REPORT
2019

Economic and financial developments

NationalBank
OF BELGIUM
Eurosystem

1. Global economy and euro area

1.1 The global economy slowed further in 2019

Following a sharp deceleration in the second half of 2018, global economic growth remained sluggish in 2019 against the backdrop of the escalating trade dispute between the United States and China, some geopolitical tensions in the Middle East, and persistent uncertainty over Brexit. Annual average growth dropped to its lowest level since the great recession. The loss of momentum affected activity in most economic regions and was relatively marked in manufacturing industry, whereas services were more resilient. Factors specific to certain sectors, notably the motor vehicle industry, and to some emerging economies, as well as various structural forces such as weak productivity growth and population ageing, also inhibited economic dynamism. International trade weakened significantly, with a decline in trade having been observed in most of the major economies. Nevertheless, activity showed some signs of stabilising at the end of the year.

Table 1

GDP of the major economies

(percentage changes in volume compared to the previous year, unless otherwise stated)

				p.m. Contribution to world growth	*p.m. Share of world GDP*[1]
	2017	**2018**	**2019**	***2019***	
Advanced economies	2.5	2.2	1.7	*0.7*	*40.3*
of which:					
United States	2.4	2.9	2.3	*0.3*	*15.1*
Japan	1.9	0.3	1.0	*0.0*	*4.1*
Euro area	2.5	1.9	1.2	*0.1*	*11.2*
United Kingdom	1.8	1.3	1.3	*0.0*	*2.2*
Emerging economies	4.8	4.5	3.7	*2.2*	*59.7*
of which:					
China	6.8	6.6	6.1	*1.2*	*19.3*
India	7.2	6.8	4.8	*0.4*	*8.0*
Russia	1.6	2.3	1.1	*0.0*	*3.1*
Brazil	1.1	1.3	1.2	*0.0*	*2.4*
World	3.8	3.6	2.9	*2.9*	*100.0*
p.m. World trade[2]	*4.6*	*3.2*	*–0.6*	–	–

Sources: CPB, ECB, IMF.

1 According to the IMF definitions and calculated on the basis of purchasing power parities.

2 Average of exports and imports of goods and services. For 2019, change over the first eleven months compared to the corresponding period of the previous year.

A widespread slowdown

Compared to the previous year, annual GDP growth declined in almost all the main economies. In the advanced economies, it stabilised overall at a low level during the year, following the sharp slowdown at the end of 2018. In the United States, the expansion phase – the longest ever recorded so far – continued, supported by consumption and the fiscal stimulus approved in 2017-2018. However, it slackened pace owing to the worsening trade tensions and uncertainty surrounding US trade policy. Economic activity remained weak in the euro area, whereas it strengthened slightly in Japan, boosted by public and private consumption.

In the United Kingdom, GDP growth was both weak and volatile. Driven by stockpiling in anticipation of a possible departure from the EU without a deal on 29 March 2019, activity picked up in the first quarter of 2019 before growth dropped sharply thereafter. Overall, business investment was still undermined by the uncertainty surrounding Brexit, while household consumption proved more resilient, supported by job creation and wage rises.

In the emerging economies, growth gradually subsided. In the face of weakening domestic demand and prolonged trade tensions with the United States, China's economic expansion declined to its lowest level in three decades. Although consumer confidence remained strong, the high debt level and the rise in the debt service ratio seem to have curbed household consumption expenditure, in favour of savings. Since 2014, China has become the largest economy in the world, measured by purchasing power parities (PPP). On that basis, it represented 19.3 % of the global economy in 2019. In that same year, it moved into second place in terms of GDP valued at market exchange rates, with a weight of 16.3 %, behind the United States (24.8 %), but ahead of the euro area (15.4 %).

China became the second largest economy in the world in terms of GDP valued according to market exchange rates

At the same time, India's growth dropped to its lowest level in several years as a result of a significant fall in consumption. The economic slowdown also hit Brazil, Mexico and Russia. The economies of Turkey and Argentina, which had both entered recession in 2018, displayed a divergent picture. Supported by improvements in both financial conditions and access to credit, the Turkish economy began growing again. At the same time, the Argentinian economy continued to shrink, suffering from serious worsening of its financing conditions and rising inflation, factors which are denting confidence.

Mounting uncertainty

The weakness of worldwide economic activity is due largely to the heightened uncertainty, created primarily by escalating trade tensions between the United States and China, and to the widespread decline in manufacturing output. These two factors, which are closely linked, contributed to a marked fall in the growth of international trade. Yet there were some signs of stabilisation at the end of the year.

Following the tariff increases and retaliatory measures in 2018, there was a rise in both customs duties and the import base concerned during 2019. In May, the United States raised the customs duty from 10 % to 25 % on imports from China amounting to $ 200 billion, after having already imposed new tariffs on them in September 2018. In August, the American President also announced new taxes on Chinese imports worth $ 300 billion, so that almost all Chinese products would face new tariff barriers. China systematically responded to the US decisions by adopting retaliatory measures. However, from September onwards, tensions gradually eased with the prospect of a partial agreement between the two parties. China agreed to exclude a small number of products from its list of new tariffs and, following the actual conclusion of an agreement in mid-December, the United States partially revoked the tariff increases announced in the summer.

The new protectionism displayed by the United States over the past few years is largely due to China's industrial policies on subsidies, intellectual property rights, and technology transfer[1]. But those are not the only factors, as is evident from the increase in customs duties on steel and aluminium in the spring of 2018, or the threatened imposition of additional tariffs on motor vehicle imports.

1 See, for example, box 2 in the Annual Report 2018 or Buysse K. and D. Essers (2019), "Cheating tiger, tech-savvy dragon? Are Western concerns about "unfair trade" and "Made in China 2025" justified?", NBB, *Economic Review*, September.

While the US government has so far refrained from carrying out that threat, it has still not renounced it. In response to the French tax on digital services, it made new threats specifically targeting French products.

The United States has more generally become decidedly hostile to the international trade system, the operation of the World Trade Organisation (WTO), and global multilateralism. The uncertainty over trade policies is thus not confined to the dispute between China and the United States but also encompasses the future of the international trade system as a whole. Moreover, the friction between the United States and China is not just about trade and the divergences between their economic models; it is also about global technological and geopolitical leadership. Finally, the deterioration in diplomatic relations has also affected other countries. More particularly, during the summer, an open trade war erupted between Japan and South Korea, in which both countries tightened up their mutual export conditions.

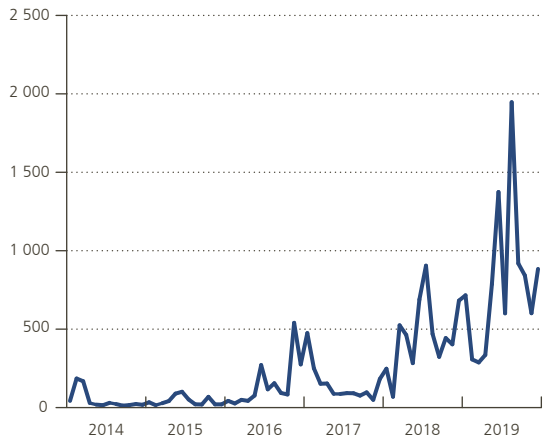
The uncertainties over international trade and the lack of political direction in the face of climate change have inhibited investment

The many concerns over the future of world trade and their impact on production – reallocations between countries and value chain adjustments – and on international trade have eroded business confidence.

Chart 1

Uncertainty over trade spiralled during the summer

(degree of uncertainty regarding US trade policy, index 2014 = 100)



Source: Refinitiv.

Firms have therefore become doubly cautious about investing, and that has depressed global demand for equipment and machinery. While China and the United States are currently the main countries affected by the new trade barriers, most other economies are also suffering, either as suppliers or owing to the deterioration in the general economic climate. Apart from the uncertainties concerning trade, sluggish investment is also a sign of the lack of clear political direction regarding the response to the global challenge of climate change. Despite international commitments on the part of governments, the adjustment plans are still in their infancy and there are still no definite policies aimed at implementing the energy transition.

Decline in industrial output and world trade growth

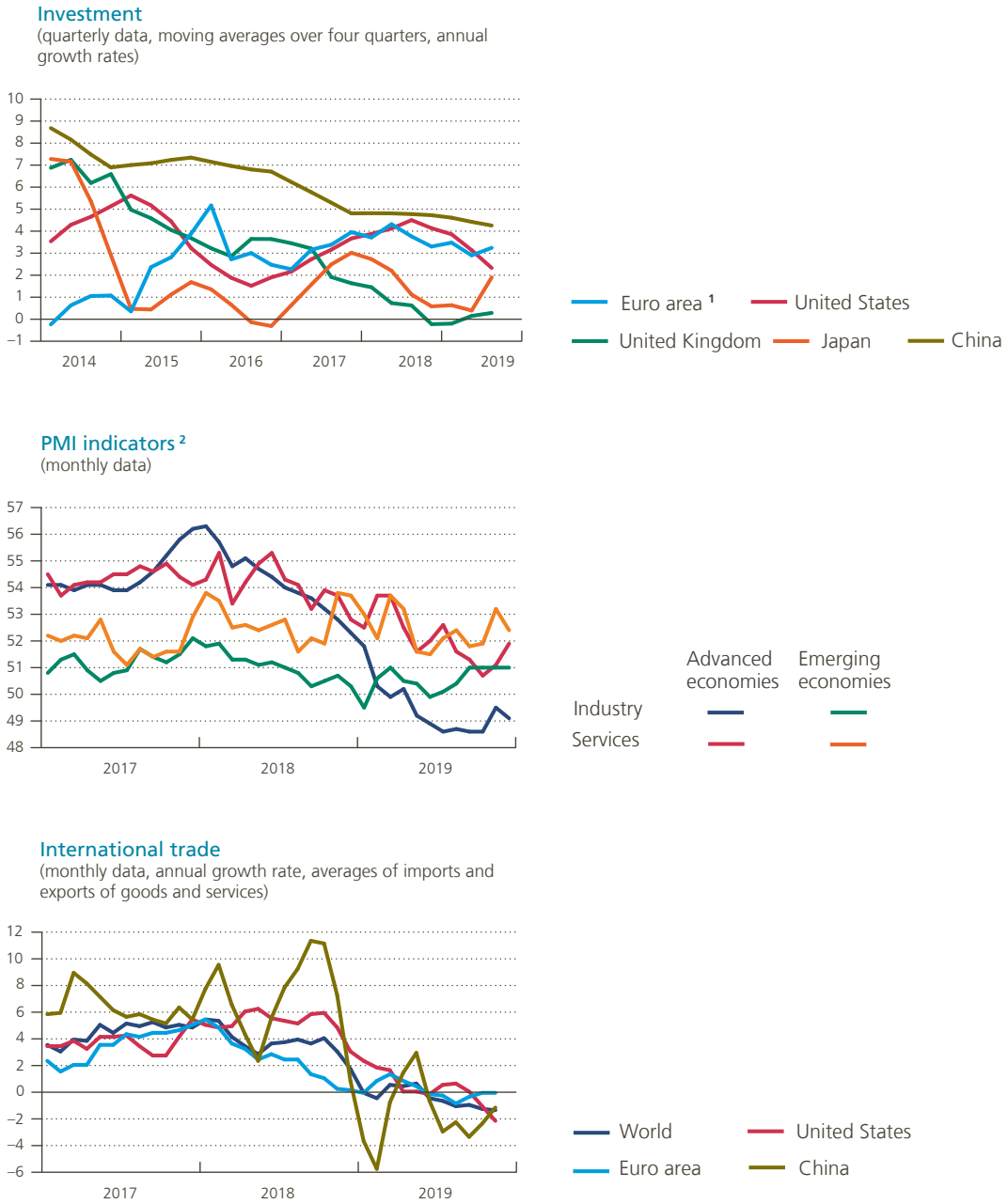
The weakening demand for investment goods was reflected in industrial output, which declined on average in the advanced economies. This decline is also due to the contraction of activity in the motor vehicle industry, due to both supply disruptions and factors affecting demand. For instance, vehicle sales dropped in China following the expiry of certain tax incentives, while more generally, consumers demonstrated more reticence against the backdrop of rapid changes in technologies, regulations and transport habits. Output was disrupted in the euro area – and more especially in Germany – following the adoption of new emission standards.

The mounting trade tensions and global weakness of industrial output had a significant impact on the growth of international trade, which entered negative territory from the summer. While the decline in the volume of trade was widespread, the Asian economies most involved in world trade and value chains – headed by China – were harder hit. International trade suffered particularly from lower demand for motor vehicles, electronic products and capital goods, which are traded internationally to a considerable degree.

The sharp fall in Chinese imports is due in particular to a marked deceleration in the country's exports, but also to the still ongoing process of rebalancing its economy. The growing importance of domestic consumption at the expense of investment curbed

Chart 2

The heightened uncertainty depressed investment, manufacturing industry and international trade



Source: Refinitiv.

1 Excluding Ireland, where investment is volatile and closely linked to the activities of multinationals based in the country.

2 The PMI indices range between 0 and 100. A value of more than 50 indicates a rise in production, while a value of less than 50 indicates a fall.

demand for imports of investment goods and commodities. The desire to develop domestic production of inputs has a similar effect.

Some trade flows exhibited unaccustomed volatility during the year. That applies more particularly to Chinese exports, with certain goods being shipped in advance in order to avoid the American tariff increases. The United Kingdom saw a surge in imports at the beginning of 2019, ahead of the date initially planned for its departure from the EU, but it then subsided sharply.

Buoyant services supported employment

While industrial output slowed considerably in 2019, that was not the case for services, which proved very resilient despite a slight slowdown. The dynamism of the tertiary sector, which represents a growing and dominant share of economic activity, supported job creation, household incomes and consumer confidence. In contrast to business investment, which was held back by increased wariness, consumption expenditure thus underpinned activity in general.

In this context, and taking account of the weaker expansion – or even shrinking – of the working age population on account of demographic ageing, the unemployment rate continued to fall, sometimes reaching levels not seen for several decades. In the United States, unemployment thus declined to 3.5 % in December 2019, its lowest point since the end of the 1960s. A similar situation was apparent in the United Kingdom, while in Japan unemployment reverted to its level of the early 1990s, at just over 2 %. The buoyant labour markets generally encouraged wage rises in the advanced economies.

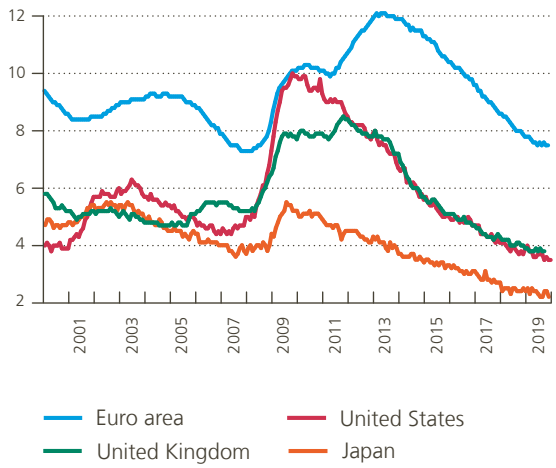
Weak inflationary pressure has led to further monetary easing

However, the wage rises were not reflected in prices, and the slowdown in economic activity was accompanied by a further weakening of the underlying inflationary pressure, combined with the absence of upward pressure originating from commodity prices. Inflation thus fell far short of its target in the advanced economies, while it reached historically low levels in a number of emerging economies. Argentina and Turkey, whose currencies have depreciated sharply in the recent period, were the exception in this respect, with relatively high inflation.

Chart 3

Further decline in unemployment rates

(monthly data, in % of the labour force)



Source: Refinitiv.

After surging strongly at the beginning of the year, oil prices subsided during the summer to less than US$ 60 per barrel of Brent, against the backdrop of a deteriorating global economic outlook. Following the attack on Saudi oil installations in September, the price per barrel suddenly jumped by about 10 % before falling again just as quickly. In the face of the easing of trade tensions between China and the US and the prospect of macroeconomic stabilisation, oil prices edged back up towards $ 70 by the end of the year. Prices of industrial and food commodities remained fairly stable overall through the year.

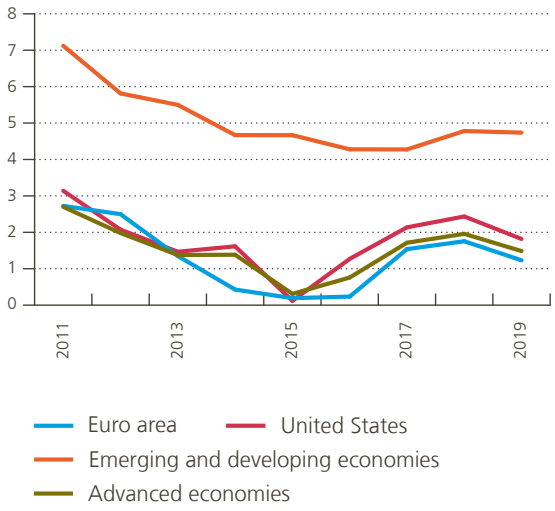
In an environment featuring weaker economic activity, increasing risks and declining inflationary pressure, monetary policies were adjusted in favour of a resolutely accommodative stance, both in the advanced economies and in the emerging countries. In particular, the US Federal Reserve adopted a more accommodative tone in its communication, before proceeding to introduce specific easing measures. For instance, in March 2019, it announced that, from September, it would end the reduction in its balance sheet which had begun in late 2018. It also cut its key interest rates on three occasions, namely in July, September and October. But after having restored the federal funds rate to a target range of between 1.75 % and 2 %, it stated that it would not consider any further reduction unless there was a marked deterioration in the economic outlook. As explained in more detail in chapter 2, at its September 2019 meeting, the ECB Governing Council cut the deposit facility interest rate and announced that it would resume its asset purchases. The central banks of China, India, Brazil and Russia, among others, likewise lowered their key interest rates last year. The Chinese monetary authorities also implemented targeted monetary easing in order to contain debt servicing costs and moderate the shortage of credit specifically affecting small firms. They are still striving to strike a delicate balance between promoting access to credit while keeping control over corporate debt levels, which have more than doubled since 2008.

In comparison with monetary policies, fiscal policies were not very expansionary in most economies. The United States and China were among the exceptions. Following the fiscal stimulus approved in late 2017 and early 2018, American fiscal policy became decidedly accommodative. Nonetheless, the economic benefits of this stance were relatively minor in a context of full employment, where the fiscal multiplier is usually small. The Chinese authorities

Chart 4

Decelerating inflation in the advanced economies

(percentage annual change in consumer prices)

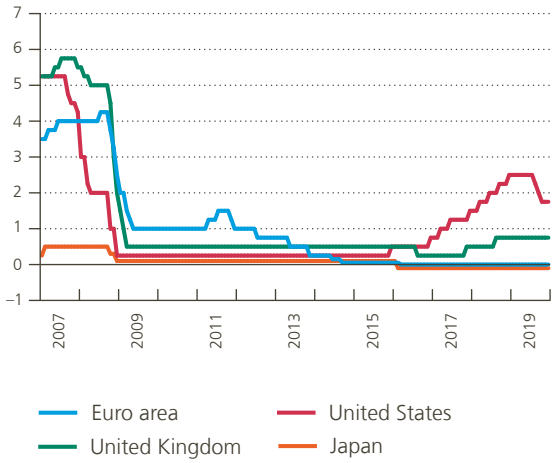


Source: IMF.

Chart 5

Monetary policies have been relaxed in the advanced economies

(main policy interest rates, in %)



Source: Refinitiv.

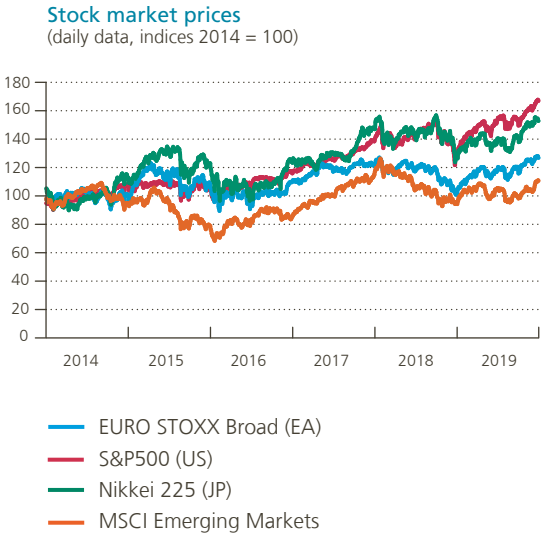
continued to support the economy, notably via investment in public infrastructure and tax cuts for households and businesses. In Japan, the government took various measures to counteract the expected negative impact of the rise in consumption tax – from 8 % to 10 % – with effect from 1 October 2019. These measures were more than sufficient to smooth household consumption before and after the tax increase, so that the latter's effects were much less marked than in 2014, when the tax rate had been raised from 5 % to 8 %. In December, Prime Minister Shinzo Abe also unveiled a new recovery plan amounting to 2.4 % of GDP (i.e. 13 000 billion yen, or more than € 108 billion).

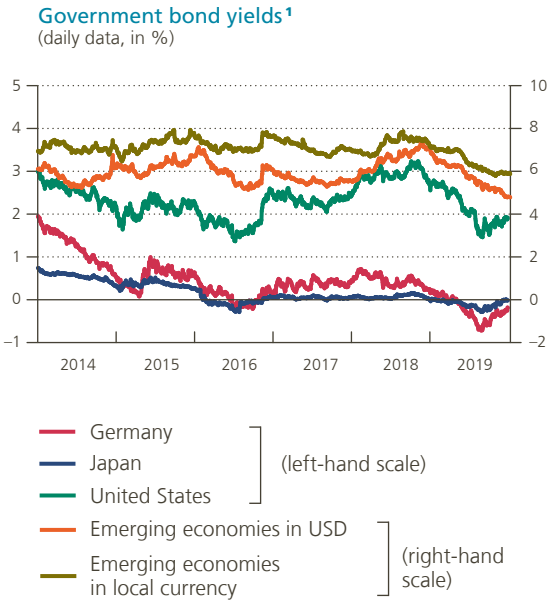
Financial markets under the combined influence of international trade and central banks

After optimism had been severely shaken at the end of 2018, it regained the upper hand and the equity markets enjoyed a strong revival at the beginning of 2019, especially in the advanced economies. Stock markets subsequently displayed a more erratic picture, sometimes depressed by the concerns relating to trade tensions, and sometimes bolstered by conciliatory communications on that

Chart 6

How the financial markets reacted to commercial and monetary policies





Source: Refinitiv.

1 Advanced economies: 10-year government bonds; emerging economies: JPM EMBI Global index (in US dollars) and JPM GBI index (in national currencies).

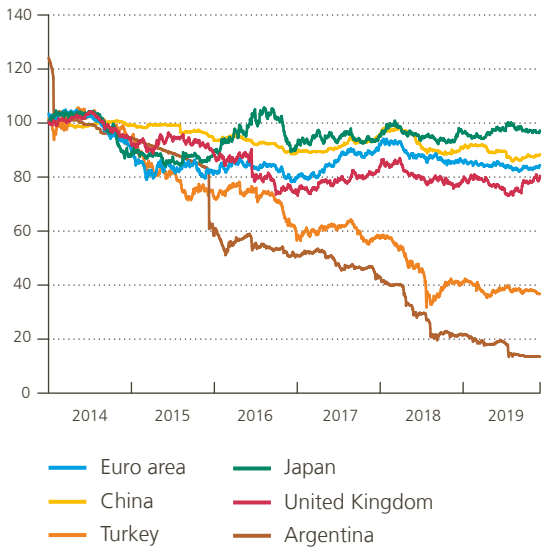
subject and the central banks' easing measures. Overall, the more accommodative monetary policy stance fostered an improvement in financing conditions in the advanced economies and, to a lesser degree, in the emerging economies. Sovereign bond yields also benefited from strong demand for less risky assets. Some long-term government bonds thus declined to historically low levels, occasionally entering very negative territory, as was the case in Japan and Germany. In the United States, the inversion of the yield curve during the summer temporary awakened fears of a deterioration in the economic outlook, or even a possible future recession. In the final quarter of the year, the apparent progress in trade talks and some reassuring signals indicating more encouraging economic prospects supported the equity markets and drove up sovereign yields.

Exchange rates largely mirrored the economic developments. The dollar appreciated slightly in relation to the euro, and more strongly in relation to the Chinese renminbi. The yen, and to a lesser degree the Swiss franc – two prime safe-haven currencies – appreciated somewhat against other currencies, while the pound sterling was highly volatile, fluctuating in response to the uncertainties and twists and turns concerning Brexit. It appreciated considerably against the euro from August, as the prospect of a negotiated withdrawal agreement gradually became clearer. The Turkish lira, which had fallen sharply in 2018, was more stable, in contrast to the Argentinian peso, which continued to tumble.

Chart 7

The US dollar appreciated a little against the euro

(daily data, exchange rate in relation to the dollar, indices 2014 = 100)



Source: Refinitiv.

1.2 Activity in the euro area was affected by the worsening global economic situation, but the labour market proved resilient

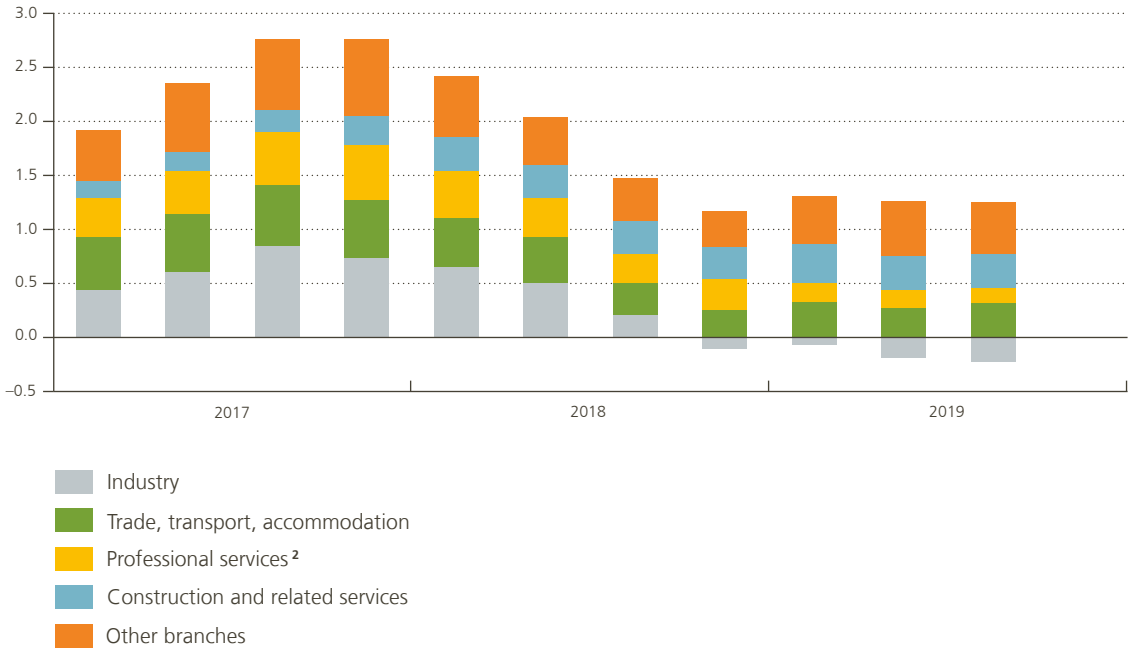
The slowdown in the global economy and international trade primarily affected manufacturing industry and exports

Economic growth in the euro area, which had fallen back to 1.9 % in 2018, dropped further to 1.2 % in 2019. The main factor in this weaker growth was the contraction in industrial activity. The decline was particularly marked in the motor vehicle industry, but other branches of manufacturing industry were also affected, albeit to a lesser extent. In addition, the expansion slowed down in some services branches, including those connected with industry, such as trade, transport and professional services, which together represent a large proportion of market services. On the other hand, construction and related services contributed more to the growth of

Chart 8

Activity in industry contracted in the euro area

(contributions of value added by branch of activity to the annual volume change in GDP[1], percentage points)



Source: Eurostat.

1 The sum of the contributions of the branches of activity does not correspond to the change in GDP. GDP is in fact equal to the total value added of those branches plus taxes on products (including VAT, excise duties and import duties) minus subsidies on products.

2 Professional, scientific and technical activities; administrative and support service activities.

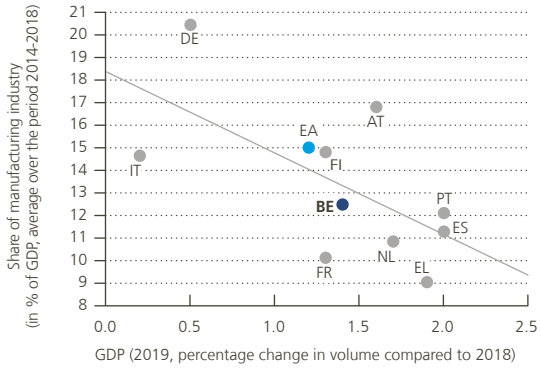
economic activity, driven by the low financing costs, the increase in household disposable income, and favourable weather conditions for construction work in the first quarter.

In 2019, GDP growth remained positive in all euro area countries, but slowed almost everywhere in relation to the previous year. It fell back sharply in Germany, to the lowest rate in the euro area except for Italy.

The weakening expansion of activity in the euro area is related to the slowdown in international trade and the decline in global growth, which depressed external demand for euro area products. More particularly, the cyclical slowdown in the United States, the persistent uncertainty over Brexit in the United Kingdom, and the less dynamic demand from China took their toll. The constant tension and serious

Chart 9

The euro area countries with substantial industrial activity were hardest hit



Sources: ECB, Eurostat, NBB.

uncertainty over trade policies specifically affected investment decisions worldwide, putting a heavy burden on industrial output and international trade. Industrial branches focused on exports thus paid a heavy price. In these circumstances, the relatively large share of industry in economic activity and the geographical and product specialisation of exports – which are usually advantages for the euro area, and especially for Germany – proved detrimental in 2019. The high degree of openness and close integration of the euro area's economy in global value chains have exacerbated the effects of this adverse change in the international environment.

Slackening global demand and technological and regulatory changes had an adverse effect on the motor vehicle industry

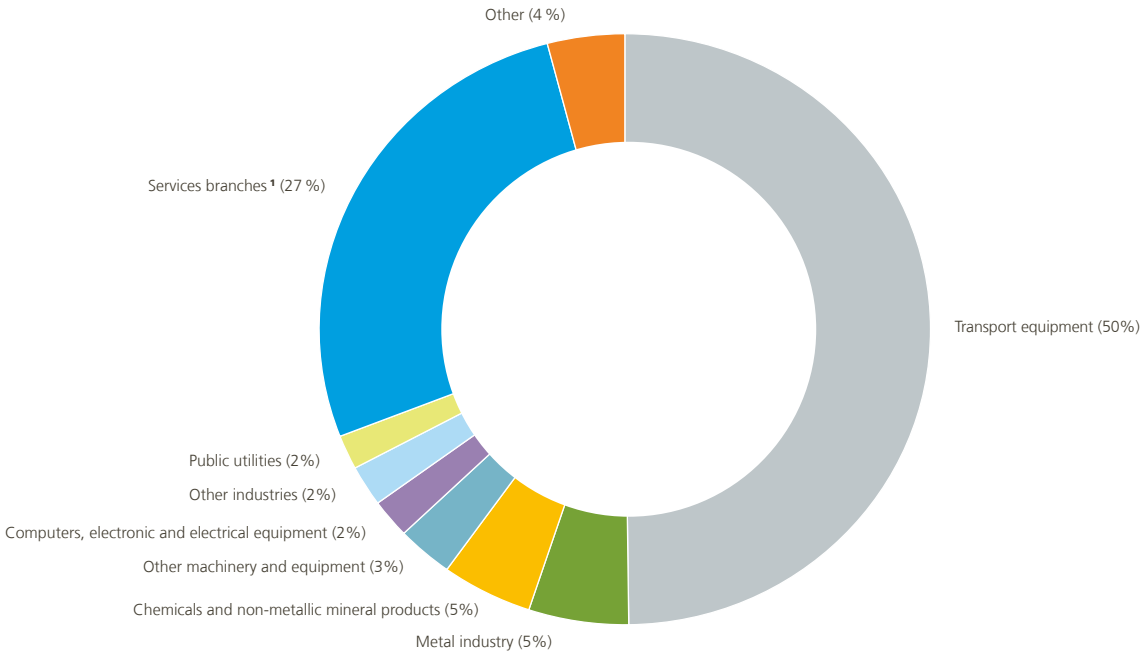
Nevertheless, the decline in industrial activity may also be due in part to a number of fundamental technological and regulatory changes in the motor vehicle industry. In the euro area, stricter emission tests for motorised vehicles were introduced in September 2018. The aforementioned decline in demand for such vehicles in China – following the reduction in tax incentives – also caused a drop in sales of cars. In addition, various specific factors affecting this branch, such as the introduction of low emission zones in many European cities, created much uncertainty, prompting consumers to adopt a wait-and-see approach. This mainly affected the German car industry, widely specialised in heavy-duty diesel vehicles, which are currently the most in doubt.

The close integration of the motor vehicle industry in global value chains contributed to the spread of the malaise, both at geographical level – in euro area countries and elsewhere – and at branch of activity level – to other industries and certain branches of the services sector. The "transport equipment" branch is not the only one involved in value creation within

Chart 10

Various branches of activity contribute to the value added created in the euro area by motor vehicle production

(2015, in %)



Source: OECD.

1 This includes trade, transport, information and communication, and financial services branches.

the motor vehicle industry. In 2015, this branch of activity accounted for half the value added generated in the euro area which forms part of final global demand for motor vehicles. Yet, the other industrial branches also accounted for around 17 %, while several services branches, including trade, transport and financial services, represented more than a quarter of the total.

All this resulted in a further slowdown in euro area exports, though the deceleration was less pronounced than in 2018. That relative resilience is due partly to the fact that, in the first quarter, exports received a temporary boost from stockpiling in the United Kingdom in the run-up to the original Brexit date. In the first three quarters of 2019, average growth of exports of goods and services was particularly weak in Germany, whereas that country accounts for by far the biggest share of the euro area's total exports. On the other hand, euro area imports, which had slowed considerably in 2018, resumed an upward trend in 2019. However, this volatility is due partly to very large fluctuations in Irish imports, connected with the activities of multinationals in that country. Overall, the slowdown in exports coupled with the renewed strengthening of import growth resulted in a very negative contribution of net exports to GDP growth.

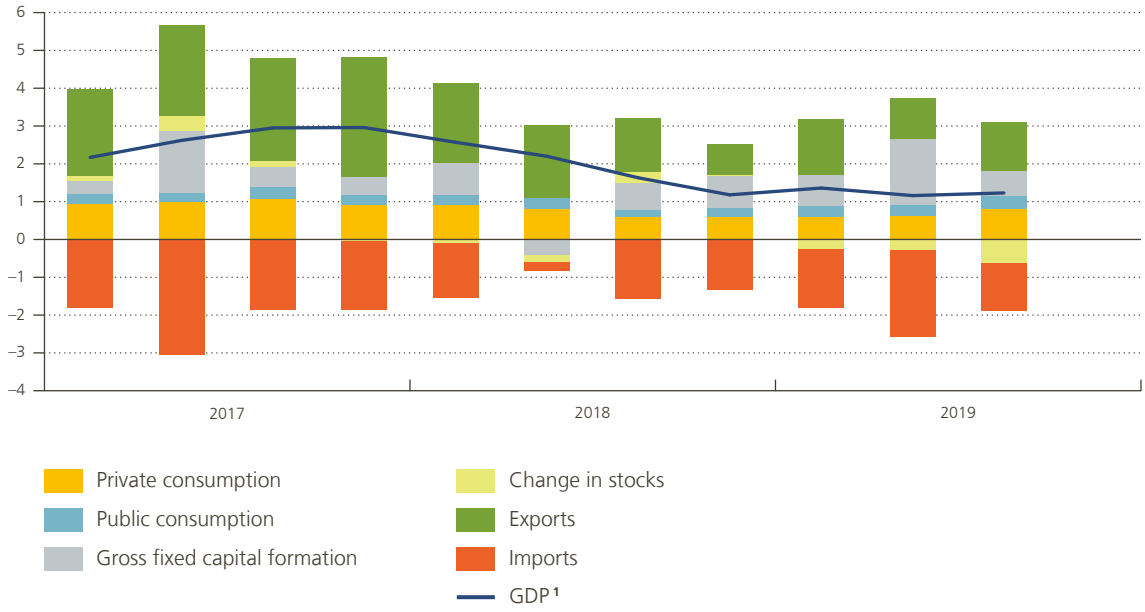
As for domestic demand, private consumption – which had been less dynamic in 2018 – continued to grow at more or less the same pace in 2019. This rise was due to the increase in household disposable income linked to the continuing expansion of employment and pay rises, and to consumer confidence, which has stood up well since the beginning of 2019. On the other hand, the household savings ratio has gradually risen over the past two years.

Investment bounced back during the first three quarters of 2019. Its contribution to annual GDP growth was considerably higher than in the previous year. However, that expansion is to a great degree due to substantial fluctuations in gross fixed

Chart 11

Net exports depressed GDP growth, but domestic demand continued to strengthen

(contributions in percentage points to the annual change in the volume of GDP, unless otherwise stated)



Source: Eurostat.

1 Percentage changes compared to the corresponding quarter of the previous year.

capital formation in Ireland, which are connected with the activities of multinationals and also distort the import statistics, as already stated. Investment in construction, in both housing and other types of building, including infrastructure, continued to grow, partly thanks to the low financing costs and weather conditions favourable to the construction sector in the first quarter, especially in Germany. Investment in machinery and equipment, though, recorded a smaller rise than in 2018.

Despite some shifts in its composition, GDP growth year-on-year remained fairly stable on the whole during the first three quarters of 2019, at the low level recorded at the end of 2018.

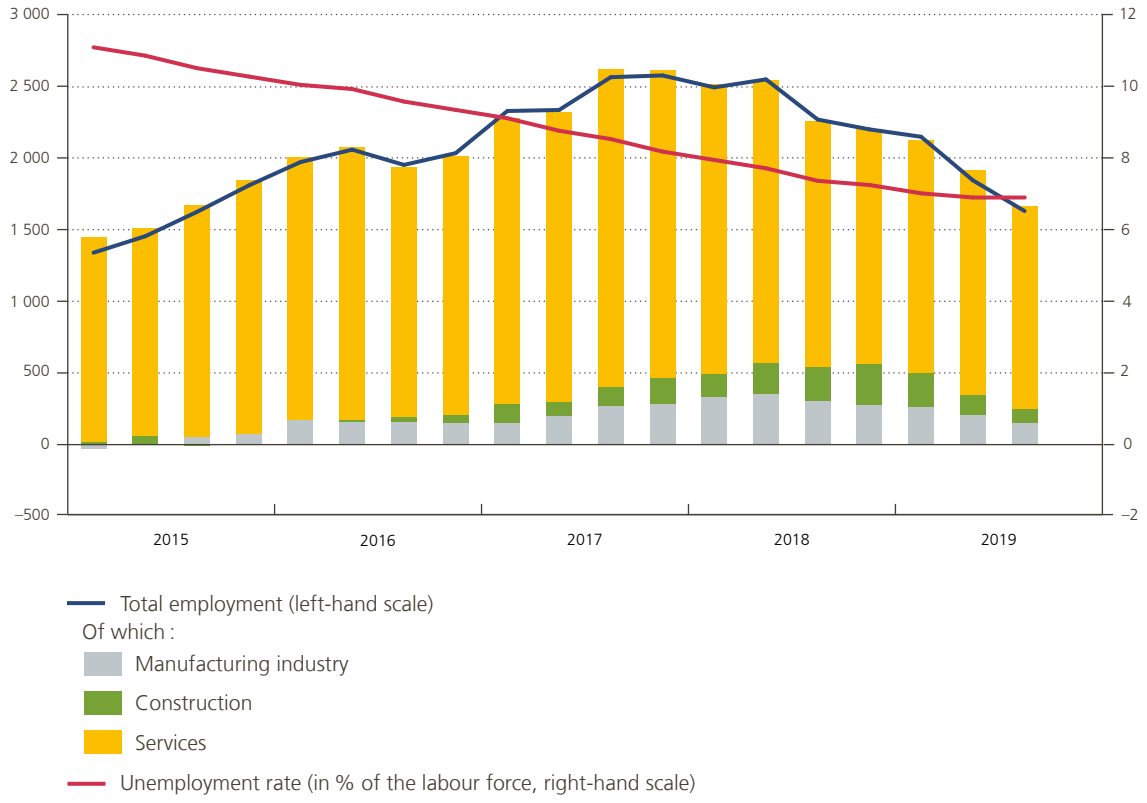
Yet the labour market remained dynamic

Despite the sluggish economic activity, the labour market continued to do well. At the end of the third quarter of 2019, more than 160 million people were in work in the euro area. Employment expanded by 1.1 % in 2019, though that growth was weaker than in the previous year. Construction and the manufacturing industry, in particular, saw a slower rise in the number of workers. In the services branches, which are by far the biggest source of jobs in the euro area, the slackening pace of employment growth was less pronounced, with professional services – which are closely linked to industrial activity – recording the biggest slowdown.

Chart 12

Employment is expanding more slowly, but unemployment is still declining

(changes in thousands of persons compared to the corresponding period of the previous year, unless otherwise stated)



Source : Eurostat.

At the same time, the decline in unemployment which had begun in mid-2013 continued. In November 2019, job-seekers accounted for 7.5 % of the labour force, very close to the lowest figure of 7.3 % seen just before the crisis. The improvement was fairly widespread in the euro area countries. Unemployment also continued to fall in the countries hardest hit by the crisis, in some cases being partly due to reduction in the size of the labour force. In Italy, the unemployment rate declined again, dropping below 10 % in the course of 2019, while it continued to hover around 15 % in Spain and Greece. In these two countries, youth unemployment is still very high. The contrast with some other euro area countries remains stark: in Germany and the Netherlands, for example, the unemployment rate fluctuates around a mere 3 %.

While labour market shortages are still significant, they have not worsened. In Germany, the Netherlands, Belgium and Austria, in particular, the proportion of unfilled vacancies has remained considerable, exceeding 3 %. That applied mainly in the construction and services sectors. In the manufacturing industry, shortages were smaller and, in 2019, the number of firms considering the availability of labour to be a constraining factor declined.

Labour market shortages are still significant but are no longer increasing

Various factors explain why the labour market situation is still relatively positive despite the weakening economic growth. For instance, the labour market generally takes time to respond to a deterioration in the economic situation, as firms are cautious about cutting their workforce in view of the costs involved in redundancies and staff recruitment, while it is uncertain how long the economic slowdown will last. Similarly, the difficulty of finding people with the required skills in some branches is possibly part of the reason why firms retain their staff, since there is no guarantee that they will be able to re-employ the workers they need once activity picks up.

Wages are still rising while inflation remains low

Labour costs are, in principle, a key determinant of prices. According to the Phillips curve model, there is a negative correlation between unemployment and inflation which is attributable to wages. For example, if unemployment is particularly low, workers can negotiate higher wages and that (ultimately) may drive up the prices of the goods and services that they produce.

As a result of the persistent tightening of the labour market, positive wage growth continued in the euro area in 2019, although the pace stabilised during the year. Labour costs per person continued to rise by more than 2 % on an annual basis. Unit labour costs increased at a similar rate, as productivity per worker stagnated. Among the large economies, it was mainly Germany where unit labour costs continued rising; they increased by an average of around 3.5 % compared to the previous year.

In 2019, as at the end of 2018, the increase in unit labour costs was also reflected in higher prices of domestic value added which includes net indirect taxes and margins as well as wages. That transmission became a little more marked since, in the euro area, it was no longer curbed by firms wishing to limit their profit margins.

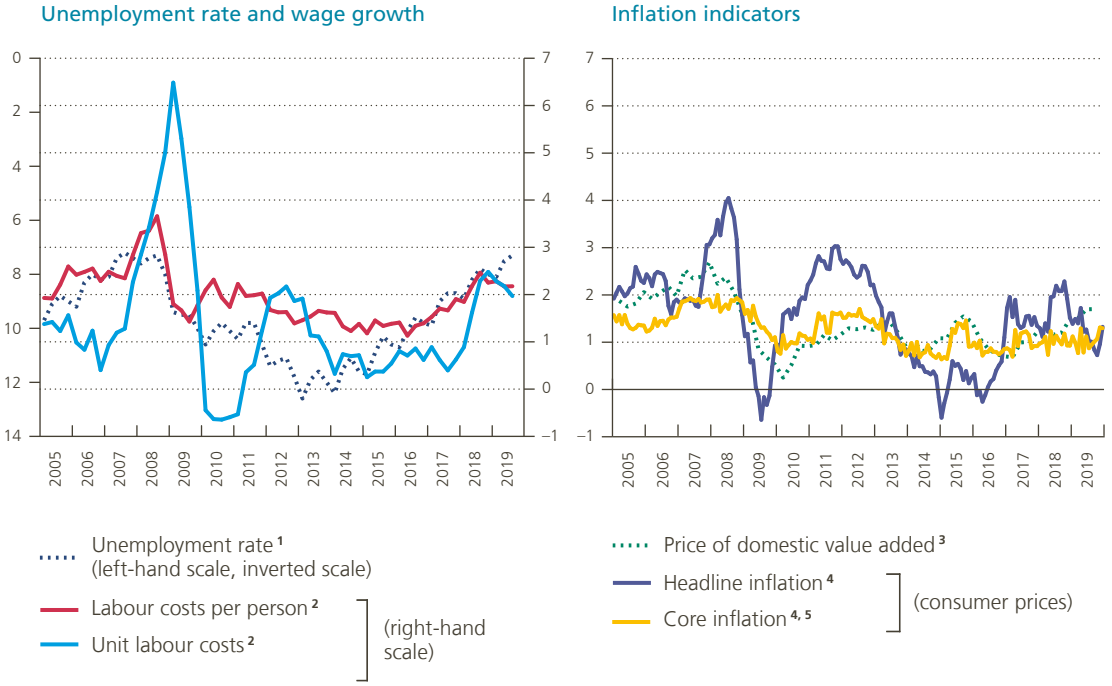
Since 2017, however, the rise in the price of domestic value added has not been mirrored in consumer prices, which traditionally form the basis of the indicators of total and core inflation. Two factors may account for that.

First, many of the goods and services consumed by euro area households are imported. Also, a fall in the prices of these imports may offset the rise in the prices of domestic production in the consumer price indices. Such an effect is, in principle, particularly relevant for headline inflation, which is typically influenced heavily by changes in the price of energy, that being a component imported mainly from the rest of the world. The decline in energy prices in 2019 is in fact the main reason why headline inflation dropped below 1 % during the year, whereas it had averaged 1.8 % in 2018. Also, the baskets used to calculate the consumer price indices do not include part of domestic value added. That applies, for example to investment, including investment in the construction sector, where prices have maintained a strong upward trend since 2017 and continued to drive up the prices of domestic value added in 2019.

In this context, there was again barely any increase in core inflation in 2019 in the euro area. Viewed over a longer period, it has already stagnated at around 1 % since the end of 2013.

Chart 13

Higher labour costs are not always reflected in a permanent rise in consumer prices



Sources: ECB, Eurostat.

1 Percentages of the labour force.

2 Percentage changes compared to the corresponding quarter of the previous year.

3 Change in the GDP deflator (in other words, the ratio between GDP at current prices and GDP at constant prices), percentage changes compared to the corresponding quarter of the previous year.

4 Percentage changes compared to the corresponding month of the previous year.

5 Headline inflation, excluding energy and food.

Fiscal policy was eased slightly

The budget deficit of the euro area as a whole edged upwards slightly in 2019, from 0.5 % of GDP in 2018 to 0.8 % of GDP. That increase reflects divergent budgetary developments between euro area countries. For instance, the budget surplus expanded in Greece, while the deficit contracted in Spain and Portugal. Conversely, Germany recorded a smaller surplus while Belgium and France saw their deficits increase. In France, the budget deficit came to 3.1 %, but that is partly due to non-recurring factors.

Interest charges declined further in the euro area countries. On the other hand, in some countries, notably Germany, Belgium and Italy, the budgetary outcome suffered from the impact of less favourable economic conditions. In the euro area as a whole, the fiscal stance was slightly expansionary: the structural primary budget surplus was down by about 0.3 percentage point of GDP.

The gross public debt ratio in the euro area as a whole peaked at 95.1 % of GDP in 2014. The subsequent downward trend persisted in 2019, to 86.4 % of GDP, representing a further decline of 1.5 percentage points in the space of a year. The debt ratio was down in most euro area countries, although it increased by 1.4 percentage points in Italy, bringing the debt to 136.2 % of GDP. As in 2018, Italy was the only euro area country where the snowball effect – i.e. the impact on the general government debt ratio of the difference between nominal GDP growth and the implicit interest rate on the public debt – pushed up the debt burden; the implicit interest rate there was higher than the (modest) nominal economic growth. Greece once again recorded the highest public debt

ratio in 2019, at 175.2 % of GDP, although that was substantially lower than the previous year's figure.

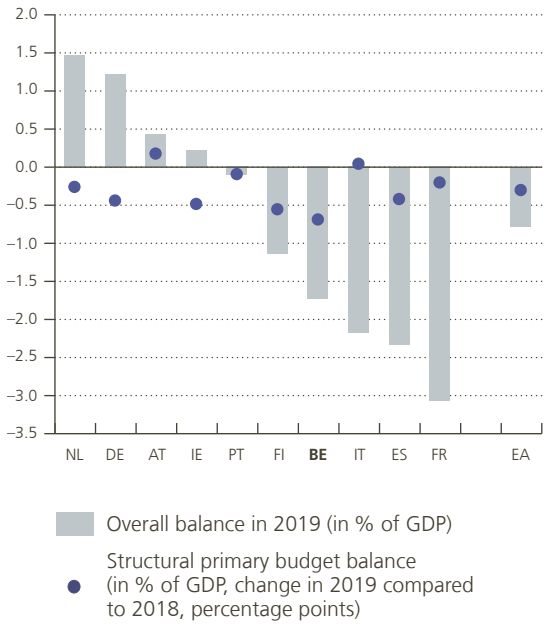
At the end of 2019, no EU Member State was subject to an excessive deficit procedure under the corrective arm of the Stability and Growth Pact (SGP), as the Ecofin Council decided in June to close the procedure which it had launched in respect of Spain. That situation is in sharp contrast to what was seen during the crisis years, when most of the countries in the euro area at that time were involved in such a procedure. Consequently, the surveillance of the public finances of all Member States now takes place under the preventive arm of the SGP. On that basis, the Member States' public finances are assessed according to the medium-term objective (MTO), a reference value for the structural budget balance specific to each country, which is consistent with sound and sustainable public finances.

Some of the countries pursuing an expansionary fiscal policy had scope to do so while others did not

In a limited number of Member States, notably Germany, the Netherlands and Luxembourg, the structural balance exceeded the MTO. Those countries therefore have budgetary scope which could be used to adopt an expansionary fiscal stance. Germany used this scope to fund the implementation of coalition agreement measures, such as bigger tax allowances or higher child benefits and retirement pensions. As a result, its structural primary budget surplus declined by 0.4 percentage point of GDP in 2019. However, in a number of euro area countries, the structural budget balance remained below the MTO, so that an effort is still needed to attain that target. Those countries therefore have no real fiscal space but some of them, such as Belgium, Spain and France, nonetheless pursued an expansionary fiscal policy. Italy's fiscal stance was fairly neutral.

Chart 14

Most euro area countries pursued a slightly expansionary fiscal policy



Sources: EC, NBB.

The euro area's current account ended 2019 with a surplus of almost 3 % of GDP, slightly lower than the outcome in previous years. A current account surplus of this size shows that the euro area saved more than it invested, driving down the "equilibrium" or "natural" interest rate of the euro (see box 1). The sheer size of the current account surplus of the euro area as a whole reflects the systematically large surpluses recorded by some countries, particularly Germany and the Netherlands, combined with smaller deficits in countries where the deficit had often been substantial before the crisis. Among the latter countries, some – like Spain and Italy – have already recorded a surplus for several years. Since last year, Belgium's surplus has turned into a deficit.

After having risen continuously from 2010 to 2017, the euro area's current account surplus dipped slightly below the previous year's level in 2019. Leaving aside the volatility of the Irish current account, this fall masks some rebalancing between the current accounts of the euro area countries, as the German and Dutch current account surpluses declined, while Spain and Italy recorded an increase in their surpluses, and the deficit was reduced in Greece. It remains to be seen whether this heralds the start of a more symmetrical rebalancing process in the euro area that also involves the Member States which have systematically recorded large current account surpluses. In any case, the reduction in the current account surplus in Germany is in line with the accelerating wage growth of recent years and more extensive use of the budgetary scope in 2019. The Netherlands likewise pursued a slightly expansionary fiscal policy last year.

BOX 1

Extremely low interest rates: a global, structural phenomenon

The persistence of extremely low or even negative interest rates is cause for concern. It gives rise to anxieties (will we soon have to pay the banks to look after our savings?) and explanations some of which are well-founded, others less so. To obtain a clearer idea, this box sets out the concepts involved and summarises the state of the debate on the causes of the phenomenon in the world and in the euro area.

What is an interest rate?

The interest rate represents the "price of time". It measures the remuneration for the patience shown by any economic agent who, by choosing not to spend, delays the immediate gratification derived from consumption or renounces the future gains expected from a productive investment. A high price of time therefore encourages everyone to postpone expenditure. Conversely, a fall in the interest rate encourages earlier spending.

If there is a price, there must be a market where supply and demand equalise at an equilibrium price. On this "loanable funds" market, savings (the supply of funds) finance the borrowings (demand for funds) of economic agents wishing to spend more than their income (a household purchasing a car or investing in housing, a firm building a factory, the State building a motorway, etc.). Loans are raised either directly, e.g. on the bond market, or indirectly via the banking system. At any time, the interest rate corresponds to the level at which the supply of loanable funds is equal to the demand, taking all agents together. For example, a sudden rise in savings (supply of funds) driven by fears of recession will drive down the interest rate, thus encouraging borrowing (demand for funds), so that equilibrium is restored.

The role of inflation

The elementary mechanism described above disregards a key consideration in the choice between spending today or tomorrow: the loss of the currency's purchasing power due to inflation. As a "tax" on time, inflation encourages earlier spending in order to avoid that loss. The interest rate mentioned above therefore has to take account of that tax. This "economically relevant" rate which informs decisions on saving and borrowing is called the real interest rate.

This real interest rate differs from the rates advertised by the banks or published in the press, because the latter take no account of the "inflation tax". In this case, we refer to nominal interest rates. The real interest rate is obtained simply by subtracting from the nominal interest rate the inflation effects likely to be incurred by postponing expenditure for a given period.

This is precisely where central banks play a fundamental role in the economy, by announcing an inflation target and promising to take the necessary steps to achieve it. With this "price stability" target, they therefore inform economic agents of the probable level of the "inflation tax". It is easy to see that widely fluctuating inflation would be just as detrimental to the agents' decisions on spending as if VAT rates or

income tax rates were suddenly to become unpredictable. Like any tax, inflation needs to be moderate, stable and predictable in order not to disrupt the functioning of the economy.

In the euro area, price stability was defined as an annual inflation rate "below, but close to, 2 % in the medium term". A slightly positive inflation rate is generally considered desirable, notably to avert the risk of triggering a runaway deflationary spiral[1]. Defining the target in the medium term also obviates the need for the central bank to constantly adjust its monetary policy in response to temporary events, such as energy price shocks.

Monetary policy and the inflation target

To ensure that inflation is moderate and predictable, the central bank tries to stabilise economic activity at levels close to the potential level of full employment. Contrary to what one might think, that is not the maximum possible level of production but the level beyond which wages and prices would rise faster than the central bank's target figure. Conversely, production below the potential level would create unemployment and exert undesirable downward pressure on prices and wages.

Since the real interest rate is the relevant lever for influencing spending, economic activity and employment, it is crucial for the central bank to know the level of the real rate at which supply and demand for loanable funds are in balance, while maintaining activity and employment close to their potential level. This "equilibrium" or "natural" real interest rate (also known by the English abbreviation r^* – pronounced as r-star) is the compass by which monetary policy is steered. Although r^* cannot be observed, its properties are known and it can be estimated on the basis of existing data.

The art of monetary policy consists in stabilising inflation around its target via the real interest rate and the latter's influence on spending and economic activity. Thus, if inflation is constantly expected to fall short of its target, that is often the sign of an economy operating at below its potential. The central bank then tries to stimulate activity by cutting the real interest rate below its "equilibrium" level. Conversely, when inflation is constantly expected to exceed its target, the central bank restrains activity by raising the real interest rate above its "equilibrium" level. Although controlling inflation and stabilising economic activity often go hand in hand, this "divine coincidence"[2] is not guaranteed. For instance, a lasting increase in production costs which is not due to a cyclical upturn in the economy – e.g. an increase caused by an upward trend in energy prices – reduces the full employment potential, forcing the central bank to raise the real interest rate in order to curb inflation at the expense of a fall in activity.

It should be noted that central banks can only exert direct influence on nominal interest rates. However, real interest rates follow suit once economic agents' inflation expectations become sufficiently stable ("firmly anchored" in the central bankers' jargon).

1 Deflation – a steady decline in prices – tends to be self-perpetuating because the expectation of future price reductions prompts agents to postpone their expenditure, further depressing demand and driving prices down. For more details, see the definition of price stability as viewed in the euro area, https://www.ecb.europa.eu/explainers/tell-me-more/html/stableprices.fr.html.

2 This term is generally attributed to Olivier Blanchard and Jordi Gali (see Blanchard O. and J. Galí (2007), "Real Wage Rigidities and The New Keynesian Model", *Journal of Money, Credit, and Banking*, supplement to v. 39, 35–66), who use it specifically to describe the situation in which the central bank can stabilise economic activity and inflation simultaneously.

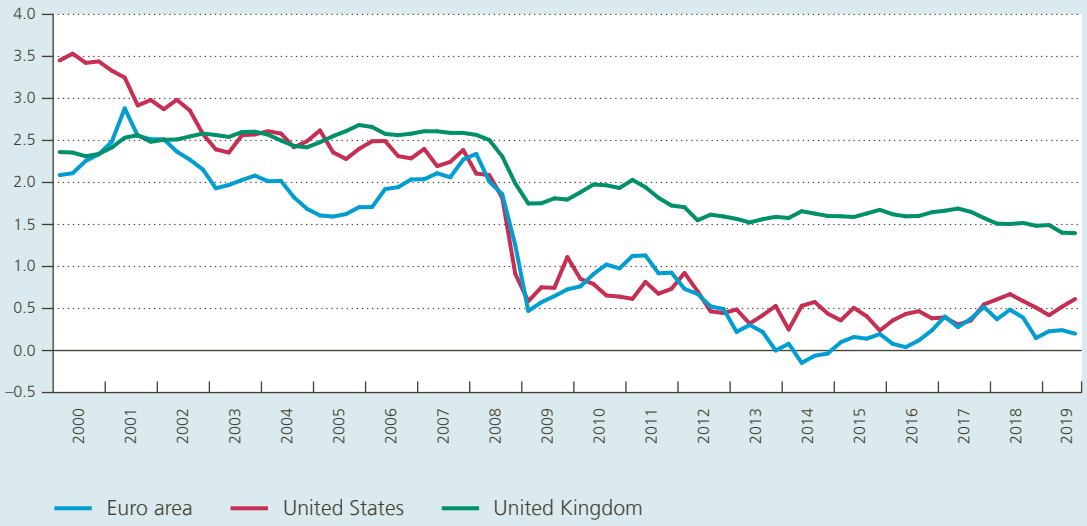
Determinants of the equilibrium interest rate

While central banks may claim to have some influence on nominal and real interest rates, the same is not true of the equilibrium interest rate, which reflects aspects of the economic situation over which monetary policy has no control. For economies open to capital inflows and outflows, such as the euro area, the equilibrium interest rate depends largely on the global interplay of supply and demand for loanable funds. As shown in the chart below, the estimates of *r** available for the euro area, the United States and the United Kingdom have tended to fall since the early 2000s, and the 2008-2009 crisis only accelerated that decline.

There are many reasons for this decline, and they include factors which simultaneously boost savings while curbing investment. The principal factors include population ageing in the West and in East Asia (China, South Korea, Japan) and, in some countries, the marked worsening of income inequality. Individuals tend to save more as they approach retirement age, while the wealthiest households exhibit

Equilibrium interest rate (*r): United States, United Kingdom and euro area**

(in %)



Source: calculated according to Holston K. *et al.* (2017), "Measuring the Natural Rate of Interest: International Trends and Determinants", *Journal of International Economics,* 108, supplement 1 (May): S39–S75.

a higher propensity to save their surplus income. Firms adjust their investment plans in line with the prospect of less dynamic markets, smaller productivity gains – another structural trend in many advanced economies, liable to depress the equilibrium interest rate – and generally lower growth. For many large firms, low investment combined with the persistence of comfortable profit margins and stable dividends has automatically boosted savings, prompting them either to support their own share prices by large-scale repurchases or to stimulate demand for low-risk or risk-free assets even further.

Higher risk perception has probably also stimulated precautionary saving and discouraged some investment plans, further weakening the already modest growth prospects. In particular, the crises in 1997-1998 and 2008-2009 were a sad reminder of the exorbitant cost of financial crises, encouraging many countries to save more, either to rectify unsustainable external deficits or to accumulate substantial reserves to cope with the effects of a future external crisis. In demographic terms, the longevity risk – the risk of living longer than expected during active life – remains a threat to the financial viability of retirement systems which are already under stress. More recently, heightened geopolitical risks, the growing uncertainty about economic policies themselves (e.g. the emergence of trade disputes), and ever more evident climate risks have done nothing to reverse that trend.

In the euro area, the excess loanable funds in relation to borrowing needs is particularly pronounced, a reality expressed in the region's current external surplus (as opposed to the US external deficit) and which accentuates the downward pressure on the equilibrium interest rate of the euro. Although part of the euro area's savings serve to meet the needs of economic agents outside the region (the financial corollary to the current external surplus), the underlying reasons behind the rise in saving were reflected in growing demand for risk-free assets, such as the government bonds of certain euro area countries. In the face of this stronger demand, the supply of this type of asset was limited by the rapid improvement in the public finances of major issuers such as Germany and by persistent doubts concerning the soundness of other major issuers such as Italy. That contributed to a marked fall in nominal bond yields, which are now negative or zero up to long maturities in several countries.

Monetary policy when the equilibrium interest rate is close to zero

The decline in the equilibrium interest rate to a level close to zero is a constraint on monetary policy since it considerably reduces the scope available to the central bank for stimulating activity. Largely negative real interest rates are then necessary, and in principle, in a context of very low inflation, that requires negative nominal interest rates. However, the zero nominal interest rate on banknotes limits that possibility, and it is only the costs and risks associated with holding large quantities of banknotes that create some scope for cutting nominal interest rates below zero and keeping them there.

As with any remedy applied in heavy doses over long periods, there is always the possibility of unwelcome side effects:

1. In the long run, such an incentive to incur debts could lead to financial excesses. It could permanently impair the balance sheet quality of firms, individuals, and even governments, thus making it particularly difficult to restore interest rates to normal.

2. The search for higher yields compresses risk premiums, thus weakening the market signals informing investors of borrowers' solvency. This "sight navigation" may lead to ill-considered risk-taking.

3. The reduction in the margins made by financial intermediaries on their lending activities affects their profitability and could ultimately threaten the quality of their balance sheet.

4. The remedy itself could become ineffective, as negative nominal interest rates could destabilise the loanable funds market instead of helping to rebalance it. If precautionary motives dominate decisions

on saving, the desire to maintain a safety buffer could actually cause the agents to step up their saving still further (rather than reducing it) in the event of a fall in interest rates.

5. Negative nominal interest rates could create a feeling of unfair redistribution, in which virtuous savers pay a tax that benefits reckless debtors.

In conclusion, the emergence of very low or even negative nominal interest rates reflects general structural developments (demographics, flagging growth, higher risks, growing income inequality) which monetary policy cannot influence but which, in a low inflation context, oblige policy-makers to cut nominal interest rates to unprecedentedly low levels. The sole intention here is to bring inflation back towards its target. However, it shows the limits of the conventional approach to monetary policy and highlights both the usefulness of non-standard monetary measures, which offer some influence over longer maturities in the yield curve, and the importance of getting other economic policy instruments to contribute more towards maintaining activity at close to its potential level and increasing the economy's potential.

2. The Eurosystem's monetary policy

2.1 In view of the deteriorating outlook for price stability, the ECB Governing Council took fresh measures in 2019

Inflation's convergence to its target slowed down significantly

Once again, inflation in the euro area hardly rose in 2019, and the Eurosystem's medium-term inflation outlook was cut in successive quarterly projection exercises – to 1 % for 2020 and to 1.4 % for 2021. Meanwhile, initial forecasts for 2022 – as evident in the December 2019 exercise – suggest an inflation level of 1.6 %. The private sector, too, has revised its inflation projections slightly downwards.

Hence the gap with end-of-2018 expectations – that is to say, a steady convergence of inflation to the ECB's objective of a year-on-year inflation rate of below but close to 2 % – has gradually widened.

How to interpret this persistently low inflation ?

The usual school of thought is that trends in prices are strongly influenced by the robustness of economic activity. An upward trend in the economic cycle, with its greater use of production factors, is supposed to cause an increase in inflationary pressures, whereas slowing activity makes for weakening price dynamics and, in the event of a serious recession, even deflation. From this perspective, the downward revisions in 2019 inflation projections for the euro area would seem to point to an increased risk of the economic growth slowdown, which started in the previous year, not just persisting but getting worse.

With projections indicating that inflation is undershooting its medium-term objective, economic activity is arguably set to trail behind the economy's output potential for a prolonged period. A less-than-optimum state of play, this suggests losses in economic prosperity, employment and incomes. After all, demand is not keeping up with economic supply. However, this conclusion can only really be drawn if inflation in a cyclically neutral period – i.e. at a time when real output is close to its potential level – effectively converges toward the central bank's target.

Alternatively, the lack of convergence towards the ECB's inflation target demonstrated by the projections might mean that economic actors have cut the figure at which they reckon inflation should stabilise when the economy reaches its potential. More specifically, this implies that these actors are pegging euro area inflation at a point clearly below 2 %.

The central bank's inflation target typically serves as a key factor for economic actor expectations. That said, past inflation levels also come into play in this – partly adaptive – process, and this retroactive or backward-looking component may become more important after multiple years of low inflation. After all, this situation might lead such actors to the conclusion that the central bank has grown more tolerant of persistent inflation spreads, and that they may even start to doubt its ability to get inflation to target.

