

Janssen, Thilo; Lübker, Malte

## Research Report

# WSI European collective bargaining report 2022/2023: Real wages collapse across Europe due to inflation shock

WSI Report, No. 86e

## Provided in Cooperation with:

The Institute of Economic and Social Research (WSI), Hans Böckler Foundation

*Suggested Citation:* Janssen, Thilo; Lübker, Malte (2023) : WSI European collective bargaining report 2022/2023: Real wages collapse across Europe due to inflation shock, WSI Report, No. 86e, Hans-Böckler-Stiftung, Wirtschafts- und Sozialwissenschaftliches Institut (WSI), Düsseldorf

This Version is available at:

<https://hdl.handle.net/10419/299258>

### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

### Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by/4.0/legalcode.de>

# REPORT

No. 86e, July 2023

## WSI EUROPEAN COLLECTIVE BARGAINING REPORT 2022 / 2023

### Real Wages Collapse across Europe due to Inflation Shock

Thilo Janssen, Malte Lübker

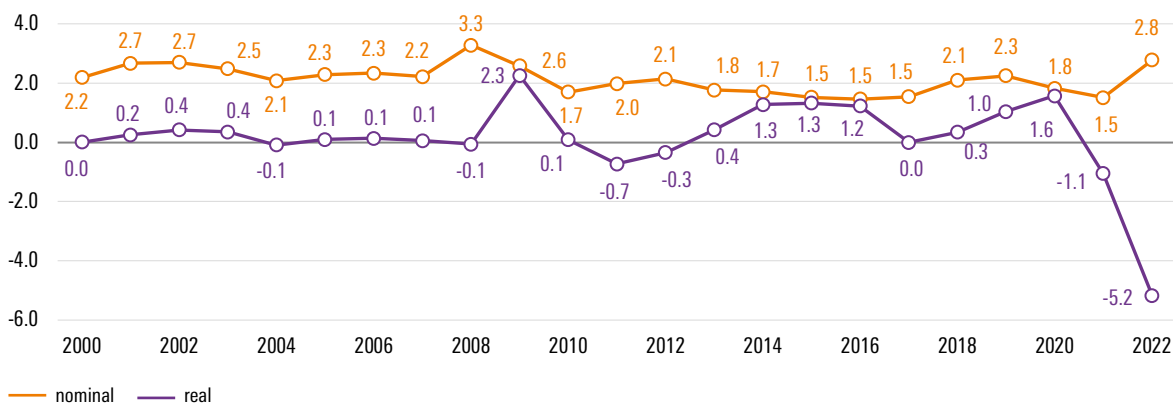
#### SUMMARY

With real wages falling by 4.0% in 2022, workers in the European Union suffered an unprecedented loss in purchasing power. The reason for this was the rapid increase in consumer prices, behind which nominal wage growth fell significantly. Meanwhile, inflation is no longer driven by energy import prices, but by domestic factors. The

increased profit margins of companies are a major reason for persistent inflation. In this difficult environment, the trade unions are faced with the challenge of securing real wages — and companies have the responsibility of making their contribution to returning to the path of political stability by reducing excess profits.

#### Trends in negotiated wage rates in the eurozone, 2000–2022

Change from prior year, in per cent



Note: Real changes are inflation adjusted, based on the Harmonised Index of Consumer Prices (HICP).

## CONTENT

<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Economic context</b>	<b>3</b>
2.1	General economic development	3
2.2	The labour market	5
2.3	Productivity development, GDP deflator and scope for distribution	5
<b>3</b>	<b>Developments in collectively-agreed pay</b>	<b>7</b>
3.1	The ECB indicator of negotiated wage rates	7
3.2	Collective bargaining developments in selected EU Member States	9
<b>4</b>	<b>Trends in actual wages</b>	<b>10</b>
4.1	Trends in wages and consumer prices	10
4.2	Distributional outcomes and the functional income distribution	12
<b>5</b>	<b>Inflation losers and inflation beneficiaries</b>	<b>14</b>
5.1	Price increases lead to rising profit margins	14
5.2	Contributions of wages and profits to the GDP deflator	14
<b>6</b>	<b>Conclusion: Will Europe find a just way out of the crisis?</b>	<b>17</b>

