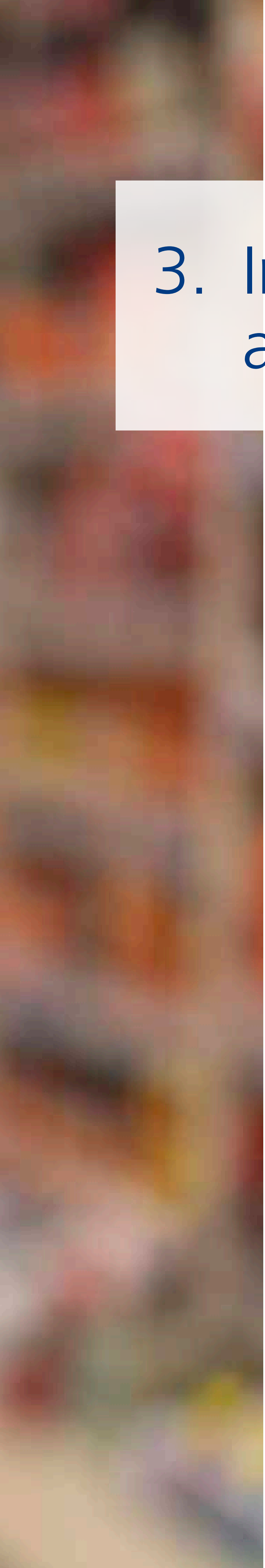

3. Inflation, indexation and wage costs

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3.1 Inflation reached its highest level since the 1970s

General price increases and inflation are a normal, even desired, phenomenon. Persistent general price decreases are in fact bad for the economy. Indeed, if consumers expect goods and services to become cheaper, they will delay purchases. Of course, the pace of price increases should be moderate and predictable, which is why the ECB aims for 2 % annual variation in consumer prices over the medium term. The consumer price index measures the change in the price of a representative basket of consumer goods and services. Inflation corresponds to the percentage difference between the level of the consumer price index for a given month and its level for the same month a year earlier.

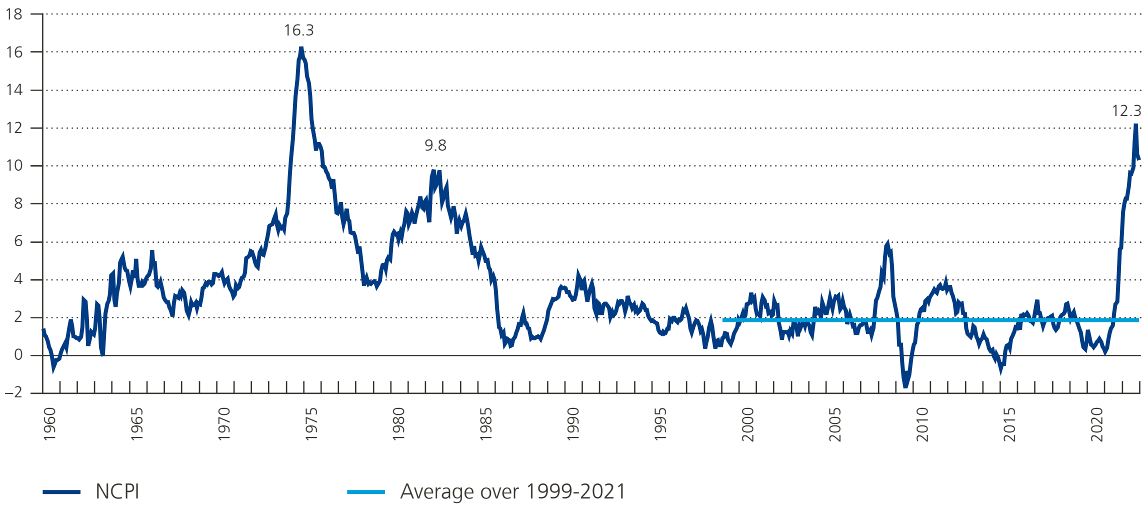
Between the introduction of the euro in 1999 and the end of 2021, inflation in Belgium averaged 1.9 %. This was the case for both of the consumer price indices used in Belgium, namely the national consumer price index (NCPI) and the harmonised index of consumer prices (HICP).[1] The former,

1 Although the methodology used for these two indices is broadly comparable, there are some differences. Thus, the weighting system differs in that the HICP is based primarily on the national accounts, whereas the NCPI is derived mainly from the Household Budget Survey. Similarly, the winter and summer sales are included in the HICP in the months in which they take place (January and July), whereas the NCPI spreads them out over six months. Another difference is that, for the category of heating oil, the HICP takes into account the current month's prices, whereas a weighted average of rates for the past twelve months is used by the NCPI, based on annual bills effectively paid by consumers.

Chart 3.1

Inflation in Belgium

(annual percentage change in the national consumer price index)



Source : Statbel.

which has existed since 1920, is important for wage formation in Belgium since it is used to derive the health index,[1] which serves as the basis for indexation (see below). The second was created at European level in 1997 for the purpose of having a comparable measure of inflation between all countries in the euro area, each of which applies a harmonised method to measure inflation. The euro area HICP serves as a reference for the ECB's monetary policy.

As measured by the NCPI, inflation in 2022 averaged 9.6 %, its highest level since the 1970s. In that decade, inflation in Belgium peaked at 16.3 %, in November 1974. In the 1980s, inflation reached its highest level in June 1982, at which time it was 9.8 %. These two spikes in inflation were mainly the result of soaring oil prices. The October 2022 spike, at 12.3 %, therefore exceeded that of the 1980s. Prior to that, the cost of living had not risen at such a rate since June 1975.

1 The health index corresponds to the national consumer price index excluding motor fuels, alcoholic beverages and tobacco.

As in the 1970s, high inflation in 2022 was largely due to the international context. As explained in chapter 1, the recovery of economic activity in the wake of the COVID-19 pandemic led to a sharp rebound in demand, while bottlenecks in production chains disrupted supply. Russia's invasion of Ukraine led not only to a further surge in international energy prices but also to higher prices for non-energy commodities. By the end of 2022, input prices had fallen sharply again, but cost increases were weighing on companies, leading them to raise their sales prices further.