Trends in long-term inflation expectations would appear to corroborate this hypothesis, as the downward trend in financial market prices to protect against five-year inflation has accelerated. Likewise, five-year inflation expectations emerging from surveys of private sector forecasters started to come down from the second half of 2019, whereas these had previously largely moved in line with the ECB's definition of price stability.

Why is below-target inflation an issue?

Lower inflation and lower inflation expectations initially dampen monetary policy's accommodating effects and so also erode the policy's ability to stabilise the economy in a downturn. Although central banks can immediately intervene in nominal rates, economic agents' consumption and capital spending decisions are influenced by changes in real interest rates, i.e. nominal rates less inflation expectations for the relevant investment horizons. When inflation expectations go down, the impact of any (nominal) monetary boost to support price dynamics is lessened, as real rates contract less strongly than calculations assumed when the decision was first taken.

Other channels also come into play. With debt contracts typically concluded in nominal terms, any inflation that dips below what is expected at the time of the agreement means higher real debt repayment costs. The ensuing arbitrary redistribution of wealth from borrowers to lenders might prolong excessive debt and curb demand.

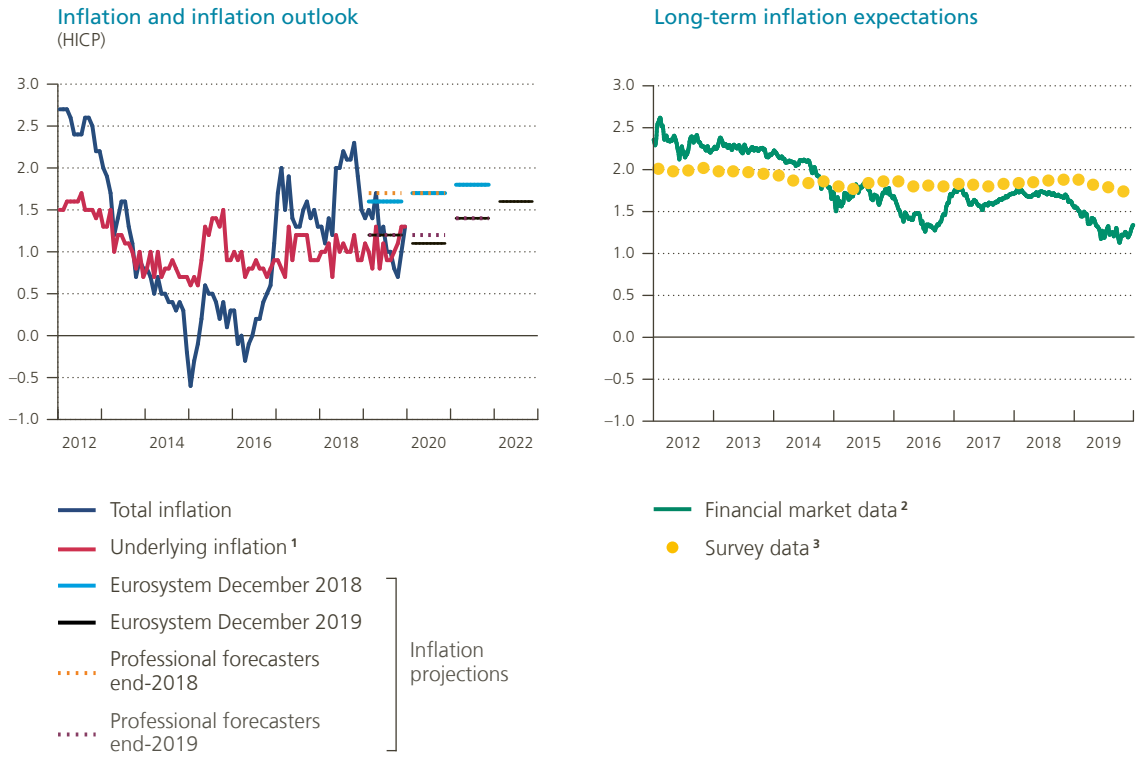
By way of both these mechanisms, low inflation turns into a cause and no longer merely an effect of economic malaise. And if the economy settles into a situation of persistently lower inflation, two additional complications emerge.

For a start, as they reflect the sum of real rates and (lower) inflation expectations for the relevant horizons,

Chart 15

Inflation's gradual convergence with its target slowed and long-term inflation expectations fell

(in %)



Sources: Bloomberg, ECB.

1 Total inflation excluding energy and food.

2 Five-year-on-five-year inflation expectations, based on prices recorded by swap contracts, which hedge euro area inflation risk over a period of five years, starting five years after the contract is concluded.

3 Five-year inflation expectations based on the ECB's quarterly survey of professional forecasters (average of the aggregated probability distribution for this projection horizon).

nominal yields will languish at permanently lower levels. Low nominal rates, however, come at an increased risk to financial stability. Pension funds and life insurance companies expected to meet their liabilities in nominal terms might, for instance, be tempted to take on excessive risks in order to achieve their promised yields. What's more, as central banks will run into the lower bound of their traditional monetary instruments more quickly during times of recession – i.e. it is tricky to make policy rates strongly negative – they will have to adopt non-standard measures more often, which in turn may have undesirable side-effects.

A second complication is that it becomes harder to reduce real wages – a useful adjustment measure when an economy slides into a recession or when its competitiveness relative to other economies needs shoring up. In a low inflation environment, nominal wages would have to be reduced frequently, an approach both employers and employees continue to be cautious about.

With the disappearance of the buffer that inflation close to 2 % in the medium term ensures in both cases, the economic system becomes less equipped to deal with shocks.

ECB Governing Council defends its price stability mandate – and symmetry

In keeping with its mandate on price stability under the Treaty on the Functioning of the European Union (TFEU), the ECB Governing Council is absolutely determined to avoid inflation staying low, and has taken a set of key decisions to address the issue, as described below.

Also, this position supports the symmetrical approach to the inflation target, as the Eurosystem's strategic monetary policy framework prescribes that inflation persistently over or under its reference point must be tackled forcefully[1]. Its aim for symmetry has been a feature of the ECB President's press conference statements since July 2019.

Symmetry may not appear self-evident when inflation continues to languish below target. For one thing, policy

1 See for instance "Delivering a symmetric mandate with asymmetric tools: monetary policy in a context of low interest rates", a speech made by Mario Draghi, the then President of the ECB, at the ceremony to mark the 200th anniversary of the Oesterreichische Nationalbank, Vienna, 2 June 2016.

rates – the instrument of choice for central banks – are asymmetrical as these cannot be endlessly cut to combat low inflation, in particular because economic agents can convert their deposits into cash. Moreover, the Governing Council's quantitative definition of price stability may be perceived to be asymmetrical in specifying a target below 2 %.

The 2019 monetary policy decisions are designed to re-anchor inflation expectations close to 2 %

The decisions taken in 2019, then, did not only serve to enhance the economy's resilience in the face of the risk of a protracted economic slowdown, they also intended to demonstrate the Governing Council's ability and determination to achieve the target in the face of many years of low inflation and a certain asymmetry in the Eurosystem's toolkit. It is an essential step that must ensure that economic agents can again assume average inflation below or close to 2 % when planning their long-term projects.

2.2 The 2019 monetary policy decisions have extended monetary easing

Prior to 2019: An unparalleled series of easing decisions, followed by emerging normalisation

The sharp fall in inflation since 2009 – a consequence of the financial crisis and the great recession – and its concomitant deflation risk prompted a raft of measures by the ECB Governing Council, including non-conventional ones, to ease monetary policy in the euro area. Policy rates were cut, resulting in negative interest on the deposit facility. In January 2015, it agreed to make large-scale purchases of government and private-sector securities under its expanded asset purchase programme (APP).

Like the Governing Council's communications about the programme's future direction, these measures were repeatedly updated for inflation trends as recorded. Increasingly persuaded that inflation's gradual convergence towards its objective had got underway, the Governing Council decided to adjust its key stimulus measures as 2018 progressed, in particular by ceasing its net AAP purchases by the end of that year. The normalisation process as planned at the time was to proceed very gradually so as to continue to guarantee solid monetary support. For example, the size of the APP securities portfolio was long kept at its then historically high level by reinvesting the proceeds from securities that matured.

The Governing Council's 2019 decisions, which aim to ward off the risks of a persistent deterioration in price stability prospects, were taken in a context of already significant monetary easing, and thus slow down the originally planned normalisation. In other words, they extend monetary easing.

September 2019's decisions mobilise the entire Eurosystem toolkit

In response to the gradual deterioration of macroeconomic conditions, the Governing Council had already announced various measures in the early months of 2019. Its September decision – undoubtedly the Eurosystem's most important monetary policy response of the year – was the outcome of three factors: a stronger-than-expected slowdown in growth, persistent downside risks to economic growth – largely due to geopolitical and trade tensions – and an overall drop in long-term inflation expectations.

These decisions, some of which the Council had already announced in previous statements, brought all of the Eurosystem tools into play. These break down into four types of measures.

Firstly, the ECB reduced to –0.5 % the deposit facility interest rate, which had been at –0.4 % since March 2016. However, it kept its two other policy rates unchanged: the rate on refinancing operations at 0 % and the marginal lending facility rate at 0.25 %.

The benchmark rate cut did not come as a surprise to the financial markets: in July 2019, the ECB's communication re-introduced the observation that policy rates might fall below their current levels, whereas this signal had been dropped from its communication around two years previously. With that communication element retained since then, fresh rate cuts remain possible in the future.

Secondly, the ECB upped its language on future trends in policy rates. From mid-2018, its communication had

included a time reference (for instance, in December 2018, it clarified that interest rates would stay at their then rates "at least through the summer of 2019") and linked this to the achievement of the inflation target (it announced that interest rates would remain at historically low levels, in any case for as long as necessary to ensure the continued sustained convergence of inflation to its target). In March and June 2019, it extended the time reference, whereas from September it no longer focused on the calendar, but rather highlighted inflation developments. This connection has since been reflected around three points:

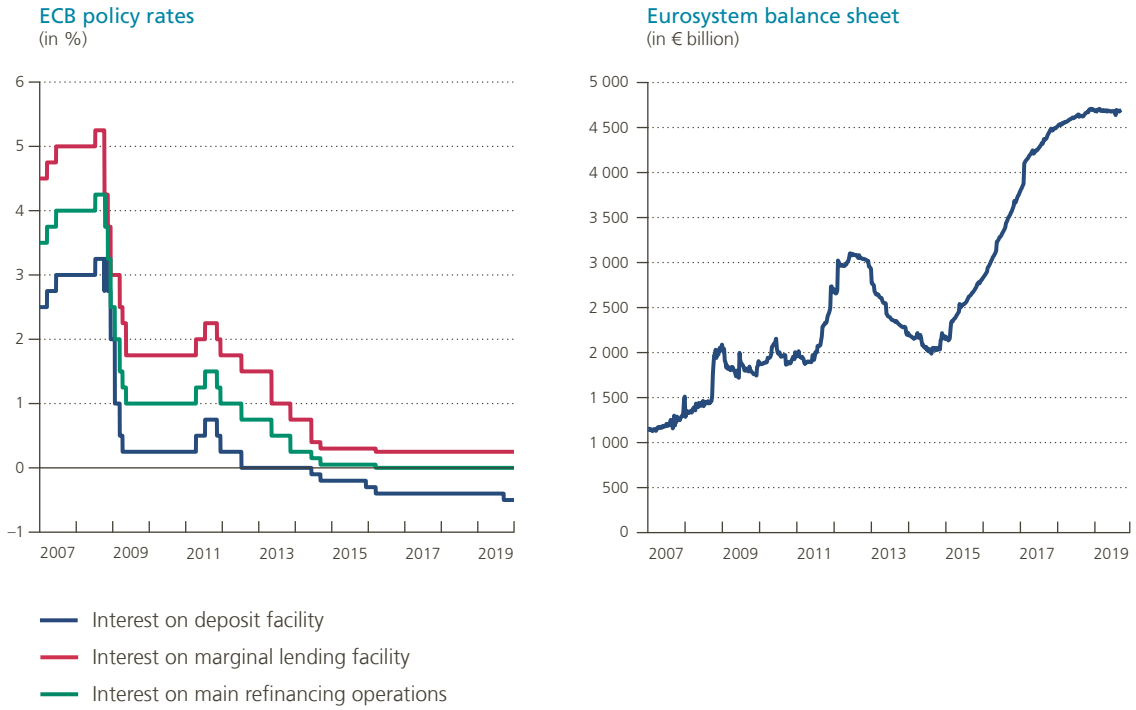
- That interest rates will remain historically low – at current or lower levels – until the Governing Council decides that the inflation outlook robustly converges to a level sufficiently close to, but below, 2 %;
- The convergence should be considered over the Eurosystem's projection horizon, i.e. two to three years;
- The convergence consistently reflects underlying inflation dynamics.

By adding a backward-looking component to what is essentially a forward-looking statement, the ECB has tightened up its story: convergence should not just be sustainable – temporary price rises will clearly be ignored – it must also be supported by an effective and consistent increase in the pressure on domestic prices. This latter precondition will absolutely need to be verified in view of the ongoing uncertainty over the nature of the factors – supply or demand – in the way of euro area growth prospects.

Third, from November 2019, the ECB decided to resume its net purchases of government and private securities under the APP to the tune of € 20 billion a month. These asset purchases will be continued at that rate for as long as is necessary to enhance the accommodating effects of policy rates. The ECB also

Chart 16

Monetary easing extended



Source: ECB.

intends to stop them prior to policy rates going back up.

The continuation of asset purchases now being firmly linked to interest rate decisions implies that these purchases will be linked to price dynamics. This is a clear chain of measures: the convergence of the inflation outlook determines the trajectory for interest rates, which in turn is decisive for the duration of the net purchases. What this boils down to is that the asset purchases will continue as long as the inflation outlook fails to improve.

The ECB reactivating the APP complements the accommodation arising from its rate decisions. Its net purchases in the financial markets of long-term government and private sector bonds effectively help it to exert a rather more direct downward influence on long-term yields and, as a result, the relevant financing costs for households and companies. What is more, these net purchases also have a clearer impact on long-term inflation expectations, as they make it crystal clear that the Governing Council will do everything needed to put all its available resources towards achieving the ECB's inflation target.

The timeframe for these measures to stay in place is explicitly linked to the inflation outlook – a strong automatic stabiliser

In addition, the resumption of net asset purchases was accompanied by confirmation that the ECB will continue its policy of reinvesting the principal of maturing securities purchased under the APP until well beyond the date on which the Governing Council starts raising policy rates. This policy will stay in place "for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation".

As the period for these measures to stay in place is now explicitly linked to the inflation outlook and a calendar indication is no longer given, the package comes with an inbuilt stabiliser and a predictable sequence of monetary policy decisions: if inflation moves towards the 2 % target more slowly, the assumption is that these measures will stay in force longer. If inflation converges more rapidly, monetary policy will be normalised sooner.

And, fourth, as this package of measures implies an extended period of low interest rates, in September 2019, two measures were added to support banking transmission.

To start with, TLTRO III implementing provisions were eased relative to their original plans. TLTRO III is the third series of targeted longer-term refinancing operations that was announced in March and launched in September. For example, the length of the seven scheduled three-monthly refinancing operations for banks in the euro area was extended from two to three years, and at even more favourable rates. TLTRO III's basic rate was set at the average rate for main Eurosystem refinancing operations during the term of a TLTRO. If the lending bank issues sufficient loans, this rate could even fall to the average rate on the deposit facility over the life of the TLTRO.

In addition, a two-tier system for remunerating reserves was put into place at the end of October 2019. Under this system, a proportion of reserves held by euro area banks with the Eurosystem is exempt from the negative deposit facility rate and remunerated at 0 %. Box 2 explains more.

BOX 2

Innovating monetary policy decisions in 2019: the two-tier system for remunerating reserves

In addition to the mandatory reserves they are required to keep with the Eurosystem, banks also deposit their excess liquidity holdings with the ECB. Interest on the deposit facility applies on these excess reserves, and this has been negative since June 2014. This situation may become an issue for some banks as the interest they pay on their retail customers' deposits – i.e. households and non-financial companies – seldom dips below 0 %. Their reluctance to introduce negative interest may have three reasons: (1) the existence of cash, which households and non-financial companies can retain as a last resort to hold their money: (2) the money illusion, which causes retail customers to consider negative nominal rates as theft, or at the least, as an abnormal situation: and (3) legal constraints.

Against the backdrop of this negative interest rate policy, the downward rigidity applicable to a proportion of their funding costs might squeeze banks' net interest margins. If interest rates stay low/negative, these same banks must, all other things being equal, effectively invest or reinvest assets at lower interest rates than they used to, while their costs remain largely unchanged[1].

If banks' profitability is hit too hard or for too long, monetary policy transmission might be hampered. To keep their margins sufficiently ample, these banks could choose to reduce the interest they charge on their loans less rigorously, for instance, or cut their lending.

With a proportion of excess reserves exempted from negative interest rates, some banks will see the negative impact of this downward rigidity of financing costs on their net interest margins tempered somewhat, benefiting their intermediation capacity and smoothing monetary policy transmission. That's why the ECB Governing Council gave the go-ahead to the two-tier system of remunerating reserves in September 2019. The system came into force on 30 October 2019.

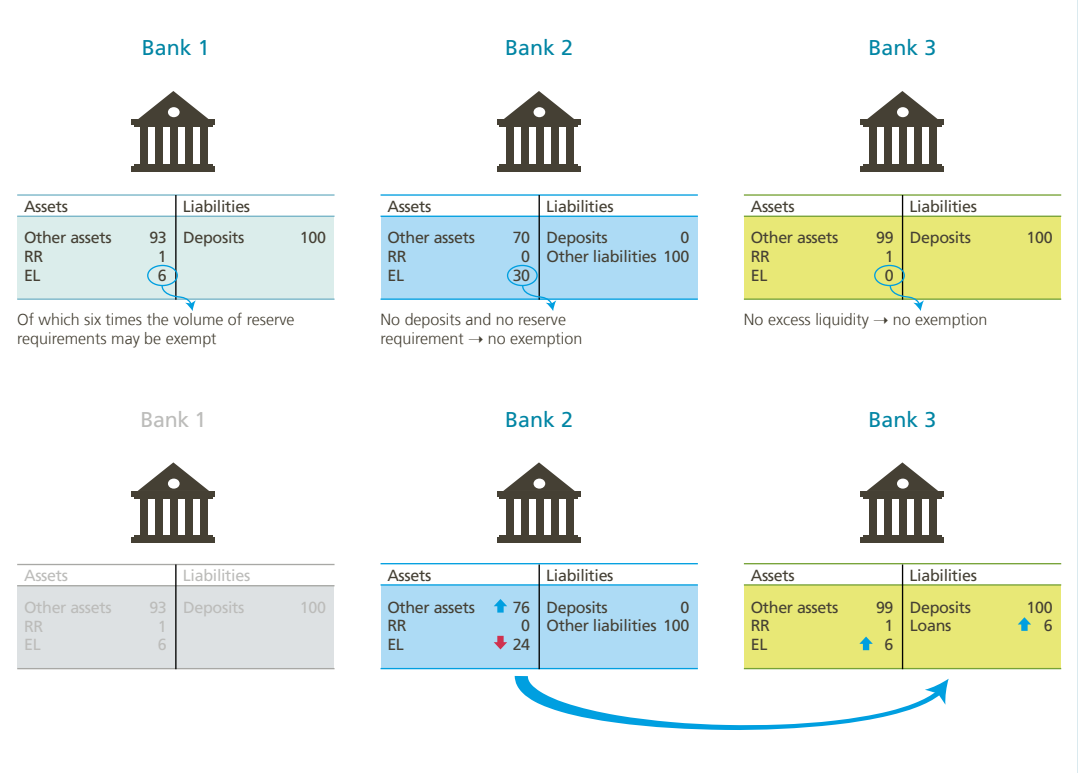
Under this system, the proportion of excess reserves that is exempt from negative interest closely ties in with retail deposit volumes, the reason being that minimum interest rates for such deposits often amount to around 0 %. The system's implementing provisions state that an amount of up to six times the relevant banks' reserve requirements could be remunerated at 0 % instead of at negative interest on the deposit facility. These reserve requirements equal 1 % of banks' short-term liabilities, with the exception of some categories (e.g. interbank loans). In practice, the reserve requirements mostly depend on retail deposits, from households in particular.

1 This is just part of the analysis. At the same time, a policy of negative interest rates, just like reductions in positive policy rates, leads to capital gains on securities portfolios. This policy also benefits banks' credit portfolios, in particular as the demand for and quality of loans increase on the back of improved macroeconomic conditions resulting from a policy of negative interest rates. It is therefore unclear what the total effect is of negative interest rate policies on banks' profitability and hence their intermediation capabilities, particularly at the start of the adjustment stage after the cut in policy rates. For more information, see de Sola Perea M. and M. Kasongo Kashama (2017), "The negative interest policy in the euro area and the supply of bank loans", NBB, *Economic Review*, December, pp. 43-61.

In concrete terms, the Eurosystem's two-tier system for remunerating reserves implies lower costs for banks that attract retail deposits and have excess reserves, such as Bank 1 in the diagram below. By contrast, a bank that does not attract its funding in the shape of deposits doesn't really stand to gain from this measure. That said, the latter would in any case be impacted less by the unfavourable effects of negative interest rates, as these are primarily associated with the lower bound on the deposit rate. A bank that does attract deposits but does not have any excess reserves, such as Bank 3 in our diagram, will also not be a direct beneficiary of the system. Unlike Bank 2, it might still be hit by negative rate policies, as the assets it finances or refinances are earning it less in the way of profits, whereas the costs of its funding through retail deposits are virtually unchanged.

However, banks with excess liquidity over the exemption upper limit and banks not having any excess liquidity (or below the upper limit, in any case) may benefit (more) from the arrangement by tapping the interbank markets. The diagram pictures Bank 2 lending to Bank 3 (see lower half of diagram).

The two-tier system for remunerating reserves may lead to transfers of excess liquidity between banks [1]



Source: NBB.

1 'RR' in the diagram stands for reserve requirements and 'EL' for excess liquidity.

In principle, any such a transaction would have to be carried out at a rate between the interest on the deposit facility – which has been at –0.5 % since September 2019 – and 0 %, i.e. the interest remuneration on exempt excess reserves. Bank 2 would earn higher interest on lending (non-exempt) excess liquidity than on the deposit facility, while Bank 3 would generate a profit margin for borrowing at interest rates below 0 % while receiving 0 % on this cash as soon as it is placed with the central bank.

However, a sharp increase in such transactions could push up interest in the money markets, for instance if they involve banks that did not used to be overly active in the interbank market. In light of reduced banking sector fragmentation – and consequent moderate interbank spreads – this risk does not yet seem to have emerged since the implementation of the system in the euro area. Still, the ECB Governing Council has said it will closely monitor money market developments and will be prepared to adjust the multiplier of the reserve requirements (currently equalling six) to prevent things from taking a turn for the worse.

2.3 Euro area financing conditions remained highly accommodative

As box 1 in chapter 1 set out, overall financing conditions – i.e. low interest rates – in the world's financial markets, including in the euro area, are primarily explained by fundamental factors supporting savings supplies and depressing investment demand. At the same time, the Eurosystem's monetary policy also impacts financing conditions in the euro area.

The euro area's reduced risk-free interest rates from a monetary policy perspective

Against this backdrop of excess liquidity, the EONIA – the reference rate on unsecured interbank overnight deposits in the euro area – stood at a couple of basis points over rates on the deposit facility, both before and after the latter were reduced. By contrast, the €uro short-term rate (€STR) – i.e. the indicator that the ECB has been reporting since October 2019 and which will replace the EONIA as reference rate for the euro in due course – stabilised at a few basis points below the floor policy interest rate. The difference is attributable to the fact that the €STR, unlike the EONIA, also comprises the rates for euro area banks' unsecured overnight loans with non-banking and foreign counterparties that have no access to the Eurosystem's deposit facility.

The ECB's 2019 decisions on policy rates triggered significant falls in short-term and long-term risk-free interest rates[1] in the euro area. Investors appear to have a solid grasp of the Eurosystem's response function: in light of deteriorating economic prospects, they have systematically and preventively lowered their expectations of current and future policy rate

1 A risk-free rate is an interest rates which excludes credit risk as far as possible and only reflects interest rate risk, i.e. the risk that the underlying asset falls in value when short-term interest rates rise.

trends, as a result of which short-term and medium-term risk-free interest rates have automatically come down.

As 2019 progressed, risk-free returns have gradually declined and levelled across the curve, including at the long-term end. Risk-free ten-year rates, for instance, plumbed historic lows, to some extent in line with trends in their counterpart yields in the United States, which saw policy rates cut three times in the second half of the year.

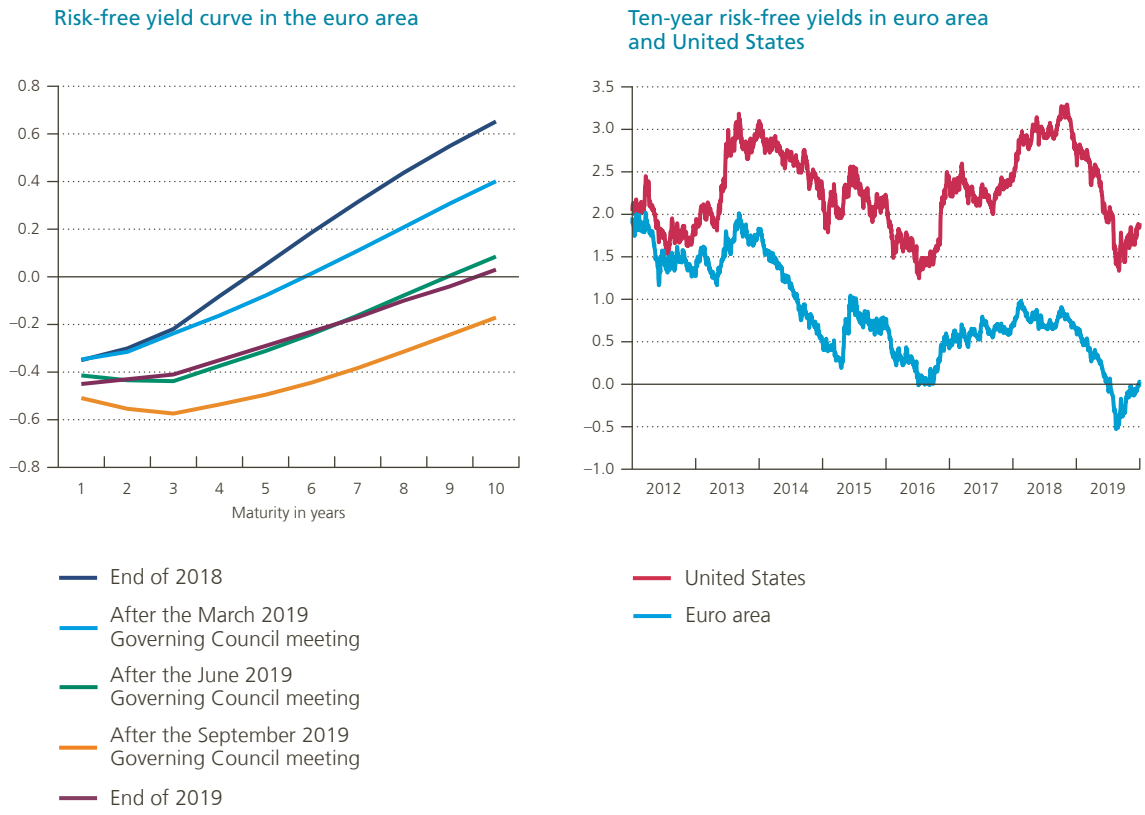
So how has the Eurosystem's monetary policy contributed to developments in 2019? A breakdown of risk-free nominal ten-year rates in the euro area into a real component and an inflation compensation factor reveals the effectiveness of the monetary stimulus. Despite a significant drop in the inflation compensation factor – caused by deteriorating macroeconomic prospects – the central bank impetus ushered in enough of a fall in nominal interest rates to reduce real interest rates.

In the final quarter of 2019, interest rates recorded an upturn, in both nominal and real terms. This coincided with a tentative improvement in the economic outlook, playing down the restrictive nature of the upward trend in interest rates.

Chart 17

Euro area risk-free interest rates were down

(in %)

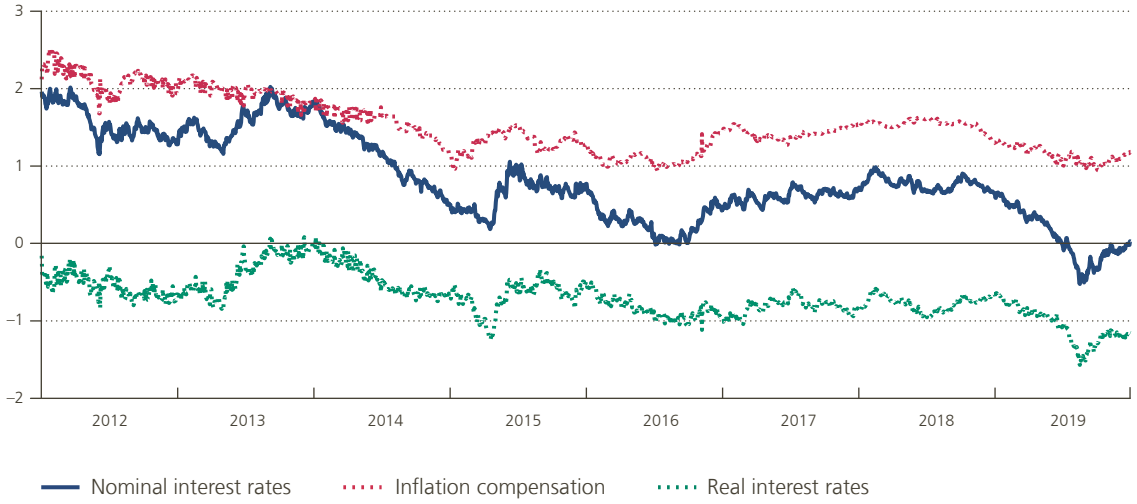


Sources: Bloomberg, Refinitiv.

Chart 18

The extension of accommodating monetary policy helped lower real interest rates despite falling inflation expectations

(breakdown of risk-free nominal ten-year rates in the euro area, in %)



Source: Refinitiv.

Monetary easing extends to financing conditions in a broader sense

The transmission of easier conditions to riskier financial markets proceeded without a hitch for both government and private sectors. In contrast to some tensions in the riskier euro area financial markets as observed towards the end of 2018, the extension of monetary policy accommodation in 2019 apparently prevented financial variables from further dragging down macroeconomic prospects.

Yields on ten-year government bonds declined, with spreads falling relative to German Bunds. Spread narrowing accelerated in a context in which the resumption of the APP without a specified end-date equalled a strengthened and extended presence of the Eurosystem as a major buyer in the markets for government debt. Italian yield spreads clearly narrowed from the summer, when the Italian government displayed some response to European Commission concerns over the country's budget direction.

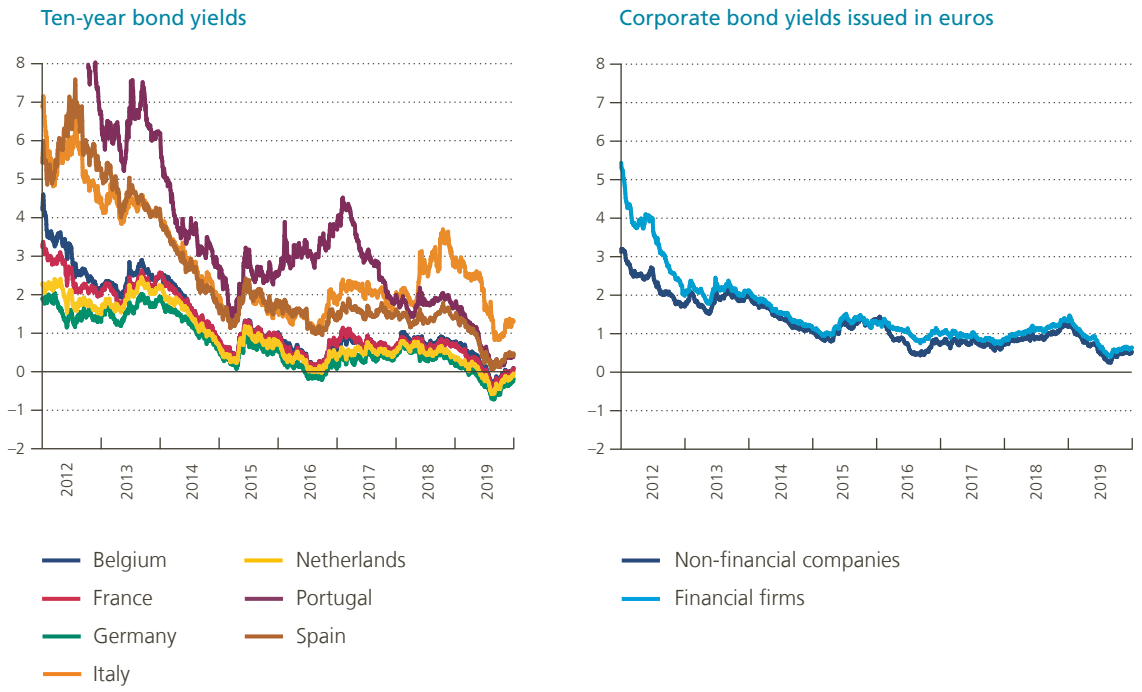
Yields on non-financial and financial bonds also recorded significant falls and stabilised at historic lows from September. The downward trend was across the board, regardless of issuers' credit ratings.

In addition, 2019 saw a constant strong flow of bank loans to non-financial corporations, even if this growth stabilised. Ongoing volume dynamics despite slowing economic growth were due in part to persistently low interest rates.

Chart 19

Easier conditions transmit to riskier financial markets without a hitch

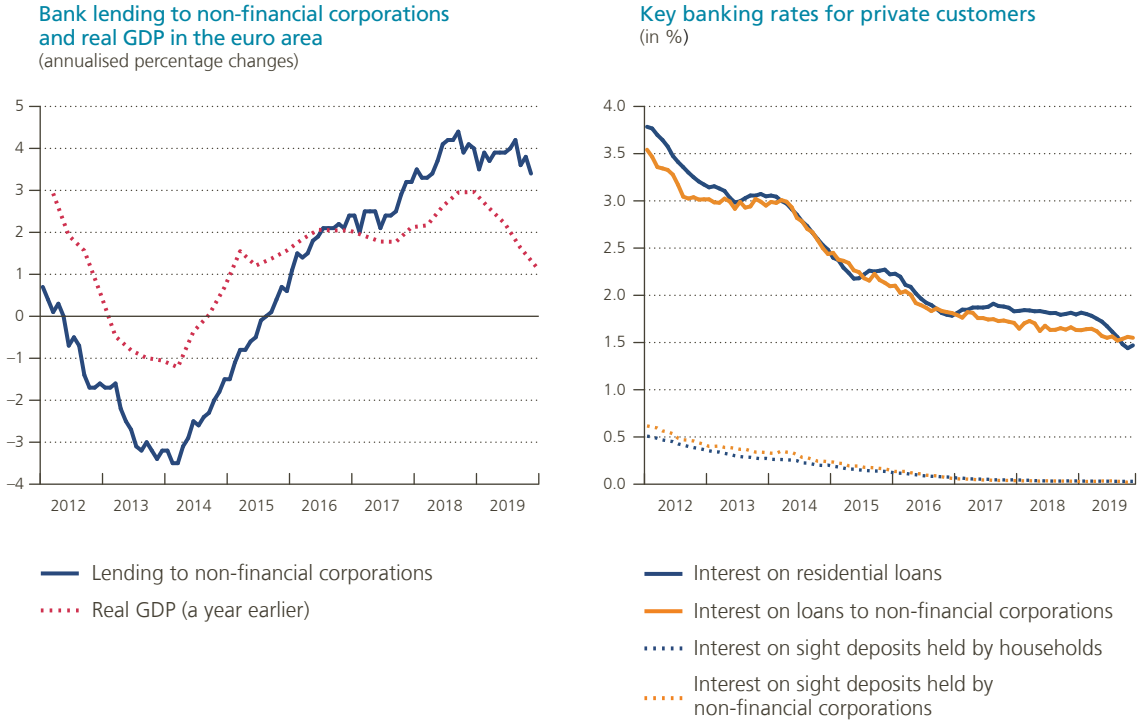
(in %)



Source: Refinitiv.

Chart 20

Historically low interest rates kept bank lending robust despite slower economic growth



Source: ECB.

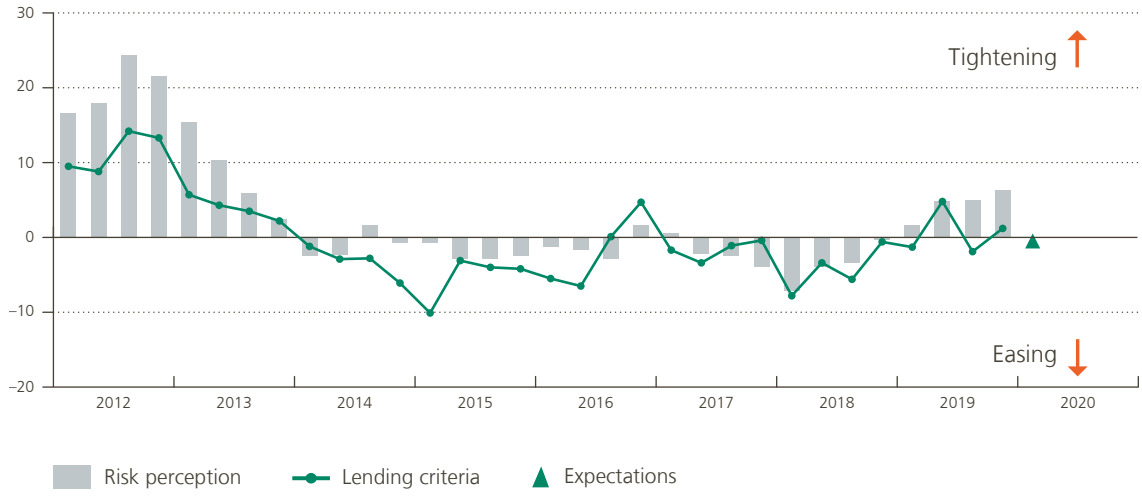
Trends in the criteria governing lending to companies, as evident from the responses to the Eurosystem's three-monthly bank lending survey, would appear to point to early signs of a tightening credit market. Banks attribute these tighter criteria to a higher risk perception as a result of slowing economic activity rather than to factors to do with balance sheet restrictions. In addition, the economic slowdown is starting to percolate through into credit demand.

Although banks noted in 2019 that the ECB's negative interest rate policy had an adverse effect on their margins, they noted that low interest rates did not get in the way of the policy's transmission: negative interest rates continued to help interest on loans come down and loan volumes edge up.

Chart 21

Lending criteria to companies were tightened slightly in 2019 due to increased risk perception at banks

(trends in loan criteria to companies, and risk perception as contributing factor: in net percentages[1])



Source: ECB.

1 Net percentages reflect the difference between the percentage of banks' responses pointing in one direction and the percentage of responses pointing to trends in the opposite direction.

2.4 Delayed monetary policy normalisation begs questions

The stimulus measures revealed in September 2019 imply that interest rates will remain low – and even negative – for longer. Although it is looking to prop up economic activity and inflation this way, the ECB Governing Council has been receiving criticism for its loose monetary policy. Some argue that monetary policy is too aggressive and ambitious, as the measures barely impact on inflation and cause unwanted side effects. Others would like to see the central bank and fiscal authorities work closely together to kick-start economic dynamics.

Do stimulus measures have the desired impact on inflation?

Significant monetary stimulus notwithstanding, euro area inflation remains way below its target, raising questions about the effectiveness of these measures. The answers are not easy, as a proper analysis of monetary policy's macroeconomic impact involves more than the mere observation that negative interest rates do not go hand in hand with an inflation rate of around 2 %. After all, any analysis of the impact of the stimulus must establish what the inflation figure would have been if the central bank had not taken these exceptional measures.

Besides, any assessment of monetary policy's efficacy is hobbled by being carried out in an ever-changing context in which new economic shocks mask the impact of previous measures on inflation and may even require further easing of monetary policy. Various studies[1] – although subject to great uncertainty – suggest that the exceptional measures have had a visible impact on economic growth and inflation in the euro area.

Two factors are currently making it harder for the ECB to stabilise inflation around 2 %. The first is the low equilibrium interest rate (see box 1), as the degree of monetary stimulus is determined by the relationship between interest rates in the economy and equilibrium rates. Current low rates do not point to an overly strong monetary stimulus, which might partly explain the slower recovery in inflation. A second factor is the weaker correlation between inflation and domestic economic activity (called a flat Phillips curve[2] by economists). This is making it more difficult to get too low an inflation rate back to its target.

Do the benefits outweigh the drawbacks?

Another criticism is that accommodating monetary policy has perverse side effects. For instance, low interest rates may encourage excessive risk behaviour, create bubbles – in the housing market for instance – and punish savers. Insofar as the low interest rate environment reflects a lower equilibrium rate, the role of monetary policy is limited. That said, the ECB Governing Council is aware of these side effects, monitors them and tries to limit them as much as possible – a case in point being that TLTROs do not apply to mortgage loans. Importantly, other policy areas will also have to step in to temper any undesirable side effects and facilitate a normalisation of monetary policy.

1 See Mouabbi S. and J.G. Sahuc (2019), "Evaluating the Macroeconomic Effects of the ECB's Unconventional Monetary Policies", Journal of Money, *Credit and Banking*, June, pp. 831-858, and Rostagno M. et al. (2019), "A Tale of two Decades: The ECB's Monetary Policy at 20", ECB, Working Paper Series, 2346.

2 See Cordemans N. and J. Wauters (2018), "Are inflation and economic activity out of sync in the euro area?", NBB, *Economic Review*, June, pp. 79-95.

Prudential policies, for instance, are much better suited to addressing specific financial vulnerabilities, as they offer more focused instruments than monetary policy. The Belgian prudential authority, for one, has imposed specific measures on the country's banks to prevent overheating in its housing market (see chapter 4). If such side effects spread across the euro area and can no longer be addressed with targeted prudential measures, they may become a relevant factor for monetary policy decision-making.

Any undesirable consequences of loose monetary policy may also be curbed by intelligent fiscal policies, which see all Member States aim for growth-friendlier government finances. Governments of euro area countries with a degree of budgetary scope – such as Germany and the Netherlands – should preferably use this scope, while highly indebted governments had better commit to observing European fiscal rules. Governments can help support the demand side of the economy in the short term by investing in infrastructure, green and digital projects, thus lightening the stimulatory job of the central bank and helping to reduce the need for non-standard monetary policy measures. In fact, in the long term, such government spending can make the economy more productive and push up the equilibrium rate, affording additional room for policy manoeuvre to the central bank. And the importance of structural and institutional reforms should not be overlooked. Extending working lives, for instance, can reduce the urge to save and help achieve a balance between saving and investing at higher interest rates.

Are there more efficient alternative measures?

Rather than arguing the case for fiscal policies to complement monetary policies, some are urging a strong fiscal stimulus, ideally in close cooperation with the central bank. This conviction is underpinned by the awareness that the world is facing the need for major and wide-reaching climate change investment. Proponents of the modern monetary theory (MMT) argue that the central bank could boost the demand side of the economy by printing 'free' money to help the government fund a whole raft of projects. This sounds like an attractive proposition but quickly runs into a whole range of objections. For one thing, Article 123 of the TFEU prohibits monetary financing of government debt: and besides, experience has shown that, in practice, it is hard to calibrate a monetary boost in such a way that it ushers in a controlled, on-target increase in inflation. Rather, past experiments have seen hyperinflation ensue.

As a matter of fact, there is nothing at all 'free' about such an alternative measure: government and central bank balance sheets demonstrate that the monetary financing of government interventions boils down to short-term loans at the interest rate on the deposit facility. As soon as inflation moves back up, the central bank has to raise this rate and thus be exposed to growing losses, which at the end of the day would have to be financed by additional inflation or by the government[1].

The 2020 review of the strategy will include a careful reflection on how to guarantee the effectiveness of the Eurosystem's monetary policy

The success of any such a radical proposal would largely hinge on close coordination between central bank and government, but it is unclear how such coordination would work (well) in the real world.

Monetary policy-makers open to reflection

Monetary policy faces major challenges and concerns. It therefore requires careful reflection on how to keep it effective in a changed environment (marked, for instance, by a low equilibrium rate). Central bankers are very aware of the challenges. New developments and insights may trigger adjustment of the monetary policy framework, as they have done in the past. The Bank of Canada, for instance, reviews its monetary policy framework every five years to see if it needs innovating, while the US Federal Reserve embarked on an evaluation of its monetary policy strategy in 2019.

In January 2020, the Eurosystem launched a review of its monetary policy strategy, the last one having been in 2003. The price stability mandate is not being called into question, but the elements under review cover the qualitative formulation of price stability, the effectiveness of potential side effects of monetary policy instruments, the economic and monetary analyses used for monetary policy decisions, as well as communication practices. The Governing Council will also take into account how other considerations, such as financial stability, employment and environmental sustainability, can be relevant in pursuing the ECB's mandate. At the heart of this process will be thorough analysis and open minds, engaging with all stakeholders.

1 For more information, see Kasongo Kashama, M. (2016), "Helicopter money and debt-financed fiscal stimulus: one and the same thing?", NBB, Economic Review, December, pp. 31-40.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3. Economic developments in Belgium

3.1 Belgian economy has slowed less than the euro area economy

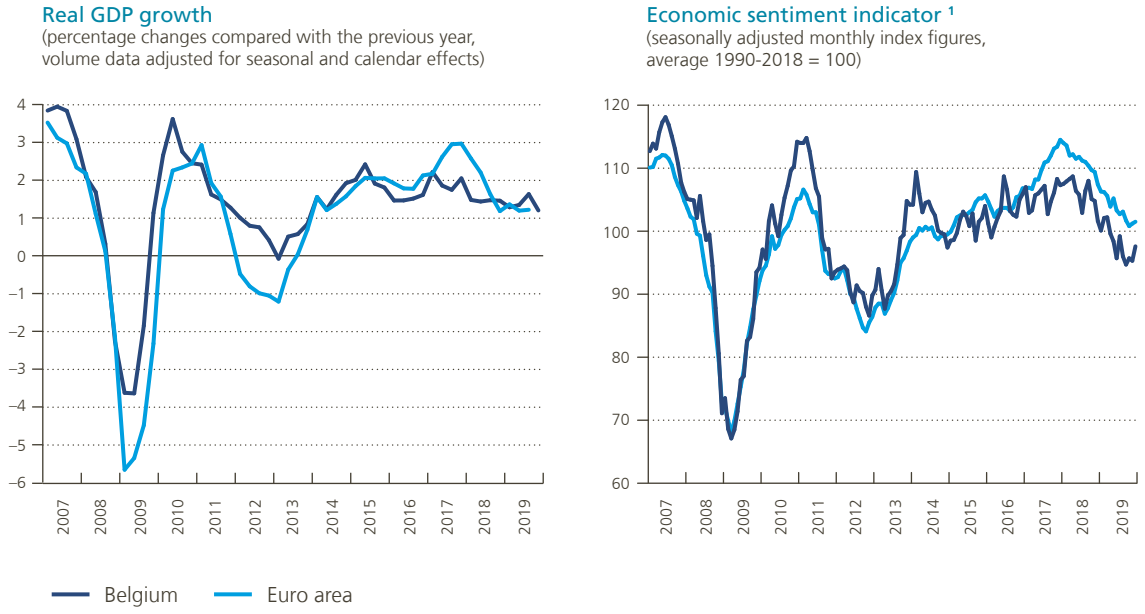
Economic activity was only slightly down, but economic agents' confidence contracted sharply

In Belgium, real GDP growth worked out at 1.4 % in 2019, compared with 1.5 % in 2018. The further upward trend in economic activity in the teeth of challenging economic conditions reflected an uninterrupted expansion since 2013. And although Belgium's economy has been feeling the pinch from a deteriorating business cycle across the world, it slowed more moderately than the euro area as a whole and its neighbouring countries.

This relative resilience contrasts with the ongoing weakening of the economic sentiment indicator, which was first recorded at the start of 2018 and persisted into most of 2019. The latter dovetailed with trends in the euro area and particularly in some neighbouring countries. In Belgium, both consumers and business flagged a growing sense of uncertainty, although the Bank's surveys noted

Chart 22

Belgium's GDP growth proved resilient, unlike economic sentiment



Sources: EC, Eurostat, NAI.

1 The indicator is constructed using surveys of companies (manufacturing, business services, trade and construction) and consumers

an incipient revival from October for both groups of respondents. By the end of the year, though, consumers had turned gloomier again.

The drop in the Bank's general synthetic business indicator as 2019 progressed was largely caused by manufacturing, which declined in the wake of the sharp contraction in industrial activity in Europe. In the fourth quarter of 2019, the synthetic indicator for manufacturing recovered. The synthetic indicators for business services and trade, which had slumped in 2018, declined more moderately thereafter. Construction companies reported a strong cyclical upturn in 2018, which implies that the sectoral confidence indicator remained above its historical average for most of 2019.

In manufacturing, it was chiefly the appraisal of total orders – and mostly export orders – that was down, while demand and employment prospects fell less sharply. The production capacity utilisation rate, as measured by quarterly business surveys, also edged down somewhat in 2018 and 2019, but remained near its historical average of 79 %.

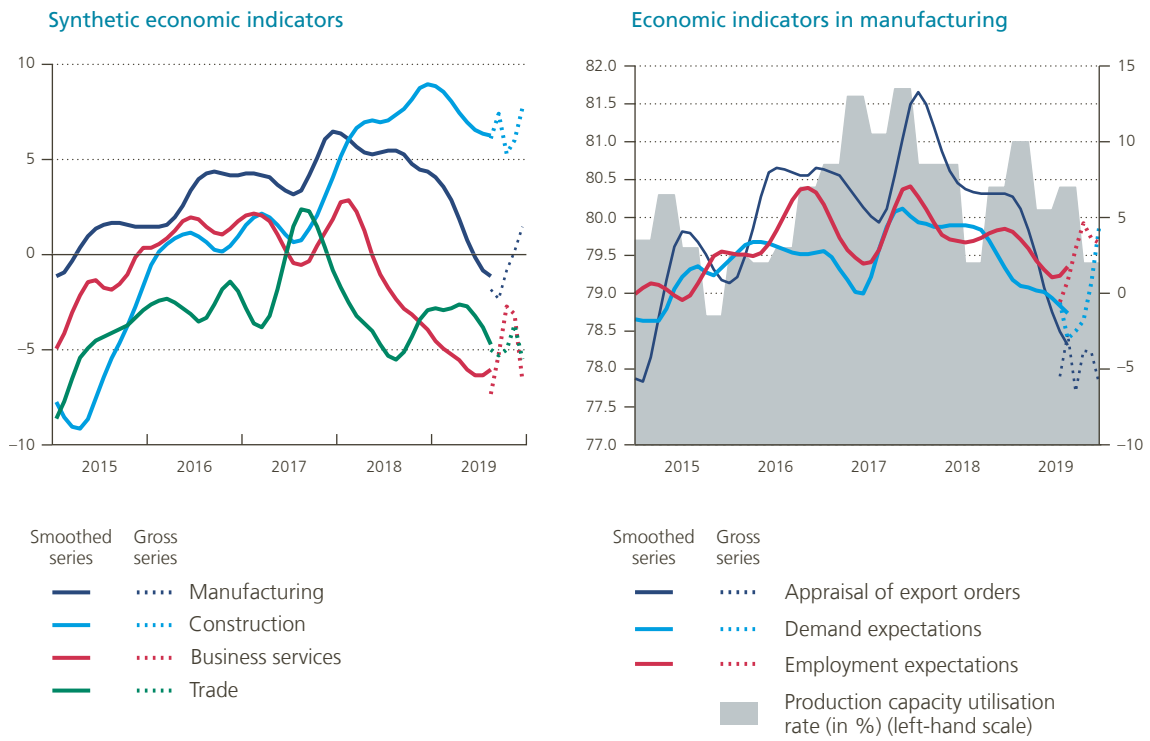
Unlike other countries, Belgium did not see industrial activity fall back

While short-term indicators came down by about as much in Belgium as they did in the euro area and in Belgium's neighbouring countries, economic activity did not contract as sharply. In Belgian industry, in particular, the deterioration was less severe: the sector's value added grew by 0.4 % in the first three quarters of 2019 compared with the corresponding period in 2018, whereas it averaged a drop of 2.2 % in Belgium's three main neighbouring

Chart 23

Deteriorating global economic cycle eroded Belgian business confidence

(seasonally adjusted data; balance of replies to the Bank's surveys; based on average normalised results over the period 1995-2019, unless otherwise stated)



Source: NBB.

countries (Germany, France and the Netherlands). Manufacturing in Belgium made a very slightly positive contribution to GDP growth, while averaging a negative 0.4 percentage point in these three other countries. Of the three, Germany was the hardest hit.

In 2019, Belgian industry proved relatively resilient after having staged only a moderate recovery between 2015 and 2018. Its cyclical profile, which is less pronounced than that of its neighbouring countries, to some extent reflects its structure. In key sectors – such as chemicals and pharmaceuticals, which together account for one-quarter of industrial value added in Belgium and which are less cyclically volatile than euro area GDP growth – activity continued to stage robust growth over the year. Other sectors, by contrast, notably the manufacture of machinery and equipment, which account for less of Belgium's value added, have a much stronger correlation with the international business cycle.

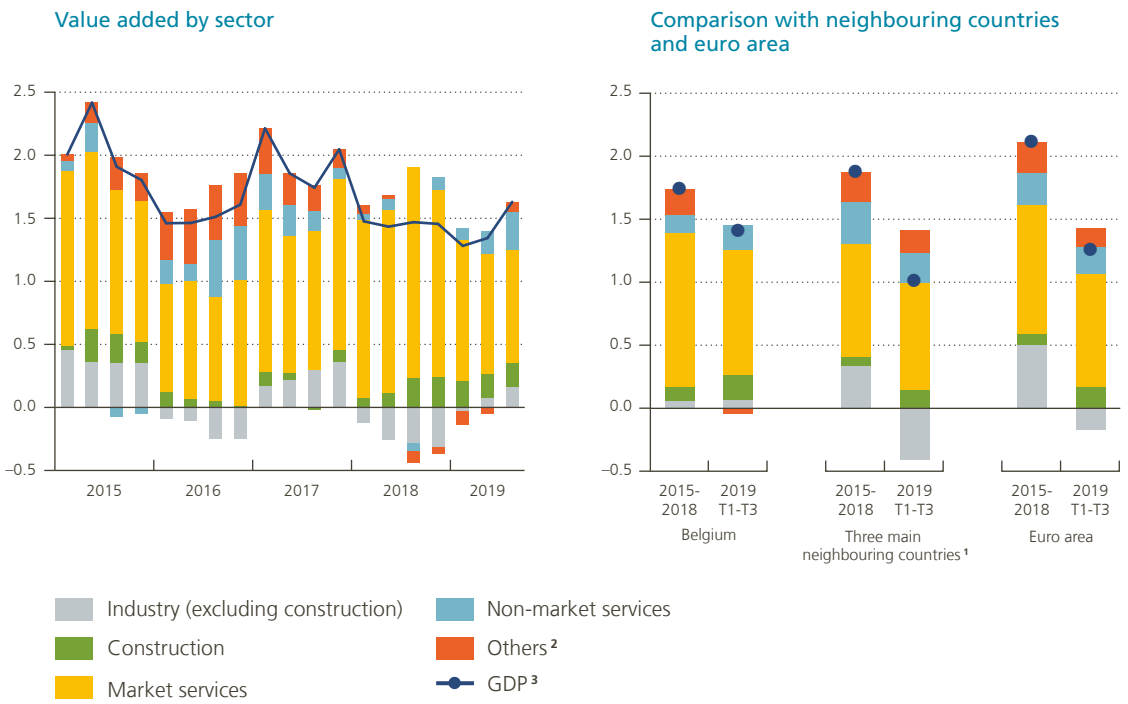
It is worth noting that industry accounts for around 14 % of Belgium's GDP, compared with 18 % for the euro area and 23 % for Germany – another reason why its contribution to the business cycle is limited in this country. In the Netherlands, industry has the same kind of weight as in Belgium, with the figure for France even a little lower (12 %).

Although accounting for less than 5 % of economic activity, construction in Belgium made a sizeable contribution to GDP growth in the first nine months of 2019. In fact, its contribution was bigger than in the four previous years and slightly larger than in the observed reference areas. The low interest rate environment and investors' preference for real

Chart 24

Growth in services and construction supports feeble value added growth in industry

(percentage point contributions to annualised real GDP change, unless otherwise stated; data adjusted for seasonal and calendar effects)



Sources: Eurostat, NAI, NBB.

1 Weighted average for Germany, France and the Netherlands.

2 Notably the agriculture, forestry and fisheries sector and taxes on products minus subsidies on products.

3 Percentage changes compared with the previous year.

estate continued to boost economic activity in construction, causing it to grow by 4.3 %.

Value added in market services grew slightly less, recording an annualised increase of 2 % in the first nine months of 2019. Because of this still robust growth and the large share of services in the economy (50 % of GDP), the sector once again contributed the most to GDP growth. In addition to real-estate-related services, which followed the surge in construction, some mostly business-oriented services – such as IT, and administrative and support services – proved dynamic, whereas the value added of rather more consumer-oriented services, such as trade and the hotels, restaurants and cafés sector, grew roughly in tandem with GDP.

In non-market services, by contrast, value added rose by 0.9 % in the first nine months of 2019. Although slightly better than in previous years, this was below the figures for Belgium's neighbouring countries.

3.2 Domestic demand still Belgium's key engine for growth

Just as in 2018, weaker foreign markets in 2019 dampened Belgian exports. With imports growing a little more rapidly, foreign trade made a slightly negative contribution to GDP growth (–0.1 percentage point). Change in inventories also curbed GDP growth, by 0.2 percentage point.

Belgium's economy, then, was supported by domestic demand, which in its turn was boosted primarily by business and household investment. General government expenditure tailed off somewhat in 2019 following a strong run in the previous year on the back of the peak in the local electoral cycle and larger road infrastructure works at regional level. General government consumption growth, by contrast, picked up to 1.8 % in 2019 from 0.9 % in 2018, as the increase in health care spending was no longer as tightly controlled as in previous years. Private consumption continued to slow.

Table 2

GDP and main expenditure categories

(calendar adjusted volume data; percentage changes compared with the previous year, unless otherwise stated)

	2015	2016	2017	2018	2019 e
Private consumption	1.6	1.9	1.8	1.5	1.1
General government consumption	0.3	0.4	0.3	0.9	1.8
Gross fixed capital formation	3.7	3.8	1.3	4.0	3.1
Housing	–0.1	2.4	0.1	1.0	5.9
Enterprises	5.5	5.0	1.6	3.9	3.0
p.m. Excluding major specific transactions [1]	*5.5*	*5.7*	*4.8*	*3.9*	*3.0*
General government	1.0	–0.7	1.1	10.6	–2.2
p.m. Final domestic expenditure [1]	*1.8*	*2.0*	*1.3*	*1.9*	*1.8*
Change in inventories [2]	0.4	0.2	–0.1	0.3	–0.2
Net exports of goods and services [2]	–0.1	–0.7	0.7	–0.7	–0.1
Exports of goods and services [3]	3.7	6.5	5.3	1.2	0.9
Imports of goods and services [3]	3.9	7.5	4.4	2.1	1.1
GDP	2.0	1.5	2.0	1.5	1.4
p.m. Nominal GDP (in € billion)	*416.7*	*430.4*	*446.4*	*459.8*	*472.7*

Sources: NAI, NBB.

1 In previous years, significant specific transactions (for instance, certain investments abroad or a multinational's business restructuring), while hardly affecting economic activity in Belgium, increased volatility in certain components of GDP.

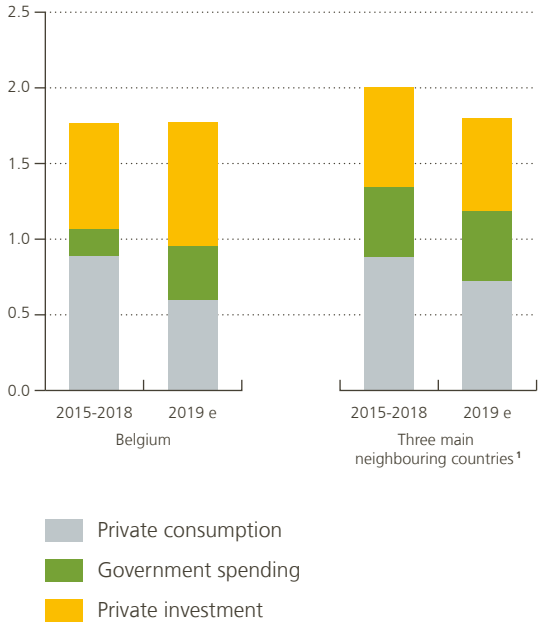
2 Excluding the change in inventories.

3 Contributions to the change in GDP compared with the previous year, in percentage points.

Chart 25

Private investment strongly boosts domestic demand

(contributions to annualised growth in domestic demand volumes excluding inventories, in percentage points)



Sources: Eurostat, NAI, NBB.
1 Weighted average of Germany, France and the Netherlands.

Domestic demand is not just Belgium's main engine for growth: it plays the same role in Belgium's three main neighbouring countries and the euro area at large. That said, Belgium stands out for its unique private investment dynamics and moderate private consumption growth.

Exports slowed on weak foreign demand

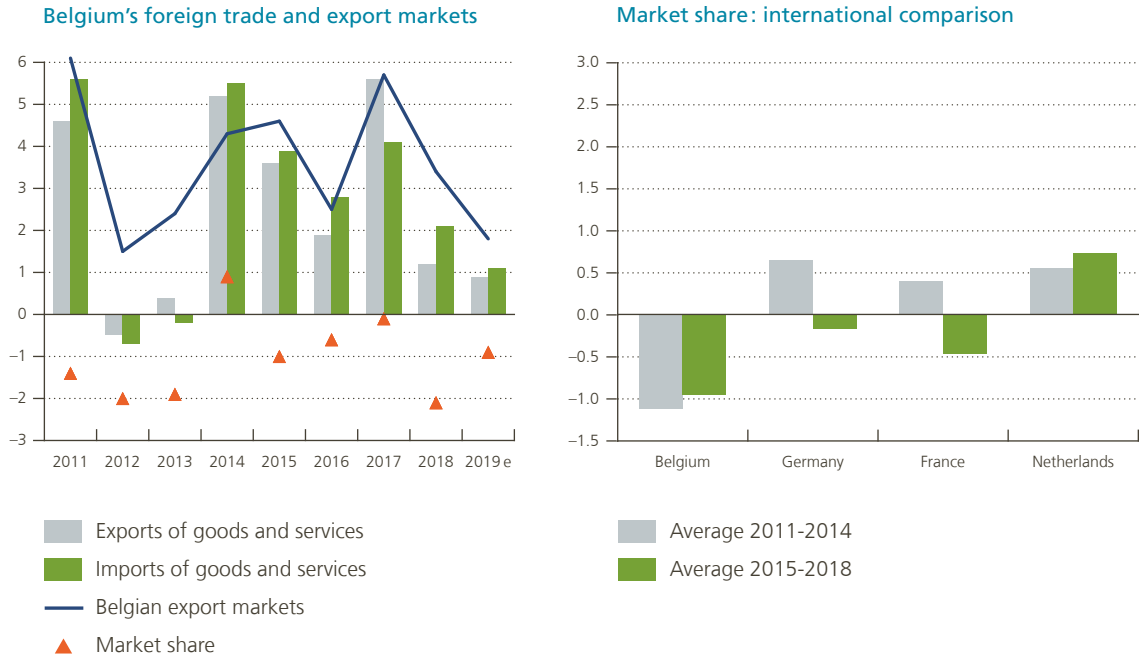
Belgium was unable to sidestep the cyclical downturn across the world and in Europe, which hit international trade, and foreign demand heavily impacted the Belgian economy. Belgian export volume growth of goods and services, which had already slowed markedly in 2018, fell further in 2019, to 0.9 %, reflecting the country's weakening foreign markets.

Just as in 2018, export growth lagged behind the – albeit slower – growth of the markets. Loss of market share is put at a little below 1 %, and it looks like the Belgian economy's mixed external performance will continue, since the 2015-18 period saw losses averaging around 0.9 %. Admittedly, the losses in 2019 were less bad than in the previous period, but still a lot bigger than those recorded by Belgium's neighbouring countries.

Chart 26

Exports dampened by slowing domestic demand and loss of market shares[1, 2]

(annual percentage changes, volume data adjusted for seasonal and calendar effects)



Sources: ECB, NAI, NBB.

1 Export markets are determined based on the most recent projections for import demand from trading partners.

2 Excluding the effect of the reorganisation of a pharmaceuticals company's activities in 2016 and 2017.

A degree of caution is warranted when making international comparisons of gross import and export flows, as their actual links to the creation of value added and employment in the observed economy may be influenced by the size of global value chains or by optimisation moves – for tax reasons, for instance – within multinational corporations. Insofar as distinct moves could be identified, they were factored out of Belgium's data towards the analysis of market shares and the comparison with its three main neighbouring countries. This chiefly concerned the reorganisation of the activities of a company in the pharmaceuticals sector, which influenced the data for 2016 and 2017. However, lack of information makes it impossible to adjust the data for other countries, where similar moves may have taken place.

Export volume growth was lower than the average for neighbouring countries

None of this changes the fact that Belgian exports of goods and services as calculated recorded an average annual growth in volume terms of 3.1 % in the 2015-18 period, compared with 3.8 % for Belgium's three main neighbouring countries as a whole. Considering only the main categories of exports, this negative gap derives from less dynamic foreign sales for machinery and transport equipment, and manufactured goods – particularly steel and glass products, and building materials – as well as travel and transport services. Conversely, chemicals and related products – which include pharmaceuticals – helped to narrow the gap, as their sales accelerated faster and as the category accounts for a large proportion of total Belgian exports.

A broader analysis rather than the limited comparison with Belgium's three main neighbouring countries reveals sustained global demand for chemicals and pharmaceuticals, as well as for machinery and transport equipment over the period 2015-2018. Belgium

was able to take advantage of this for chemicals and pharmaceuticals, in which it specialises and for which the rate of growth of its sales abroad exceeds that of demand. The same cannot be said for machinery and transport equipment: Belgian sales lagged behind market growth and their weight in Belgian exports is smaller than in global trade.

