



4. Economic activity and the labour market in Belgium

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4.1 Soaring energy prices impoverished the Belgian economy

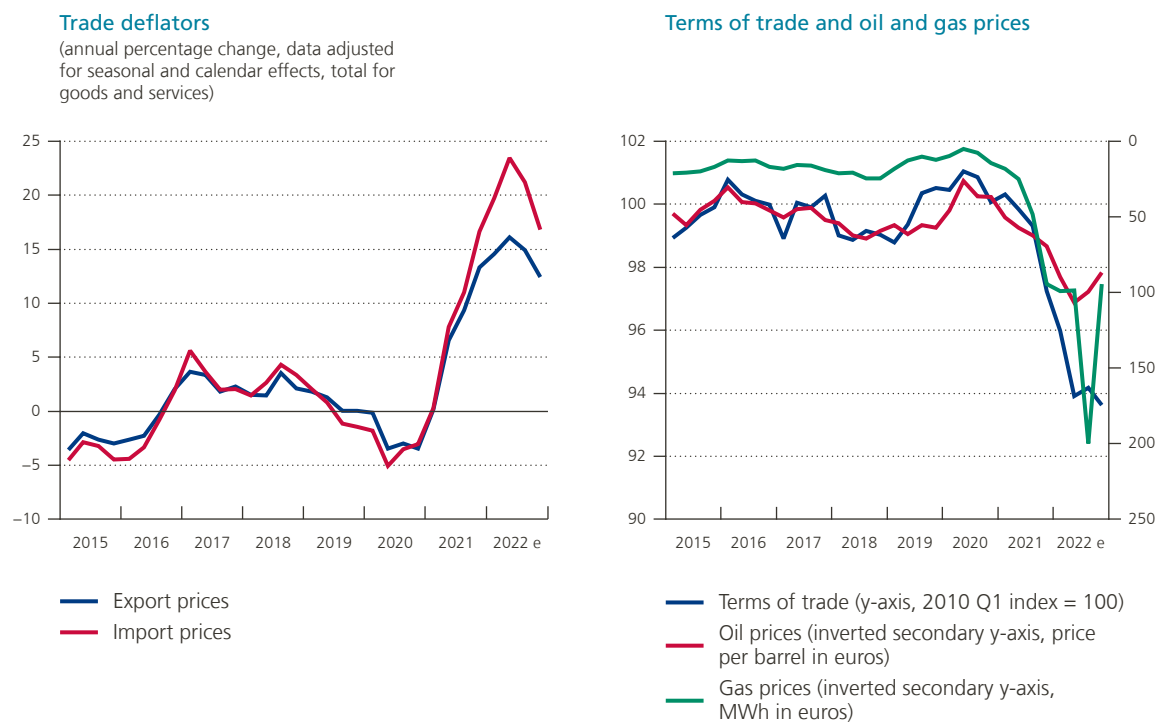
Belgium's terms of trade deteriorated

Higher prices for energy and raw materials pushed up import prices to a much greater extent than export prices, with the former reaching historic levels. Thus, since the second half of 2021, against the backdrop of the post-pandemic economic recovery combined with the need for importing countries to replenish their gas reserves, there

has been a sharp rise in the prices of raw materials and energy, particularly oil and gas. Russia's invasion of Ukraine in early 2022 further exacerbated this upward pressure on prices, which reached historically high levels. For Belgium, like any net energy importer, this upturn in energy prices translated into a deterioration in its terms of trade, defined as the ratio between the export price index and the import price index. These rose by 14.4 % and 20.1 %, respectively, in 2022 compared to 2021, thereby worsening

Chart 4.1

The sharp increase in energy prices worsened Belgium's terms of trade



Sources: NAI, Refinitiv and NBB.

Belgium's terms of trade by around 4.7% on an annual basis, largely due to the negative effect of higher prices for imported energy.

The negative income effect generated by the deterioration in the terms of trade made Belgium significantly poorer in relation to the rest of the world. Due to the rigidity of short-term demand for imported energy, maintaining import volumes at higher prices led to a transfer of purchasing power from Belgium to the rest of the world. The fall in the value of the euro, in particular against the US dollar, also weighed on the terms of trade as such imports are mainly denominated in dollars. The negative income effect resulting from this transfer of purchasing power to the rest of the world is estimated to have been approximately 5% of GDP on average for the first three quarters of 2022. The energy component was the main explanatory factor for this impoverishment in relation to the rest of the world. However, the loss of disposable income was not due solely to rising energy prices; other components also influenced the terms of trade, including the prices of a large number of commodities such as raw materials, food, metals and certain chemicals. The prices of these commodities rose considerably on the international markets, thus contributing to the increase in import prices.

This loss of income in relation to the rest of the world was not unique to Belgium and had occurred in the past. The country's main trading partners, and the euro area as a whole, also suffered from a loss of income compared to countries with energy sources they could extract and export to non-producing countries. But the negative income effect was particularly pronounced in Belgium, due in particular to the higher energy content of imports. From a historical point of view, past energy shocks also led to an impoverishment of the Belgian economy vis-à-vis foreign countries. Nonetheless, according to the available historical data, the 2022 shock appears to have generated a more substantial loss of income vis-à-vis the rest of the world than previous ones.

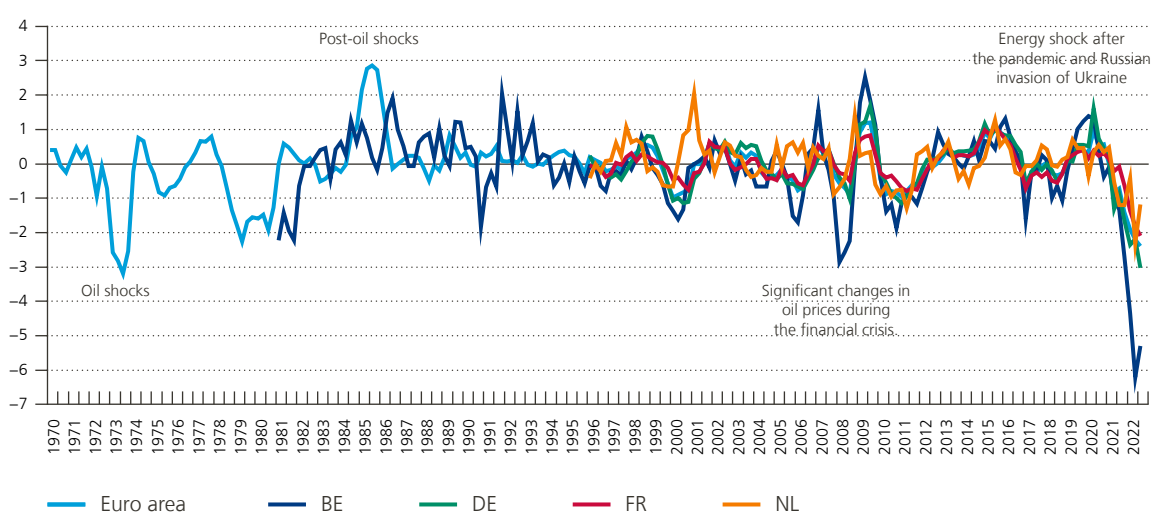
The current account balance deteriorated to a substantial deficit

The increase in the net energy bill also exacerbated the deterioration in Belgium's current account balance, which posted a deficit of more than 4% of GDP in 2022. The trade deficit related to energy products in fact widened under the influence of a significant price effect linked to the increase in the cost of these products, more specifically gas

Chart 4.2

A considerable transfer of income to the rest of the world, higher than that of neighbouring countries

(impact as a percentage of GDP, unless otherwise stated, latest data 2022 Q3)¹



Sources: ECB, NAI and NBB.

¹ The income effect of the terms of trade was calculated by weighting variations in export prices and import prices by their respective values and is expressed as a percentage of GDP.

imports; indeed, the weight of energy products is relatively lower in exports than imports. Belgium's net energy bill vis-à-vis the rest of the world more than doubled in two years, reaching around 4.4% of GDP on average over the first nine months of 2022, compared with 1.8% for the corresponding period in 2020 and 3.1% in 2021. Compared to a less economically troubled period than the past three years, i.e. 2017 to 2019, the average increase in Belgium's net energy bill was around 1.8% of GDP.

The trade balance of goods excluding energy products also worsened and contributed to the shift from a current account surplus to a deficit.

The initial surplus of goods excluding energy products was gradually reduced over the course of 2022. One reason for this was the downward trend in surplus medicinal and pharmaceutical products due, in particular, to a decline in the export of COVID-19 vaccines in the second quarter of the year, for the first time since they were marketed internationally. The import and storage of a new drug for the treatment of COVID-19, along with the import of vaccines against diseases other than COVID-19 in the second half of the year, also influenced this trend. The net trade balance in chemical and pharmaceutical products therefore worsened in 2022 and led to a deterioration in the current account balance.

The net trade deficit in goods was not offset by the balance of trade in services, which remained close to equilibrium.

This situation was mainly due to the return to a trade deficit in travel services with foreign countries more in line with that observed during the pre-COVID-19 period and therefore wider than during 2020 and 2021, when the pandemic imposed heavy restrictions and constraints on travel opportunities.

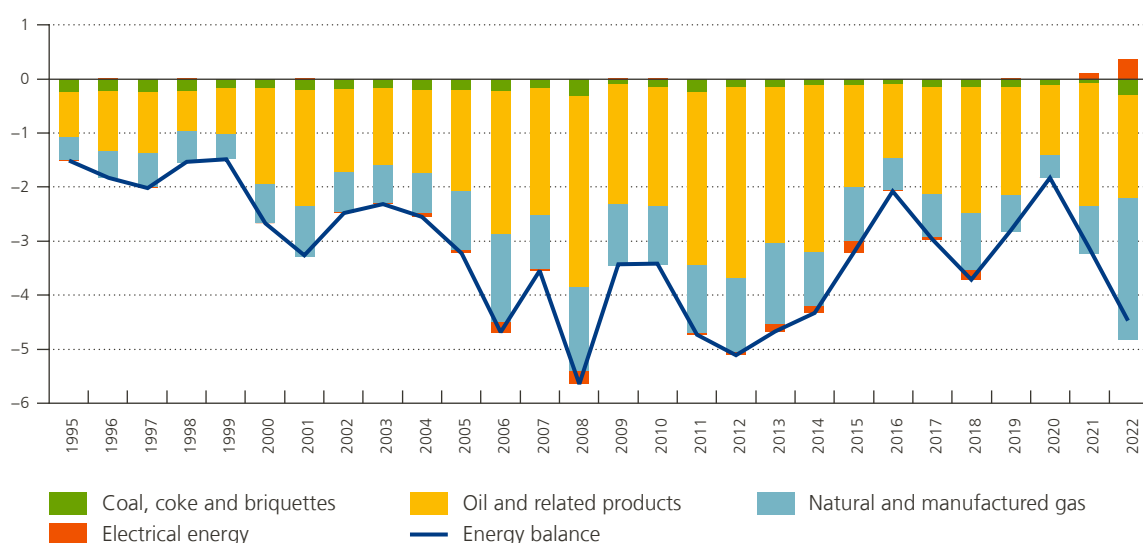
The sanctions adopted against Russia had only limited impact on Belgium's trade.