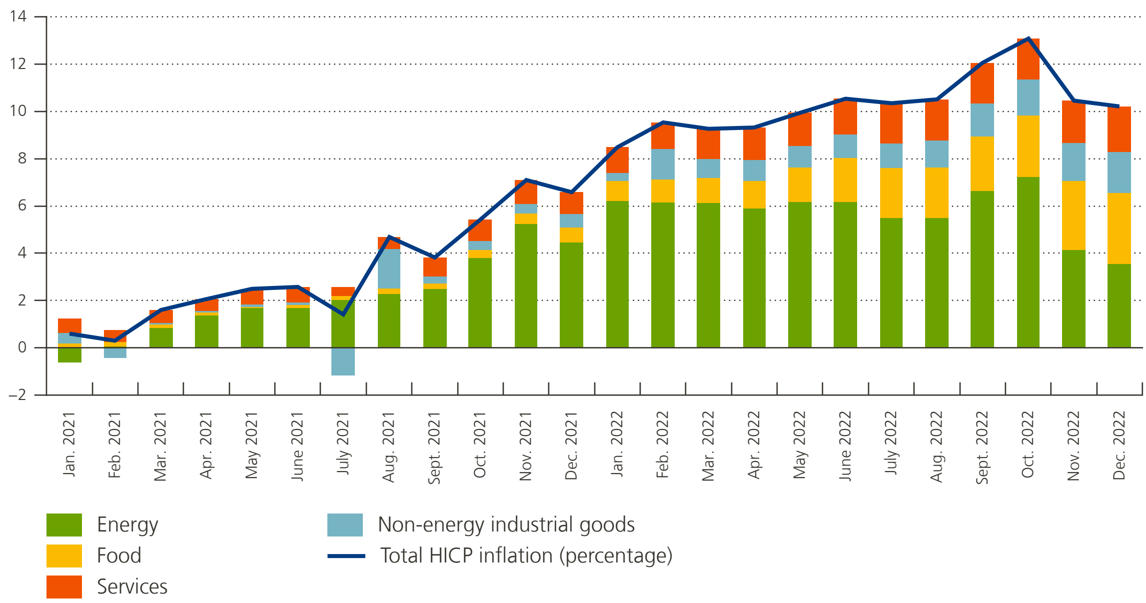
Initially, inflation was mainly driven by the energy component

A breakdown of total inflation by component shows that energy was the main contributor to the surge. As measured by the HICP, energy inflation amounted to 57.9 % in 2022. While the galloping inflation of the 1970s and 1980s was primarily due to the oil crisis, the main drivers today are gas and electricity. Gas inflation amounted to 109.2 % and that of electricity to 57.1 %. The wholesale prices of these two components have in fact risen considerably

Chart 3.2

Total HICP inflation and contributions of the individual components

(percentage contribution ; total inflation as a percentage)



Source : Eurostat.

since 2021. They peaked at the end of August 2022 and then began to drop. This movement is reflected – albeit with a time lag – in falling consumer prices for gas and electricity since November 2022.

Without government measures, energy inflation would have been even higher in 2022. The various measures that were adopted to make household energy bills more affordable in the short term exerted a downward influence, of just under two percentage points,[1] on total HICP inflation. On the one hand, certain measures were adopted for a fixed period; these will remain in effect until at least[2] 31 March 2023. For example, the VAT rate on electricity was lowered from 21 % to 6 % as from March 2022, with a similar reduction following for gas in April. In February 2021, the social tariff[3] was extended to approximately one million households, whereas previously only around 500 000 households had been eligible for it. At the end of March 2022, excise duties on diesel and petrol were cut by 17.5 euro cents per litre. However, since September 2022, when prices fell below the pre-agreed threshold of € 1.7 per litre, the excise duty on petrol has been gradually ratcheted up. On the other hand, the government granted certain one-off allowances, such as a heating allowance of € 100 per household with an electricity contract (to cushion the rising cost of heating, regardless of the source) and an oil allowance of € 300 per household heated with oil. The enlarged group of households eligible for the social tariff also benefited from a one-time energy bill credit of € 80. In addition, the federal authorities granted a discount (the "basic energy package") of € 135 and € 61 on gas and electricity bills, respectively, for the period from November 2022 to March 2023. Not all households qualify for the basic energy package, however: for households with income above a certain ceiling[4] (around 20 %), a portion of the discount will be recovered through

1 Own estimates.
2 The government agreed on 6 February 2023 to reform the taxation of energy bills and to phase out the extension of the social tariff.
3 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.
4 The ceiling corresponds to net taxable income of € 62 000 per year for a single person and € 125 000 for a couple. This amount is increased by € 3 700 per dependent.

Table 3.1

Inflation by component in Belgium and neighbouring countries

(annual percentage change in the HICP)

					Average for three neighboring countries
	2019	**2020**	**2021**	**2022**	**2022**
Total (HICP)	1.2	0.4	3.2	10.3	7.9
Energy	–0.8	–11.0	22.4	57.9	34.2
Food	1.3	2.6	0.9	8.3	8.7
Core inflation	1.5	1.4	1.3	4.0	3.8
Services	1.8	1.8	1.6	3.8	3.2
Non-energy industrial goods	1.0	0.7	0.8	4.2	4.9
p.m. National consumer price index	*1.4*	*0.7*	*2.4*	*9.6*	–
Health index	*1.5*	*1.0*	*2.0*	*9.3*	–

Sources: Eurostat and Statbel.

their tax return. Also, households with a fixed-rate energy contract concluded before October 2021 and those that qualify for the social tariff are ineligible. This measure is therefore partially targeted.

While support measures reduce energy bills for consumers in the short term, they have less tangible side effects. Firstly, such measures do not increase purchasing power in the long term. While they clearly allow household energy bills to be lowered in the short term, they are accounted for in the inflation rate. They thus drive inflation down, meaning indexation is also lower than it would have been but for these measures (see below). Secondly, price reductions (such as the lowering of the VAT rate) offer consumers less incentive to restrict consumption than one-off payments granted independently of consumption (e.g. the basic energy package for electricity and gas or the heating oil allowance). The first type of measure reduces the price of energy itself, while in the case of the second, the cost of additional consumption is unchanged.

BOX 2

The importance of measuring inflation. Has inflation in Belgium been overestimated in the context of rising energy prices?

Only new electricity and gas contracts for the current month are taken into account when calculating the consumer price index. This principle follows the logic of the "rules" applicable to the consumer price index, which measures the change in the prices of goods and services purchased during the current month. Taking into account only the prices of new contracts to compile the gas and electricity component of the consumer price index is therefore also in line with Eurostat recommendations. In other words, fixed-rate contracts concluded in the past are not included in the consumer price index for the current month. This means that growth in real household expenditure is overestimated when there is a surge in energy prices.

The method described above, used by the Belgian Statistical Office (Statbel), is followed in many other euro area countries. However, there are some exceptions. For example, for some fixed-rate contracts, Germany uses an average for the last 12 to 36 months, precisely to take into account current contracts liable to have a term of one to three years. Knowing that many households have a fixed-rate contract associated with lower rates pre-dating the energy crisis, one may ask whether inflation has been overestimated, particularly in Belgium.

In the case of the harmonised index of consumer prices, which is used for the ECB's monetary policy, it can be argued that taking into account the prices of only new contracts is in principle justifiable. After all, through its interest rate policy, the ECB aims to influence current market prices of goods and services. However, the Dutch statistics office (CBS) believes that this methodology leads to an overestimation of inflation in the event of a rise in energy prices and that the current formula (based on new contracts only) is therefore imprecise. In October 2022, it announced that it would introduce a new method in mid-2023, one that includes energy prices in the measure of inflation, precisely in order to take into account running contracts. It will henceforth rely on detailed data for all contracts (both running and new) with different energy suppliers.

In Belgium, the method used to calculate the national consumer price index also affects wage formation as this index is used for indexation (see below). The automatic indexation of wages and social benefits is intended to protect purchasing power. However, there is currently most likely a mismatch between the change in household consumption prices and the change in prices for a representative basket of new goods and services.[1] The indexation of wages and benefits is based on the latter, whereas in order to preserve purchasing power, the price component of real expenditure growth should actually be taken into account. The published inflation rates overestimated the latter in 2022, leading to overcompensation for the average household.