As exports incorporate a large share of imported goods and services, their slowdown had a big spill-over effect on import trends. In 2019, import volumes grew by only 1.1 % compared with 2.1 % in the previous year. In the end, the marked weakening of foreign trade had only a limited net effect on GDP developments.

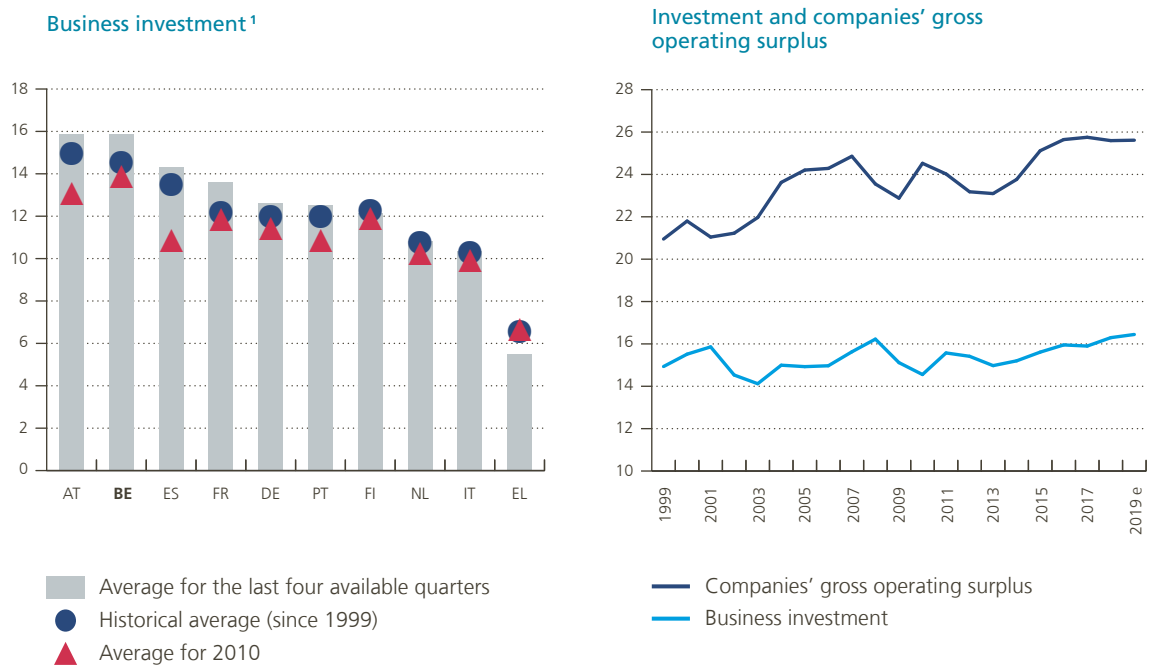
Continued robust growth in business investment

Significantly reduced foreign demand and major uncertainty would seem to have had only a subdued effect on business investment in 2019. Ignoring a few specific transactions, it shot up by 3.0 %, staging markedly stronger growth than GDP. Investment in the market services sector was dynamic in the year, while investment in manufacturing picked up further after years of decline. Purchases of machinery and equipment and computer hardware have been on the rise since 2016, with both investment categories

Chart 27

Business investment's historically heavy weight in Belgian GDP has recently grown even more

(in % of GDP)



Sources: Eurostat, NAI, OECD, NBB.

1 The international comparison does not include investment by self-employed people.

Table 3

Determinants of companies' gross operating surplus [1], at current prices

(percentage changes compared with the previous year, unless otherwise stated)

	2015	2016	2017	2018	2019 e
Gross operating margin per unit of sales [2]	4.6	0.4	0.8	0.6	1.5
Unit selling price	–2.4	–0.4	2.1	2.3	0.9
On the domestic market	0.6	1.1	2.1	2.0	1.2
Exports	–2.8	–1.1	2.2	2.1	0.7
Unit sales costs	–3.7	–0.6	2.4	2.6	0.8
Imported goods and services	–3.8	–1.7	2.8	3.2	0.5
Costs of domestic origin per unit of output [2, 3]	–1.3	1.3	1.2	1.4	1.7
of which:					
Unit labour costs [4]	–1.8	0.2	1.4	1.7	2.2
Unit net indirect taxes	–0.7	6.6	1.8	2.1	0.0
Final sales at constant prices	4.5	5.1	3.3	1.8	1.4
Companies' gross operating surplus	9.3	5.4	4.2	2.4	2.9

Sources: NAI, NBB.
1 Private and public companies.
2 Including the change in inventories.
3 In addition to wages, this category includes indirect taxes less subsidies, and gross mixed income of self-employed people.
4 Unit labour costs are expressed in units of value added of the business sector and are not calendar adjusted.

enjoying a gradual revival after being hit hard by the financial crisis and the great recession of 2008-09.

Business investment's major contribution to GDP growth in Belgium reflects the combined effect of its traditional importance – a structural feature of the Belgian economy – and its more recent dynamics. Investment by Belgian companies in the last four available quarters (from the third quarter of 2018 up to and including the second quarter of 2019) accounted for virtually 16 % of GDP, which is very high in the league table of euro area countries. Historically, business investment has always been rather high in Belgium, incidentally.

Furthermore, business investment has risen more robustly than GDP in recent years, with the investment ratio of Belgian companies gradually picking up, from 14.6 % in 2010 to 16.4 % in 2019.

During this time, business investment has been supported by generally stronger economic activity, low costs of external funding and improved internal financing capacity.

In 2019, companies' funding costs were fairly subdued and only a small number of those surveyed on borrowing conditions mentioned credit constraint as a factor hampering production in the year.

Up to and including 2016, income generated by business activity accelerated faster than GDP, and it has since stabilised at a high level. In 2019, companies' gross operating surplus was up 2.9 %, i.e. by about as much as nominal GDP and by more than the 2.4 % growth of gross operating surplus registered in 2018. Sales volumes may not have advanced as strongly as in previous years – mainly due to slower exports – but this effect was amply offset by wider margins per unit of sales, particularly as unit selling prices did not fall as much as unit sales costs. The costs of imported goods and services were up in 2019 but by as little as 0.5 % compared with 3.2 % a year earlier, with energy price trends the main cause. Domestic origin costs, by contrast, picked up slightly faster in the wake of higher wage costs, although this was offset by the stability of net indirect taxes per unit, especially value added tax and excise duties.

Investment in housing shot up

It was not just business investment that powered ahead in 2019, but investment in housing did too, by 5.9 %. That said, the recovery failed to push this category of spending back to pre-crisis levels seen before 2008. The uptick was driven by significantly higher household purchasing power in 2019, coupled with continued low mortgage rates, prompting existing and future homeowners to invest in building or renovating their homes. As countless financial assets generate little in the way of returns, more and more investors are focusing on the market for new builds in their search for higher returns. In addition, the *woonbonus* mortgage interest relief scheme in Flanders, announced at the end of September but only effective from January 2020, may well have boosted household investment somewhat in the fourth quarter of 2019.

BOX 3

The supply of homes and its impact on property markets

Like many other European countries, Belgium has seen property prices shoot up in the past few decades, a virtually uninterrupted trend that proved very robust in the first decade of the 2000s. Since they reached a historical low in the mid-1980s, property prices have more than tripled in real terms. Only two periods of falling prices have been recorded since reliable data were first kept: one in the early 1980s and a second, shorter period at the time of the economic and financial crisis of 2008-2009.

Asset prices are typically determined by supply and demand. But these can be influenced – upwards or downwards – by a whole host of factors. The same is true for the housing market. Previous analyses[1] have established that, over the past few decades, the demand for residential property has largely been driven by a range of factors. One of them was easier access to mortgage loans on the back of both higher household disposable incomes and lower mortgage rates. At the same time, the tax framework was conducive for mortgage loan demand as well as the purchase of residential properties, until the Regions started taking measures from 2015 under their new authority under the sixth State reform and related to tax relief for specific expenditure on housing. Lastly, a growing population combined with a gradual fall in average household size has boosted the need for homes.

On the supply side, the estimated value of its long-term price elasticity – i.e. the extent to which supply reacts to any price changes – is fairly low in Belgium. According to an OECD estimate for the 1980-2017 period, it amounts to a mere 0.46, implying that a 1 % rise in real estate prices will only add an average 0.46 % to investment in residential property. By comparison, the price elasticity of housing supply is six and four times higher in the US and Sweden respectively[2]. Low price elasticity of supply implies that demand shocks primarily lead to price adjustments and, to a lesser extent, fluctuations in economic activity.

1 Warisse Ch. (2017), "Analysis of the development in residential property prices: Is the Belgian market overvalued?", NBB, *Economic Review*, June, pp. 61-77.
2 Reusens P. and Ch. Warisse (2018), "House prices and economic growth in Belgium", NBB, *Economic Review*, December, pp. 81-106.

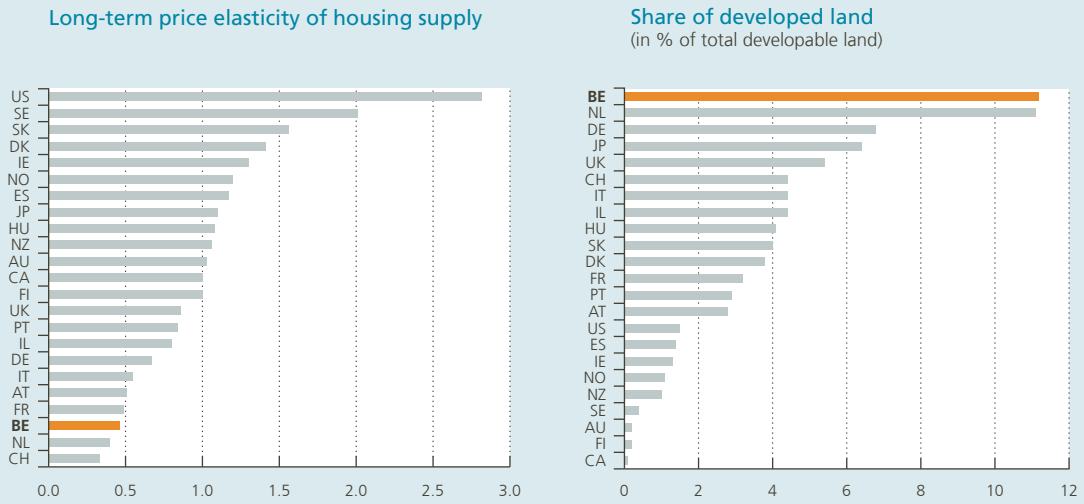
The housing supply can come up against two types of constraint. First, there are physical limits to the amount of land available for new builds, with scarcity of building land playing a key part. Together with the Netherlands, Belgium has the greatest scarcity of land potentially suitable for development out of all the OECD countries. In 2015, no less than 11 % of Belgian land suitable for development was built-up – considerably above the average for the euro area (3 %) and the OECD (0.9 %). This reflects the country's particularly high population density, of course, which happens to display a negative correlation with the price elasticity of housing supply: densely populated countries obviously find it harder to widen real estate supply as soon as demand increases.

In addition, too rigid or badly coordinated rules and regulations – governing land use and land cover among other matters – can restrict opportunities for new building or expanding existing housing, hampering an appropriate construction response to higher demand. Empirical research shows up a negative correlation between the price elasticity of housing supply and the time needed to secure a building permit. In countries with longer waiting times – as rather appears to be the case in Belgium – real estate supply responds less robustly and/or more slowly to fluctuations in demand. We cannot judge solely on the basis of these statistics whether or not the rules on land use and cover are too rigid. Besides, the competent Regions have been looking to ease and simplify such rules, as is evident from Wallonia's reforms of its *Code du Développement Territorial* from 2017 and from the Brussels spatial planning code introduced in 2018[1].

All that said, most statistics are pointing to a recent expansion of Belgium's housing supply. Growth in the number of residential properties has strengthened since 2016 and in 2018 the figures became once

1 Reusens P. and Ch. Warisse (2018), "House prices and economic growth in Belgium", NBB, *Economic Review*, December, pp. 81-106.

Fairly low price elasticity of housing supply in Belgium

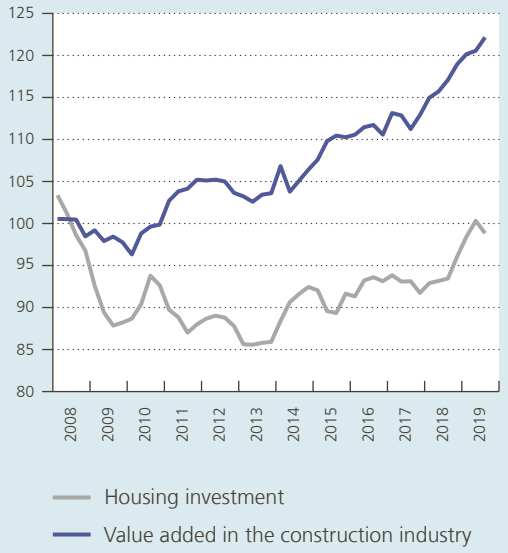


Source: OECD.

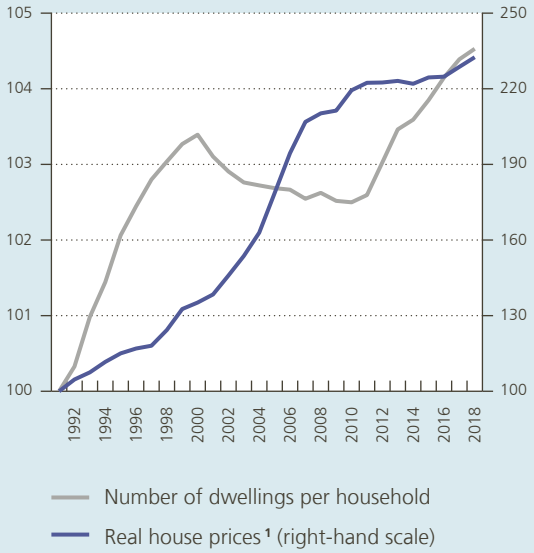
again comparable to the very pronounced rate of growth last recorded in the 1990s. A very strong upsurge in issued building permits sparked a sharp recovery in housing investment – mostly new builds, as well as renovation and refurbishment projects – at the end of 2018, which was also accompanied by steeply higher value added in construction in 2018 and 2019. The chart below captures the evolution of real estate prices and relative housing supply, with the latter variable defined as the number of dwellings per household and relating the housing stock to housing needs. Although supply in Belgium seems to have more or less adjusted to requirements – housing stock grew faster than population in the long run, by 28 % between 1991 and 2018, compared with 23 % in the same period – this has not always been the case. Particularly in the first decade of the 2000s, relative supply contracted, suggesting that housing supply was inadequate or unsuitable, whereas real estate prices were sharply up. After this decade, housing supply returned to rising faster than the number of households, apparently slowing upward pressure on real estate prices, as these have virtually stabilised in real terms since. This would seem to suggest that, in addition to the demand-supporting factors outlined above, housing supply also had an impact on residential property prices and contributed to the surge in prices of the previous decade. The recent revival in housing investment – and in construction activity in general – could curb a fresh upturn in real estate prices. However, if supply continues to pick up on the back of growing private debt and if it does not match demand, this might constitute a risk to developments in the real estate market in future.

Housing supply showing recent gains

Construction activity and housing investment
(volume data, indices : 2008 = 100)



House prices and housing supply
(indices : 1991 = 100)



Sources : Statbel, NBB.
1 Deflated by the private consumption deflator.

Household consumption slowed

Belgian households' growing desire to build or renovate their own homes sharply contrasts with their somewhat austere consumption. In fact, consumption volume growth slowed in 2019 to an annualised 1.1 % on average, the weakest growth figure in the last five years.

The slowdown was partly due to the consumption of durable goods, which grew at a slower pace (by 1.8 %) in the first three quarters of 2019 than in the corresponding period of 2018. A key reason was the drop in new car registrations in the first half of the year, following the adoption, in September 2018, of new type-approval procedures for vehicles. This would appear to have had a temporary effect only, as confirmed by consumer surveys and available data on durable goods consumption in the third quarter. Incidentally, the period from the second half of 2017 through to early 2019 saw a gradual slowdown in the growth of consumption excluding durable goods, but this picked back up as the year progressed.

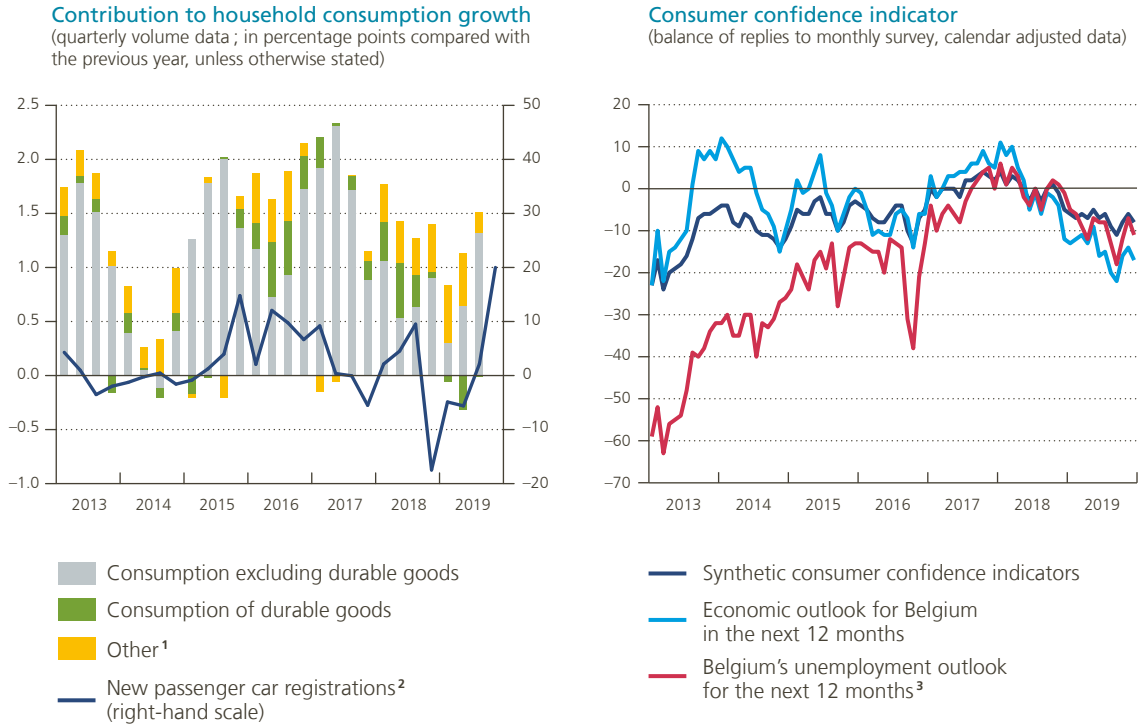
Private individuals save large proportion of their income

Slower private consumption in 2018 and 2019 coincided with more subdued household confidence. The consumer confidence indicator which had risen sharply between 2013 and 2017, dipped temporarily below its historical average in 2019 mostly in the wake of more pessimistic outlook for the economy and unemployment. In the fourth quarter, by contrast, the indicator staged a partial recovery.

Uncertain economic conditions may have prompted some caution on the part of households, with consumption in 2019 rising less robustly than the

Chart 28

Durable goods slow private consumption



Sources: NAI, OECD, NBB.

1 The 'Other' category includes Belgian tourists' expenditure abroad less foreign tourists' expenditure in Belgium, as well as consumption by non-profit institutions serving households.

2 Percentage changes compared with the previous year.

3 Reverse of the indicator released by the NBB.

sizeable increase in their purchasing power. In real terms, i.e. ignoring the impact of prices, household disposable incomes advanced by 2.5 %, double the increase in consumption. In other words, households saved a larger proportion of their incomes and, as noted previously, used those savings towards investment in residential property or financial assets. This trend significantly enhanced their savings ratio, to 12.9 % in 2019, after it had fallen to 11.8 % following a decade of steady decline. From a more structural perspective, uncertainty over future income and expenditure – when to expect tax rises, for instance or income constraints – may have prompted some households to accumulate precautionary savings.

Higher hourly wages continued to push up household pay

The 2.5 % increase in purchasing power in 2019 was the biggest since 2007. It was also a much faster rate of growth than the 1.1 % observed in 2018. The difference between these two most recent years is down to falling inflation and the rise in disposable income at current prices. In nominal terms, household gross disposable income surged by 3.9 %, compared with a 3.0 % increase in 2018.

Earned income is one of the key determinants. In 2019, this added 3.6 % in nominal terms, almost the same percentage as in the two previous years. This masks a shift, though: while the rise in hourly wages gathered momentum – as it had done in previous years, and by as much as 2.5 % in 2019 – growth in the total number of hours worked in the economy slowed.

In their turn, transfers from households to other sectors, mainly comprising taxes, were directly influenced by personal income tax cuts, as part of the tax shift approved in 2015. With the tax burden on labour already alleviated in 2016 and 2018, the third stage of the tax shift came into force in January 2019. As

Table 4

Determinants of household gross disposable income, at current prices

(percentage changes compared to the previous year, unless otherwise stated)

						p.m. In € billion
	2015	2016	2017	2018	2019 e	*2019 e*
Gross primary income [1]	1.2	2.2	3.7	3.1	3.1	*268.0*
Gross wages	1.0	3.1	3.7	3.7	3.6	*181.0*
Volume of labour of employees	0.6	1.4	2.0	1.6	1.1	–
Gross wages per hour worked [1]	0.4	1.6	1.7	2.1	2.5	–
Gross operating surplus and gross mixed income	3.4	1.9	3.3	2.8	2.8	*60.1*
Capital income [2]	–2.1	–2.8	4.5	–0.7	0.6	*26.9*
Current transfers received	2.3	2.4	3.6	2.4	3.5	*104.1*
Current transfers paid [1]	1.4	–0.1	3.5	2.7	1.2	*96.1*
Gross disposable income	1.5	3.1	3.7	3.0	3.9	*276.1*
p.m. In real terms [3]	*0.7*	*1.7*	*1.8*	*1.1*	*2.5*	–
Savings ratio [4]	12.4	12.2	12.0	11.8	12.9	–

Sources: FPB, NAI, NBB.

1 Wages and salaries received, or current transfers paid, not including contributions paid in by employers.

2 These are net amounts, i.e. the difference between income or transfers from other sectors and those paid to other sectors.

3 Data deflated by the household final consumption expenditure deflator.

4 In % of disposable income in the broad sense, i.e. including changes in households' supplementary pension entitlements accruing as a result of an occupational activity.

a result, transfers from households rose significantly less rapidly than did their income. Transfers received picked up on the back of pension payments to an increasing number of beneficiaries in an ageing population and higher child benefit in Flanders.

The domestic sectors of the economy recorded a borrowing requirement

In 2019, much like the previous year, income and expenditure transactions by the various sectors in the Belgian economy made investment grow faster than savings, with the difference – at the end of the day – financed abroad. Altogether, though, Belgium's net borrowing requirement remained relatively stable relative to 2018, at around 1 % of GDP. This compares with a financing surplus with the rest of the world of a little over 1 % of GDP between 2012 and 2017.

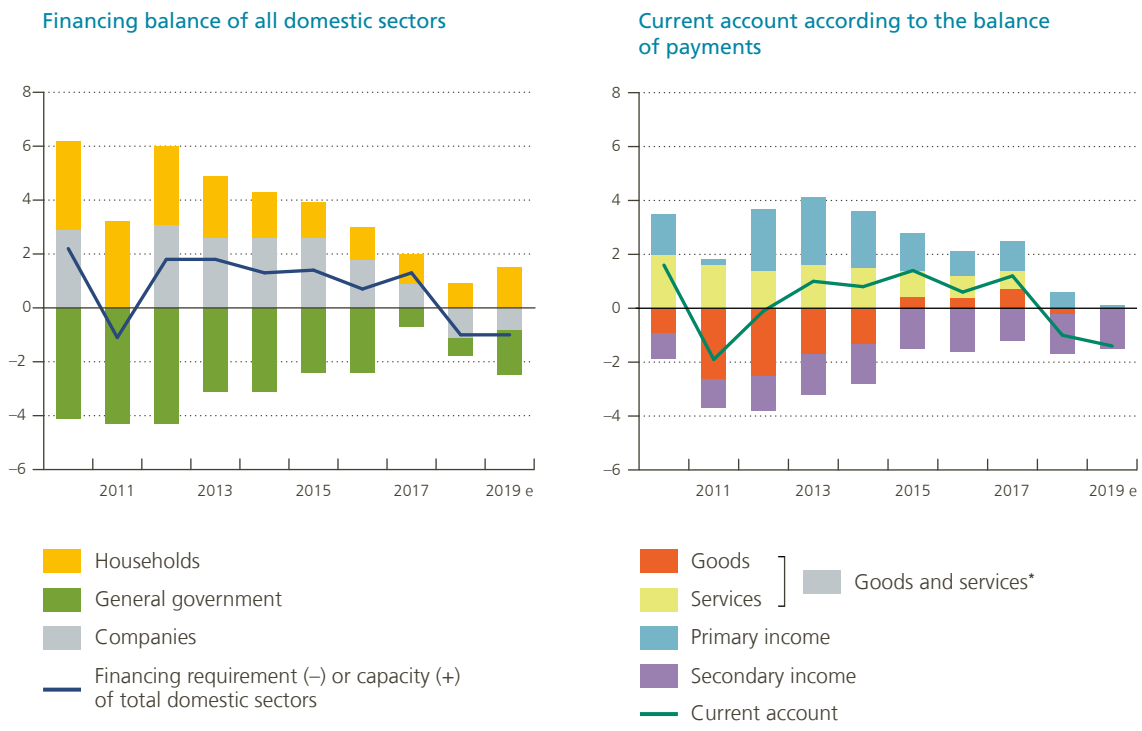
This state of play emerges from the fact that companies have been recording a borrowing requirement since 2018, driven in the main by ever faster sustained investment since 2014 and, in the past two years, by sizeable net dividends either paid out to shareholders or reserved in company balance sheets. These trends were compounded by the return to a widening general government deficit in 2019, while households' financing capacity expanded as their savings have outpaced the increase in their investment in housing.

In terms of transactions with the rest of the world as recorded in the balance of payments, this transition from a net financing surplus for all sectors of the Belgian economy, up to and including 2017, to a borrowing requirement in the past two years took the shape, from 2018, of the disappearance of Belgium's current account surplus. The current account deficit for 2019 is estimated to work out at around 1.4 % of GDP.

Chart 29

Belgium's current account with the rest of the world in deficit

(in % of GDP, unless otherwise stated)



Sources: NAI, NBB.
* No separate 2019 breakdown is available for goods and services.

Net investment income still negative

The deteriorating current account balance with the rest of the world primarily reflects incoming and outgoing income flows to and from abroad, the balance of which contracted further in 2019. Total primary income still recorded a very minor surplus of 0.1 % of GDP (€ 0.3 billion). Income originating from labour received from the rest of the world by Belgian residents continued to grow faster than wages paid abroad by Belgium, in particular because of civil servants' remuneration paid by international institutions established in Belgium. By contrast, net investment income and net other primary income shrank further, mainly caused by a faster increase in interest and dividends paid to the rest of the world in the context of direct investment, while interest and dividends received from abroad remained more subdued. Net income from portfolio investment remained negative, a continuation of the situation since 2015.

The net secondary income deficit – primarily transfers from households and general government to the rest of the world – widened somewhat in 2019, particularly as Belgium paid in a slightly bigger contribution to the EU budget than in 2018.

Near balance in goods and services

While net incomes fell, net goods and services, which had recorded a deficit in 2018[1] (0.2 % of GDP or € 800 million), staged a slight recovery in 2019 and ended up at a level close to balance – mainly thanks to the terms of trade somewhat improving after getting slightly worse in 2017 and 2018. The improvement in the terms of trade in 2019 was driven by factors such as the steady fall in energy prices across international markets. In volume terms, exports of goods and services grew slightly less (0.9 %) than imports (1.1 %).

Belgium's international goods trade recorded a growing surplus between 2015 and 2017. This reversed into a deficit in 2018 in the wake of a higher net energy bill, due to the rise in oil prices and electricity imports, which had weighed down the transactions balance. Meanwhile, the services-derived surplus gradually leached away until reaching a near-equilibrium in 2018.[1] The contraction in the services balance was mostly down to the higher 2018 deficit for "transport" and "travel", as well as the eroding surplus in "other business services" – which include R&D and consultancy among other services. These downtrends were insufficiently balanced by the upward-moving surplus in other services categories, including "communication and information services".

1 The methodological changes made in the balance of payments data since 2015 have caused breaks that are making it difficult to analyse trends before and after that year. For one thing, there has been a change in the method for valuing services in goods transport (from a "CIF/FOB" to a "FOB/FOB" calculation), which has served to push down the balance of transport services and had an upward impact on the goods balance without affecting the current account balance. For more information, see https://www.nbb.be/doc/dq/e_method/bop300919_e.pdf.

Table 5

Current account according to the balance of payments

(balance; in € billion, unless otherwise stated)

	2015	2016	2017	2018	2019 e
Goods and services	5.9	5.1	6.2	–0.8	–0.1
Goods	1.7	1.8	3.2	–0.7	n.
Services	4.2	3.4	3.0	0.0	n.
Primary income	5.9	4.1	4.8	3.0	0.3
Compensation of employees	6.3	6.5	6.9	7.0	7.3
Investment income	0.5	–1.2	–0.8	–2.7	–5.6
Other primary income	–0.9	–1.2	–1.3	–1.4	–1.4
Secondary income	–6.0	–6.8	–5.6	–6.8	–7.0
General government	–3.9	–4.3	–3.1	–3.8	–3.8
Other sectors	–2.1	–2.5	–2.4	–3.0	–3.1
Total	5.8	2.4	5.5	–4.6	–6.8
p.m. Idem, in % of GDP	*1.4*	*0.6*	*1.2*	*–1.0*	*–1.4*

Sources: NAI, NBB.

3.3 Labour market remained dynamic

Employment creation was significant and unemployment continued to fall, much as in previous years

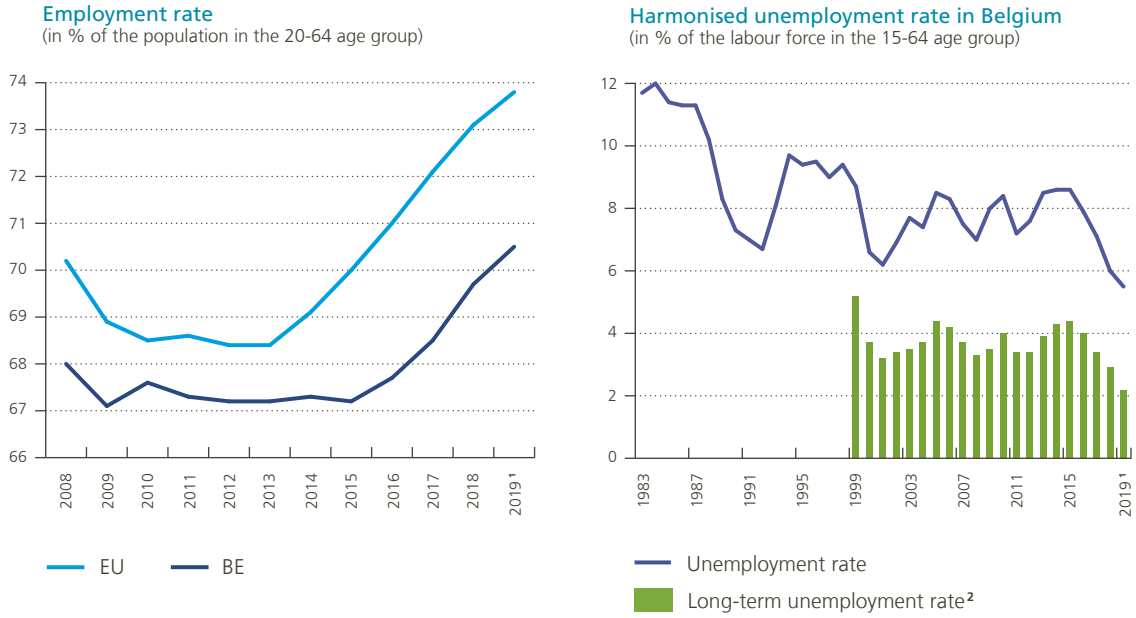
Despite slightly slowing economic activity and numerous uncertainties having a negative impact on the economic environment, Belgium once again recorded clear growth in employment in 2019, with net job creation of 74 000 people, a bigger increase than in the previous year.

In fact, the employment rate – i.e. the number of people in the 20-64 age group in work – rose from 67.2 % in 2015 to 70.5 % in the first nine months of 2019, after hovering slightly around 67 % in the preceding decade. It is worth noting that Belgium's employment rate started its ascent two years after the EU at large, but it has been moving in parallel since. That said, Belgium is still trailing the EU significantly, with the gap at 3.3 percentage points in 2019. And the country's stated target of 73.2 % by 2020, set down in its Europe 2020 strategy a decade ago, remains far off.

Ample employment creation in 2019 coincided with a further drop in the number of unemployed job-seekers (–19 000), even this was less steep than in 2018 (–30 000). The average number of unemployed

Chart 30

Employment rate up and unemployment rate down



Source: Eurostat.
1 Average of the first three quarters.
2 Unemployed for a year or more.

job-seekers came to 476 000 (annualised) in 2019, 24 000 fewer than before the 2008 crisis. The number of jobless people recorded a clear fall in the three Regions, for all lengths of unemployment and for all age categories.

The drop in the number of unemployed job-seekers is also reflected in the ongoing fall in the harmonised unemployment rate since the end of 2015. In 2019, this stood at 5.4 %, an unprecedented level since 1983, the first year for which data from the labour force survey are available. Long-term unemployment, defined as unemployment of twelve months or over and considered more structural in nature, followed the same pattern; in the first nine months of 2019, the long-term unemployment rate was 2.4 %.

Unemployment rate at lowest level ever

Past years' reforms have improved how the labour market operates

Against the backdrop of positive if moderate growth in economic activity, this labour market revival is not just the consequence of measures seeking to encourage companies' demand for labour by making the relative cost of labour more attractive. The easing of fiscal and parafiscal pressure on workers' incomes to support labour supply also played a part. And the reforms were supplemented by measures aiming to extend careers and to encourage the jobless and inactive more strongly, on top of measures on work organisation and training for employees.

All these actions contribute to a more smoothly operating labour market, as shown by an analysis of the Beveridge curve. This curve links the job vacancy and unemployment rates and reflects the extent to which labour demand and supply coincide. Of course, the business cycle impacts the curve, with more robust economic activity at a time of recovery boosting company demand for workers, pushing down the unemployment rate and boosting job vacancy rates. The reverse applies at times of recession. But the positioning of the curve itself may be changed by structural elements. For one thing, the curve returns to the origin of its axes when there is better matching between labour supply and demand. This may be encouraged by boosting employment stimuli, improving the employability of job-seekers in the labour market, and raising educational attainment levels among the potential labour force.

Since 2016, the unemployment rate has come down sharply thanks to a favourable economic cycle, among other factors. However, since mid-2017, this decline – by about two percentage points – has no longer gone hand in hand with higher vacancy rates, which suggests that the past years' reforms have ushered in a sustainable improvement in how the labour market operates. Some caution is called for when drawing this conclusion: an analysis of the Beveridge curve may point to an improvement in the way the labour market operates, but it does not enable identification of the exact causes, nor any quantification of its impact.

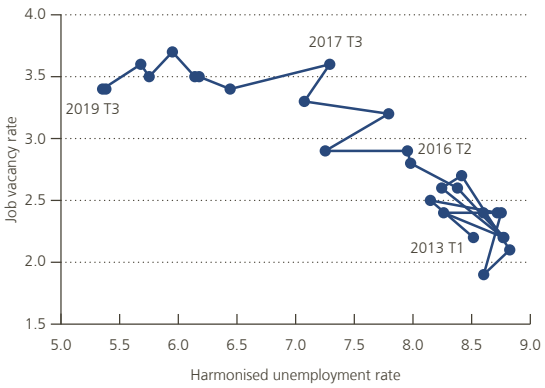
Job creation involved both employees and the self-employed

The resilience of job creation in 2019 was particularly notable, as wage growth accelerated and economic activity weakened. The employment

Chart 31

Unemployment rate falling since 2016 without pushing up job vacancy rate

(Beveridge curve [1])



Source: Eurostat.

1 Harmonised unemployment rate as a percentage of the labour force between 15 and 64. This is based on the unemployment rate from the labour force survey, which uses the ILO definition – i.e. unemployed available and actively looking for work, irrespective of being registered as unemployed job-seekers with public employment services or receiving benefits as such. The job vacancy rate is defined as the relationship between the number of vacancies and labour demand – i.e. the sum of jobs taken and vacant).

intensity of economic growth – i.e. the relationship between the growth of employment in persons (1.5 % in 2019) and that of real GDP (1.4 %) – had been quite substantial in previous years and kept rising in 2019. On forecasts released by the Bank in December 2019, this ratio has now peaked: employment growth, which typically takes some time to respond to movements in activity, looks set to slow in 2020 and beyond. High employment intensity, incidentally, curbed productivity gains in 2019.

Employment grew most in business-cycle-sensitive branches

In 2019, the numbers of both employees and self-employed people increased. Moreover, self-employed status, which enjoyed a popularity not seen since the great recession, turns out to be quite impervious to the economic slowdown. This reflects the robust growth of the liberal professions, a growing interest in the flexibility afforded by self-employed status, and opportunities for the retired to combine their pensions with independent paid work. For some people who, despite their skill sets and active search for work, have a hard time finding a job as an employee, self-employed status serves as a gateway into the labour market.

For employees, the economic slowdown did not affect the dynamic employment creation of the past years. As has been the case since 2015, most jobs were created in business-cycle-sensitive branches of activity, with those contributing the most being trade, transport and hotels and restaurants, business services and health care. Only the financial services and insurance branches saw their workforces shrink further.

Table 6

Labour supply and demand

(year-on-year changes in thousands of people, unless otherwise stated)

						Level
	2015	2016	2017	2018	2019 e	2019 e
Total population	59	57	54	55	54	11 457
Working-age population [1]	16	16	12	13	13	7 338
Labour force	21	33	49	36	55	5 450
Domestic employment	40	58	76	66	74	4 891
Employees	30	46	64	53	58	4 072
Branches sensitive to the business cycle [2]	19	28	38	37	38	2 528
Public administration and education	0	2	9	4	5	834
Other services [3]	12	16	17	11	15	710
Self-employed	10	12	12	13	16	819
Unemployed job-seekers	–19	–26	–28	–30	–19	476
p.m. Harmonised unemployment rate [4, 5]	*8.6*	*7.9*	*7.1*	*6.0*	*5.4*	–
p.m. Harmonised employment rate [4, 6]	*67.2*	*67.7*	*68.5*	*69.7*	*70.6*	–

Sources: FPB, NAI, NEO, Statbel, NBB.

1 People aged 15-64.

2 Agriculture; industry; energy and water; construction; trade; transport; catering industry and communication; financial activities; real estate activities and business services.

3 Health care and social work; collective social, personal and household services.

4 Based on data from labour force survey.

5 Job-seekers as a percentage of the labour force aged 15-64.

6 People in work as a percentage of the working-age population between 20 and 64.

Varying structural trends in non-standard employment

Non-standard employment – i.e. types of employment beyond that of the traditional full-time wage earner on a permanent employment contract – show a variety of structural trends depending on the type of employment observed (self-employed, temporary contract or part-time worker).

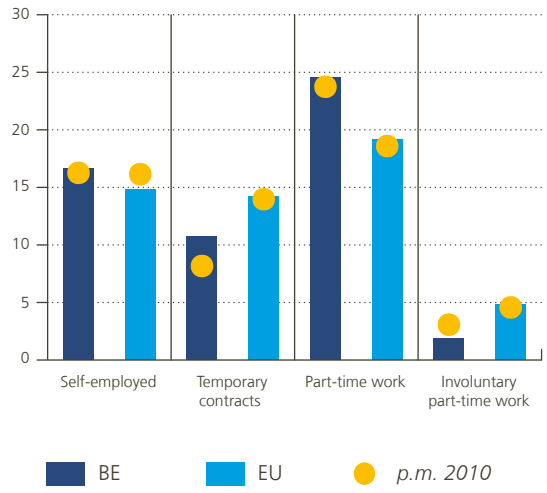
For one thing, the proportion of self-employed people in the total employment figures edged up between 2010 and 2018 (latest available figures). This slight gain by 1 percentage point to 17 % nonetheless contrasts with the EU at large, where self-employment is losing ground to salaried work.

Temporary employment agreements account for 11 % of all contracts with employees in Belgium, a share that has been rising since 2014 (+2 percentage points). Numerous employers reacted to that year's scrapping of a legal probationary period by offering temporary contracts enabling them to test workers in real-life work situations. This upward trend slowed in 2018, possibly related to that year's reform of the notice period for employees with a permanent contract: for workers in service for less than three months, notice was cut to a week. It is the young that are typically hired on a temporary contract, and despite the increase in the last few years, the percentage of temporary employment agreements in Belgium remains below the European average (14 %).

Chart 32

Non-standard employment

(2018, in % of corresponding employment)



Sources: Eurostat, NAI.

Part-time workers, by contrast, are relatively more numerous in Belgium than in the EU. One in four Belgian employees works part-time – some 80 % of them women – compared with one in five in the EU. Following a sizeable increase in previous decades, this figure has remained fairly stable since 2010. Belgium has relatively fewer wage-earning involuntary part-time workers who would prefer to work full-time. This group accounts for 2 % of salaried employment, compared with 5 % in the EU as a whole. Young people and women suffer from this problem most[1].

Turning point in labour market tensions

Although net job creation has not yet weakened, in 2019, there was no increase in the tensions that had been gradually emerging in the labour market.

Since the spring of 2018, for example, agency work had been coming down, but it has remained at high levels. In view of its flexibility, temporary agency work serves as a leading indicator of future trends in traditional employment. In the past years, agency work volumes have been impacted by companies' need for greater flexibility and the fact that the probationary period for permanent contracts was scrapped.

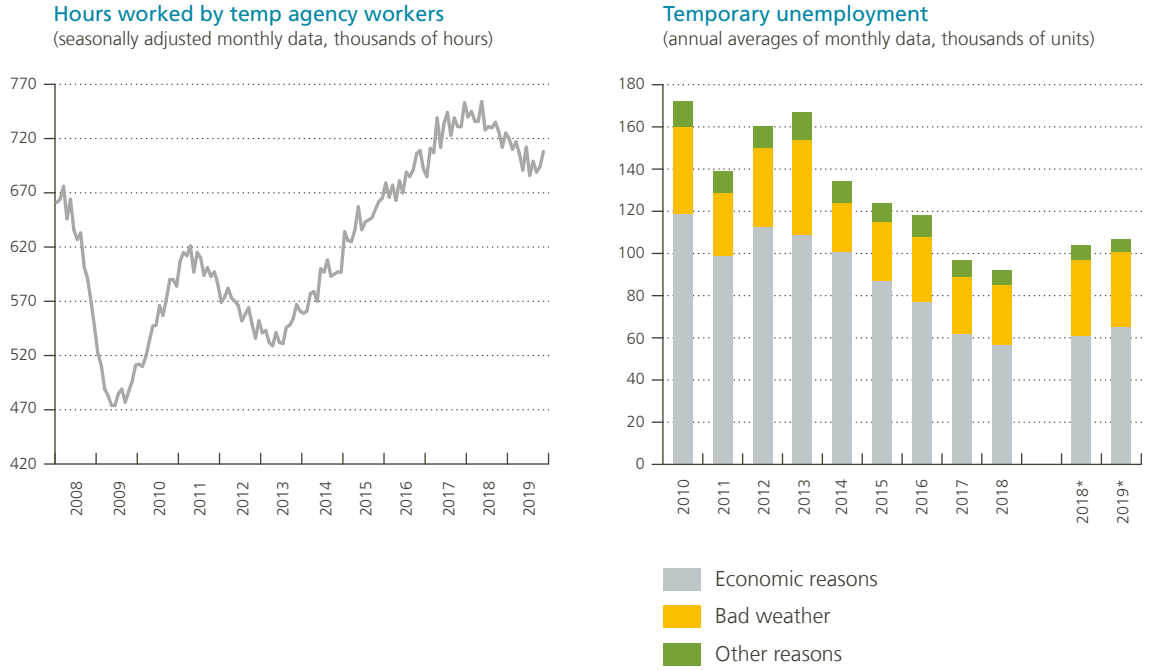
Temporary unemployment trends would appear to present the reverse image of temporary agency work, as temporary unemployment falls at the top of the economic cycle when companies have to mobilise all available resources, while it goes back up when the need for workers declines but it is too soon to fire employees. The fall in temporary unemployment for economic reasons, which had started in 2013, began to slow in 2018 and ground to a halt in 2019.

According to Statbel figures, vacancies averaged 142 500 in the first nine months of 2019, taking

1 For more details, see Nautet M. and C. Piton (2019), "An analysis of non-standard forms of employment in Belgium", NBB, *Economic Review*, June, 1-28.

Chart 33

Agency work and temporary unemployment trends appear to point to cyclical reversal

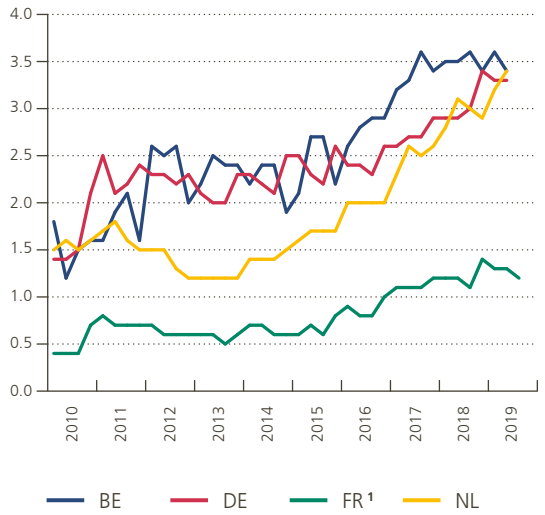


Sources: Federgon, NEO.
* Average in the first seven months.

Chart 34

Job vacancy rate stabilised after sharp rise

(in % of labour demand; unadjusted quarterly data for all companies, unless otherwise stated)



Source: Eurostat
1 For companies with more than ten employees.

the job vacancy rate – the relationship between the number of vacancies and the total number of available jobs (i.e. the sum of jobs taken and vacant) – to 3.5 % in this period. Though still very high by international standards, Belgium's vacancy rate has been stable since 2018.

Labour market participation remains too low

Although the working-age population has been slowly going up since 2012, the year 2019 saw another robust expansion in the labour force on the back of a higher activity rate, particularly among people over the age of 55. This latter group has been encouraged to remain active by a whole host of measures to extend careers taken since the early 2000s.

Despite these positive developments, labour market participation remains relatively subdued, with the Belgian activity rate below the European average and way behind the best-performing countries, including

Sweden. In 2018, 31 % of people of working age (15-64 years old) were inactive in Belgium – nearly one-third. This applies to all three of the country's Regions, although the activity rate is clearly higher in Flanders (71.8 %) than in Brussels (65.5 %) and, especially, Wallonia (63.8 %).

Inactive respondents list education (41 %), illness (19 %) and – mostly women – family responsibilities (21 % of total number of inactive people, but 32 % of all inactive women) as their main reasons for not working or looking for a job. Other reasons given include caring for children or for adults unable to work (5 % of inactive people, only women), being retired (4 %), feeling that there are no jobs available (3 %) or unspecified (19 %).

As observed year after year, certain groups are particularly under-represented in the Belgian labour market, some more than others depending on the Region. These groups include citizens of non-EU countries, the low-skilled, the 15-24 and 55-64 age groups, although the latter has been staging a clear rise since the 2000s.

Chart 35

High percentage of inactive people

(working-age population by socio-economic status, in % of 15-64 age group, 2018)

Source: Eurostat.

Table 7

Activity rate by age, gender, educational attainment and nationality in 2018

(in % of the corresponding population aged between 15 and 64 years)

	Belgium	Brussels	Flanders	Wallonia	*p.m. EU*
Total	68.6	65.5	71.8	63.8	*73.7*
15-24 years	29.6	22.4	33.9	24.9	*41.7*
25-54 years	85.0	78.8	88.6	80.7	*85.9*
55-64 years	52.6	55.4	54.1	49.1	*61.9*
Men	72.8	71.6	75.5	68.5	*79.2*
Women	64.3	59.5	68.2	59.2	*68.2*
Low-educated	41.0	43.9	43.2	36.8	*53.6*
Medium-educated	70.9	61.6	73.6	68.1	*76.5*
Highly-educated	86.4	84.4	88.0	84.1	*88.2*
Nationals	69.0	63.4	72.2	64.4	*73.8*
EU citizens	71.7	76.8	73.1	64.0	*79.8*
Non-EU citizens	53.9	54.1	57.6	47.7	*66.9*

Sources: Eurostat, Statbel.

The activity rate of the 55-64 age group rose from 27.1 % in 2000 to 52.6 % in 2018 and resulted in a nearly equally sizeable upturn in their employment rate, from 26.3 % in 2000 to 50.3 % in 2018. This is the outcome of a range of measures aimed at extending people's careers – specifically, tighter conditions for access to the system of unemployment via employer top-up and job-seeking exemptions, followed by the scrapping of the status of "exempt older unemployed person" – which had initially targeted the youngest in this age group and were gradually extended to include its older members too. And so, the activity rate of the 55-59 age group rose from 39 % to 71 % between 2000 and 2018, while that for 60-64-year-olds also picked up, from 13 % to 32 %. Still, the latter percentage remains at a lower level.

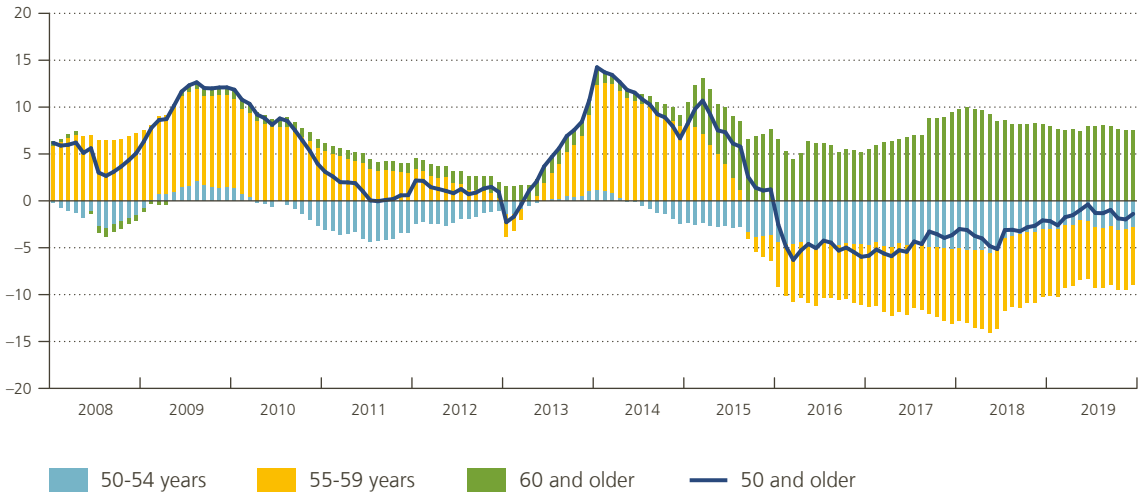
Reforms of end-of-career schemes finally bear fruit

At the same time, there has been a shift in unemployment in the broader sense, more specifically from the group of unemployed people exempt from seeking a job to the group of job-seekers. Whereas, in 2008, barely 15 % of fully unemployed benefit claimants between the ages of 55 and 64 were registered as job-seekers, this proportion rose to 59 % in 2019. An analysis of the over-50s reveals highly divergent situations depending on the sub-group reviewed. The fall in the number of unemployed job-seekers, which has become visible since 2016, is driven solely by people in the ages between 50 and 59, whereas the number of unemployed job-seekers aged 60 and over has risen. Previously, this age group hardly featured in the unemployment data as they had already left the labour force by taking advantage of one or more of the various schemes mentioned above.

Chart 36

Unemployed job-seekers aged 60 years and older: numbers on the rise

(changes in thousands of people compared with the corresponding month of the previous year)



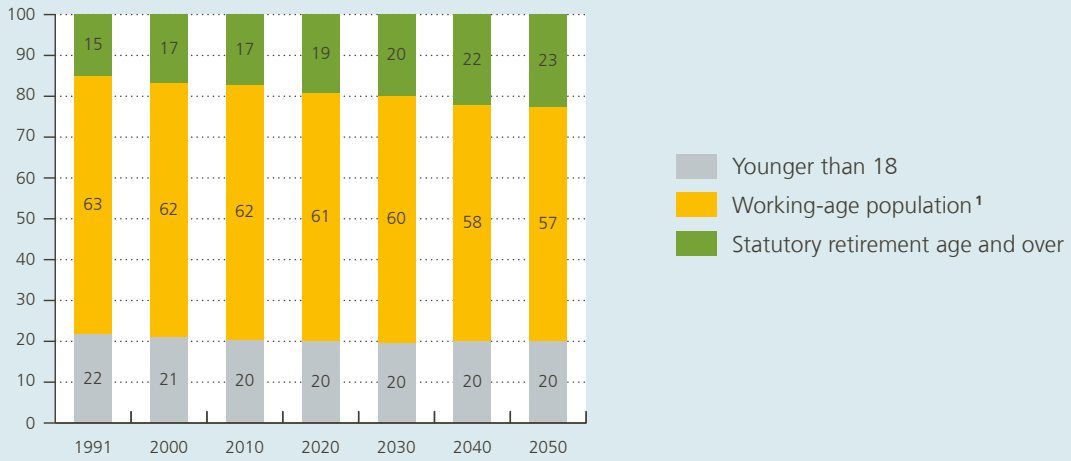
Source: NEO.

BOX 4

Demographic challenge against a backdrop of low labour market participation

Share of working-age population set to decline over time

(breakdown of population by large age groups, in %)



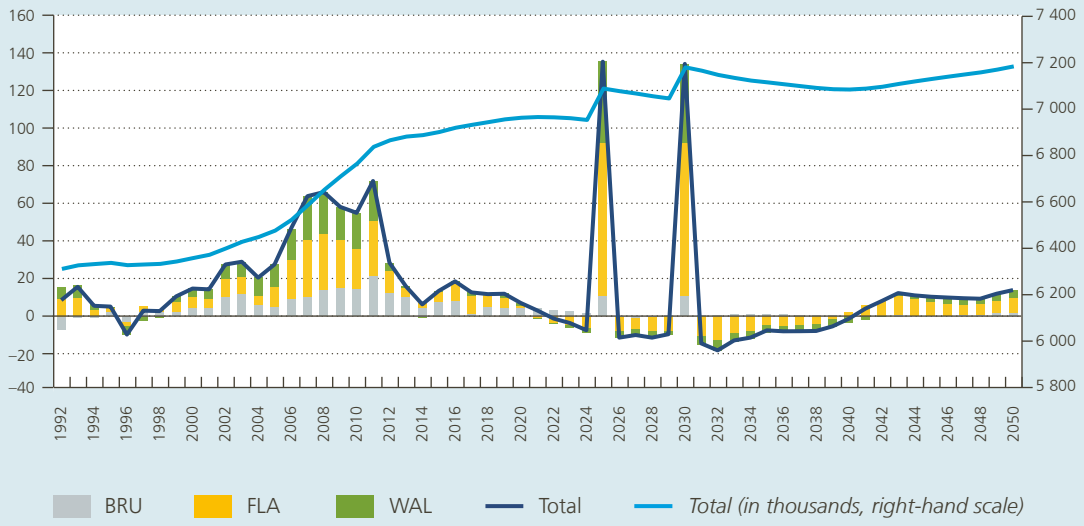
Source: FPB.

1 In line with the increase in the statutory retirement age, this group has been defined as the 18-64 age group up to and including 2024, as the 18-65 age group between 2025 and 2029, and as the 18-66 age group from 2030.

The numbers clearly reveal that the population is ageing, i.e. the group of people reaching retirement age is growing faster than the working-age population (the latter group being defined as people between 18 and the statutory retirement age, which will rise in two stages from 65 to 67). This trend will become all the more marked, as large swathes of baby boomers will be retiring in the coming years. The dependency ratio – defined as the relationship between the number of people of retirement age and older and the number of people between the ages of 18 and statutory retirement age – still stood at 0.31 in 2018, but will rise to 0.33 in 2030 – despite the rise in the statutory retirement age from 65 to 67 between these two years – and to 0.40 in 2050. The ratio increase reflects the expansion of the retired population and the contraction of the working-age population.

Statutory retirement age reforms cushion fall in working-age population

(projections by Region of the working-age population; annualised changes in thousands of persons, unless otherwise stated)



Source: FPB.

The working-age population, which has been growing a lot more slowly, looks set to shrink from the first half of the next decade. The contraction is expected to start in Flanders from 2021 and take hold in Wallonia from 2022 and is predicted to continue into the 2040s. In Brussels, the working-age population is not predicted to decline. The increase in the statutory retirement age, in both 2025 and 2030, will cause a one-off increase in the working-age population, and neutralise its contraction. However, the share of the oldest age group in the labour force also stands to grow as a result; this group's low activity rate will push down the total activity rate.

While debates may rage over the speed or the extent of the phenomenon of population ageing, it has now become an incontrovertible fact, which is posing a whole host of challenges in terms of organising society but also in terms of the availability of workers and funding of social security. If Belgium does not succeed in getting a larger proportion of the working-age population into work, this demographic effect will slam the brakes on the economy's growth potential.

3.4 Private sector labour costs have risen further

Favourable labour market conditions and scarcity-induced tensions are beginning to percolate through to wages. In 2019, gross hourly wages in the private sector added 2.6 %, continuing the upward trend of the past few years. While wage growth was largely due to indexation, the acceleration compared with 2018 was prompted by real agreed wage increases.

Real negotiated wage growth accelerates, but wage drift remains subdued

At the end of February 2019, the country's social partners arrived at a draft interprofessional agreement to cover the 2019-20 period, although not all social partners ended up endorsing it. Nonetheless, the margin set down in the draft agreement, specifying by how much labour costs will be allowed to rise – a maximum 1.1 % on top of indexation – was endorsed by Royal Decree and came into force in April 2019. The index of collectively agreed wages drawn up by Federal Public Service Employment, Labour and Social Dialogue (FPS ELSD) suggests that this margin fairly rapidly translated into collective labour agreements at sector level. FPS ELSD puts the impact of permitted real negotiated pay raises at 0.7 % in 2019, meaning that the bulk of the margin was allocated in the first year of the agreement. This is a break with the past: the real negotiated increase

Table 8

Labour costs

(calendar adjusted data, percentage changes compared with the previous year, unless otherwise stated)

	2015	2016	2017	2018	2019 e
Hourly labour costs in the private sector	0.2	–0.4	1.4	1.5	2.4
Gross hourly wages	0.4	1.3	1.6	2.3	2.6
Real agreed adjustments [1]	0.0	0.0	0.2	0.4	0.7
Indexation	0.1	0.5	1.6	1.7	1.8
Wage drift [2]	0.3	0.8	–0.2	0.2	0.1
Employers' social contributions [3]	–0.3	–1.7	–0.3	–0.8	–0.2
Hourly labour costs in the public sector	0.9	2.5	2.1	2.2	1.5
of which: Indexation	0.0	1.0	2.0	1.5	1.5
Hourly labour costs in the economy as a whole	0.3	0.3	1.5	1.6	2.1

Sources: FPS ELSD, NAI, NSSO, NBB.

1 Wage increases fixed by joint committees.

2 Increases and bonuses granted by companies over and above those under interprofessional and sectoral collective agreements; wage drift resulting from changes in the structure of employment, and errors and omissions; contribution to the change in labour costs, in percentage points.

3 Contribution to the change in labour costs resulting from changes in implicit social security contribution rates, in percentage points.

used to be bigger in the second year of such an agreement, simply because of the time it took to agree at sector level.

As a result, real negotiated adjustments in 2019 turned out as big as those of the previous two years together. The 2017-18 interprofessional agreement had also set a wage margin of 1.1 %, but the FPS ELSD index shows that this had only partially been used at sector-level negotiations. Although real negotiated wages advanced only slightly in this period, the agreement did end a series of years in which virtually no real negotiated pay rises were granted. That said, the way that wage negotiations are set up in Belgium does make it possible that the proportion of the margin not granted by the joint committee is still being used in company-specific agreements – but this is not recorded as a real negotiated wage increase but rather as wage drift.

Stronger increase in negotiated wages

The same is true for a raft of benefits that are not covered by sector-specific negotiated increases and which were frequently used while real wage growth was subdued – e.g. types of more tax-friendly compensation, such as eco-vouchers, meal vouchers or group insurance. Some of these benefits could be part of what is known in Belgium as a "cafeteria plan", which allows employees to partly put together their own compensation through a selection of fringe benefits.

The wage drift also reflects the impact of changes to the structure of employment. Recent research by the ESCB Wage Expert Group[1] found that, after the great recession, the wage drift in Belgium was pushed up by the larger proportion of higher-skilled and older employees, who receive relatively higher pay because of their greater productivity and/or seniority-related compensation levels. The changing employment structure has both structural and cyclical causes. For one thing, the labour force's educational attainment level is trending upwards, while the rewards are emerging of measures to keep people in paid work longer. The cyclical effects in their turn are that a recession invariably sees agency work, young people and low-skilled jobs in the labour market come under pressure, reducing their share in the total wage bill and ratcheting up wage drift. In 2019, the changing employment structure once again caused the wage drift to exert a slightly positive effect on hourly labour costs.

Indexation remains the key determining factor for hourly labour costs

Although real negotiated wage increases were higher in 2019 than in previous years, automatic wage indexation remained the biggest contributor to the increase in gross hourly wages in the private sector. This was also the case in 2017 and 2018, as it followed two years in which indexation had little effect on wage trends – because wage indexation was temporarily shelved from March 2015 until the impact of the indexation freeze had reached 2 %. Wage indexation is based on the way the health index develops, although various sectors use a wide range of indexation schemes. Its application pushed up gross wages in 2019 by 1.8 %, which was slightly more than in 2017 and 2018.

Incidentally, public sector wage indexation is linked to the trigger index figure exceeding 2 %, two months after which civil servants' pay is adjusted. In 2019, this trigger index was not exceeded, but the effect of the August 2018 overshoot was still being felt and gross wages in the public sector rose by 1.5 % due to indexation. The developments in the various real wage components more or less balanced each other out, and total hourly labour costs rose by around the same percentage as the indexation.

Limited impact of reductions in social security contributions

More so than just gross wages, total labour costs shouldered by companies should be considered as one of the factors that determine their competitiveness – which is where the trend in employers' social contributions comes in. In the past few years, this trend was influenced by the tax shift, and especially so in 2016 and 2018: in those two years, the tax-shift-derived reductions in social security

1 Jonckheere J. and Y. Saks (2019), "Low wage growth in the euro area: main conclusion from the ESCB Wage Expert Group with a focus on Belgium", NBB, *Economic Review*, December, 1-13.

contributions cut hourly labour costs by 1.7 and 0.8 percentage points respectively. During that time, a number of measures were phased in, and these have had a major impact on labour costs. For one thing, the base rate for employers' social contributions was cut: since 2018, it has been at 25 % including the wage restraint levy, compared with 32.4 % before the tax shift. On the other hand, the structural reduction in social security contributions was lessened, with most of this now targeting low wages.

In 2019, the structural reduction in social security contributions for low wages was raised and the scope of the measure also expanded (see box 5 for an in-depth analysis of the fiscal and parafiscal burden on low wages). The structural contribution reduction again edged up as a result. However, the downward impact of employers' social contributions on labour costs was limited at –0.2 percentage point.

All in all, hourly labour costs in Belgium's private sector grew by 2.4 % in 2019, i.e. nearly 1 percentage point more than the previous year. Note that its neighbouring countries also reported an acceleration, though. Wage gap developments had not yet been estimated when this Report went to press; this gap reflects, as set out in the Law as amended in March 2017, cumulative labour costs (since 1996) in Belgium compared with those in the three main neighbouring countries. Belgium's official wage gap is calculated annually by the Central Economic Council (CEC). The 2019 estimate was not yet available at time of writing, so no final pronouncements can be made.

BOX 5

The tax wedge on low wages

The difference between employers' total labour costs and take-home wages for employees impacts both labour supply and demand. According to OECD figures, that difference – known as the tax wedge – for a single person without children, irrespective of wage level, is bigger in Belgium than in its neighbouring countries.

However, the tax shift of the past few years has helped to reduce the tax wedge for all wage levels in Belgium by cutting employers' social security contributions and reforming personal income tax. As intended, its impact was the greatest for low wages. The OECD has worked out that the tax wedge in the 2015-18 period came down by 3.3 percentage points for a single person without children earning 67 % of the average wage, whereas the reduction worked out at 2.6 percentage points for that same person on an average wage. People in the same household situation but on a higher income (167 % times the average wage) saw a cut by 1.7 percentage points. It is worth noting that, even before the tax shift, there were measures in place – such as social and tax work bonuses – to help make the lowest-paid jobs more attractive.

All these measures have combined to lower the tax wedge for the lowest wages, but there is still a difference between employers' total labour costs and take-home pay for employees. To show what this looks like, a simplified scenario has been put together for a single, white-collar worker earning the guaranteed average minimum monthly income (GAMMI) (a gross monthly income of € 1 593.81 at the end of 2019). This GAMMI, which is set by the National Labour Council (NLC), is the legal minimum

wage in Belgium and the absolute floor in the private sector pay scale. The tax wedge for this wage level was estimated at 15.5 % in 2019.

If target group policies are factored in – which, by way of wage subsidies, reduce or even cut to nil employers' social contributions – the tax wedge turns out smaller. Since the sixth State reform, this has mainly become a regional competence and the various Regions have opted for different priorities. If, for example, calculations take on board the target group reduction for low-skilled young people in the Flemish Region – a profile typically earning a wage close to the minimum wage – we are looking at an estimated tax wedge of 4.5 %. The other two Regions have opted to replace this target group reduction with other policy options.

The outlined measures taken to make work more attractive or to create low-skilled jobs have led to a clearly lower tax wedge for the lowest wages than for higher pay. So, our single, white-collar worker earning 67 % of the average wage was looking at looking at a tax wedge of 45.4 % in 2019, compared with 52.3 % for the average wage.