The year was also marked by European sanctions against the Russian Federation following its invasion of Ukraine. However, trade between Belgium and Russia is relatively limited; over the period 2017-2019, it accounted, on average, for only around 0.9% of Belgium's exports and 1.8% of its imports of goods and services. While Belgian exports to Russia gradually fell under the effect of these sanctions, imports initially remained on an upward path. This was mainly due to the nature of the goods imported into Belgium from Russia and a price effect. Indeed, energy products and specific goods, such as diamonds, were the main contributors to this growth in Belgian imports, especially in the first half of the year for the latter. This was due to the fact that the prices of these goods increased considerably, although, in volume

Chart 4.3

A significantly higher energy bill

(in % of GDP, first nine months of the year)

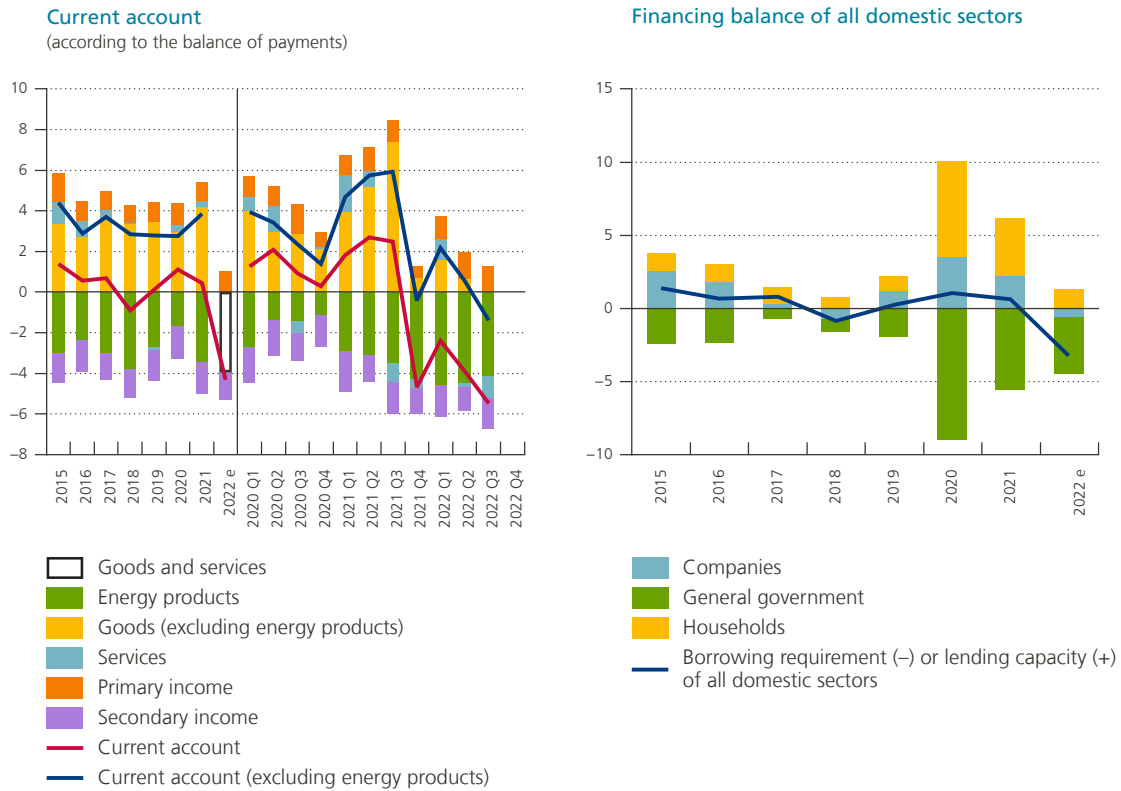


Sources: NAI and NBB.

Chart 4.4

A current account surplus and a financing capacity that deteriorated and moved into negative territory

(in % of GDP, unless otherwise stated)



Sources: NAI and NBB.

terms, weaker growth was recorded over this same period.

As with the current account deficit, a significant borrowing requirement emerged for the Belgian economy in relation to the rest of the world. The recently recorded lending capacity of the Belgian economy turned into a borrowing requirement of over 3% of GDP. Corporate lending capacity deteriorated to a limited borrowing requirement. Companies increased their investment expenditure, expressed in nominal terms, more than the income from their business activity rose. At the household level, as in the previous year, financing

capacity was reduced. In fact, household savings shrank considerably compared to 2021, further to an increase in final consumption expenditure, as wage indexation only compensates for inflation with a time lag, while their investment in housing, expressed as a percentage of GDP, remained relatively stable year over year. Finally, general government financing needs were less than in the two previous years, while remaining substantial from a historical perspective. Primary expenditure, expressed as a percentage of GDP, was in fact lower, due in particular to a reduction in public investment which largely offset the fall in taxes and social security contributions expressed as a percentage of GDP.

Energy shock: assessment of the effects on Belgian purchasing power and competitiveness using a dynamic macroeconomic model

Isolating the impact of rising energy prices on an economy is inherently difficult, but a macroeconomic model can help. This is what this box attempts to show, focusing specifically on two ways in which Belgium differs from other countries in the euro area.

Two specific features of the Belgian economy proved to be particularly critical during the recent spectacular, unexpected and prolonged rise in gas and electricity prices. First, in Belgium, international energy prices are passed on faster and more forcefully to consumers – at least in terms of the energy component of the harmonised index of consumer prices (HICP) – than in the euro area as a whole (characteristic C1 below). Second, Belgium is one of only three (small) countries with automatic wage indexation. The pace of indexation varies depending on the applicable collective bargaining agreement, but it is applied to almost all employees and benefits recipients within one year (characteristic C2 below).¹ Chapter 3 covers this process in detail. Characteristic C1 noticeably magnifies the significance of characteristic C2.

Higher energy prices expose Belgian consumers to a greater loss of purchasing power than their neighbours, while indexation shields workers and benefits recipients against a loss of real income. Indexation shifts the burden of inflation to employers (and the social security system). Compared to other European countries, in Belgium, energy prices affect production costs for the latter both directly, through the share this component represents in their inputs, and indirectly, since wages are driven up by indexation. This indirect channel, which is specific to Belgium, leads to a worsening of the competitiveness of Belgian companies on both domestic and foreign markets. The associated losses in market share are accompanied by a reduction in demand for labour hours which, in turn, affects the disposable income and purchasing power of Belgian households.

These characteristics of the Belgian economy necessarily amplify the dynamic reaction of the nominal side of the economy, but their effect on the real macroeconomic side is more ambiguous. Indeed, characteristics C1 and C2 exert potentially opposing effects on domestic and foreign demand. To study and measure the relative extent of the Belgian economy's reaction compared with that of the euro area, the shock must first be isolated. A representation of the complex and dynamic interactions between the real and nominal components in an open economy in the euro area is then needed. Such an analysis requires a general dynamic equilibrium model to simulate the impact the energy price shock would generate if it were the only one affecting the Belgian and euro area economies. Such a simulation is, by definition, different from a forecast, which tries to take into consideration all exogenous forces to which the economy is subject. The following analysis therefore excludes other current economic factors such as the post-COVID-19 recovery and the associated excellent performance of the labour

¹ It should be noted that macroeconomic theory unanimously concludes that, in real terms, automatic indexation acts as a stabiliser in the event of a demand or monetary policy shock but amplifies the volatility of macroeconomic variables following supply or terms of trade shocks, such as an imported energy price shock. On this topic, see Appendix 4 of the NBB's study of June 2012 on indexation.





market. This may explain why actually observed Belgian consumption was better than that suggested by the simulations presented here.

The NBB's BEMGIE (Belgium in a Macroeconomic General International Equilibrium) model, which bases its projections on Belgian and euro area macroeconomic data, has the characteristics required to study this issue. In the proposed simulation, wholesale energy prices rise exogenously in accordance with the dynamics observed between the first quarter of 2021 and the second quarter of 2022. They subsequently return to their long-term level by dropping by 5% per quarter, in line with the dynamics of these prices on the futures markets. The HICP energy indices in Belgium and the euro area move as observed until the second quarter of 2022 then react to changes in wholesale prices, each in accordance with its own estimated dynamics. The following figure shows the difference, in percentage points, between the reaction of selected Belgian variables and their euro area equivalents. This means that the negative reaction of a variable to a shock does not necessarily correspond to an effective fall in this variable, but rather that the reaction in Belgium is below that in the euro area (for example, lower growth in GDP than in the euro area after the energy shock). The blue line represents this difference for the central simulation, namely the actual situation in which characteristics C1 and C2 are active. The red line corresponds to the "identical reaction of HICP energy" counterfactual (only



characteristic C2 is active) and the green line to the “no automatic indexation in Belgium” counterfactual (only characteristic C1 is active). The dotted blue line combines both counterfactuals (with characteristics C1 and C2 deactivated).¹

As expected, the central simulation (solid blue line) reveals higher consumer price inflation and a greater slowdown in growth in Belgium. The direct effect of characteristic C1 fuels the wage-price spiral through characteristic C2. The relative increase in the Belgian hourly wage translates into an additional cost for businesses, which they gradually pass through to their prices on the domestic and international markets. Not only does this effect fuel inflation in consumer prices, but it also affects the competitiveness of Belgian firms in the eyes of both Belgian consumers and foreign importers as shown by the relative trade balance dynamics. The resulting greater fall in real activity in Belgium harms employment. This factor, combined with stronger inflationary pressure, contributes to a more significant reduction in consumption and therefore in real GDP.

