



# 3. Prices and costs

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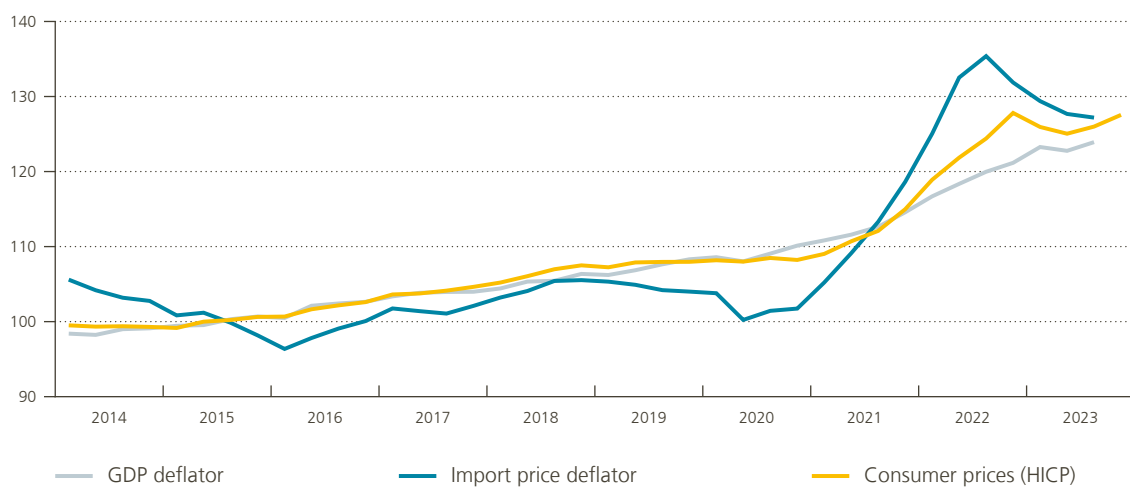
**After the enormous price shocks of 2021 and 2022, external price pressures eased in 2023, along with domestic inflationary pressures.** The price of gas on the international markets peaked at over € 300/MWh in August 2022. A year later, in August 2023, the price was around € 35, and thus still higher than before the pandemic (at which time the price was around € 10/MWh). These fluctuations were clearly reflected in the import price deflator. While the prices of imported goods and services fell, labour costs, a key contributor to domestic price pressures, rose sharply in 2023. This historic rise was due to the automatic indexation of wages, as the indexation mechanisms reacted with some delay to the 2022 surge in inflation.

The increase in domestic costs, a second-round effect of imported inflation, was partially absorbed by firms, whose unit profit growth slowed in 2022 and even fell into negative territory in 2023. Higher past profit margins helped cushion rising labour costs in 2022 and 2023. As a result, domestic cost and income inflation, as measured by the GDP deflator, eased. This combination of internal and external factors led to a sharp fall in overall consumer price inflation, which stood at 2.3% in 2023, compared with a 10.3% rise in the cost of living in 2022. However, strongly negative energy inflation, which explains the low headline figure for 2023, masked a continuing high inflation rate for services, food and non-energy industrial goods.

Figure 3.1

**Import prices fell sharply, while domestic pressures also eased**

(price index, 2015 = 100)



Source: EC.

## 3.1 Rising wage costs weighed on competitiveness

**In Belgium, wage growth is governed by a strict statutory framework.** The Act of 26 July 1996 on the promotion of employment and the preventive safeguarding of competitiveness, revised in 2017, aims primarily to prevent persistent wage drift in Belgium compared with its largest neighbours (Germany, France and the Netherlands). To do so, it sets an upper limit for collectively negotiated real wage increases, i.e. beyond the guaranteed increases resulting from indexation and the adjustment of salary scales. This limit is assessed every two years by the Central Economic Council (CEC). The CEC compares wage cost projections in the three largest neighbouring countries with indexation forecasts in Belgium, taking into account the cumulative wage premium, or gap, built up since 1996. The maximum available margin is calculated based on this figure. The legislation was revised in 2017 to compensate for forecasting errors that were causing Belgian labour costs to drift. Since then, the CEC's estimate has also included a correction factor and a safety margin of at least 0.5%. The margin determined by the CEC is then used as a basis by the social partners to negotiate the wage growth ceiling (called the "wage norm" in Belgium). If an agreement cannot be reached, the federal government sets the ceiling. Since 2011, the social partners have reached agreement only once, during the 2017-2018 negotiations.

**In addition to safeguarding the competitiveness of Belgian companies, the law also explicitly provides for the principle of wage indexation.** Wages are automatically indexed based on the health index, which reflects the national consumer price index (CPI) excluding alcoholic beverages, tobacco and fuel. The law aims to strike a balance between safeguarding business competitiveness and preserving employee purchasing

power. These two objectives are sometimes difficult to reconcile.

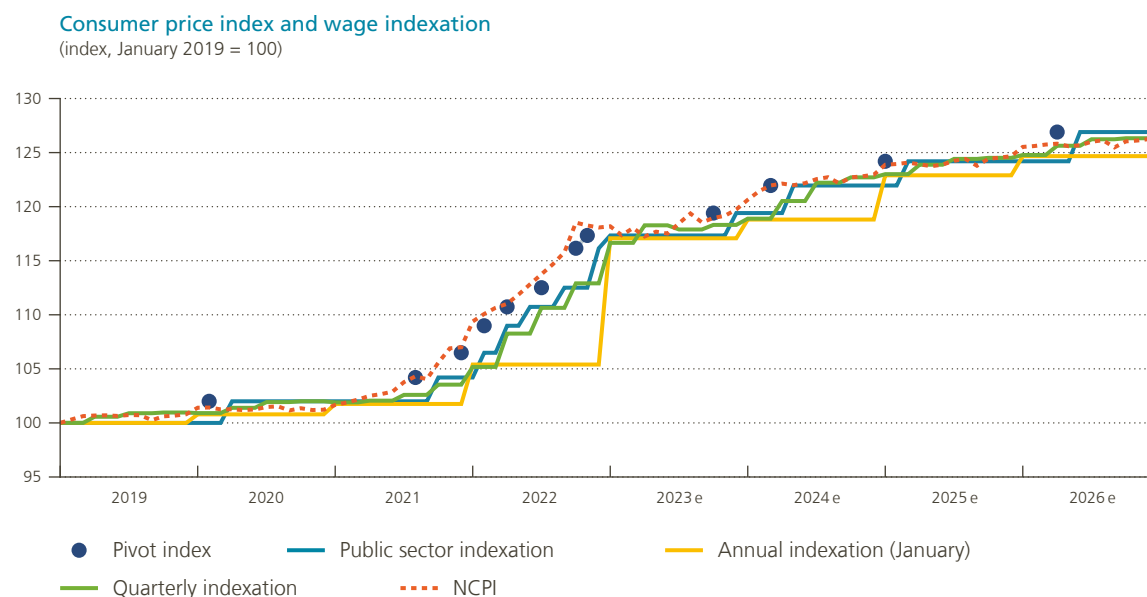
**In the current context of high imported inflation, indexation has enabled purchasing power to be protected, but has also led to a deterioration in the cost competitiveness of companies.** At the start of the energy crisis, the main concern was the preservation of purchasing power. Indeed, 2022 was characterised by an overall loss of purchasing power, which nevertheless remained limited from a macroeconomic point of view, thanks in particular to support measures adopted by the government. Nonetheless, some workers were more affected than others. One-third of private-sector employees, for example, had to wait until January 2023 to see their pay indexed (see below). The variable impact of the energy crisis on household purchasing power was described in detail in the Bank's 2022 report. The loss suffered in 2022 was offset by automatic indexation in 2023 (see chapter 4). In 2023, it was rather the cost-competitiveness of firms that came under pressure. In accordance with the Competitiveness Act, the elimination of the wage gap entails a period of wage moderation which notably depends on wage growth in neighbouring countries.