Indicative tax wedge for the minimum wage in 2019 [1, 2]

(annualised data)

	Minimum wage	Factoring in target group reduction for low-skilled young workers in the Flemish Region [3]
Total labour costs for the employer (in €)	21 598.57	19 125.72
p.m. Gross wage (= 12 × GAMMI) (in €)	19 125.72	19 125.72
Net wage (euros)	18 257.95	18 257.95
Tax wedge (in %) [4]	15.5	4.5
of which:		
Share of personal income tax [5]	4.1	4.1
Share of employees' social security contributions [5]	0.4	0.4
Share of employers' social security [6]	11.4	0.0

Sources: NSSO administrative instructions 2019 Q1, FPS Finance, NLC, OECD, own calculations.

1 Calculated for a simplified base scenario, i.e. a single, white-collar worker without children working full-time and living in the Flemish Region. Their gross wage equals the GAMMI and does not therefore include any premiums or fringe benefits.

2 Personal income tax due was calculated based on tax deducted at source, social security contributions are calculated in line with the NSSO's administrative instructions for the first quarter of 2019.

3 When hiring a low-skilled young person (under the age of 25) earning a wage in the quarter below a certain threshold, employers in the Flemish Region will be fully exempt from basic employers' contributions (including wage restraint) for a period of eight quarters. As the impact of the various employers' contributions is very limited, this analysis assumed, for the sake of simplicity, that no employers' contributions are due.

4 Calculated as 100 × (1 – (net wage ÷ total labour costs for employer)).

5 Calculated as the share in the gross wage, in %.

6 Calculated as the share in total labour costs, in %.

Unit labour costs also up

Although hourly labour cost trends form the cornerstone of wage negotiations, their outcome must also reflect apparent labour productivity – the two variables that together determine unit labour costs. To ensure the competitiveness of Belgian companies, trends in these two variables should not deviate for any length of time. That said, the 2019 uptick in hourly labour costs was accompanied by only a slight increase in productivity growth, making for a further rise in unit labour costs in Belgium.

Labour costs in Belgium are high, but are partially offset by robust productivity

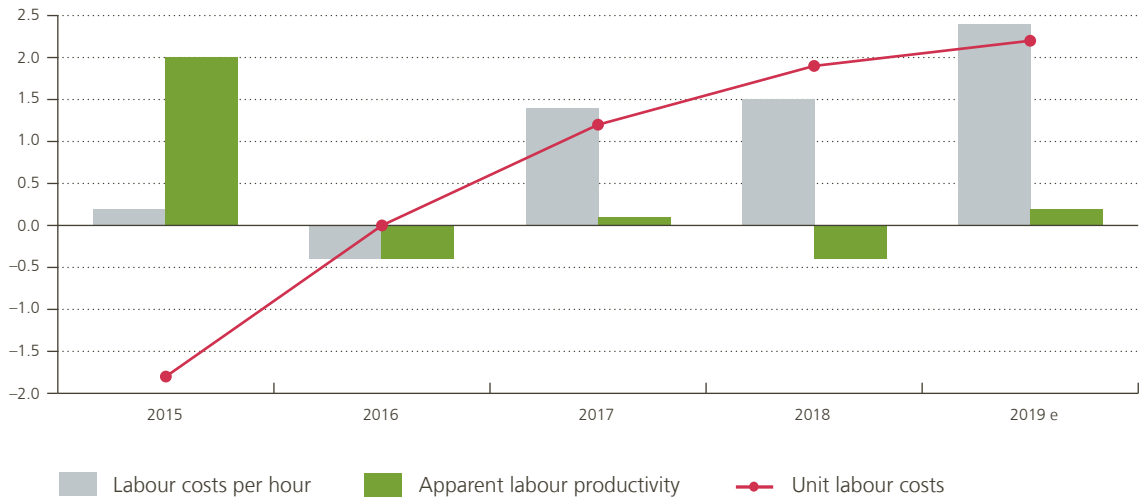
Since 1996, the cumulative trends of Belgium's hourly labour costs have, by law, been aligned with the same trends in its three main neighbouring countries. Despite the measures taken to reduce labour costs in the past five years – e.g. the tax shift and index jump – average labour costs per hour worked are still higher in Belgium. In the business sector, labour costs in 2018 averaged around € 38 per hour in Belgium, compared with around € 34 in Germany, € 35 in France and € 33 in the Netherlands. Both in manufacturing and in market services, Belgian hourly labour costs exceeded the figures for neighbouring countries.

Higher labour costs per hour may be justified for employees working at adequate-to-high productivity levels, but high wages across the board can push or keep out of the labour market employees whose productivity is not up to scratch. Adjusted for productivity levels, labour costs are still highest in Belgium, but the gap clearly narrows. In the Belgian business sector, unit labour costs came to 0.64 in 2018, compared with 0.62, 0.63 and 0.59 for Germany, France and the Netherlands respectively. Belgian manufacturing labour costs adjusted for productivity were lower than those in Germany and France, but still higher than in the Netherlands. In market services in Belgium, by contrast, higher hourly labour costs were not fully offset by higher labour productivity, making for higher unit labour cost levels than in any of its neighbouring countries.

Chart 37

Unit labour costs[1] rose further

(percentage changes compared with the previous year, private sector)



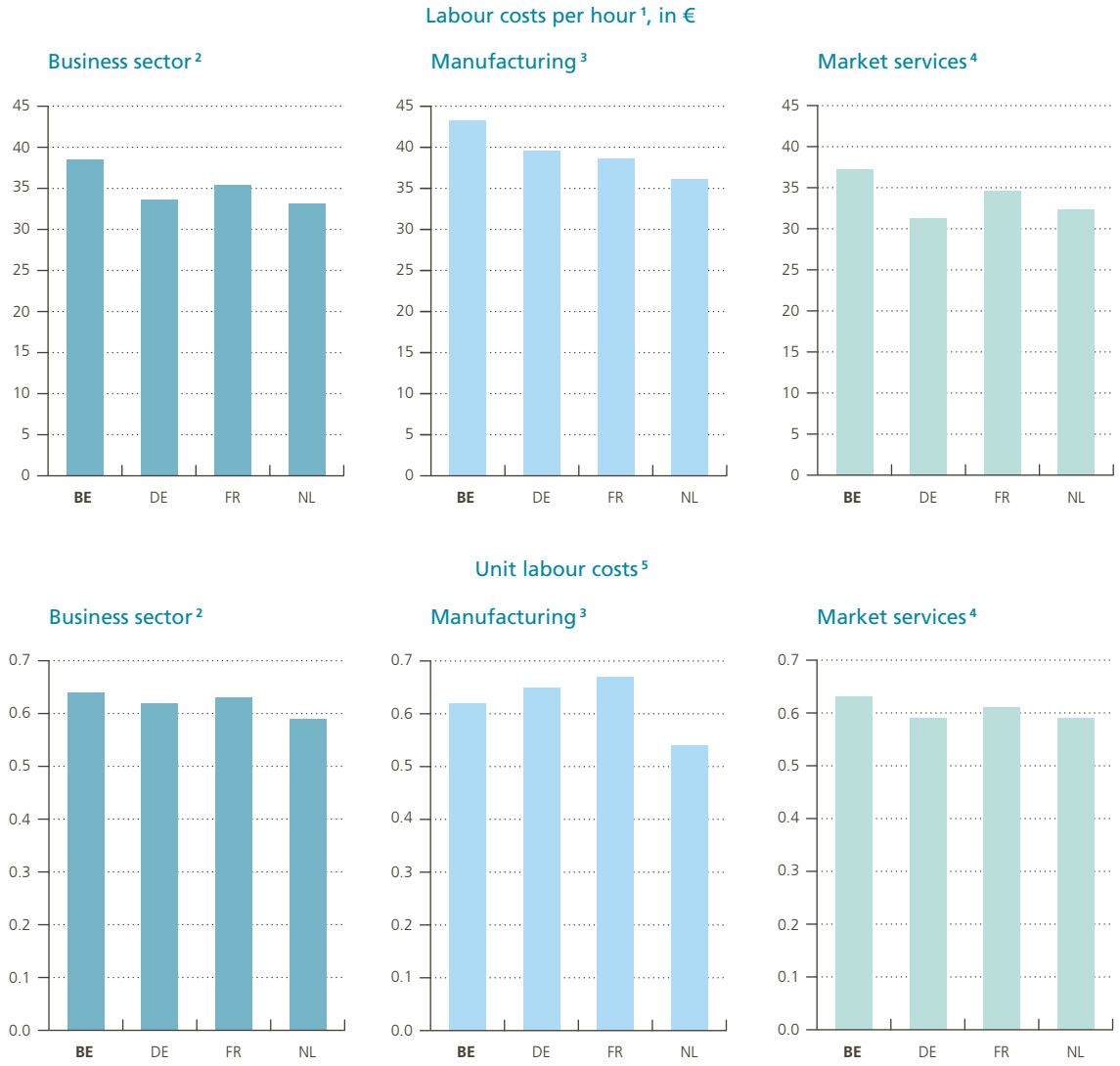
Sources: NAI, NBB.

1 Unit labour costs are calculated by dividing the labour costs per hour by the apparent labour productivity, which in turn is calculated as the real value added divided by the number of hours worked by employees and self-employed.

Chart 38

Labour costs per hour are higher in Belgium, but the unit labour cost gap is much narrower

(level, 2018)



Sources: Eurostat, NAI.

1 Calculation based on the national accounts: labour costs (D1) divided by the number of hours worked by employees.

2 The business sector comprises NACE categories B to N and includes industry, construction and market services, serving as a proxy for the private sector.

3 Manufacturing concerns NACE sector C.

4 Market services comprise trade, transport, hospitality industry, information and communication, financial activities, professional activities and administrative and support services (NACE categories G to N).

5 Calculated as labour costs per hour divided by apparent labour productivity, in its turn calculated as the nominal value added divided by the number of hours worked by employees and the self-employed.

Belgium may still boast very high productivity levels, but these have clearly not been rising as much over the past few years. One reason is that more lower-skilled people are now in work, a trend encouraged in the past few years through the system of service vouchers and measures such as reduced social security contributions due on low wages. Slowing productivity increases are noted elsewhere as well, but the trend is more pronounced in this country. In recent reports, both the OECD[1] and the National Productivity Council[2] have flagged up the danger of slowing productivity growth for the Belgian economy's competitiveness. It is imperative for the country to take the necessary steps to get productivity growth back on track (see 6.2). The wage negotiation framework also needs to take on board productivity trends, which can vary between sectors, geographic location and individual companies.

Wage developments must factor in productivity trends

It should not be forgotten that Belgium has a centralised system of wage-setting, which imposes a maximum wage growth on the private sector by way of the wage margin, while sector-level agreements set a minimum wage increase for all companies involved. Companies can use the margin between this minimum and maximum to differentiate wage growth depending on productivity gains or in keeping with any scarcity they encounter. Following a period of rigorous wage restraint, companies had very little scope to bargain under the latest central agreements. Companies with the necessary resources can consider pay rises that fall outside these margins or apply tax-efficient remuneration alternatives to maximise the effect on employees' purchasing power. That said, the possibilities to do this are finite and downward differentiation is even harder. Companies only rarely trigger the opt-out clause that allows them not to follow a sector agreement provided they observe the conditions as set down in a collective labour agreement. In Germany, by contrast, which does not impose a formal ceiling on wage growth and where wage negotiations are also conducted at sector level, opt-out and deviation clauses are frequently brought into play, providing greater scope to the process of wage-setting at company level.

1 OECD (2019), In-Depth Productivity Review of Belgium, OECD publishing, Paris.

2 Nationale Raad voor de Productiviteit, Jaarverslag 2019, https://www.cnp-nrp.belgium.be/publications/publication_det.php?lang=nl&KeyPub=456

3.5 Headline inflation sharply down, underlying inflation slightly up

Headline inflation slowed in 2019. After nudging slightly over 2 % a year in the previous two years, consumer prices slowed in 2019 to 1.2 %. Lower inflation was attributable to the energy and food components. Underlying inflation, which excludes these volatile components and comprises the services and non-energy industrial goods categories, picked up a little, from 1.3 % in 2018 to 1.5 %, driven by stronger price upturns in both these categories. Meanwhile, the health index, which in Belgium is used as a benchmark for index-linking wages, benefits and rents, rose by 1.5 % in 2019, compared with 1.8 % in the previous year.

Energy and food inflation sharply down

Total inflation went sharply down as 2019 progressed, from nearly 2 % at the beginning of the year to an average 0.5 % in the final three months. This mirrors the way energy prices moved in the year: while still at an annualised 9 % in March, energy inflation then fell sharply and turned negative from June, to end up at –9 % in October. This can mainly be traced back to declining Brent oil prices, which caused inflation from fuels and liquid fuels to drop sharply. At the same

Table 9

Harmonised index of consumer prices

(year-on-year changes in %, unless stated otherwise)

					p.m. Weight in consumer basket	Three neighbouring countries
	2016	**2017**	**2018**	**2019**	***2019***	**2019**
Total	1.8	2.2	2.3	1.2	*100.0*	1.5
Underlying inflation	1.8	1.5	1.3	1.5	*68.8*	1.1
Services	2.2	1.9	1.6	1.8	*42.1*	1.5
Non-energy industrial goods	1.0	0.8	0.8	1.0	*26.7*	0.6
Food	3.1	1.4	2.7	1.3	*21.5*	2.5
Energy	–0.6	9.9	8.9	–0.8	*9.7*	2.0
Electricity	28.3	7.9	2.2	1.6	*3.2*	4.3
Gas	–11.8	4.1	9.6	–5.8	*1.7*	3.9
Fuels	–5.3	10.7	10.7	0.0	*3.5*	–0.6
Heating oil	–17.5	18.7	19.4	–1.6	*1.3*	2.3
p.m. Health index[1]	*2.1*	*1.8*	*1.8*	*1.5*	–	–

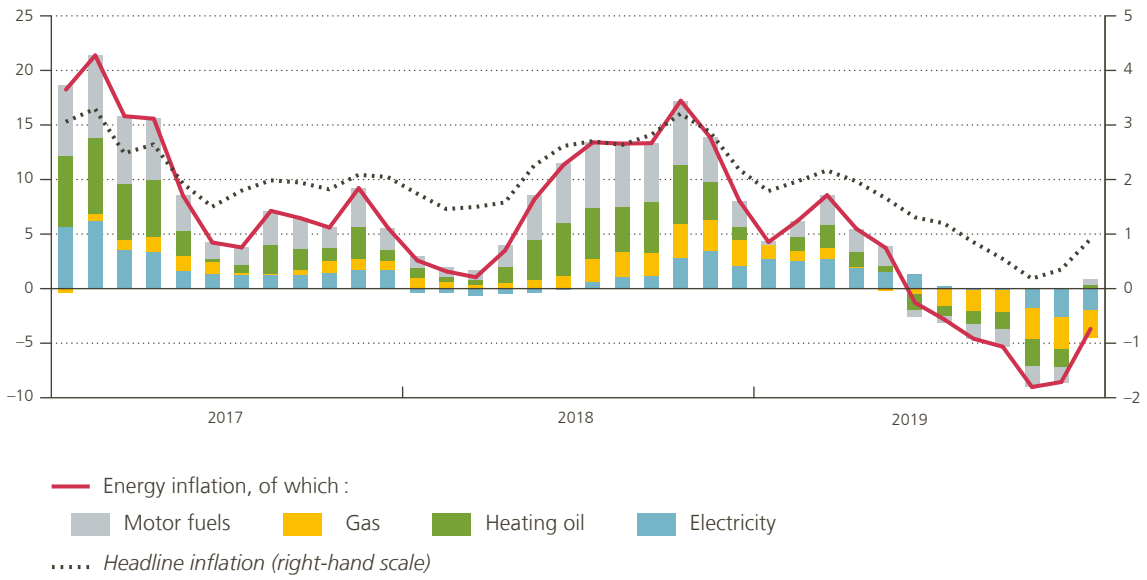
Sources: Eurostat, Statbel.

1 National consumer price index, excluding motor fuels, alcohol and tobacco.

Chart 39

Total inflation movements sharply influenced by energy inflation

(HICP; annual percentage changes for total and energy inflation, and contributing factors to change in energy inflation, in percentage points)



Source: Eurostat.

time, gas prices were also significantly below 2018, reflecting a more ample global supply. And electricity price rises were subdued in the wake of average falls in power distribution rates.

At 1.3 %, food inflation in 2019 came in at only half of what it had been the year before. The smaller increase is partly explained by the excise duties levied on these products. On tobacco, for instance, excise duties were raised much less steeply than in 2018 and January 2019 saw the effect of the increase in the sugar tax a year earlier stripped out, a levy introduced early in 2016 as part of the tax shift.

Inflation sharply down on trends in energy and food prices

Underlying inflation lower than macroeconomic indicators would suggest

Underlying inflation moved up slightly in 2019, but, at 1.5 %, remained subdued – as it had been in 2017 and 2018 – despite rising unit labour costs, a significant cost to companies and a key determining factor in pricing. In services, in particular (at 60 % the most important component of underlying inflation), labour costs sit heavily: in 2010, they accounted for around 40 % of total costs of final household consumption spending on services, whereas the figure is below one-third for all spending categories together.

The past three years' low levels of underlying inflation despite higher labour costs follow a stretch in which underlying inflation was persistently high against a backdrop of moderate growth in labour costs. Flying in the face of steeply lower unit labour costs in 2015 – the result of measures to bolster Belgian competitiveness – underlying inflation remained intractably robust, at 1.6 % and 1.8 % in that year and in 2016 respectively.

This is confirmed when a Phillips curve model is taken to analyse the link between inflation and the general macroeconomic cycle. Traditionally, this model draws on the unemployment rate as an

indicator for the economic cycle, but, by extension, other variables may also serve as input, real GDP, for instance, or unit labour costs. Based on multiple Phillips curve specifications, combining diverse variables, it may be concluded that underlying inflation was a little lower than might be expected in 2018 and 2019. The years 2015 and 2016, by contrast, had too high an underlying inflation according to this model, and particularly in the services component.

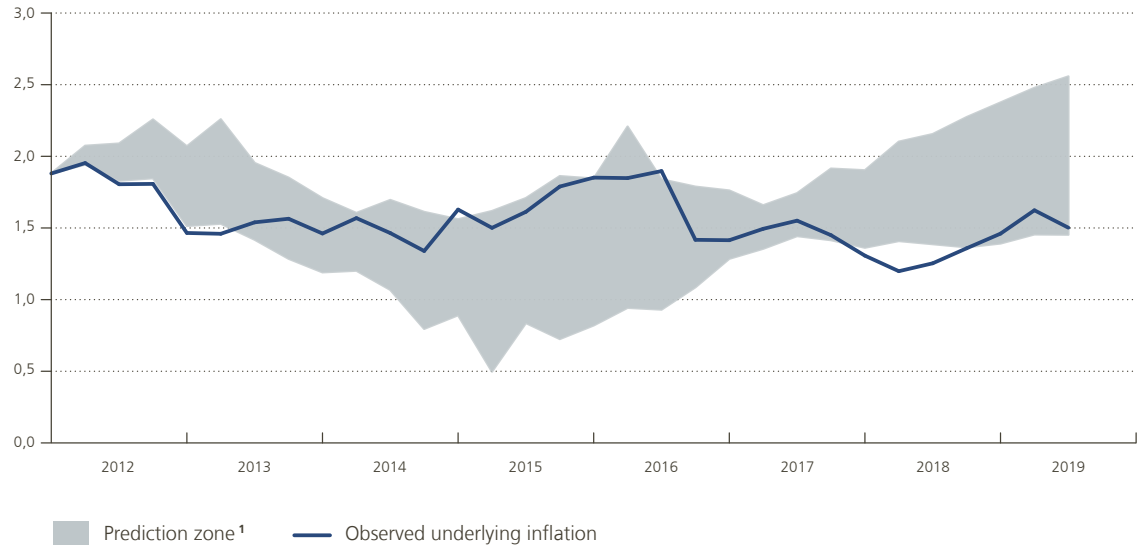
Despite strong wage growth, underlying inflation remained subdued

How companies set prices does not just depend on their costs, including labour costs, but also on how fiercely competitive their sector is, what investment is needed for their business, how flexible they can be in changing prices frequently or not, etc. Labour cost fluctuations can be absorbed in part by profit margins, whether temporarily or longer term. Expenditure statistics in the national accounts reveal to what extent margins are used for this purpose. The analysis will first investigate how the changes in unit labour costs are transferred to domestic prices (measured by the GDP deflator), with profit margins equalling the difference in growth between the two variables. Determining the link between the GDP deflator and underlying inflation is the next step, as the latter does not merely depend on domestic costs, but also on prices of imported goods (whether consumed immediately or used as input towards the production of consumer goods). That is how, at the end of the day, underlying inflation can be broken down into contributions from three components: unit labour costs, profit margins and a residual, which also includes the terms of trade.

Chart 40

Underlying inflation lower in the last few years than might be expected given macroeconomic environment

(annual percentage changes)



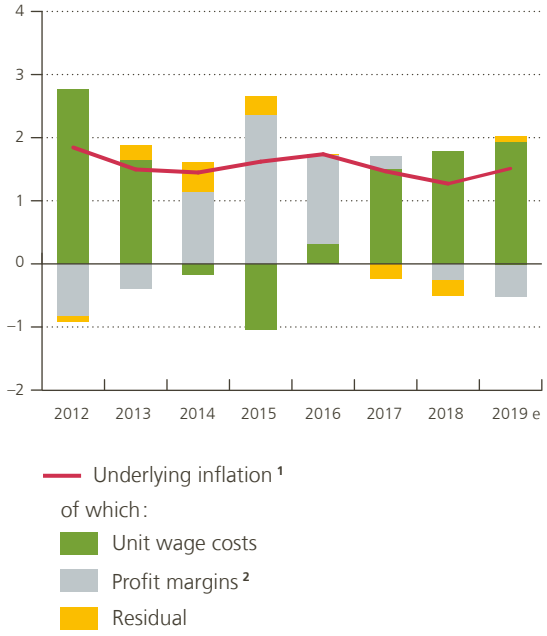
Sources: EC, ECB, Eurostat, NBB.

1 The zone pictured is between the minimum and maximum underlying inflation derived from Phillips curve models, towards which various sets of specifications are projected based on different combinations of indicators for three types of variable: economic activity, imported inflation and inflation expectations. For economic activity, the model uses the unemployment rate, unit labour costs, real investment and real GDP. For imported inflation, the model draws on oil prices and the import deflator, and for inflation expectations, the EC consumer surveys, past annualised HICP inflation, the past HICP index, the past HICP index not including energy, the past HICP index not including energy and food, and the past health index. The data cover the 1995Q1–2019Q3 period. Conditional predictions of underlying inflation start in the second quarter of 2012.

Chart 41

Labour cost growth is often partly absorbed by profit margins

(annual percentage changes for underlying inflation and contributions of the various components, in percentage points)



Sources: Banque de France, Eurostat, NBB.

1 Underlying inflation was measured using HICP. Decomposition was inspired by P. Diev, Y. Kalantzis and A. Lalliard (2019), "Why have strong wage dynamics not pushed up inflation in the euro area?", Bulletin de la Banque de France, pp. 225/6, September-October.

2 Profit margins have been defined as the growth of the GDP deflator less the growth of unit labour costs. The residual comprises three parts: (i) the terms of trade excluding energy and food, approximated by the growth of the export deflator less the growth of the import deflator, less the difference between total and underlying inflation, (ii) differences in price trends between private consumption and one of the other components of domestic demand, such as public consumption and investment, and (iii) a statistical adjustment for differences between the consumption deflator and HICP inflation.

The breakdown does indeed reveal that profit margins are used to prevent prices from fluctuating too much, when labour cost growth starts to swing. For example, in 2015, falling unit labour costs were not fully passed on into prices and instead helped create higher margins. Since then, wage growth has picked up again, and this has been absorbed into shrinking profit margins from 2018. Other factors, included in the residual, have also influenced underlying inflation. An appreciating euro, for instance, lowered import prices in 2017 and 2018, slightly depressing underlying inflation. In 2019, by contrast, the euro lost ground, with the reverse effect.

Profit margins partially absorbing wage increases is not an exclusively Belgian phenomenon; the euro area as a whole displays a similar trend [1].

Price rises slowed for a number of services

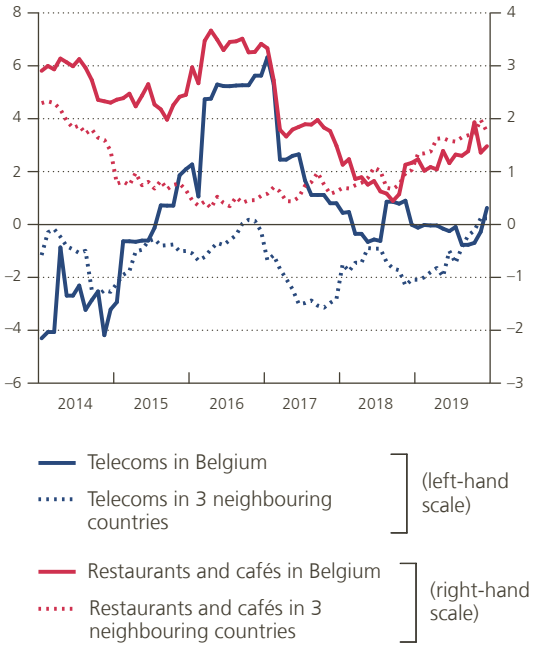
How underlying inflation developed in Belgium, and services inflation in particular, is in part explained by specific factors that influence prices in sub-components. In 2015 and 2016, a series of government measures pushed up the prices of a selection of services, one example being the increase in October 2015 of tuition fees in Flanders. Besides, price trends in restaurants and cafés, as well as for telecommunications,

1 P. Diev, Y. Kalantzis and A. Lalliard (2019), "Why have strong wage dynamics not pushed up inflation in the euro area?", *Bulletin de la Banque de France*, 225/6, September-October.

Chart 42

Belgian inflation in telecoms and restaurants / cafés slowed markedly relative to 2016

(HICP; annual percentage changes)



Source: Eurostat.

at the time suggested a level of dysfunction in these sectors.

No far-reaching one-off measures have since been taken to significantly accelerate underlying inflation. Quite the reverse, Wallonia scrapped the radio and TV licence fee in 2018, exerting downward pressure on services inflation for a year. Various initiatives were launched to boost market forces in some industries. The code of conduct signed in December 2015, for example, sought to curb the use of brewery contracts in the catering industry, which often specified the purchase of a minimum amount at pre-determined prices. In telecommunications services, cable was liberalised in 2016 while July 2017 saw the launch of the Easy Switch procedure – making it easier to switch to a different telecoms operator and benefiting competition in the industry. More recently, at the beginning of July 2019, the Belgian telecoms regulator (the Belgian Institute for Post and Telecommunication – BIPT) and media regulators together released a number of draft decisions proposing new monthly wholesale rates for access to cable operators' networks[1], the idea being that alternative operators should pay a fair rate for the use of these networks. A similar procedure will follow for the optic fibre market. Meanwhile, European bodies have also issued measures to temper price rises, for instance laws to cap the costs of calling and texting between EU countries, effective since May 2019. Price rises in restaurants and cafés as well as in the telecoms sector have been effectively curbed, especially when compared with 2016.

Inflation slowed more in Belgium than the average in its three neighbouring countries

The inflation gap between Belgium and its neighbouring countries turned negative in the second half of the year

After significantly narrowing the total inflation gap with its three main neighbouring countries in 2018, Belgium saw it shrink further in 2019, with inflation even dipping below that in its neighbouring countries in the second half. Headline inflation fell more sharply in Belgium, fuelled in the main by price trends in energy products and, to a lesser extent, food.

In terms of energy products, gas and electricity made the biggest contribution to narrowing Belgium's inflation gap with its neighbours, with gas prices coming down much more significantly in Belgium as 2019 progressed than they did on average in the neighbouring countries. Network charges and non-VAT levies affecting gas prices are quite a bit lower in Belgium, meaning that lower wholesale prices impact consumer end prices much more significantly. In addition, Belgian supplies of gas have more diverse origins, as it is brought in through the port of Zeebrugge. As for electricity, prices in Belgium briefly shot up at the end of 2018 as a large proportion of the country's nuclear plant capacity was unavailable and there was uncertainty over power supply through the winter months; all of which depressed electricity-based inflation a year later, in the second half of 2019. Besides, France raised regulated electricity rates in June 2019. Lastly,

1 See Price Observatory's third quarterly report 2019 (FPS Economy).

the Netherlands raised taxes on gas and electricity in January 2019, pushing up inflation for both categories throughout the year.

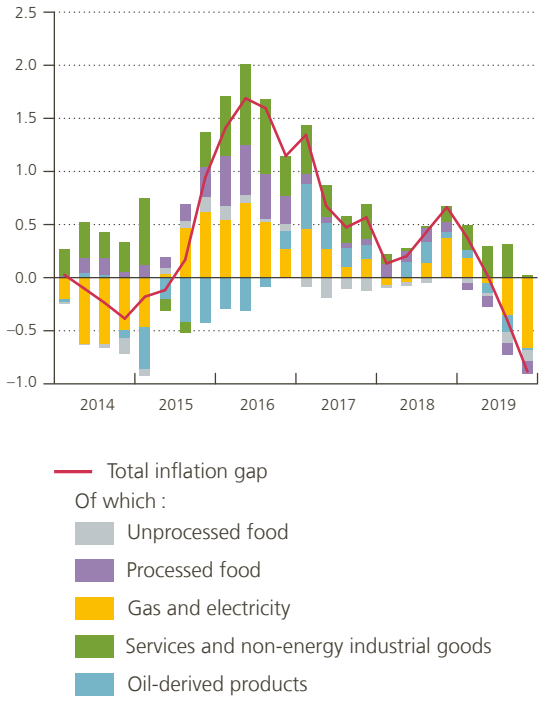
Lower Brent oil prices also partly explained the lower total inflation gap. Crude oil price fluctuations hit consumer prices for heating oil harder in Belgium, as related excise duties are a lot lower than in its neighbouring countries. In December 2019, these excise duties stood at 1.9 euro cents a litre in Belgium, compared with 6.1 cents in Germany and 15.6 cents in France (in the Netherlands, heating oil is not included in the consumer price index). Furthermore, heating oil accounts for a greater proportion of household spending in Belgium, hence its weight in the consumer price index is a little higher: in 2019, heating oil accounted for 1.3 % in the HICP, compared with an average 1.1 % for Germany and France.

Although it has been a little lower in the past few years than might have been expected from the macroeconomic variables, underlying inflation in Belgium is still higher than in its neighbouring countries. In these countries, and more generally in the euro area, underlying inflation has been persistently low for a number of years.

Chart 43

For the first time since 2015, Belgium's inflation dipped below the average for its three neighbouring countries

(quarterly averages, in percentage points)



Source : Eurostat.


EKT EKP 2002

4. Financial developments

4.1 An investment-conducive climate that poses a challenge to the financial sector

The low interest rate environment, which stems from fundamental savings and investment developments as much as from accommodative monetary policy, still benefits Belgian households and companies that borrow money. In 2019, they were still able to buy residential property and to finance investment at highly favourable conditions. However, the related rise in the debt ratio comes with attendant risks that, if not managed correctly, may affect the stability of the financial sector. In view of these developments and operating in its capacity as macroprudential authority and authority tasked with the supervision of financial institutions, the Bank has announced two measures, which should at least start to curb the accumulation of new credit risks in Belgian mortgage portfolios and should also make the banking sector more resilient when the financial cycle reverses.

Lower funding costs in the money markets initially conspired with the healthy economy to help banks bolster their profitability. Lately, however, this has come under pressure as margins have narrowed between average returns on assets and the average cost of sources of funding. Persistently low interest rates have already dented insurers' solvency levels. With time, these might well start to depress returns on portfolios made up of interest-bearing assets and so erode the profitability of companies offering insurance products with a guaranteed return.

The current environment, then, poses a number of challenges to the financial sector. Additional issues include cost structures, how to price in risk factors when setting rates for products and services offered, and diversification of the sector's activities, all of which set against the backdrop of rapid digitalisation. All these concerns should help to trigger some fundamental thinking about the way banks and insurance companies operating in Belgium should adjust their business models.

4.2 Low interest rates have boosted bank lending growth

For a number of years now, the Eurosystem's monetary policy has created a situation in which Belgian households and companies have much easier access to bank finance. Measures taken since 2014 have cut the funding costs for credit institutions, with the interest they are required to pay for tapping the money markets down significantly, especially after the interest rate on the deposit facility had turned negative. Furthermore, these institutions are able to borrow at favourable rates through so-called targeted longer-term refinancing operations (TLTROs) and have found it easier to free up cash for new loans thanks to the ECB's asset purchase programme.

Lower funding costs for banks have – in a fiercely competitive industry – pushed down interest on longer-term loans to households and companies; a trend fuelled by further interest rate cuts in the money markets as 2019 progressed. For example, average rates on Belgian mortgage loans with a term of over ten years fell from 2.0 % in December 2018 to 1.6 % in November 2019. Interest rates on loans to companies came down by similar percentages.

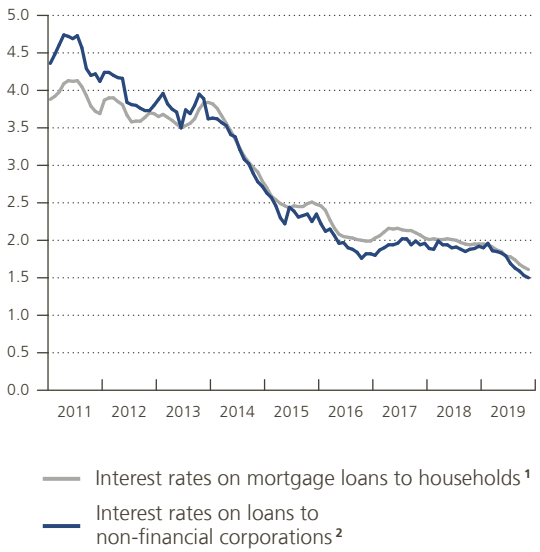
Eventually, these lower bank lending rates set off a contraction in intermediation margins and banks scrambled to secure their profitability by compensating for narrower margins with higher loan volumes, specifically by easing lending criteria. And so, the past few years have seen credit growth fuelled by riskier loans, particularly in the mortgage market.

Of the total amount of new loans, the share of mortgage loans with a loan-to-value ratio (LTV) – that is, the ratio of the amount borrowed to the value of the residential property serving as collateral – above 90 % advanced from 28 % in 2014 to 37 % in 2018. Meanwhile, the share of new loans with a maturity of more than 20 years was also up in the same period, from 31 % to 39 %, while a still significant proportion of loans had a high debt-service-to-income ratio (DSTI), which is to say that the borrowers have high monthly repayments compared with their income. That said, the data for the first six months of 2019 suggest a stabilisation and, in some cases, even a slight tightening of lending criteria.

Chart 44

Abundant savings, monetary policy and competitive pressures in the banking sector have caused interest rates on loans to plunge

(in %)



Source: NBB.

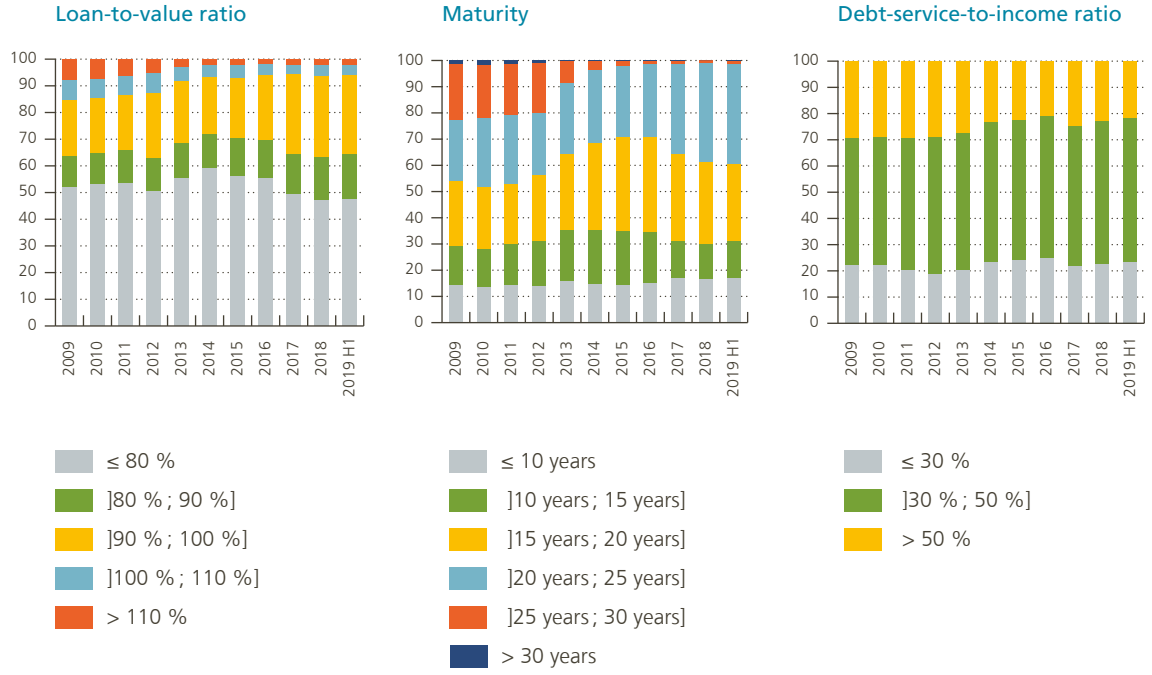
1 Average rates on new loans initially fixed for over ten years.

2 Average rates on loans ranging between € 250 000 and € 1 million, originally fixed for over ten years.

Chart 45

Share of riskier mortgage loans is growing

(breakdown of new mortgage loans by vintage year[1], in % of the total)



Source : NBB.

1 Including refinanced loans registered as new contracts. Such refinanced loans can artificially improve the credit standards of new mortgage loans, as a proportion of the loan has already been repaid.

In the long term, this strategy might jeopardise financial stability, which is why the Bank has introduced a new macroprudential measure aimed at containing such risky loans and at nudging the market in the direction of more sustainable loan criteria (see box 6). Although some banks report having recently reviewed the way they grant loans, sticking to intentions is not always feasible for individual institutions up against competitive pressures in the sector.

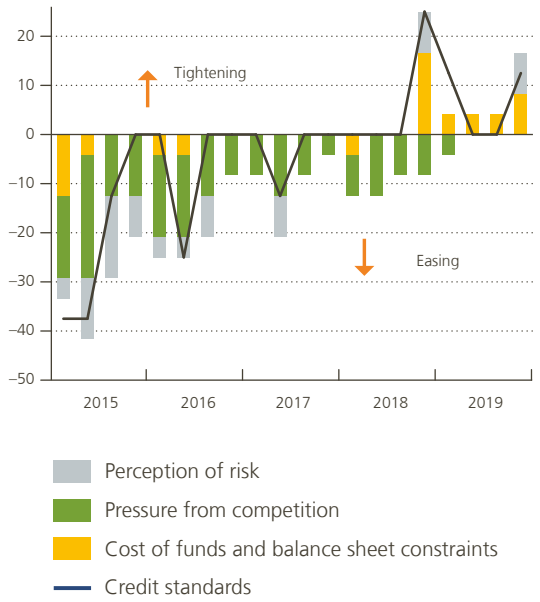
With time, lending criteria for companies have also become more favourable. The bank lending survey (BLS) finds that companies have been able to secure higher loans, at longer terms and on less strict terms and conditions. This repeated easing – which also reflected fierce competition in the banking sector – would appear to have ground to a halt in the fourth quarter of 2018, which is exactly when the business cycle turned and risk perception increased.

Low interest rates have not just boosted banks' lending supply, they have also fuelled credit demand from households and companies. Despite slowing growth, the economic climate remained expansionary and supportive of investment by households and companies.

Chart 46

No more easing of lending criteria for companies

(balance of banks' BLS replies, weighted net percentages[1])



Sources: ECB, NBB.

1 Weighted net percentages comprise the difference between banks' replies that suggest a development in a certain direction and of a certain intensity, and the percentage of replies that point to a development in the opposite direction.

Mortgage loans underlie increased household debt

Net new mortgage loans to households amounted to € 9.9 billion in the first nine months of 2019, compared with € 6.3 billion between January and September 2018. The pace of growth remained robust in the year, reaching 5.3 % by the end of November. Those new mortgage loans almost entirely explain households' growing debt, which amounted to 61.1 % of GDP at the end of September 2019 (€ 300 billion, of which € 245 billion was in property loans), compared with an average 57.9 % in the euro area, where household debt ratios fell.

In September 2019, it was announced that mortgage tax relief in Flanders was to be scrapped on 1 January 2020 and the effects partially offset by a reduction in registration fees from 7 % to 6 % – which may well have served as a temporary boost to mortgage agreements at the end of the year. As the measure was implemented at short notice, any effects in anticipation of the move can only have been felt in virtually completed projects for the purchase or construction of properties. Meanwhile, some households may have felt the impact of news from some banks that lending criteria were about to tightened up – one possible sign being the drop in average new mortgage loan amounts in the preceding twelve months, from a peak of € 132 900 in April 2019 to € 120 700 in December – as shown by Central Individual Credit Register data.

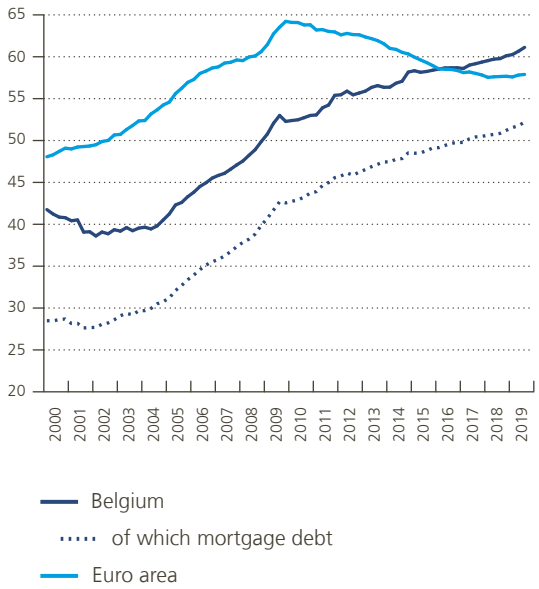
On the information divulged by banks, households' appetite for real estate as an investment (second or third homes and buy-to-let properties) partly explains the surge in the number of new mortgage loans. Activity in the property markets indeed kept rising in 2019: the number of transactions went up by nearly 5 % in the first three quarters, confirming the uptrend recorded since 2016.

Generally speaking, higher real estate demand undoubtedly led to market price rises. Over the first three quarters of 2019, residential property prices

Chart 47

Belgian households' debt ratio keeps rising

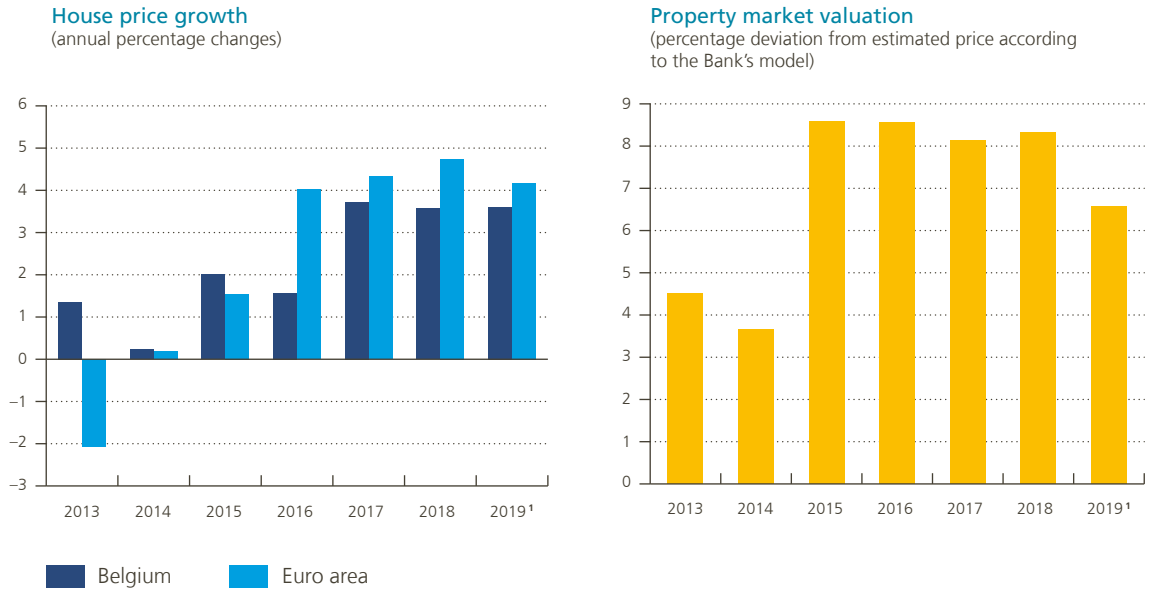
(household debt in % of GDP)



Sources: Eurostat, NBB.

Chart 48

House prices continued to grow in 2019, while property market valuations edged down



Sources: ECB, NBB.
1 First three quarters of 2019.

continued to grow and recorded a 3.6 % increase. This ties in seamlessly with trends seen in the past couple of years, particularly a more rapid uptick in property prices, even if these still languish below average increases in the euro area.

The valuation of the housing market – defined as the difference between market prices and their fundamental value estimated by the Bank's model – had virtually stabilised between 2015 and 2018. In 2019, it remained positive but did inch down to 6.6 % – a decline primarily attributable to sharply higher household disposable income. The fact that property prices are currently close to levels reflecting their value on the basis of the underlying market fundamentals does not necessarily imply that there are no risks to speak of. Should one of the macroeconomic variables underpinning this equilibrium value suddenly deteriorate substantially, e.g. a sudden rise in mortgage rates or possibly a negative shock to household incomes, prices might well move sharply down.

Property prices rose by over 3 % in 2019

Companies' bank debts on the rise

Growth of bank lending to non-financial corporations was further boosted by the low interest rate environment as well, keeping lending pretty dynamic in 2019. In November, this growth came in at an annualised rate of 4.3 %. Although still higher than the figure for the euro area as a whole (+3.4 %), this pace of growth has slowed markedly relative to its May 2018 peak of 9.0 %.

This lower figure reflects mergers and acquisitions carried out by a small number of companies in 2017 and 2018, which were initially financed through medium-term bank lending. However, these loans were repaid within a few months of their transactions and replaced by long-term bonds on the liabilities side of these companies' balance sheets. Through base effects, these repayments put a brake on year-on-year growth of bank lending in 2019, particularly from April onwards.

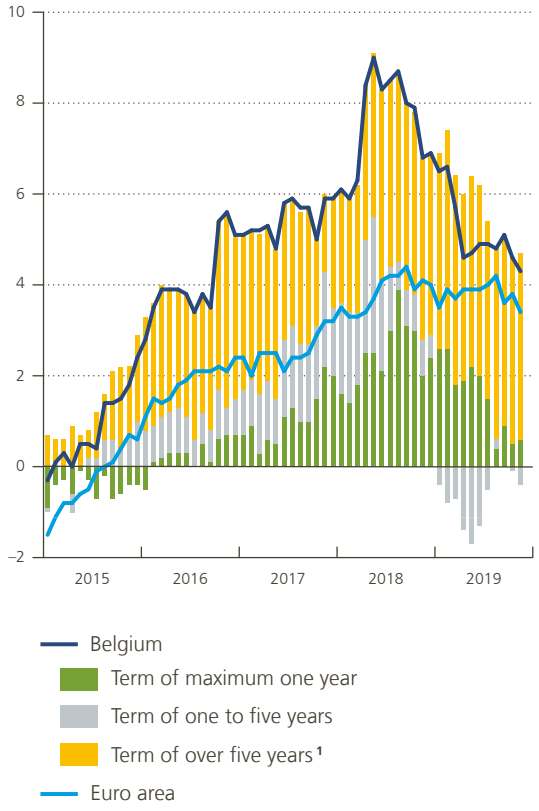
Growth in lending to companies was not merely moderated by the impact of major but infrequent mergers and/or acquisitions, but to some extent also by slowing economic activity. The bank lending survey (BLS) found that the weaker business cycle had a strong influence on credit demand via working capital requirements, as noted since the beginning of 2019, with short-term borrowings (up to one year) making a smaller contribution to total credit growth. Long-term loans, with terms over five years, kept up their high levels of growth and their contribution to total credit growth was similar to that seen in 2018.

Just like last year, bank loans were Belgian companies' main source of external funding in 2019. According to the financial accounts data, companies agreed a net total of € 6.3 billion in loans from Belgian banks in the first nine months of the year and borrowed another € 2.6 billion from foreign banks, taking the total outstanding bank debt to € 157.3 billion, i.e. 33.4 % of GDP. By contrast, they issued fewer debt securities than in the previous year: € 1.7 billion in the first three quarters of 2019 compared with € 4.1 billion in the corresponding period of 2018. The fact that the outstanding amount in debt securities issued by Belgian companies rose from 13.9 % of GDP at the end of 2018 to 14.6 % in September 2019 primarily reflected positive valuation effects arising from falling yields in the bond markets. However, intra-group liabilities, the amount of which is structurally higher in Belgium than in most other euro

Chart 49

While still supported by long-term lending, loan growth to companies slowed

(growth of lending by resident banks to non-financial corporations, annualised percentage changes and contributions)



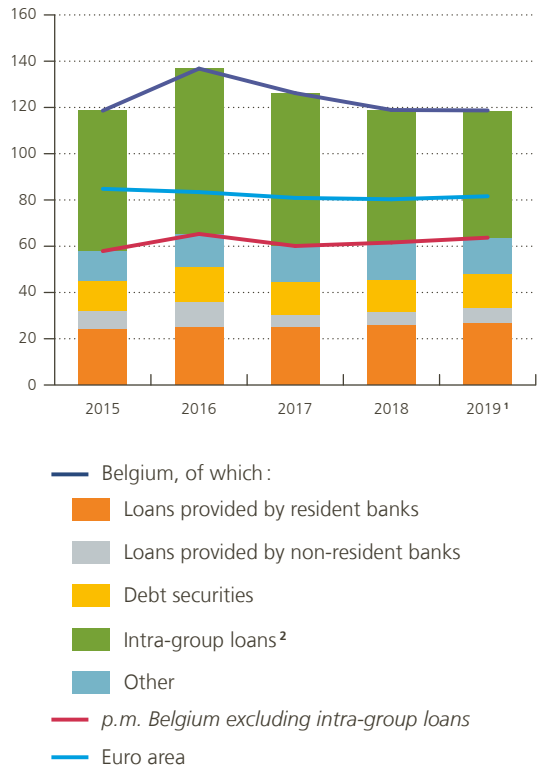
Sources: ECB, NBB.
1 Including securitised or otherwise transferred loans.

area countries, recorded a slight fall in 2019 on the back of loan repayments to non-resident corporations. Not including intra-group loans and liabilities between resident corporations, the net outstanding debt of Belgian companies was still up on the end of 2018, rising from 61.6 % of GDP to 63.7 % in the third quarter of 2019.

Chart 50

Higher company debt

(consolidated debt of non-financial corporations at year-end, in % of GDP)



Sources: Eurostat, NBB.

1 Data on situation as at 30 September.

2 Intra-group loans are defined as loans provided by captive money lenders and foreign non-financial corporations; debts incurred by resident non-financial corporations from other resident non-financial corporations are not taken into account.

4.3 Credit cycle expansion requires vigilance

The developments as outlined above suggest a clearly upward-moving credit cycle. Total loans granted to companies and households by Belgian banks grew by 4.9 % between November 2018 and November 2019 – a percentage not just well ahead of the euro area average (+3.5 %) but also not reflective of growth in economic activity. This divergence in developments is illustrated by a rising difference between the credit/percentage of GDP ratio and the trend in this ratio – the widening spread is caused mainly by the surge in lending to companies. The readings on this reference indicator have been among the factors prompting the Bank to activate the countercyclical capital buffer (CCyB). The details of and arguments for this measure are the subject of box 6.

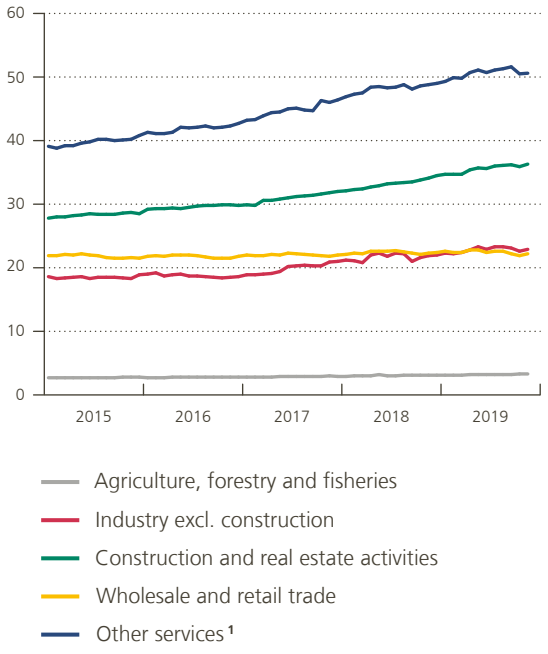
Bank lending growth was not fuelled only by low interest rates and easier lending criteria; to an extent, its deviation from the real economy is also down to a sector effect. Although the slowdown in industrial activity by the end of 2018 – a key cause of the loss of pace in general economic growth – effectively translated into relative stagnation of bank lending to industrial corporations in 2019, its impact on the rise in total outstanding loans was subdued. The reason is that the share of industrial corporations in outstanding loans is fairly small. These enterprises are typically larger than companies in other sectors and some of them are affiliated to Belgian or multinational groups, giving them easier access to alternative sources of funding such as bond issues or intra-group loans. By contrast, services sectors – and especially business services, construction and real estate activities – tend to be made up of smaller, stand-alone companies that rely more on bank finance. And it is in these sectors that bank lending continued to grow steadily in 2019.

Although companies in the real estate sector and construction are less strongly exposed to external shocks, the volume of the loans taken out in this sector does imply cyclical risks to the financial system. In the event of a reversal in the fortunes of the real estate markets, for instance, such risks might spark a rise in non-performing loans (NPLs). Moreover, the risks in this particular market have risen in the past few years, particularly in the housebuilding sub-sector, where developments are closely linked to mortgage loans entered into by households.

Chart 51

More dynamic bank loan trends in services, real estate and construction

(outstanding amount of loans provided by resident banks, in € billion)



Source: NBB (Central Corporate Credit Register).
1 Excluding financial activities and insurance.

BOX 6

Macroprudential measures by the Bank

The Bank took two new supplementary macroprudential measures as 2019 progressed, both intended to alleviate concerns over the highly dynamic lending that had been going on for several years. The first of these, the countercyclical capital buffer (CCyB), is primarily aimed at guaranteeing the continuity of lending, especially in the event of a cyclical downturn. The second measure, which focuses on supervisory expectations for Belgian mortgage portfolios, aims to keep in check vulnerabilities that may arise when new mortgage loans are granted. Both measures are meant to supplement the Bank's macroprudential toolkit, which already contained two measures that helped build capital buffers and that were covered in great detail in its 2019 Macroprudential Report:

one measure specifically targets mortgage portfolios with capital requirements calculated on the basis of internal models; the other covers the potentially high cost that would attend the failure of systemically important institutions. As is the case with the two measures already in place, CCyB equity criteria do not create fresh capital requirements but aim to dedicate part of any voluntarily held capital buffers in excess of the legal requirements to coverage of specific systemic risks.

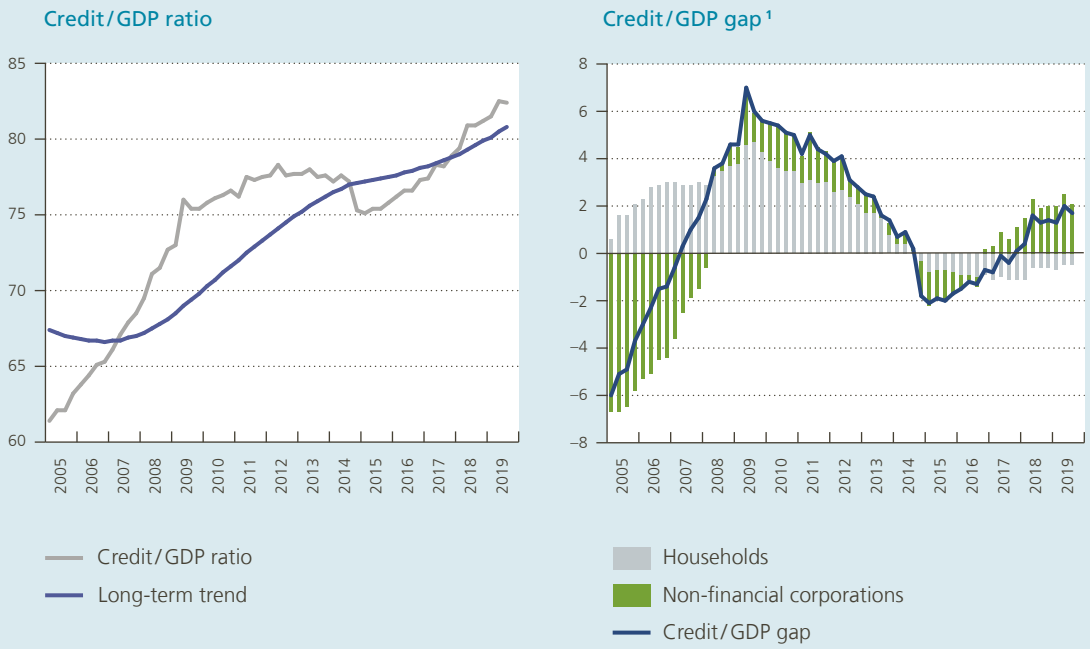
Countercyclical capital buffer (CCyB)

In view of the accelerating credit cycle in the Belgian non-financial private sector, at the end of June 2019, the Bank announced that the country's financial institutions will have to constitute preventive countercyclical capital buffers. In so doing, the Bank is looking to boost the resilience of the Belgian banking sector by enabling it to absorb credit losses in the event, for instance, of a recession and so ensure the continuity of lending to the Belgian economy.

In 2019, lending to Belgian households and non-financial institutions grew apace and faster than GDP percentage growth. The credit/GDP gap, which measures the deviation between the credit/GDP ratio and its long-term trend, and which, under Belgian law, is a key reference indicator for the credit

Lending to Belgium's non-financial private sector

(in % of GDP)



Source: NBB.

1 Difference between the credit/GDP ratio and its long-term trend.

cycle, therefore widened in the first half of 2019 before narrowing slightly to 1.7 % in the third quarter. According to the Bank's projections, this gap will once again widen to around 2 % over a one-year horizon, justifying the activation of the CCyB according to the guidelines of the European Systemic Risk Board (ESRB), the body tasked with coordinating macroprudential policy in the EU.

The CCyB rate for exposures to the Belgian non-financial private sector has been set at 0.5 %. This should result in the formation of an additional capital buffer of around € 1 billion for the entire Belgian banking sector. Given Belgian banks' current solvency position and this relatively minor CCyB percentage, this is unlikely to disrupt either the pricing of loans or their availability to the Belgian economy. The measure will only ensure that this proportion of own funds is earmarked in banks' balance sheets to absorb any future loan losses in the Belgian market.

To give the relevant institutions ample time to prepare for this additional requirement, the new measure becomes effective a year after the announcement of its activation, i.e. on 1 July 2020.

The Bank takes due account of current economic uncertainties: it is prepared to ease up on or cancel the new measure if, during or after the phase-in period, a particularly negative and persistent shock occurs, in order to prevent it from causing any procyclical effects, i.e. capital requirements accelerating a potential credit contraction.

Supervisory expectations on mortgage loans

The past few years have seen a massive rise in mortgage loan issuance on the back of looser conditions, and the Bank finds that the housing market has, once again, become more vulnerable. In addition to existing vulnerabilities in the outstanding portfolio – e.g. low risk weighting in calculating capital requirements – newly granted mortgage loans are marked by a large and growing proportion of risky loans.

The supervisory expectations came into force on 1 January 2020, putting in place thresholds for a range of indicators which will serve as benchmarks for mortgage loan issuance. More specifically, banks and insurance companies will be urged to tread a lot more cautiously when agreeing loans at very high ratios of the mortgage amount and the value of the underlying property, i.e. the loan-to-value ratio (LTV). The Bank has also set out its expectations on particular risk combinations – also called pockets of risk – such as high LTVs plus a high total debt ratio (debt-to-income – DTI) or monthly burden of loan repayments (debt-service-to-income – DSTI).

This new initiative is meant to supplement the existing macroprudential framework. A previous measure targeting the outstanding stock of mortgage loans, introduced in 2013 and amended in 2018, prescribed an increase in mandatory capital requirements if these are calculated on the basis of internal models. After all, the Bank had established that the capital buffers – the levels of which had been determined based on these models – were inadequate to absorb the potential losses banks stood to incur in the event of worsening market conditions. While this previous measure primarily aimed to bolster banks' resilience, the new initiative aims to improve the quality of newly granted loans, with the Bank making sure that average portfolio quality remains adequate. These actions, then, are both necessary and complementary – a point that was also made by

the ESRB when recommending that the Belgian authorities activate measures with an immediate impact on the profile of new loans. On 23 September 2019, the ESRB had issued warnings or recommendations – the latter being the more binding – to the competent authorities of a number of countries, including Belgium, on medium-term residential real estate vulnerabilities.

To keep the mortgage market open and accessible to solvent borrowers, the Bank provides enough scope for the relevant institutions to factor in a borrower's full profile and any mitigating factors at the point the loan is granted. And so, the Bank has set tolerance margins, allowing a proportion of newly granted loans to breach the reference thresholds. It outlines, for instance, that 35 % of loans granted to first-time buyers, who typically have little in the way of their own resources, can have LTV ratios higher than the 90 % reference level. Furthermore, the Bank will apply the "comply or explain" principle, allowing lenders to deviate from supervisory expectations provided they can prove they observe due care and caution when granting loans. These mechanisms offer some flexibility to lenders and can help prevent unreasonable shocks from hitting the Belgian mortgage market.

The Bank's supervisory expectations for newly granted mortgage loans in Belgium

	Type of loan	Threshold	Tolerance margin (production allowed above threshold)
LTV limits	Buy-to-let loan	80 %	10 % (with 0 % > 90 %)
	Owner-occupied loan	90 %	First-time buyers: 35 % (of which max. 5 % > 100 %) Other: 20 % (with 0 % > 100 %)
Limits for pockets of risk	All loans	LTV > 90 % and DSTI > 50 %	5 %
	All loans	LTV > 90 % and DTI > 9	5 %

Source: NBB.

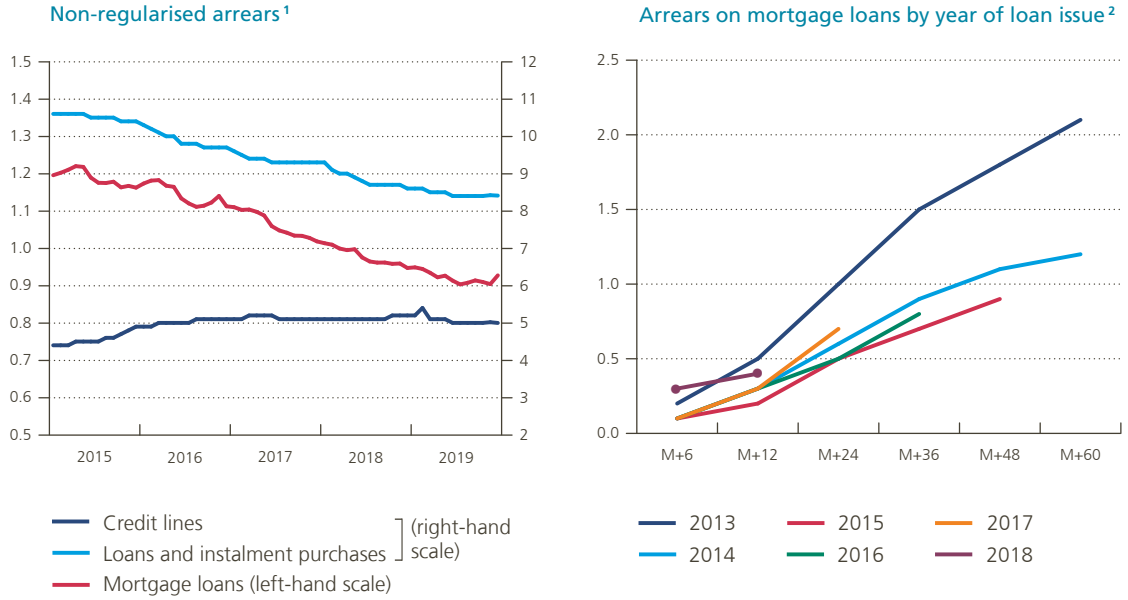
To date, higher household debt levels have not sparked a concomitant rise in the default rate on loans, either mortgages or consumer loans. So, the share of loans in arrears in outstanding mortgage loans has remained below the threshold of 1 %, while there was actually a slight decline in the average overdue amount in loan arrangements in arrears, from € 41 400 at the end of 2018 to € 38 400 a year later. As for consumer loans, the default rate on credit lines in 2019 averaged 5.1 % (as it had in 2018), while that on loans and instalment purchases averaged 8.5 %, compared with 8.9 % a year earlier.

However, other indicators would appear to be pointing to a tentative deterioration in portfolio mortgage loans. For instance, the default rate for mortgage loans issued in 2018 would appear to be inching up.

Chart 52

Default rates still contained

(in % of the number of outstanding loans)



Source: NBB (Central Individual Credit Register).

1 Default is deemed to be when a sum has not been paid either in part or in full within three months following its due date or within one month after formal notice has been served by recorded delivery letter.

2 Loans are grouped by the year they were issued, with the curves showing the number of loans past due for each year as a percentage of the total number of original loans, after a set number of months following their issue. Any regularisation of loan contracts is not taken into account.

4.4 Household saving and investment behaviour influenced by low interest rates and uncertainty

In 2019, against a backdrop of increased uncertainty and losses on their riskier assets in the previous year, households predominantly put their financial savings into accounts and deposits, once again opting for safety and liquidity. These instruments still offer zero or slightly positive interest rates plus a deposit guarantee, while low or even negative returns on other, riskier and by nature more volatile instruments continued to offer few attractions. The paucity of profitable alternatives consequently also influenced household saving behaviour.