If consumer energy prices reacted in the same way in Belgium as in the euro area (red line), the initial inflationary shock would be smaller as would the loss in purchasing power. The wage-price spiral caused by automatic indexation would certainly still be present, but its starting point would be lower. The decline in real consumption is much less noticeable in this counterfactual, although the competitive disadvantage remains. In this case, it is essentially domestic demand that shores up real GDP and makes it possible to wipe out half the initial difference with the euro area.

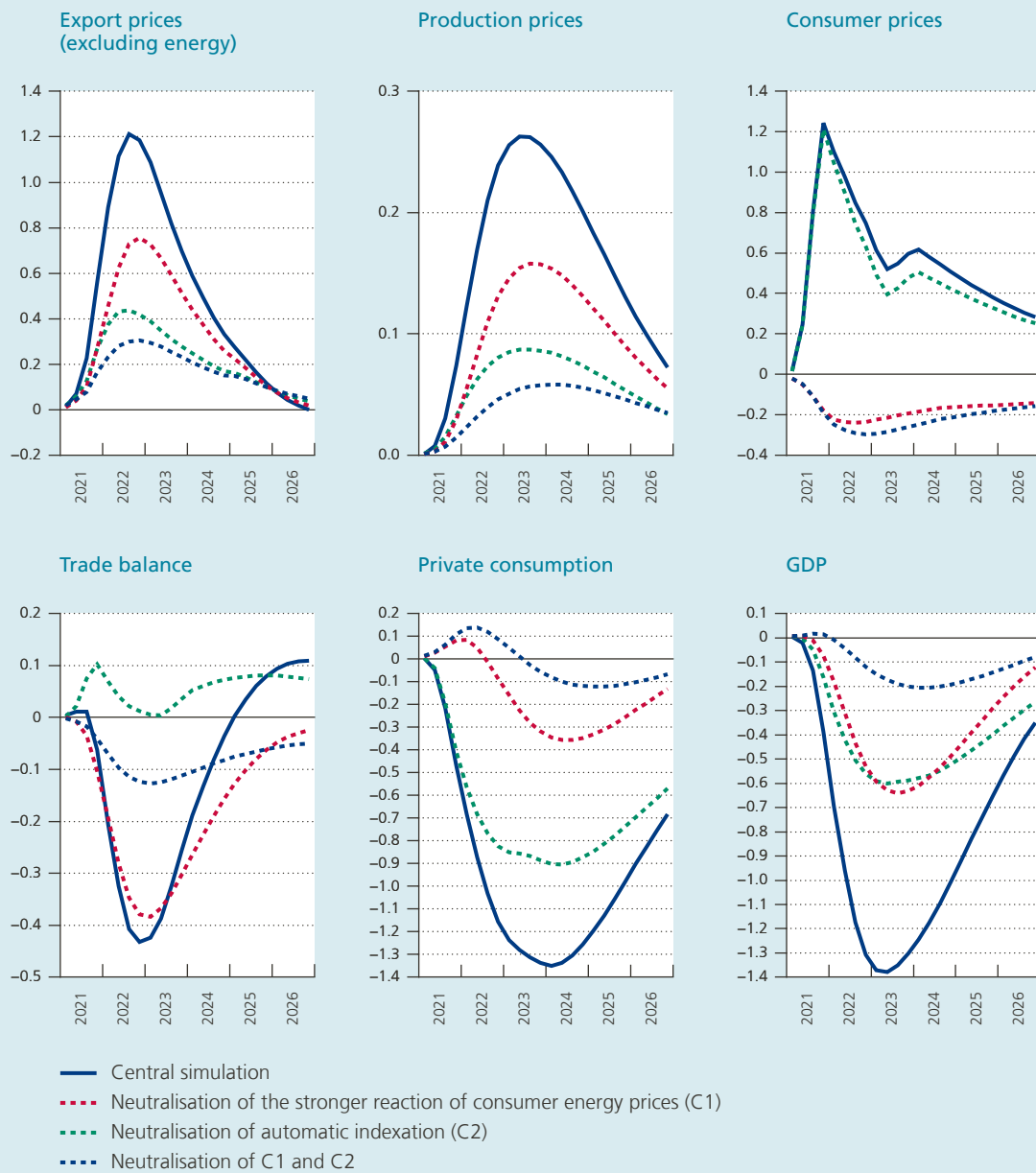
On the other hand, if automatic indexation were to disappear from the Belgian landscape (green line), the initial inflationary shock would remain, but its spread to sales prices would be tempered, thereby eliminating most of the competitive disadvantage. In this case, it is mainly foreign trade that drives real GDP and reduces the initial difference with the euro area, by nearly half.

Unsurprisingly, the combination of the two counterfactuals – by neutralising both the “stronger reaction of consumer energy prices” and “automatic indexation” – minimises the difference in price and GDP reactions in Belgium and the euro area (no more than 0.3 percentage point). The value of this exercise is that it quantifies the effect of each of the selected Belgian characteristics and the associated transmission channels. Each accounts for half of the more negative reaction to the shock by Belgian real GDP. The more pronounced and faster pass-through of international energy prices to consumers (characteristic C1) essentially leads to higher inflation combined with a greater contraction in domestic demand. Automatic wage indexation (characteristic C2) has a greater effect on firm competitiveness and the associated decline in the trade balance.

This exercise emphasises the effects of the interaction of characteristics C1 and C2 of the Belgian economy. It illustrates that an inflation measure based on a price index calculated for “new goods and contracts” rather than the “average cost of living” (see chapter 3) can give a biased picture of the effects of an energy shock on household purchasing power and moreover will have a greater effect on firm competitiveness through the automatic indexation channel.

¹ For each simulation involving automatic indexation, its institutional counterpart, i.e. the 1996 Competitiveness Act, is also activated. This is done by assuming an absence of wage increases above indexation for a period of three years from the initial shock.

Reaction differences (expressed as a percentage deviation) of selected Belgian variables compared with the euro area following an energy price shock as observed between Q1 2021 and Q2 2022



Sources: NBB and own calculations.



New Keynesian models, such as BEMGIE, are based on the assumptions that (i) agents have perfect information (apart from the occurrence of unexpected shocks) and (ii) based on this information, they construct their expectations rationally. Under these assumptions, it appears that automatic indexation does not support consumption after a price shock on the international energy markets; the gain to households in terms of hourly wages is lost in terms of hours worked and expected future dividends.

4.2 The economy proved resilient

A strong first half-year was followed by a weaker second half

The post-COVID-19 recovery continued in the first two quarters. GDP grew by 0.6% and 0.5%, respectively, quarter-on-quarter, mainly due to growth in market services. In the early months of the year, the economy benefited from a clear improvement in supply-side constraints, particularly the supply issues that had hampered activity since the summer of 2021. However, Russia's invasion of Ukraine at the end of February reignited these pressures and led to an increase in input costs. The economic repercussions of the war nevertheless had a heterogeneous impact on the Belgian economy, with the most significant effects being reported by business sectors that depend to a greater extent on energy inputs or food products.

Soaring energy prices put the economic recovery under pressure in the second half of the year. Indeed, quarterly GDP growth slowed to 0.2% in the third quarter and to 0.1% in the final quarter. The shock of the energy crisis therefore remained far removed from the record slump recorded in 2020 due to the COVID-19 pandemic. Rather than resulting in a sudden and complete shutdown of economic activity, it depressed growth through a reduction in household purchasing power and a substantial increase in the costs faced by companies. A third of respondents to a survey conducted by the Bank indicated that they had deliberately cut production or reduced the provision of services since September in order to limit the effects of the energy shock on their profit margins. Energy-intensive firms reported more significant falls. In addition, galloping inflation and lingering uncertainty surrounding the inflation forecast led to

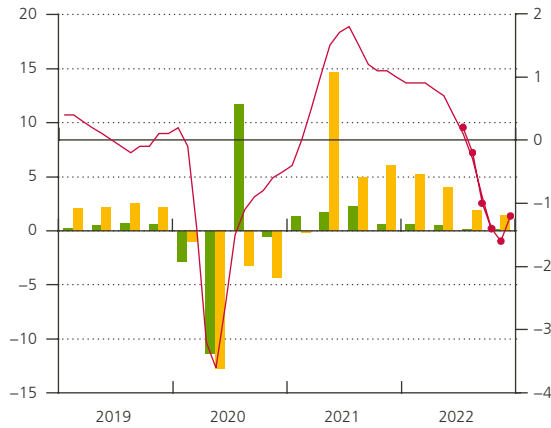


Chart 4.5

Recovery slowed during the second half of the year

Change in real GDP and business sentiment

(data adjusted for seasonal and calendar effects)



GDP (y-axis)

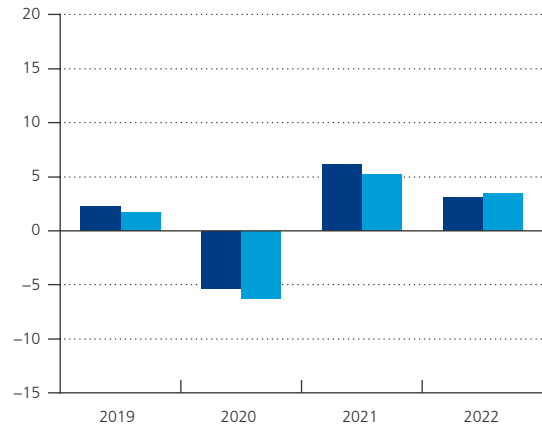
- Percentage change compared to the previous quarter
- Percentage change compared to the corresponding quarter of the previous year

Overall synthetic curve¹
(secondary y-axis)

- Smoothed series
- Gross series

Real GDP growth

(percentage change compared to the previous year, data adjusted for seasonal and calendar effects)



- Belgium
- Euro area

Sources: ECB, NAI and NBB.

¹ Balance of normalised replies for the period 1995-2022.

a substantial worsening of business sentiment, with the Bank’s indicator on this subject showing a marked deterioration, especially since the summer.

In 2022, real GDP grew by 3.1 % compared to the previous year. Growth therefore stalled somewhat after having exceptionally reached 6.1% in 2021, although it should be recalled that this followed the sharpest economic decline recorded since the end of the Second World War. Nonetheless, economic activity remains above its pre-pandemic levels and the recovery was stronger than that following the 2008-2009 global economic and financial crisis. The Belgian economy proved particularly resilient in the face of the energy shock and growing uncertainty on the part of both households and companies. Furthermore, growth in Belgian GDP was similar to that of the euro area as a whole, albeit about 0.3 percentage point lower.