### Growth in labour costs was historically high

**Gross salaries in the private sector rose by a record 8.1% in 2023.** As in 2022, this increase was mainly due to indexation, despite the slowdown in inflation in 2023. Owing to the time lags involved in the various indexation mechanisms, a large portion of the rise in the health index in 2022 was not passed on to salaries until 2023.

Figure 3.2

### Indexation compensated employees for soaring prices more or less quickly



### Share of different indexation mechanisms in the private sector

(in %)

Indexation mechanism	% of employees <sup>1</sup>	Number of workers <sup>1</sup>
Pivot index	48.2	1 462 279
<b>Periodic indexation</b>		
Annual	40.3	1 222 182
<i>Of which: in January</i>	33.3	1 000 030
Half-yearly	2.5	74 301
Four-monthly	0.3	8 603
Quarterly	5.6	169 904
Bimonthly	1.6	47 210
Monthly	0.6	19 327

Sources: FPS Employment, Labour and Social Dialogue, Statbel, NBB.

<sup>1</sup> Employment in the private sector covered by joint committees; situation in the first quarter of 2022.

**There is no single indexation mechanism; the mechanism varies from sector to sector and from one joint committee to another.** In the private sector, around half of workers see their pay rise when the health index increases by a certain percentage, which is not necessarily the same as that applied in the public sector (2%). Others

benefit from indexation at specific points in time, e.g. annually, half-yearly, quarterly or even monthly or bimonthly. The pay of a large proportion of private sector workers (40%) is adjusted for the cost of living only once a year. For the majority of these workers, indexation takes place in January. In January 2023, just over one million employees

Table 3.1

**Labour costs in the private sector**

(data adjusted for calendar effects; annual rate of change, unless otherwise stated)

	2019	2020	2021	2022	2023 e
Hourly wage costs <sup>1</sup>	2.1	5.2	0.2	4.6	7.5
Gross hourly wages	2.3	4.8	0.7	4.8	8.1
Collectively negotiated real adjustments <sup>2</sup>	0.7	0.6	0.4	0.4	0.0
Indexation	1.8	1.0	1.1	5.4	8.0
Wage drift <sup>3</sup>	-0.2	3.0	-0.7	-0.9	0.1
Employer social security contributions <sup>4</sup>	-0.2	0.48	-0.5	-0.2	-0.6
<i>p.m. Hourly labour costs, economic definition<sup>5</sup></i>	2.0	4.3	0.1	5.0	7.6
Hourly productivity <sup>6</sup>	1.0	4.6	-1.5	-1.8	0.5
Unit labour costs	1.1	0.6	1.7	6.6	7.0

Sources: NAI, NSSO, FPS Employment, Labour & Social Dialogue, NBB.

1 As per the national accounts definition.

2 Wage increases determined by joint committees.

3 Increases and bonuses granted by employers over and above collective agreements at inter-professional and sector level; wage drift resulting from changes in the structure of employment and measurement errors; contribution to the change in labour costs, in percentage points.

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

5 Labour costs according to this definition also include reductions in social security contributions for target groups and wage subsidies, meaning it better reflects the real cost of labour for employers.

6 Real value added per hour worked for employees and self-employed workers.

saw their pay jump by 12%. In the civil service, salaries are indexed when the smoothed health index crosses the pivot index (which corresponds to growth of 2%); this occurred no fewer than five times in 2022, meaning public sector wages closely followed the health index. In 2023, the pivot index was exceeded only once (in October).

**No room for real wage growth**

**There was no possibility to grant collectively negotiated real wage increases in 2023-2024.**

For the 2023-2024 negotiation period, the upper limit set by the CEC for collectively negotiated real wage increases based on the rise in wage costs in neighbouring countries and inflation in Belgium was zero, as wage costs had risen faster in Belgium than in those countries since the price surge began in 2022. In the absence of an agreement between the social partners on this issue, the wage growth ceiling was set by the federal government at zero for this period.

**To make up for this lack of leeway, the government decided to offer a purchasing power bonus.**

As part of the 2023-2024 wage negotiations, the government allowed companies that performed well during the energy crisis to offer a purchasing power bonus of up to € 750 per employee. This bonus, which benefits from advantageous tax and social security treatment, explicitly falls outside the scope of the Competitiveness Act. In other words, it is not taken into consideration when determining the wage growth ceiling; it is, however, taken into account to calculate wage drift. Thanks to this bonus in particular, wage drift is expected to turn positive again in 2023, after two years of negative contribution to overall wage growth. In 2021 and 2022, strong creation of low-paid jobs (flexi-jobs and student jobs) reduced wage drift. The gradual ending of furlough schemes in 2021 and 2022, which mainly concerned low-paid jobs, also contributed to this. On a more general level, structural trends affecting the composition of the workforce, such as an increase in the level of employee education and age, are reinforcing wage drift, with highly educated and

older employees being paid relatively more than the average wage.

**The government also granted a reduction in employer social security contributions to soften the blow of soaring labour and input costs.** An exceptional 7.07% reduction in employer social security contributions was agreed by the federal government for the first two quarters of 2023. However, the impact of this measure on the rise in labour costs borne by firms was modest compared with that of indexation.

**Slightly positive productivity growth in 2023 did little to mitigate the sharp rise in unit labour costs.** An increase in labour costs is not necessarily detrimental to competitiveness, as long as it is accompanied by an equivalent increase in productivity. Although labour productivity posted slightly positive growth in 2023, this uptick followed two years of marked decline, which contributed to a sharp rise in unit labour costs in the private sector.