## AUTHORS



### **Thilo Janssen**

is a researcher at the Economic and Social Research Institute (WSI) at the Hans Böckler Foundation and a correspondent for the European Foundation for the Improvement of Living and Working Conditions (Eurofound). His main areas of interest are European industrial relations and European integration.

thilo-janssen@boeckler.de



### **Dr. Malte Lübker**

is a researcher at the Economic and Social Research Institute (WSI) at the Hans Böckler Foundation. His main areas of interest are pay, collective bargaining, income distribution (individual and functional), and redistribution through the welfare state.

malte-luebker@boeckler.de

# 1 INTRODUCTION

After the upheavals caused by the pandemic have largely come to an end, inflation is determining European wage policy in 2022 and 2023. While prices were already rising in 2021, the Russian war of aggression against Ukraine triggered an energy price shock from February 2022. As measured by the Harmonized Index of Consumer Prices (HICP), inflation peaked at 11.5% in October 2022 in the EU-27. The resulting massive loss of purchasing power for workers puts unions under pressure to stabilize real wages through high wage agreements. At the same time, companies are also complaining about high prices for energy and primary products. However, with the rapid drop in prices for imported energy, it is now domestic factors that are currently shaping pricing (European Commission 2023a, p. 9, 29). In addition to the recurring warning of a wage-price spiral (e.g. Creutzburg 2023), the rising profit margins of companies are increasingly the focus of the debate about the causes of price increases (European Commission 2023a, p. 29ff.; Ragnitz 2022; Weber/Wasner 2023).

Accordingly, in this year's European Collective Bargaining Report we are investigating what part wages and profits play in the persistence of high inflation – and what distributional challenges result from this for collective bargaining. Our starting point are the economic framework conditions and labour market developments. We then calculate the distributionally-neutral margin for wage growth. This scope can be derived from the development of productivity and prices (Section 2). In the further analysis, we discuss whether collectively agreed wages provide inflation-accelerating impulses (3) and to what extent wages exhaust the neutral scope for the distribution of produced wealth. This also influences the functional income distribution (4). The subsequent analysis of the contributions of wages and profits to the GDP deflator (5) confirms the assumption that the current inflationary crisis has distributional consequences to the detriment of workers (6).

## 2 ECONOMIC CONTEXT

### 2.1 General economic development

In the past three years, the economic framework for collective bargaining was determined by the corona pandemic, the Russian war of aggression against Ukraine starting in February 2022, the subsequent energy crisis, and most recently by rapidly increasing consumer prices. It is therefore remarkable that the gross domestic product (GDP) of the

EU grew by 3.5% in 2022. After the post-pandemic recovery year 2021 (5.4%), this was better than initially expected. Actual growth last year was a full 0.8 percentage points above the forecast from last spring (European Commission 2022a). According to the Commission, the burden of the high inflation was borne primarily by private households. They were partly supported by state benefits (see also Dullien/Rietzler/Tober 2023). The continued good development of the labour market was an important support (European Commission 2023b, p. 14).

With the lifting of the pandemic-related restrictions, continued growth in demand for services could be observed over the summer of 2022. In the manufacturing sectors, the gradual improvement in the supply chain situation had a positive effect. Overall, the picture for the countries of the EU is not uniform. The economies in the south of the EU grew more strongly, including Portugal (6.7%), Greece (5.9%) and Spain (5.5%). Italy brings up the rear with a value of 3.7%.

In Western Europe, Ireland is an outlier: growth of 12.0% of GDP is a consequence of some IT multinationals having registered their headquarters here (ibid., p. 14). Apart from this, the balance sheet for 2022 is heterogeneous. Austria (5.0%) and the Netherlands (4.5%) grew more strongly. High energy costs had an impact in Germany (1.8%), while France grew moderately (2.6%). In Central and Eastern Europe, Estonia (-1.3%) suffered from high energy prices and disrupted economic relations with Russia. In contrast, the larger countries Poland (5.1%) and Romania (4.7%) grew stronger.