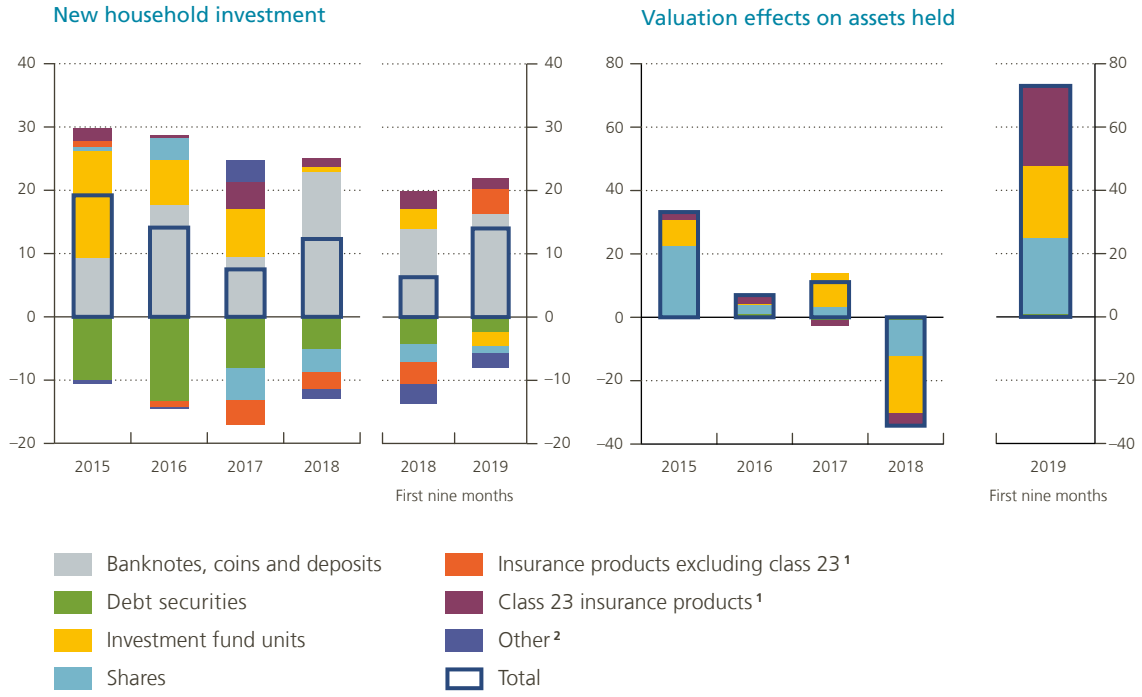
Most households opted for certainty and liquidity in their investment

Out of a total € 14 billion in new financial investment in the first nine months of 2019, savings and sight deposits mopped up € 9.4 and € 4.4 respectively, while investment fund units – both Belgian and foreign – and equity portfolios shrank by € 2.3 and € 1 billion. Debt instruments (mostly bonds) did not appeal to households either (-€ 2.3 billion), whereas class 23 insurance products – i.e. products not offering a guaranteed return – attracted a higher but still small proportion of available savings, as in 2018. Like shares and investment fund units owned by households, these products enjoyed positive valuation effects in 2019.

Chart 53

Mostly risk-free new investment against backdrop of growing bearishness

(in € billion)



Source: NBB.

1 These items comprise the net claims of households on technical insurance reserves, on pension funds and on standardised guarantee schemes.

2 The left side of the chart shows this item comprising, in so far as they have been recorded, trade credit as well as miscellaneous assets of general government and financial institutions. On the right side, the item also shows banknotes, coins and deposits, as well as insurance products not ranked under class 23.

Household confidence was affected by a variety of factors in 2019, including concerns over Brexit and a slump in international trade. Consumer confidence surveys suggest that bearishness over the general economic situation eroded consumer sentiment in the first six months of the year, which goes some way towards explaining households' savings behaviour and distinct preference for very liquid instruments. Their perception of the economy was also influenced by their appraisal of their personal financial situation, which remained fairly subdued in the first few months of the year. All these factors generally encouraged precautionary savings, which by their very nature tend to be rather more liquid.

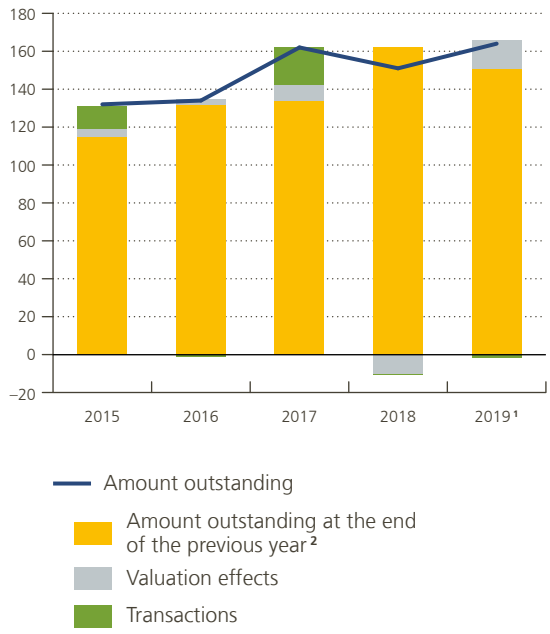
Of course, households' decisions on what to do with their savings impact the money flowing to various institutions established in Belgium. Volumes of cash managed by the banking sector primarily grew in the shape of deposit volumes in 2018 and 2019. This affects the profitability of the sector in as much as negative interest rates in the euro area money markets penalise excess liquidity. In addition, investment funds have been facing a loss in popularity and have recently been forced to sell off a proportion of their assets: net sales amounted to € 1.9 billion in the first three quarters of 2019. Following the turmoil in the financial markets at the end of 2018, rising equity prices made for positive valuation effects in the same nine-month period, pushing up net asset values.

Although the outflows from investment funds remained subdued in the face of uncertainty over financial asset prices, there may be concerns about the potential consequences of waves of withdrawals.

Chart 54

Investment funds reduced their assets, but net asset values rose on the back of higher stock market prices

(outstanding financial assets at the end of the year, consolidated data in € billion)



Source: NBB.
1 Data for the situation at 30 September.
2 Includes other changes in volume since the previous year.

After all, investment funds might not be able to immediately redeem their investors' units in the event of a deep financial crisis, as some of their assets are illiquid. This type of financial intermediation may imply systemic risks, which will need to be monitored and mitigated. For this reason, the NBB and FSMA have joined forces since 2017 to put together an annual overview of activities carried out in Belgium by asset managers and non-banking financial intermediaries, as well as their attendant risks. A summary of this work is given in box 7.

BOX 7

Investment funds are the main instruments of non-banking financial intermediation in Belgium

Non-banking financial intermediation – formerly known as shadow banking – comprises activities similar to credit intermediation, but which are carried out by entities that are not part of the traditional banking system. Using methodology developed by the Financial Stability Board (FSB), the definition also includes most collective investment vehicles, securitised loans no longer on their originator's balance sheet and a range of credit and intermediation activities that rely on short-term sources of funding.

The methodology was first applied in a joint report by NBB and FSMA, published in 2017 for the first time and twice updated since[1]. The most recent estimates put non-banking financial intermediation in Belgium – as measured by the assets held by the relevant entities – at a total € 142 billion by the end of 2018. The vast majority of these assets (€ 129 billion, to be more precise) are tied up in investment funds, with a much smaller proportion, estimated at € 7 billion, in leasing contracts, factoring and consumer loans. Securitised assets constitute the third component, at € 6 billion. By way of comparison, total financial assets on the balance sheets of traditional banking institutions amounted to € 964 billion.

Non-banking intermediation is particularly important as a facilitator of market finance, enabling companies to attract more financial resources through equity issues, bond loans or other types of finance. By diversifying assets, investment funds in particular offer their investors an opportunity to widen their range of income opportunities while keeping risks low. Moreover, instruments for market finance can help make capital more internationally mobile by enabling economic actors to launch investment projects through tapping into overseas budget surpluses. This is one of the reasons why the EU is promoting these instruments as part of its Capital Markets Union project.

As in traditional banking, these alternative means of finance can come with systemic risks, which may arise from debt accruals or maturity and liquidity transformation. The NBB/FSMA analysis identifies liquidity risks inherent to investment funds as the key concern for prudential supervision. After all, investment funds, whether held directly or indirectly – through units in other Belgian or foreign funds – comprise equities or debt instruments which cannot always be easily sold on in an organised market, while investment units are typically redeemable at all times.

In Belgium, it is the FSMA that monitors these risks. To limit their scope, the FSMA advises fund managers to manage liquidity risk carefully by using a range of liquidity management instruments should there be any sudden large-scale inflows or redemptions. More specifically, these concern swing pricing, anti-dilution levies – imposing additional charges on investors in the event they buy or sell on large amounts in investment units – or redemption gates, which enable managers to only partially execute investors' redemption orders. These three instruments were made available to public undertakings for collective investment with a variable number of shares/units by way of a Royal Decree published in October 2018.

1 Both the original report and its updates are available on the NBB website (www.nbb.be).

4.5 More sustainable business models, rather than a search for yield, should underpin bank profitability

Trends in households' and companies' investment and savings behaviour were reflected in the Belgian banking sector's balance sheet. In combination with banks' greater preference for granting loans – which often still generate more return than a raft of other asset classes, such as bonds – they have caused a significant increase in the share of loans and deposits in the banks' balance sheets, which are also influenced by banks' activities abroad.

Despite the persistently low interest rates and greater macroeconomic uncertainties, the Belgian banking sector has remained in a fairly strong position to date. Indicators for profitability, asset quality, liquidity and solvency show the sector to be well-placed to take on today's challenges. After all, the traditional earnings model is increasingly under threat from persistently low interest rates, but also from growing digitalisation in the financial sector. Profitability and viability are liable to take a turn for the worse for those banks that are not taking pro-active management action and do not come up with sustainable strategies to face down these challenges.

Major change in balance sheet composition

Although the sector has enjoyed a stable total balance sheet at around € 1 000 billion for a number of years now (end-September 2019: € 1 080 billion, or 226 % of GDP), there has been a significant change in the composition of assets and liabilities. This was due not only to changes in household and company investment and savings behaviour, but also to strategies on the part of banks to adapt to the persistent low interest rate environment. On the liabilities side, which records the financial resources that banks attract to carry out their activities, the share of household deposits advanced briskly (from 32 % at the end of 2014 to 38 % at the end of September 2019). Meanwhile, interbank funding and funding by other financial institutions came down slightly in the year (from 21 % to 18 %), as did funding through issuance of debt instruments (from 11 % to 9 %). The assets side, which shows what use the financial resources are put to, recorded a relatively greater share of loans granted to businesses and households (52 % compared with 45 % five years earlier), had a relatively smaller bond portfolio (12 % compared with 20 %) and saw a greater proportion of cash deposited with central banks (9 % against 2 %).

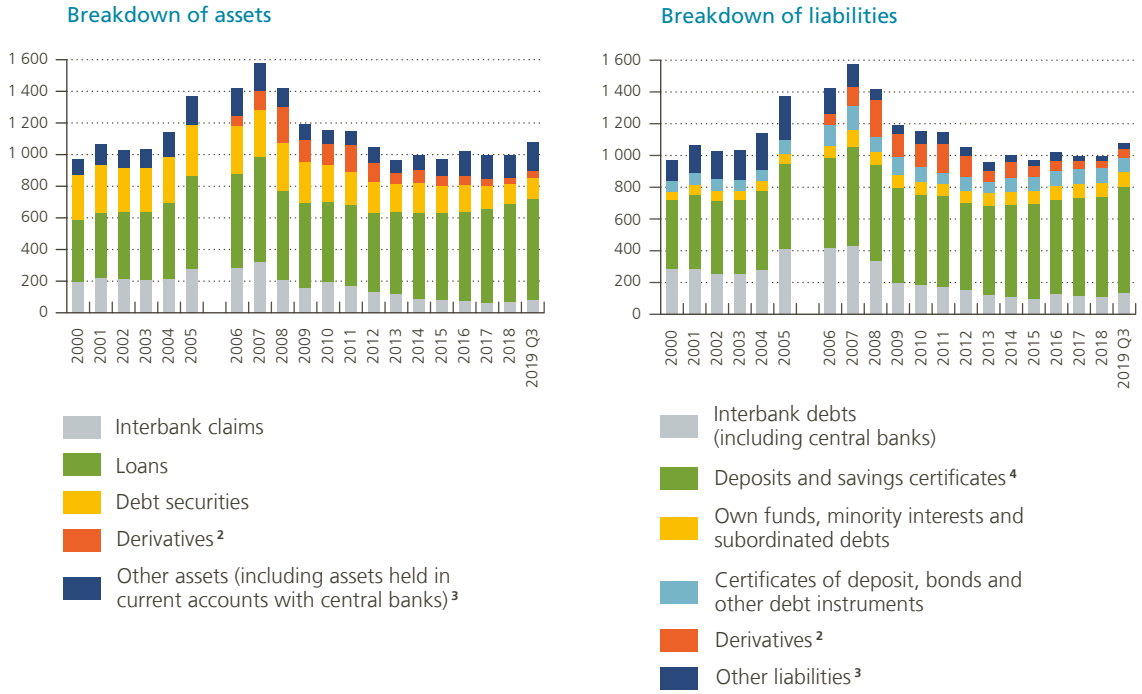
In the first nine months of 2019, private sector deposits rose by € 29 billion to € 557 billion. These were mostly Belgian deposits (75 %) and are not just put towards domestic but also towards foreign lending, mainly through local subsidiaries of Belgian banks. In addition, a number of foreign banks collect rather large amounts of deposits in this country and use them to finance activities in their own home markets outside Belgium. Belgian banks, in their turn, received € 110 billion in deposits from foreign households and businesses.

Interbank funding and funding by other financial institutions (central banks excepted) amounted to € 195 billion by the end of September 2019. Central bank funding, which chiefly comprises amounts borrowed under the Eurosystem's targeted longer-term refinancing operations programme (TLTROs), stood at € 28 billion (3 % of total assets). This (cheap) funding will largely mature in 2020 and 2021 and is then expected to be (partly) rolled over into new

Chart 55

Loans and deposits claim a bigger chunk of balance sheets

(balance sheet structure of Belgian credit institutions on a consolidated basis[1], end-of-period data, in € billion)



Source: NBB.

1 Data compiled according to Belgian accounting rules (Belgian GAAP) until 2005 and according to IAS/IFRS standards from 2006.

2 Derivatives are recognised at market values, including – from 2007 – income receivable and charges payable (which are not included in the data relating to 2006).

3 "Other assets" are primarily short positions, liabilities excluding deposits and debt instruments, provisions and liabilities for defined benefit obligations.

4 From the third quarter of 2014, savings certificates are no longer included in "deposits and savings certificates", but rank under "certificates of deposit, bonds and other debt instruments". "Other liabilities" are primarily short positions, liabilities other than deposits and debt securities, provisions and liabilities for defined benefit obligations. Liabilities linked to transferred assets no longer form part of the "other liabilities", but are included under different items on the liabilities side.

uptakes in the third TLTRO programme announced in 2019, or into other sources of funding such as debt instruments. At the end of September 2019, Belgium's banks had secured € 98 billion of their funding through the issue of debt instruments.

Over the first three quarters of 2019, lending to the private sector was up € 21 billion to € 564 billion – here, too, mostly in the Belgian market (65 %). The increase reflects both growing loan demand from Belgian households and businesses, and a preference by banks to raise credit volumes. Lending to the foreign private sector – largely furnished by local subsidiaries – amounted to € 168 billion, an amount that had grown in the course of 2019 as a result of foreign takeovers by Belgian banks.

Banks do not just grant loans, they also invest in bonds. However, the past few years have seen banks sharply cut their investment in (euro area) government paper, in part because of the Eurosystem's asset purchase programmes. They sold off a proportion of their debt instruments to lock in gains, while also not rolling over all the bonds that matured, as these are increasingly trading at negative rates. As a result, the banks' bond portfolio contracted from € 195 billion at the end of 2014 (of which € 116 billion was in euro area government bonds) to € 129 billion in September 2019 (€ 64 billion of this in euro area government bonds).

Despite more substantial credit volumes, the country's banks are still looking at a liquidity surplus

thanks to plentiful funding – mostly in (savings) deposits and central bank funding. Against this backdrop, the reduction of the bond portfolio came hand in hand with a surge in cash deposited with central banks, € 70 billion of which was with central banks in the Eurosystem and € 31 billion – by way of local subsidiaries – with other central banks, e.g. in the Czech Republic, Turkey and the United Kingdom).

The Belgian banking sector has continued to perform well, but challenges are building up

In the first nine months of 2019, the return on equity in the Belgian banking sector averaged 8.7 %, compared with 8.6 % in the corresponding period a year earlier. Average return on assets was stable at 0.6 %. By way of comparison, the weighted average returns on equity and assets of euro area banks were a lot lower, at 6.4 % and 0.4 % respectively, in June 2019.

These profits were generated in a somewhat different way in the first nine months of the year than in 2018. First of all, fee and commission income inched down on the corresponding period in 2018 (from € 4.3 billion to € 4.1 billion) – a fall that was entirely due to lower income from asset management. With uncertainties and risks in the macroeconomic environment percolating through to the financial markets, banks are finding it difficult to diversify their income sources by selling funds and investment products. As a percentage of total operating income, then, fee and commission income remained stable at around 25 %.

In addition, just like in 2018, a fresh if limited rise was seen in costs related to loan losses from € 0.2 billion in the first nine months of 2018 to € 0.7 billion in the corresponding period of 2019. The loan loss

Table 10

Income statement of Belgian credit institutions

(consolidated data; in € billion, unless otherwise stated)

					First nine months		In % of operating income
	2015	2016	2017	2018	2018	2019	2019
Net interest income	14.9	14.8	14.1	14.4	10.8	10.8	63.4
Non-interest income	7.1	7.6	8.9	8.3	6.2	6.3	36.6
Net fee and commission income[1]	5.9	5.6	5.6	5.6	4.3	4.1	24.1
Other income[2]	1.2	2.0	3.3	2.6	2.0	2.1	
Operating income	22.0	22.4	23.0	22.7	17.0	17.1	100.0
Operating expenses	–12.9	–13.1	–13.4	–13.9	–10.6	–10.4	60.7[3]
Gross operating result	9.1	9.3	9.6	8.8	6.4	6.7	–
Impairments and provisions	–1.3	–1.8	–0.7	–0.8	–0.2	–0.7	–
Other components of the income statement	–1.7	–1.8	–3.0	–2.3	–1.7	–1.4	–
Net profit or loss	6.1	5.7	5.9	5.6	4.5	4.6	–

Source: NBB.
1 Including commissions paid to agents.
2 This item includes the net realised gains (losses) on financial instruments and other non-interest income.
3 Cost/income ratio of the Belgian banking sector.

ratio – i.e. the relationship between the new costs recognised for loan losses and total loan volumes – was up from 6 basis points in 2017 to 12 basis points. This compares with an earlier period in which banks had to recognise fewer and fewer costs for loan losses (from € 3 billion in 2013 to € 0.7 billion in 2017), as favourable economic circumstances kept pushing down the share of non-performing loans in bank balance sheets: between 2013 and 2017, this share fell to 2.7 % from 4.3 %. To a large extent, the decline was due to a fall in foreign households' non-performing loans (including in Ireland). In fact, the effect was even more marked in the euro area countries that were hardest hit by the crisis; for the euro area as a whole, the ratio came down to 4.5 % from around 8 % in the same period. In 2019, the Belgian ratio stabilised at around 2.1 %, which is still well below the average for the euro area (3.8 % in June 2019).

However, higher costs for loan losses and reduced income from the sale of funds and investment products were more than offset by the fall in operating expenses and tax paid. This former item, which includes staff and other general expenses, was down for the first time since 2013, from € 10.6 billion in the first nine months of 2018 to € 10.4 billion in the corresponding period of 2019. This suggests that the past years' various restructuring plans are gradually beginning to bear fruit.

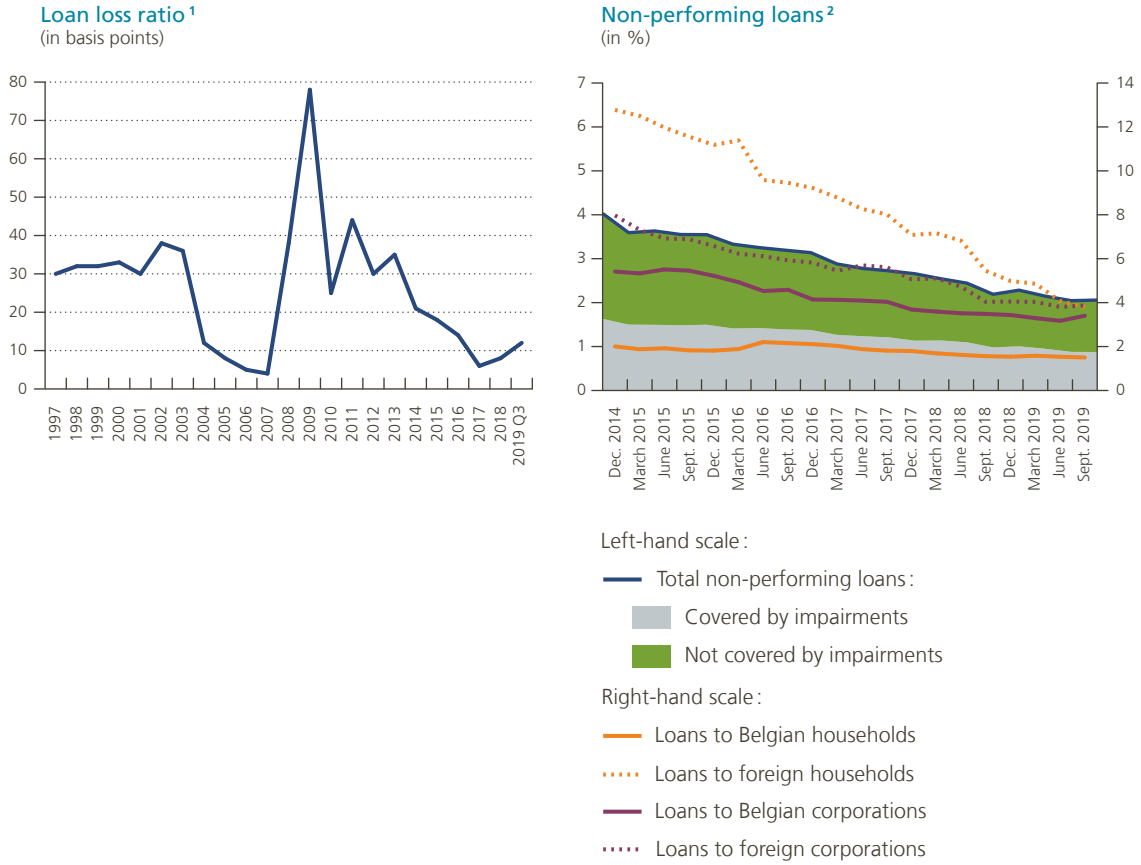
Net interest income – still the main source of income – stabilised in the first nine months of the year at € 10.8 billion. This may seem surprising in the current interest rate climate, but reflects the various strategies banks have been pursuing in the past couple of years to cushion the growing negative impact of the low interest rate environment, for instance by raising credit volumes. It is worth recalling, however, that some of these strategies could have major consequences for financial stability, all the more so if the risks to the macroeconomic situation actually materialise.

All that said, the Belgian banking sector currently has sufficient capital and liquidity buffers to hold out against negative developments for a while. At the end of September 2019, the common equity Tier 1 ratio (CET 1) averaged 15.1 %, which is slightly higher than the euro area average (14.8 % in June 2019) and well ahead of average capital requirements in the

Chart 56

Loan loss ratio rose slightly, but remained low, while the share of non-performing loans was stable

(consolidated data)



Source: NBB.

1 The loan loss ratio shows the relationship between new impairments – i.e. new costs recognised for loan losses – and total loan volumes.

2 The share of non-performing loans is the percentage of loans that may not be repaid due to their borrower getting into financial trouble or which are already in arrears.

sector. This capital requirement, which is made up of a range of buffers, such as the minimum capital buffer (Pillar 1), the bank-specific capital buffer (Pillar 2) and various systemic buffers – such as the capital conservation buffer and the buffer for other systemically important banks – amounted to an average 11 % for the country's banks by the end of September 2019.

The sector's liquidity indicators also remain favourable. The average liquidity coverage ratio (LCR) came to 136 %, well ahead of the requisite 100 % indicating that a bank – according to simulations based on certain assumptions – has the wherewithal in terms of high-quality liquid assets to weather a total net outflow of resources for 30 days at a time of crisis. The net stable funding ratio (NSFR), which indicates whether a bank has sufficient long-term funding to finance its illiquid assets, stood at around 115 % according to preliminary (and conservative) calculations, exceeding the 100 % that will be required when a binding ratio is imposed. At 95 %, the loan-to-deposit ratio remains below 100 %, meaning that the sector has ample deposits to fund its loans and does not need any other (more volatile) sources of funding. That said, this ratio did deteriorate somewhat in the last quarters observed.

Table 11

Belgium's banking sector has adequate capital buffers

(breakdown of Tier 1 capital and risk-weighted assets, end-of-period data, on a consolidated basis; in € billion, unless otherwise stated)

	2015	2016	2017	2018	Sept. 2019
Tier 1 capital	55.1	60.0	63.0	63.0	63.2
of which:					
Common equity Tier 1	53.3	58.1	60.4	59.7	58.9
Risk-weighted assets	345.4	369.5	373.1	382.5	390.7
of which:					
Credit risk	282.8	308.1	315.3	315.9	323.3
Market risk	9.5	6.1	7.3	7.2	6.8
Operational risk	36.0	38.7	36.7	38.6	38.5
CVA	6.9	5.5	4.3	4.5	4.6
Other	10.3	11.0	9.5	16.4	17.4
of which: Additional stricter prudential requirements based on Article 458	8.5	8.8	9.2	16.1	16.7
Tier 1 ratio (in %)	16.0	16.2	16.9	16.5	16.2
Common equity Tier 1 ratio[1] (in %)	15.4	15.7	16.2	15.6	15.1
Leverage ratio (in %)	4.8	5.5	5.9	5.9	5.5

Source: NBB.
1 Calculated according to Basel III transitional provisions.

Strategies to keep up net interest income – are they sustainable?

Initially, the low interest rate environment actually benefited Belgian banks' net interest income, which primarily derives from the interest rate difference between long-term loans and investment on the assets side and short-term deposits on the liabilities side. Interest rate falls in the Eurosystem directly affected interest paid on sight and savings deposits first and foremost, pushing down Belgian banks' funding costs rapidly. Meanwhile, interest income on loans and investments stayed higher, as their rates had been locked in for longer terms. The rate differential or net interest margin between the two just grew and grew. Moreover, thanks to the low interest rate environment and supportive economic conditions created by monetary policy, banks were able to up their credit volumes and so built a much wider base from which to garner interest income. In fact, the steeper net interest margin and increased amount in loans ratcheted up the Belgian banking sector's net interest income by € 1.5 billion to € 14.8 billion between 2013 and 2016.

Margins eroded further by persistent low interest rate environment

With persistently low interest rates, however, the negative effects gain the upper hand. For one thing, it becomes impossible to cut interest rates on a large proportion of the deposits – more specifically regulated savings deposits – as the government imposes a statutory minimum interest rate of 11 basis points (of which 1 basis point is the base rate and 10 basis points are fidelity premium). Given the importance of savings deposits as a source of funding for the Belgian banking sector, it is essential that their remuneration continues to support the stable nature of this type of funding in order to ensure the stability of the financial system. For some other types of deposits, particularly those of other banks or financial institutions, interest rates may nevertheless fall further and, in some cases, banks are already charging negative interest rates.

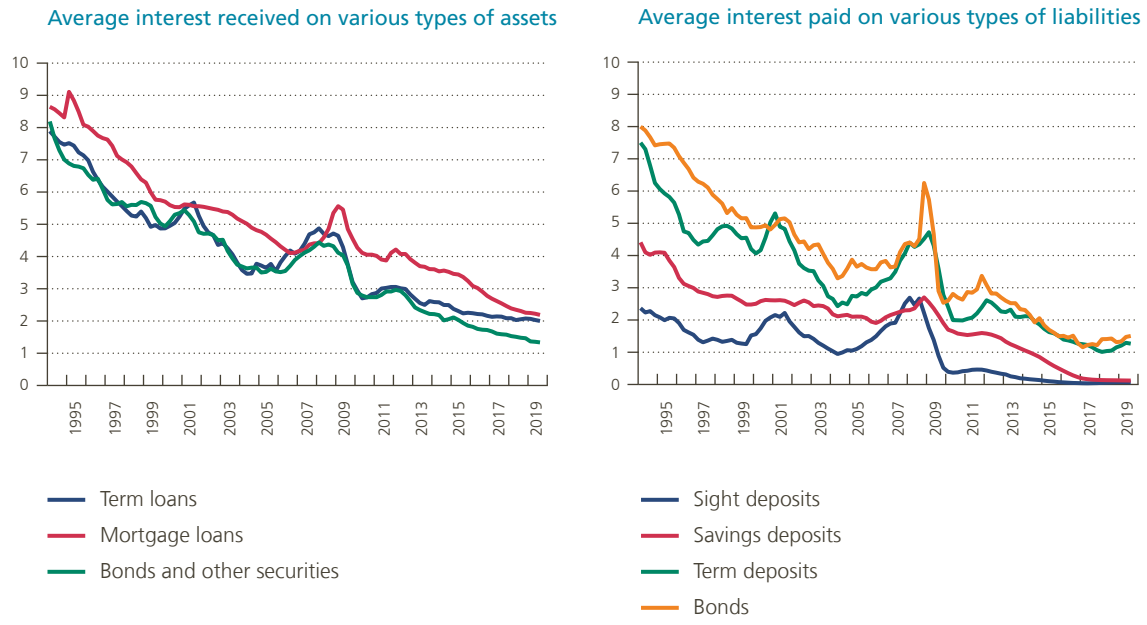
It cannot be ruled out that – although there are precious few real indications of this as yet – banks will tap more funding sources from the wholesale market in order to be able to pass on the ongoing fall in interest rates on the assets side to the liabilities side, and so keep up their margins. Nevertheless, these sources of funding are typically much more volatile than private sector savings, and so also require the banks to keep more liquid assets on their balance sheets for use when such funding needs to be repaid. Retaining liquid assets is becoming ever more expensive, however, as these increasingly bear negative interest rates. Thus, banks' structural liquidity position could come under pressure on both the assets and liabilities side.

Meanwhile, repricing of assets continues apace. Declining interest rates in the financial markets are combining with fiercer competition between banks to push down rates on new loans. Customers in their turn are taking advantage of lower interest rates to refinance mortgages and other loans, which is squeezing average rates for total loans in the balance sheet even faster (from 3.6 % at the end of 2013 to 2.2 % in September 2019). In addition, increasing volumes of still relatively high-yielding investments – in bonds, for example – are maturing. Non-consolidated data on the bond portfolios of the six largest Belgian banks show that almost 50 % of bonds will mature in the next three years. These bonds, currently with a coupon averaging 3.2 %, risk being replaced with investments yielding lower, or even negative, rates. With more and more bond positions not being renewed in the past few years and the freed-up cash – if not rolled over into loans – invested in central bank deposits, an even larger proportion of assets might suddenly be repriced. Banks are currently paying 50 basis points for central bank deposits in the Eurosystem, although a proportion of these liquidity reserves has been exempt from negative rates since the end of October 2019. During the reserve maintenance period from the end of October to mid-December 2019, € 39 billion of the total € 61 billion in liquidity surpluses deposited with the Bank were effectively exempt.

Chart 57

Repricing of assets continues, while interest rates paid on a large proportion of funding sources cannot go any lower

(average interest rates on the various outstanding assets and liabilities of Belgium's credit institutions[1], non-consolidated data, in %)



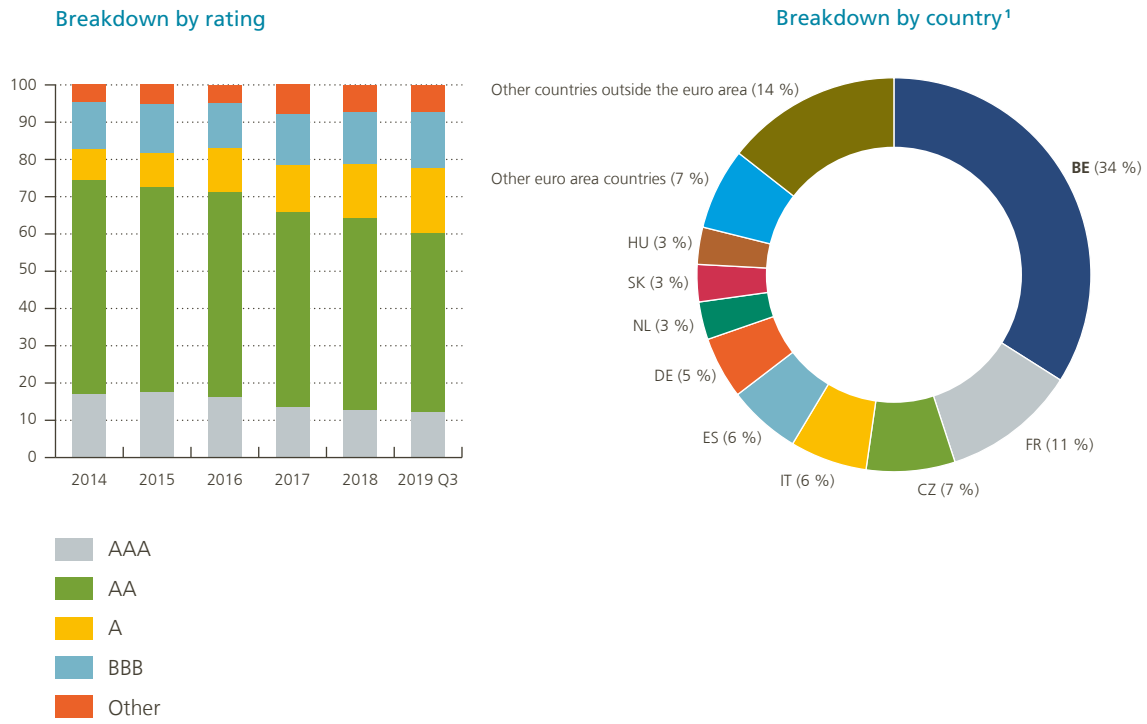
Source: NBB.

1 These rates are calculated as the ratio of the cumulative flows of interest paid and received over 12 months to the average outstanding volume of the corresponding assets or liabilities during the period under review.

Chart 58

Government bond portfolio contains a larger proportion of lower-rated instruments than previously

(composition of Belgian banking sector's government bond portfolio, consolidated data, in % of the total)



Source: NBB.

1 Figures for end of September 2019.

To lock in higher returns on their assets, banks might be inclined to invest more in (riskier) lower-quality assets with longer maturities. And indeed, the Belgian banking sector does show signs of such a search for yield. For example, increased numbers of mortgage loans are being agreed with longer maturities and/or higher LTV ratios, as shown in chart 45 in 4.2. An analysis of movements in the bond portfolios of this country's six biggest banks finds that newly purchased debt instruments are geographically more diversified than they used to be and that these banks hold relatively larger numbers of bonds from countries with lower ratings. The share of Belgian government bonds in the overall portfolio declined further to 34 % (compared with 45 % in 2014); the share of high-rated bonds (minimum AA) dropped to 61 % (compared with 75 % in 2014).

Belgian banking sector displaying search for yield

In the recent past, Belgian banks once again granted more new loans to create an even broader base for their interest income. For loans to businesses, this effectively caused a rise in net interest income, whereas interest income from loans to households continued to fall – despite bigger volumes – due to heavy pressures on margins on new loans and refinancing of existing loans. Incidentally, the share of net interest income from foreign lending has also grown, reflecting Belgian banks' presence in foreign markets – in some cases outside the Eurosystem, where interest margins can be more favourable at times. Besides, any surplus liquidity not ending up in loans can be deposited with the local central bank at positive interest rates. This geographical diversification does imply other risks, though, against which banks must protect themselves adequately.

It is far from certain that the current growth in credit volumes is sustainable, especially in view of the current uncertainties and risks in the macroeconomic environment. In fact, credit growth over the past few years coincided with fiercer competition between banks in the credit markets, putting pressure on lending criteria (see 4.2). Banks' loan losses might well rise again if economic growth fails to pick back up or if some macroeconomic risks actually materialise – although monetary policy is trying to prevent just such a scenario.

Lastly, net interest income was also supported by the clear fall in (net) interest costs for derivatives in the past two years. Although this may be related to developments in the financial markets, it may also point to a change in the degree to which and way in which banks are hedging the interest rate risk they incur by issuing long-term loans that they finance with short-term deposits. The fact that loans and deposits are becoming increasingly important in the balance sheet actually calls for more cover. It is essential that banks looking at a large or widening duration gap continue to adequately hedge against interest rate risks.

A search for yield can help banks to temporarily ward off the pressure on their profitability, but some of these strategies expose them to bigger credit liquidity and interest rate risks in the longer term, and these risks could materialise in the event of an economic shock. In the interest of financial stability, it is therefore advisable for banks to develop sustainable strategies to support their profitability.

Some strategies to keep up profitability may result in higher credit, liquidity and interest rate risks

Pressures on profitability also due to structural factors in banking sector itself

Aside from external cyclical and structural factors – e.g. growing macroeconomic uncertainties, the low interest rate environment and Belgian households' preference for savings deposits, the Belgian banking sector itself also displays a few structural features that could affect profitability. Those features can be both country- and bank-specific.

For a start, there are major differences between national banking sectors in the relative importance of very large, medium-sized and small banks, the presence of certain sub-categories of banks (e.g. banks whose objective is not to maximise profits), how comfortable the general public is with digital distribution channels, and the degree of overcapacity and related competition. These structural, country-specific factors help to explain the average profitability and cost efficiency of the banking sector in any given country. For instance, in a market with lots of players, banks have much less scope to set their own margins and depend very much on the behaviour of their competitors, influencing their profitability. The degree to which a banking sector uses digital distribution channels rather than a physical network of branch offices, to give another example, will have an impact on cost structures, etc. These factors go some way to explaining the difference between European banking markets in terms of the return on equity and cost/income ratios, with cost-efficient markets turning out to be clearly more profitable.

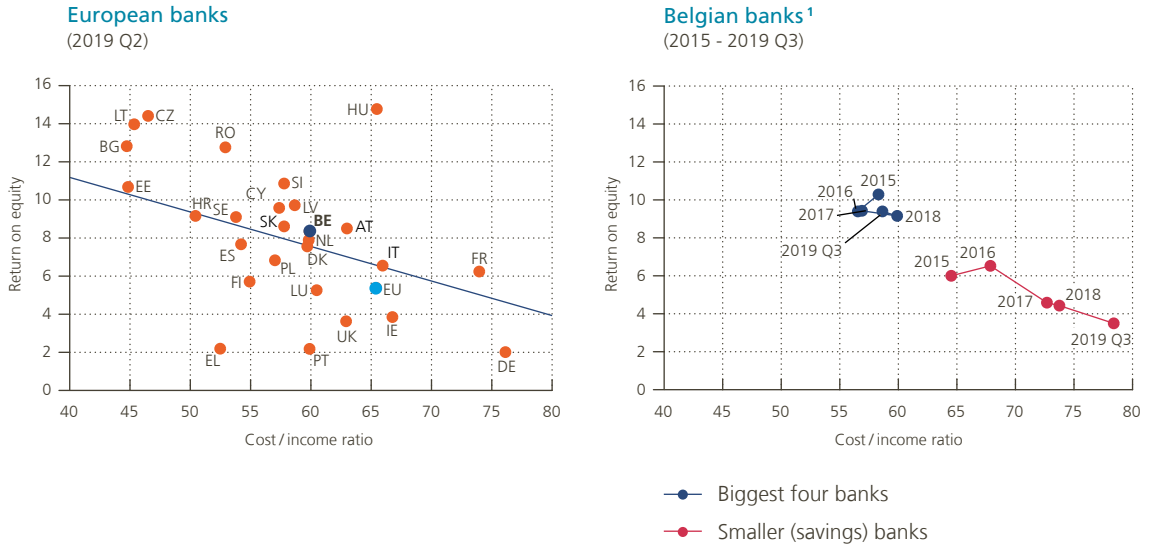
In this respect, the Belgian banking sector – albeit to a lesser extent than some other big banking sectors in Europe – still has a relatively heavy cost structure squeezing profitability, with cost-income ratios fluctuating around 60 % in the past few years. As noted, 2019 saw operating expenses fall ever so slightly for the first time in years. Large-scale restructuring plans typically take time to bear fruit, often requiring major investment, for instance for the overhaul of IT infrastructure. Against the backdrop of wider digitalisation in the financial sector, such investment will inevitably remain necessary. Banks are compelled to develop digital distribution channels and to adapt their internal processes and IT systems to new financial technologies, both because of changing behaviour on the part of their customers and because of the market entry of potential new competitors (BigTech and FinTech). For banks, digitalisation is both a major challenge and an opportunity to work more cost-efficiently.

And then there are bank-specific features that play a huge part in a bank's profitability levels and cost efficiency. Cost efficiency is sometimes linked to the size of a bank and to the existence of economies of scale. After all, bigger banks can spread their costs – for staff, digitalisation, investment related to anti-money-laundering and privacy laws,

Chart 59

Differences in profitability and cost efficiency between banks is explained in part by structural country- and bank-specific factors

(annualised consolidated data; in %)



Sources: ECB, NBB.
1 Excluding banks specialising in private banking.

etc. – across a wider base of loan and investment portfolios. Various studies contradict each other on up to what average bank size there are economies of scale to be locked in and on when further upscaling becomes detrimental (because it leads to excessive complexity, for instance). In Belgium, the four biggest banks are looking at significantly lower cost/income ratios than the smaller (savings) banks, which might suggest that economies of scale are mainly to be had at smaller banks and to a much lesser degree – or not at all – at the big banks. In addition, the average cost/income ratio at Belgium's big banks was roughly stable at around 58 % between 2015 and 2019, whereas the percentage was still on the rise at the small (savings) banks in the same period, from 65 % to 79 %.

Of course, the difference also reflects the diversification in sources of income and, more generally, banks' business models. On the whole, profitability tends to be squeezed more at banks that are less diversified in terms of the types of activities generating income, and in terms of the geographical location of those activities. These often also tend to be smaller (savings) banks, which are highly dependent on interest income from (mortgage) loans. And they have sometimes developed less advanced methods to hedge against interest rate risk related to their activities.

The return on equity of Belgium's four biggest banks and that of smaller savings banks thus clearly differs. Whereas for the country's biggest banks, return on equity exceeds 9 % – which investors deem sufficient to cover the cost of equity, generally estimated at between 8 % and 10 % – this has slumped for the smaller (savings) banks since 2016, to 3.5 % on average in the first nine months of 2019. That said, investors typically demand lower returns from these types of banks, as they fund themselves differently, for example through a cooperative or private shareholders. Finally, banks that specialise in private banking – and hence largely generate their income from asset management and not from interest income – have also seen their profitability come under pressure in the past couple of years, because of the competitive and volatile markets in which they operate and the necessity to invest.

The Belgian banking sector will have to prop up its profitability more sustainably

Although the Belgian banking sector's profitability has remained on a reasonably even keel up until now, projections clearly show that the persistent low interest rate environment and macroeconomic uncertainties are likely to drag down profitability, largely because of expected downward pressures on net interest income, but also because of a possible increase in loan losses as well as a few structural factors in the banking sector itself. Any fall in profitability may also have repercussions for the sector's solvency position. Below-average-yielding banks are not able to reserve as many profits in their capital buffers and also find it harder to tap investors for capital.

Smaller banks in particular will need to restructure

While banks may temporarily resist the pressure on their profitability by engaging in a search for yield, this will at the same time expose them to bigger credit, liquidity and interest rate risks in the longer term, and these might actually materialise in the event of an economic shock. To help safeguard financial stability, banks must avoid such an accumulation of risks arising from an unsustainable search for yield and rather pursue more sustainable strategies to support profitability, and make the structural changes needed to preserve a competitive and healthy banking sector.

First, banks will have to further adapt their cost structures and business models, particularly those that are less diversified in terms of activities and ways of funding them, or banks that have made little progress as yet in the transition to a more digital society. With interest rates so low, the clear differences observed between the bigger banks and smaller savings banks in terms of profitability and cost efficiency suggest that the smaller banks in particular will have to restructure to remain sufficiently competitive and profitable.

Banks must pay more attention to correct pricing of their products and services

To be able to bear the costs of restructuring – which often involves major changes to IT systems – banks might look to upscale, as this would help to spread the costs over a larger scale of activities. Mergers and acquisitions, such as those seen in the market for private banking, as well as the recently announced takeover of AXA Bank Belgium by Crelan, can make banks more efficient, provided they are carried out with due care and with the aim of achieving economies of scale.

Secondly, banks should pay greater attention to correct pricing of the various products and services they offer. Correct pricing implies that they have a firm handle on the internal cost price of their offering, and that whatever price they charge at least covers those costs. In practice, this turns out not always to be the case, either because banks do not have an accurate view on the necessary risk premiums and other costs that should be charged on, or because competition compels them to drop their prices to below the internal cost price.

In recent years, commercial margins have been shrinking in some markets in which banks operate, and sometimes have even turned negative when all expenses are stripped out (including the costs of credit and liquidity risk, for instance). Also, the price difference between less risky and more risky mortgage loans (in terms of loan-to-value, debt-service-to-income and term of the mortgage) has become very slight indeed – perhaps too slight to cover the internal costs related to these heavier risks. Banks have tried to make up for such loose pricing by linking their loan issuance to the sale of other financial products, such as insurance products. However, they have to make sure that all the products and services they offer are individually not loss-making, and thus that they charge fees that accurately factor in risks and costs. In light of this, the Bank has taken the initiative to regularly question banks on interest rates and commercial margins on new mortgage loans.

4.6 The insurance sector stayed robust in 2019

Although the insurance sector is not having an easy time of it, its results for the first nine months of 2019 were relatively satisfactory. Encouraged by the Bank as their regulator, insurance companies have spent the past few years adjusting gradually to terms with the low interest rate environment by adapting their management of guaranteed-return life insurance contracts and investment portfolios. But their relatively solid performance cannot hide the fact that prospects have grown dimmer, as expected interest rate trends will continue to put pressure on their business models.

Non-life sector collected a higher amount in premiums in 2019

Better results in 2018 and higher premium income in 2019

The insurance sector reported total net profits of € 3.2 billion in 2018, implying an accounting return on equity of 16.3 %. A seemingly clear improvement on 2017 (€ 2.1 billion), this total net profit was strongly influenced by two factors and actually masks a deterioration in the technical result on life insurance. The first of these factors was a sizeable improvement in net profits on the non-technical account, typically a volatile component of total net profits. And secondly, the reporting scope has come to include an insurance company active in the Belgian market since 2018. Using a constant reporting scope (that is to say, excluding this insurance newcomer) total net profits for the sector worked out at € 2.4 billion in 2018 – still an increase on 2017.

Non-life insurance premiums were fairly stable in 2018, for the fifth year in a row. Premium income came in at € 12.7 billion, 1 % up on 2017, with the result for 2018 working out at € 1.7 billion – fairly similar to the year-earlier figure (€ 1.5 billion).

In the first nine months of 2019, the non-life insurance sector clocked up net premium income to the tune of € 11.1 billion. This surge relative to the year-earlier figure (€ 8.9 billion) mostly reflected the market entry of a few foreign insurers, which transferred their activities to Belgium in preparation for Brexit. These companies mostly operate in markets outside Belgium and have particular business models, posing no immediate competition for the other players in Belgium's non-life insurance sector. On a constant reporting scope, premium income for the first nine months of 2019 came to around € 10 billion.

In the same period, operating expenses in the non-life insurance sector jumped by an annualised 32 % to € 6.7 billion, in part because of the market entry by the companies mentioned above, but in part also because of claim payments for two spells of bad weather in March 2019. The combined ratio, which reflects the relationship between the sector's operating expenses and income, inched up to 97.5 % in the first nine months of 2019.

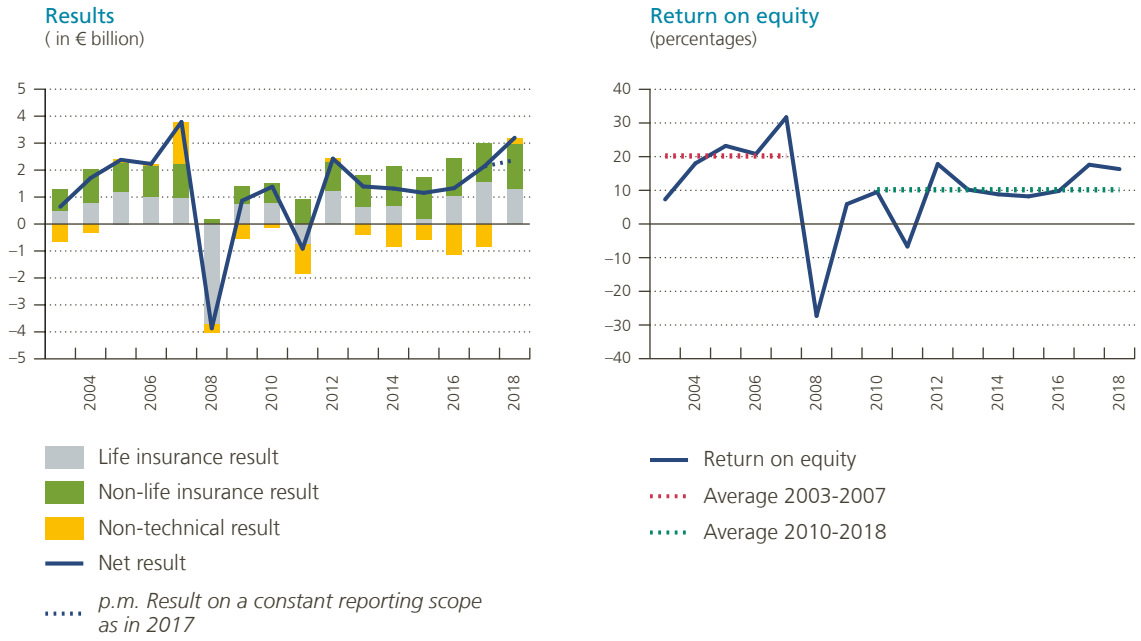
Premium income in the life insurance sector, which had been falling for years, rose to € 15.6 billion in 2018, 7 % up on 2017.

This renewed appetite for life insurance products reflected brisker demand for class 23 contracts, which mopped up € 3.5 billion in premium income in 2018. Not offering guaranteed returns, these contracts pay returns based on the performance of the investment funds in which their premiums are invested. They hold out higher potential returns than current class 21 guaranteed-return contracts, but class 23 policy-holders alone

Chart 60

Improved result in 2018

(non-consolidated end-of-period figures)



Source: NBB.

bear any losses on the investment underlying their contracts.

Life insurance sector premium income continued to rise in the first nine months of 2019, clocking up 6 % compared with the corresponding period of the previous year, to € 12.5 billion. This time, it was a modest revival in interest in class 21 that underpinned the expansion. Class 21 has become much less compelling in the current low interest rate environment, but this slight recovery may well be explained in part by Belgian households' risk aversion and their preference for low-risk investment. The shortage of more profitable alternative investment no doubt also plays a part. Lastly, a major increase in premiums was reported by an insurance company resuming life insurance activities abroad. This resumption also explains the rise in premium income in other classes of the life insurance sector (classes 21 and 23 excepted) in the first nine months of 2019, compared with the same period in 2018.

The renewed appetite for life insurance products seen in 2018 continued into 2019

Low interest rates affect the sustainability of life insurers' business model ...

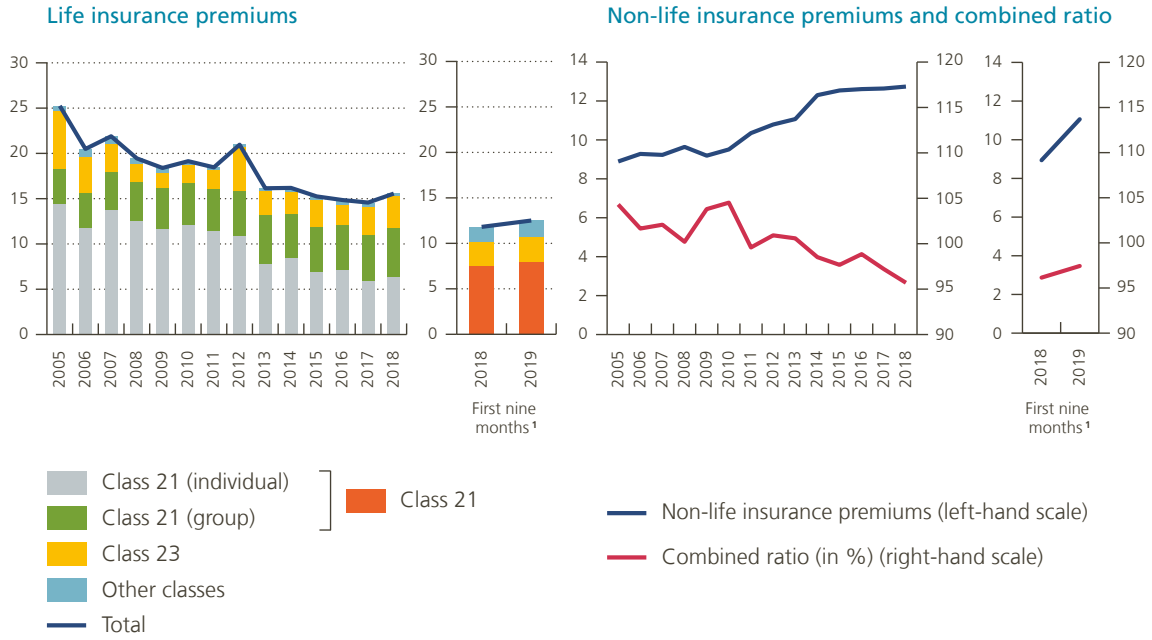
In the life insurance sector, the investment return is still a whole lot higher than the average garanteed rate of returns on outstanding class 21 contracts with guaranteed returns. Besides, the duration gap between assets and liabilities has shrunk in the past few years in the wake of a range of measures (described below) that insurers have taken to reduce a burden of liabilities that had become too heavy. With average maturities for assets below those for liabilities, the reinvestment risk is still there.

Falling interest rates have also had a fairly significant effect on life insurer solvency: the sector's average coverage ratio, which reflects the relationship between eligible own funds and the solvency capital requirement, came down from 219 % in

Chart 61

Life and non-life insurance premiums were up in 2019

(premiums in € billion, combined ratio in %)



Source: NBB.

1 The figures for premium income in the first nine months were collated under Solvency II and may diverge slightly from premiums reported in statutory accounts (see left-hand side of the chart).

December 2018 to 196 % in June 2019 and to 187 % in September 2019. Under Solvency II rules, insurers' balance sheets are calculated at market value, and declining interest rates typically cause liabilities to rise in value more rapidly than assets – provided, of course, that liabilities have longer durations than the assets. The net outcome is a fall in the equity calculated at market value. Despite its deteriorating solvency, the sector is still correctly capitalised to meet Solvency II requirements. This is corroborated by the Bank's 2018 stress test simulations.

Another clearly visible consequence of the low interest rate environment is the investment strategy that insurers have adapted to aim for higher returns.

At the end of September 2019, the sector's investment portfolios (excluding class 23) amounted to € 303.3 billion. Government bonds accounted for 48 %, a significantly higher proportion than the European average of somewhat over 30 %. This type of investment has been becoming less important to insurers over time.

Corporate bonds, which accounted for 21 % of the investment portfolios, were mainly issued by banks, manufacturers and energy companies.

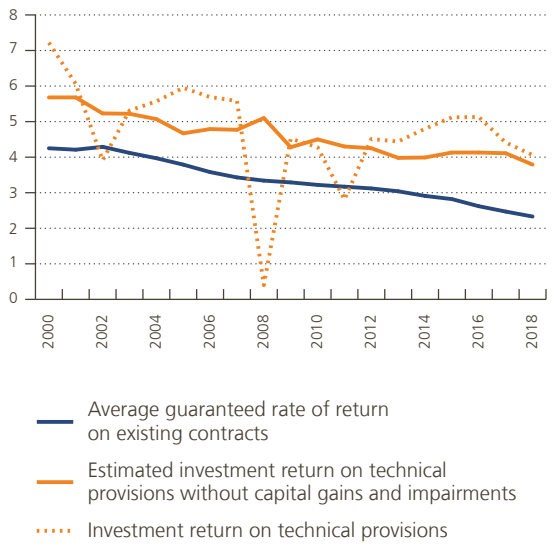
The remainder of the insurance sector's investment portfolios – i.e. 31 % of the total – comprises a whole series of other assets, fixed-rate or otherwise, that are riskier and/or less liquid but that may generate greater returns. A number of these asset classes – e.g. investment in the real estate sector and loans – have gradually become more important in insurance companies' portfolios, exposing them more to market risk.

In terms of real estate assets (residential and commercial), insurance companies are exposed by way of ownership of buildings, but also by holding loans (particularly towards infrastructure projects) and

Chart 62

Returns on assets underpinning class 21 contracts stay above average guaranteed return

(in %)



Source: NBB.

mortgage loans, as well as securities issued by real estate corporations. This direct and indirect exposure to the real estate markets has been on the up in past years, rising from 10.5 % to 14.7 % of total investment between early 2016 and September 2019. The exposure amounted to € 44.6 billion by the end of September 2019.

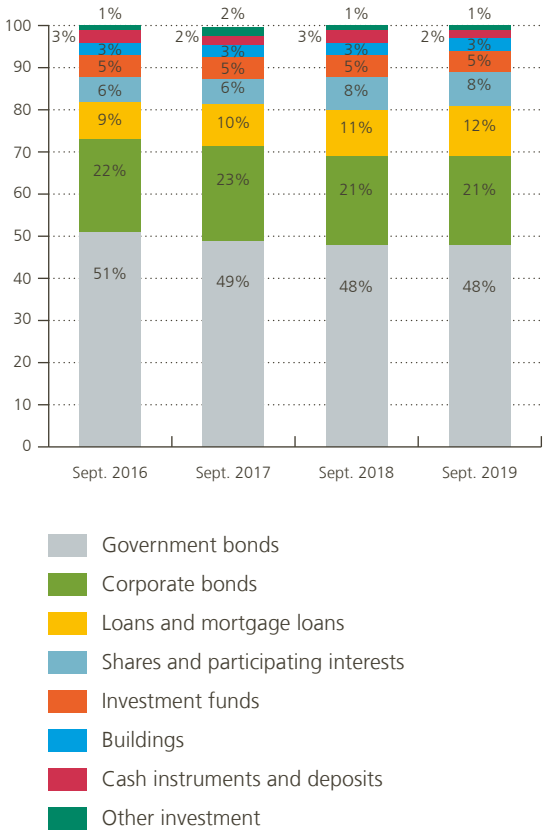
Mortgage loans accounted for around € 16.3 billion of this total, either issued by Belgium's insurance companies themselves or bought in the secondary markets. By the end of September 2019, these loans amounted to 5.4 % of total sector investment, compared with 3.9 % in September 2016. In addition to their higher returns and mortgage terms that match their investment horizons, insurers' interest in mortgage lending may also result from the fact that financial conglomerates – i.e. entities offering both banking and insurance services – may benefit (in terms of regulatory capital requirements) from including loans with LTVs below 80 % in their group's insurance segment balance sheet. The Bank is keeping a very close eye on any such scope for regulatory arbitrage, for instance in its new annual survey of the sector that specifically focuses on mortgage loans. The data for April 2019 reveal that, at the end of 2018, portfolios of insurer-held mortgage loans accounted for around 6 % of total portfolios of mortgage loans the financial sector had issued to residents and non-residents. These portfolios' features and risk profiles are fairly comparable to the banking sector's mortgage loan portfolios. To ensure fair competition, the Bank has therefore decided to include insurance companies in the scope of its explicit supervisory expectations on mortgage loans (see box 6).

The low interest rate environment has not merely propelled Belgium's life insurers to change their investment strategies; they have also addressed their liabilities. To free themselves of the massive burden of class 21 contracts – whose guaranteed returns were pegged at relatively high and hard-to-meet levels – many insurers have offered incentives to their

Chart 63

Investment trends in the insurance sector point to a search for yield

(breakdown of the investment portfolios excluding class 23, non-consolidated data, in % of total investment)



Source: NBB.

clients to surrender existing contracts on very favourable conditions and switch to class 23 products without any guaranteed return. Although class 23 products are a better bet for insurers, as the investment risk is transferred to the policy-holder and as they require less regulatory capital requirements, they do run a reputation risk in the event of clients incurring heavy losses on such contracts. New class 21 contracts are offering significantly lower guaranteed returns to bring them in line with those that can currently be earned in the financial markets. All these measures have conspired to bring down the average guaranteed return on life insurance contracts (individual and group insurance) from 2.63 % to 2.31 % between end-2016 and end-2018.

... and reflection on the future of their business model must continue

Although life insurance companies have managed to keep the return differences on their investment and payments on guaranteed-return contracts positive, they must undeniably continue to reflect on the future of their business model. In a way, the wider diversification of products that insurers now offer may prove a very interesting arena indeed. Some stakeholders in the sector are even considering expanding their offering to prevention, assistance and service products, so as to tap into other sources of income beyond their traditional insurance activities.

4.7 New fundamental challenges facing the financial sector

The entire financial sector, banks as well as insurance companies, is facing transversal structural risks in addition to the low interest rate environment. Financial institutions must take due, proper and timely account of increased climate-related risks, either as a result of direct exposure to climate change, or as part of the transition to a low-carbon economy. At the same time, IT and cyber risks are also growing stronger in the wake of ongoing digitalisation and the wider digital interconnectedness of the financial sector.

Climate-related risk

As the balance sheets of banks and insurers may be influenced by climate-related risks as well as the risk of a sudden transition to a more sustainable and low-carbon economy, the Bank feels it is essential to review the potential impact of these risks on the financial sector. Insurers are exposed to physical and transition risks, both on the liabilities side of their balance sheets – when climate disasters (floods, storms, hailstorms, drought, etc.) spark higher insurance pay-outs – and on the assets side in the event of depreciating investment in industries that may themselves be vulnerable to such risks. The banking sector is facing these same risks by way of its investment – in the shape of loans, for instance – in sectors and regions that are physically exposed to climate risks or must factor in transition risks. In response, in 2018, the Bank conducted a survey of eight insurance companies and seven credit institutions representative of their sectors. Its aim for the survey was to gather quantitative and qualitative information about exposures to climate-related risks, while it also intended to raise awareness among companies of the concomitant financial risks.

The survey found that, although aware of potential risks, financial institutions have made relatively little headway quantifying them or systematically integrating them in their risk management. Also, the proportion of green investment in their portfolios was found to be very small. Detailed outcomes of the survey can be found in the Financial Stability Report 2019, published by the Bank in June 2019.

Digitalisation and cyber security

Growing digitalisation of financial transactions and society's increased digital interconnectedness have led to higher IT and cyber security risks in the industry (for more information on this subject, see the sections on operational supervision and digitalisation in the Prudential regulation and supervision part of this Report). For financial institutions, the challenge is to adapt their often obsolete legacy IT systems under pressure from new and innovative players, new technologies and customer expectations. Banks have to adapt their business models to a digital world, further developing their digital distribution channels for customers that increasingly expect to carry out their banking transactions in a different way. And they risk being crowded out by competing FinTech and BigTech businesses if they fail to keep up. Furthermore, banks have to adapt their internal processes as well, which can be quite a challenge – their current IT set-ups are sometimes quite complex – but which also holds out opportunities, in the shape of new technologies such as artificial intelligence and blockchain.

Meanwhile, banks need to ensure appropriate protection for their IT systems and services against cyber attacks, which are becoming ever more sophisticated, powerful and targeted and look set only to increase in the future. As cyber threats are evolving rapidly, institutions must – now more than ever – make sure their defence capabilities are up to the task of flexibly responding to changing patterns of attack.

Insurers have a key role to play in covering cyber and IT risks, and their offering in this field is developing apace. To gain more insight into the current state of play, the Bank sent out a survey to the entire insurance sector in the autumn of 2019. The two-part questionnaire covers the various dimensions of the cyber threat facing insurers. The first part gathers information on the way insurance companies incorporate cyber risk in their internal operational risk management (identification, reporting, incident management, etc.), while the second part investigates insurance agreements to find out how insurers take account of direct or indirect cyber risks in their policies. Survey responses will be shared with the Bank early in 2020.

5. Public finances

5.1 The challenges facing Belgian public finances remain considerable

The nominal budget deficit widened again in 2019

The Belgian government ended the year 2019 with a nominal budget deficit of 1.7 % of GDP, up by 1 percentage point of GDP against 2018. The structural balance, which plays a crucial role in fiscal policy, deteriorated by 0.5 percentage point of GDP. The public debt continued to fall, dropping to 99.1 % of GDP, but is still high compared to that of most other euro area countries.

The nominal balance deteriorated in 2019, mainly owing to the sharp decline in revenue. In 2017 and 2018, corporation tax revenues had temporarily increased as a result of the steep rise in advance payments, but that reduced the corporation tax collected via the assessments in 2019. The measures relating to the tax shift also led to a further reduction in levies on labour. Social benefits increased – notably as a result of population ageing – so that primary expenditure also edged upwards. The low interest rate environment led to a further reduction in interest charges, but that only partly offset the negative impact of the aforesaid factors on the overall balance.

The position of Belgian public finances deteriorated in 2019

All this has taken place against the political backdrop of a federal government which, after resigning at the end of 2018, acted as a caretaker administration throughout the year. Parliament did not approve the federal budget for 2019, and expenditure was managed partly by granting credits for periods of two to four months, known as provisional twelfths. In principle, this expenditure may not exceed the amounts of the last approved expenditure budget relating to the period covered by the credit.

Table 12

General government overall balance and debt

(in % of GDP)

	2015	2016	2017	2018	2019 e
Revenue	51.3	50.7	51.2	51.4	50.3
Primary expenditure	50.8	50.4	49.6	50.0	50.1
Primary balance	0.5	0.3	1.6	1.4	0.2
Interest charges	2.9	2.7	2.3	2.1	1.9
Nominal overall balance	–2.4	–2.4	–0.7	–0.7	–1.7
p.m. Structural overall balance	*–2.6*	*–2.4*	*–1.7*	*–1.8*	*–2.4*
Public debt	105.2	104.9	101.8	100.0	99.1

Sources: NAI, NBB.

There was therefore no fundamental adjustment to public finances, and the increase in social benefits, which outpaces GDP growth (with no change of policy), remained unchecked. Owing to population ageing, that expenditure is set to rise by an annual average of 0.2 percentage point of GDP over the next two decades.