### Automatic wage indexation caused the wage gap to reappear

**Wages have risen faster in Belgium than in neighbouring countries, which has affected**

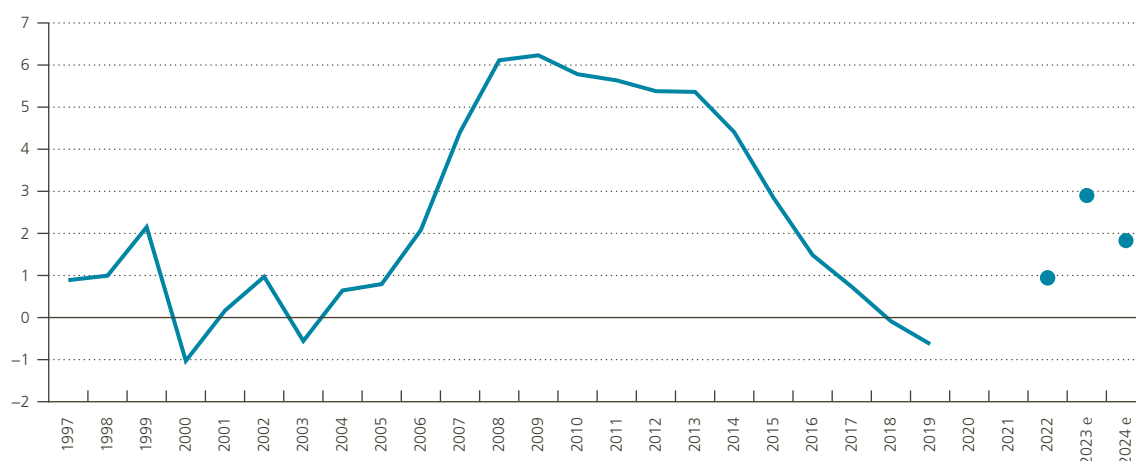
**competitiveness.** While the purchasing power of Belgian workers was protected during the inflationary surge of 2022, firms (and in part the government) bore the brunt. Their costs have soared, eroding profit margins (see below) and their competitive position. The extent of this deterioration depends on the firm's degree of exposure to external demand. Indeed, starting in 2022, the very sharp rise in inflation caused a divergence in the wage growth borne by employers in Belgium and in neighbouring countries, where wage increases are negotiated and take longer to take effect.

As a result, a wage gap has reappeared. In 2019, the wage gap built up between Belgium and its three main trading partners since 1996 was reabsorbed. In its February 2024 report, the CEC estimated that the cumulative wage gap would reach 1.8% by 2024. However, this is a far cry from the 2022 assessment of 5.7%, which came close to the record levels seen in 2007-2008. This substantial improvement was closely linked to the faster-than-expected fall in energy prices, which caused wage indexation to be lower than expected. It also illustrates the uncertainty surrounding estimates of the wage gap (or premium), which are based on both revised statistics and projected labour costs in Belgium and neighbouring countries.

Figure 3.3

#### Belgium's wage gap has widened since 2022

(gap<sup>1</sup> built up since 1996 in the private sector, percentage)



Source: CEC.

1 Compared with its three largest neighbours (Germany, France and the Netherlands); weighted averages based on the relative size of the respective country's GDP. The CEC did not publish information on the wage gap for 2020 and 2021.



## Limited possibilities for differentiation at firm level

**The lack of margin for collectively negotiated real wage growth limits the possibilities for differentiation at firm level.** In principle, the maximum margin available for real wage growth can be allocated differently from sector to sector. Sectors that are performing well can opt to apply the maximum, while those that are experiencing more difficulty can decide to use only a portion of it. In the current context, however, since the margin has been set at zero and collectively negotiated negative adjustments are impossible, this possibility of differentiation is severely limited. The best-performing sectors cannot grant collectively negotiated real wage increases. Likewise, this rigidity works to the disadvantage of struggling firms, which cannot introduce a reduction in collectively negotiated real wages, apart from those in the process of negotiating a restructuring plan.

**There is, however, some flexibility for firms to differ when it comes to increasing wages, which can be achieved via a range of benefits in kind that fall outside the scope of the legislation.** Specifically, the following forms of remuneration are not covered by the wage growth ceiling: profit shares, payments in cash or shares or employee stock option plans, contributions to supplementary pension

schemes, one-off innovation bonuses, consumption vouchers and purchasing power premiums (the most recently introduced). Although not expressly provided for in the amended Competitiveness Act, the bonus that may be granted to employees under Collective Bargaining Agreement No 90 (non-recurring performance-related benefits) does not fall under the scope of the wage growth ceiling either. Such a bonus depends on the achievement of a target set in a company-level collective bargaining agreement (CBA) and is exempt from personal income tax, provided it remains below the cap (set at € 3 434 gross for 2022). Despite its binding nature, the wage growth ceiling does not, therefore, completely prevent additional financial benefits from being negotiated at sector or company level.

**There is an opt-out for companies in difficulty, but it is a complex and burdensome procedure.** The system as it is currently designed leaves little room for struggling firms to adjust wages to the specifics of their situation, for example based on their exposure to the energy price shock or the share of personnel costs in their cost structure. Under these circumstances, an opt-out clause can be used if one has been provided for in sector-level collective bargaining agreements. Such a clause makes it possible to stipulate certain conditions which, if fulfilled, authorise the employer not to apply the CBA (in whole or in part) in order to protect employment.

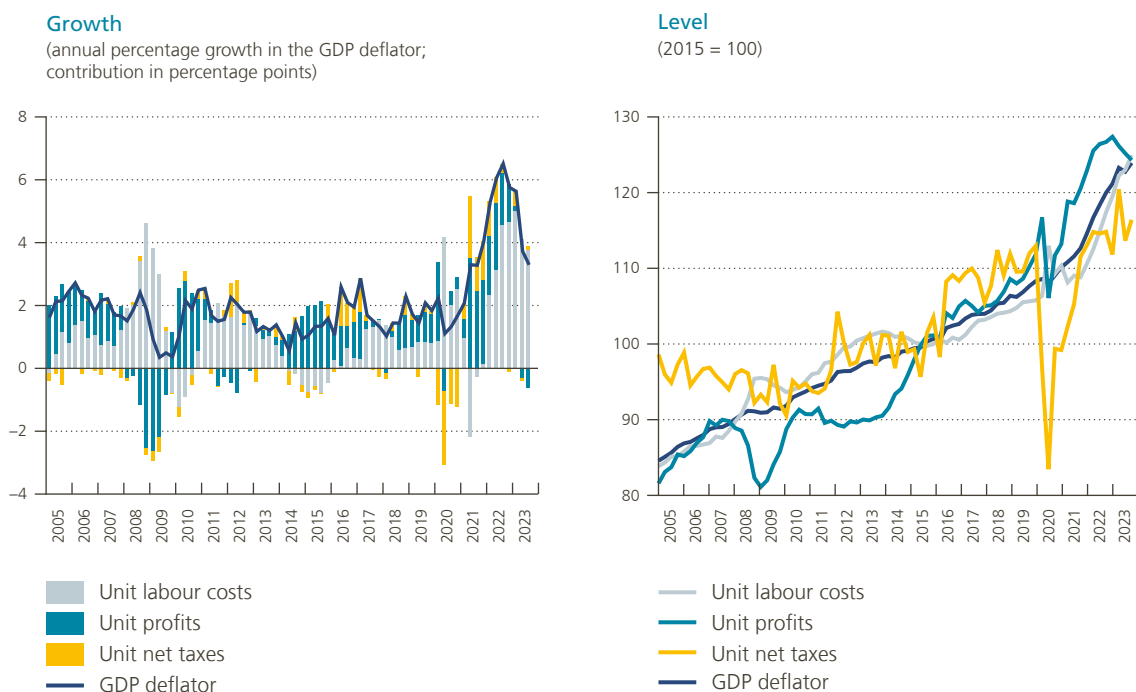
## 3.2 Rising labour costs exerted domestic pressure on prices, which was partially absorbed by corporate profit margins