Services remained the main driver of growth, while the manufacturing industry was hampered by skyrocketing energy prices

The effects of the cost crisis faced by companies in 2022 varied depending on the business sector. While rising wages have a broad and relatively uniform effect on the Belgian economic fabric, soaring energy costs take a particularly heavy toll on activity in more energy-intensive sectors, namely the manufacturing industry and, to a lesser extent, the building industry.

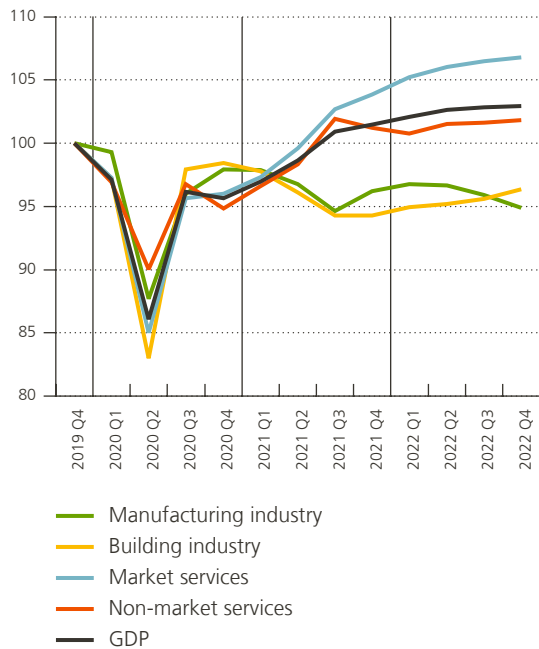
The manufacturing industry started the year off well, but quarterly growth of real value added started to fall as from the second quarter of 2022. In the first quarter, industry benefited from a gradual resolution of the supply chain problems that

Chart 4.6

Market services were the major driver of growth

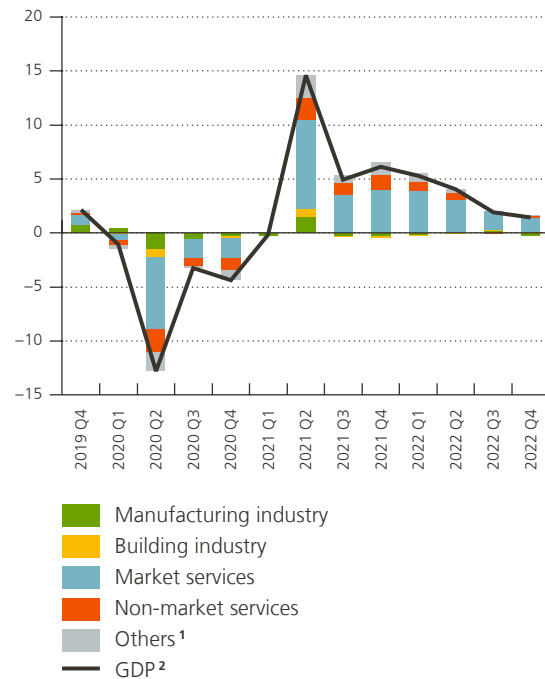
Change in real value added

(2019 Q4 indices = 100; data adjusted for seasonal and calendar effects)



Contributions to annual growth of real GDP

(percentage points, unless otherwise stated; data adjusted for seasonal and calendar effects)



Sources: NAI and NBB.

1 Notably “agriculture, forestry and fisheries” and taxes on production, excluding subsidies.

2 Percentage change compared to the corresponding period of the previous year.

had significantly impacted the previous year. However, Russia’s invasion of Ukraine temporarily re-erected these barriers to economic activity, while the sharp rise in prices, especially for energy, in the subsequent months further undermined the good performance at the start of the year. According to a survey carried out by the Bank in October, nearly half of industrial companies questioned reported that they had intentionally cut, and sometimes even temporarily suspended, production in the previous month in order to protect their margins in the face of rising costs. In addition, although the significant fall in gas prices from the record levels reached at the end of August brought some respite, it was not enough to reverse the trend in industrial activity. In total, value added in the manufacturing industry fell slightly by 0.3 % in 2022 and is consequently still below its pre-pandemic level. Nonetheless, the near stabilisation of

activity compared with 2021 masks certain disparities between sectors, particularly with regard to sensitivity to higher energy prices. For example, the metal industry, which is highly energy-intensive, saw its value added fall sharply in the span of a year, while the coking, refining and nuclear industries obviously benefited.

Although real value added in the building industry increased steadily in 2022, it remained below the peak recorded prior to the COVID-19 pandemic. Like the manufacturing industry, the building industry is particularly sensitive to supply flows. Therefore, it, too, benefited from the easing of supply constraints at the beginning of the year, with value added growing by 0.7 % in the first quarter. Subsequently, growth in the building industry slowed, falling to 0.3 % and 0.5 % in the second and third quarters, respectively, before accelerating sharply

once again in the last quarter. The surveys organised by the Bank identified this sector as one of those most affected by rising costs in 2022. Furthermore, interest rate hikes and higher prices for materials undoubtedly reduced the attractiveness of building and renovation works over the course of the year.

Finally, the services sectors, particularly market services, saw their value added grow more quickly in 2022. Due to its prominence in the Belgian economy, the market services sector was the main driver of growth. In general, service-related activities are relatively less vulnerable to supply-side constraints, meaning the supply issues that re-emerged during the year had only a slight impact on the sector's performance. In addition, the sector as a whole did not appear to be unduly affected by skyrocketing energy costs.

Growth was mainly supported by household consumption expenditure and investment in housing

In 2022, growth in GDP was mainly driven by households, through private consumption and investment in housing, while business

investment slumped. The energy shock resulted in an impoverishment of the Belgian economy, the extent of which varied between sectors. On the one hand, household purchasing power weakened, although nominal incomes benefitted from automatic indexation. In this regard, it should be noted that there is a time lag in how this protection mechanism compensates for inflation as well as disparities between households. On the other hand, companies faced a substantial rise in costs due to the surge in input prices, including energy, as well as rapid wage increases as a result of indexation.

In this context, although it remained positive, the contribution of domestic demand to growth slowed significantly, falling from 5.1 percentage points in 2021 to 1.9 percentage points in 2022. Private consumption, which accounts for around half of GDP in Belgium, climbed by 4.1 %, while growth in housing investment stood at 2.1 %. Conversely, business investment, which represents approximately 20 % of GDP, shrank by 2.1 %. This was also the case for general government investment, which fell by 6.7 %, while public consumption increased by 1.4 %.

The contribution of foreign demand remained positive, despite a slight weakening compared to

Table 4.1

GDP and main expenditure categories

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

	2018	2019	2020	2021	2022 e
Private consumption	1.9	1.7	-8.3	5.5	4.1
Public consumption	1.6	2.2	0.0	4.8	1.4
Gross fixed capital formation	3.0	5.0	-5.1	4.9	-1.7
Housing	1.5	5.1	-7.1	7.9	2.1
Businesses	2.4	5.6	-5.4	3.9	-2.1
General government	10.2	1.6	0.1	5.2	-6.7
<i>p.m. Final domestic expenditure</i> ¹	2.1	2.6	-5.6	5.2	2.0
Change in stocks ²	0.4	-0.7	-0.3	0.4	0.8
External balance of goods and services ²	-0.7	0.4	0.4	0.7	0.3
Exports of goods and services	1.1	2.4	-5.0	11.3	4.5
Imports of goods and services	2.0	2.0	-5.6	10.7	4.1
GDP	1.8	2.2	-5.4	6.1	3.1

Sources: NAI and NBB.

1 Excluding changes in stocks.

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

the previous year. Belgium's foreign trade remained dynamic until the last quarter of the year. During the first part of the year, Belgium followed the trend observed in global trade, which was driven by a combination of strong demand, the easing of supply chain bottlenecks and the lifting of COVID-19 restrictions in most countries. However, at the end of the year, import and export growth contracted considerably

due to the slowdown in global trade in an inflationary context. The loss of momentum in activity also impacted the development of Belgium's trade flows at the end of the year. In total, for the year as a whole, trade in exported and imported goods and services grew by 4.5% and 4.1%, respectively, therefore making a positive, albeit limited, contribution to the growth of the Belgian economy.

4.3 A particularly dynamic labour market showed a few signs of slowing in the second half of the year

In 2022, the labour market continued the strong post-pandemic recovery started the previous year. However, a number of indicators show that it is also under pressure from high energy prices, which is likely to slow job creation.

The labour market continued its strong recovery, adding a record number of jobs

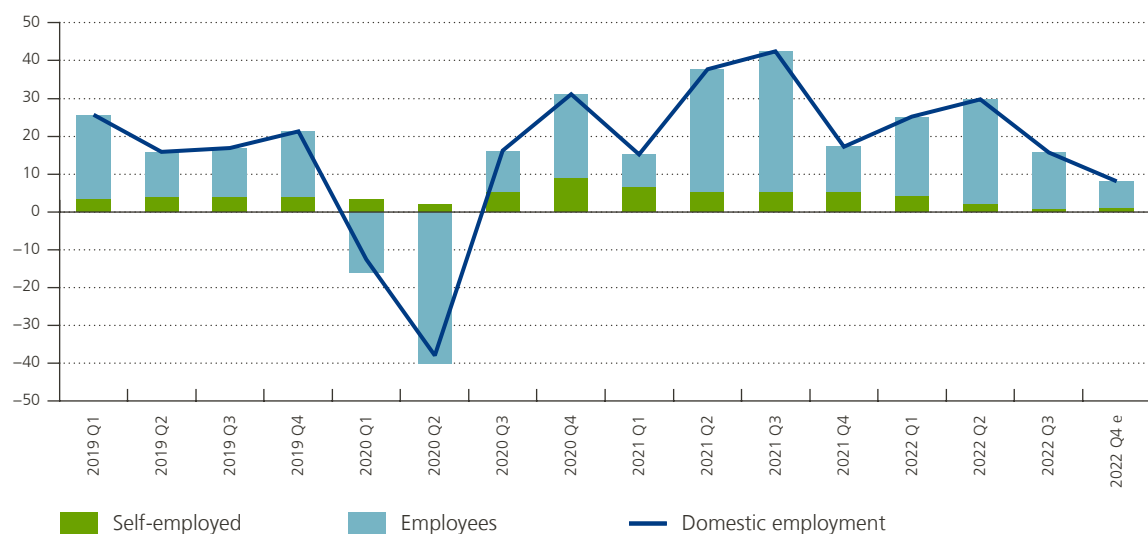
The net number of jobs added to the Belgian economy stood at 101 000 in 2022, the largest increase since measurements began in 1953. This was

due to highly dynamic job creation with the addition of no fewer than 86 000 employees and 15 000 self-employed in net terms. For the self-employed, the increase was comparable to that of previous years. The strong performance in the first three quarters of 2022 can also be attributed to the continued economic recovery in the first quarter and the fact that there is usually a time lag in the labour market's reaction to developments in economic activity. The employment rate for persons aged between 20 and 64 rose from 70.6 % in 2021 to 71.8 % during the first nine months of 2022, while it had been 70 % in 2020. The average number of hours worked almost returned to its pre-pandemic level after a marked decline in 2020.