The general government budget deficit essentially reflects the deficit of the federal government, including social security. The Communities and Regions subsector posted a small deficit, while the local authorities' accounts were in balance.

The budget balance of the Communities and Regions improved in 2019 with the disappearance of the one-off correction, made in 2018, for the excess paid to the Regions since 2015 in respect of regional additional percentages on personal income tax. The Walloon Region and the Brussels-Capital Region recorded a deficit, as did the French Community. The accounts of the Flemish Community, like those of the other smaller entities, were more or less in balance.

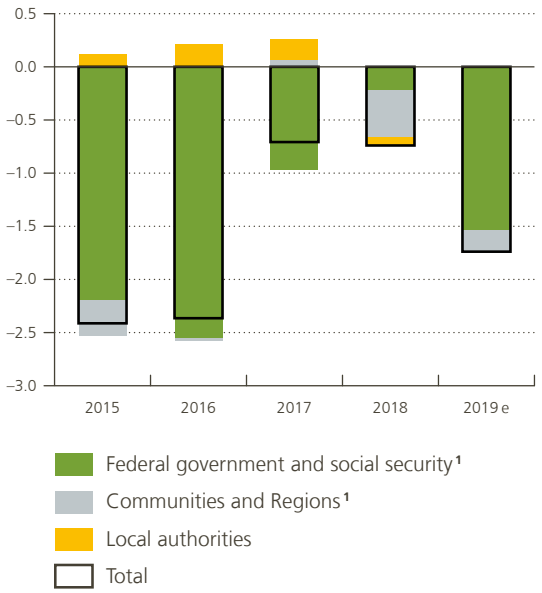
The structural budget deficit has widened, moving still further away from balance

In 2019, the nominal budget balance was adversely affected, primarily by the disappearance of one-off factors which had had a positive impact on it in the previous two years, and to a lesser degree by the economic situation. The structural budget balance, obtained by excluding the budgetary impact of these cyclical and temporary factors, deteriorated by 0.5 percentage point of GDP in 2019, resulting in a deficit of 2.4 % of GDP. The structural primary balance, which gives a better indication of discretionary fiscal policy

Chart 64

Overall balance of the government subsectors

(nominal overall balance, in % of GDP)



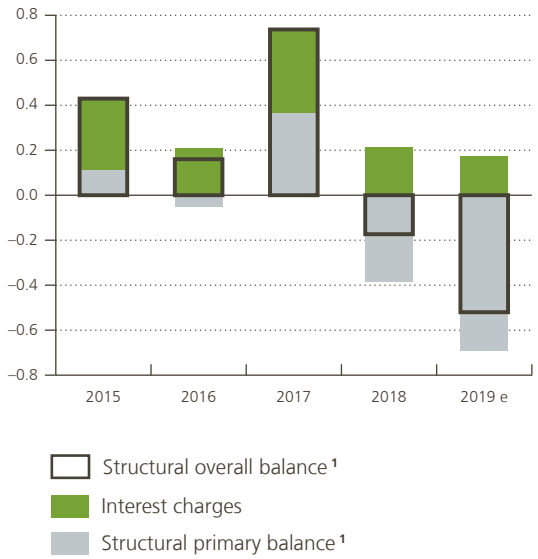
Sources: NAI, NBB.

1 With effect from 2015, these figures include advance payments on the additional regional percentages on personal income tax although, according to the ESA 2010 methodology, these advance payments are regarded as purely financial transactions and are only taken into account at the time of collection. This approach is in line with the guidelines for developing fiscal targets in the recommendations of the Public Sector Borrowing Requirement section of the High Council of Finance and in the Stability Programmes.

Chart 65

Fiscal policy was expansionary for the second consecutive year

(changes compared to the previous year, percentage points of GDP)



Sources: EC, NAI, NBB.

1 The cyclical component of the structural primary balance and the structural overall balance is calculated according to the EC methodology.

since it is not influenced by changes in interest charges, deteriorated by 0.7 percentage point of GDP.

Fiscal policy was therefore expansionary for the second consecutive year. Yet a more restrictive policy would have been desirable to bolster the sustainability of public finances.

Without a change of policy, there is no prospect of any improvement in the structural budget balance in the medium term. Fiscal measures will therefore be necessary to reduce the deficit and make progress towards the objective of a balanced budget.

The necessary consolidation of Belgian public finances has made no further progress in the past two years

The financial crisis and the ensuing economic recession had serious repercussions on Belgian public finances. The nominal overall position changed from a balanced budget in 2007 to a deficit of 5.4 % of GDP in 2009, while the structural overall deficit deteriorated to 3.8 % of GDP in 2010.

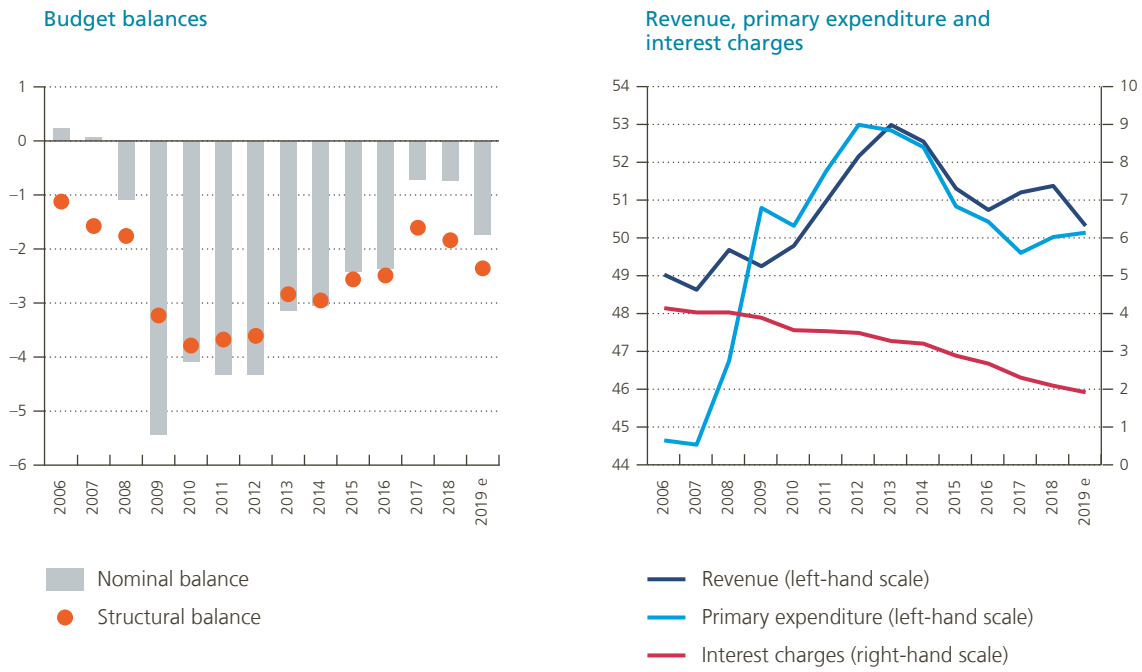
In the years which followed, the nominal overall balance improved systematically, with the deficit dropping to 0.7 % of GDP in 2017. The structural budget deficit was reduced mainly in 2013, 2015 and 2017, when it came to 1.7 % of GDP. After that, however, the consolidation came to a halt and the deficits actually widened again.

The nominal overall balance was therefore more negative in 2019 than before the outbreak of the economic and financial crisis, even though Belgian public finances benefited from the almost continuous decline in interest charges and rising revenue. Yet primary expenditure increased considerably during the crisis. Although expenditure did come down after reaching a peak in 2012, that decline was halted in 2017. Since then, it has risen slowly, so it still remains considerably higher than before the economic and financial crisis.

Chart 66

The necessary consolidation of public finances following the economic and financial crisis has come to a halt

(in % of GDP)



Sources: EC, NAI, NBB.

In 2019, the structural budget deficit likewise exceeded its pre-crisis level.

Why is it important for Belgium to continue aiming for a structurally balanced budget?

It is important for Belgium to achieve a structurally balanced budget in the medium term. First, the level of the public debt – which is still considerable – needs to be reduced, because it makes Belgium vulnerable to a rise in interest rates, whether in the form of a widespread increase in interest rates in the euro area or higher risk premiums on Belgian government securities. A structurally balanced budget and the resulting steady decline in the debt ratio could avoid any upward pressure on the spreads on Belgian government bonds compared to the government borrowings of euro area countries considered to be risk-free. More generally, sound public finances are essential to the confidence of economic agents since they promote sustainable growth, conducive to employment. In addition, if a structurally balanced budget is achieved when economic conditions are favourable, that makes it possible to create margins which may be useful in an economic downturn (see box 8).

A structurally balanced budget would lead to a steady decline in the debt ratio, which is still high

A structurally balanced budget also creates scope for funding policies to address future challenges – population ageing undeniably being one of the main ones. Although the pension reform, which aims to raise the actual age of retirement, makes a crucial contribution to the sustainability of Belgian public finances and to the financing of social protection, population ageing will in fact lead to a further rise in social expenditure in the coming decades.

The government has three levers for achieving a structurally balanced budget, namely increasing revenue, restricting primary expenditure, and pursuing a growth-friendly policy centred on raising the employment rate and boosting productivity. In the coming years, it will therefore be necessary to keep control over primary expenditure, despite the strong upward pressure

that ageing will exert on the spending of the various branches of government. At the same time, a shift in expenditure will be needed to give priority to expenditure categories likely to strengthen economic growth in the long term, such as investment in infrastructures. Managing the environmental problems and achieving the energy transition will also entail public expenditure in the decades ahead, particularly spending on investment. The government will likewise need to make efficiency gains in providing services for society. There is hardly any further scope available on the revenue side, owing to the already high tax burden. The composition of revenue, like that of expenditure, will need to be as growth-friendly as possible.

A structurally balanced budget is also the central aim of the European budgetary rules

Achieving a structurally balanced budget is Belgium's medium-term objective (MTO) under the preventive arm of the Stability and Growth Pact, which is intended to prevent the emergence of unsustainable budgetary situations. In recent years, Belgium's stability programmes have systematically referred to this objective of a balanced budget. It is currently the minimum "MTO" target for Belgium, as set by the EC at the beginning of 2019 on the basis of the debt ratio, the budgetary cost of population ageing and the expected nominal economic growth.

Belgium's stability programme for 2019-2022, presented to the EC in April 2019, only mapped out a purely indicative path for both the overall budget target and its apportionment across the various levels of power, in view of the federal and regional elections scheduled in May. On the basis of the indicative path, each government entity was to achieve a structural balance in 2021; that represented a further delay of one year in attaining that objective. The governments formed after the elections should decide on the path in accordance with the procedure laid down in the cooperation agreement of 13 December 2013, which is the formal framework for budgetary coordination in Belgium. In any event, effective coordination by the conclusion of cooperation agreements on binding budget targets is crucial.

For 2019, the stability programme aimed at an improvement in the structural budget deficit of 0.15 percentage point of GDP. In that regard, the federal government anticipated the EC's final approval of the flexibility requested in the draft budget for 2019, owing to the implementation of a number of structural reforms, such as the tax shift and the pension reform. That approval authorised a temporary deviation of half a percentage point of GDP from the adjustment path for attaining the MTO. The improvement in the structural budget balance required for 2019 was therefore reduced from 0.6 to 0.1 percentage point of GDP.

The draft budget for 2020 presented to the EC in October 2019 was also purely indicative, with a path involving no change of policy for the federal government and social security, as the federal government was still a caretaker administration at that time. On the basis of this draft budget and its own autumn forecasts, the EC concluded that there is a risk of non-compliance with the Stability and Growth Pact. More specifically, Belgium risks deviating significantly in 2019 and 2020 from the adjustment path towards the MTO required by the Ecofin Council. For 2019, the assessment took account of the aforesaid concession based on the flexibility clause regarding structural reforms. According to the EC's autumn forecasts, Belgium will also fail to meet the debt criterion in 2019 and 2020. The EC therefore invited Belgium to submit an adjusted draft budget as soon as a new federal government takes office, and as a rule at least one month before the draft budget law is planned to be adopted by Parliament, as laid down in the EU budgetary procedures. The EC is also inviting the government to incorporate in this modified version the measures necessary to make the budget conform to the European budgetary rules.

The current European budgetary framework is aimed primarily at the long-term sustainability of public finances in each Member State. Taken overall, the recommendations addressed to the Member States therefore do not necessarily correspond to the optimum fiscal policy for the euro area as a whole, aimed at stabilising the business cycle as well as achieving sustainability. In October 2019, in connection with the further deepening of Economic and Monetary Union, the Eurogroup concluded an agreement on the budgetary instrument for convergence and competitiveness, which focuses on the funding of structural reforms and public investment in order to strengthen the potential growth of the euro area economies and enhancing the euro's resilience to economic shocks. The arrangements for applying this instrument are

Table 13

Targets for the general government overall balance

(stability programme targets; unless otherwise stated; in % of GDP)

	2015	2016	2017	2018	2019	2020	2021	2022
Nominal balance								
April 2015	**–2.5**	–2.0	–1.0	–0.2				
April 2016		**–2.5**	–1.4	–0.4	–0.2			
April 2017			**–1.6**	–0.7	–0.2	–0.1		
April 2018				**–1.0**	–0.7	0.0	0.1	
April 2019					**–0.8**	–0.2	0.1	0.0
October 2019 (draft budget)					**–1.7**	–2.3		
p.m. Actual/Estimate	*–2.4*	*–2.4*	*–0.7*	*–0.7*	*–1.7 e*			
Structural balance [1]								
April 2015	**–2.0**	–1.3	–0.6	0.0				
April 2016		**–1.7**	–0.8	0.0	0.0			
April 2017			**–1.0**	–0.4	0.0	0.0		
April 2018				**–0.8**	–0.6	0.0	0.0	
April 2019					**–0.8**	–0.2	0.0	0.0
October 2019 (draft budget)					**–1.9**	–2.1		
p.m. Actual/Estimate	*–2.6*	*–2.4*	*–1.7*	*–1.8*	*–2.4 e*			

Sources: EC, FPS Finance, FPS Policy and Support, NAI, NBB.

1 For the Actual/Estimate figures, the cyclical component of the structural balance was calculated according to the EC methodology, whereas FPB estimates were used for the stability programmes and other budget documents.

yet to be devised in the course of the negotiations concerning the EU multiannual financial framework for 2021-2027, but the amounts to be allocated to it will be small. This instrument is not able to stabilise the business cycle in the euro area, whereas that function does exist in other monetary unions.

In the spring of 2020, the EC will publish its assessment of the European fiscal framework and after that may put forward amendment proposals if need be. In any case, adjustments are warranted if they lead to simplification, as transparency is essential to ensure that the regulatory framework functions efficiently. It is also important for the fiscal framework to support a policy conducive to growth, not least when it comes to investment. In any case, good European budgetary rules are very useful to countries in the Monetary Union and should therefore be correctly applied. That is primarily the responsibility of the Member States, but the EC must also ensure that the rules are respected.

BOX 8

What is the best fiscal policy to adopt in the event of a cyclical downturn?

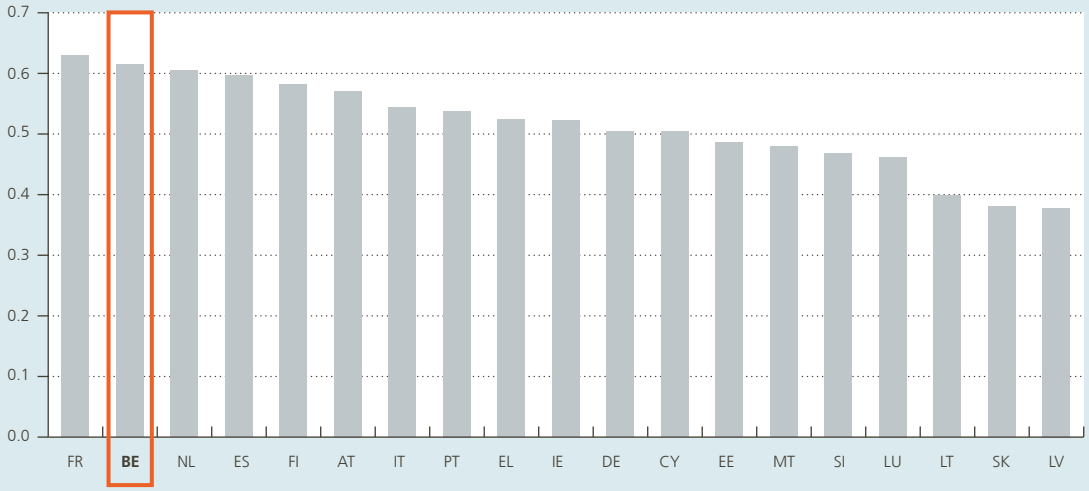
From a macroeconomic angle, one of the aims of fiscal policy is to foster the stabilisation of the business cycle, but on condition that public finances remain sustainable in the long term.

The "automatic stabilisers" are the primary means of smoothing out cyclical fluctuations via public finances. A cyclical downturn leads to lower revenues and higher unemployment benefits, and hence a deterioration in the budget balance. Conversely, favourable macroeconomic conditions result in an improvement in the balance. These variations in the budget balance moderate the cyclical fluctuations to some extent without the government needing to intervene: hence the term "automatic" stabilisers.

The impact of cyclical fluctuations on the general government budget balance – and consequently also the scale of the automatic stabilisers – increases the higher the ratio of public revenue and expenditure and the greater their cyclical sensitivity. Budgetary semi-elasticity is a common way of measuring this

In Belgium, cyclical fluctuations have a big impact on the general government budget balance

(budgetary semi-elasticity[1] for 2018)



Source: EC.

1 Change in the budget balance resulting from a change in the output gap.

impact; it is used by the EC, for instance, to calculate the structural budget balance. Belgium has a budgetary semi-elasticity of around 0.6, which is a relatively high figure, owing to the government sector's major role in the economy.

If, in a cyclical downturn, the output gap – in other words, the extent to which actual GDP deviates from potential output – declines by 1 percentage point, the general government budget balance will consequently deteriorate by around 0.6 percentage point of GDP. This fiscal stimulus – which supports the incomes of individuals and firms – will boost GDP, though the effect will be smaller because the increase in income does not only promote consumption and investment, it also leads to higher savings and a rise in imports. The immediate impact of a fiscal stimulus equal to 0.6 % of GDP comes to 0.2 % of GDP, and that effect increases after a few quarters to 0.3 % of GDP. This means that the automatic stabilisers offset about a third of the initial cyclical fluctuation.

However, there is a risk that the automatic stabilisers may not operate to the full. In the absence of an adequate safety margin in the budget, a marked growth slowdown may increase the public deficit so that it exceeds the Maastricht Treaty limit of 3 % of GDP, thus necessitating consolidation measures. That could happen in Belgium since, according to the Bank's December 2019 projections, if there is no change in policy the nominal deficit will rise to 2.8 % of GDP in 2022. Furthermore, these stabilisers will not achieve their optimum effect in stabilising business activity unless they are accompanied by sustainable public finances. Otherwise, the confidence of the economic agents could be undermined, prompting them to cut their investment or consumption, and there is a danger that an increase in the risk premiums incorporated in interest rates could counteract the benefits of the automatic stabilisers.

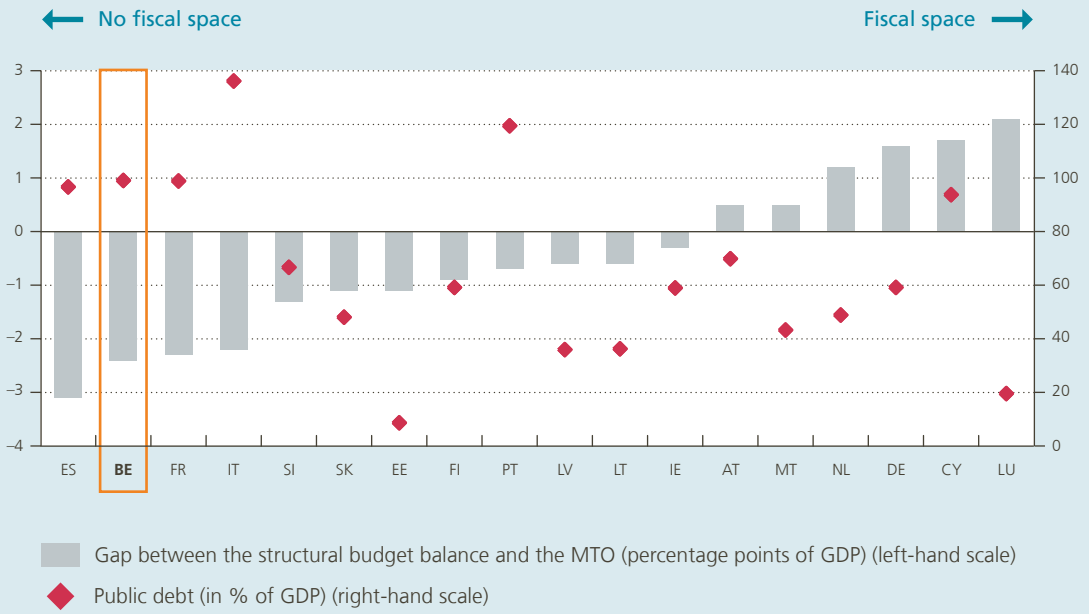
The automatic stabilisers can be supplemented by a discretionary countercyclical policy. For that purpose, in the face of a decline in economic demand, the government must actually decide, for example, to increase public consumption or investment, or other expenditure, or to cut taxes. The impact of such a fiscal stimulus on GDP – known as the "budgetary multiplier" – and therefore also the degree to which these measures moderate cyclical fluctuations, depends on the nature of the stimulus and the circumstances, which may vary considerably over time and from one country to another.

During the past year, in view of the deteriorating economic outlook, several international institutions have called for discretionary fiscal policy to be allowed to play a more active role in the euro area. At its meeting on 12 September 2019, the ECB Governing Council established that, in order to reap the full benefits of the monetary policy measures, other areas of economic policy must make a more decisive contribution. As regards fiscal policy, in view of the weakening economic outlook and the continued prominence of downside risks, governments with fiscal space should act in an effective and timely manner. In countries where public debt is high, governments need to pursue prudent policies that will create the conditions for automatic stabilisers to operate freely. This call was reiterated after subsequent meetings and supplemented by the recommendation that, in countries where public debt is high, the government should meet structural balance targets.

The stronger support for the economy via discretionary fiscal policy therefore has to come from countries where the government has some fiscal space. That means Germany, the Netherlands and Luxembourg in particular. Belgium, along with France, Italy and Spain, belongs to the group of euro area countries with no room for pursuing an expansionary discretionary fiscal policy. Those countries are in fact still a long way from achieving their set medium-term objective and are still saddled with a high public debt.

Belgium has no space to pursue an expansionary discretionary fiscal policy

(estimates for 2019)



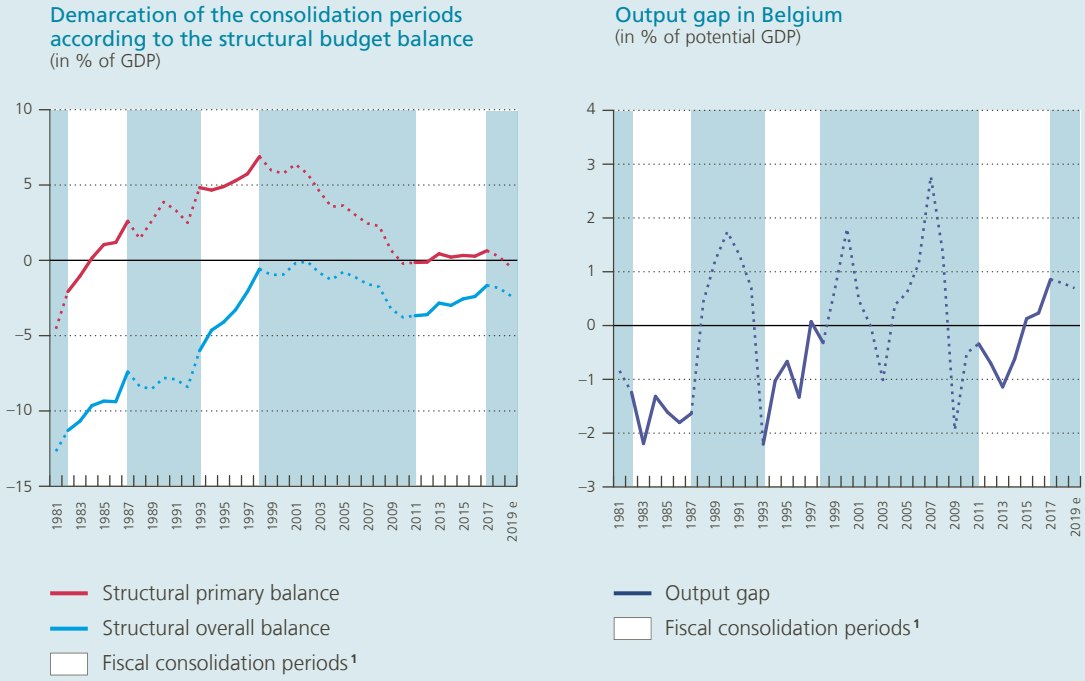
Sources: EC, NBB.

Finally, it should be noted that the fiscal policy stance in Belgium has often been contrary to the recommendations of the macroeconomic literature. For instance, the three adjustment periods identifiable since the early 1980s all started during a period of weak economic activity. In fact, the output gap was negative at the start of each of these periods, and remained so virtually throughout, which indicates that the efforts were accompanied by under-utilisation of the production factors. When embarking on fiscal consolidation, Belgium was systematically subject to heavy pressure from the financial markets. Since more favourable economic periods were not exploited to build up reserves, or not to a sufficient extent, fiscal policy was therefore frequently procyclical[1].

In its assessment of Belgium's draft budgetary plan in November 2019, the EC stressed that the favourable economic circumstances of recent years had not been used sufficiently to consolidate public finances, a situation which – combined with a high debt level – impairs the ability to withstand economic shocks and market pressure.

1 See Bisciari P *et al.* (2015), "Analysis of policies for restoring sound Belgian public finances", NBB, *Economic Review*, June, 73-94.

Fiscal consolidation in Belgium took place in periods of weak economic activity



Sources: EC, NAI, NBB.

1 Fiscal consolidation periods in Belgium are indicated in white. They are defined on the basis of the government's structural budget balance.

5.2 Revenue fell back sharply and primary expenditure rose slightly in 2019

Public revenues declined following the disappearance of a temporary boost from corporation tax revenue in previous years

In 2019, public revenues declined by 1.1 percentage point of GDP, ending the upward trend of previous years which had resulted from a temporary rise in corporation tax revenue.

Advance payments by companies rose sharply in 2017 and 2018 as a result of the significant increase in the base rate for the tax surcharge in the event of insufficient advance payments, setting it at 6.75 % with

Table 14

Public revenue [1]

(in % of GDP)

	2015	2016	2017	2018	2019 e
Fiscal and parafiscal revenue	44.4	43.6	44.1	44.2	43.1
Levies applicable mainly to earned incomes	25.7	24.7	24.6	24.4	24.1
Personal income tax [2]	11.3	10.9	10.8	10.9	10.5
Social security contributions [3]	14.4	13.8	13.7	13.5	13.6
Corporate income tax [4]	3.3	3.4	4.1	4.3	3.8
Levies on other incomes and on assets [5]	4.2	4.1	4.0	4.0	3.9
Taxes on goods and services	11.3	11.5	11.4	11.5	11.4
of which:					
VAT	6.6	6.7	6.7	6.8	6.7
Excise duties	2.5	2.7	2.7	2.7	2.6
Non-fiscal and non-parafiscal revenue [6]	6.9	7.1	7.1	7.2	7.2
Total revenue	51.3	50.7	51.2	51.4	50.3

Sources: NAI, NBB.

1 In line with the ESA 2010, general government revenue does not include the proceeds of customs duties transferred to the EU or the revenues levied directly by the EU.

2 Mainly payroll tax, advance payments, assessments and additional percentages on personal income tax.

3 Including the special social security contribution and the contributions of people not in work.

4 Mainly advance payments, assessments and withholding tax.

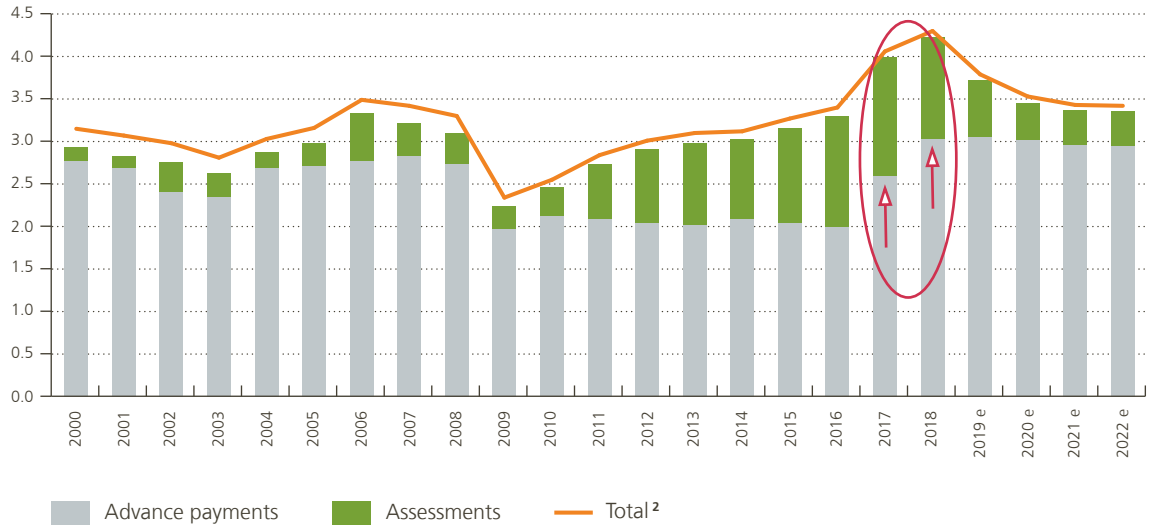
5 Mainly withholding tax on income of individuals, withholding tax on income from movable property (including the proceeds of additional percentages), inheritance taxes and registration fees.

6 Income from assets, imputed social contributions, current transfers and capital transfers from other sectors, plus sales of goods and services produced.

Chart 67

The sharp rise in corporation tax revenue in 2017 and 2018 was temporary [1]

(in % of GDP)



Sources: NAI, NBB.

1 The data for 2020-2022 are taken from the Bank's December 2019 projections.

2 Including other taxes, of which withholding tax is the most important.

effect from 2018 incomes. In that situation, it was logical for firms to make larger advance payments, especially as the low interest rate environment enabled those with insufficient liquidity to take advantage of highly favourable borrowing conditions to cover the payments. This surplus revenue in 2017 and 2018 was only temporary, since the residual balance of the corporation tax subsequently collected via the assessments – when the tax recoverable for a particular tax year is determined – was reduced. The 0.5 percentage point decline in corporation tax revenue in 2019 is almost entirely attributable to the reduction in the assessments.

Revenue derived from levies on earned incomes also declined in relation to GDP. That resulted from the measures adopted under the tax shift approved in 2015, which aimed to improve firms' competitiveness, stimulate employment and boost household purchasing power. In that connection, it was mainly personal income tax that declined in 2019. The increase in the tax-free allowance, adjustment of the tax bands, and raising of the percentage for calculating the working tax credit reduced the tax burden by 0.3 percentage point of GDP.

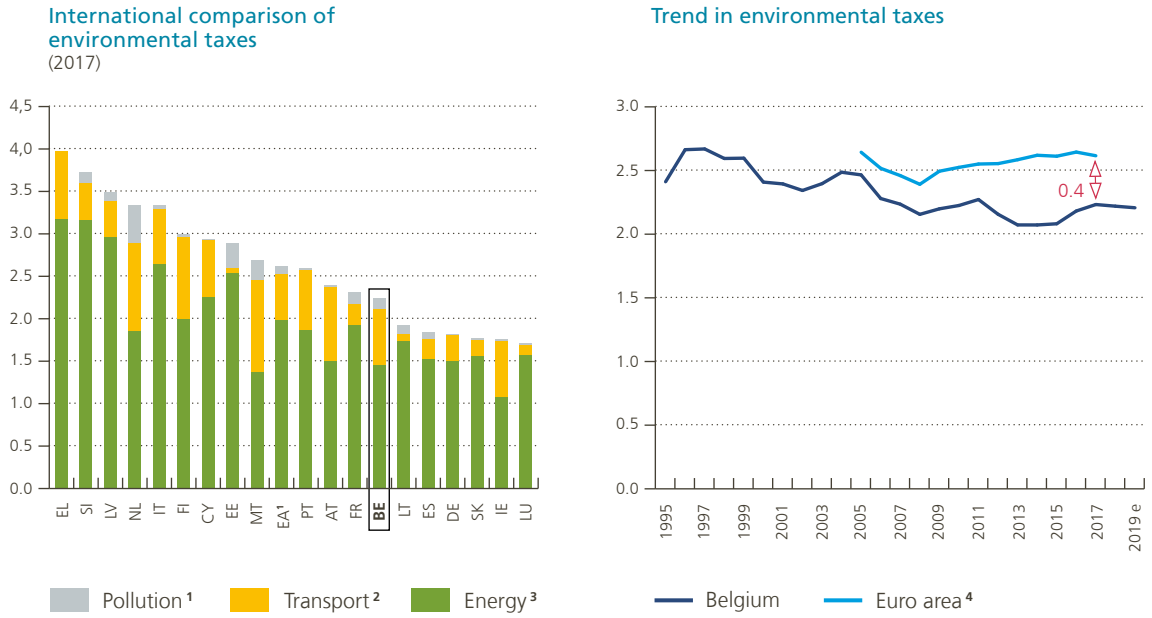
Taxes on other incomes and on assets were down by 0.1 percentage point of GDP, as the low interest rate environment reduced withholding tax revenue. The inheritance tax reform introduced in the Flemish Region in September 2018 likewise led to a slight fall in revenue from inheritance taxes. Revenue from the tax on securities accounts remained more or less steady, at 0.1 % of GDP. On 17 October 2019, the Constitutional Court decided to annul this tax owing to non-compliance with the constitutional principles of equality and non-discrimination, so that the State will lose this source of taxes in 2020.

Revenue from VAT and excise duties both declined by 0.1 percentage point of GDP. VAT income was curbed by the modest growth of household consumption expenditure. In the case of excise duties, the federal government's decision not to carry out

Chart 68

Revenue from environmental taxes is low in Belgium

(in % of GDP)



Sources: EC, NAI, NBB.

1 In Belgium, these taxes mainly comprise the packaging levy and regional water taxes.

2 These taxes include the road tax paid by households and businesses.

3 These taxes mainly comprise excise duties on fuel, plus taxes on electricity consumption (excluding VAT and levies directly related to the funding of green certificates) and revenue from the sale of emission rights.

4 Unweighted averages.

the planned index-linking of the rates in 2019 also depressed revenue.

The revenue from environmental taxes remained stable in Belgium in 2019. Compared to other countries, their level is among the lowest in the euro area. More particularly, taxes on energy – the principal component of environmental taxes – are relatively low, the rate of the implicit levy on energy as calculated by the EC being one of the lowest in the euro area.

Finally, non-fiscal and non-parafiscal revenue increased slightly as a result of the payment of almost € 300 million by a foreign financial institution under an amicable settlement with the Brussels Public Prosecution Department.

The slight rise in primary expenditure in 2019 confirmed that the downward trend had ceased

The government's primary expenditure, i.e. its expenditure excluding interest charges, increased slightly faster than economic activity in 2019, reaching 50.1 % of GDP. This was due entirely to the marked rise in social benefits, which account for roughly half of primary expenditure. Spending on pensions, health care and sickness and disability benefits went up particularly sharply. The decline in unemployment benefits moderated that growth, as the number of claimants declined further. There was actually a 25 % fall in the number of people in the unemployment with employer top-up scheme – the former pre-pension system.

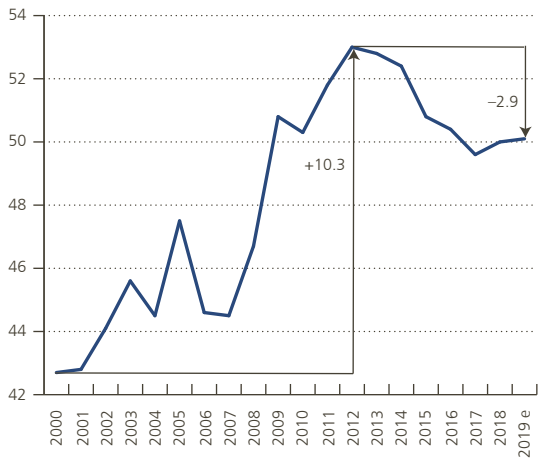
Public investment expenditure was down against the previous year, owing to the influence of the electoral cycle at local authority level. Local authority investment, which amounts to around a third of the total government investment, generally rises very steeply in the run-up to the local elections, as was the case in 2018, before subsiding in the following year. Wages of government personnel were slightly lower in relation to GDP, while purchases of goods and services stagnated. At federal level, the fact that expenditure in 2019 was managed via provisional credits and was constrained by the limits imposed on a caretaker government favoured this development.

The modest rise in primary expenditure in 2019 confirmed the 2018 increase in spending which had halted the downward trend of the preceding four years. While the strong moderation of expenditure growth between 2013 and 2017 had brought down the spending ratio, it had only partly offset the significant increase in public expenditure recorded since 2000.

Chart 69

In 2019, primary expenditure accounted for about half of GDP

(in % of GDP)



Sources: NAI, NBB.

Primary expenditure has escalated since the turn of the century

To obtain a true picture of the fundamental trend in expenditure compared to economic activity, spending has to be adjusted for the influence of temporary or fiscally neutral factors, as well as for cyclical developments, and expressed as a percentage of potential GDP.

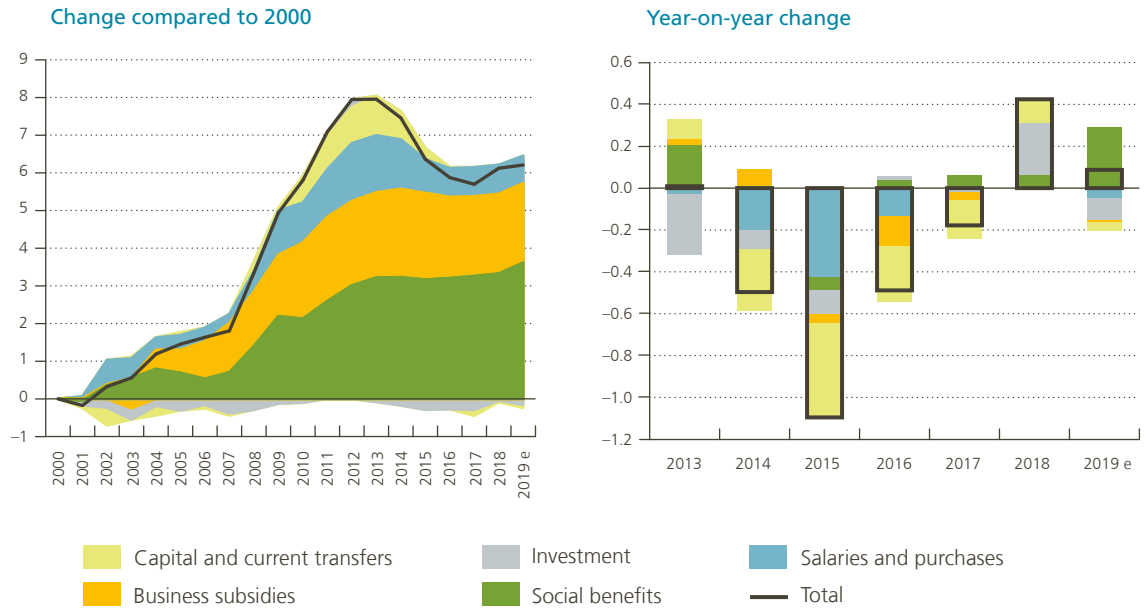
The expenditure growth between 2000 and 2012 concerned most categories and the various sub-sectors of government. The rise in social security benefits accounted for more than a third of that increase. The salaries of government personnel, as well as purchases of goods and services – three-quarters of the total spent by the Communities and Regions and the local authorities – also rose steadily. The amount of business subsidies doubled as a result of targeted reductions in labour costs for the private sector and expansion of the service voucher system. Capital transfers expanded temporarily in the form of an increase in investment appropriations and tax credits granted for households' energy-saving investment. Conversely, public investment formed an exception to this upward trend, and virtually stagnated in relation to GDP.

Since 2013, at the level of Entity I comprising the federal government and social security, primary expenditure has been cut back. The federal government slashed the capital transfers, in particular by abolishing the tax credit for energy-saving investment and reducing the investment appropriations to the SNCB. Substantial savings were also made on public sector employees' wages and on purchases of goods and services. Entity II, comprising the Communities and Regions and local authorities,

Chart 70

The decline in primary expenditure which had begun in 2013 was reversed in 2018

(primary expenditure [1, 2], percentage points of potential GDP)



Sources: NAI, NBB.

1 In order to obtain a true picture of the government's structural policy on primary expenditure, spending was adjusted for the influence of temporary or budget-neutral factors, and for the business cycle. For the purpose of this analysis, the impact of the sixth State reform in 2015, which transferred some of the Entity I expenditure to the Communities and Regions, was neutralised.

2 The rise in the primary expenditure ratio since 2000 is less marked than on the basis of the national accounts data used in chart 69. Compared to 2000, the reference year, the output gap was decidedly positive. Nominal GDP then exceeded potential GDP, whereas the reverse happened in 2012 and 2013. In addition, temporary or budget-neutral stimulated public expenditure in 2012 and 2013.

moderated its expenditure on salaries and purchases, and on business subsidies and investment grants. Public investment was down slightly in both entities. Finally, social benefits were up, despite their moderation during 2014-2018. The 2015 index jump – the one-off arrangement for not increasing public sector employees' wages and the majority of social benefits by 2 % after the key index was exceeded – was a major contributory factor in the savings made during that period.

Altogether, over the period 2000-2019, there was a structural rise in primary expenditure amounting to 6.2 percentage points of potential GDP. Social benefits accounted for more than half of that increase, namely 3.6 percentage points. Other expenditure was up by 0.8 percentage point for Entity I and 1.8 percentage points for Entity II. Annual average nominal growth of the other expenditure of Entity II came to 4.0 %, slightly above that of Entity I, for which the figure was 3.8 %.

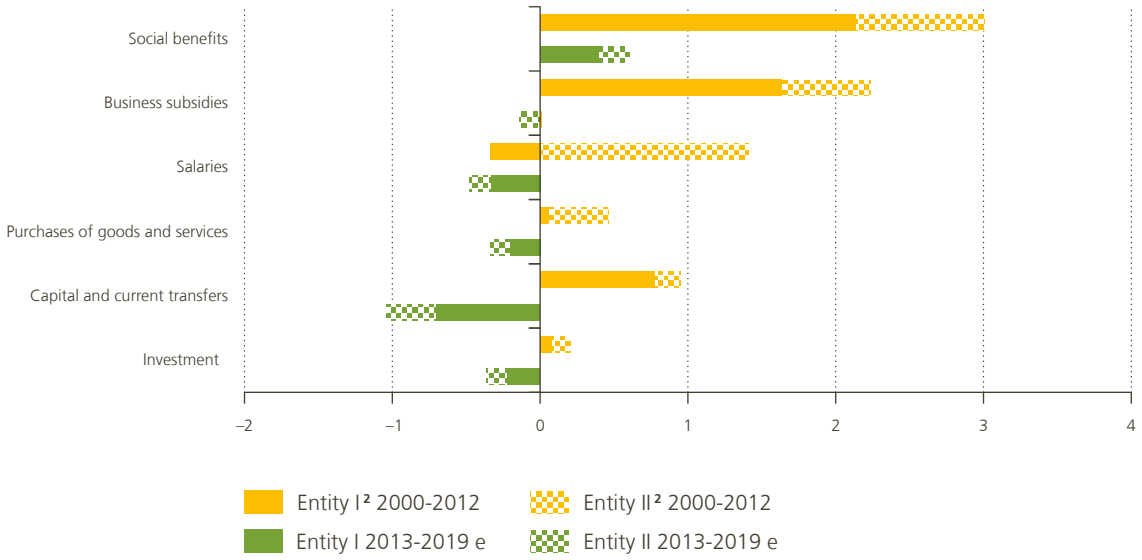
A shift in favour of public investment is desirable

Capital transfers and public investment formed the exception to the growth of the various expenditure categories since 2000. After adjustment for the upward effect on investment resulting from reclassification of the rail infrastructure operator, Infrabel, from the non-financial corporations sector to the government sector from 2014 onwards, public investment has fallen slightly. Belgium is among the euro area countries with the highest primary expenditure, whereas its public investment has long been among the lowest. New investment therefore barely makes up for the depreciation of past investment, so that net investment – which determines the change in the capital stock – has been virtually zero in recent years. Owing to this persistently weak investment, the government sector's capital stock is below levels recorded in the neighbouring countries. Productivity growth has also fallen sharply in Belgium over the past ten years.

Chart 71

All levels of power were involved in the reduction in expenditure since 2013

(primary expenditure[1], change in percentage points of potential GDP)



Sources: NAI, NBB.

1 Structural trend as defined in note 1 to chart 70.

2 Entity I comprises the federal government and social security. Entity II comprises the Communities and Regions and the local authorities.

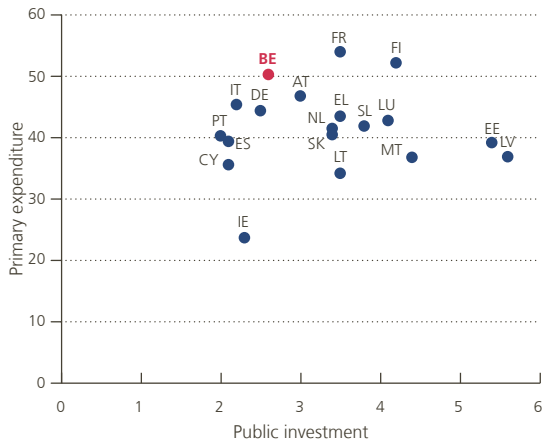
All these factors indicate the need to stimulate public investment in Belgium, and particularly investment that supports the economy's growth potential. More generally, public expenditure which, if executed efficiently, could boost productivity should be a priority. That applies particularly to investment in R&D conducive to innovation, and investment in education and training, and in infrastructure. Both government and businesses must give the necessary impetus to investment in transport networks to relieve congestion, investment in the energy supply to eliminate the uncertainties in that regard, and investment in communication networks to generate efficiency gains and create new innovation opportunities. Investment must also drastically reduce the dependence on fossil fuels and minimise the harmful impact on the environment.

In view of the scale of primary expenditure in Belgium, accompanied by a high tax burden, any further increase in relation to GDP is inadvisable. The desired revival of public investment and other expenditure beneficial to long-term growth potential can therefore only be achieved by cutting less productive expenditure.

Chart 72

Public investment is relatively low in Belgium, but total expenditure is high

(in % of GDP, 2019)



Source: EC.

Social benefits have escalated in recent decades

Since the turn of the century, social benefits have risen by 3.6 percentage points of potential GDP. This increase was most marked up to 2013, after which the government managed to curb the growth of social benefits.

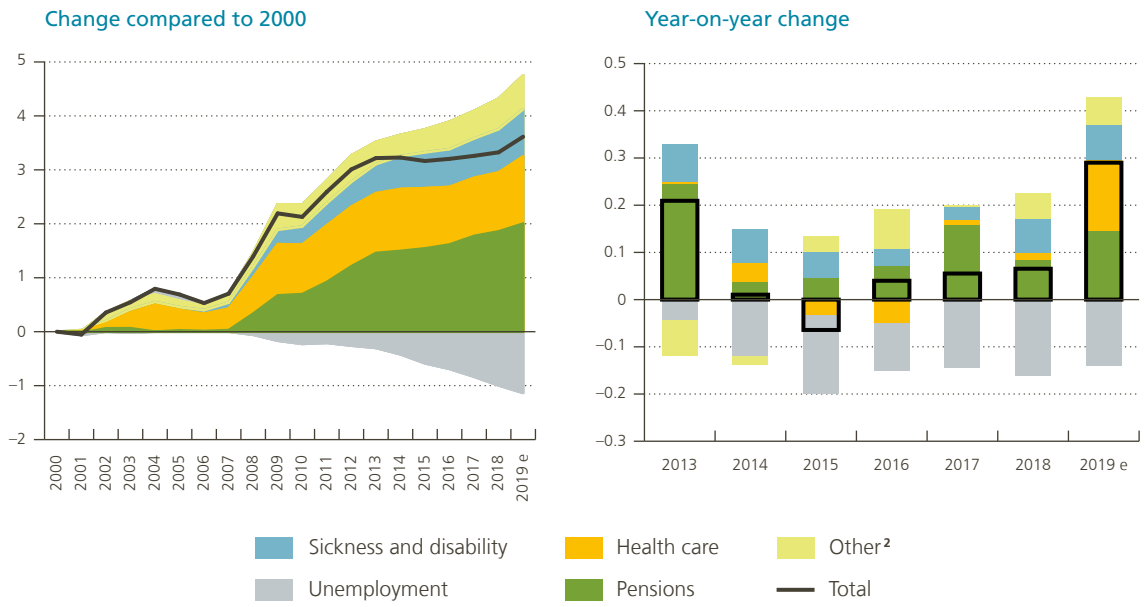
The increase up to 2013 concerned most benefits other than those relating to unemployment in the broad sense. That means not only actual unemployment, but also early retirement, career breaks and time credit. Pension expenditure, which had stabilised in the initial years of this century, outstripped the rise in nominal potential GDP from 2008. There were various contributory factors: the pensioner population expanded faster, potential economic growth declined, the gap between the automatic indexation of social benefits on the basis of the health index and the GDP deflator widened – to three or four percentage points, partly as a result of the deteriorating terms of trade – and the welfare-linked adjustment introduced in 2005 under the Law on the "Generation Pact" raised the average pension amount. Health care expenditure soared and was not curbed by the generous real growth target which the authorities set at 4.5 % between 2005 and 2011. Finally, sickness and disability benefits increased markedly owing to the substantial rise in the number of claimants.

Although population ageing has clearly accelerated since the start of the last decade, with a substantial rise in the proportion of elderly and retired people, the government succeeded in keeping social benefits almost stable as a ratio of potential GDP between 2013 and 2017. That is attributable mainly to the buoyant labour market, which brought a structural decline in unemployment expenditure in the broad sense. The government itself played a role by taking numerous structural measures in relation to employment and reducing the tax burden on labour. In addition, up to 2018, vigorous action kept the real rise in health care expenditure below the 1.5 % target for real growth, applicable since 2014. The surge in that expenditure in 2019 therefore contrasts with that picture. Finally, the rise in pension expenditure was curbed by a range of measures which pushed up the actual retirement age, and by the only partial implementation of welfare-linked adjustments in some years. Moreover, most social

Chart 73

Social benefits have risen considerably since the turn of the century

(social benefits[1], percentage points of potential GDP)



Sources: NAI, NBB.

1 Structural trend as defined in note 1 to chart 70.

2 This item mainly covers family allowances, integration incomes, benefits for industrial accidents and occupational diseases, handicapped persons' benefits and transfers to care institutions.

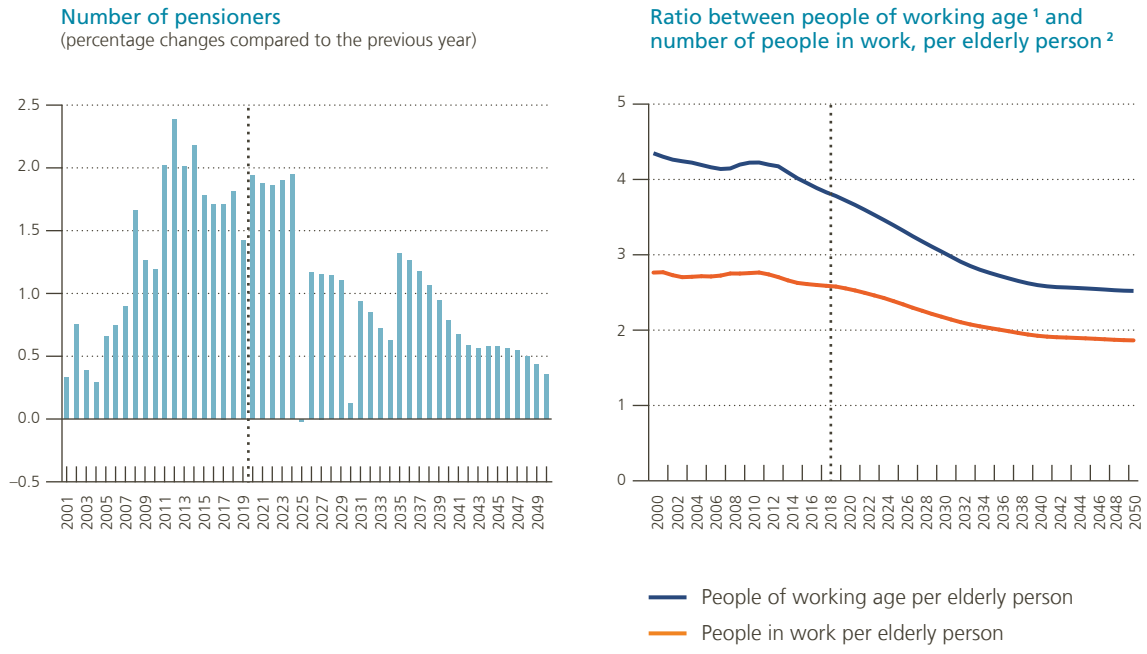
benefits were held down by the index jump in 2015. Nevertheless, sickness and disability benefits still rose by a nominal average of just over 6 % per annum after 2012.

Population ageing requires a growth-friendly policy and efficient government

In the coming decades, population ageing will bring a further rise in social benefits in relation to economic activity, as the number of pensioners will continue to rise significantly. The growth of this population will come to a halt in 2025 and 2030, when the statutory retirement age will go up to 66 and 67 years respectively. The rise in the number of people of working age will slow considerably and even become negative between 2024 and 2040. At present, there are still around four people of working age per elderly person, but that figure will drop to

Chart 74

Demographics will continue to exert pressure on public finances in the coming years



Sources: FPB, SCA, Statbel.
1 People aged between 18 and 66 years.
2 People aged 67 or more.

just 2.5 by 2040. The Study Committee on Ageing (SCA) considers that, with no change of policy, ageing will drive up social benefits by a further 3.5 % of GDP between 2019 and 2050. Over the next ten years, the cost of ageing will inflate primary expenditure by just over 0.2 percentage point per annum, on average, on account of pensions and health care expenditure. The latter will increase not only because of population ageing but also as a result of the rising cost of treatments, due partly to technological progress. In regard to pensions and other social benefits, the SCA assumes that the welfare-linked adjustments will continue to apply.

In the decades ahead, population ageing will continue to drive up social benefits

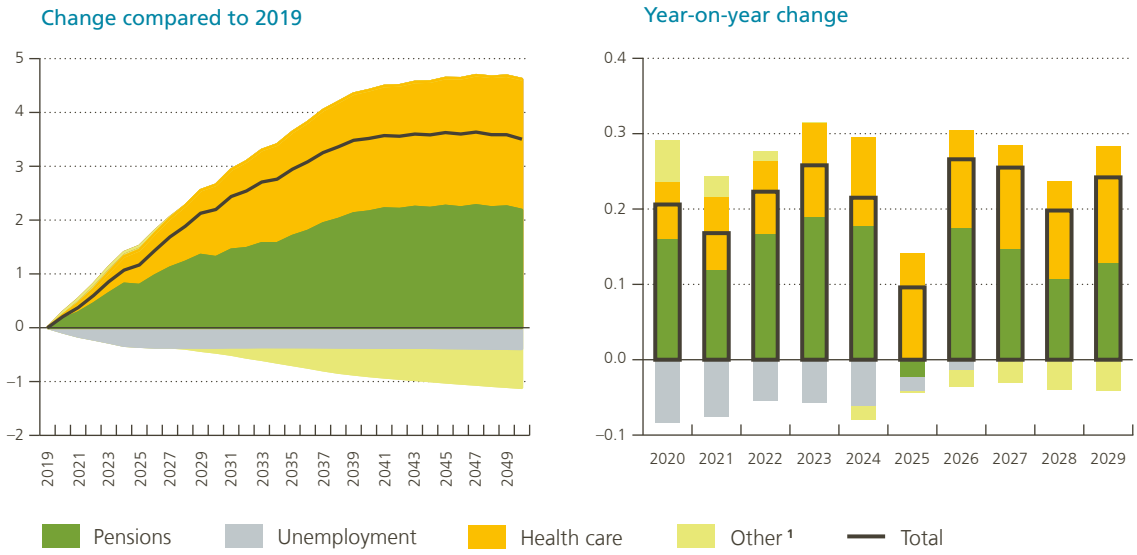
Population ageing is therefore a fundamental challenge for society. In order to address it effectively, it is necessary to adopt a strategy that stimulates potential growth by boosting labour market participation and increasing productivity gains, to continue moderating the budgetary cost of ageing, and to put public finances on a sound footing by wiping out the budget deficit and reducing the debt.

The government thus faces the difficult task of combining various aims within its fiscal policy over the coming years, namely to step up investment and absorb the budgetary costs of ageing while cutting expenditure in order to eliminate the budget deficit. To that end, maximum efficiency in government action should in any case be the key objective for all levels of power in Belgium during the years ahead.

Chart 75

Ageing will continue to drive up social benefits in the decades ahead

(social benefits, percentage points of GDP)



Source: SCA.

1 This item mainly includes sickness and disability benefits, family allowances, inclusion integration incomes, benefits for industrial accidents and occupational diseases and handicapped persons' benefits.

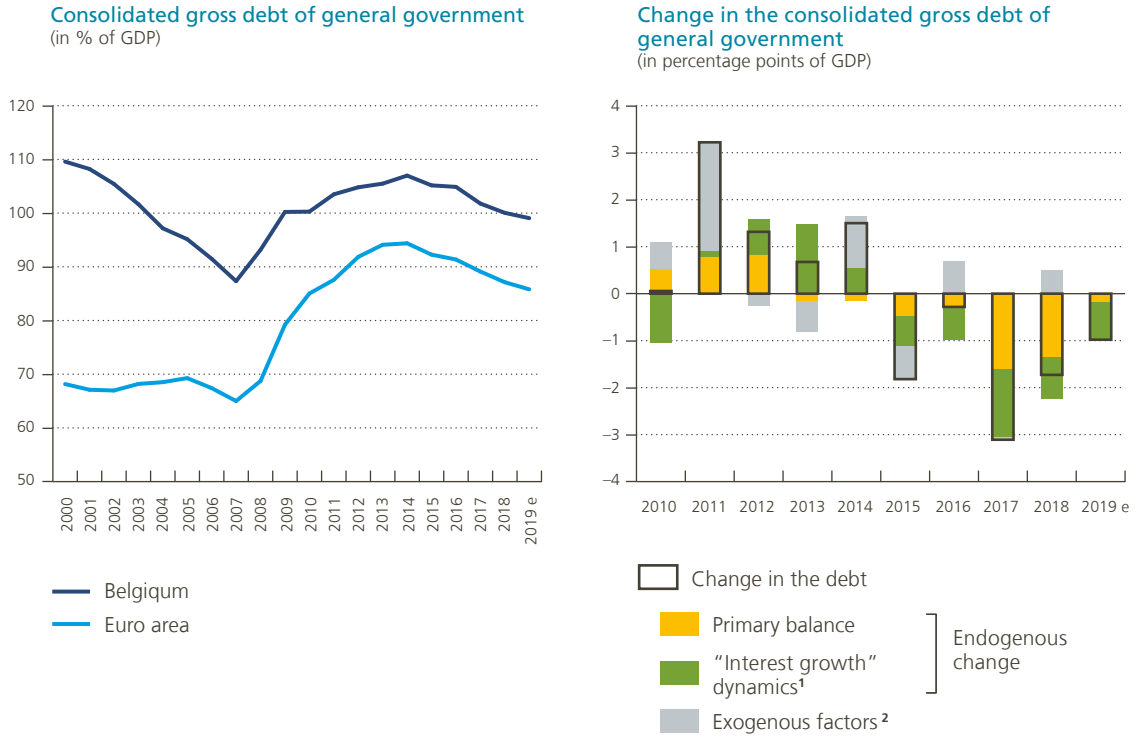
5.3 The public debt is still high, while interest charges have fallen as a result of low interest rates

Debt has only come down slowly

After having fallen to the symbolic level of 100 % of GDP at the end of 2018, the government debt ratio declined by 1 percentage point in 2019, to 99.1 % of GDP at the end of the year. While the public debt remains high in international terms, the rate of debt reduction lost momentum, and was slower than the

Chart 76

The debt ratio was only down slightly in 2019



Sources: EC, NBB.

1 The difference between the implicit interest rate on the debt and nominal GDP growth, multiplied by the ratio between the debt at the end of the previous year and GDP in the period considered.

2 Exogenous factors also include the effect of statistical reclassifications. In October 2018, the NAI reclassified Infrabel, the rail infrastructure operator, under general government. That change, effective from 2014, increased the debt ratio by around 0.5 percentage point.

average for the euro area. It also failed to achieve the annual minimum stipulated by the Stability and Growth Pact – the benchmark being one-twentieth of the deviation from the ratio of 60 % of GDP.

The decline in the debt ratio was fuelled by endogenous factors. Thus, the primary surplus – still positive, but down sharply against the previous year – contributed again, but to a smaller degree than in 2017 and 2018. However, this factor was reinforced by the positive gap between nominal GDP growth and the implicit interest rate on the public debt, which automatically lowers the debt ratio.

In contrast, exogenous factors – i.e. those which influence the debt but not the budget balance – were neutral overall. For instance, the rise in loans granted under the social housing policy in the Flemish Region added to the public debt. Conversely, accounting factors relating to the management of the debt reduced it, on balance. In recent years, securities have often been issued at nominal interest rates exceeding market rates, so that the issue values were higher than the nominal bond values. In the year of issuance, these issue premiums had a downward impact on the debt expressed in nominal terms. However, that was wiped out in subsequent years, up to the maturity of the securities, by an upward effect on the debt ratio resulting from the difference between interest payments on a cash basis and those on a transaction basis, the latter serving as the reference for interest charges in the national accounts. In 2019, this difference was smaller than the amount of the issue premiums. Moreover, in that year, there were no extraordinary financial transactions affecting the State's assets.

Debt maturity has reached a new peak

At the end of 2019, the average maturity of the federal debt stood at 9 years and 10 months, the highest level ever. In 2010 it was six years and has risen constantly since then.

The debt managers viewed the drop in interest rates as an opportunity to reduce the refinancing risk at relatively low cost. That policy was expanded from year to year as market interest rates continued their downward trend. Lengthening the maturity of the debt in the long term limits the annual gross borrowing requirements covering both the current year's deficit and the refinancing of debt reaching maturity.

These borrowing requirements thus declined from around 24 % of GDP at the start of the decade to around 13 %. The risks associated with a possible rise in interest rates are therefore lower and the public debt is more resilient to an interest rate shock. For instance, as pointed out by a study[1] published recently, in the event of a modest but persistent rise, this longer maturity is ultimately more beneficial than keeping the maturity at its 2010 level. It may also give rise to a reduction in the risk premium incorporated in the interest rate spread.

The longer maturity limits the annual refinancing needs

Nevertheless, the longer maturity entails a cost in terms of interest charges, as the interest rate on issues of new loans maturing at a later date is higher.

1 See Cornille D. *et al.* (2019), "How risky is the high public debt in a context of low interest rates?", NBB, *Economic Review*, September, 71–95.

The long-term debt issued during 2019 had an initial maturity of 16 years and 5 months, and an average interest rate of 0.67 %. Among these issues, some securities will not mature until 2038, 2050 or 2066.

Interest charges continued falling

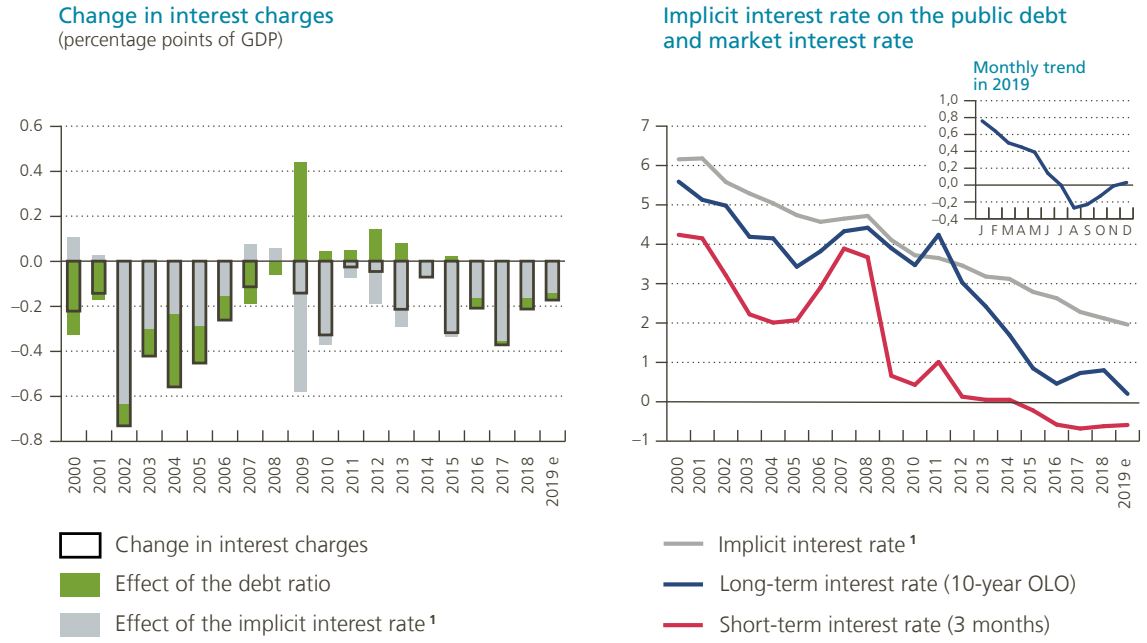
The downward trend in interest charges continued in 2019. Compared to their 2018 level, they were down by 0.2 percentage point of GDP. As in recent years, that fall was due largely to the decline in interest rates, as the debt ratio made only a very minor contribution.