**Rising unit labour costs were the source of the vigorous domestic inflation seen in 2023.** This was clearly reflected in the change in the GDP deflator, an indicator of purely domestic price pressures since it is not directly influenced by changes in foreign prices. Domestic inflation began to speed up in 2021 and continued to climb until the third quarter

of 2022. The rise was initially driven by higher unit profits and net taxes (due to the gradual ending of support measures related to Covid-19). By 2022, the contribution of unit profits had declined, while that of labour costs had increased. Annual growth in the GDP deflator slowed from the fourth quarter of 2022 onwards, despite increased pressure from wages.

Figure 3.4

### Domestic inflation fell but remained high



Source: EC.

Note: Unit profits are defined as the sum of gross operating surplus and mixed income, divided by real GDP. Mixed income is adjusted for the labour costs of the self-employed.



Unit labour cost growth peaked in the first quarter of 2023, as indexation mechanisms responded with some delay to the cost shock for a third of private sector employees (see section 3.1). It then eased, but remained high.

**In Belgium, the rise in costs was partially offset by weaker growth in unit profits from mid-2022, which curbed domestic inflation.** In addition to labour and input costs, profits also play a decisive role in price and inflation trends. They can either contribute to price rises or act as a buffer against rising costs. Belgian firms passed on their higher costs to customers to a lesser degree in 2022 and 2023 than in 2021. In the past, profit margins have often been used to cushion higher costs. For example, unit profits declined sharply after the oil price surge in 2007-2008 and following the shock to labour costs during the Global Recession of 2008-2009, when production slowed but firms did not shed workers.

**Between 2014 and 2021, Belgian firms built up profit margins that enabled them to absorb the rise in costs in 2022 and 2023.** A study by De Keyser et al. (2023),<sup>1</sup> analysing profit margins over a longer period, shows that the corporate profit share increased significantly between 2014 and 2021. This share, also known as the margin rate, is defined as gross operating surplus divided by value added,

i.e. the proportion of domestic income devoted to the capital factor of production (see also Box 2). The fact that labour costs rose less rapidly than productivity, thanks in particular to a series of wage moderation measures adopted in 2014-2015, partly explains this trend. In 2023, these profit margins acted as a shock absorber, especially as unit profits in the total economy had continued to rise during the post-Covid-19 recovery (see Figure 3.4, right-hand graph), and therefore rather served to amplify inflation. There are a number of reasons why firms were able to set their own prices: dynamic demand for goods and services due, among other things, to the effects of the reopening and the savings accumulated during the pandemic; numerous government support measures; and a general inflationary environment that made price rises more acceptable, etc.

**While firms generally absorbed the shocks well, this was not necessarily the case for each individual company.** In particular, aggregate data provide a picture only of the economy as a whole. A study based on microdata (Bijnens and Duprez, 2023),<sup>2</sup> analysing information supplied by individual firms, suggests that caution should be exercised: macro-economic profit margins are largely influenced by large firms (or “top performers”), meaning the figures are not necessarily representative of medium-sized or smaller businesses.

<sup>1</sup> See T. De Keyser, G. Langenus and L. Walravens (2023), “Inflation and the evolution of corporate profit margins | nbb.be”, NBB, *Economic Review*.

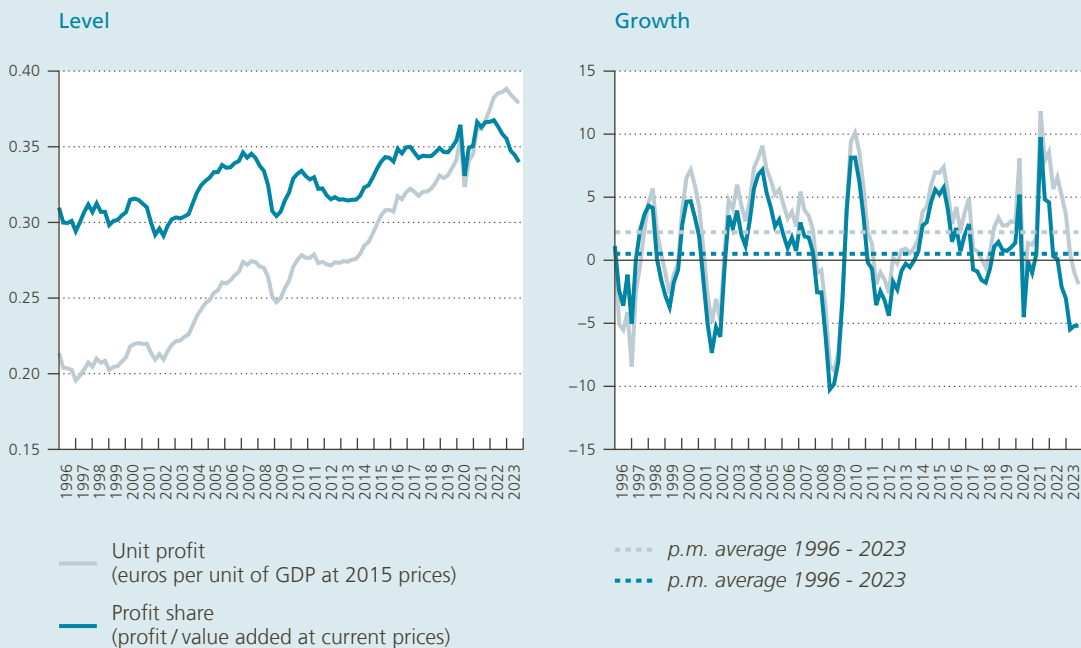
<sup>2</sup> See G. Bijnens and C. Duprez (2023), *Firms, prices and margins*, NBB.