The opposite reasoning holds true when prices fall. That being said, it can be assumed that the underestimation of real household expenditure growth when prices fall is less than the overestimation that occurs when prices rise. This is because when prices fall, consumers with a higher fixed-rate contract are more likely to switch. However, the fact that many energy contracts provide for a fixed annual fee, to be paid in full regardless of whether the consumer switches after less than a year or not, makes a switch less attractive. In addition, the proportion of fixed contracts has declined dramatically as suppliers no longer offer them in times of high, volatile prices.

1 This is at least what the CBS has shown for the Netherlands by comparing the new method to calculate electricity and gas inflation (which takes into account both new and existing contracts) with the current method (which takes into account only new contracts). However, a similar study has not been conducted for Belgium. The impact in Belgium is probably more limited, as there are relatively more variable-rate contracts, with prices regularly adjusted (on a monthly or quarterly basis) to the market situation.

Energy inflation in Belgium exceeded the average across its three neighbours. Measured in accordance with the HICP, energy inflation in 2022 averaged 57.9 % in Belgium, whereas it was "only" 34.2 % [1] in neighbouring countries. Yet this average masks major disparities. Energy inflation in the Netherlands, for example, outstripped that in Belgium, peaking at 70.5 %. On the other hand, the country's largest neighbours – Germany and France – recorded relatively lower energy price increases, of 34.7 % and 23.8 %, respectively. The low figure for France can be explained by the fact that the government capped the prices of gas and electricity. In Germany, the low inflation rate was mainly the result of a correction applied by the German statistics office (Destatis) to take into account running contracts, which was not done in many other countries (see box 2 for more information). In short, energy largely accounted for the inflation differential between Belgium and its three neighbours.

Domestic inflation also rose gradually

While the initial shock was external, the surge in inflation in 2022 was increasingly driven by domestic factors. Although the contribution of energy inflation to headline inflation remained substantial for the year, it gradually declined. On the other hand, food inflation and core inflation (i.e. total inflation excluding energy and food, thus including non-energy industrial goods and services) gradually rose. Higher input and labour costs [2] (see below) weighed heavily

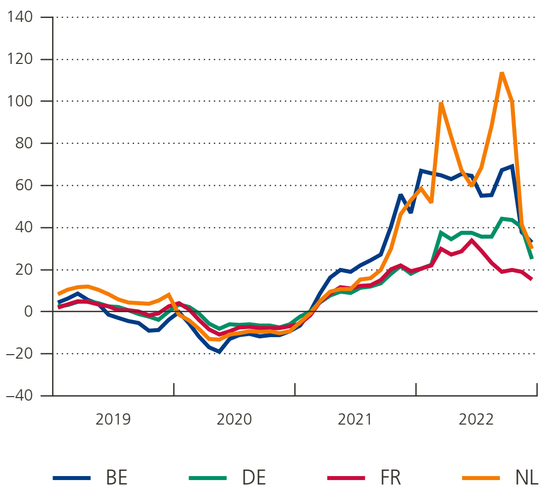
1 The average across the three neighbouring countries was calculated using the HICP weights per country, i.e. in accordance with the economic importance of the individual country. Germany and France thus weighed much more than the Netherlands in this average.

2 This refers to both wage increases that have already been carried out and those expected in the future.

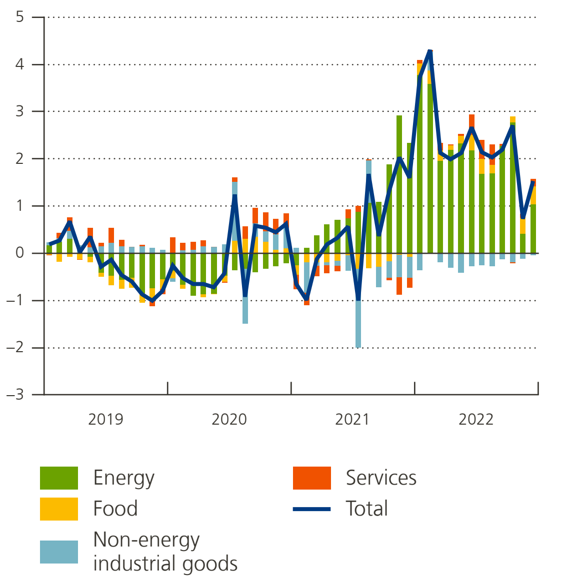
Chart 3.3

The inflation differential between Belgium and its three neighbours was due almost entirely to energy

Energy inflation in Belgium and its three neighbours
(annual percentage change)



Categories contributing to the inflation differential between Belgium and its three neighbours
(percentage points)



Source: Eurostat.

on companies, leading to further increases in sales prices and the spread of inflation. In other words, the initial external shock spread through indirect and second-round effects, with inflation increasingly becoming an internal phenomenon. By analogy with an ECB analysis,[1] core inflation is broken down into categories based on import intensity.[2] Categories with lower import intensity are often services, for example those provided by doctors, hairdressers, educators, etc. Certain non-energy industrial goods are also identified as having low import intensity, such as stationery and drawing materials and carpets and other floor coverings. All food and energy categories are highly exposed to external shocks; agricultural and energy commodities determine, for example, a substantial proportion of final consumption prices.

1 ECB (2022), "A new indicator of domestic inflation for the euro area", Economic Bulletin, Issue 4/2022.

2 The ECB identified these categories based on input/output tables for the euro area; we assume these categories are the same for Belgium.

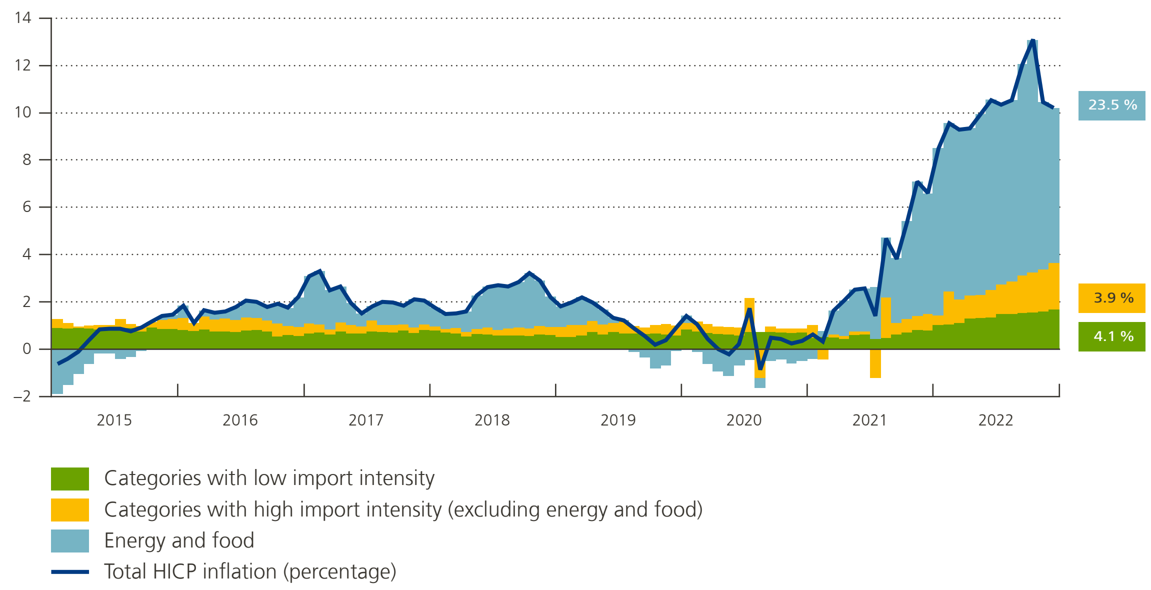
Chart 3.4 shows that inflation in categories with low import intensity is also on the rise.