Chart 4.7

The labour market was very dynamic for the second year running

(seasonally adjusted data, changes in thousands of people compared to the previous quarter)

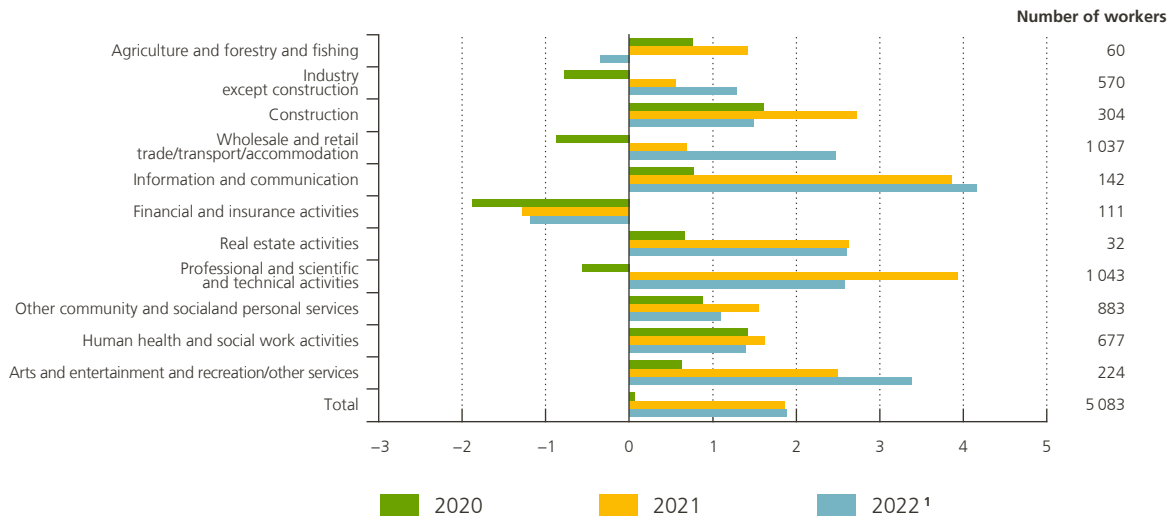


Sources: NAI and NBB.

Chart 4.8

Employment increased significantly in almost all sectors

(percentage change compared to the previous year; number of workers in 2022, in thousands)



Source: NAI.

1 Average for the first three quarters.

However, the recovery did not benefit all Regions equally. The employment rate in Flanders (76.6%), which is the highest of the country’s three Regions, grew by a further 1.3 percentage points, while that of Brussels improved by three percentage points, but still stood at only 65.2%. In Wallonia, 65.6% of the working-age population is employed, a percentage barely higher than that seen in 2021.

This improvement led to the creation of jobs in almost all sectors. Employment grew in all sectors with the exception of agriculture, forestry and fisheries, and financial services, where the number of jobs had been falling for several years. The most significant increases were recorded in information and communication as well as cultural and recreational activities and other services. The trade, transport and hospitality sectors, which employ one in five workers, expanded strongly in 2022 after a lacklustre performance in 2021. For its part, the manufacturing industry made up for its 2020 job losses through more robust job creation than that observed in 2021. The recovery was more modest in the building industry than in 2021, in particular due to rising prices, supply problems and labour market shortages.

Despite sustained job creation, certain groups have not yet made up for the backlog that accrued during the pandemic. Although the employment rate of highly skilled workers aged 20 to 64 exceeded the pre-pandemic level by one percentage point in the first three quarters, that of low- and medium-skilled workers in the same age bracket remained one percentage point lower. This was due to the fact that, unlike more highly skilled workers, low- and medium-skilled workers still had a higher unemployment rate than before and a lower participation rate. Young workers moreover did not benefit sufficiently from the recovery, and their employment rate remains slightly lower than prior to the pandemic, whereas that of higher age categories has increased. Nevertheless, the overall employment rate is now higher than before the COVID-19 crisis as young workers represent only a minority of the active population, while the share of highly skilled people – who make up nearly half the working-age population – continues to rise.

The number of self-employed also continued to rise but, in almost all sectors, at a more moderate pace than that seen in 2021 and with barely any increase after the third quarter. There were significantly more bankruptcies in 2022 compared

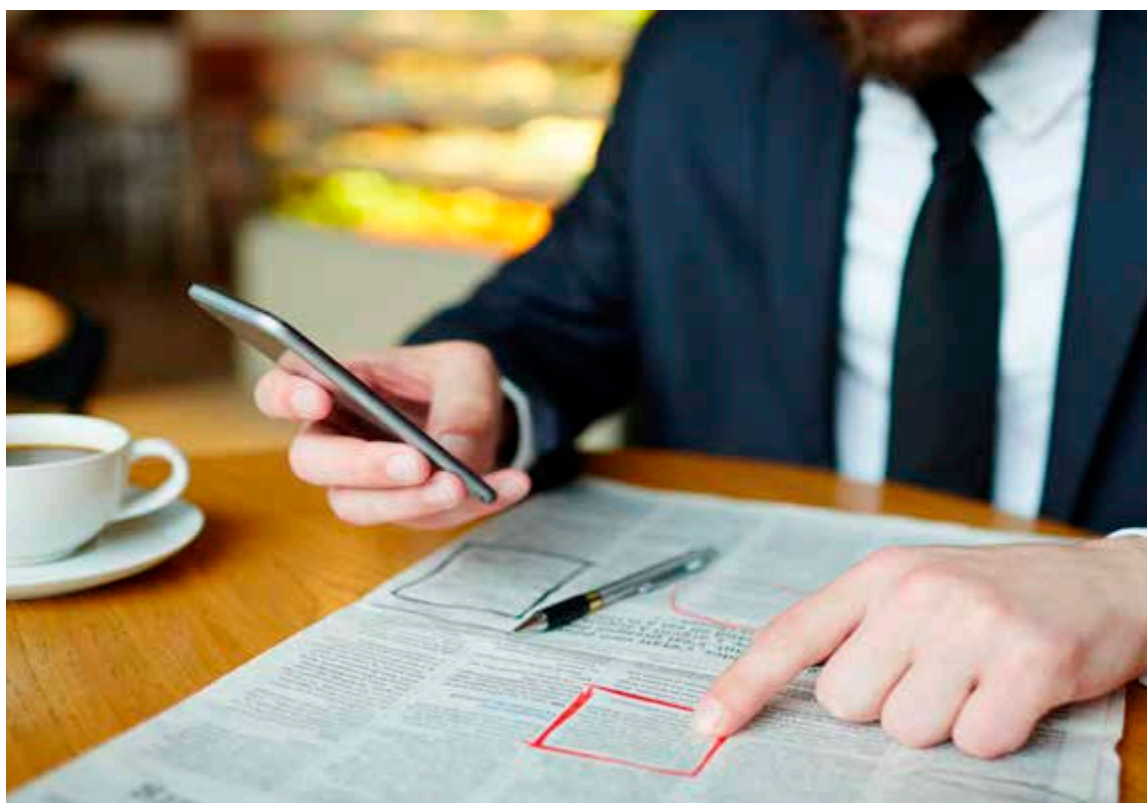
to the exceptionally low level recorded in 2021. However, the feared “catch-up” did not materialise in 2022. Both the total number of bankruptcies and the resulting job losses remained slightly lower than in 2019, the year before the pandemic, which also contributed to strong net job creation in 2022.

A strong labour market also led to an unprecedented labour shortage. The job vacancy rate (i.e. the ratio of vacancies to the total number of filled and unfilled positions) stood at 5% in the second quarter, which corresponds to 214 000 unfilled jobs. This rate was particularly high in several sectors: 9.1% in information and communication and 7% in hospitality, business services and building. There were also differences between Flanders (5.6%) and Wallonia and Brussels (approximately 4%). The job vacancy rate therefore exceeded the EU average (3%) in all three Regions. This labour shortage has a twofold effect on employment. On the one hand, unfilled positions are missed opportunities to create new jobs. On the other hand, employers may decide to postpone lay-offs due to fear of being unable to find staff later on in a structurally tight labour market, a phenomenon called “labour hoarding”. This could also have contributed to the strong employment figures observed this year.

Flexi-jobs, the number of which rose sharply in 2022, could help to alleviate shortages. In the second quarter, nearly 100 000 people resorted to this type of work, which represents an increase of 67% compared to the corresponding period in 2021. Just over half these positions are in the hospitality industry, but retail businesses, such as bakeries and supermarkets, also offer such jobs. Flexi-jobs provide both a partial solution to staff shortages and additional income to workers, who must prove they are at least 80% employed by another employer or retired to be able to access them. Eleven percent of such jobs are held by persons aged 65 and over. However, where they supplement an existing job, these positions do not contribute to raising the employment rate.

Several signs pointed to a labour market slowdown as from the end of the year

Despite the good performance of the labour market in 2022, it has started to feel the effects of the energy crisis. In November 2022, the number of hours of temporary work, which had been falling



since the second quarter of the year, was down 11 % year over year. Employment expectations, as measured by the Bank's business survey, also pointed to less optimism at the end of 2022 than in the first half of the year. This trend was observed in both the manufacturing industry, which suffered the most from high energy prices, and trade. In the building industry and business-related services, expectations remained positive, but less so than previously.

After falling sharply, unemployment figures also indicated that the labour market was slowing.

Due to the post-pandemic recovery, unemployment continued to fall in 2022, as it had in 2021. The harmonised unemployment rate was thus 5.6 % over the first three quarters of the year, after peaking at 6.3 % during the pandemic. Although this rate fell in all Regions, there were major disparities. In Flanders, the unemployment rate fell to 3.2 % and evolved towards frictional unemployment (i.e. unemployment due to people transitioning from one job to another) which also explains the difficulty filling vacancies. In Wallonia and the Brussels-Capital Region, the unemployment rate was nearly three to four times higher than in Flanders.