While the benchmark yield on 10-year bonds still averaged 0.76 % in January 2019, it declined throughout the first half year and was negative for the first time in July. It dropped to an average low point of –0.27 % in August. Thereafter, it edged upwards to just over 0 %

Chart 77

The fall in the implicit interest rate on the debt further reduced interest charges in 2019

(in %, unless otherwise stated)



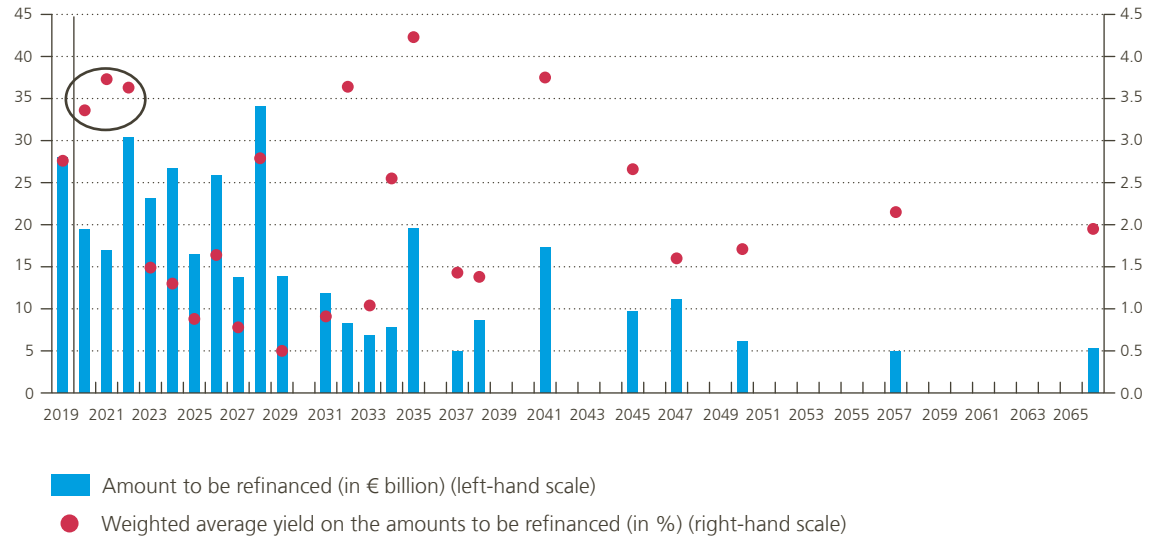
Sources: Belgian Debt Agency, NAI, NBB.

1 Ratio between interest charges in the current year and the debt at the end of the previous year.

Chart 78

The scope for reducing interest charges will be fairly large until 2022

(maturity of the long-term debt (OLO) of the federal government and associated annual average yield, end of 2019)



Sources: Belgian Debt Agency, NBB.

at the end of the year. The federal government therefore issued a number of 10-year OLOs at negative rates last year, and thus received remuneration on some long-term issues. That has also been the case in the past few years for the short-term debt, financed by Treasury certificates. In 2019, the interest rate on 3-month Treasury certificates averaged –0.59 % and the rate on 1-year certificates came to –0.57 %.

Interest rates on the public debt have been historically low

For a given debt ratio, interest charges fall if the market interest rate paid on new issues is less than the rate on securities reaching maturity. OLOs maturing and to be refinanced between 2020 and 2022 were issued at an average of between 3 and 4 %. Unless interest rates rise significantly, the decline in interest charges will continue, especially in the next three years. That will apply to a lesser degree thereafter, as the securities to be refinanced then carry lower interest rates. If there is no reduction in the debt, the gains in terms of interest charges will therefore steadily dwindle.

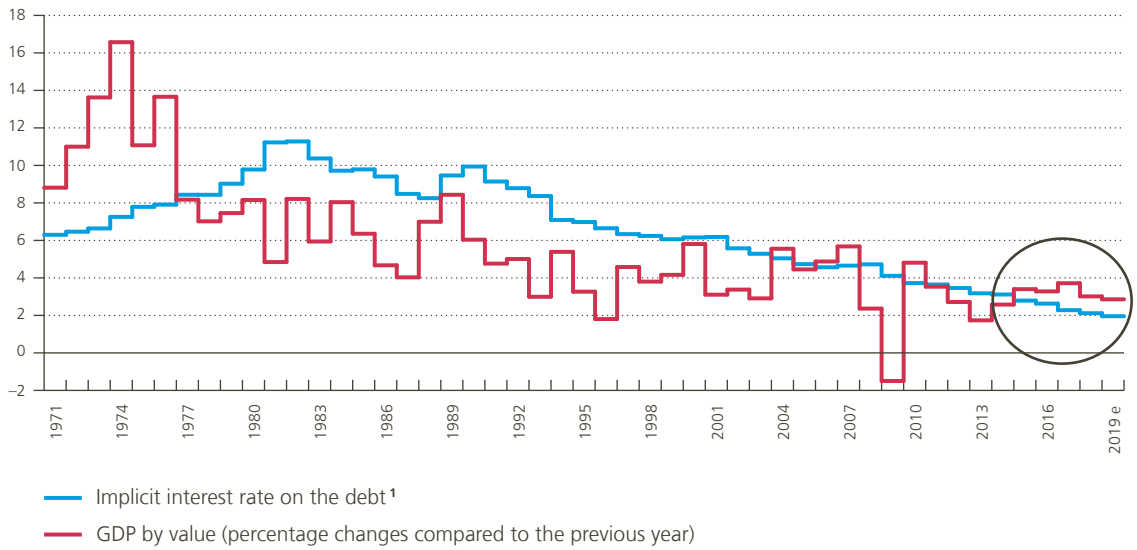
Low interest rates have created highly favourable financing conditions

The downward trend in interest rates on the public debt over several decades has accelerated in recent years. In 2019, interest rates declined to an all-time low. The Belgian government is therefore enjoying extremely favourable financing conditions.

Chart 79

The decline in the implicit interest rate has lowered the risks of a "snowball effect" on the debt ratio

(in %, unless otherwise stated)



Sources: NAI, NBB.

1 Ratio between interest charges in the current year and debt at the end of the preceding year.

The low interest rates reduced the risk of the "snowball effect" in which interest charges themselves constantly add to the debt. Since 2015, the implicit interest rate on the public debt has been lower than nominal GDP growth in Belgium. In that case, primary surpluses are not necessary to avoid an increase in the debt ratio.

However, the current situation of very low, or even negative, interest rates cannot be seen as normal in the medium and long term. It would be reckless to base fiscal policy and debt management on the assumption that these favourable financing conditions will persist. On the contrary, it is instead advisable to use the budgetary scope afforded by the low interest rates to consolidate public finances and achieve a primary balance large enough to cut the budget deficit and the public debt.

6. Strengthening the economy today and preparing for the economy of tomorrow

6.1 Belgium is facing multiple changes

Despite the growing uncertainties and deteriorating global economic climate, the Belgian economy showed some signs of resilience in 2019. Economic activity slowed only slightly, while job creation and private sector investment held up. This performance was helped by reforms pushed through in recent years, especially on pensions, labour cost reductions and the functioning of the labour market. In themselves, however, these reforms are not enough to guarantee sustainable prosperity for everyone.

Like many advanced economies, Belgium faces enormous structural challenges. Those challenges have been described at some length in earlier editions of the Annual Report and in the official reports of other Belgian and international institutions. Against the backdrop of population ageing, Belgium's economic potential in particular needs to be strengthened by maximising efficiency gains and continuing to raise the number of people in employment. This will help generate income for the population and consolidate public finances – and, as a corollary, contribute to the affordability of the social security system.

These findings are still valid. Rather than going over them again, this chapter places the challenges facing the Belgian economy in the context of three trends that are either emerging or becoming more manifest. First, globalisation and the fragmentation of international value chains appear to be slowing, due partly to a less open attitude towards free trade, accompanied by technological changes that enable efficient production at local level. Additionally, advanced digital technologies are rapidly finding their way into production methods and patterns of consumption. Finally, the commitments entered into for the transition to a climate-neutral economy will require changes in both individual behaviour and production methods. This transition will also require considerable investment.

The slowdown in free trade, digital advances and the transition to climate neutrality will change the way the economy works

These trends will change the way the economy operates over the next decades. At the same time, some sections of the population that feel more vulnerable because of the high degree of globalisation, rapid technological developments and the consequences of the environmental transition may feel inclined to turn their backs and reject these developments. However, going against the tide is not a viable long-term option.

On the contrary, three conditions must be fulfilled in order to enable these structural changes to be accommodated. First and foremost, the economy must function as efficiently as possible. Second, it must be sufficiently flexible to enable a smooth and rapid reallocation of production assets to new activities. And lastly, it must be inclusive and offer everyone the opportunity both to contribute to and benefit from all these transformations.

A crucial factor in achieving these three goals is an economy's competitiveness or productivity level. In July 2019, the OECD published a detailed review of trends in productivity in Belgium. A few days earlier, the National Productivity Board had been set up, and it published its first annual report in December 2019. Both documents, which are in line with many earlier studies undertaken by the Bank, observed that productivity growth in Belgium is slowing steadily, partly due to a lack of technological dissemination.

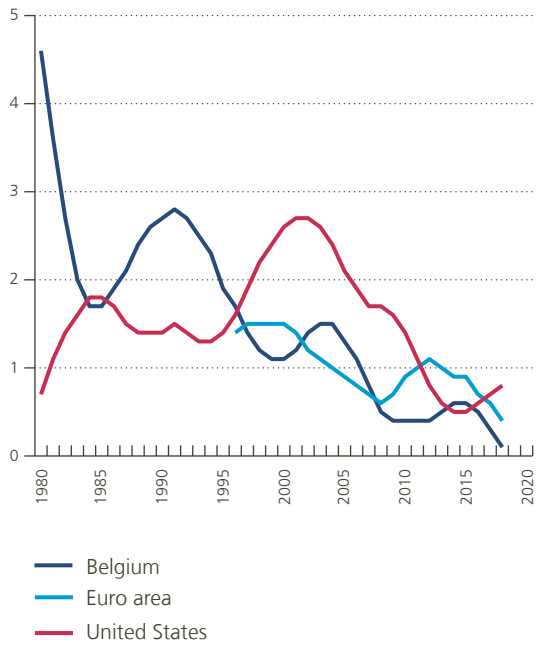
A second essential factor is the ability to invest as efficiently as possible in ensuring that the necessary technological and environmental transitions are successfully accomplished. These transitions not only require new infrastructure, and therefore investment in tangible assets in some essential sectors such as energy, transport and telecommunications, but also intangible investment in R&D and databases.

Finally, maximising the number of available workers involved in the new economy of the future will also require investment in human capital to guarantee that workers have the necessary new skills. Human capital will be the key to the success of the various transitions and will ensure that everyone benefits from them.

Chart 80

Productivity growth in Belgium not as strong as in other advanced economies

(annualised percentage changes in visible labour productivity, smoothed data)



Source: OECD.

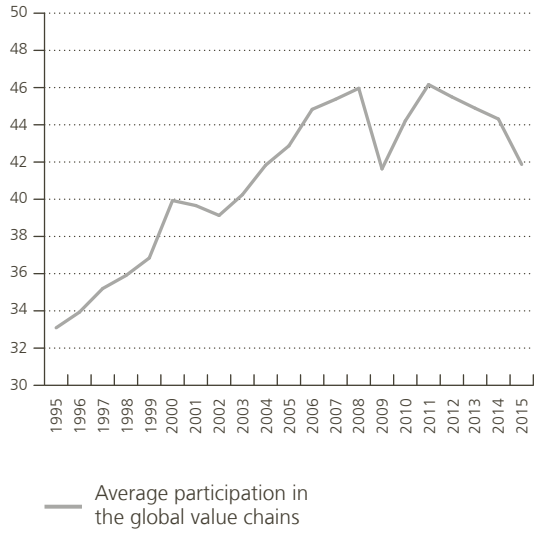
6.2 Preparing for a new order in production methods

From the early 1990s to the onset of the economic and financial crisis in 2008, global trade grew strongly. This strong expansion was accompanied by an ever more intensive and complex fragmentation of production chains, extending across all the world's continents. All this was made possible by improved access to external production factors and components, a product of the liberalisation of commercial and financial transactions, the lowering of customs duties and transport costs, and technological innovations (the ICT revolution), which also opened the way for multinationals to play a greater role. This enabled exploitation of the comparative strengths of countries and businesses involved in the various stages of design, production and sale to users.

Chart 81

Towards a less globalised world?

(weighted average share of value added of third countries in a country's exports and of the value added by a country in the exports of other countries, in percentages of total gross global exports)



Source: IMF.
Note: Extrapolation 2012-2015, based on the OECD Trade in Value Added database (2018).

Fragmentation of production chains nevertheless does not seem to have increased any further since the crisis. This can be attributed to various factors, with the tendency to question the value of free trade being the clearest. Belgium will undoubtedly be affected by these developments, as a medium-sized economy in Europe and a small economy on a global scale, though one which boasts major port and logistics infrastructure, a dense transport network at the heart of the European Internal Market and businesses which are highly active in the international markets.

Trade tensions influence economic relationships

The trade tensions between the US and its main trading partners, and the departure of the UK from the EU, are symptomatic of the gradual shift taking place in some countries away from a vision of multilateralism and free trade towards a more protectionist and bilateral approach to international trade. Belgium has intensive trade relations with the UK and, to a lesser extent, the US, and could therefore be hit by the introduction of – tariff or non-tariff – barriers imposed on the European Internal Market, and could potentially experience severe supply and demand shocks.

Even though the UK effectively left the EU on 31 January 2020, the uncertainty about how future relations between the two trading partners will be framed will only disappear at the end of the negotiations that take place during the transition period which – unless it is extended by a year – is scheduled

to expire on 31 December 2020. Irrespective of the outcome of these negotiations, from then on stricter rules will apply to the movement of goods and services than those within the EU.

Belgium's gross imports and exports from and to the UK are substantial, accounting for between 5 % and 6 % of Belgian GDP respectively. According to the most recent OECD figures, for the year 2015, the value added realised in Belgium that is exported directly to the UK amounted to 3.1 % of GDP. To that can be added 0.7 % of GDP in indirect value added after allowing for the share of Belgian value added incorporated in the exports of other countries. Of this total of 3.8 % of GDP, 86 % was consumed in the UK, with the balance being re-exported to other countries after transformation.

From a microeconomic perspective, these flows involve a large number of Belgian companies. According to

Table 15

Number of Belgian companies actively engaged in trade in goods and services with the United Kingdom

(2018)

	Exporting companies	Importing companies	of which: Exporting and importing companies
Total	19 122	38 334	6 581
of which:			
Companies with fewer than 50 FTEs	7 957	13 270	
Companies for which the UK accounts for at least 50 % of exports to the EU	6 402		
Companies with no experience of the procedures for exporting outside the EU	6 490		

Source: NBB.

VAT data, 19 122 Belgian companies supplied goods or services to 62 602 British companies in 2018. Conversely, 38 334 Belgian companies purchased goods or services from an undetermined number of exporters in the UK. In total, 50 875 Belgian companies – 51 % of which are located in Flanders, 22 % in Wallonia and 27 % in the Brussels Capital Region – were directly involved in trade with the UK. For those companies, and for their British counterparties, the introduction of tariffs or non-tariff administrative trade barriers, such as compliance certifications or customs declarations, will impede trade to a greater or lesser extent, depending on the shape of the future relationship between the UK and the EU.

Many firms will face commercial unrest and Brexit

But the exposure of the Belgian economy to Brexit is not limited to firms which export directly to or import directly from the UK. If allowance is made for Belgian supplier or customer relationships with those companies, the number of companies potentially affected increases sharply. If only the first two tiers of suppliers or customers are taken into account, this would mean that an estimated two-thirds (65 %) of Belgian non-financial firms are directly or indirectly exposed to British demand and that 89 % of Belgian non-financial firms would be exposed to differing degrees throughout the country to possible rises in prices of imports from the UK.

Of course, the UK's departure from the EU does not mean that trade with the UK will cease, but it does mean it will become more expensive and therefore less intensive. Box 9 presents a macroeconomic simulation of the impact of Brexit on Belgium, based on two scenarios for the organisation of future economic relations.

BOX 9

Estimated macroeconomic consequences of a soft and hard Brexit

After a majority of its electorate voted on 23 June 2016 to leave the EU, and the UK triggered Article 50 of the Treaty on European Union on 29 March 2017, a long period of negotiations began to reach a withdrawal agreement. The UK effectively left the EU on 31 January 2020, ushering in a transition period in which the EU and the UK must set out the principles of their future relationship.

That future trade relationship will determine how negative the consequences of Brexit are for the UK, but also for the 27 countries that remain in the EU. The less preferential the trade relationship between the EU and the UK is, and the more it is influenced by all kinds of tariff and non-tariff trade barriers, the more negative Brexit's macroeconomic implications will be. As the outlines of a new trade agreement between the EU and UK are not yet known, two alternative trade scenarios are used in this box to quantify the potential macroeconomic impact.

The first scenario, involving a free trade agreement (FTA), assumes that negotiations will ultimately lead to a trade agreement which is broadly comparable with the CETA free trade deal that was signed between the EU and Canada in September 2017. That agreement scrapped virtually all customs duties on bilateral goods trade flows. In this scenario, such an agreement comes into effect after a transition period. Until the agreement comes into full force, the UK would continue to be subject to all prevailing EU rules.

By contrast, the second scenario, the World Trade Organisation (WTO) scenario, assumes that the EU and UK fail to agree a new trade deal and trade relations, following an identical transition phase to that in the previous scenario, will be governed by the World Trade Organisation's most favoured nation (MFN) principle. This principle means that the customs tariffs and conditions imposed on the trade flows between trading partners cannot be less favourable than those applying to any other country with which there is a trading relationship. After the UK's departure from the EU, the free movement of goods and services will of course continue for the remaining Member States. At the same time, they will impose customs tariffs on the UK *en bloc*, and the UK will have to impose its own customs duties uniformly on all remaining EU Member States.

Even if there is a free trade agreement, under which bilateral trade in goods is exempt from customs duties, non-tariff trade barriers will still pose a major obstacle to trade. In particular, this concerns border checks to determine whether or not a product meets the conditions for exemption from import duties. An important criterion here is that a product respects the economic rules of origin and is not simply transited to a third country for which the tariff exemption does not apply. Checks must also be carried out to ensure compliance with all regulations governing the production process, safety, phytosanitary requirements, publicity campaigns, etc. These non-tariff barriers can pose a bigger obstacle to trade than import tariffs; even a free trade agreement which removes all import duties can in no way be equated to a trade relationship within a customs union, in which goods are able to circulate freely once they have been imported. It is worth noting that new restrictions would then also apply to the international supply of services.

To a large extent, the macroeconomic implications of Brexit for a country are directly proportional to the importance of the relevant trade flows which are lifted out of the European Customs Union and which will be impeded by the potential introduction of import tariffs and the costs associated with administrative red tape. The impact will therefore be the greatest for the UK, given that 45 % of British exports go to the EU, whereas only 8 % of Belgian exports go to the UK. It is assumed that productivity in the British economy will temporarily slow down as a result of the departure of (highly-skilled) workers and lower direct foreign investment, exacerbating the negative implications of Brexit for the UK.

The two scenarios discussed above were simulated using the Bank's "Noname" macroeconometric model, which is also used to produce economic projections for Belgium. In each case, an estimate was made of the expected macroeconomic impact on the Belgian economy in the medium term – i.e. five years after the end of the transition period – compared with a situation in which the UK had not left the EU. No allowance is therefore made for any temporary disruptions to trade flows or greater volatility on financial markets when the new trade rules effectively enter into force. For each scenario, an estimate was constructed of the likely impact of new customs tariffs, non-tariff barriers and exchange rate fluctuations between sterling and the euro on international trade prices between the UK and the EU Member States, and how much damage this would cause to the Belgian economy, primarily as a result of the reduced demand from the UK. The indirect impact of the reduced demand from the other EU Member States for Belgian goods and services was also taken into account, given that those countries will likewise feel the consequences of Brexit.

It is assumed in the FTA scenario that no customs tariffs will be imposed, but that the costs associated with the non-tariff trade barriers will lead to an increase of 6.9 % in the price of Belgian imports from the UK. In the WTO scenario, this price rise is 15.7 %, as a result of the new customs tariffs and the non-tariff

trade barriers. However, the gradual depreciation of sterling against the euro will help reduce the prices paid by Belgian importers by 10 % and 15 % in the FTA and WTO scenarios, respectively, so that import prices in Belgium are unlikely to suffer any major price shocks. Belgian firms will initially have to battle against the cheaper pound, adding to their export difficulties. On the British side, import prices stated in sterling will rise sharply due to the devaluation of the UK currency and the additional costs associated with the trade barriers, temporarily pushing up inflation in the UK.

The results of this exercise show that the negative impact of Brexit for the Belgian economy will be relatively limited, provided the UK and the EU manage to negotiate and ratify a free trade agreement akin to the FTA scenario portrayed here. Belgian exports over the medium term would then be 0.9 % lower than in a reference scenario without Brexit, which would also reduce investments and private consumption by 0.5 % and 0.1 %, respectively. Belgian GDP would ultimately be 0.3 % lower than in the reference scenario without Brexit; the employment rate would be 0.2 % lower, while the unemployment rate would be 0.2 percentage point higher.

The outcomes deteriorate markedly if there is no new trade agreement. Belgian GDP would then be 0.7 % lower in the medium term than in a scenario without Brexit, while exports, investment and employment would be 1.7 %, 0.9 % and 0.5 % lower, respectively; employment would be 0.5 % lower and the unemployment rate 0.4 percentage point higher.

Impact of Brexit on the Belgian economy in the medium term [1]

(total impact compared with a scenario without Brexit; in %, unless otherwise stated)

	FTA	WTO
Consumer prices	–0.2	–0.1
Export prices	–0.3	–0.2
Import prices	–0.2	0.0
GDP	–0.3	–0.7
Private consumption	–0.1	–0.2
Total investment	–0.5	–0.9
Exports	–0.9	–1.7
Imports	–0.7	–1.4
Unemployment rate (in percentage points)	0.2	0.4
Employment	–0.2	–0.5
Real disposable income	–0.1	–0.2

Source: NBB.
1 That is five years after the end of the transition phase.

These results show the impact on the Belgian economy in terms of trade. If Brexit were to lead to a slowdown in productivity in Belgium too, for example due to reduced spending on R&D and innovation or other frictions, the implications could of course be greater. The findings of existing comparative studies show that Belgium would be among the EU countries hit relatively heavily by Brexit[1].

1 For a general survey of the impact of Brexit based on various simulations, see Bisciari P. (2019), *A survey of the long-term impact of Brexit on the UK and the EU27 economies*, NBB, Working Paper 366.

While Brexit will affect the general economic relationship with the UK, the trade tensions between the EU and the US only affect certain products. The extent to which Belgium is exposed to that trade is not negligible, however, especially for the sectors of industry that are affected. The direct impact on the Belgian economy of the increased tariffs that the US is considering imposing on imports of European cars will, for example, be limited (0.08 % of GDP in 2015); however, the total exposure is three times greater (0.24 % of GDP in 2015) due to the indirect exposure, for example through the relationships with the German automotive sector.

Pressure on the organisation of international trade is not the only reason for the sluggish performance of international value chains. A degree of reorientation of economic activity and of the demand from emerging economic powers in favour of their domestic markets, for example in China, could also have an effect.

Technological innovations are changing the international organisation of production

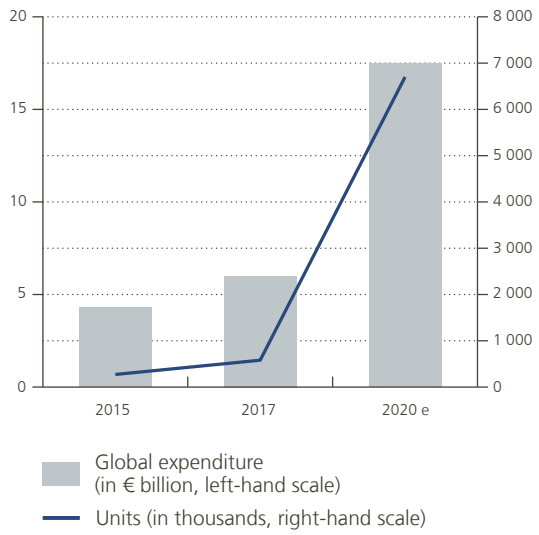
As well as the impact of trade tensions, a wave of new digital technological innovations could also eventually force internationally active companies to review their optimisation plans to transfer part of their production to low-cost countries and prompt them to (partially) repatriate some activities to the local market. This is evidently not yet happening on a large scale, but this 'near-shoring' or 're-shoring' is nonetheless occurring gradually and on an *ad-hoc* basis. The European Reshoring Monitor, a project of the European agency Eurofound, identified 46 cases of repatriation of activities by European businesses in 2018, and 74 in 2017.

Among the new technologies, robotics and artificial intelligence (AI) are growing exponentially and are starting to become an integral part of production processes in many companies throughout the world. These new processes are also becoming more significant in Belgium. This country scores fairly well in this regard thanks to the progress made in fundamental

Chart 82

3D printing is booming

(global use of 3D printers)



Source: EC (European Political Strategy Centre).

research and industrial applications. The federal and regional governments are also keen to support these technologies. As an example, the AI 4 Belgium coalition was formed in March 2019, bringing together a group of private sector operators to promote the use of AI and facilitate the transition to AI, with support from federal and regional agencies.

The industrial-scale introduction of 3D printing processes, sometimes referred to as 'additive manufacturing', also creates opportunities for re-shoring production processes. The first sectors involved in this technology stem from the manufacturing industry (aeronautics, optical instruments and medical apparatus), where this new process enables specific – for example more solid – materials to be used, but where the costs are relatively high and production volumes more limited. However, this production process covers a wider range of businesses and sectors. In the earlier production phases, companies can create and test prototypes directly themselves, autonomously and on the spot. In the later production stages, the technology offers companies flexibility, enabling them to respond to end-user demands and shorten lead times based on need. This could lead to a restructuring of value chains to create "demand chains", which in turn could prompt businesses to repatriate segments of their production activities closer to the demand, linked to high-tech production and opening the way for a faster and more targeted response to consumer preferences.

New technologies are helping to shorten production chains

Lastly, environmental obligations could also depress international trade volumes and lead to growing repatriation of businesses that are active close to the end-user. The development of the circular economy could also lead to changes in the organisation of production systems in order to reduce their carbon footprint.

This reorganisation of production processes will also impact the Belgian economy

At first sight, an analysis of the structure of the Belgian economy suggests that international trade in 2018 was concentrated on a limited number of firms. Of the 495 876 non-financial corporations considered, only 2.9 % were significantly engaged in exports and 4.1 % imported production factors or capital goods; 1.6 % of these companies were both importers and exporters. However, these companies accounted for 37 % of employment in the non-financial private sector, with companies that were both exporters and importers taking a 23 % share.

In addition, around 54 % of non-financial firms are rank 1 or rank 2 domestic suppliers of exporters, illustrating the strong indirect exposure of the Belgian economy to international demand. Similarly, 66 % of Belgian non-financial companies are direct customers of importing companies, while 27 % of customers are rank 2 customers, meaning that around 93 % of Belgian non-financial firms are indirectly dependent on access to the global flow of goods and services.

Among exporting and importing companies, multinationals – companies which hold at least 10 % of the capital in a foreign company – form a sub-population numbering fewer than 1 000 companies in Belgium, but they employed around 20 % of non-financial private-sector employees in 2018. Like importers and exporters, multinationals depend on domestic economic activity for the development of their operations. Almost half of non-financial corporations (47 %), accounting for almost 55 % of employment in the private sector, are rank 1 or rank 2 suppliers of such global companies. Only just over 30 % of Belgian companies are not suppliers to multinationals.

A substantial proportion of domestic economic activity depends on foreign trade

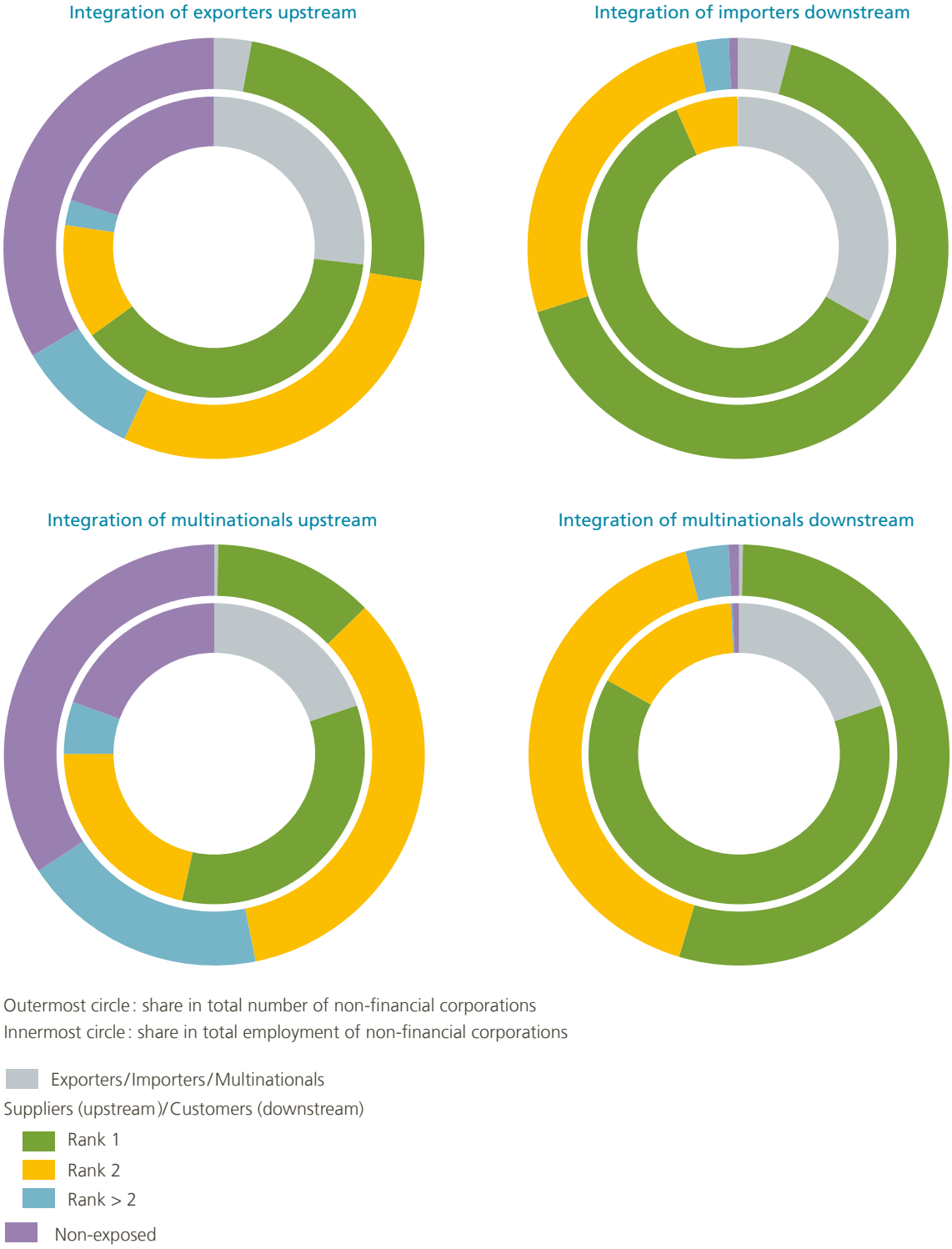
Companies that engage directly in international trade have specific characteristics. There is a positive correlation between participation in international trade and productivity. On average, employees of an exporting firm are 28 % more productive than their peers in companies that are not exposed to the rest of the world through their domestic trade. This productivity gap rises to no less than 50 % if the company also imports. Globalised firms thus play a key role in creating domestic wealth.

In fact, the contribution of these companies goes beyond their own activities; they also play an important role in the spread of technological innovations.

Chart 83

Integration of non-financial firms in global value chains

(in % of the number of firms and of total employment in the non-financial sector, 2018)



Source: NBB.

1 Note: A rank 1 supplier is a firm that supplies directly to an exporter or multinational. A rank 2 supplier is a firm that supplies a rank 1 supplier, and so on. A rank 1 customer is a company that buys direct from an importer or multinational; a rank 2 customer is one that purchases from a rank 1 customer, and so on.

Because they trade with companies that are exclusively domestic, they are able to disseminate various innovations to their customers and their suppliers, whether these are new products, new production methods or new management techniques. Studies have shown that trading with globalised companies, and particularly multinationals, can have considerable spillover effects on the results of domestic companies. As the dissemination of innovation seems less than optimum, widening the productivity gap between the best-performing companies and the rest, these potential spillover effects are to be encouraged.

Belgian Regions still most important market for domestic companies

The highlighted changes could have a fundamental impact on Belgium's economy. Some Belgian export or import companies could see their international competitiveness deteriorate sharply if trade barriers are erected, or due to poor technological positioning in the face of new environmental constraints, forcing them to curtail their activities or exit the market. This could also lead to a breaking of the economic ties with some domestic companies that would no longer enjoy spillover effects from their indirect participation in international trade. At the same time, the new international trade environment could offer opportunities to other firms to increase their orientation towards other markets, thus opening up new domestic channels for the dissemination of innovations.

These processes of creation and destruction at international level are not new. Over a period of five years, the population of Belgian companies engaging in international trade changes radically, with thousands of firms withdrawing from the global markets and being replaced by a similar number of new entrants. Given the social costs associated with this process, however, it is crucial to ensure that the reallocation of activities at international level proceeds smoothly and quickly.

Table 16

Productivity differentials and spillover effects based on companies' degree of globalisation

(in %, average over the 2000-2018 period)

	Average productivity differential [1]	Average productivity surplus due to closer integration into global value chains [2]
Exporting company	27.9	1.6
Importing company	21.8	5.3
Rank 1 supplier [3]	18.4	1.3
Rank 2 supplier [3]	13.0	2.8
Rank 3 supplier [3]	7.7	1.9
Rank 1 customer [3]	8.5	4.2

Source: NBB.

1 Compared with a business that is not exposed to the rest of the world.

2 Compared with the lower level of integration (exemple exporter compared with rank 1 supplier, importer compared with rank 1 customer, rank 1 supplier compared with rank 2 supplier, etc.).

3 A rank 1 supplier is a firm that supplies an exporting company. A rank 2 supplier is a company that supplies a rank 1 supplier, and so on. A rank 1 customer is a company that purchases directly from an importing company.

Despite frictions, there is a great deal of interregional trade in the domestic market

An analysis of business typologies based on their intra-regional and interregional activities in Belgium[1] reveals that most firms – between 89 % and 91 %, depending on the Region – have only one base and are accordingly active in only one Region. This limits their ability to engage in economic relationships across regional borders. The majority of intercompany economic transactions take place within a relatively limited radius of about 30 kilometres[2].

Yet compared with the international trade flows, the amount of trade between the Belgian Regions is substantial. This means that trade between the three Regions forms the core of the sales activities of Belgian companies, even when compared with the most important partner countries.

In practical terms, for establishments located in Flanders, sales to Brussels and to Wallonia come to 29 % of total extra-regional sales. By way of comparison, Germany accounts for 10 %, the Netherlands and France 9 %. The interregional market is even

1 See Duprez C. & M. Nautet (2019), "Economic flows between Regions in Belgium", NBB, *Economic Review*, December, pp. 1–16.

2 See Dhyne E. & C. Duprez (2016), "Three regions, three economies?", NBB, *Economic Review*, December, pp. 59–73.

bigger for Walloon establishments, representing 44 %, compared to 13 % for France, 8 % for Germany and 4 % for the Netherlands. In the case of Brussels, the interregional market takes the lion's share, of as much as 57 %, compared to 7 % for the United States, 6 % for France and 5 % for the Netherlands.

The importance of the interregional market is further underscored by the fact that 6 % of companies export goods or services to other countries, while 55 % sell to at least one other Belgian Region. There are thus far more firms involved in trade between the national Regions than in international trade.

Firms with interregional trade relations are not affected by tariff barriers, though this does not mean that establishing trade flows is without its problems. Just like an export company does not export its production to all countries, so a Belgian company need not necessarily be active across the entire territory of Belgium. For example, 45 % of non-financial companies only do business in their own Region. As well as the costs of doing business with a distant customer or supplier – costs which also exist within one and the same Region – entering into trade relations across regional borders also brings additional costs. Poor command of the language in a different Region or insufficient knowledge of that Region's local market put a clear brake on trade – and in fact more so for trade in services than for goods. Divergent regulatory regimes can also pose administrative obstacles and impede trade between Regions, despite this benefiting both parties.

As the benefits of globalisation wear off, domestic productivity levers need to be strengthened

With the prospect of a potential international reorganisation of production, it is important for Belgium to remain among the most competitive economies, and Belgian businesses will have to become more efficient, partly by bolstering their non-cost competitiveness. These changes will require stepping up the drive to intensify innovation efforts. To achieve this, the government will need to encourage as many firms as possible not only to invest in R&D, but to begin using new technologies developed by other companies, in a bid to address the problem of imperfect technological dissemination between companies.

Innovation is the basis of sustainable competitiveness

Strong innovative capacity is one of the levers that can be used to strengthen non-cost competitiveness. Belgium's position within the EU has improved over the last decade, and it is now among the countries regarded by the EC as strong innovators, coming in just behind the European leaders in this field: Sweden, Austria, Germany and Denmark. R&D expenditure in Belgium amounted to 2.8 % of GDP in 2018; two-thirds of this investment was made at the initiative of the private sector. The average across the EU is 2.1 % of GDP. However, that still leaves Belgium lagging behind the target of 3 % of GDP set out in the Europe 2020 strategy. Despite its size, expenditure on R&D is also relatively concentrated, not just in terms of sectors (chemicals and pharmaceuticals industries), but also in terms of individual companies, in that this investment is mainly by large Belgian entities (31 %), and above all by foreign multinationals (58 %).

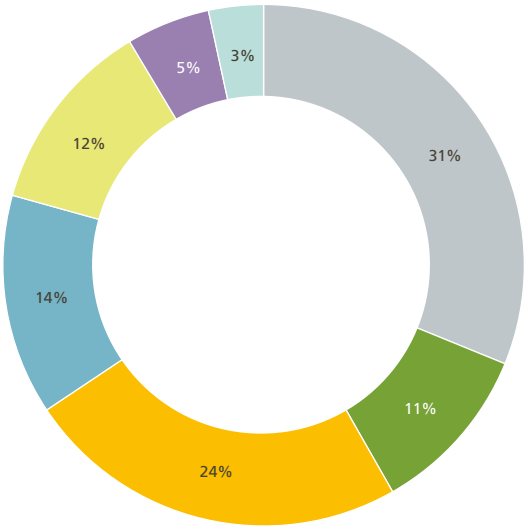
These figures confirm the key role that multinationals can play in the spread of innovation, for one thing because they are readily able to import new technologies developed at other group entities (expressed in spending on patents or licences), and for another because they are themselves major producers of domestic innovations. It is worth noting that the research activities of many of these companies are not entirely separate from the national research centres; on the contrary, these activities are generally organised in the context of technological clusters that are located close to major university centres and are therefore able to generate spillover effects from fundamental research to the development of new products or processes.

The concentration of R&D expenditure does, however, demonstrate that there is still scope to provide further stimulus for these investments, especially for small or medium-sized, non-globalised companies. The current type of government support for R&D investment, in which the emphasis is on grants and, in particular, on tax breaks, could be improved in order to reach and provide better targeted support and guidance for smaller and younger entities that are still looking to establish themselves in the market. While direct grants are useful for supporting fundamental research at an early stage of the innovation process, the advantage of tax incentives such as tax credits and reductions in employment levies is that they also benefit companies that are not yet profitable. An evaluation by the

Chart 84

Foreign multinationals invest the most in R&D

(in % of total private sector R&D expenditure, 2015)



- Multinationals – Belgium
- Other domestic firms
- Multinationals – US
- Multinationals – Three neighbouring countries
- Multinationals – UK
- Multinationals – Other European countries
- Multinationals – Other non-European countries

Source: Vennix S. (2019), *Research and development activities in Belgium: A snapshot of past investment for the country's future*, NBB Working Paper 373.

Federal Planning Bureau (FPB) of the tax incentives for R&D in Belgium showed that the systems for granting partial exemption from payroll tax on the salaries of R&D staff do lead to additional R&D activities[1].

The deployment of digital technologies is accelerating

Digital technologies are disseminated more quickly than many other innovations, both by companies and by citizens who take them into use more rapidly, and they are set to become even more important in the future. In 2019, Belgium enjoyed a relatively favourable position in the European digital landscape, still securing a place in the top 10 on the EC's Digital Economy and Society Index (DESI). This was achieved thanks to the high degree of connectivity, a product of the wide availability of historical networks of fast and super-fast fixed and mobile broadband. However, the failure by the federal and regional governments to reach agreement on dividing up the proceeds of the spectrum auctions for the 5G mobile network – three-quarters of which have yet to be allocated – could put this leading position in jeopardy. The good general results achieved by Belgium are also linked to the fact that companies are increasingly making use of digital technology (e-business) in their business operations. Belgium takes third place in this regard, well above the EU average but below the Netherlands. Belgian companies are increasingly making use of the opportunities offered by the cloud: 31 % use these services, almost double the European average (18 %). Belgian businesses are also leaders in electronic information sharing. There is one caveat, though: not all companies use these technological advances to the same degree, nor do they all derive the same benefit from them. The most complex innovations are still in the hands of large companies, which also – especially those in manufacturing – tend to derive more benefit from those innovations through greater productivity gains[2].

1 Dumont M. (2019), *Tax incentives for business R&D in Belgium – Third evaluation*, Federal Planning Bureau, Working Paper 04-19.

2 See Dhyne *et al.* (2018), *IT and productivity: A firm level analysis*, NBB Working Paper 346.

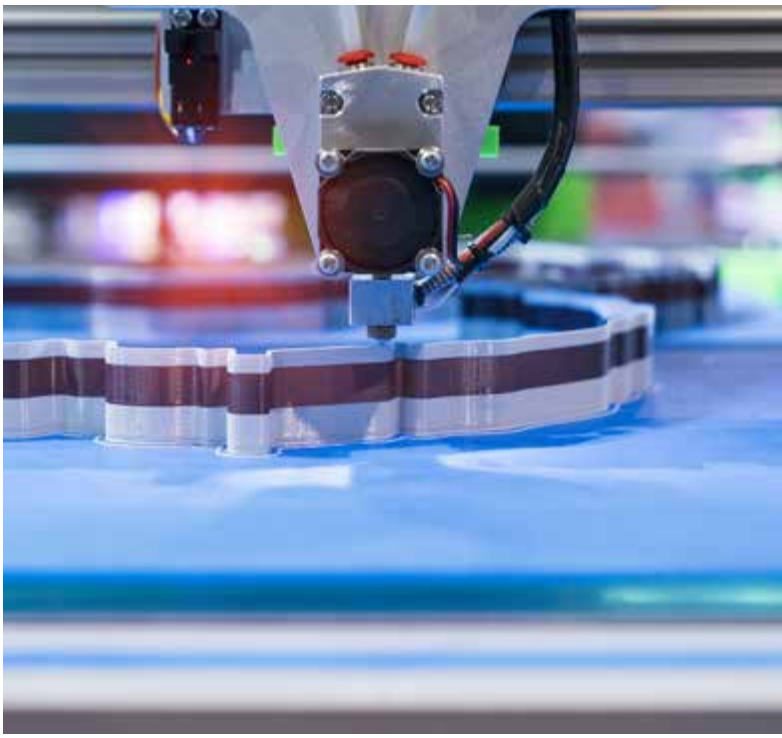
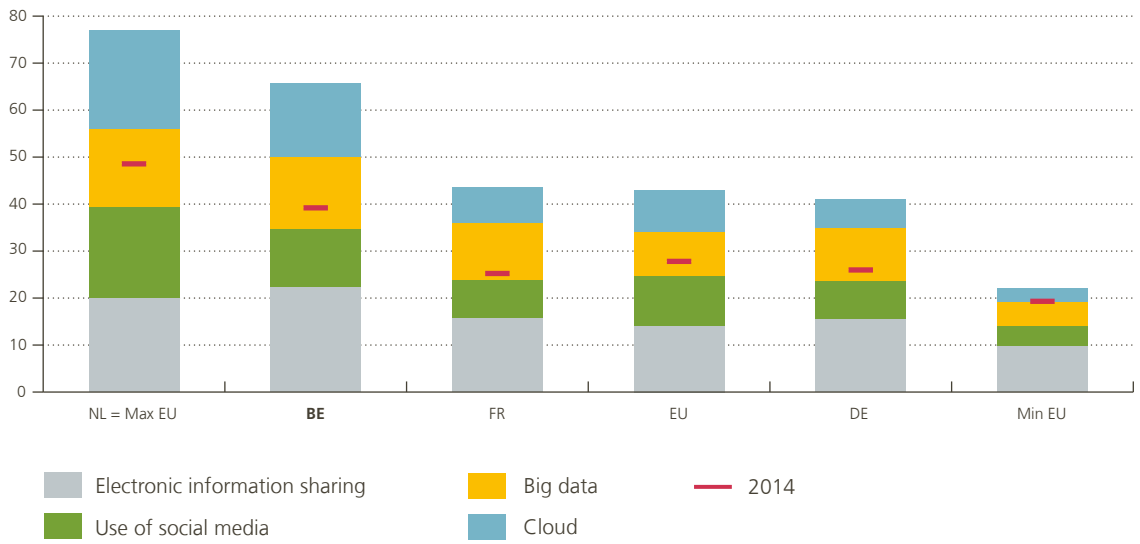


Chart 85

Belgian businesses are embracing digital tools

(DESI index of the degree of integration of digital technologies in companies' operational processes, 2019)



Source: EC.

The regulatory framework must support the development of economic activity, ...

A suitable regulatory framework is needed to meet demands such as consumer and worker protection, correction of market imperfections or to achieve general goals, such as environmental protection or respect for privacy. However, it is important to strike a good balance to prevent unnecessarily strict constraints putting a brake on the emergence of new, promising activities. Such constraints can also impact the choices made by investors if they are accompanied by disproportionately high costs, especially for the smallest businesses, and so discourage the development of new projects. Overly restrictive regulation thus strengthens the position of established businesses and technologies at the expense of potential newcomers and of new processes and products.

Although it is difficult to measure regulation statistically, by its very nature partly because of the diversity of areas and aspects that have to be considered, it is generally assessed using a compound indicator developed by the OECD. The indicator for the regulation of product markets (the PMR indicator, revised in 2018) shows that the Belgian regulatory framework is fairly restrictive. This indicator assesses the regulatory context from the perspective of the distortions induced by State involvement and from barriers to entry. Compared with other countries, and even with EU Member States, the access restrictions in Belgium appear to be greater, both as regards the administrative burdens on start-ups, the barriers to international trade and investment and the barriers in service and network sectors.

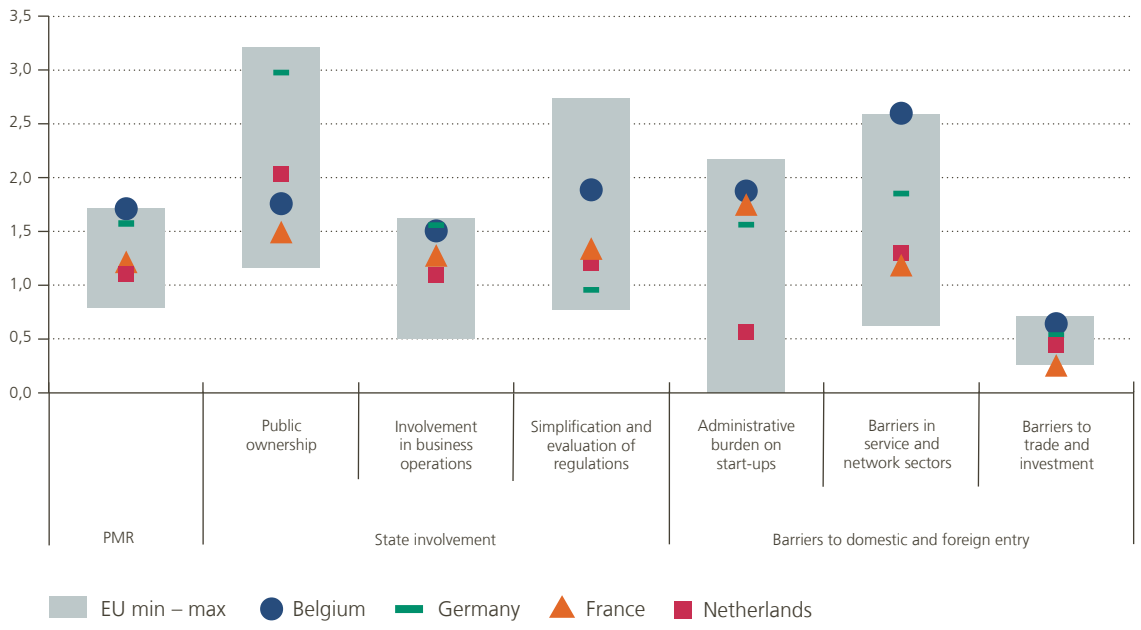
... encourage more competitive services...

Turning more specifically to services activities, Belgium's regulatory framework would appear to be highly restrictive for some of them when compared with its neighbouring countries and other European nations. In fact, the rules for architects and estate agents are the strictest in the EU15 countries. For accountants and lawyers, Belgium is among the group of countries that have most restrictions imposed, and it is really only civil engineers in Belgium that encounter few restrictions. Obviously, then,

Chart 86

Regulatory context could do with improving

(PMR indicator, on a scale of 0 to 6, with 6 being the most restrictive)



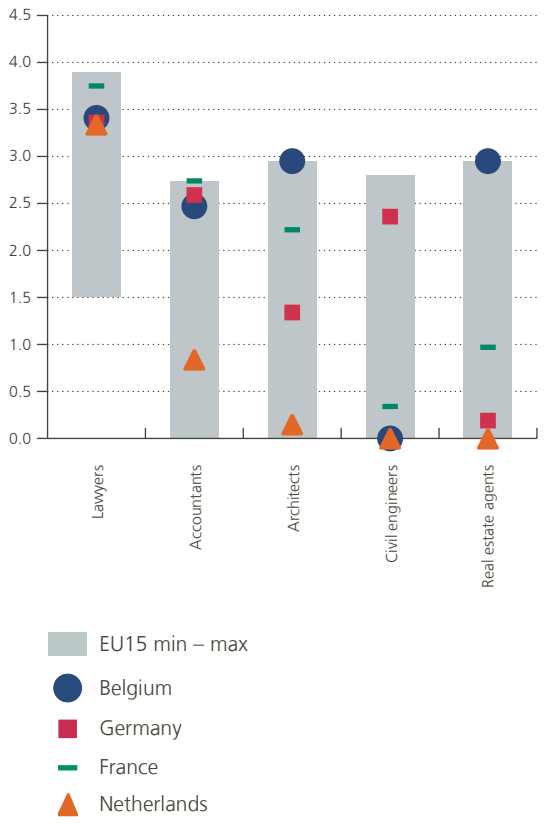
Source: OECD.

Belgium has some scope to make the rules and regulations governing some professions more conducive to competition. Note that such rules and regulations do not merely influence the positions they govern: by creating dysfunction, they also get in the way of the smooth operation of activities dependent on such services, and hence of the economy at large. A 2018 evaluation by the FPB confirmed that pro-competitive easing of the rules in some professions – i.e. for lawyers, accountants and architects – would prove a boon for productivity and economic growth.

Chart 87

Rules governing professional services often stricter in Belgium

(on a scale of 0 to 6, with 6 being the most restrictive regulatory context)



Source: OECD.

... and fully leverage the potential of data exchange and digital transactions

Some emerging activities might well turn into sources of future growth for Belgium and should be nurtured for optimum development and full use of their potential. E-commerce is one of those rapidly growing areas, with the past two decades having seen the rise of online sales that create new opportunities for business and expand choice for consumers.

E-commerce opportunities not fully leveraged

On OECD figures, Belgian companies generated 32 % of their turnover via online orders in 2018, one of the highest ratios in Europe (just behind Ireland), compared with an EU average of 17 %. This share has surged in the past decade, widening the gap with the share of online revenues in France (22 %), the Netherlands (15 %) and Germany (14 %). This excellent performance primarily reflects sales underpinned by electronic data exchange and via websites between companies (B2B) and with the government (B2G), for instance on government tenders, whereas companies' sales to consumers (B2C) via websites accounted for a mere 3 % of turnover, a percentage comparable with Belgium's neighbouring countries. However, the digital transformation is not proceeding at the same clip across the board. Small firms, for instance, are falling behind: their participation in the transformation has gone up but is more limited. When these firms put new technologies in place, they need to address obstacles related to restructuring of their activities, acquire specific competences and keep the technology they use up to date.

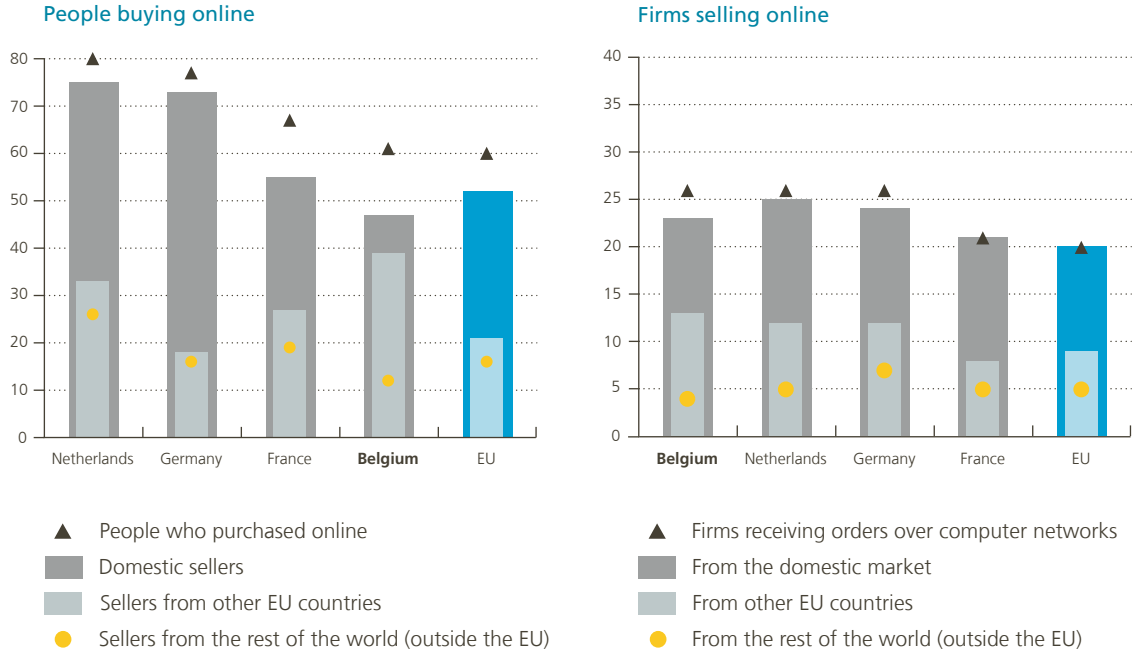
A range of initiatives has helped to adapt the regulatory framework in such a way that it accelerates companies' digital transition even faster, such as the Digital Act, cyber security measures and a federal open data strategy. In keeping with regional strategies for smart specialisation, these measures mainly target manufacturing and some generic key technologies. Lastly, in April 2019, FPS Economy launched an awareness-raising campaign to encourage particularly SMEs and micro companies to start using digital tools and to get active in e-commerce.

Belgian private individuals buy nearly as much online from suppliers in other EU countries as they do from domestic suppliers. For purchases in other EU countries, this proportion is around twice the EU average. This can partly be explained by various obstacles in the development of e-commerce in Belgium. The small size of Belgium's domestic market and – perhaps even more so – its split into different regions based on the languages spoken by its consumers, plays a part in this, all the more so as consumers are able to access the same service offering the same facilities on websites in its neighbouring countries. In addition, the Belgian logistics sector is struggling with a whole host of issues. Belgium ranks significantly lower than its neighbouring countries in the UNCTAD B2C E-commerce Index, which tracks economies' ability to develop e-commerce. The index shows that the

Chart 88

Online transactions in the domestic and global markets

(proportion, in %, of people between the ages of 16 and 74 that have made online purchases in the past twelve months, by country of sellers, and proportion, in %, of firms that have sold online in the past calendar year, by destination of sales, 2017-18)



Source: OECD.

Note: As the various categories are not mutually exclusive, the sum does not necessarily equal the total individuals/firms that made/received sales/orders over computer networks.

quality of parcel deliveries is particularly lagging in Belgium (which scores 72), compared with a much better score for the Netherlands (94), Germany (91) and France (87). It would also appear that logistics resources in these countries have developed faster and more cheaply. Relaxing the rules governing night-time work and flexible hours might go a long way towards addressing this logistics weakness, allowing the expansion of e-commerce with physical delivery of goods.

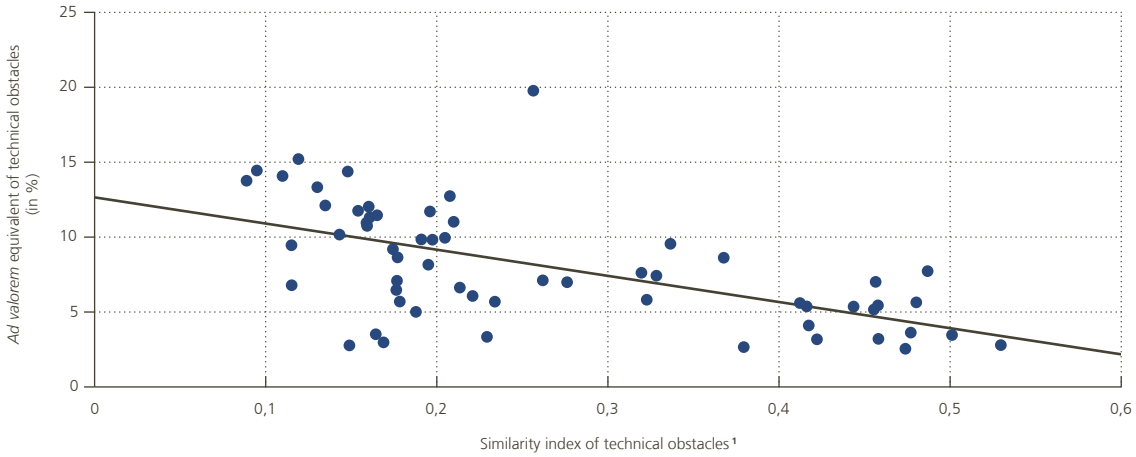
The regulatory approach should be coherent, at both global and regional level

Even within Europe's Single Market regulatory obstacles differ, but the OECD argues that more coordinated regulation by the various governments can help push down trade costs. Indeed, in the European market, whenever a Member State creates more obstacles – or imposes unnecessarily restrictive rules – which only apply to it and deviate from its trading partners, there is a greater risk of it seeing trade flows deflect to its neighbours.

The necessity to align regulatory frameworks applies equally at the Belgian level. Trade between companies not incorporated in the same Region – and especially between Flemish and Walloon companies – can be stymied by a whole range of factors, with rules and regulations as well as the institutional context playing a part. Under the sixth State reform, a range of market access powers were transferred to the Regions. This fragmentation of powers between regional entities has led to a series of regional regulations, which in the best case just spell more rules, but in the worst case imply divergence. For economic agents looking to retain access to their markets, this regional dimension of the rules – just like differences in international rules – creates domestic obstacles to trade, such as additional expense to keep abreast of developments, to conform with and apply these in daily management, and possibly costs for different permits to carry out selected activities.

Chart 89

Aligning regulatory frameworks leads to lower costs due to non-tariff barriers



Source: OECD (2018), *Economic Outlook*, Volume 2018 Issue 2, OECD Publishing, Paris.

1 Regulatory similarity is determined by scoring if a country pair has the same measure on a given product at six digits of the Harmonised Commodity Description and Coding system, with account being taken of sanitary and phytosanitary measures and technical obstacles to trade. The scores are subsequently aggregated and normalised to a number between 0 (heterogeneity) and 1 (similarity).

A swift reallocation of resources between companies is necessary

To be part of the economy's transformation process, businesses must be able to reinvent their activities, new players must find their way into the market and less strong performers will need to be able to exit easily. However, Belgium's business community is relatively inert, and numbers of new businesses and business closures are few and far between. Rates for gross business creation and gross business closures, relative to active companies, are among the lowest in the EU, at 6.4 % and 3.3 % respectively in 2017 (comparable EU figures are 10.7 % and 8.7 %). This suggests that the reallocation of resources has fallen behind.

Graydon's most recent data on business creation point to an upward trend between 2016 and 2019, although the definition it uses – which includes the resumption of activities – may deviate slightly from the economic concept of business creation. These recent developments are encouraging, but the gap with other countries is narrowing only gradually. The past couple of years have seen the government take a range of measures, of which the rewards are beginning to show. Various federal and regional initiatives are aimed at revving up the entrepreneurial engine through financial support – Start-Up Plan, for example – or by boosting the image of entrepreneurs and an entrepreneurial culture (student-entrepreneur status). These drives aim to raise the number of new companies founded by young entrepreneurs, initially in new sectors of activity, and particularly to foster their later-stage development by adapting finance to the various stages of expansion. The percentage of young, high-growth firms or gazelles, that accounted for nearly 3.5 % of business creation in the 2000s, also needs to go up. These players are active across all sectors of the economy and have made a positive contribution to productivity growth in the past decade and are thus helping to transform the Belgian economy.

First positive signs of reallocation between companies

Obstacles to business closures in Belgium, which the OECD reckons reflect a significantly stricter framework than in other countries, have now been eased. For one thing, new legislation to make it easier to wind up companies came into force in June 2017, expanding the number of situations in which a company can be dissolved. The new law accelerated the legal closure of dormant companies, especially at the initiative of the law courts in Wallonia. New insolvency laws came into force on 1 May 2018, with a new book added to the Belgian Code of Economic Law. The definition of a company was extended and any organisation meeting this definition can now file for insolvency. In addition, both the government and some law courts, particularly the Brussels courts, are proving increasingly willing to track down and stamp out any corporations engaged in fraudulent practices. This has caused a surge in the number of bankruptcies as registered by Graydon in 2019, which derived more from the changes in the law than from a weakening economic climate.

6.3 Towards a climate-neutral economy

Meeting commitments efficiently

Another key challenge is the much-needed transition to a climate-neutral economy. Production and consumption systems should not just meet today's needs but also ensure that future generations prosper. The COP21 commitments at Paris in 2015 aim to reduce the concentration of greenhouse gas emissions to the atmosphere in order to limit global warming to well below 2 degrees Celsius compared with pre-industrial levels, and pursue efforts to limit the rise to 1.5 degrees in order to avoid the hardest, even irreversible consequences of climate change.

Against this backdrop, the EU has set itself climate action goals to reduce emissions, improve energy efficiency and develop renewable energy sources. It had initially set targets for 2020 – 20 % of energy from renewable sources, 20 % reduction in greenhouse gas emissions and a 20 % improvement in energy efficiency – which it had later tightened up for 2030. In the wake of the Paris Climate Agreement, it revisited its objectives for 2030, deciding that the production of renewable energy sources should amount to at least 32 % of final energy consumption by then, while its objective for energy efficiency entailed a cut in usage of at least 32.5 %. And lastly, by 2030, greenhouse gas emissions in the EU should be at least 40 % lower than in 1990. In practical terms, the EU converted this general goal of reducing emissions into objectives relative to 2005, by making a distinction between, on the one hand, European goals for the biggest greenhouse-gas-emitting industries that take part in the European emissions trading system (–43 % in emissions) and, on the other, binding, specific goals for each Member State for those sectors that do not participate in the emissions trading system, including building and transport. For Belgium, it decided that those sectors must cut their emissions by 35 % relative to their levels in 2005.

The government's climate commitments demand action

To meet the EU's energy and climate targets for 2030, EU Member States must each establish an integrated National Energy and Climate Plan (NECP) for the 2021–30 period. It aims to provide clarity and visibility based on accurate data about the instruments used to achieve these targets, as well as about security of supply, integration into the European energy market, transition research and innovation, and competitiveness. This should help identify the scope and the extent of the required additional investment and encourage the use of private resources. In December 2018, Belgium put a first draft NECP to the European Commission for review, comprising the commitments of the Belgian federal government and Regions; based on the EC's analysis, the Plan was refined and added to at the end of December 2019. Belgium's final NECP contains an extensive description of these planned measures' impact relative to the goal of a 35 % reduction in greenhouse gas emissions by 2030. The Brussels Capital Region's quantifiable measures work out at a 40 % reduction in greenhouse gas emissions compared with 2005 levels, whereas those planned by Wallonia would cut emissions by around 37 %. Both Regions are working towards a carbon-neutral society by 2050, but that objective has not been translated into a concrete action plan at this stage. The Flemish plan lists a series of measures to cut the greenhouse gas emissions in its territory by 32.6 %. The Plan also spells out a pledge to take additional measures – particularly in terms of technological innovation – to bring Flemish objectives into line with those of the EU. These proposed measures cover the entire spectrum – mobility, buildings, the circular economy, renewable energy sources, etc. – within the constraints of their respective powers and take into account the specific territorial characteristics and economic fabric

of each individual Region. At the federal end, the plan is notably proposing to invest more in rail, to scrap subsidies on fossil energy sources by 2030 and to introduce environmental energy levies on buildings (together with the Regions).