In 2022, core inflation thus averaged 4 %. This was well above the average of 1.5 % recorded between 1999 and 2021. In 2022, core inflation in Belgium's neighbours was 3.8 %, just 0.2 percentage point lower than in Belgium. Second-round effects – caused by a diffusion of inflation from external to domestic sources – are much more likely to occur in Belgium. Wage indexation is effectively guaranteed by the 1996 law (amended in 2017) on the promotion of employment and the preventive safeguarding of competitiveness (the Competitiveness Act). Higher inflation therefore automatically leads to higher wage costs. In addition, various prices – especially for services – are index-linked, such as rent, public transport tickets and certain insurance contracts. This wage and price indexation threatens to make inflation (more) persistent in Belgium, hence the increased need to be attentive to the risk of a wage-price spiral.

Chart 3.4

Decomposition of inflation based on import intensity[1]

(contribution of the various categories in percentage points; average inflation for the three categories in 2022 is indicated in the small boxes on the right, expressed as a percentage)



Sources: ECB, Eurostat and own calculations.

1 The categories are those identified by the ECB in 2022 as having high or low import intensity for the euro area.

Households were not all faced with the same price increases

The consumer price index is based on an average household. The expenditure categories are weighted based on the spending habits of an average household. In reality, however, these vary greatly from one household to another. Consumption depends, for example, on the geographical location (region and city/country) as well as the income and composition of the household. It appears, for instance, that Walloon households consume less gas but more heating oil than Flemish households. Expenses such as gas and electricity are also relatively more substantial in the total consumption expenditure of households with lower incomes. More generally, a low-income household spends a larger share of its budget on basic needs such as rent and heating, while a household with higher income spends more on cultural activities and eating out.

Households in the lower income quartiles that are ineligible for the social tariff therefore experience above average inflation.[1] This is because they have to spend relatively more on gas and electricity, two categories in which inflation soared over the course of the year. They therefore face higher inflation than the published figure. Most households in the lowest quartile nevertheless qualify for the social tariff, certainly since its extension. The social tariff (or its extension) is therefore an effective measure to support vulnerable households. Of households that are ineligible for the social tariff, those with the highest income experience the lowest inflation, the main reason being that gas and electricity make up a less significant share of their total expenditure.

1 See also Capéau, et al (2022), "We zitten allemaal in dezelfde storm, maar niet in hetzelfde schuitje", Leuvense economische standpunten 2022/192, March 2022.

Tableau 3.2

Comparison of the official weights of the national consumer price index and the weights by income quartile in 2022

(in %)

		Total NCPI	< Q25	Q25 – Q50	Q50 – Q75	> Q75
CP01	Food and non-alcoholic beverages	17	16	17	16	17
CP02	Alcoholic beverages and tobacco	3	3	3	3	2
CP03	Clothing and footwear	6	4	5	5	6
CP041	Rent	8	16	10	6	2
CP0451	Electricity	3	5	4	4	3
CP0452	Gas	2	4	3	2	2
CP0453	Heating oil	1	1	1	1	1
CP071	Purchase of vehicles	7	2	4	8	7
CP07221	Diesel	2	1	2	2	2
CP07222	Petrol	2	2	2	2	2
CP08	Communications	4	4	4	3	3
CP09	Recreation and leisure	9	7	8	9	10
CP10	Education	1	0	0	1	1
CP11	Hotels, cafés and restaurants	8	5	7	8	10
CP12	Miscellaneous goods and services	9	11	12	10	10

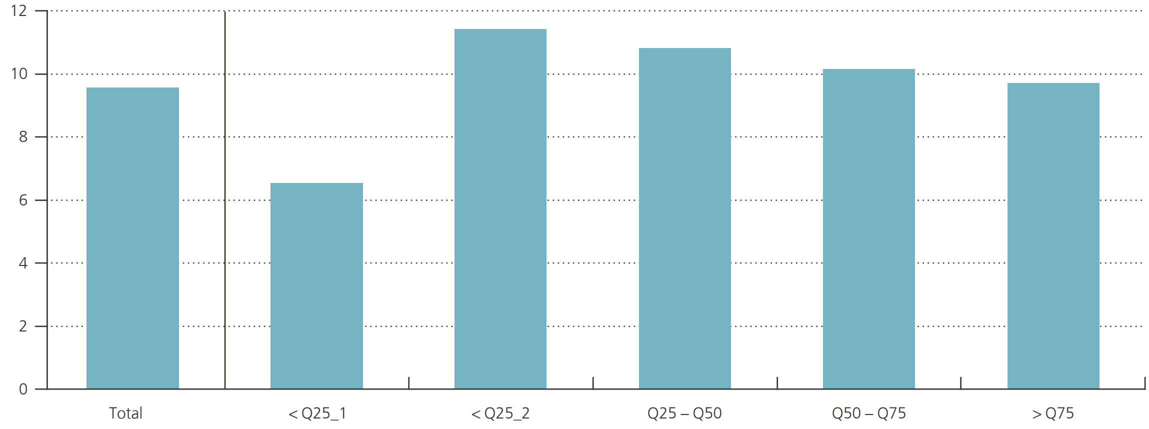
Sources: Statbel and own calculations.

1 The weights shown in the "Total NCPI" column are the published weights for 2022. These are the weights for an average household. The weights per income quartile are own calculations based on the Household Budget Survey 2018, with updated prices. In order to come as close as possible to the Statbel method, a few categories (included in the Household Budget Survey but not in the NCPI) were excluded from our own calculations of weights. These are imputed rent, prostitution, drugs and some types of insurance.

Chart 3.5

Published inflation and inflation by income quartile in 2022

(annual percentage change, average for 2022)



Sources: CREG, Statbel and own calculations.

For the calculation of inflation by income quartile, a differentiation was made only in the weights. In other words, the published price indices of the various categories were used (for an average household), except for gas and electricity. For these, a large group (around 20 % of households) was considered to benefit from the social tariff. We assumed they were all in the lowest income quartile, in other words, that 80 % of the population in the lowest income quartile qualifies for the social tariff. But in reality, this figure is overestimated. The extended group eligible for the social tariff since February 2021 is indeed in the lowest income quartile, but households that had already been entitled to it (and still are) are not necessarily in this quartile. This is because the initial eligibility conditions for the tariff related not only to income but also to the receipt of certain benefits.