The improved unemployment figures gradually eroded, and the number of registered unemployed persons exceeded that of the previous year as from September 2022.¹ In this regard, there was a significant difference between the short- and long-term (more than one year) unemployed. During the recovery in 2021, the number of short-term unemployed fell rapidly. However, the number of long-term unemployed continued to grow and only began to fall in late 2021. At the end of 2022, this scenario was reversed as the number of long-term unemployed continued to decline, while a flood of newly unemployed workers led to an increase in short-term unemployment.

Recourse to furlough (or temporary unemployment) schemes, which took off during the COVID-19 pandemic, gradually normalised in 2022. In 2020, a hitherto unprecedented number

¹ This was partly due to an administrative change in Wallonia in January 2022, which meant that a larger number of people were considered unemployed. That being said, a similar trend was observed in the other Regions. In both Brussels and Flanders, this fall came to an end and unemployment figures were higher in November 2022 than a year ago.

Chart 4.9

The fall in the number of unemployed came to an end

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



Source: NEO.

of 1 245 000 workers were covered by such schemes, due to their expansion as well as shut-downs in various sectors. This more flexible model, which was later extended following Russia's invasion of Ukraine, came to an end in June 2022, although provision was made for transitional arrangements. As in 2021, reliance on furlough schemes abated continuously in 2022. In July and August 2022, approximately 87 000 individuals were on furlough, representing a rate slightly higher than that of the summer preceding the pandemic. In the first half of the year, certain sectors still had more furloughed staff than usual, particularly the hospitality industry, the arts sector, cultural and recreational activities and trade.

The energy crisis led to another extension of the furlough scheme, to help protect a series of jobs during the crisis, but it has been relatively little used to date. This extension, in effect from October 2022 to March 2023, does not allow for as much flexibility as during the pandemic – for example, notifications must once again be made in advance – but furloughing is more readily available for energy-intensive companies. In the final months

of 2022, approximately 20 000 workers¹ applied for the scheme every month. Thus, the total number of furloughed workers (116 000 in November) remains limited for the time being and not comparable to that of the COVID-19 period.

Given the slowdown in the Belgian economy recorded in the second half of 2022, staff shortages are expected to ease. In the third quarter of the year, the number of vacancies fell by 1.4 % and the job vacancy rate dropped from 5 % to 4.9 %. This slight decline affected all Regions and most sectors, while shortages in the manufacturing and building industries continued to worsen. Even if it were to fall further in the coming quarters, this would remain a structural problem for the Belgian economy, as explained in more detail in chapter 7.

¹ Between its introduction in October and the end of December, 69 000 workers notified their potential reliance on the scheme. However, this does not mean that all these workers will eventually use it.

4.4 Households continued to consume, to the detriment of their savings

Accelerating inflation affected real household income

Household purchasing power, measured by the change in real gross disposable income, fell in 2022. This fall was mainly attributable to the sharp rise in inflation, more specifically the energy component. In nominal terms, household gross disposable income jumped by 7.9%, the strongest increase in the last two decades. This was obviously directly related to wage increases, particularly hourly wages, which benefitted from automatic indexation, along

with an increase in the number of hours worked. Furthermore, property income continued to climb in a rising rate environment. Transfers by households, mainly consisting of taxes, increased significantly, stimulated by the good performance of the labour market in 2022 and job growth. It is also important to note that deferred tax indexing led to bracket creep and thus higher taxes on at least 0.3% of household disposable income. However, government transfers rose significantly, partly due to the various forms of aid granted to households during the energy crisis.

Table 4.2

Determinants of household gross¹ disposable income, at current prices

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

	2018	2019	2020	2021	2022 e	<i>p.m.</i> <i>In € billion</i> 2022 e
Gross primary income ²	3.3	3.2	-2.6	5.8	9.4	303.3
Gross wages ²	3.8	3.8	-2.2	6.1	10.3	207.4
Gross operating surplus and gross mixed income	2.9	2.6	-1.0	4.3	7.6	66.8
Capital income ³	0.9	0.4	-8.5	7.3	7.7	29.0
Current transfers received	3.0	3.4	12.9	0.0	7.5	126.9
Current transfers paid ²	3.3	0.9	0.5	4.5	11.5	113.0
Gross disposable income	3.2	4.1	2.2	3.8	7.9	317.2
<i>p.m. In real terms⁴</i>	1.2	2.6	1.3	1.3	-0.8	-
Savings rate ⁵	11.5	12.3	20.5	17.0	12.9	-

Sources: NAI and NBB.

1 This is disposable income before the deduction of depreciation (consumption of fixed assets).

2 Excluding social security contributions payable by employers.

3 This is the difference between income received from other sectors and that paid to other sectors.

4 Data are deflated by the household final consumption expenditure deflator.

5 In % of disposable income in the broad sense, i.e. including changes in supplementary pension entitlements further to the conduct of a professional activity.

Although automatic wage indexation helped to mitigate the impact of the energy crisis on household incomes, which were adjusted to reflect inflation, it did not offer total protection.

More specifically, there is a time lag in indexation for a large number of workers in the private sector. For one third of them, indexation only occurs in January, for example. This means that some workers only saw their salaries indexed in 2023 rather than in 2022, the year in which inflation was rising (see chapter 3 for more information). Furthermore, other types of support measures, such as discounted prices for certain goods, in particular through a reduction in the VAT rate, or specific assistance based on household income level, complement indexation and provide assistance that is potentially more direct. In the euro area, the policies introduced to protect household purchasing power were generally based on such forms of assistance, with automatic wage indexation remaining an exception.

However, the above-mentioned developments should be viewed with caution, as the macro-economic concept of purchasing power may be sensitive to national accounting methodological

specificities and the measurement of change in consumer prices. This is notably the case with the omission of running gas and electricity contracts and the inclusion of only new contracts, which led to an overestimation of energy expenditure in 2022. Consequently, for the average household, automatic indexation overcompensated for the genuine increase in expenditure (see chapter 3 for a more detailed analysis).

Households continued to consume and to invest in housing

Private consumption continued to grow in 2022.

The annual growth rate of 4.1% was largely due to the rebound observed after the second quarter. Households clearly consumed more as the winter came to a close and the remaining health-related restrictions were lifted in shops and the hospitality sector. A share of their consumption expenditure was thus not in fact possible earlier. At the same time, there was a marked decrease in household confidence. Initially, this was mainly due to the war in Ukraine. Subsequently, surging energy prices and the

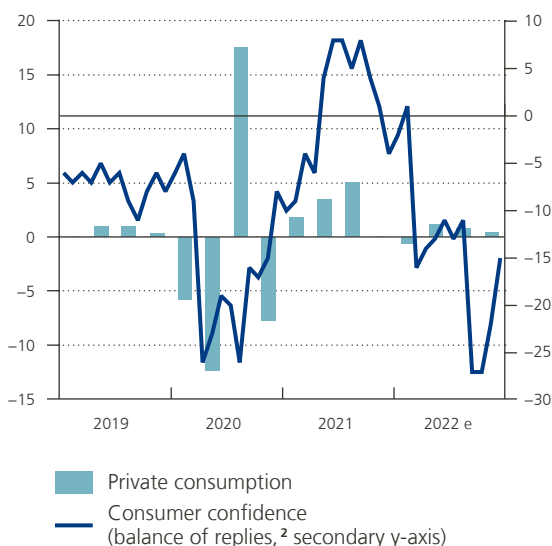


Chart 4.10

An uncertain climate gradually impacted private consumption, including that of households with the highest income levels

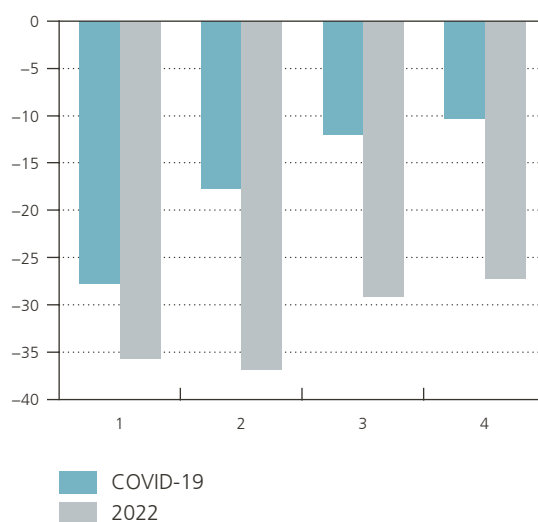
Private consumption and consumer confidence

(percentage change compared to the previous quarter, unless otherwise stated; data adjusted for seasonal and calendar effects)



Intention to make a large purchase per quintile of income¹

(average monthly confidence indicator scores,² data adjusted for seasonal and calendar effects)



Sources: EC, NAI and NBB.

1 The x-axis represents income quintiles, from the lowest (1) to the highest (4). The COVID-19 series corresponds to the average over the period 2020-2021.

2 The consumer confidence indicator reveals the balance of replies, i.e. the difference between the percentage of positive replies and the percentage of negative replies.

resulting rampant inflation led to another significant fall in consumer confidence, which nevertheless recovered towards the end of the year. It was in this uncertain environment, in October 2022, that the Bank’s confidence indicator fell to a low comparable to that recorded during the COVID-19 pandemic and growth in private consumption, although still positive, began to gradually slow. Nonetheless, private consumption proved resilient, in that the obvious deterioration in consumer confidence did not translate into a fall in consumption, as was the case during the pandemic two years earlier.

In order to offset, at least partially, the contraction in their purchasing power, households drew on their savings. The saving rate stood at 12.9% in 2022, just over four percentage points below the previous year’s level. Nevertheless, it remained somewhat higher than before 2020 and the COVID-19 pandemic, an event that prompted forced

saving. It should be noted that this forced saving was mainly by the most affluent households, which were less affected by the economic consequences of the pandemic. The European Commission’s survey data also point to a greater reticence to make large purchases by households with income below the median. Compared to the situation observed during the COVID-19 crisis, the energy crisis and high inflation had a greater effect on the consumption of high-income households.

