousands individuals.

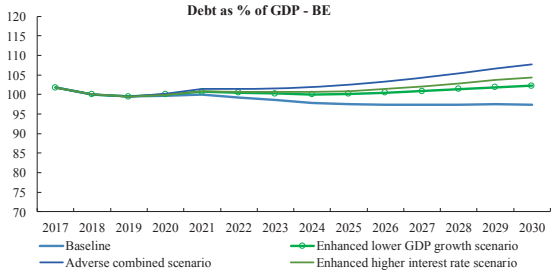
ANNEX B: DSA STATISTICAL ANNEX

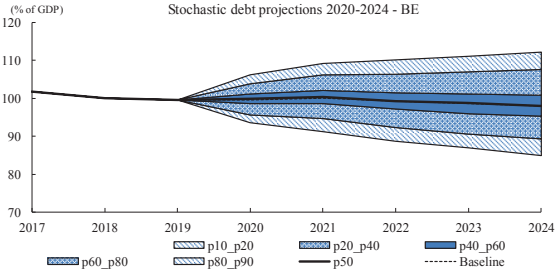
General government debt projections under baseline, alternative scenarios and sensitivity tests

BE - Debt projections baseline scenario	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Gross debt ratio	**100.0**	**99.5**	**99.6**	**100.0**	**99.2**	**98.6**	**97.9**	**97.6**	**97.4**	**97.4**	**97.4**	**97.5**	**97.4**
Changes in the ratio (-1+2+3)	*-1.7*	*-0.5*	*0.1*	*0.4*	*-0.8*	*-0.7*	*-0.6*	*-0.4*	*-0.1*	*0.0*	*0.0*	*0.1*	*-0.1*
of which													
(1) Primary balance (1.1+1.2+1.3)	**1.4**	**0.2**	**-0.4**	**-0.9**	**-0.9**	**-1.0**	**-1.1**	**-1.2**	**-1.4**	**-1.5**	**-1.6**	**-1.6**	**-1.7**
(1.1) Structural primary balance *(1.1.1-1.1.2+1.1.3)*	***0.3***	***-0.1***	***-0.5***	***-0.5***	***-0.7***	***-0.9***	***-1.1***	***-1.2***	***-1.4***	***-1.5***	***-1.6***	***-1.6***	***-1.7***
(1.1.1) Structural primary balance (bef. CoA)	*0.3*	*-0.1*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*
(1.1.2) Cost of ageing					*0.2*	*0.5*	*0.8*	*0.8*	*1.1*	*1.2*	*1.3*	*1.5*	*1.5*
(1.1.3) Others (taxes and property incomes)					*0.0*	*0.1*	*0.2*	*0.2*	*0.2*	*0.3*	*0.3*	*0.3*	*0.3*
(1.2) Cyclical component	***0.5***	***0.2***	***-0.1***	***-0.4***	***-0.2***	***-0.1***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(1.3) One-off and other temporary measures	***0.5***	***0.1***	***0.2***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(2) Snowball effect (2.1+2.2+2.3)	**-0.9**	**-0.7**	**-1.0**	**-1.2**	**-1.7**	**-1.7**	**-1.8**	**-1.5**	**-1.5**	**-1.5**	**-1.5**	**-1.6**	**-1.8**
(2.1) Interest expenditure	*2.1*	*2.0*	*1.8*	*1.7*	*1.6*	*1.5*	*1.4*	*1.3*	*1.2*	*1.2*	*1.1*	*1.1*	*1.1*
(2.2) Growth effect	*-1.4*	*-1.1*	*-0.9*	*-1.0*	*-1.3*	*-1.2*	*-1.2*	*-0.9*	*-0.8*	*-0.8*	*-0.7*	*-0.7*	*-0.9*
(2.3) Inflation effect	*-1.5*	*-1.5*	*-1.9*	*-2.0*	*-2.0*	*-1.9*	*-1.9*	*-1.9*	*-1.9*	*-1.9*	*-1.9*	*-1.9*	*-1.9*
(3) Stock-flow adjustments	**0.5**	**0.4**	**0.6**	**0.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**









Short term	Medium term	S1	Debt sustainability analysis (detail)						DSA	S2	Long term
			Baseline	Historical SPB	Lower GDP growth	Higher interest rate	Negative shock on SPB	Stochastic projections			
			Risk category	HIGH	MEDIUM	HIGH	HIGH	HIGH	HIGH		
			Debt level (2030)	97.4	89.9	102.5	102.4	99.1			
			Debt peak year	2021	2021	2030	2030	2021			
			Percentile rank	67.0%	51.0%						
			Probability debt higher						44.7%		
			Dif. between percentiles						27.2		
LOW (S0 = 0.2)	HIGH	HIGH (S1 = 4.1)							HIGH	MEDIUM (S2 = 4.8)	HIGH

Note: For further information, see the European Commission Debt Sustainability Monitor (DSM) 2019.

[1] The first table presents the baseline no-fiscal policy change scenario projections. It shows the projected government debt dynamics and its decomposition between the primary balance, snowball effects and stock-flow adjustments. Snowball effects measure the net impact of the counteracting effects of interest rates, inflation, real GDP growth (and exchange rates in some countries). Stock-flow adjustments include differences in cash and accrual accounting, net accumulation of assets, as well as valuation and other residual effects.

[2] The charts present a series of sensitivity tests around the baseline scenario, as well as alternative policy scenarios, in particular: the historical structural primary balance (SPB) scenario (where the SPB is set at its historical average), the Stability and Growth Pact (SGP) scenario (where fiscal policy is assumed to evolve in line with the main provisions of the SGP), a higher interest rate scenario (+1 pp. compared to the baseline), a lower GDP growth scenario (-0.5 pp. compared to the baseline) and a negative shock on the SPB (calibrated on the basis of the forecasted change). An adverse combined scenario and enhanced sensitivity tests (on the interest rate and growth) are also included, as well as stochastic projections. Detailed information on the design of these projections can be found in the FSR 2018 and the DSM 2019.