## Cost price increases and different definitions of profit margin

The concept of profit margin or profit can be defined in several ways. Thus, a distinction should be drawn between macroeconomic and firm-related indicators. The former are taken from the national accounts. Gross operating surplus, i.e. value added less the cost of labour and net taxes on production and imports, represents the portion of income derived from the capital factor of production. Since it also includes company tax and the depreciation of investments, this macroeconomic concept is far removed from that of profit at firm level. Firms often define their sales price by adding a percentage, called a mark-up or profit margin, to their cost price.

A further distinction can be drawn between nominal and percentage indicators. Nominal indicators move in line with the general price level in the economy and as such reveal a trend. The same is not true of percentage indicators. The microeconomic profit margin is typically a percentage indicator. Indeed, as a fraction of two nominal variables (sales price and cost), the profit margin does not necessarily follow a trend. The macroeconomic profit share, sometimes also called the

### The concept of profit in the national accounts: profit share and unit profit



Source: NAI.

Profit corresponds to gross operating surplus and mixed income adjusted for the salary component of self-employed workers.



margin rate, is also a percentage indicator. Since it is obtained by dividing profit<sup>1</sup> by nominal value added (both at current prices), it provides an indication of the distribution within the economy of value added between capital (profits) and labour (wages). Its counterpart is the wage share (obtained by dividing wages by value added). The macroeconomic concept of unit profit, on the other hand, is a nominal indicator obtained by dividing profit at current prices by real GDP. Together with the change in unit labour costs and that of net taxes on production and imports, this indicator determines domestic price growth in the economy (the GDP deflator).

**Since 2022, the share of profits in the total economy has been declining, while unit profits have been posting positive growth for a longer period.** The decoupling of these two indicators can be explained by the combination of high inflation and surging wage costs: the nominal indicator continues to grow while a greater proportion of value added is devoted to (significantly higher) wages. Value added (the profit share denominator) has risen sharply as a result of higher prices, leading to a contraction in the profit share, while unit profits have continued to climb.

**Cost increases do not affect profit in the same way, depending on how this concept is defined.**

An example involving rising input costs can help illustrate this point. In the starting situation (T0), a firm produces at a unit cost of € 120 (€ 60 of input costs and € 60 of labour costs). The firm determines its sales price by adding a percentage (20%) to its total cost. In the next period (T1), input costs rise by € 40. In the first scenario, the firm continues to systematically set the sales price by applying the same 20% mark-up: the sales price rises by € 48, i.e. more than the rise in costs. The increase in costs has thus been reinforced. Despite a constant margin, unit profits rise. The share of profits in the economy also increases. In the second scenario, the firm applies the same unit profits but passes on to the sales price only the € 40 increase in costs. In this case, the profit margin falls to 15% and the share of profits in the economy remains unchanged. The rise in imported costs has no effect on domestic variables. Finally, in the third scenario, the margin narrows more markedly. The higher costs are not passed on in full to the sales price (+€ 32). The firm still makes a profit, but unit profits fall as does the profit share. In this scenario, the profit margin acts as a buffer to partially absorb the higher costs.

**This example shows that an increase in unit profits, which contributes to domestic inflationary pressures, can go hand in hand with unchanged pricing behaviour by firms, which seek to maintain a constant margin when faced with an increase in costs. In 2021, unit profits and**

<sup>1</sup> Profit is obtained here by approximation, by adding gross operating surplus and mixed income adjusted for the salary component of self-employed workers.



## Response of firm profit margin indicators to an increase in costs

(in units, unless otherwise stated)

	T0	T1		T1		T1	
	Initial period	Scenario 1: fixed margin	Difference compared with T0	Scenario 2: constant profit/unit	Difference compared with T0	Scenario 3: fall in profit/unit	Difference compared with T0
<b>Margin on total costs</b>	20 %	20 %	0.0 %	15 %	-25.0 %	10 %	-50.0 %
Number of units	100	100		100		100	
Unit input cost	60	(€ +40) 100	66.7 %	(€ +40) 100	66.7 %	(€ +40) 100	66.7 %
Unit labour cost	60	60	0.0 %	60	0.0 %	60	0.0 %
Total cost per unit	120	160	33.3 %	160	33.3 %	160	33.3 %
Sales price	144	(€ +48) 192	33.3 %	(€ +40) 184	27.8 %	(€ +32) 176	22.2 %
<b>Unit profit</b>	24	32	33.3 %	24	0.0 %	16	-33.3 %
Turnover	14 400	19 200	33.3 %	18 400	27.8 %	17 600	22.2 %
Profit (= turnover – total costs)	2 400	3 200	33.3 %	2 400	0.0 %	1 600	-33.3 %
Value added (= turnover – input costs)	8 400	9 200	9.5 %	8 400	0.0 %	7 600	-9.5 %
<b>Profit share (= profits ÷ value added)</b>	28.6 %	34.8 %	21.7 %	28.6 %	0.0 %	21.1 %	-26.3 %

Source: E. Hahn (2023), "How have unit profits contributed to the recent strengthening of euro area domestic price pressures?", table A, ECB, *Economic Bulletin*, Issue 4/2023.

**the share of profits in the economy increased, consistent with pricing based on constant or increasing margins.** In 2022, although unit profits rose, they accounted for a lower share of GDP deflator growth, as wages had risen sharply and become a more consequential component and these higher wage costs had not been fully passed on to sales prices. That year, according to a study based on microdata (Bijnens et al., 2023)<sup>1</sup> profit margins, as per the firm-related definition, fell in almost all sectors. The contraction in unit profits and in the profit share observed in 2023 indicates that firms continued to trim their margins.

1 G. Bijnens, C. Duprez and J. Jonckheere (2023), "Are price hikes in Belgium being driven by greed?", NBB blog, 26 June.

### 3.3 Significant fall in headline inflation despite higher core inflation on average in 2023

**While headline inflation fell sharply from 10.3 % in 2022 to an average of 2.3 % in 2023, core inflation continued to rise until May 2023.** Headline inflation is measured by the change in the consumer price index. The harmonised index of consumer prices (HICP) is used to compare inflation between European Union member states. Core inflation excludes certain volatile components of the index, such as food and energy. It is therefore defined as the change in prices of non-energy industrial goods (NEIG) and services. On average, core inflation was 6.0 %, compared with 4.0 % in 2022. This shows that it is mainly domestic factors that are continuing to push prices up; this rate is well above the average of 1.5 % recorded

between 1997 and 2019. Figure 3.5 shows the relationship between headline inflation, core inflation and wage indexation in the private sector. The latter<sup>1</sup> is an index weighted according to various indexation mechanisms, which differ from one joint committee to another. The rise in headline inflation is passed on to wages through the health index.<sup>2</sup> These wage increases are in turn partly passed on to sales prices, which are mainly reflected in core inflation. External