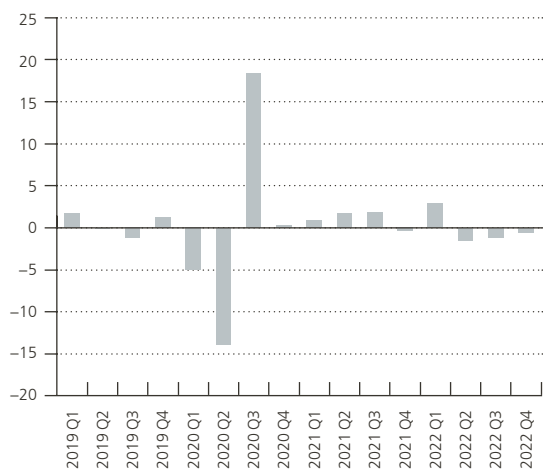
Household investment in housing was also up over the year, by 2.1%. But this growth was the result of a highly dynamic first quarter, as residential investment then declined. This development took place alongside the rise in interest rates, which gradually reduced the attractiveness of real estate. The weighted average interest rate on new mortgages increased steadily, rising from 1.5% in January to 2.7% in November 2022. In addition, an increasingly

Chart 4.11

Rising interest rates and increasing prices for building materials weighed on residential investment

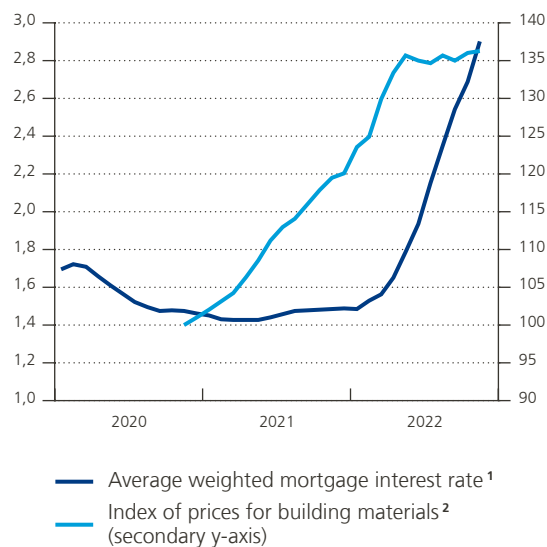
Housing investment

(percentage change compared to the previous quarter, data adjusted for seasonal and calendar effects)



Mortgage rates and construction costs

(percentage, unless otherwise stated)



Sources: Arch-Index, NAI and NBB.
 1 For new mortgages.
 2 November 2020 index = 100.

uncertain climate and resulting decline in consumer confidence most certainly dampened the appetite for bricks and mortar.

Construction costs, in particular the price of materials, climbed considerably in 2022. Having jumped by 13.5% between December 2021 and November 2022, these costs also grew faster than dwelling prices over the same period. The apparent profitability of investments in new housing or renovations, which together represent the largest share of residential investment, therefore declined.

4.5 Corporate profit margins came under pressure from soaring costs

At the macroeconomic level, corporate profit margins increased

According to the national accounts, the gross operating surplus of non-financial corporates, i.e. the income they generate through their activity, rose by 14 % in 2022. This trend was driven by higher sales volumes – in both the domestic and export markets – and a widening of gross margins.

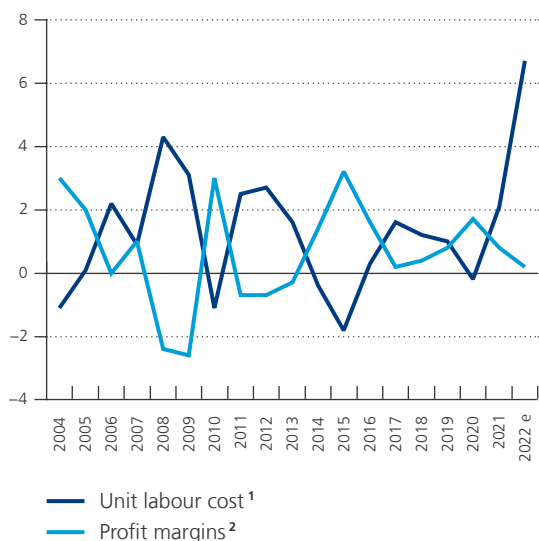
However, at the macroeconomic level, the growth in the gross operating surplus masked a worsening situation for firms over the year. Indeed, this growth was partially due to the spillover effect into 2022 of the previous year's good results.

In 2022, companies faced a substantial rise in costs. On the one hand, soaring energy prices had a direct adverse effect on corporate profits, the extent

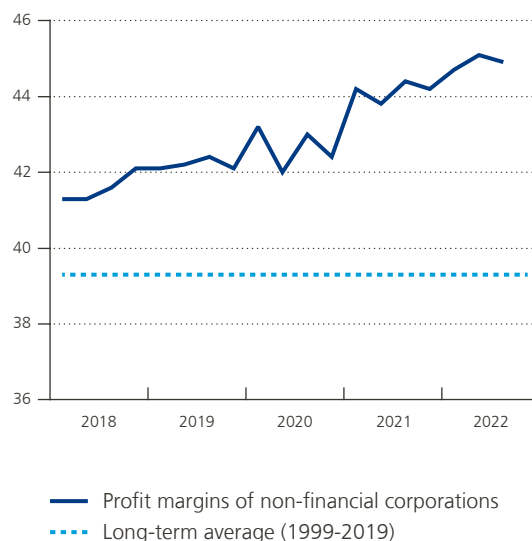
Chart 4.12

The macroeconomic profit margins of companies began to fall in 2022, after having risen for several years

Unit labour cost and profit margins
(YoY percentage change)



Profit margins of non-financial corporations
(gross operating surplus as a percentage of value added)



Sources: NAI and NBB.

1 Including reductions in contributions for target groups and wage subsidies.

2 Approach based on the difference between the growth in the GDP deflator and the unit labour cost.

of which varied depending on the energy intensity of their production processes. On the other hand, higher energy costs caused an acceleration in inflation which, due to automatic wage indexation, significantly pushed up wages. These higher costs impacted activity. Thus, according to a Bank survey published in October, the two above-mentioned factors became the main obstacles, over the course of the year, to business operations, leading to a reduction in activity in September for a third of respondents. However, it should be noted that some companies could have temporarily benefited in 2022 from the time lag inherent in the mechanism for the automatic indexation of wages, since some wages in the private sector were only indexed in January 2023.

Corporate profit margins shrink if only some cost increases can be passed through to sales prices, as was the case in the past. Historically, the macroeconomic profit margins of Belgian firms have

fallen when labour costs increased rapidly. The degree of pass-through is determined by a multitude of factors, such as market power, profitability, the change in marginal costs and the expected reaction of demand. Based on past data, it appears that companies manage to recover approximately 60 % of cost increases relatively quickly by raising their sales prices.¹ According to the latest quarterly statistics, corporate profit margins (as defined in the national accounts) reached historic highs in mid-2022. However, growing cost pressures weighed more heavily on corporate profits in the second half of the year, causing profit margins to start to fall.

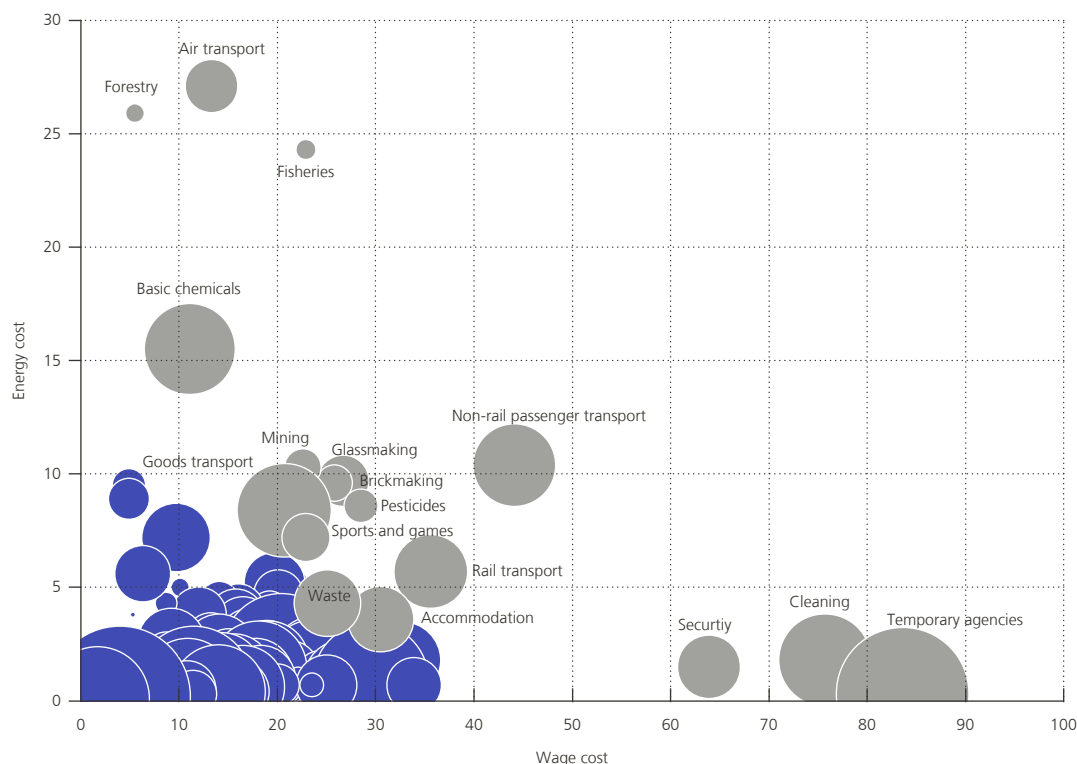
A handful of very large companies exert a preponderant influence on the trend in macroeconomic profit margins. In terms of payroll, 1 % of

¹ Bijmens, G. and C. Duprez (2022), « Les firmes et la hausse des prix énergétiques », NBB, May.

Chart 4.13

Many labour-intensive sectors are low energy-intensive and vice versa

(energy cost and wage cost as a percentage of sales revenue, 2018)



Source: NBB.

Note: The diameter of the circle reflects the relative size of the sector in terms of jobs.

the largest firms account for over half of total value added. The trend in profit margins may be influenced by composition effects, with large firms exerting a preponderant influence. Macroeconomic profit margins are therefore not necessarily representative of a typical company's.