[3] The second table presents the overall fiscal risk classification over the short, medium and long term.

a. For the short-term, the risk category (low/high) is based on the S0 indicator. S0 is an early-detection indicator of fiscal stress in the upcoming year, based on 25 fiscal and financial-competitiveness variables that have proven in the past to be leading indicators of fiscal stress. The critical threshold beyond which fiscal distress is signalled is 0.46.

b. For the medium term, the risk category (low/medium/high) is based on the joint use of the S1 indicator and of the DSA results. The S1 indicator measures the fiscal adjustment required (cumulated over the 5 years following the forecast horizon and sustained after that) to bring the debt-to-GDP ratio to 60 % by 2034. The critical values used are 0 and 2.5 pps of GDP. The DSA classification is based on the results of five deterministic scenarios (baseline, historical SPB, higher interest rate, lower GDP growth and negative shock on the SPB scenarios) and the stochastic projections. Different criteria are used such as the projected debt level, the debt path, the realism of fiscal assumptions, the probability of debt stabilisation, and the size of uncertainties.

c. For the long term, the risk category (low/medium/high) is based on the joint use of the S2 indicator and the DSA results. The S2 indicator measures the upfront and permanent fiscal adjustment required to stabilise the debt-to-GDP ratio over the infinite horizon, including the costs of ageing. The critical values used are 2 and 6 pps of GDP. The DSA results are used to further qualify the long term risk classification, in particular in cases when debt vulnerabilities are identified (a medium / high DSA risk category).

ANNEX C: STANDARD TABLES

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

	2014	2015	2016	2017	2018	2019
Total assets of the banking sector (% of GDP)(1)	273.4	257.6	256.1	228.5	217.9	226.8
Share of assets of the five largest banks (% of total assets)	65.8	65.5	66.2	68.8	73.4	-
Foreign ownership of banking system (% of total assets)(2)	50.3	49.2	49.5	49.1	49.7	50.9
Financial soundness indicators:(2)						
- non-performing loans (% of total loans)	4.3	3.8	3.2	2.7	2.3	2.0
- capital adequacy ratio (%)	17.6	18.7	18.8	19.0	18.8	18.5
- return on equity (%)(3)	7.8	10.3	8.9	8.8	8.2	8.6
Bank loans to the private sector (year-on-year % change)(1)	9.9	7.0	6.8	5.5	8.1	5.9
Lending for house purchase (year-on-year % change)(1)	19.5	12.1	9.2	5.8	8.9	6.4
Loan to deposit ratio(2)	88.4	88.5	88.0	90.2	93.2	90.5
Central Bank liquidity as % of liabilities(1)	1.6	1.0	1.9	2.9	2.7	2.2
Private debt (% of GDP)	162.2	176.1	194.8	185.0	178.5	-
Gross external debt (% of GDP)(2) - public	67.2	64.6	65.8	60.9	59.1	66.7
- private	102.4	107.3	124.0	108.0	97.9	94.4
Long-term interest rate spread versus Bund (basis points)*	55.0	34.4	38.6	40.5	39.8	45.8
Credit default swap spreads for sovereign securities (5-year)*	31.0	30.0	28.8	14.6	10.7	11.3

(1) Latest data Q3 2019. Includes not only banks but all monetary financial institutions excluding central banks.
(2) Latest data Q2 2019.
(3) Quarterly values are annualized.
* Measured in basis points.

Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Headline social scoreboard indicators**

Table C.2: Headline social scoreboard indicators

	2014	2015	2016	2017	2018	2019 [5]
Equal opportunities and access to the labour market						
Early leavers from education and training (% of population aged 18-24)	9.8	10.1	8.8	8.9	8.6	:
Gender employment gap (pps)	8.7	8.3	9.3	9.8	8.4	8.1
Income inequality, measured as quintile share ratio (S80/S20)	3.8	3.8	3.8	3.8	3.8	:
At-risk-of-poverty or social exclusion rate(1) (AROPE)	21.2	21.1	20.7	20.3	19.8	:
Young people neither in employment nor in education and training (% of population aged 15-24)	12.0	12.2	9.9	9.3	9.2	:
Dynamic labour markets and fair working conditions						
Employment rate (20-64 years)	67.3	67.2	67.7	68.5	69.7	70.5
Unemployment rate(2) (15-74 years)	8.5	8.5	7.8	7.1	6.0	5.5
Long-term unemployment rate (as % of active population)	4.3	4.4	4.0	3.5	2.9	2.4
Gross disposable income of households in real terms per capita(3) (Index 2008=100)	97.9	98.2	99.1	100.4	101.1	:
Annual net earnings of a full-time single worker without children earning an average wage (levels in PPS, three-year average)	24355	24772	25082	:	:	:
Annual net earnings of a full-time single worker without children earning an average wage (percentage change, real terms, three-year average)	0.16	0.07	0.13	:	:	:
Public support / Social protection and inclusion						
Impact of social transfers (excluding pensions) on poverty reduction(4)	43.6	44.2	41.1	39.5	34.7	:
Children aged less than 3 years in formal childcare	48.8	50.1	43.8	52.9	54.0	:
Self-reported unmet need for medical care	2.5	2.4	2.4	2.1	1.8	:
Individuals who have basic or above basic overall digital skills (% of population aged 16-74)	:	60.0	61.0	61.0	:	:

(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 and/or living in households with zero or very low work intensity.
(2) Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.
(3) Gross disposable household income is defined in unadjusted terms, according to the draft 2019 joint employment report.
(4) Reduction in percentage of the risk-of-poverty rate, due to social transfers (calculated comparing at-risk-of-poverty rates before social transfers with those after transfers; pensions are not considered as social transfers in the calculation).
(5) Average of first three quarters of 2019 for the employment rate, unemployment rate and gender employment gap.