<Q25_1 = the 80 % of households in the lowest income quartile that qualify for the social tariff

<Q25_2 = the 20 % of households in the lowest income quartile that do not qualify for the social tariff

Q25-Q50 = the second income quartile

Q50-Q75 = the third income quartile

>Q75 = the highest income quartile

3.2 Automatic indexation aims to preserve household purchasing power

The system of automatic indexation generally protects Belgian households against a sharp rise in the cost of living, such as that observed in 2022. Both wages and social benefits are indexed. Belgium has a long history of automatic wage indexation, which has been applied in almost all industries since the Second World War. Unlike in many other European countries, this system was not abolished in the wake of the oil shocks of the 1970s and the period of high inflation in the 1970s and 1980s. This means that Belgium, together with Luxembourg,[1] Malta and Cyprus (albeit only in part), are the only countries in Europe that still have automatic wage indexation. Over the years, however, various adjustments have been made to the system, such as the introduction of the health index.

1 In Luxembourg, wage indexation, which had been scheduled to take place in the summer of 2022, was postponed until the spring of 2023.

Indexation does not fully protect purchasing power

Since 1994, indexation has been based on the health index, i.e. the national consumer price index excluding alcohol, tobacco, petrol and diesel. In this way, increases in excise duties and, at least partially, the effects of oil shocks are excluded from the indexation mechanism, so that the labour cost for companies is not influenced by these types of price rises. Energy components such as gas, electricity and heating oil, on the other hand, are included in the health index, meaning the current spike in inflation is largely reflected in wages and social benefits. In 2022, however, inflation as measured by the health index remained slightly lower than that of the total NICP, largely because fuels – a category in which inflation amounted to 23.5 % in 2022 – are excluded.

Indexation takes effect with a time lag, as it is not the health index itself that is applied but rather the smoothed health index. This corresponds to the four-month moving average of the health index and is intended to make it possible to exclude temporary price shocks. On the other hand, this causes an additional delay.

Different indexation mechanisms apply

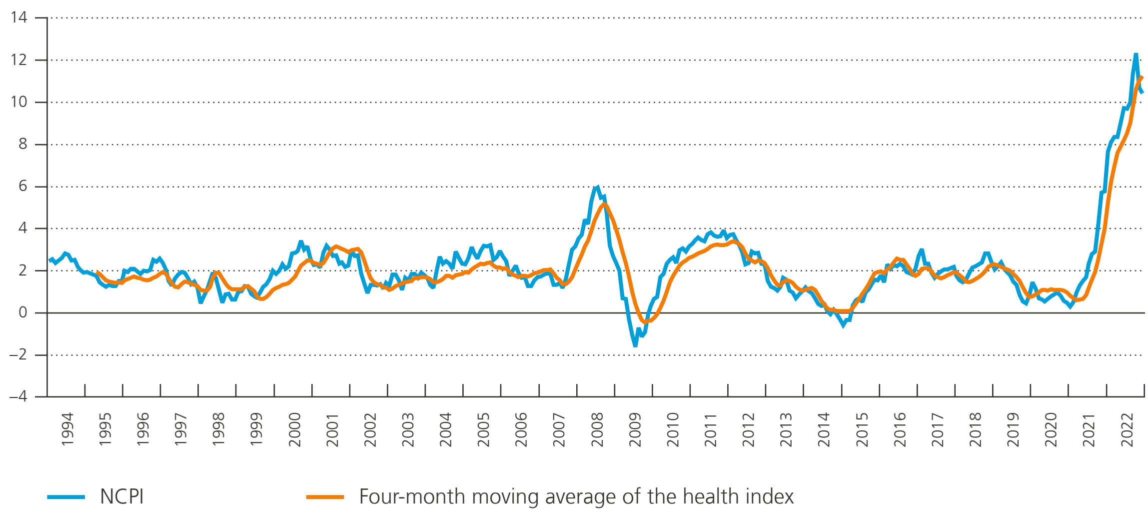
Public sector wages and social benefits are indexed when the smoothed health index exceeds the trigger index. The latter is a threshold exceeding the previous threshold by a predefined percentage. For the public sector, this is 2 %. When the smoothed health index exceeds the trigger index applicable to the public sector (i.e. when it increases by 2 %), social benefits are increased by 2 % one month later and wages and salaries of public sector workers are increased by 2 % two months later. The trigger index was crossed no fewer than five times in 2022, meaning public sector wages and replacement incomes were adjusted to the rising cost of living relatively quickly. In the private sector, the timing of wage indexation varies depending on the applicable joint committee.

There is no uniform indexation mechanism for private sector employees. Consequently, the pass-through of inflation to wages is slower for some groups than for others. Historically, indexation mechanisms have often been associated with the ability of industries to adjust their prices. In recent

Chart 3.6

Wages and social benefits are adjusted to the smoothed health index

(annual percentage change)



Sources: Statbel and NBB.
The health index was introduced in 1994. Here, the first data point is April 1995, the first month in which the annual change in the smoothed health index could be calculated.

years, however, this link has become somewhat more tenuous, notably due to the creation of the auxiliary joint committee for employees (JC 200). This joint committee can be used by almost all industries and covers the most employees by far.

In the private sector, wages are indexed either on the basis of a trigger index or at specific points in time. [1] About half of all private sector employees see their wages adjusted when a given trigger index is crossed. This system, which is comparable to that applicable in the public sector, helped preserve purchasing power to a large extent in 2022. Almost all other employees in the private sector benefit from indexation at specific points in time, the frequency of which varies – annually, every six months, quarterly or monthly.

The wages of a large proportion of private sector employees (40 %) are only adjusted to the cost of living once a year. As indexation is usually in January for a majority of these employees, just over one million had to wait until January 2023 to see their pay adjusted to the high inflation recorded in 2022. Their income then rose by as much as 11 %. Unlike those who benefit from frequent indexation or indexation linked to a trigger index, these employees suffered a greater, albeit temporary, loss of purchasing power in 2022.

In addition, the share of wages that is index-linked differs depending on the applicable joint committee. Some index-link only (sector-level) minimum wages, [2] others only scale wages [3] (thereby possibly guaranteeing maintenance of the difference between scale wages and actual wages) or full wages. However, firms are free to look beyond the industry rules defining the minimum level of indexation to be respected.

Not all employees are entitled to automatic wage indexation. Within some joint committees, such as those for public credit institutions (JC 325) and the liberal professions (JC 336), there are no formal rules governing indexation. However, employers that fall under these committees are free to conclude an agreement on automatic indexation. The self-employed do not benefit from automatic indexation either. In order to maintain their purchasing power, they are obliged to raise their prices, which is not possible to the same extent in all industries.

Finally, it should be noted that the personal income tax brackets for 2023 (2022 income) were adjusted for indexation to a much lesser extent than the average percentage by which gross wages and benefits were indexed. In net terms, this implies an additional loss of purchasing power for 2022 earnings. This issue is discussed in more detail in chapter 6.