Soaring costs affect all companies, across all sectors, but not to the same degree. The share of energy in total sales revenue differs significantly between sectors, ranging from less than 1% to over 50%. The most energy-intensive sectors mainly use oil-based energy sources, so that price rises have remained fairly limited from a historical perspective. Gas, the energy source for which price increases have been the most pronounced, is mainly used in specific

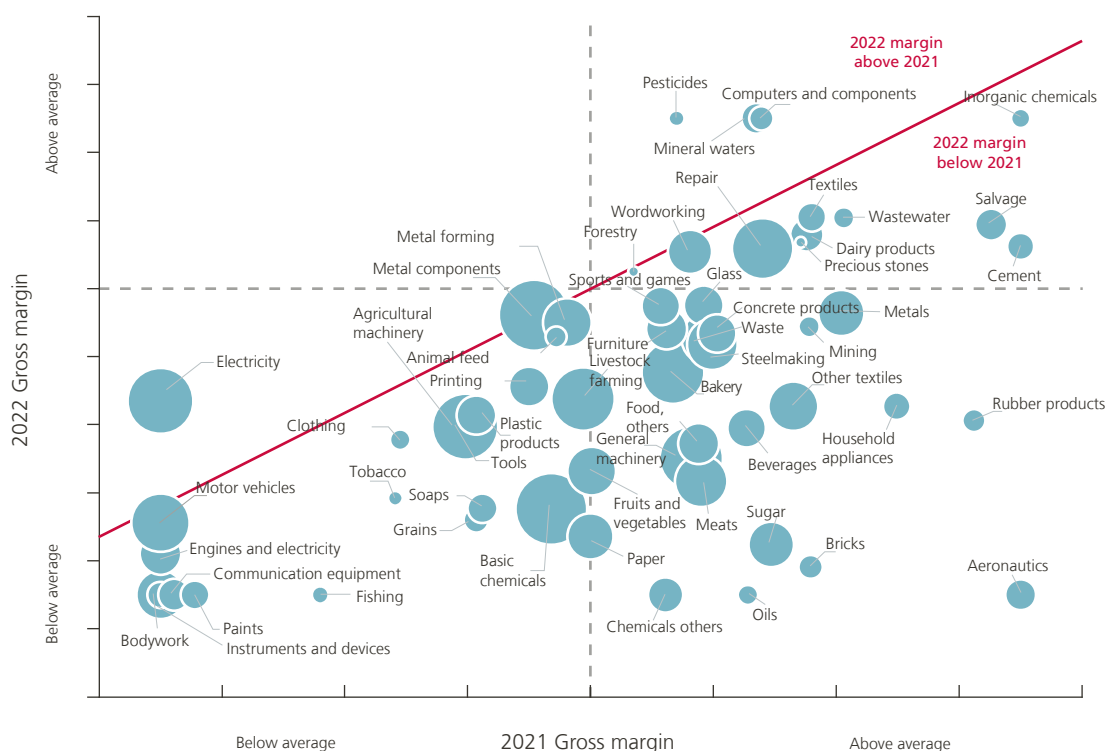
manufacturing industries, such as brickmaking, basic chemicals, pesticides, glass, steel and cement. Energy prices also influence wages through automatic indexation. Labour-intensive sectors, especially the services sector, are therefore most affected. These sectors are generally less energy intensive though. Nonetheless, some companies have suffered from the combination of rising energy and wage costs. In addition to significant differences between sectors and firms in terms of energy and labour intensity, there are obvious differences in the extent to which firms are able to pass higher costs through to sales prices.

A recent analysis of the median operating margins by sector revealed differences between companies. This analysis was based on firm-level

Chart 4.14

Most industrial sectors saw their margins tighten in 2022

(median operating margins in Q1-Q3 2021 (x-axis) and 2022 (y-axis) compared to the 2015-2019 average)



Source: NBB.

Note: The operating margin is defined as turnover less input costs and the wage bill, expressed as a percentage. The diameter of the circle reflects the relative size of the sector in terms of jobs. Industrial sectors are covered by NACE codes 1 to 39. Sectors below the diagonal line saw their margins fall from 2021 to 2022. Sectors to the right of the vertical dotted line had margins above the historical average in 2021. Those above the horizontal dotted line reported margins above the historical average in 2022.

For example, the "sugar" sector had a higher margin in 2021 than its average margin over the period 2015-2019 ("sugar" appears to the right of the vertical dotted line). In 2022, the margin in this sector fell compared to 2021 ("sugar" is below the diagonal line) and was below the average for the sector over the period 2015-2019 ("sugar" is beneath the horizontal dotted line).

Chart 4.15

Most service sectors reported a tightening of their margins in 2022, but this was less pronounced than in industrial sectors

(median operating margins in Q1-Q3 2021 (x-axis) and 2022 (y-axis) compared to the 2015-2019 average)



Source: NBB.

Note: The operating margin is defined as turnover less input costs and the wage bill, expressed as a percentage. The diameter of the circle reflects the relative size of the sector of activity in terms of jobs. Services are covered by NACE codes 41 to 82. Sectors below the diagonal line saw their margins fall in 2022 compared to 2021. Sectors to the right of the vertical dotted line had margins above the historical average in 2021. Those above the horizontal dotted line had margins above the historical average in 2022.

data which deviate from the framework used in the national accounts.¹ The use of median operating margins per sector facilitated analysis of the case of a typical company operating in a sector where margins are primarily determined by the largest firms.

In many industrial sectors, the median operating margin slumped in 2022 compared with 2021, which was a better-than-average year, although the starting point in certain sectors was not necessarily favourable. Most sectors saw their margins fall in 2022 compared with the previous year, but there were major differences in terms of the magnitude of this decline. Many sectors were able to use their relatively high 2021 profit margins to cushion the fall somewhat. Others, however, had relatively

1 Bijnens, G. and C. Duprez (2023), « Firms, prix et marges », NBB, January.

low profit margins in 2021, which further contracted in 2022. These included firms active in the chemicals (basic chemicals, paints, plastic products) and food industries (fish, cereals) as well as in traditional manufacturing sectors (motor vehicles, engines and electricity, communication equipment). That being said, a handful of sectors continued to boast historically strong margins in 2022 including some energy-intensive sectors such as cement and pesticides. This suggests that a number of energy-intensive companies were able to absorb most of the increases in their energy costs.

Median operating margins were tighter in most industries in the services sector, although the decline was less pronounced than in the manufacturing industry. In the services sector as well, increased costs had a heterogeneous impact on margins. Most retail and distribution businesses posted relatively strong results in 2021 with margins below the average for 2015-2019. A number of construction-related businesses also saw their margins shrink (slightly). Some industries that were still suffering from the COVID-19 crisis in 2021 (accommodation, tour operators, non-rail passenger transport) reported an upturn in their margins in 2022. In many knowledge-based services industries, the impact on margins was generally limited.

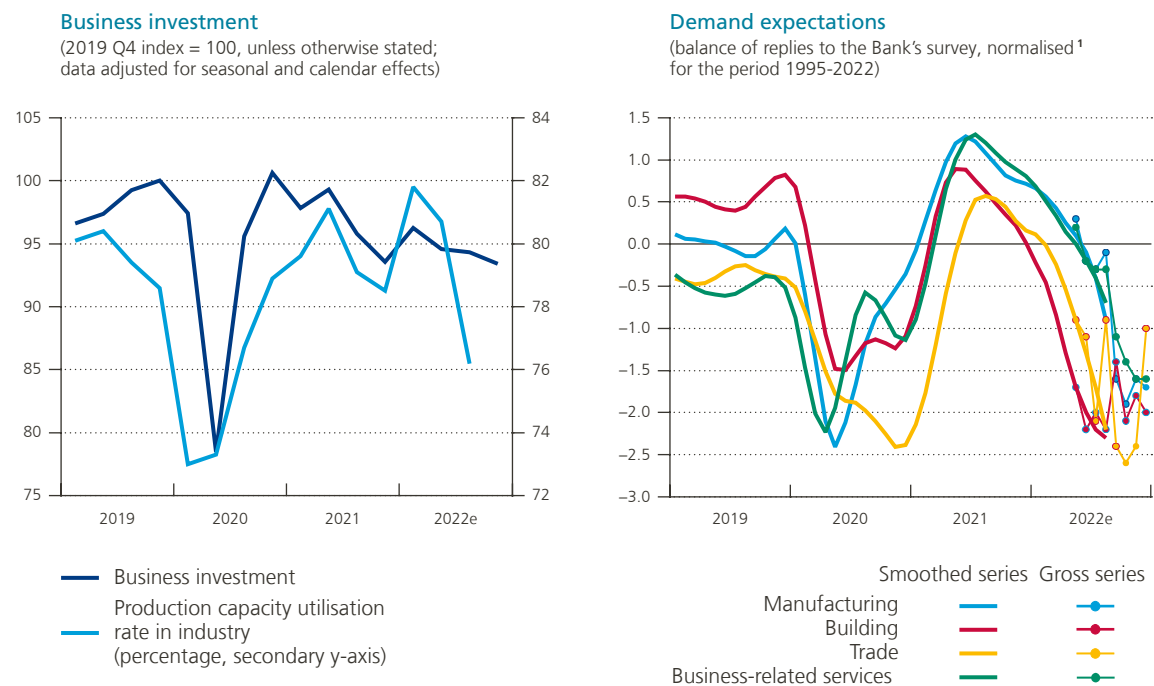
The corporate profit margins analysed here differ from final profit margins. The gross operating surplus does not correspond to final profit, as it includes a series of accounting items representing costs (depreciation, taxes, etc.). It is rather the balance available to companies to pay their financial backers (shareholders and creditors), settle their tax bills and build up reserves to finance investment. Moreover, the choice to conduct the analysis at firm level did not allow factors other than wage subsidies to be taken into account.

In this context, business investment fell by 2.1 % in 2022. This fall can be attributed not only to rising costs but also to deteriorating demand expectations in almost all business sectors, along with high uncertainty, which hardly encouraged companies to invest. It was also the result of a spillover effect, as investment had gradually declined over 2021 due to disruptions and bottlenecks in supply chains for capital goods. The temporary easing of the latter and, in particular, a few transactions related to the purchase of ships abroad, which inflated the national account statistics in the first quarter of 2022, were unable to make up for the above-mentioned factors. Furthermore, the production capacity utilisation rate in industry dropped sharply over the year, eliminating the need for expansion investments.



Chart 4.16

Business investment was affected by rising costs, growing uncertainty and bleak demand expectations



Sources: NAI and NBB.

1 All observations are reduced by the empirical average of the data and divided by their standard deviation.