At the end of 2022, the inflation-related decline in purchasing power weighed so heavily on consumer demand in most EU countries that the economy contracted at times. Germany recorded a slight decline in economic output in the 4th quarter of 2022 (-0.5%) and in the 1st quarter of 2023 (-0.3%). Since the economy has thus contracted for two consecutive quarters, it was in a "technical recession" (Federal Statistical Office 2023a). The tightening of monetary policy by the European Central Bank is also currently dampening economic development. In response to inflation dynamics, the key interest rate had been raised in continuous steps since July 2022 to 4.0% (as of June 2023) (ECB 2023; Dullien et al. 2023). The European Commission calls the start to 2023 "better than expected" (European Commission 2023a, p. 2). Viewed over the year, it forecasts widespread stagnation (1.0%) instead of a recession, as predicted in autumn (European Commission 2022b). Ireland remains the only country that can continue to expect stronger growth (5.5%) in 2023. Most industrialized nations are likely to narrowly avoid a decline in economic output, including Germany (0.2%) and France (0.7%). A decline in GDP is forecast for Sweden (-0.5%) and Estonia (-0.4%). The Commission paints an overall more positive picture for southern Europe, where economic output is grow-

**Trends in negotiated wage rates in the eurozone, 2020–2023\***

Change from prior year, in per cent (GDP) and in per cent (unemployment rate)

	Gross domestic product				Unemployment rate			
	2020	2021	2022	2023	2020	2021	2022	2023
<b>Northern Europe</b>								
Denmark	-2.0	4.9	3.8	0.3	5.6	5.1	4.5	5.0
Finland	-2.4	3.0	2.1	0.2	7.7	7.7	6.8	7.1
Sweden	-2.2	5.4	2.6	-0.5	8.5	8.8	7.5	7.7
<b>Western Europe</b>								
Austria	-6.5	4.6	5.0	0.4	6.0	6.2	4.8	4.9
Belgium	-5.4	6.3	3.2	1.2	5.8	6.3	5.6	5.8
France	-7.8	6.8	2.6	0.7	8.0	7.9	7.3	7.4
Germany	-3.7	2.6	1.8	0.2	3.7	3.7	3.1	3.2
Ireland	6.2	13.6	12.0	5.5	5.9	6.2	4.5	4.3
Luxembourg	-0.8	5.1	1.5	1.6	6.8	5.3	4.6	4.8
Netherlands	-3.9	4.9	4.5	1.8	4.9	4.2	3.5	3.8
<b>Southern Europe</b>								
Cyprus	-4.4	6.6	5.6	2.3	7.6	7.5	6.8	6.9
Greece	-9.0	8.4	5.9	2.4	17.6	14.7	12.5	12.2
Italy	-9.0	7.0	3.7	1.2	9.3	9.5	8.1	7.8
Malta	-8.6	11.8	6.9	3.9	4.4	3.4	2.9	2.9
Portugal	-8.3	5.5	6.7	2.4	7.0	6.6	6.0	6.5
Spain	-11.3	5.5	5.5	1.9	15.5	14.8	12.9	12.7
<b>Eastern Europe</b>								
Bulgaria	-4.0	7.6	3.4	1.5	6.1	5.3	4.3	4.3
Croatia	-8.5	13.1	6.2	1.6	7.5	7.6	7.0	6.6
Czech Republic	-5.5	3.6	2.5	0.2	2.6	2.8	2.2	2.8
Estonia	-0.6	8.0	-1.3	-0.4	6.9	6.2	5.6	6.2
Hungary	-4.5	7.2	4.6	0.5	4.1	4.1	3.6	4.2
Latvia	-2.3	4.3	2.8	1.4	8.1	7.6	6.9	6.8
Lithuania	0.0	6.0	1.9	0.5	8.5	7.1	6.0	6.6
Poland	-2.0	6.9	5.1	0.7	3.2	3.4	2.9	3.3
Romania	-3.7	5.8	4.7	3.2	6.1	5.6	5.6	5.4
Slovakia	-3.3	4.9	1.7	1.7	6.7	6.8	6.1	5.8
Slovenia	-4.3	8.2	5.4	1.2	5.0	4.8	4.0	3.9
<b>EU-27</b>	<b>-5.6</b>	<b>5.4</b>	<b>3.5</b>	<b>1.0</b>	<b>7.2</b>	<b>7.1</b>	<b>6.2</b>	<b>6.2</b>

**Note:****Gross domestic product** = GDP, change from prior year in %.**Unemployment rate** = unemployed persons (Eurostat definition), in % of the civilian labour force.