Source: Eurostat

Table C.3: **Labour market and education indicators**

Labour market indicators	**2014**	**2015**	**2016**	**2017**	**2018**	**2019** [5]
Activity rate (15-64)	67.7	67.6	67.6	68.0	68.6	69.1
Employment in current job by duration						
From 0 to 11 months	10.9	10.8	11.2	11.4	11.0	:
From 12 to 23 months	7.9	8.1	8.1	8.5	8.8	:
From 24 to 59 months	16.6	15.9	15.1	14.9	15.7	:
60 months or over	64.6	65.2	65.7	65.1	64.5	:
Employment growth* (% change from previous year)	0.4	0.9	1.3	1.6	1.4	1.4
Employment rate of women (% of female population aged 20-64)	62.9	63.0	63.0	63.6	65.5	66.4
Employment rate of men (% of male population aged 20-64)	71.6	71.3	72.3	73.4	73.9	74.6
Employment rate of older workers* (% of population aged 55-64)	42.7	44.0	45.4	48.3	50.3	52.0
Part-time employment* (% of total employment, aged 15-64)	23.7	24.3	24.7	24.5	24.5	24.6
Fixed-term employment* (% of employees with a fixed term contract, aged 15-64)	8.6	9.0	9.1	10.4	10.7	10.8
Transition rate from temporary to permanent employment (3-year average)	38.3	35.6	35.4	37.8	37.4	:
Youth unemployment rate (% active population aged 15-24)	23.2	22.1	20.1	19.3	15.8	14.9
Gender gap in part-time employment	32.8	32.3	32.6	31.1	31.0	30.5
Gender pay gap[2] (in undadjusted form)	6.6	6.5	6.1	6.0	:	:
Education and training indicators	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Adult participation in learning (% of people aged 25-64 participating in education and training)	7.4	6.9	7.0	8.5	8.5	:
Underachievement in education[3]	:	20.1	:	:	19.7	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	43.8	42.7	45.6	45.9	47.6	:
Variation in performance explained by students' socio-economic status[4]	:	19.3	:	:	17.2	:

* Non-scoreboard indicator

(1) Long-term unemployed are people who have been unemployed for at least 12 months.

(2) Difference between the average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. It is defined as "unadjusted", as it does not correct for the distribution of individual characteristics (and thus gives an overall picture of gender inequalities in terms of pay). All employees working in firms with 10 or more employees, without restrictions for age and hours worked, are included.

(3) PISA (OECD) results for low achievement in mathematics for 15 year-olds.

(4) Impact of socio-economic and cultural status on PISA (OECD) scores. Value for 2015 refers to mathematics; value for 2018 refers to reading.

(5) Average of first three quarters of 2019. Data for youth unemployment rate is seasonally adjusted.

Source: Eurostat, OECD

Table C.4: **Social inclusion and health indicators**

	2013	2014	2015	2016	2017	2018
Expenditure on social protection benefits* (% of GDP)						
Sickness/healthcare	8.3	8.3	7.6	7.4	7.3	:
Disability	2.2	2.3	2.3	2.4	2.4	:
Old age and survivors	11.8	11.7	12.6	12.4	12.6	:
Family/children	2.1	2.2	2.1	2.1	2.1	:
Unemployment	3.4	3.4	3.1	2.5	1.9	:
Housing	0.2	0.2	0.2	0.2	0.2	:
Social exclusion n.e.c.	0.7	0.6	0.6	0.7	0.7	:
Total	28.8	28.7	28.6	27.7	27.2	:
of which: means-tested benefits	1.5	1.4	1.4	1.4	1.4	:
General government expenditure by function (% of GDP)						
Social protection	20.0	19.9	19.7	19.6	19.6	:
Health	8.0	8.1	7.9	7.7	7.7	:
Education	6.4	6.4	6.4	6.3	6.3	:
Out-of-pocket expenditure on healthcare	18.0	17.5	17.5	17.9	17.6	:
Children at risk of poverty or social exclusion (% of people aged 0-17)*	21.9	23.2	23.3	21.6	22.0	23.2
At-risk-of-poverty rate[1] (% of total population)	15.1	15.5	14.9	15.5	15.9	16.4
In-work at-risk-of-poverty rate (% of persons employed)	4.4	4.8	4.6	4.7	5.0	5.2
Severe material deprivation rate[2] (% of total population)	5.1	5.9	5.8	5.5	5.1	4.9
Severe housing deprivation rate[3], by tenure status						
Owner, with mortgage or loan	0.2	0.4	0.1	0.8	1.2	0.5
Tenant, rent at market price	3.4	3.0	3.0	5.5	9.0	8.0
Proportion of people living in low work intensity households[4] (% of people aged 0-59)	14.0	14.6	14.9	14.6	13.5	12.1
Poverty thresholds, expressed in national currency at constant prices*	11164	11140	11061	11317	11364	11585
Healthy life years						
Females	10.9	11.0	11.0	11.4	11.7	:
Males	10.8	11.0	11.2	10.3	10.4	:
Aggregate replacement ratio for pensions[5]	0.5	0.5	0.5	0.5	0.5	0.5
Connectivity dimension of the Digital Economy and Society Index (DESI)[6]	:	69.3	74.6	75.8	77.9	:
GINI coefficient before taxes and transfers*	48.7	49.5	49.8	50.3	50.1	:
GINI coefficient after taxes and transfers*	25.9	25.9	26.2	26.3	26.0	:

* Non-scoreboard indicator
(1) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
(2) 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 adequately warm, iii) face 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.
(3) Percentage of total population living in overcrowded dwellings and exhibiting housing deprivation.
(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) Ratio of the median individual gross pensions of people aged 65-74 relative to the median individual gross earnings of people aged 50-59.
(6) Fixed broadband take up (33%), mobile broadband take up (22%), speed (33%) and affordability (11%), from the Digital Scoreboard.