1 The trigger index is not necessarily set at 2 %, as in the public sector.

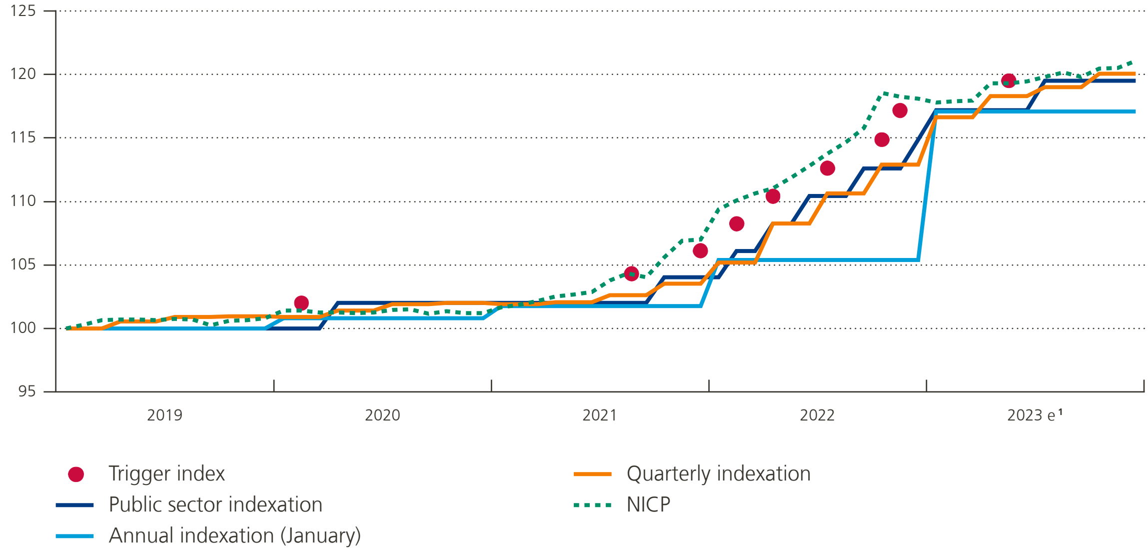
2 Indexation applies, for example, only to the national minimum wage according to the sector-level agreements of Joint Committees 140 (transport and logistics) and 329 (socio-cultural sector).

3 The minimum wage in effect in the industry based on the job classification and seniority with the employer.

Chart 3.7

The timing of the pass-through of inflation to wages depends on the indexation mechanism applicable at industry level

Consumer price index and wage indexation
(January 2019 index = 100)



Share of different indexation mechanisms in the private sector
(in %)

Indexation mechanism	Percentage of employees [2]	Number of employees [2]
Trigger index	48.2	1 462 279
Periodic indexation		
Annually	40.3	1 222 182
In January	33.3	1 000 030
Every six months	2.5	74 301
Every four months	0.3	8 603
Quarterly	5.6	169 904
Bimonthly	1.6	47 210
Monthly	0.6	19 327

Sources: FPS ELSD, Statbel and NBB.
1 Mechanical update of the Bank's autumn 2022 projections.
2 Private sector employment covered by joint committees, situation in the first quarter of 2022.

3.3 Indexation does not provide the same degree of protection to all households

Automatic wage indexation protects the purchasing power of the average household to a large extent, but not necessarily that of each individual household. The degree of protection depends, amongst other factors, on the household's consumption profile, especially in the event of a highly concentrated price shock for certain goods and services, such as the recent surge in gas and electricity prices. For example, it has been shown above that lower-income households which are ineligible for the social tariff experience higher than average inflation. Indexation is based on the inflation rate of the average household's consumption basket. Insofar as incomes rise along with the health index, they rose less than real expenditure for low-income households, meaning the compensation these households received in 2022 was insufficient, leaving aside other possible factors. Furthermore, low-income households are relatively more likely to rent and, therefore, are exposed to rent indexation (see chapter 5). Home ownership is indeed more prevalent amongst higher-income households, for which indexation effectively lowers mortgage payments (if they have a fixed-rate mortgage). In addition to income, other household characteristics are relevant; for example, there are fewer gas contracts in Wallonia than in Flanders, and expenditure on motor fuels is largely dependent on place of residence.

Moreover, sectors with the highest wages generally – but not always – have more favourable indexation mechanisms. In the ten industries with the highest average wages,[1] there is often an agreement in place (concluded at the level of the joint committee) to adjust wages on the basis of a trigger index (e.g. the petrochemical and pharmaceutical industries and the airline sector) or frequently (e.g. every two months for employees in the financial services sector and every month for petrochemical blue-collar workers). When faced with sustained inflation, such mechanisms allow for a relatively rapid adjustment of incomes. A smaller number of joint committees for the most highly paid workers in Belgium, including the insurance sector, index wages only once a year. In the event of a sharp acceleration in prices, these workers face a temporary loss of purchasing power until the time of indexation. The situation is less clear-cut when it comes to industries at the other end of the spectrum. For example, the lowest average wages, paid in the hotel and restaurant industry are adjusted only once a year, while in some low-paying industrial sectors indexation is carried out quarterly. In the retail sector, on the other hand, wages are adjusted on the basis of a trigger index.

The amount of indexation is also a factor that determines whether this mechanism provides sufficient protection. Automatic indexation systematically pushes up gross wages by a certain percentage. The absolute increase is therefore higher for more highly paid workers. As a result, the amount of indexation for those with the lowest incomes may not be sufficient to cover the rise in the cost of the consumer basket. Conversely, the amount by which higher incomes are indexed may exceed the increase in the cost of living, meaning, assuming an unchanged consumption profile, the excess can be saved. Whether these additional savings constitute "pure overcompensation" depends on future price developments. If prices remain high, deferred consumption expenses will indeed require a larger budget than before the energy crisis.

1 Ranking established by Statbel based on the Structure of Earnings Survey.

The interaction between support measures, inflation and indexation is complex

Measures that target certain groups push inflation down to a level it would not otherwise have reached. They thus lead to a general lowering of indexation, even if they do not apply to everyone. The social tariff (and its extension) is an example of such a measure. Statbel takes this tariff into account when calculating the consumer price index for gas and electricity. This means that the price that the index takes into account is a weighted average of the social and regular tariffs. The weighting of the social tariff increased from about 10 % prior to its extension to around 20 % thereafter. The extension therefore compressed total inflation and slowed growth in the health index, despite the fact that not everyone in the population benefits from the social tariff. Another example is the heating oil voucher: this aid lowers the energy bills only of households that heat with oil but curbs indexation for everyone. On the other hand, measures such as the reduction in VAT both lower the energy bills of all households and curb indexation.