1 This index is based on the FPS Employment, Labour & Social Dialogue's collectively negotiated wage index.

2 The national consumer price index (NCPI) excluding alcoholic beverages, fuel and tobacco.

**Table 3.2**

#### Inflation by component in Belgium

(annual rate of change in the HICP)

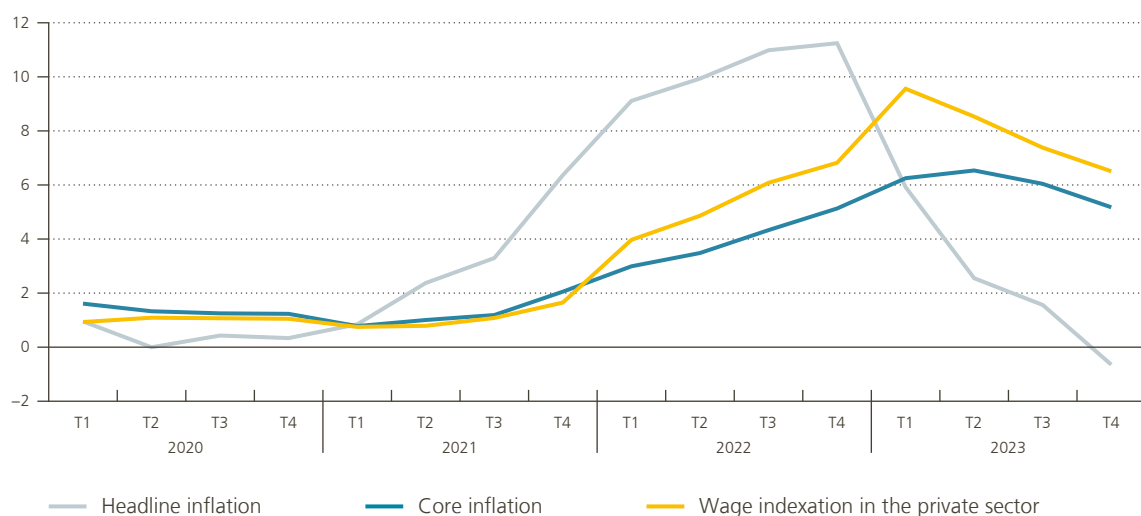
	2020	2021	2022	2023	Average for three neighbouring countries
<b>Total (HICP)</b>	0.4	3.2	10.3	2.3	5.7
Energy	-11.0	22.4	57.9	-28.4	2.2
Food	2.6	0.9	8.3	12.7	11.5
<b>Core inflation</b>	1.4	1.3	4.0	6.0	4.8
Services	1.8	1.6	3.8	6.3	4.6
Non-energy industrial goods	0.7	0.8	4.2	5.4	5.1
<i>p.m. Total HICP excluding government measures</i>	0.4	3.3	12.1	3.5	-
<i>p.m. National consumer price index (NCPI)</i>	0.7	2.4	9.6	4.0	-
<i>Health index</i>	1.0	2.0	9.3	4.3	-

Sources: Eurostat, Statbel, own calculations.

Figure 3.5

### Headline and core inflation (HICP) and wage indexation in the private sector

(annual rate of change)



Sources: Eurostat, Statbel.

factors such as rising prices for imports and raw materials, as well as supply chain problems, which contributed to the initial rise in NEIG prices, have faded since mid-2022. Inflation in these goods thus peaked in the first quarter of 2023.

**Wage pressures weighed more heavily on final prices for services and, to a lesser extent, non-energy industrial goods due to the labour-intensity of their production.** In addition, the prices of many services, such as public transport tickets, certain insurance contracts, telecommunications contracts, and rents, are indexed. As these prices are directly tied to past inflation, they contribute to a certain persistence of inflation. In order to protect tenants from the high costs associated with energy-inefficient dwellings, a rent indexation freeze for properties with a low EPC (energy performance certificate) rating was introduced on 1 October 2022 for Flanders, 14 October 2022 for Brussels and 1 November 2022 for Wallonia. Rent could be indexed in full only for properties with an EPC rating of A, B or C (or D for Brussels), while rent indexation for other properties was capped at 75%, 50% or zero, depending on the EPC rating and the region. Exactly one year after the indexation freeze, the owners of these properties were once again allowed to index rent, but with a correction factor to avoid a catch-up effect. Although

the return of rent indexation was effectively reflected in the price index, it did not halt the decline in services inflation, which began trending downwards in September 2023.

**Core inflation remained high on average in 2023, mainly due to the sharp increases seen in January 2023. Price pressures eased significantly throughout the year.** Inflation is measured year-on-year and corresponds to the percentage increase in the consumer price index for the current month compared with the same month a year earlier. It is in fact equivalent to the average of the annualised monthly inflation rates over the past year (for more information, see Wauters, 2023).<sup>1</sup> This means that figures from a year ago carry the same weight as those for the current month. It may therefore make sense to look at monthly growth in the price index to isolate recent trends. In general, monthly core inflation rates trended downwards in 2023. For example, average month-on-month core inflation growth was 0.3% in the fourth quarter of 2023, corresponding to an annual rate of 3.7%. This is lower than official year-on-year core inflation, which stood at 5.1% in the fourth quarter of 2023. In the fourth quarter

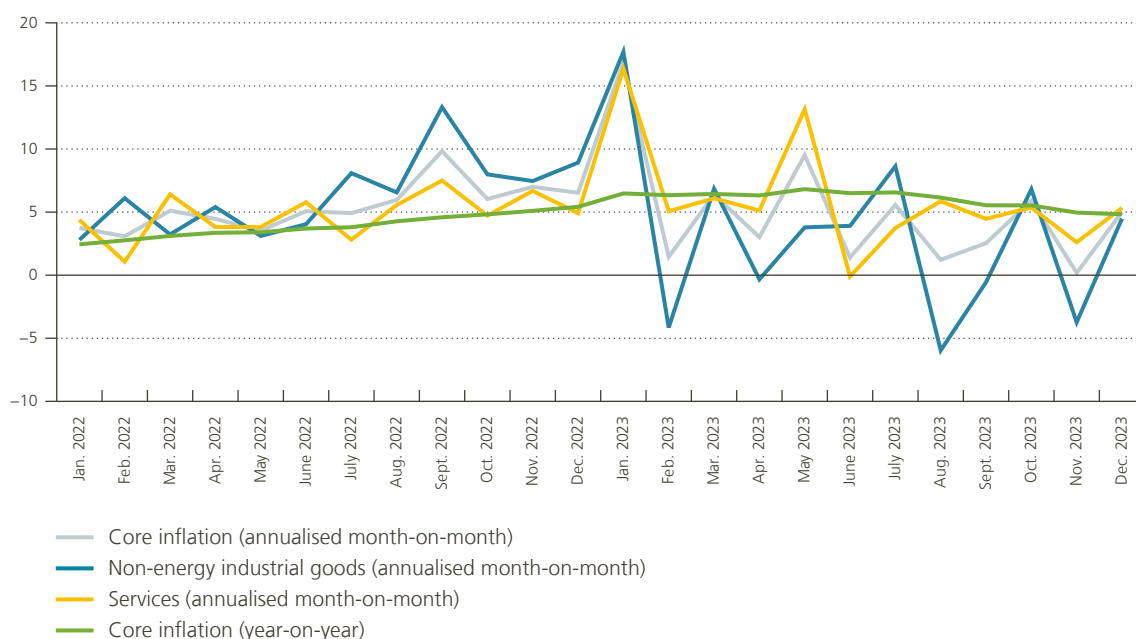
<sup>1</sup> See J. Wauters (2023), "The perils of tracking year-on-year inflation", NBB blog, 21 April.