Source: Eurostat, OECD

Table C.5: **Product market performance and policy indicators**

Performance indicators	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Labour productivity per person[1] growth (t/t-1) in %						
Labour productivity growth in industry	2.41	5.93	5.03	-1.11	1.03	-2.67
Labour productivity growth in construction	-0.15	3.78	4.21	0.71	0.40	2.56
Labour productivity growth in market services	1.06	0.67	0.85	0.32	0.76	1.46
Unit Labour Cost (ULC) index[2] growth (t/t-1) in %						
ULC growth in industry	0.64	-3.18	-4.51	1.75	1.62	4.01
ULC growth in construction	0.57	-1.34	-4.49	-0.72	1.14	1.51
ULC growth in market services	0.47	-0.23	-0.19	-0.23	1.11	0.40
Business environment	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Time needed to enforce contracts[3] (days)	505	505	505	505	505	505
Time needed to start a business[3] (days)	4.5	4.5	4.5	4.5	4.5	4.5
Outcome of applications by SMEs for bank loans[4]	0.54	0.36	0.46	0.31	0.37	0.17
Research and innovation	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
R&D intensity	2.33	2.37	2.43	2.52	2.66	2.76
General government expenditure on education as % of GDP	6.40	6.40	6.40	6.30	6.30	:
Employed people with tertiary education and/or people employed in S&T as % of total employment	50	51	50	51	53	53
Population having completed tertiary education[5]	32	33	33	33	36	36
Young people with upper secondary education[6]	83	84	84	85	86	85
Trade balance of high technology products as % of GDP	0.33	0.47	0.57	0.53	0.32	0.21
Product and service markets and competition	**2003**	**2008**	**2013**			**2018***
OECD product market regulation (PMR)[7], overall	1.64	1.52	1.39			1.69
OECD PMR[7], retail	4.68	4.56	4.06			2.52
OECD PMR[7], professional services[8]	2.52	2.47	2.47			2.21
OECD PMR[7], network industries[9]	2.84	2.08	1.84			1.40

Notes:
***While the indicator values from 2003 to 2013 are comparable, the methodology has considerably changed in 2018. As a result, past vintages cannot be compared with the 2018 PMR indicators.**
1 Value added in constant prices divided by the number of persons employed.
2 Compensation of employees in current prices divided by value added in constant prices.
3 The methodologies, including the assumptions, for this indicator are shown in detail here: http://www.doingbusiness.org/methodology.
4 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 6 months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received 75% and above, two if received below 75%, three if refused or rejected and treated as missing values if the application is still pending or don't know.
5 Percentage of population aged 15-64 having completed tertiary education.
6 Percentage of population aged 20-24 having attained at least upper secondary education.
7 Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
Please be aware that the indicator values from 2003 to 2013 are comparable, however the methodology changed considerably in 2018 and therefore past vintages cannot be compared with the 2018 PMR indicators.
8 Simple average of the indicators of regulation for lawyers, accountants, architects and engineers.
9 Aggregate OECD indicators of regulation in energy, transport and communications.
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.6: **Green growth**

Green growth performance		2013	2014	2015	2016	2017	2018
Macroeconomic							
Energy intensity	kgoe / €	0.15	0.14	0.14	0.14	0.14	0.13
Carbon intensity	kg / €	0.32	0.30	0.30	0.29	0.29	-
Resource intensity (reciprocal of resource productivity)	kg / €	0.41	0.39	0.38	0.37	0.39	0.39
Waste intensity	kg / €	-	0.15	-	0.16	-	-
Energy balance of trade	% GDP	-4.5	-3.8	-2.7	-2.2	-2.4	-3.5
Weighting of energy in HICP	%	11.29	10.92	11.02	9.22	9.02	9.94
Difference between energy price change and inflation	p.p.	-5.8	-8.0	-5.5	0.4	7.3	5.7
Real unit of energy cost	% of value added	16.5	16.2	17.0	17.9	-	-
Ratio of environmental taxes to labour taxes	ratio	0.10	0.10	0.11	0.12	0.12	-
Environmental taxes	% GDP	2.5	2.5	2.6	2.7	2.7	2.7
Sectoral							
Industry energy intensity	kgoe / €	0.10	0.10	0.09	0.09	0.09	0.13
Real unit energy cost for manufacturing industry excl. refining	% of value added	24.0	24.0	25.3	26.8	-	-
Share of energy-intensive industries in the economy	% GDP	8.32	8.56	9.14	8.85	8.58	7.95
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	0.04	0.03	0.03	0.03	0.02	0.02
Public R&D for energy	% GDP	0.01	0.01	0.01	0.01	0.01	0.01
Public R&D for environmental protection	% GDP	0.01	0.01	0.01	0.01	0.01	0.01
Municipal waste recycling rate	%	52.8	53.8	53.5	53.5	53.9	54.5
Share of GHG emissions covered by ETS*	%	37.9	38.5	38.1	37.1	38.2	38.2
Transport energy intensity	kgoe / €	0.51	0.51	0.51	0.52	0.52	0.52
Transport carbon intensity	kg / €	0.54	0.51	0.55	0.58	0.52	0.52
Security of energy supply							
Energy import dependency	%	77.1	79.8	83.9	75.4	74.8	-
Aggregated supplier concentration index	HHI	16.1	14.5	13.7	14.9	17.5	-
Diversification of energy mix	HHI	27.0	27.9	28.2	27.3	27.3	27.7

Note: All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2010 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 % of total value added for the economy.
Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2010 EUR).
Real unit energy costs for manufacturing industry excluding refining: real costs as % 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.
Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste.
Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP.
Proportion of GHG emissions covered by EU emissions trading system (ETS) (excluding aviation): based on GHG 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 including international aviation (kgoe) divided by gross value added in transportation and storage sector (in 2010 EUR).
Transport carbon intensity: GHG emissions in transportation and storage sector divided by gross value added in transportation and storage sector (in 2010 EUR).
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels.
Aggregated supplier concentration index: Herfindahl index covering oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.
Diversification of the energy mix: Herfindahl index covering natural gas, total petrol products, nuclear heat, renewable energies and solid fuels. Smaller values indicate larger diversification.
* European Commission and European Environment Agency - 2018 provisional data.

Source: European Commission and European Environment Agency (Share of GHG emissions covered by ETS); European Commission (Environmental taxes over labour taxes and GDP); Eurostat (all other indicators).