In summary, automatic indexation and government measures have not resulted in a homogenous preservation of purchasing power in the current context: some households have been overcompensated, while others have been undercompensated or not compensated at all. The main effects of indexation are detailed above, but in reality the interaction between the various factors at play is complex. It is therefore not an easy task to determine which groups of households are sufficiently compensated and which are not. For example, gas and electricity occupy a more important position in the cost structure of low-income households, meaning automatic indexation – which is based on an average expenditure profile – is often insufficient to offset the increase in their expenditure. The various support measures introduced by the government (such as the social tariff) have nevertheless helped to shore up the purchasing power of these households. On the other hand, high-income households are feeling the price shock less, as gas and electricity account for a smaller share of their consumption expenditure, while their income is, in most cases, sufficiently indexed to cover the increase in expenditure, if not more. This "advantage" is, however, offset (in part) by support measures (including those for which they are

Table 3.3

Interaction between indexation, government measures and purchasing power protection: main channels in the current context

At the macroeconomic level		
▪ Health index (some products are excluded from the total NICP) and its smoothing (leading to a delay in indexation). ▪ Generally applicable measures, such as a lowering of the VAT rate. These curb inflation and therefore indexation but only help to preserve income in the short term. ▪ Inflation measure: only new energy contracts are taken into account. Real expenditure is therefore overestimated. Indexation is based on this measure of inflation.		
At the household level		
Consumer spending	**Indexation mechanism**	**Energy contract**
1. Income level The increase in wages is more marked for those with high incomes than for those with low incomes in absolute terms, allowing the former to save more.	1. Timing of indexation Some indexation mechanisms temporarily lead to a greater loss of purchasing power (e.g. for households with wages only indexed once a year).	Households that concluded a fixed-rate energy contract before October 2021, for example, have seen barely any increase in their energy costs. Measured inflation therefore overstates the actual increase in their expenditure.
2. Composition Energy accounts for a greater share of expenditure of low-income households (at least those ineligible for the social tariff), but other characteristics are also important (e.g. place of residence).	2. No applicable indexation mechanism Not everyone is entitled to automatic wage indexation (e.g. the self-employed).	
3. Mesures Measures that are not generally applicable (such as the heating oil voucher and extension of the social tariff) lower indexation for all, while not everyone benefits.		

Source: NBB.

ineligible), which temper indexation. A recent study[1] examined the interaction between, on the one hand, government measures designed to reduce energy bills and, on the other hand, indexation, by income decile, during an energy shock such as the current one. It showed that these measures neutralise the loss of purchasing power – as indexation is based on average inflation – for the lowest incomes while limiting overcompensation[2] for the higher-income deciles.

1 Capéau, et al. (2022), "Een tweesnijdend zwaard: de wisselwerking tussen koopkrachtmaatregelen en indexering", Leuvense economische standpunten, 2022/198, December.

2 The study concluded that when the depreciation of savings is taken into account, those with higher incomes are not necessarily overcompensated. The "excess" income that is saved when indexation exceeds the increase in expenditure induced by the rise in prices will be spent later, either in an environment characterised by lower prices (in which case there is indeed overcompensation) or in one in which prices remain high (in which case the overcompensation will be cancelled out).

3.4 Indexation drives up wage costs and widens the gap with Belgium's main trading partners

There was unprecedented growth in wage costs in 2022

Gross wages jumped by almost 6 % in 2022, primarily as a result of indexation. Real collectively negotiated wage adjustments in the private sector averaged 0.4 %, mainly due to increases in the health care sector and certain key occupations following the pandemic. The negative contribution of wage drift was of the same magnitude. This mainly reflected a normalisation in the number of furloughed employees and the return to work of people earning below-average wages. The increase in flexi-jobs may also have influenced this development. As the health index started to rise sharply in 2022, wage indexation in the private sector was the main component of gross wage formation. As explained above, due to interaction of the various indexation mechanisms, a substantial share of the increase in the health index in 2022 will only be visible from 2023 onwards, for

Table 3.4

Wage costs

(data adjusted for calendar effects; percentage change compared with the previous year, unless otherwise stated)

	2019	2020	2021	2022 e
Hourly wage costs in the private sector	2.1	5.2	0.0	5.5
Gross hourly wages	2.3	4.6	0.5	5.5
Collectively agreed wages [1]	2.5	1.7	1.4	5.9
Real agreed adjustments	0.7	0.6	0.4	0.4
Indexation	1.8	1.0	1.1	5.4
Wage drift [2]	−0.2	2.9	−1.0	−0.3
Employer social security contributions	−0.2	0.6	−0.5	0.0
p.m. Hourly wage costs in the private sector based on the economic definition [3]	*2.0*	*4.2*	*−0.2*	*5.9*
Hourly wage costs in the public sector	2.3	3.2	2.3	5.9
of which: Indexation	1.5	1.5	1.0	7.0
Hourly wage costs in the economy as a whole	2.1	5.0	0.4	5.5

Sources: FPS ELSD, NAI, NSSO and NBB.

1 Wage increases negotiated within joint committees.

2 Increases and bonuses granted by firms above those provided for by collective labour agreements concluded at the inter-professional and sector levels; wage drift due to changes in the structure of employment and measurement errors; contribution to the change in wage cost, in percentage points.

3 Based on the economic definition, wage costs do not correspond to the national accounts data but rather include reductions in contributions for target groups and wage subsidies, meaning this definition better reflects the real wage cost of companies.

example in industries where indexation takes place in January. In the public sector, where the 2 % trigger index is the sole applicable mechanism, the indexation component reached 7 % in 2022.

These developments resulted in an unprecedented increase in wage costs for companies, which reached 5.5 %, the highest value recorded since 1996 and more than two and a half times the historical average (1996-2019). Social security contributions grew at a slightly lower rate than the wage bill. In addition, some of the support measures introduced during the pandemic were discontinued, leading to an even more rapid rise in wage costs in 2022 based on the economic definition, which takes wage subsidies into account.

In order to help businesses, the government temporarily reduced social security contributions, but the effect of this measure will be marginal compared to the increase in costs. To soften the blow of soaring input costs and the effect of indexation on the wage bill, the government decided to grant companies an exceptional 7.07 % reduction in employer social security contributions for the first two quarters of 2023. While this will provide some relief, the wage bill will nevertheless rise substantially compared to 2022.

Automatic indexation and regulated wage negotiations go hand in hand

A system of automatic wage indexation is only sustainable if its effects on cost competitiveness are taken into account. That's why, in Belgium, real wage increases are negotiated in the framework of the 1996 Competitiveness Act, as amended in 2017. As Belgium is a member of the Economic and Monetary Union, slippages in competitiveness can no longer be corrected through exchange rate fluctuations. A more rapid rise in the production costs of Belgian companies will lead, all other things being equal, to a fall in Belgium's relative competitiveness.

Under normal circumstances, the strict framework governing the setting of real wage increases prevents a prolonged slippage in competitiveness. By setting a maximum limit for real wage adjustments, the law aims to ensure that the rise in wage costs, brought about by indexation, remains in line with the development of wage costs in Belgium's three main neighbours. Negative real collectively negotiated adjustments are not, however, possible.

The viability of the Competitiveness Act is being tested by the current large-scale inflationary surge, which originated in a deterioration of the terms of trade. Soaring prices for energy products, which Belgium is obliged to import, are leading to a collective impoverishment, the burden of which should be equitably shared by the various economic agents. Due to the automatic indexation of wages, however, this external shock was initially absorbed almost entirely by firms. Box 3 in chapter 4 illustrates that automatic indexation, through its impact on the cost competitiveness of Belgian firms, constitutes a vulnerability of the Belgian economy in the event of a deterioration in the terms of trade.

Faster growth of wage costs in Belgium has created, yet again, a wage gap

The cumulative wage gap between Belgium and its three main neighbours (Germany, France and the Netherlands) has widened again since the end of the health crisis. Based on information available in September 2022, the CEC [1] estimated that the wage gap, which had been eliminated in 2019, had risen sharply in 2022 and would reach 5.7 % by 2024, flirting with the record levels observed in 2007-2008.