Figure 3.6

Core inflation and its components: year-on-year versus month-on-month

(percentage)



Sources: Eurostat, NBB (own calculations).

Notes: These indices are seasonally adjusted and the effect of sales is neutralised. Neutralisation is not complete, however, as the sales vary from year to year.

Month-on-month observations have been annualised to facilitate comparison with year-on-year observations.

of 2022, average month-on-month growth was still 0.5%, thus just under double. This suggests that the persistent price-wage spiral is weakening.

**Food inflation continued to rise in 2023, reaching 12.7%.** Prices in supermarkets shift in line with negotiations between distributors and producers, during which these parties set prices for a predefined period. Thus, an increase in supplier costs is passed on to consumers with a delay. Although international food commodity prices have come down significantly since mid-2022, past rises duly continued to push final food prices up in 2023. In addition to these indirect effects, wage indexation also caused second-round effects in recent years. These various factors kept year-on-year increases in consumer food prices at a high level in 2023. As was the case with core inflation, monthly price pressures mainly peaked at the beginning of the year, before dampening. Furthermore, 2022 was characterised by periods of intense heat and drought, while 2023 was marked by a combination of long periods of heavy rainfall and drought. Such extreme

weather events disrupt agricultural production and increase production costs, which has a direct effect on prices. An ECB study (2023)<sup>1</sup> revealed that heat waves in the summer of 2022 pushed up food inflation in the euro area by a total of 0.8 percentage points after one year. Continued climate disruption could lead to higher and more volatile food prices while putting global food security under pressure.

**While core inflation and food inflation rose on average in 2023 compared with the previous year, energy inflation fell significantly, causing headline inflation to fall.** Gas and electricity prices continued the sharp decline begun in mid-2022. The price of a barrel of Brent crude also fell during this period, before rebounding temporarily between July and September 2023. Despite this new rise, linked to a cut in production by oil exporters such as

<sup>1</sup> See M. Kotz, F. Kuik, E. Lis and C. Nickel (2023), *The impact of global warming on inflation: averages, seasonality and extremes*, ECB Working Paper Series No 2821.



Russia and Saudi Arabia, the price of Brent crude is still below the peak it reached in June 2022. On average, in 2023, it was around 20 % lower than in 2022. Wholesale gas prices dropped by 67 % in 2023 compared with their 2022 levels. Overall, energy inflation fell from 57.9 % in 2022 to –28.4 % in 2023.

**Energy inflation was strongly affected by the measures taken by the government to lower household energy bills. On average, the impact of these measures is estimated to have reduced headline inflation by 1.2 percentage points in 2023.**<sup>1</sup> Such measures, which are by definition temporary, initially help to reduce inflation but lead to a rise in prices when they come to an end. This average of 1.2 percentage points is therefore the result of a combination of effects, both positive and negative. The end of the extension of the social tariff, in July 2023,<sup>2</sup> and of excise duty reductions on fuel prices, in April 2023,<sup>3</sup> pushed up inflation. In addition, the decision was taken not to restore the VAT rates on electricity and gas, which had been lowered to 6 % in March and April 2022, respectively. To make up for this, a special excise duty was introduced in April 2023. The new system offers more flexibility to stabilise prices, as the government can

intervene immediately by adjusting the excise duty, whereas changing the VAT rate is more complicated. This new excise duty has exerted upward pressure on inflation. The manner in which energy credits, such as the “heating credit” or the “basic energy package”, are taken into account in the calculation of the price index also impacts inflation. More specifically, each credit is spread over a twelve-month period, so, for example, the “heating credit” of € 100 was spread over the HICP from April 2022 to March 2023. From April 2023, the index therefore started to climb automatically. In total, the ending of these measures caused headline inflation to rise by around 0.6 percentage points in 2023. On the other hand, the “basic energy package”, consisting of a monthly credit of € 135 for gas and € 61 for electricity for the winter months, i.e. from November 2022 to March 2023,<sup>4</sup> had the effect of reducing headline inflation by around 1.8 percentage points in 2023 compared with what it would have been without this measure. As mentioned above, each monthly transfer is in fact spread over twelve months, meaning the “basic energy package” is spread over the consumer price index until February 2024. More specifically, as the index only started to gradually increase in December 2023, the upward pressure will mainly be felt in 2024.

1 Own calculation of the impact of government measures.

2 The social tariff is defined by the FPS Economy as an advantageous tariff for electricity and natural gas. It is identical throughout Belgium, regardless of the energy supplier or network operator. Quarterly price increases are regulated and limited. In February 2021, this tariff was extended to approximately one million households, whereas previously only around 500 000 were eligible.

3 By the end of March 2022, the excise duty on diesel and petrol had been reduced by € 0.175 per litre. Since September 2022, however, the excise duty on petrol has been gradually ratcheted up, as prices have fallen back below the previously defined threshold of € 1.7 per litre. Similarly, the excise duty on diesel was gradually raised between February and April 2023.

4 However, the basic energy package was not available to everyone: for households with income above a certain level (around 20 %), a portion of this reduction was recovered through their tax return. Similarly, households who had taken out a fixed-price energy contract before October 2021 and those that were entitled to the social tariff did not qualify for this measure. It was therefore partially targeted. The ceiling corresponded to net taxable income of € 62 000 a year for a single person and € 125 000 for a couple. These amounts were increased by € 3 700 per dependent.