ANNEX D: INVESTMENT GUIDANCE ON JUST TRANSITION FUND 2021-2027 FOR BELGIUM

Building on the Commission proposal, this Annex ([117]) presents the preliminary Commission services' views on priority investment areas and framework conditions for effective delivery for the 2021-2027 Just Transition Fund investments in Belgium. These priority investment areas are derived from the broader analysis of territories facing serious socio-economic challenges deriving from the transition process towards a climate-neutral economy of the Union by 2050 in Belgium, assessed in the report. This Annex provides the basis for a dialogue between Belgium and the Commission services as well as the relevant guidance for the Member States in preparing their territorial just transition plans, which will form the basis for programming the Just Transition Fund. The Just Transition Fund investments complement those under Cohesion Policy funding for which guidance in the form of Annex D was given in the 2019 Country Report for Belgium ([118]).

In Belgium, the "arrondissements de Tournai, Mons, Charleroi" in the province of Hainaut have the highest industrial greenhouse gas emission intensity, caused mainly by the production of cement, chemicals and electricity. In addition, Hainaut is a province formerly dependent on steel, textile and coal; it is still undergoing industrial transition, with specific challenges in terms of economic development and a relatively high unemployment. Finally, the high intensity carbon sectors in the province employs over 13,000 employees. Based on this preliminary assessment, it appears warranted that the Just Transition Fund concentrates its intervention on that region.

The carbon intensity of the industry in the province of Hainaut highlights the scale of the decarbonisation challenge, suggesting that the sectors concerned would be likely to undergo by 2030 significant restructuring in their industrial processes. The smart specialisation strategies ([119]) provide an important framework to set priorities for innovation in support of economic transformation. Key actions of the Just Transition Fund could promote economic diversification and reskilling and increase the attractiveness of the province for investments in line with the smart specialisation strategy, which identifies the sectors and activities with most potential, i.e. industrial processes and materials; health and food; sustainable development; mobility; and ICTs.

In order to tackle the transition challenges, investment needs have been identified for alleviating the socio-economic costs of the transition, through actions targeting in particular:

- investments in research and innovation activities and fostering the transfer of advanced technologies;
- investments in the deployment of technology and infrastructures for affordable clean energy, in greenhouse gas emission reduction, energy efficiency and renewable energy;
- productive investments in SMEs, including start-ups, leading to economic diversification and reconversion;
- investments in enhancing the circular economy, including through waste prevention, reduction, resource efficiency, reuse, repair and recycling;
- investments in regeneration and decontamination of sites, land restoration and repurposing projects;
- upskilling and reskilling of workers.

Some industrial sites in these areas, performing activities listed in Annex I to Directive 2003/87/EC, employ a substantial number of workers and their activity is at risk due to their high greenhouse gas emissions. Support to investments to reduce the emissions could be considered, provided that they achieve a substantial reduction of emissions (going substantially below the relevant benchmarks used for free allocation under Directive 2003/87/EC) and on the condition that the investments are compatible with the European Green Deal.

[117] This Annex is to be considered in conjunction with the EC proposal for a Regulation of the European Parliament and of the Council on the Just Transition Fund 2021-2027 (COM(2020)22 and the EC proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial rules for those and for the Asylum and Migration Fund, the Internal Security Fund and the Border Management and Visa Instrument (COM(2020)23).

[118] SWD(2019) 1000 final

[119] As defined in Article 2(3) of Regulation (EU) No 1303/2013 (CPR)

ANNEX E: PROGRESS TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Assessment of Belgium's short-term progress towards the SDGs ([120])

Table E.1 shows the data for Belgium and the EU-28 for the indicators included in the EU SDG indicator set used by Eurostat for monitoring progress towards the SDGs in an EU context ([121]). As the short-term trend at EU-level is assessed over a 5-year period, both the value at the beginning of the period and the latest available value is presented. The indicators are regularly updated on the SDI dedicated section of the Eurostat website.

Table E.1: **Indicators measuring Belgium's progress towards the SDGs**

SDG / Sub-theme	Indicator	Unit	Belgium				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 1 – No poverty										
Multidimensional poverty	People at risk of poverty or social exclusion	% of population	2013	20.8	2018	19.8	2013	24.6	2018	21.9
	People at risk of income poverty after social transfers	% of population	2013	15.1	2018	16.4	2013	16.7	2018	17.1
	Severely materially deprived people	% of population	2013	5.1	2018	4.9	2013	9.6	2018	5.8
	People living in households with very low work intensity	% of population aged 0 to 59	2013	14.0	2018	12.1	2013	11.0	2018	8.8
	In-work at-risk-of-poverty rate	% of population aged 18 or over	2013	4.4	2018	5.2	2013	9.0	2018	9.5
Basic needs	Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor	% of population	2013	18.1	2018	18.0	2013	15.6	2018	13.9
	Self-reported unmet need for medical care	% of population aged 16 or over	2013	1.9	2018	1.8	2013	3.7	2018	2.0
	Population having neither a bath, nor a shower, nor indoor flushing toilet in their household	% of population	2013	0.3	2018	0.1	2013	2.2	2018	1.7
	Population unable to keep home adequately warm	% of population	2013	5.8	2018	5.2	2013	10.7	2018	7.3
	Overcrowding rate	% of population	2013	2.0	2018	5.9	2013	17.0	2018	15.5
SDG 2 – Zero hunger										
Malnutrition	Obesity rate	% of population aged 18 or over	2014	14.0	2017	14.7	2014	15.9	2017	15.2
Sustainable agricultural production	Agricultural factor income per annual work unit (AWU)	EUR, chain linked volumes (2010)	2012	42 274	2017	33 617	2012	14 865	2017	17 304
	Government support to agricultural research and development	million EUR	2013	34.8	2018	64.2	2013	3 048.6	2018	3 242.5
	Area under organic farming	% of utilised agricultural area	2013	4.7	2018	6.6	2013	5.7	2018	7.5
	Gross nitrogen balance on agricultural land	kg per hectare	2010	142	2015	132	2010	49	2015	51
Environmental impacts of agricultural production	Ammonia emissions from agriculture	kg per ha of utilised agricultural area	2012	49.1	2017	46.9	2011	19.7	2016	20.3
	Nitrate in groundwater	mg NO_3 per litre	2012	29.9	2017	29.4	2012	19.2	2017	19.1
	Estimated soil erosion by water	km^2	2010	98.6	2016	100.7	2010	207 232.2	2016	205 294.5
	Common farmland bird index	index 2000 = 100	N/A	:	N/A	:	2013	83.9	2018	80.7
SDG 3 – Good health and well-being										
Healthy lives	Life expectancy at birth	years	2012	80.5	2017	81.6	2012	80.3	2017	80.9
	Share of people with good or very good perceived health	% of population aged 16 or over	2013	74.3	2018	74.8	2013	67.3	2018	69.2
Health determinants	Smoking prevalence	% of population aged 15 or over	2012	27	2017	19	2014	26	2017	26
	Obesity rate	% of population aged 18 or over	2014	14.0	2017	14.7	2014	15.9	2017	15.2
	Population living in households considering that they suffer from noise	% of population	2013	17.5	2018	17.7	2013	18.8	2018	18.3
	Exposure to air pollution by particulate matter ($PM_{2.5}$)	$\mu g/m^3$	2012	16.1	2017	12.9	2012	16.8	2017	14.1
Causes of death	Death rate due to chronic diseases	number per 100 000 persons aged less than 65	2011	115.5	2016	99.3	2011	132.5	2016	119.0
	Death rate due to tuberculosis, HIV and hepatitis	number per 100 000 persons	2011	1.8	2016	1.1	2011	3.4	2016	2.6
	People killed in accidents at work	number per 100 000 employed persons	2012	1.78	2017	1.68	2012	1.91	2017	1.65
	People killed in road accidents	number of killed people	2012	770	2017	615	2012	28 231	2017	25 257
Access to health care	Self-reported unmet need for medical care	% of population aged 16 or over	2013	1.9	2018	1.8	2013	3.7	2018	2.0