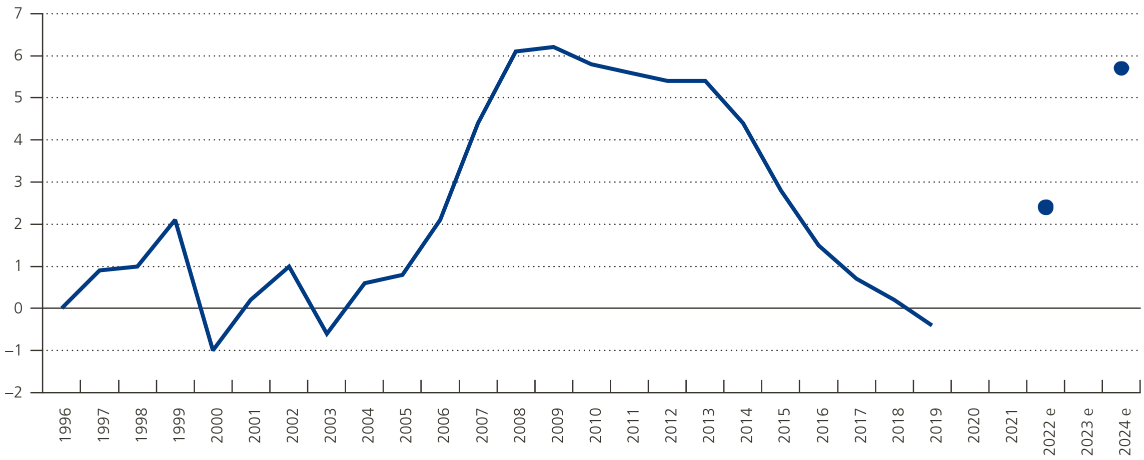
The Eurosystem's projections, which were completed on 30 November, also point to a deterioration in the wage gap over the period 2022-2023. Indexation is a key contributor to the widening of the gap in this period, although it is expected to shrink somewhat in the coming years due to a degree of catch-up in employee purchasing power in neighbouring countries and wage moderation in Belgium imposed by the 1996 Competitiveness Act.

1 Central Economic Council (2022), Technical Report 2022 of the Secretariat, Brussels, October.

Chart 3.8

Belgium's hourly wage cost gap jumped in 2022 [1]

(percentage difference [1] accrued since 1996 in the private sector)



Source: CEC.
1 Compared to Belgium's three main neighbours, weighted averages based on the relative importance of the respective country's GDP.

No real collectively negotiated increases for the next two years

Given the negative maximum available margin for 2023-2024 as calculated by the CEC, there is no possibility to grant real negotiated wage adjustments during this period. Based on the current (positive or negative) wage gap, the CEC assesses at the end of each even-numbered year the maximum margin available for real collectively negotiated wage adjustments, by comparing average projections of wage costs in Belgium's three main neighbours with indexation projections for Belgium. The maximum available margin is then calculated based on this difference, taking into account a correction factor and a safety margin of at least 0.5 %. As the latest result was negative and indexation is guaranteed by the Competitiveness Act, actual collectively negotiated adjustments can only be zero for the period 2023-2024. In the absence of an interprofessional agreement on this point, the wage standard for 2023-2024 will be set by means of a royal decree.

A purchasing power bonus, benefiting from attractive tax and social security treatment, can be negotiated at company level. Companies are free to negotiate their own collective labour agreement. Company-level agreements can go beyond the adjustments set at industry level but must still respect the wage standard. However, some collective bonuses and allowances explicitly fall outside the scope of the Competitiveness Act. For example, the so-called "corona bonus" allowed employees of companies that performed well during the pandemic to receive extra pay. The percentage of employers that distributed such a bonus to all or some of their employees varied greatly from one industry to another: more than 75 % did so in the manufacturing industry, while this figure was less than 20 % in the hospitality, tourism, and cultural and leisure sectors. In the 2023-2024 wage negotiations, the government gave companies that turn a profit the opportunity to grant a purchasing power bonus of up to € 500 over this two-year period, or € 750 if the company is very profitable. The success of these schemes is largely due to their tax and social security treatment. Indeed, the bonus, paid in the form of consumption vouchers, is tax free for the employee and tax deductible for the company. In addition, the employer social security contributions due on these amounts are much more favourable than for ordinary remuneration.

The current inflationary context accentuates existing challenges for wage formation

According to economic theory, real wage increases are driven by productivity gains. The sharp rise in hourly wage costs in Belgium would not necessarily be harmful to firm competitiveness if it were accompanied by an equivalent increase in apparent labour productivity. However, this is not the case. Productivity growth, measured at the macroeconomic level, fell again in 2022. This decline contributed to higher unit labour costs in the private sector, which rose 6.7 % according to the economic definition. In fact, the economy as a whole was marked by a general increase in unit labour costs.

Negotiations at sector level normally allow wage increases to be adjusted to the realities of the sector. In addition to determining real wage adjustments at sector level, these negotiations cover many other aspects, including job classifications, working time and the applicable indexation mechanism. It is also at this level that the sector minimum wage, an important source of wage differentiation in Belgium, is set.

At firm level, the determinants of productivity and wage cost appear to be relatively aligned. Employment income is the most direct mechanism through which the benefits of productivity gains are transferred to workers. According to Coppens and Saks (2022),[1] the effects of the determinants of real labour productivity, such as the level of educational attainment of employees and the size or capital intensity of the firm, are of the same sign and similar magnitude as those of these variables on the wage bill of Belgian firms, indicating a relative alignment between productivity and wage costs in real terms. Similarly, firm-level collective labour agreements do not give rise to a significant productivity-pay gap.

The lack of a margin for real wage adjustments in the coming years limits to some extent the possibilities for wage differentiation between employers. Under normal circumstances, the maximum margin available for real wages can be allocated in a differentiated manner between sectors.

1 Coppens, B. and Y. Saks (2022), "Wage differentiation in Belgium: is there a role for productivity?" NBB, *Economic Review*, September.

Thus, better performing sectors can grant higher real increases. This possibility does not exist in the current context as negative real wage adjustments are not possible. This downward rigidity continues to be a hindrance for struggling firms.

The possibility of wage demands and inflation feeding each other and creating a wage-price spiral, thus contributing to the persistence or even acceleration of inflation, is a concern shared by all countries currently facing high inflation and tight labour markets. According to international studies, even in the absence of explicit indexation, nominal wages are gradually catching up with price developments. This pass-through to wages is even more rapid and substantial when indexation policies exist. In some countries, these policies apply only to minimum wages, which mechanically leads to the increase of certain sector-level minimum wages in order to maintain differentiation. In Spain or Italy, collective labour agreements may also include a clause designed to maintain purchasing power. The Belgian system of automatic indexation has institutionalised this link, which in the current context creates a competitiveness gap with neighbouring countries. The system, as it is currently designed, does not allow companies to modulate wage increases based on their specific exposure to the energy shock or the magnitude of personnel costs in their cost structure. The allocation of wage increases over time can only be adapted at sector level, through indexation mechanisms that depend on the joint committees. This rigidity, for both employees and firms, reveals the limitations of the system of wage formation in Belgium.