**According to official statistics, inflation fell from 10.3% in 2022 to 2.3% in 2023, but the real price rises felt by households on average in 2022 were less pronounced than inflation rates would suggest.** The consumer price index measures changes in the prices of goods and services purchased during the current month. In the case of gas and electricity, only new contracts taken out during the current month are therefore taken into account. In other words, the prices actually paid by consumers under fixed-rate contracts concluded in the past are not included in the current month's consumer price index. This means that growth in real household expenditure is overestimated in the event of a spike in energy prices, as was the case in 2022. A study by Peersman et al. (2023),<sup>1</sup> examining the banking data of around 930 000 households, revealed that headline inflation might have been overestimated by 2.8 percentage points on average in 2022. Nearly half of households paid less for their energy consumption in 2022 than in 2021. Conversely, when prices fall sharply, the methodology used may underestimate inflation. This means that the consumer price index might have slightly overestimated the actual fall in household energy prices in 2023. However, the impact is less than in the case of a price rise as, in the event of a fall in prices, consumers who had concluded a higher fixed-price contract in the past will be inclined to change their contract in order to benefit from the more favourable conditions. Moreover, the share of fixed-price contracts has fallen drastically, with almost none available to consumers in 2022, when prices were high and volatile. As a result, in 2023, few households were still bound by a contract deemed "too expensive".

**The national consumer price index (NCPI) is less volatile than the HICP.** In fact, inflation remained higher in 2023 as measured by the NCPI (4.0%) than as measured by the HICP (2.3%). In 2022, the NCPI inflation rate was 9.6%, thus lower than the 10.3% recorded by the HICP. This more moderate trend can largely be explained by methodological differences. On the one hand, the weighting scheme for the two indices is not the same, as the HICP is based mainly on the national accounts whereas the NCPI is derived primarily from the household budget survey.

For example, highly volatile components, such as motor fuels, gas and electricity, are weighted more heavily in the HICP than in the NCPI. HICP movements are therefore more pronounced than those of the NCPI. On the other hand, in the case of heating oil, the HICP takes into account the current month's prices, whereas in the NCPI, this component is based on a weighted average of tariffs over the last twelve months, which is more reflective of the annual bills effectively paid by consumers. Heating oil is therefore a more volatile component in the HICP than in the NCPI. Given the fall in oil prices in 2023, energy inflation is lower according to the HICP than as measured by the NCPI.

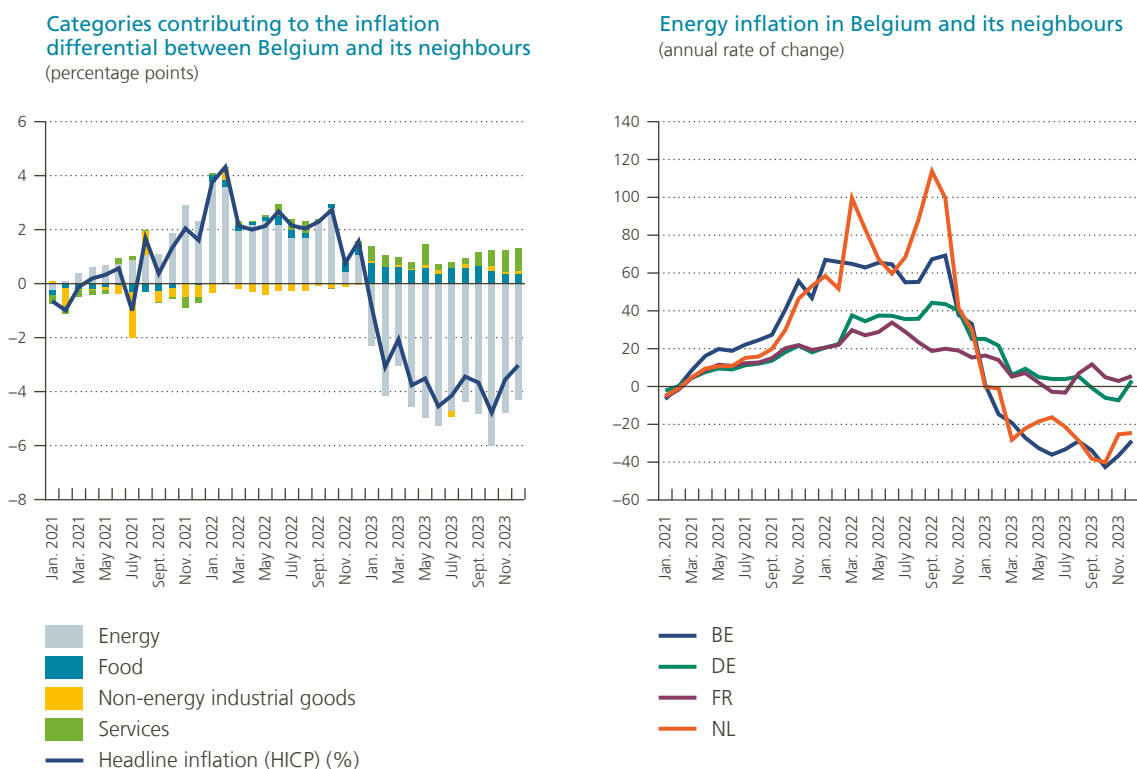
**In 2023, headline inflation in Belgium was 3.4 percentage points lower than the average for its three largest neighbours.** This difference was due solely to energy inflation, which was clearly negative in Belgium, whereas it remained positive on average in neighbouring countries. There were several reasons for this. Firstly, wholesale energy prices are passed on more quickly to consumer prices in Belgium. This is due in particular to a relatively low excise duty on heating oil, lower levies on gas, and a relatively higher share of variable-price gas and electricity contracts in Belgium than in other countries. In addition, since the energy crisis, most gas and electricity suppliers in Belgium have switched from quarterly to monthly indexation of new contracts. Secondly, the "basic energy package" exerted a downward influence on headline inflation in Belgium in 2023. Thirdly, it should be noted that the average for neighbouring countries masks significant disparities. In the Netherlands, the fall in energy inflation was very similar to that seen in Belgium. In France and Germany, on the other hand, the fall was less pronounced. This was due in part to the fact that the market operates differently in those countries than in Belgium. In Germany, most consumers have fixed-term contracts, the price of which is set for a certain period of time (often a year); these contracts cannot be terminated as easily as in Belgium. The price remains the same over this period, regardless of the date of subscription. This system led to a less vigorous rise in inflation in 2022. Furthermore, since France introduced a tariff shield to limit increases in gas and electricity prices, the real fall in prices observed in that country was less pronounced.

**Unlike energy inflation, core inflation and food inflation are higher in Belgium than in**

<sup>1</sup> See G. Peersman, K. Schoors and M. van den Heuvel (2023), *Hoezo energiecrisis? Analyse van de energiefactuur van 930 000 gezinnen*, Gentse Economische Inzichten.

Figure 3.7

The inflation differential between Belgium and its largest neighbours is almost entirely energy related



Source: Eurostat.

**neighbouring countries.** This is because these components are mainly driven by domestic factors. On the one hand, energy prices rose more in Belgium in 2022, with these price increases passed on to the other components. On the other hand, Belgium’s system of automatic wage indexation hastens the emergence of a second-round effect, whereas in neighbouring countries, wage increases have to be negotiated. Overall, this situation could lead to more persistent inflationary pressures in Belgium.