(Continued on the next page)

([120]) Data extracted on 9 February 2020 from the Eurostat database (official EU SDG indicator set; see https://ec.europa.eu/eurostat/web/sdi/main-tables).

([121]) The EU SDG indicator set is aligned as far as appropriate with the UN list of global indicators, noting that the UN indicators are selected for global level reporting and are therefore not always relevant in an EU context. The EU SDG indicators have strong links with EU policy initiatives.

Table (continued)

SDG / Sub-theme	Indicator	Unit	Belgium				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 4 – Quality education										
Basic education	Early leavers from education and training	% of the population aged 18 to 24	2013	11.0	2018	8.6	2013	11.9	2018	10.6
	Participation in early childhood education	% of the age group between 4-years-old and the starting age of compulsory education	2012	98.1	2017	98.7	2012	94.0	2017	95.4
	Underachievement in reading	% of 15-year-old students	2015	19.5	2018	21.3	2015	19.7	2018	21.7
	Young people neither in employment nor in education and training	% of population aged 15 to 29	2013	14.9	2018	12.0	2013	15.9	2018	12.9
Tertiary education	Tertiary educational attainment	% of the population aged 30 to 34	2013	42.7	2018	47.6	2013	37.1	2018	40.7
	Employment rate of recent graduates	% of population aged 20 to 34	2013	79.1	2018	83.4	2013	75.4	2018	81.7
Adult education	Adult participation in learning	% of population aged 25 to 64	2013	6.9	2018	8.5	2013	10.7	2018	11.1
SDG 5 – Gender equality										
Gender-based violence	Physical and sexual violence to women experienced within 12 months prior to the interview	% of women	N/A	:	2012	11	N/A	:	2012	8
Education	Gender gap for early leavers from education and training	percentage points, persons aged 18–24	2013	4.5	2018	4.1	2013	3.4	2018	3.3
	Gender gap for tertiary educational attainment	percentage points, persons aged 30–34	2013	13.1	2018	13.9	2013	8.5	2018	10.1
	Gender gap for employment rate of recent graduates	percentage points, persons aged 20–34	2013	0.1	2018	1.6	2013	4.4	2018	3.4
Employment	Gender pay gap in unadjusted form	% of average gross hourly earnings of men	2012	8.3	2017	6.0	2012	17.4	2017	16.0
	Gender employment gap	percentage points, persons aged 20–64	2013	10.2	2018	8.4	2013	11.7	2018	11.6
	Gender gap in inactive population due to caring responsibilities	percentage points, persons aged 20–64	2013	23.7	2018	20.1	2013	25.5	2018	27.1
Leadership positions	Seats held by women in national parliaments and governments	% of seats	2014	41.1	2019	43.5	2014	27.2	2019	31.5
	Positions held by women in senior management	% of board members	2014	22.4	2019	34.4	2014	20.2	2019	27.8
SDG 6 – Clean water and sanitation										
Sanitation	Population having neither a bath, nor a shower, nor indoor flushing toilet in their household	% of population	2013	0.3	2018	0.1	2013	2.2	2018	1.7
	Population connected to at least secondary wastewater treatment	% of population	2012	74.9	2017	83.0	N/A	:	N/A	:
Water quality	Biochemical oxygen demand in rivers	mg O_2 per litre	2012	2.53	2017	2.56	2012	2.06	2017	2.00
	Nitrate in groundwater	mg NO_3 per litre	2012	29.9	2017	29.4	2012	19.2	2017	19.1
	Phosphate in rivers	mg PO_4 per litre	2012	0.159	2017	0.197	2012	0.096	2017	0.093
	Inland water bathing sites with excellent water quality	% of bathing sites with excellent water quality	2013	70.4	2018	82.2	2013	76.5	2018	80.8
Water use efficiency	Water exploitation index	% of long term average available water (LTAA)	2010	22.6	2015	15.2	N/A	:	N/A	:
SDG 7 – Affordable and clean energy										
Energy consumption	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	49.3	2018	46.8	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	36.6	2018	36.3	2013	1 115.5	2018	1 124.1
	Final energy consumption in households per capita	kgoe	2013	812	2018	709	2013	605	2018	552
	Energy productivity	EUR per kgoe	2013	5.9	2018	6.4	2013	7.6	2018	8.5
	Greenhouse gas emissions intensity of energy consumption	index 2000 = 100	2012	90.3	2017	82.4	2012	91.5	2017	86.5
Energy supply	Share of renewable energy in gross final energy consumption	%	2013	7.5	2018	9.4	2013	15.4	2018	18.0
	Energy import dependency	% of imports in gross available energy	2013	77.2	2018	82.7	2013	53.2	2018	55.7
Access to affordable energy	Population unable to keep home adequately warm	% of population	2013	5.8	2018	5.2	2013	10.7	2018	7.3