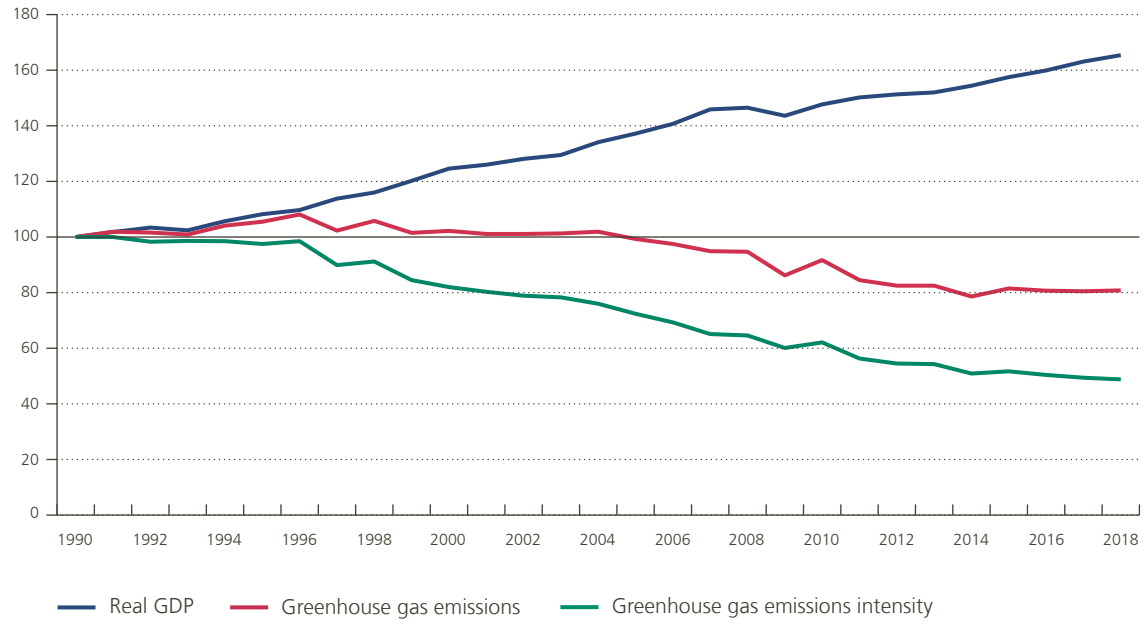
At the European Summit in December 2019, the EU ratcheted its environmental ambitions up a couple more notches. The European Green Deal, an initiative spearheaded by European Commission President Ursula von der Leyen, aims to make Europe the first climate-neutral continent by 2050. Achieving this ambitious goal would have significant consequences for all EU actors, including Belgium. The Commission aims to put in place all available levers and to make sustainability key in all European Union measures to drive a fair and inclusive transition for the most vulnerable countries, sectors and individuals. A raft of law-making proposals will be tabled to offer investors predictability and to help make the transition irreversible. Decarbonisation of energy and mobility systems will need to be continued, in terms of both equipment and behaviour, and energy consumption in buildings will need to be better managed through renovation. The Commission has also adopted an industrial strategy to help create a solid industrial base in Europe to support the transition and, as a result, economic activity that creates sustainable employment. In fact, by striving for global leadership in terms of sustainable products, services and business models, European industry might well gain itself a competitive edge. The Commission is considering the introduction of a carbon border adjustment mechanism, which would ensure that the price of imports reflects more accurately their carbon content. The aim is to reduce the risk of carbon leakage, i.e. either because production is transferred from the EU to other countries with lower ambitions for emission reduction, or because EU products are replaced by more carbon-intensive imports.

Through this new growth strategy, the European Green Deal aims to face down the challenges of climate change and limit environmental degradation. To date, progress in reducing greenhouse gas emissions has made it possible to decouple emissions from GDP trends, but these much more ambitious commitments and goals for the

Chart 90

Trends in GDP (in real terms), greenhouse gas emissions and the intensity of those emissions in Belgium

(index 1990 = 100)



Source: EC.

decades ahead require far bolder measures – there are no one-off or easy ways to achieve these objectives. Responsibility should be put squarely with consumers and manufacturers of goods and services: they must change their behaviour in favour of activities, equipment and products that promote sustainability. The environmental cost of their decisions needs to be passed on by sending price signals that reflect the carbon emissions related to their activities.

Government must guide these transitions and have the necessary levers

Government has various levers it can use to encourage appropriate behaviour, i.e. switching to goods and services with a low carbon footprint, saving energy and implementing low-emission technologies. Environmental taxation through exemptions or taxes on carbon emissions, emissions trading, and subsidies granted for selected activities – these are all intended to influence relative prices and choices by economic agents. By approving technical standards for equipment and buildings, and by labelling products, government can focus energy savings more directly. More broadly, the introduction of energy-related education and advisory programmes for the public and companies could help promote decent behaviour and choices. The government must at all times make sure the burden is equally and fairly shared, if these measures are not to be rejected by the people.

Just as in every other area in Belgium, the relevant powers are split across various levels. The federal government is responsible for matters at the national level (such as security of energy supply, infrastructure for storage and transport of energy, energy labels for products, and tax on fuels), while the Regions address local issues (electricity and gas distribution, development of renewable energy sources, and implementation of rational energy use solutions such as insulation standards for buildings). The federated entities must consult efficiently to ensure a coherent approach when implementing these measures. Moreover, achieving these environmental objectives requires concrete measures in countless other areas – e.g. transport infrastructure and intelligent mobility, urban planning, digital infrastructure, teleworking, tax on non-cash benefits and income, R&D – in order to lead the various economic agents towards a carbon-neutral society.

Energy transition requires many and varied solutions, depending on different policy levels

Significant investment needed to achieve objectives

Sound application of these levers should help economic stakeholders to make appropriate choices, particularly in the area of infrastructure investment and low-emission technologies. Major investment will be needed if the objective of carbon neutrality by 2050 is to be achieved. When setting out its long-term strategic vision in "A Clean Planet for all" in November 2018, the Commission noted that achievement of this objective would require annual investment in the energy system and related infrastructure – just for investment related to the energy use and performance of buildings, equipment and industrial processes – to the tune of 2.8 % of GDP between 2031 and 2050. Compared with a scenario that only aims to achieve the previously agreed energy and climate targets for 2030, this boils down to additional investment of around € 170 billion a year (0.9 % of GDP). These estimates are similar to those cited in an IPCC special report on the impact of global warming of 1.5°C above pre-industrial levels, which put the annual investment requirements for adapting the worldwide energy system between 2016 and 2035 at around 2.5 % of global GDP. In addition, a major transport drive will be needed, costing nearly 4.5 % of GDP, of which 4.1 % was already incorporated in the objectives for 2030, meaning that the Commission puts the extra effort to achieve carbon neutrality at a mere € 62 billion, or 0.3 % of GDP[1]. The reference scenario already envisaged 58 % of vehicles to be electric, hybrid or fuel cell by 2050. A carbon-neutral scenario would see the proportion of vehicles with internal combustion engines fall to 1 % of the fleet, and hybrids to 2 %. Replacing lorries and buses is less straightforward, and the proportion of such vehicles still running on internal combustion engines is pegged at 60-65 % by 2050, with the targeted carbon neutrality approached by (with the exception of electric vehicles) fuels with lower carbon content such as biomethane, hydrogen and other synthetic fuels.

1 See European Commission website: https://ec.europa.eu/knowledge4policy/publication/depth-analysis-support-com2018-773-clean-planet-all-european-strategic-long-term-vision_en.

Given the massive amounts involved, investments will have to be efficient, relating costs to the expected returns in terms of curbing environmental externalities. Great uncertainty remains over current and future technologies, but doing nothing would not merely pose heavy challenges in terms of biodiversity, the safety and security of the world's population and the effects of major climate-related events: there would also be a heavy economic price to pay in the long term, even if the world's advanced economies were to escape relatively lightly. In its 2015 study "The Economic Consequences of Climate Change", the OECD puts the losses of doing nothing at between 0.2 % and 0.6 % of GDP by 2060 for the EU and North America, but much higher in other parts of the world. However, the current economic situation offers an opportunity to make these investments at lower cost at this point in time: significant financial resources can be tapped into, as total available savings are quite substantial at the moment (see box 1) and the low interest rate environment makes for favourable conditions to invest. Although primarily important to ensure sustainability in the longer term, this green investment could also – (partially) offset the negative effects of higher energy prices on economic activity and the competitiveness of the European economy.

A stable and predictable regulatory framework to secure the involvement of all stakeholders in the energy transition

Transition investment is a matter for both the government and the private sector. A lot of the onus will be on housebuilding and the services industry to improve the energy performance of machines and buildings, and to adapt transport resources to more carbon-neutral mobility. Industry and the energy sector will have to continue to adapt their processes. But various authorities, including at the European level, will also have to step in and shoulder a share of the infrastructure spend, either through direct investment or by implementing specific finance arrangements, such as public-private partnerships. Yet it is up to the public sector to set the direction: the government must design a stable and clear regulatory framework which guarantees the continuity of agreed commitments and guides the choices made by private individuals. Companies and households, which will have to do the bulk of the investment, should be given ample incentive to make the desired decisions in order to innovate and accomplish the transition as efficiently as possible. The thing to avoid is that they strike out on a course today that will no longer be allowed at a later date and/or would leave them stuck with unsustainable practices and investments, and running the risk of no longer being able to divest stranded assets, i.e. assets whose value would fall more rapidly after a change in the law. After all, clear impetus from the government will have to change the mindsets of all those involved.

An opportunity to improve existing infrastructure and make it sustainable

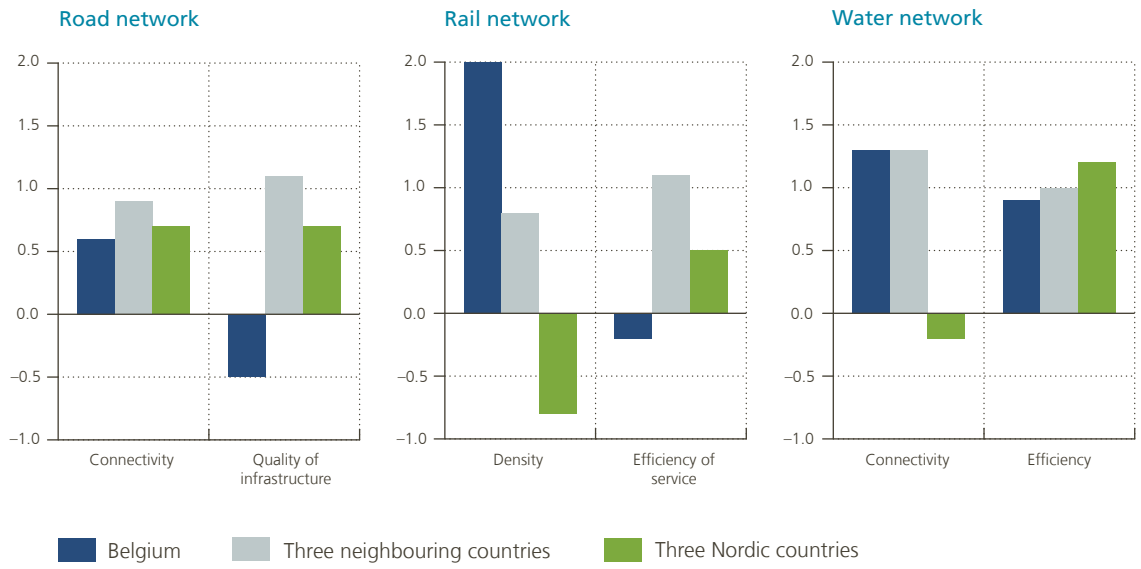
A proportion of this investment will have to be made irrespective of the transition to a zero-carbon economy, including spending on infrastructure. After all, high-quality infrastructure is a necessary precondition for companies to run their business operations and trade as normal, while also keeping the country attractive. And although Belgium has relatively dense transport networks – in terms of the distance between two points, the rail network's density per kilometre, the availability of port and airport infrastructure – their quality would appear to be declining. Infrastructure has a crucial role to play, as it ensures smooth connections between economic agents particularly in terms of logistics, in which Belgium serves as a European hub. In a broader sense, networks are key to the mobility issue, as ever-growing queues on the roads are hampering economic activity and workers' commutes. Such negative externalities erode Belgium's attractiveness and require a coherent policy across the country. Digital infrastructure is just as important: the availability of stable and up-to-date digital networks is very much among the criteria companies consider when investing in a country.

In part, these considerations tally with the outcomes as put down in the National Pact for Strategic Investments released in September 2018. This found that infrastructure needed improving and updating to secure a prosperous, inclusive Belgian economy that is sustainable in the long term. The Strategic Committee tasked with the work involved in the Pact identified priority investment and measures directly supporting these investments in six areas – digitalisation, cyber security, health, education, energy and mobility. To simplify coordination between the various policy levels, the federal government and the governments of the federated entities have set up an Interministerial Conference for Strategic Investments. This Conference is supported by the Strategic Committee in an advisory role and by two task forces that prepare the work, one focusing on country-wide investment projects and the other on improving Belgium's investment climate. In view of political circumstances, it was decided in March 2019 to concentrate on four cross-cutting projects already mapped out in the previous exercise, and so coordinate government investment policy better. Two more projects were added to the list, one pertaining to the environment – waste management and the circular economy – and the other to energy recovery from waste.

Chart 91

Transport infrastructure is available in Belgium, but quality can be lacking

(around EU average standardised index)



Source: WEF.

Regarding cross-cutting projects, the first thing to do is to ease the investment process by harmonising the regulatory and administrative framework, creating greater legal and fiscal security, and to simplify licensing and review procedures, which are currently so complicated that they can hinder the actual implementation of major infrastructure projects. Firstly, this implies improved inter-federal coordination towards funding these projects, together with European authorities, to make it easier to tap into capital from both private sector, governments and Europe; and secondly, it means creating public-private partnerships that make it possible to invest without abruptly adding to public debt. This is being partly addressed by promoting a shift in public spending to sustainable investment that targets for instance more efficient public services with a view to repeated savings. The aim is to cleverly promote and finance strategic investments that can boost the economy's growth potential, while still running a healthy and responsible budget.

Belgium also requires a sustainable and reliable supply of energy

In its transition to a zero-carbon economy in future, Belgium will face a huge challenge to bring its energy system up to scratch to meet its commitments, while at the same time guaranteeing the continuity of daily energy supply at affordable prices. Both energy production and consumption have a role to play here. Lower energy consumption has unmistakable economic advantages, supports the security of supply and significantly reduces greenhouse gas emissions. In real-life terms, this means a transition to a stock of low emission buildings, environmentally friendly transport and energy-efficient industry and services.

Changing the energy system while retaining constant and affordable supply

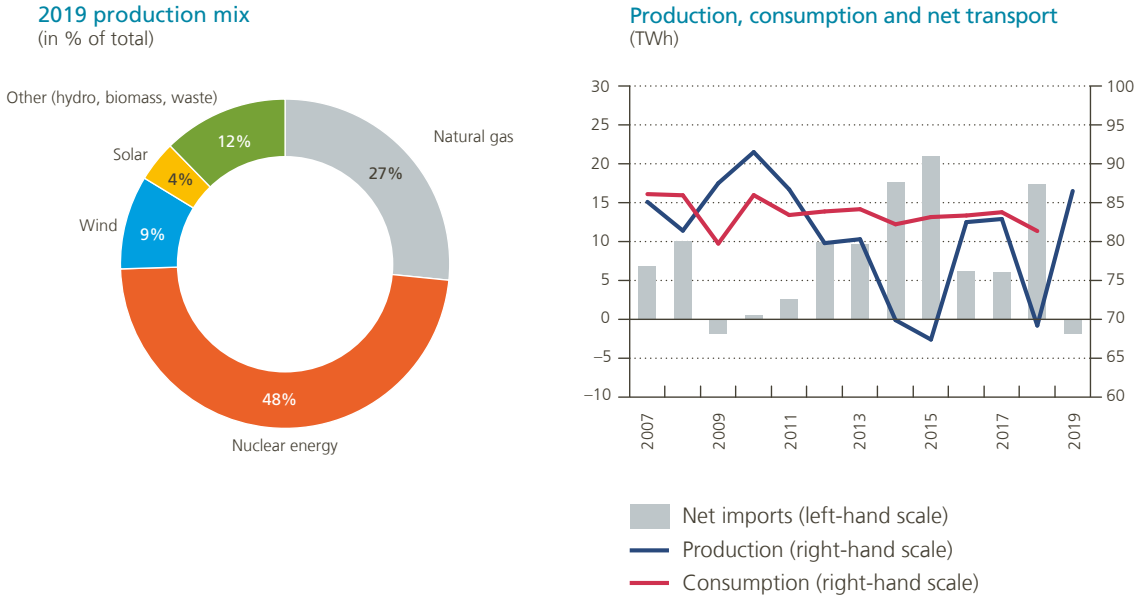
Fossil fuels consumption will have to come down sharply if emission targets are to be met. With the cut-off date drawing ever nearer, Belgium must also meet the conditions of the Law passed on 31 January 2003 on the gradual phasing out of nuclear energy by 2022-25, which was confirmed by the federal government on 30 March 2018 as part of the inter-federal energy pact. The dismantling of around 5.9 GW in nuclear power capacity spells a significant change in the electricity mix. In 2019, natural gas accounted for 27 % of power generation in Belgium, whereas nuclear energy still made up around 48 % of total electricity production. Investors must be able to count on a stable legal framework to make their decisions and help guarantee electricity provision in Belgium after 2025, in view of the time it typically takes for major energy projects to start generating electricity and given the time required to obtain the necessary permits and build installations.

As it gradually moves away from power produced by carbon-based fuels, and with the decision on the nuclear energy phase-out, the country must steeply push up power generation from renewable energy sources, such as wind and solar. According to the International Energy Agency, the levelised cost of electricity generated by those sources came sharply down between 2012 and 2017: by 65 % for photovoltaic solar, by 15 % for wind on land and by 25 % for wind at sea – with a further 54 % drop predicted for offshore wind between 2018 and 2040. However, the integration of these types of generation units into the grid requires adaptation of transport and distribution infrastructure to more decentralised generation (supported by increasing digitalisation of equipment, among other factors), and this is making it harder for alternative energy supply sources to compete with other, more centralised generation processes.

Even if an adequate renewable generation capacity is built, its availability will depend on the weather, without any guarantee of an uninterrupted energy supply. Intermittent flows require a standby presence of flexible capacity, which can take over generation when other sources are inadequate and maintain a balance between production and consumption. Unless the decision to close down nuclear energy is reversed, it will therefore be necessary to install and/or keep operational production, storage and demand management capacity. That is why, in April 2019, the Belgian government approved the Law on the organisation of the electricity market putting in place a capacity remuneration mechanism. Selected by tender under this mechanism, capacity suppliers are paid to make capacity available. In the absence of mature technical solutions for the capture, use and sequestration of carbon, guaranteeing security of supply by installing additional capacity – particularly in the shape of gas-fired plants – will make it harder to meet greenhouse gas emission targets.

Chart 92

A zero-carbon electricity system requires a major adjustment



Sources: Elia, FEBEG.

A final way to offset energy shortages – temporary or otherwise – is to import electricity. Belgium's central position in Western Europe and good connections between the networks of the various European countries can help it to benefit from the development of a wide European power grid. In practice, Belgium has for years been a structural importer of electricity to meet a proportion of its electricity requirements. In fact, the country has been a net importer since 2000, with imports accounting for about 10 % of Belgian consumption on average. In 2014, 2015 and 2018, this figure was even higher – between 20 % and 25 %, because the domestic nuclear power plants were unavailable. If it fails to put in place enough (renewable) capacity to meet future electricity demand, Belgium will inevitably have to import more electricity. The development of the various networks and optimisation of connections between them based on the needs and requirements of the power grid encourage cross-border electricity traffic, and, by joining forces, countries reduce the risks related to the intermittent nature of renewable energy sources. In other words, international cooperation is crucial. That said, being structurally more dependent on imports has its own risks. If domestic production is not enough to meet demand – in the event of unexpected electricity production or transport interruptions, or due to spikes in consumption – purchase prices on the European electricity market can shoot up on scarcity. And even if other – neighbouring – countries have plenty of power to spare, systematic and extensive use of interconnection capacity may mean that additional imports prove impossible at critical moments, potentially disrupting energy distribution. Generally speaking, resorting to imported electricity increases dependence on infrastructure in neighbouring countries, whose availability is not always guaranteed, which could jeopardise Belgium's electricity supply.

It is therefore advisable to avoid the perception among domestic and foreign investors that security of supply is inadequately assured in this country, and it is essential for its reputation and attractiveness that the quality of the electricity supply is guaranteed. According to the World Economic Forum, Belgium's power grid is seen as highly reliable for its high voltage stability and few power outages, which in 2019 put it in 12th place in a league table of 141 countries – a perception that has, however, steadily deteriorated in the past few years.

6.4 Human capital: building the future through quantitative and qualitative improvement of labour supply

Digital transformation, population ageing and climate change are radically transforming the economy, holding out fresh opportunities for growth but at the same time presenting new challenges for labour as a factor of production.

Human capital is the bedrock for the success of any such change. If the economy is to adapt and change, it is of prime importance that the labour force is given the opportunity to acquire the requisite skills and subsequently use these skills efficiently. Initial educational attainment and permanent education serve as essential leverage, but other aspects also play a part, such as smooth transitions in the labour market and the size of the economically active population.

The population might better adapt to the changing nature of work if the labour market and the education system were to function better. At a higher level, a quantitative and qualitative improvement in the labour supply benefits production capacity and makes the economy more resilient. Provided it comes with decent employment conditions and pay, having a job means a smaller risk of poverty, more social inclusion and a source of income.

Changes in the labour market drive changes in job content and skills required of the labour force

The digitalisation of manufacturing processes is not without its consequences for the labour market. For one thing, there is the substitution effect – some tasks are completely taken over by machines. For another, it has complementary effects, when machines aid humans in doing their jobs. This process has led to concerns over negative effects on employment. Granted, total job numbers have surged in the past five years, but the continuation of this trend is not at all assured. Net job losses are no inevitable phenomenon, but this is a risk the labour force and companies should prepare for.

Wider use of digital techniques has caused polarised employment: the proportion of highly-skilled and, to a lesser degree, low-skilled jobs in total employment has risen, while the medium-skilled have seen their proportion shrink. That said, in 2018, around 40 % of jobs still qualified as medium-skilled, compared with 10 % at the low-skilled end.

Low-skilled jobs are safeguarded because of people-based services or local services, while some are created as a result of digital technology. The sharing economy is likely to grow further but it currently represents only a tiny share of the total. Offering tremendous flexibility, it provides fertile ground for side jobs. Some in the labour force might actually prefer this set-up, causing total employment levels to rise, but these jobs may also create a greater degree of vulnerability, particularly if they substitute regular employment entitling them to better social security cover.

The economy's digitalisation brings employment risks and opportunities we need to prepare for

This polarisation may lead to crowding-out effects, with medium-educated employees taking on lower-skilled jobs if they lose their own jobs, weakening the position of the low-educated in the labour market (people with a lower secondary education certificate at most) even further. Their unemployment rate remains high, at 13.2 % in 2018, compared with 6 % for the medium-educated and 3.5 % for the highly-educated. In the 20-64 age group, those in work that have no more than a lower secondary education certificate account for an increasingly smaller percentage of the corresponding population – currently standing at 45.6 %. And when they do have jobs, these are more often more uncertain and worse-paid jobs than for other groups, or part-time jobs that see them working fewer hours than they would actually like to.

It is crucially important, then, that these people – as well as others with different profiles – get support to acquire the skills they need, as careers are lasting longer and undergoing rapid transformations.

Skills system needs improving

Drawing on a series of 15 indicators, the European Skills Index (ESI), developed by the EU's European Centre for the Development of Vocational Training (Cedefop), highlights which factors need to be combined to improve a country's skills system.

The ESI builds on three pillars, each of which measures an aspect of the education and skills-matching systems. The skills development pillar represents training and education activities: its indicators are the pre-primary pupil-to-teacher ratio; the proportion of the population that has an upper secondary qualification and above; average PISA scores for reading, maths and science; recent training; the number of students in vocational education and training (VET); and the proportion of people with high-level computer skills. Skills activation concerns the transition from education to employment and includes aspects such as the percentage of early leavers from training; recent graduates in employment; and the activity rate for adults (25-54 years) and young people (20-24 years). Skills matching is all about the successful utilisation of labour potential and measures long-term unemployment; the number of people working on an involuntary part-time basis; the overqualification rate; the proportion of low-wage earners (employees earning two-thirds or less of the national median gross hourly earnings); and, lastly, the extent to which employees' educational attainment levels match their jobs.

The overall score reflects how a country is performing on the various components that make up the ESI. Index scores range from 0 to 100; the higher the score, the better the result, and the difference between the score a country achieves and 100 points indicates the margin for potential improvement. Belgium's overall score suggests that it is doing relatively badly, which is attributable to various sub-dimensions, but particularly to the gaps in skills activation. Going by the three ESI pillars, various areas may be highlighted.

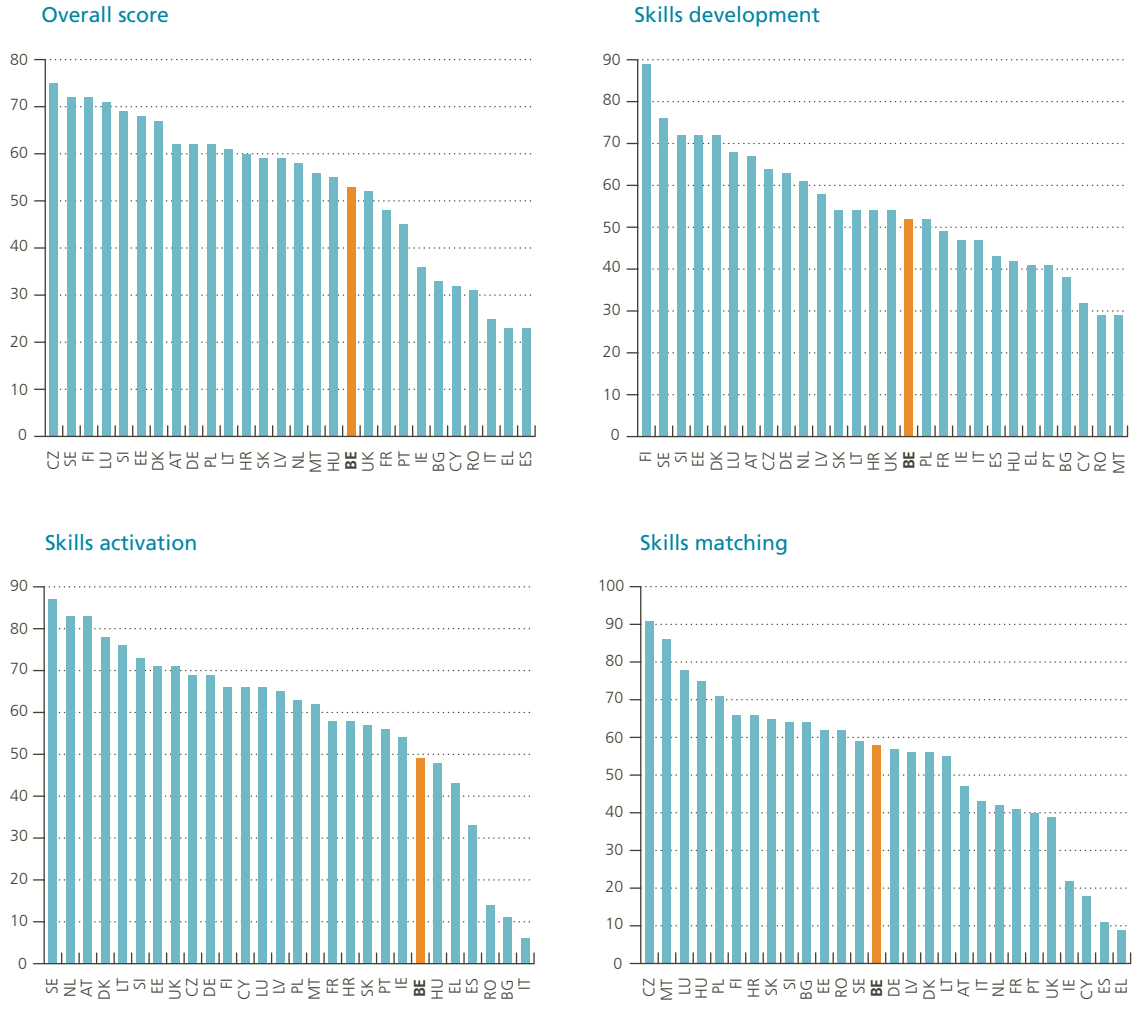
Initial education and lifelong learning are essential aspects of skills development

How well an education system does is often measured using the OECD's PISA programme, the latest results of which were released in December 2019. On reading, the key subject tested in this latest edition, Flanders still clocks up a score ahead of the OECD average (502 compared with 487), whereas the French Community lagged a little behind at 481. Flanders is also still doing a lot better than the OECD average on maths and science. French-speaking students improved their maths scores slightly and these are now higher than the average among OECD countries. Their science performance is a bit below the average in the other OECD countries and remained stable relative to previous cycles. That said, the Flemish average has been persistently and significantly falling on all three subjects, since PISA scores began. For reading, a skill that

Chart 93

European Skills Index

(scores from 0 to 100, 2018)



Source: Cedefop.

has been tested since PISA was first launched in 2000, the decline is now as much as 30 points. Coming from much lower levels than the Flemish Community in 2000, the French Community started moving down in 2012 and has since lost ground by 16 points.

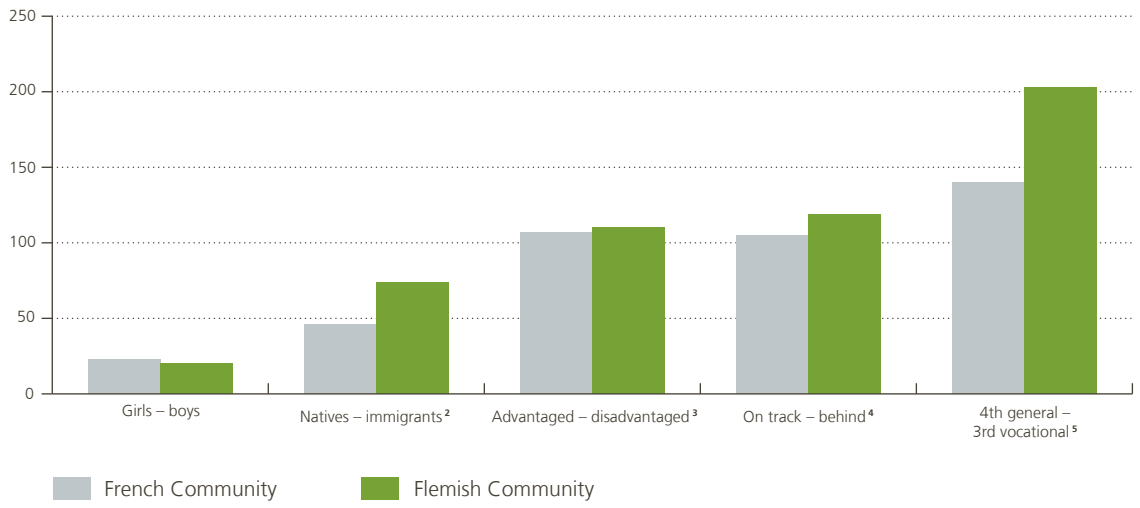
Inclusive growth that guarantees access to employment for as many people as possible requires an education system that is itself inclusive and high-grade. However, all too often, schools are places where inequalities are reproduced, and socio-economic background remains the key explanatory factor for the various dimensions.

To manage the heterogeneity of students, Belgium's education system engages in large-scale grade retention (nearly one in every two 15-year-olds has repeated a year during their time at school in the French Community and one-quarter have done so in the Flemish Community) and students are often reoriented onto another track. The gradation in student pathways is clear: students not behind and on the general pathway record the highest scores in PISA tests, while those who have repeated a year in the general pathway do better than young people on track in vocational training. Students who have both repeated a year and been reoriented towards

Chart 94

The education system remains unfair

(differences in PISA scores for reading, 2018)[1]



Source: OECD.

1 The PISA survey does not have any minimum or maximum scores. Instead, the results are scaled, putting the OECD average at around 500 and the standard deviation at around 100 points. In other words, these scores are relative.

2 The difference between students born in Belgium of parents that were born in Belgium and students (irrespective of their place of birth) whose parents were both born abroad.

3 The difference between students in the top quartile and those in the bottom quartile of the socio-economic and cultural index calculated by the OECD.

4 The difference between students that have never sat the same school year twice and those who have done so at least once.

5 The difference between students in general education (including transition stream for the French-speaking Community) who have never sat the same school year twice and those in vocational training (including technical education in the qualification stream for the French-speaking Community) who have done so at least once.

vocational training – these days, students rarely pick vocational as their preferred pathway – are doubly disadvantaged and record the lowest scores.

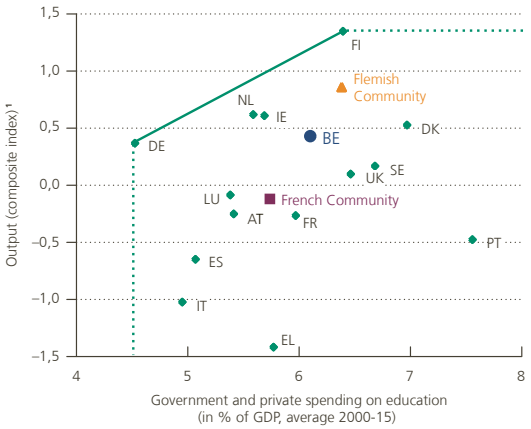
The OECD has demonstrated that, to ensure better school results, it is not enough to simply raise government spending on education. The results are determined rather by the way in which the resources are deployed.

The Bank has carried out an analysis of how efficient public sector policies are from a macroeconomic perspective[1], including education systems. To measure the input that goes into education, the exercise factored in both government and private spending, with the output estimated on the basis of a composite index made up of the following indicators: student PISA scores (maths, reading and science) in 2015; the share of the population with a secondary or higher education qualification; linguistic skills; citizens' satisfaction with the education system; the perceived quality of the education system; and the availability of skilled labour. Germany and Finland were the best performers on this analysis. Southern European countries, by contrast, have widely diverging levels of spending but have the weakest results. Belgium is close to the line connecting the efficient countries, taking a middle-of-the-road position: spending and results are below those for Finland but higher than for Germany. It is worth noting that results and spending can vary within one and the same country – Belgium being very much a case in point. As noted earlier, the PISA survey found the scores for maths, reading and science to be higher on average for the Flemish Community than for the French Community.

1 See Cornille D. *et al.* (2017), "Public sector efficiency in Belgium", NBB, *Economic Review*, June, pp. 31–41.

Chart 95

Varying results on efficiency of education



Sources: EC, OECD, WEF, NBB.

1 The indicators refer to 2015 or 2016, except the one for citizens' satisfaction with the education system (2014).

Reforms to Belgium's education system

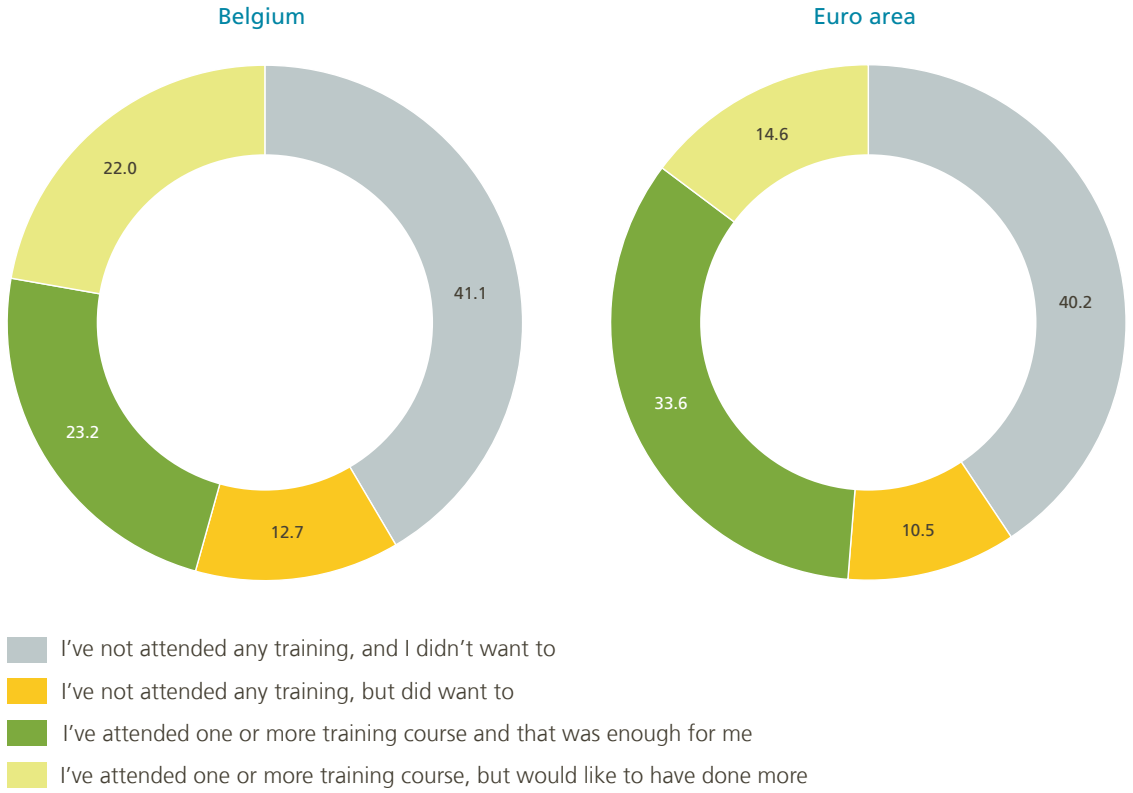
The French Community, which has been facing a number of recurring problems with the efficiency and fairness of its school system, has developed a Pact for Excellence, with measures spread across multiple years. The system is changing dramatically: education will start sooner for all children (at five years of age) and shared (polytechnical and multidisciplinary) foundation years will be extended, the aim being to achieve the efficiency objective in the shape of improved basic knowledge as well as creativity, entrepreneurial spirit and soft skills. By keeping students together longer and by offering only two streams (transition and qualification), the new approach should address the "cascading system" that leads to segregation. Repeating a year will not be prohibited, but alternative strategies will be offered to encourage differentiation and remedial practice. Examples include granting additional resources to school management to enable them to focus better on their core remit, while collaboration between teachers is encouraged, in addition to training teachers better and continuously.

In Flanders, student counselling was overhauled, based on an action plan roughly translating as 'Together against school drop-out' and comprising around 50 actions. With the approval of the dual-learning Decree in Flanders, a fully accredited pathway is now in place, running parallel to full-time secondary education. The new system is intended to encourage students to make a positive choice for technical or vocational secondary education. Meanwhile, the reformed adult education pathway can serve as an alternative pathway to education for young people who drop out of school early. It has a funding system in place that focuses on weaker groups as well as on attaining a secondary education diploma or other

Chart 96

Continued reticence towards lifelong learning

(in % of 25-64-year-old respondents, in the twelve months prior to the survey, 2016)



Source: EC (AES).

training certificate. The new and simplified set-up of the options in the second and third tiers of secondary education as well as the possibility to create "domain" schools or "campus" schools, are all aimed at improving study and the choice of career orientation. One of the aims of the strategic literacy plan 2017-24 is to significantly boost the numbers of young people leaving secondary education with literacy levels that are adequate to enable them to fully participate in society and keep learning.

Upgrading skills through lifelong learning

Lifelong learning should ensure that new skills can be acquired, are deepened or are aligned more fully or precisely with new requirements in the labour market. Against the backdrop of rapid technological change, this should ease the transition from declining jobs to emerging professions. According to the usual European indicator deriving from the labour force survey (LFS), in 2018, 8.5 % of adults in Belgium between the ages of 25 and 64 had taken a formal or informal course or training in the four weeks prior to the survey, unchanged on 2017 and an outcome below the European average (11.1 %).

Focusing on the twelve months prior and providing additional information on the characteristics of educational activities and the reasons for and obstacles to participating in education, the 2016 adult education survey (AES) had totally different figures: 45.2 % of adults had attended training, which was more or less in line with the European average. Among those who had not attended any training (54 %), the biggest chunk claimed not to be willing (41 %) – a percentage comparable to the average for the euro area. In Belgium, a larger proportion of respondents than in the euro area as

a whole indicated they would like to receive (more) training (35 % compared with 25 %).

Skills activation moving slowly

Skills activation in the ESI is all about the transition to a working life and participation in the labour market (the activity rate). Belgium's poor position on this dimension is chiefly explained by a low activity rate in the 20-24 age group (47.5 % in 2018) and a lower activity rate among the 25-54 age group than in other countries.

Other aspects of skills activation could still do with a lot of improvement. The percentage of early school drop-outs may have fallen but is still around 8.6 % of 18-24-year-olds in Belgium, with major differences between Regions (10.7 % in Brussels, compared with 9.9 % in Wallonia and 7.3 % in Flanders). About half of these early school leavers are not in work.

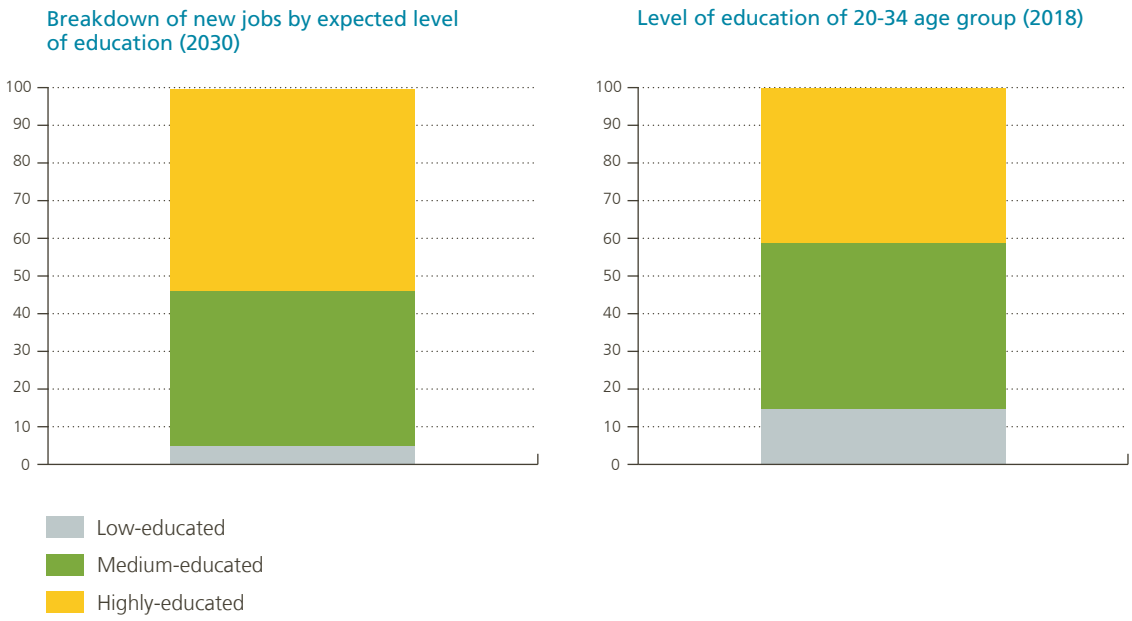
The transition from unemployment or inactivity is relatively slow. Drawing on the EU Statistics on Income and Living Conditions Survey (EU-SILC), the OECD has calculated transition percentages for the 25-59 age group. Belgium's transition percentage from inactivity to work is low – an average 12 % in the 2005-15 period, compared with an average 19 % for European countries together. Just as in other countries, it is harder to transition from inactivity to employment than it is to find a job coming from unemployment: the data show a transition percentage from unemployment into work in Belgium of 30 %, compared with an average of 44 % in the EU. There is not just a need for education, but also extensive coaching and financial incentives to bolster the employment rate, particularly for the low-educated.

Progress needed to make skills match ...

The skills-matching pillar focuses on the extent to which the available skills meet current and future needs. Cedefop predicts that over half of future jobs will require high-level skills. Factors causing the change include sector shifts to more business services and non-market services, leading to a demand for certain types of profession (insurance, law, research and development), but also for numerous jobs in health care. Besides, at present, only the highly-skilled positions run a smaller risk of digitalisation. Looking at the educational levels of newcomers to the labour market

Chart 97

Labour market mismatches look set to rise



Sources: Cedefop, Eurostat.

(i.e. the 20-34 age group), there are too few higher education graduates relative to the skills expected to be needed.

These mismatches are already evident. On the demand side, they are visible in the vacancy rate – the number of vacancies as a ratio of total potential jobs, filled and unfilled – which averaged 3.5 % in the first three quarters of 2019, a very steep percentage when viewed internationally.

Professions that are under pressure are also very revealing. The public employment services monitor positions for which recruitment problems are greater than average: critical jobs. Ignoring the typical time needed to match labour supply and demand – selection of candidates, hiring procedures, etc. – other, more structural factors can influence the process. These include inadequate labour supply in both quantitative and qualitative terms, mobility, and proposed employment conditions (wages too low, non-standard working hours, physically demanding work, etc.). The same jobs often end up on the list of critical jobs in all three Regions, albeit to different degrees. That said, there are regional specificities as well: in Flanders, the hardest vacancies to fill are those for cleaners, technical staff and for people working in health care and social support. Wallonia is facing shortages in the technical professions, the construction sector, and transport and logistics, while Brussels is mostly looking for administrative, IT, engineering and management positions. The French Community has real difficulty in finding teachers. In all three Regions, there is a need for digital skills across the board in technical, administrative and IT positions.

Reducing the mismatch between labour supply and demand is a big challenge

With ageing hindering growth in the working-age population, labour market shortages and the need to fill some positions that have been considered critical jobs for many years, the Belgian economy can only continue to develop if, as it has done in the past, it attracts people from abroad through secondment or work permits. Economic immigration by people from third countries – i.e. other than from the Schengen area and the European Economic Area (EEA) – is highly regulated. A type-B work permit, for instance, is linked to employment with a Belgian employer and is limited in duration. Since January 2019, a distinction has been made between a type-B work permit for a job that does not last longer than 90 days and the combined permit for non-European citizens who wish to live and work in Belgium for longer than 90 days.

... to respond to digital transformation

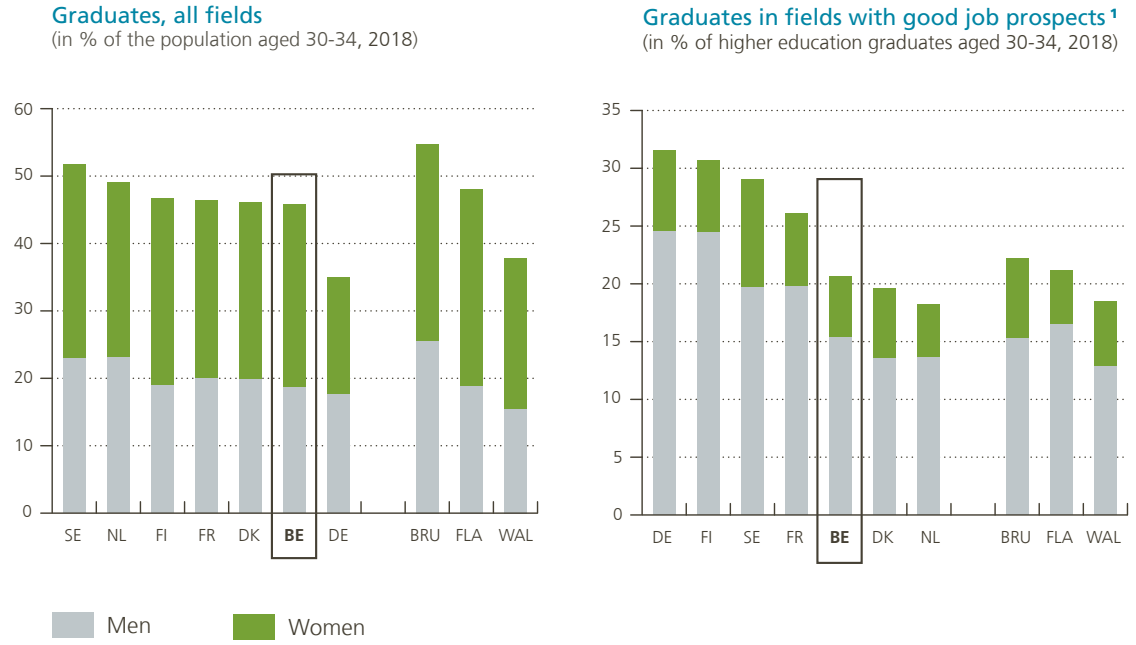
Qualifications and diplomas remain crucially important for employers in Belgium. Incidentally, the country has easily achieved its goal for 2020: in 2018, 48 % of the 30-34 age group had higher education qualifications, a full percentage point more than targeted and over 20 percentage points up since the early 1990s. Brussels has the highest proportion of graduates (56 %), followed by Flanders (48 %) and Wallonia (43 %).

University is not the only route to a rapid and lasting place in the labour market – the same is true for professional Bachelor's degree holders in some fields and those who complete their secondary education in specific technical or vocational areas.

Because of the digitalisation of the economy, highly-skilled positions will increasingly require training in science, maths, statistics and information and communications technology, as well as in engineering, industry and construction. Despite the large percentage of higher education graduates, in 2018, only 21 % of the current cohort of 30-34-year-old graduates had taken one of these pathways. This is even more true for women: hardly 5 % of female graduates have qualified in one of these areas, whereas more women than men embark on higher education. Aside from the level of education, all jobs will increasingly require technological and digital skills. According to Eurostat data, 61 % of Belgians between 16 and 74 years of age had general digital skills in 2017, either basic or rather more advanced (determined by the computer actions the subject is able to carry out). Although slightly up on the European average (57 %), the percentage clearly lags behind the best-performing countries, namely Luxembourg (85 %), the Netherlands (79 %) and Sweden (77 %). With less than one in three people with more advanced digital skills and a small proportion of ICT graduates (Belgium is one of three European countries at the bottom of this particular

Chart 98

Higher education graduates – an international comparison



Source: Eurostat.
1 Science, maths, statistics, ICT, engineering, industry and construction.

league table), this shortage is hampering Belgian companies in their ability to leverage the opportunities presented by digital technologies.

Action plans and projects are now underway to boost the number of graduates in the so-called STEM pathways (science, technology, engineering and maths). It is those fields that lead to the professions of the future in an economy that is increasingly knowledge-intensive and shaped by the digital transformation. In the French Community, various initiatives have been translated into political measures. The basic training offered to all students should focus more on STEM subjects and digital skills, and building those skills is at the very heart of the new digital education strategy approved in October 2018, *Stratégie numérique pour l'éducation*, whose aim is to close the digital gap. Flanders, meanwhile, will continue to pursue its 2012-20 STEM action plan, making STEM education and careers more attractive from a gender equality perspective.

Only one in five graduates took a STEM subject and fewer than one in three has advanced digital skills

Working in good conditions is highly conducive to social well-being and health

Engaging in work for which one has the right skills is crucially important to fully participate in society and to avoid poverty traps and social exclusion.

According to the OECD, a higher level of education gives individuals the resources to improve their living and working conditions, to live a healthier lifestyle and to have access to appropriate health care. In Belgium, OECD statistics show that life expectancy at the age of 30 is about six years longer for men with the highest level of education than for less educated men. This gap is around four years for women.

It should be possible to extend and transform careers if certain conditions are met. As well as investment in education and training, this implies that work needs

to be arranged differently, with the emphasis on what is achievable. Factors that can help include being able to organise one's own working time, the option to work part-time, increasing job mobility and adapting the workplace to workers' needs.

The quality of a professional career is determined by a range of factors, including the social environment in which the job is done, i.e. employee relations. For people of working age, employment is one of the key ways to create this social fabric. Interactions with colleagues, management and customers, day-to-day life at the company – these should offer people opportunities to develop as human beings and at the same time to participate in economic activity. Satisfactory social relationship in the workplace help to create a peaceful climate and make working as a team more productive. Of course, motivating elements are also conducive to health and well-being at work; other positive effects outside social interaction are derived from being in control of one's work and having rewarding professional experiences.

Doing a high-quality job improves well-being

Data for Flanders show how important job quality is for extending a working life (Flemish Workability Monitor, 2019). Among employees aged 40 and over and in workable work – which for these purposes means that they do not report any obstacles[1] as to the achievability of the job – nearly 81 % of respondents assumed they would be able to continue to work until their statutory retirement age. This percentage systematically falls as the number of obstacles increases, to 56 % for people reporting one obstacle, to 36 % for those reporting two, and to 17 % for employees who identify three or more obstacles in their current jobs.

Analyses by Belgium's High Council for Employment show that, all other things being equal, people with a disability have clearly fewer chances to find work than people in good health. In the 2011 *ad-hoc* module of the labour force survey, less than 50 % of people who identified themselves as disabled were professionally active in Belgium, compared with nearly 67 % of people without any long-term health issues. Conversely, unemployed people report being (chronically) ill much more often than people in work.

Education and health together make what the FPB calls "human capital" in the framework of its beyond-GDP indicators – an indispensable aspect of the well-being of future generations. It is one of four capital stocks – the others being social, economic and environmental capital – which together can assure or improve intergenerational equality. This type of yardstick and, more broadly, the beyond-GDP indicators are explained in more detail in box 10.

1 The obstacles or risk indicators included in the Flemish Workability Monitor include senior management providing support to employees, employment conditions, autonomy, etc.

BOX 10

Trend in the beyond-GDP indicators

Economic, social and environmental considerations must all come into play in an integrated way if a society is to develop sustainably. The European Commission (EC), the United Nations (UN) and the Organisation for Economic Cooperation and Development (OECD) have all made inclusive and sustainable growth a key political objective and are undertaking various initiatives to encourage such growth. In keeping with this trend, the Belgian National Accounts Institute (NAI) and the Federal Planning Bureau (FPB) have been entrusted by law with the task of drawing up beyond-GDP indicators, on the basis of which society can be looked at from a different perspective than production and measurement of that based on GDP.

Under the Law of 14 March 2014 supplementing the Law of 21 December 1994 containing social and miscellaneous provisions, the FPB has drawn up a list of beyond-GDP indicators that measure quality of life, human development, social progress and environmental sustainability. Since first published in February of 2016, they have been included in the annual NAI/FPB report on beyond-GDP indicators. A summary of the 2020 results follows below.

Conceptually, the report structures the 67 indicators observed around the three dimensions underpinning the definition of sustainable development, making a distinction between the well-being of the country's current generations ("Here and now"), the well-being of future generations ("Later") and the impact of Belgian society on the well-being of residents of other countries ("Elsewhere"). In addition, they are presented in the same way as the United Nations' 17 Sustainable Development Goals (SDGs) embodied in the UN's Programme for Sustainable Development by 2030. The SDGs and their monitoring indicators are increasingly becoming the benchmark framework for measuring society's development in countries that are signatories to the Programme.

Composite indicators have been developed for some of these dimensions. The composite indicator for current well-being "Here and now" (W_{HN}) has been updated at the level of Belgium and of various population groups, while new composite indicators have been created for the "Later" dimension.

Current well-being

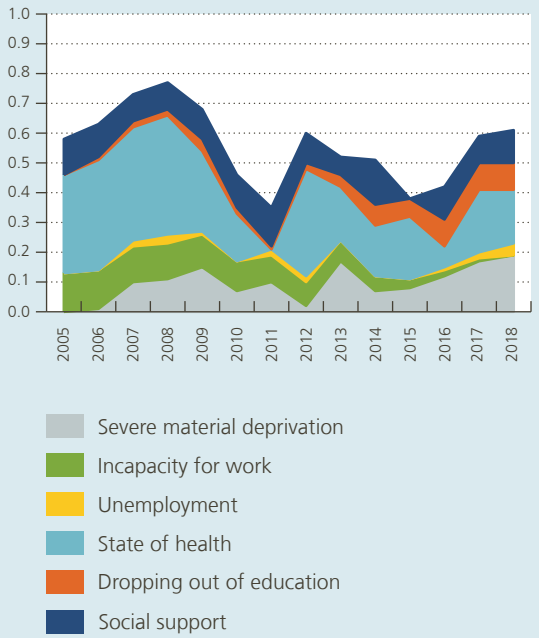
The W_{HN} indicator gauges the trend in current well-being and attempts to capture any changes as accurately as possible. This indicator slumped in the wake of the economic and financial crisis and hit rock bottom in 2011 as it reflected the decline in the general health of the population at the time. It has been on the rise again since 2015 and, a decade on from the onset of the crisis, has reached a level close to that for 2005, although it remains much lower than just before the crisis. Between 2005 and 2018, a series of socio-economic improvements – e.g. a lower unemployment rate, coupled with reduced material deprivations and less dropping out of education – have made up for Belgians' declining average health situations and worsening occupational disability.

As there is major variation in well-being as reported by the Belgian population, last year's report devised 11 composite indicators for measuring trends in current well-being for women and men, for four age groups and for five income groups. These gauges show that the economic and financial crisis hit men's well-being harder than women's. Meanwhile, there are marked contrasts in well-being among the four age groups analysed (16-24 years, 25-49 years, 50-64 years and over 64): all groups felt the

impact of the crisis, but only for the over-64s have the indicators since improved markedly, clocking in at a significantly higher level in 2018 than in 2005. For the other three groups, the drop in post-crisis well-being has apparently proved more persistent: not until 2018 did their well-being attain the same levels as in 2005. Against the backdrop of an ageing population and given the manifold challenges ahead, this decline in well-being for 16 to 64-year-olds is somewhat concerning, as most workers in Belgium belong to this particular population group.

Breakdown of well-being indicator "Here and now" (WHN)[1]

(scale of 0 to 1)



Source: FPB.

1 An increase in the indicators flags an improvement in well-being. 0 corresponds to a situation in which the six indicators were simultaneously at their minimum level in the 2005-18 period, whereas 1 corresponds to a situation in which they were all at their maximum level over that same period.

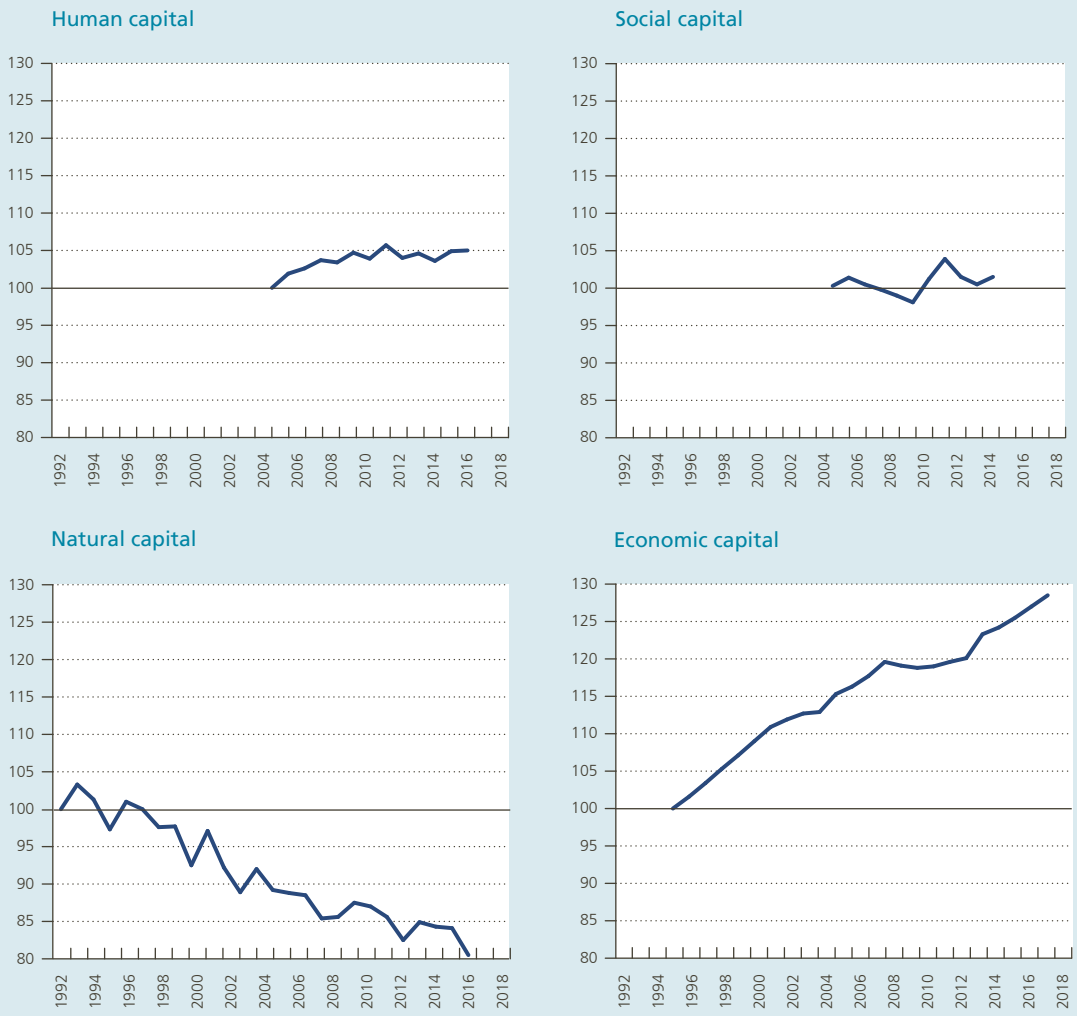
Capital stock must be preserved for the sake of fairness between generations and sustainable development

In the 2020 edition of its report, the FPB proposes measuring future well-being (the "Later" dimension) by adopting an approach involving capital stock. As it is not known what future generations will consider well-being and how it should be created, this approach would track the developments of stocks of essential resources to help produce the well-being of those generations. It is assumed that their well-being will depend on the continuing existence of such resources, some of which are crucial to achieve a level of well-being that at least equals that of today's generations.

The term "human capital" covers both health at the individual level and the abilities and skills that contribute to people's employability and improvement in income from employment, while "social capital" is all about the quality of interpersonal relationships, between individuals as much as in the community. Natural resources (air, water and land) and all living beings (biodiversity) fall into the category of "natural capital". Lastly, "economic capital" is the sum of a country's economic assets and comprises production resources, existing infrastructure, intangible assets (knowledge) and financial assets, for households, companies and the public sector.

Composite capital indicators for future generations

(100 = baseline year[1])



Source: FPB.

1 The indicators have been standardised at 100 for the baseline year coinciding with the first year for which all components of the composite indicator are available.

Mostly determined by the indicator for higher education graduates, the "human capital" indicator has been on the rise since 2005. The one for "social capital", meanwhile, has been relatively stable and does not really show much of a lasting trend at all, while "natural capital" has grown steadily worse since 1992. Of the latter's sub-components, only the indicator for water quality has improved since 2008. As for air quality, the carbon concentration has kept rising and it is the scale of this that is accounted for in this indicator, as carbon spreads swiftly in the atmosphere. Granted, greenhouse gas emissions in Belgium have gone down, but not by enough to turn the tide of air pollution, while the areas of town and country planning and biodiversity have also got worse. The last and fourth indicator, that of "economic capital", finally, went up in the 1995-2018 period, even if it dipped somewhat in the post-crisis years. Its upward trend was supported by both the indicator of physical capital stock and the knowledge indicator.

In terms of the sustainability of well-being, the deterioration in Belgians' current state of health may have a detrimental effect on life expectancy and good health, and consequently also on human capital. The population group most affected are the 16-64-year-olds, which makes this trend all the more concerning, as this is precisely the working-age population. Growing human and economic capital is exactly what has enabled Belgium's socio-economic development. It is worth noting that the indicator for social capital, which reflects people's relationships with each other and with institutions, has remained relatively stable over the past few years. Assuming that any development is sustainable if capital stocks are at least maintained at the same levels, the FPB's analysis suggests that the current development in Belgium is unsustainable in the longer term as measured by the composite capital indicators currently used. Trends in the individual indicators as discussed below present an analysis-enhancing complementary picture.

Trend in the individual indicators

Out of the 67 beyond-GDP indicators that the FPB reviews, 41 relate to "Here and now", the dimension that captures changes in people's well-being in Belgium since 1990. Although most of these SDG-related indicators are not significantly moving in one direction or another, it turns out that:

- education (SDG 4), gender equality (SDG 5) and peace and justice (SDG 16) are developing favourably, i.e. getting closer to their goals;
- trends relating to poverty (SDG 1) are unfavourable;
- the indicators related to health (SDG 3) are a mixed bag: indicators for life expectancy, death due to chronic illness and death due to road accidents are improving and pointing to longer lives, whereas subjective survey-based indicators concerning people's perception of their state of health are going down, suggesting a deterioration in the general state of health.

A comparison of these indicators with their equivalents at EU level or, if these are not available, with those of Belgium's three neighbouring countries is largely favourable for Belgium, as 18 out of the 29 indicators that can actually be compared are higher in this country.

The "Later" dimension focuses on the ability of Belgians to maintain and even improve their well-being in the future. It is measured by 34 indicators that are mainly taken from the environmental SDGs concerning food (SDG 2), health (SDG 3), education (SDG 4), water (SDG 6), energy (SDG 7), infrastructure (SDG 9), consumption and production patterns (SDG 12), climate (SDG 13), life below water and on land (SDGs 14 and 15) and resources to implement the "worldwide partnership for sustainable development" (SDG 17). Most of these are evolving towards their goals.

Two notable exceptions are:

- life expectancy and good health (SDG 3), which is not significantly evolving in any direction;
- the wild bird population, one of the few indicators of biological diversity available over a long period (and related to SDG 15), which continues to deviate further from its goal.

A comparison with the rest of Europe reveals that 14 out of the 24 indicators related to "Later" are favourable to Belgium, particularly on social indicators, whereas environmental indicators are not faring very well in Belgium.

Five "Elsewhere" indicators reflect Belgium's impact on the way other countries are able to develop as well as the well-being of their populations. Indicators gauging the use of natural resources (energy (SDG 7) and commodities (SDG 12)) as well as greenhouse gas emissions (SDG 13) are moving in the right direction, while the indicator measuring official development aid (SDG 17) has been stable but below target.

Only on the use of domestic materials does Belgium do better in a comparison with the EU or its three neighbouring countries.

Of the 67 indicators, 46 can be broken down by population group, more specifically based on gender, income level, level of education or age. Starting from the 2020 edition, 33 indicators will also be broken down by Belgium's three Regions, provided this proves relevant and data are available. To date, the FPB has yet to analyse these data. As for other breakdowns of the indicators, it emerges that:

- In terms of gender (28 indicators), many differences are smaller though there are still some substantial discrepancies unfavourable to women. In the past few years, the differences have grown on a number of indicators, such as the risk of poverty, the very low work intensity, perceived health, long-term incapacity for work and the sense of safety in public spaces.
- In terms of income level (15 indicators), the situation is more favourable for the higher income groups;
- In terms of level of education (12 indicators), conditions are more favourable for those with a better education, and the gap is widening (particularly in terms of the poverty risk). People with no more than a lower secondary education certificate are at a particular disadvantage. It is worth noting that, since 2016, the gap has been narrowing for the unemployment rate as well as for young people neither in employment nor in education or training;
- In terms of age (14 indicators), age-related differences can be observed (health, incapacity for work, employment or unemployment), with trends often more favourable to the older age groups than for younger people. Exceptions include the risk of poverty for people over 64, which has not improved since 2015.

In accordance with its mission, the FPB will update these indicators every year, taking account of any changes in the state of knowledge and social debates. Depending on the availability of data, the database covers the 1990-2018 period. It can be accessed via www.indicators.be.