(Continued on the next page)

Table (continued)

SDG / Sub-theme	Indicator	Unit	Belgium				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 8 – Decent work and economic growth										
Sustainable economic growth	Real GDP per capita	EUR per capita, chain-linked volumes (2010)	2013	33 490	2018	35 600	2013	25 750	2018	28 280
	Investment share of GDP	% of GDP	2013	22.2	2018	23.8	2013	19.5	2018	20.9
	Resource productivity	EUR per kg, chain-linked volumes (2010)	2013	2.46	2018	2.52	2013	1.98	2018	2.04
Employment	Young people neither in employment nor in education and training	% of population aged 15 to 29	2013	14.9	2018	12.0	2013	15.9	2018	12.9
	Employment rate	% of population aged 20 to 64	2013	67.2	2018	69.7	2013	68.4	2018	73.2
	Long-term unemployment rate	% of active population	2013	3.9	2018	2.9	2013	5.1	2018	2.9
	Gender gap in inactive population due to caring responsibilities	percentage points, persons aged 20–64	2013	23.7	2018	20.1	2013	25.5	2018	27.1
Decent work	People killed in accidents at work	number per 100 000 employed persons	2012	1.78	2017	1.68	2012	1.91	2017	1.65
	In-work at-risk-of-poverty rate	% of population	2013	4.4	2018	5.2	2013	9	2018	9.5
SDG 9 – Industry, innovation and infrastructure										
R&D and innovation	Gross domestic expenditure on R&D	% of GDP	2013	2.33	2018	2.76	2013	2.01	2018	2.12
	Employment in high- and medium-high technology manufacturing and knowledge-intensive services	% of total employment	2013	51.4	2018	53.0	2013	45.0	2018	46.1
	R&D personnel	% of active population	2013	1.39	2018	1.78	2013	1.15	2018	1.36
	Patent applications to the European Patent Office (EPO)	number	2012	1 507	2017	1 655	2012	56 772	2017	54 649
Sustainable transport	Share of buses and trains in total passenger transport	% of total inland passenger-km	2012	20.7	2017	18.0	2012	17.2	2017	16.7
	Share of rail and inland waterways in total freight transport	% of total inland freight tonne-km	2012	27.8	2017	26.3	2012	25.4	2017	23.3
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	124.0	2018	119.4	2014	123.4	2018	120.4
SDG 10 – Reduced inequalities										
Inequalities within countries	Relative median at-risk-of-poverty gap	% distance to poverty threshold	2013	19.2	2018	19.2	2013	23.8	2018	24.6
	Income distribution	income quintile share ratio	2013	3.8	2018	3.8	2013	5.0	2018	5.2
	Income share of the bottom 40 % of the population	% of income	2013	23.3	2018	23.4	2013	21.1	2018	21.0
	People at risk of income poverty after social transfers	% of population	2013	15.1	2018	16.4	2013	16.7	2018	17.1
Inequalities between countries	Purchasing power adjusted GDP per capita	Real expenditure per capita (in PPS)	2013	32 200	2018	36 300	2013	26 800	2018	31 000
	Adjusted gross disposable income of households per capita	Purchasing power standard (PPS) per inhabitant	2013	23 878	2018	25 911	2013	20 392	2018	22 824
	Financing to developing countries	million EUR, current prices	2012	2 104	2017	6 841	2012	147 962	2017	155 224
	Imports from developing countries	million EUR, current prices	2013	43 353	2018	55 518	2013	817 475	2018	1 013 981
Migration and social inclusion	Asylum applications	Positive first instance decisions, per million inhabitants	2013	563	2018	846	2013	213	2018	424
SDG 11 – Sustainable cities and communities										
Quality of life in cities and communities	Overcrowding rate	% of population	2013	2.0	2018	5.9	2013	17.0	2018	15.5
	Population living in households considering that they suffer from noise	% of population	2013	17.5	2018	17.7	2013	18.8	2018	18.3
	Exposure to air pollution by particulate matter ($PM_{2.5}$)	µg/m^3	2012	16.1	2017	12.9	2012	16.8	2017	14.1
	Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor	% of population	2013	18.1	2018	18.0	2013	15.6	2018	13.9
	Population reporting occurrence of crime, violence or vandalism in their area	% of population	2013	19.4	2018	12.3	2013	14.5	2018	12.7
Sustainable mobility	People killed in road accidents	number of killed people	2012	770	2017	615	2012	28 231	2017	25 257
	Share of buses and trains in total passenger transport	% of total inland passenger-km	2012	20.7	2017	18.0	2012	17.2	2017	16.7
Adverse environmental impacts	Settlement area per capita	m^2	2009	572.5	2015	581.6	2012	625.0	2015	653.7
	Recycling rate of municipal waste	% of total waste generated	2013	52.8	2018	54.6	2013	41.7	2018	47.0
	Population connected to at least secondary wastewater treatment	% of population	2012	74.9	2017	83.0	N/A	:	N/A	:

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Table (continued)

SDG / Sub-theme	Indicator	Unit	Belgium				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 12 – Responsible consumption and production										
Decoupling environmental impacts from economic growth	Consumption of toxic chemicals	million tonnes	N/A	:	N/A	:	2013	300.3	2018	313.9
	Resource productivity	EUR per kg, chain-linked volumes (2010)	2013	2.46	2018	2.52	2013	1.98	2018	2.04
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	124.0	2018	119.4	2014	123.4	2018	120.4
	Energy productivity	EUR per kgoe	2013	5.9	2018	6.4	2013	7.6	2018	8.5
Energy consumption	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	49.3	2018	46.8	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	36.6	2018	36.3	2013	1 115.5	2018	1 124.1
	Share of renewable energy in gross final energy consumption	%	2013	7.5	2018	9.4	2013	15.4	2018	18.0
Waste generation and management	Circular material use rate	% of material input for domestic use	2012	16.7	2017	17.8	2012	11.5	2017	11.7
	Generation of waste excluding major mineral wastes	kg per capita	2012	2 856	2016	3 383	2012	1 716	2016	1 772
	Recycling rate of waste excluding major mineral wastes	% of total waste treated	2012	80	2016	78	2012	55	2016	57
SDG 13 – Climate action										
Climate mitigation	Greenhouse gas emissions	index 1990 = 100	2012	82.5	2017	79.7	2012	82.1	2017	78.3
	Greenhouse gas emissions intensity of energy consumption	index 2000 = 100	2012	90.3	2017	82.4	2012	91.5	2017	86.5
	Primary energy consumption	million tonnes of oil equivalent (Mtoe)	2013	49.3	2018	46.8	2013	1 577.4	2018	1 551.9
	Final energy consumption	million tonnes of oil equivalent (Mtoe)	2013	36.6	2018	36.3	2013	1 115.5	2018	1 124.1
	Share of renewable energy in gross final energy consumption	%	2013	7.5	2018	9.4	2013	15.4	2018	18.0
	Average CO2 emissions per km from new passenger cars	g CO_2 per km	2013	124.0	2018	119.4	2014	123.4	2018	120.4
Climate impacts	European mean near surface temperature deviation	temperature deviation in °C, compared with the 1850–1899 average	N/A	:	N/A	:	2013	1.4	2018	2.1
	Climate-related economic losses	EUR billion, in 2017 values	N/A	:	N/A	:	2012	2 719	2017	2 649
	Mean ocean acidity	pH value	N/A	:	N/A	:	2013	8.06	2018	8.06
Support to climate action	Contribution to the international 100bn USD commitment on climate related expending	EUR million, current prices	N/A	:	2017	104.9	N/A	:	2017	20 388.7
SDG 14 – Life below water										
Ocean health	Coastal water bathing sites with excellent water quality	% of bathing sites with excellent water quality	2013	47.6	2018	97.6	2013	85.5	2018	87.1
	Mean ocean acidity	pH value	N/A	:	N/A	:	2013	8.06	2018	8.06
Marine conservation	Surface of marine sites designated under NATURA 2000	km^2	2013	1 271	2018	1 271	2013	251 566	2018	551 899
Sustainable fisheries	Estimated trends in fish stock biomass	index 2003 = 100	N/A	:	N/A	:	2012	110.0	2017	136.0
	Assessed fish stocks exceeding fishing mortality at maximum sustainable yield (Fmsy)	% of stocks exceeding fishing mortality at maximum sustainable yield ($F>F_{MSY}$)	N/A	:	N/A	:	2012	52.9	2017	42.7
SDG 15 – Life on land										
Ecosystems status	Share of forest area	% of total land area	2009	21.7	2015	23.1	2012	40.3	2015	41.6
	Biochemical oxygen demand in rivers	mg O_2 per litre	2012	2.53	2017	2.56	2012	2.06	2017	2.00
	Nitrate in groundwater	mg NO_3 per litre	2012	29.9	2017	29.4	2012	19.2	2017	19.1
	Phosphate in rivers	mg PO_4 per litre	2012	0.159	2017	0.197	2012	0.096	2017	0.093
Land degradation	Soil sealing index	index 2006 = 100	2009	100.9	2015	102.7	2009	101.7	2015	104.2
	Estimated soil erosion by water	km^2	2010	98.6	2016	100.7	2010	207 232.2	2016	205 294.5
	Settlement area per capita	m^2	2009	572.5	2015	581.6	2012	625.0	2015	653.7
Biodiversity	Surface of terrestrial sites designated under NATURA 2000	km^2	2013	3 883	2018	3 891	2013	787 766	2018	784 252
	Common bird index	index 2000 = 100	N/A	:	N/A	:	2013	94.7	2018	93.5
	Grassland butterfly index	index 2000 = 100	N/A	:	N/A	:	2012	72.2	2017	74.1

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Table (continued)

SDG / Sub-theme	Indicator	Unit	Belgium				EU-28			
			Starting		Latest		Starting		Latest	
			year	value	year	value	year	value	year	value
SDG 16 – Peace, justice and strong institutions										
Peace and personal security	Death rate due to homicide	number per 100 000 persons	2011	1.4	2016	1.1	2011	0.9	2016	0.6
	Population reporting occurrence of crime, violence or vandalism in their area	% of population	2013	19.4	2018	12.3	2013	14.5	2018	12.7
	Physical and sexual violence to women experienced within 12 months prior to the interview	% of women	N/A	:	2012	11	N/A	:	2012	8
Access to justice	General government total expenditure on law courts	million EUR	2012	1 170	2017	1 159	2012	48 381	2017	51 027
	Perceived independence of the justice system	% of population	2016	62	2019	62	2016	52	2019	56
Trust in institutions	Corruption Perceptions Index	score scale of 0 (highly corrupt) to 100 (very clean)	2013	75	2018	75	N/A	:	N/A	:
	Population with confidence in the EU Parliament	% of population	2013	59	2018	64	2013	39	2018	48
SDG 17 – Partnerships for the goals										
Global partnership	Official development assistance as share of gross national income	% of GNI	2013	0.45	2018	0.44	2013	0.43	2018	0.48
	EU financing to developing countries	million EUR, current prices	2012	2 104	2017	6 841	2012	147 962	2017	155 224
	EU imports from developing countries	million EUR, current prices	2013	43 353	2018	55 518	2013	817 475	2018	1 013 981
Financial governance within the EU	General government gross debt	% of GDP	2013	105.5	2018	100.0	2013	86.3	2018	80.4
	Shares of environmental and labour taxes in total tax revenues	% of total tax revenues	2013	5.5	2018	6.0	2013	6.4	2018	6.1

Source: Eurostat

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