\* Data for 2023 refer to a forecast by the European Commission.

Quelle: European Commission, AMECO Database (current as of 15 May 2023).)

ing moderately in Spain (1.9%), Greece (2.4%) and Portugal (2.4%) (Table 1).

## 2.2 The labour market

Despite the crisis dynamics that have persisted for four years, the labour market remains the stable backbone of economic development. In February 2023, EU-27 unemployment reached a new low of 6.0%, while 2022 figures for countries like Germany (3.1%), the Czech Republic (2.2%), Poland (2.9%), the Netherlands (3.5%) or Hungary (3.6%) are close to full employment (Table 1). Greece (12.5%) and Spain (12.9%), on the other hand, continue suffering from the hysteresis effect of the euro crisis and still have the highest unemployment rates in the EU. Even here, however, unemployment has fallen throughout the crisis years. For the current year, the Commission is forecasting a further slight decline.

During the corona pandemic, instruments such as short-time work secured employment and thus social stability and consumer demand. In 2022, too, there were hardly any job cuts in industry, although backlogs in production and high energy prices continued to weigh on the sector. The service sector and the construction industry continued to show growth in employment (European Commission 2023a, p.36). An increasing shortage of labour is having a braking effect. The demand for qualified workers already exceeds the supply in many professions and EU countries (Eures 2023). This finding also applies to Germany: In a survey by the WSI, more than half (56%) of the works councils stated that their companies had difficulties filling vacancies (Ahlers/Villalobos 2022). The labour shortage index published by the Institute of Employment Research (IAB) since 2018 rose to a new high in spring 2023 (IAB 2023).

## 2.3 Productivity development, GDP deflator and scope for distribution

From the point of view of workers and their trade unions, bottlenecks in the labour market are a favourable prerequisite for achieving higher wages and better working conditions in negotiations with employers (Fuest/Jäger 2023). In addition to the situation on the labour market, collective bargaining policy is traditionally based on the distributionally-neutral margin for wage growth, which can be derived from the development of productivity and prices (Lübker/Schulten 2017, p.422). It gives the framework for wage increases where the functional distribution of income between labour and capital remains unchanged.

Labour productivity grew by 1.5% in 2022 despite the overlapping crises in the EU, in line with the forecast (Table 2). For the current year, a slight

increase in labour productivity of 0.5% is expected. This is in line with the weak GDP development and a simultaneous increase in employment (European Commission 2023a, p.39). Both are close to the value of 1%, which is used by the ECB, among others, as the long-term growth rate in labour productivity in developed economies (Lopez-Garcia/Szörfi 2021, p.93f.). After the slump in labour productivity in the pandemic year 2020 (-4.3%) and the subsequent recovery in 2021 (3.9%), there are currently signs of a return to normal in development (Lübker/Janssen 2022, p.317).

In contrast, the inflation is currently far above the historical norm. This can be seen both in the development of consumer prices, which is shown in Table 3 on the basis of the Harmonized Index of Consumer Prices (HICP) and in the GDP deflator (Table 2). The two price indices correspond to two different, complementary perspectives: from the point of view of workers, the purchasing power of wages is decisive (Lübker/Schulten 2018, p.402ff.). Section 4 therefore uses the HICP to calculate the development of real wages, which was also driven by the inflation of imported energy sources (Federal Statistical Office 2023b). From the point of view of distribution policy, however, domestic value creation is decisive. This is because only the value created in the domestic production process can be distributed between labour and capital. Changes in the prices of domestic value added can be derived from the difference between real and nominal GDP growth and are measured in the form of the GDP deflator.

While the HICP and the GDP deflator often move in parallel over long periods of time, this is not necessarily the case. When external cost shocks affect an economy – as is currently the case – they trajectory might differ substantially (Lübker/Janssen 2022, p.323). Against this background, the GDP deflator was already used in the European Collective Bargaining Report 2021/2022 to calculate the distributionally-neutral margin for wage growth. This is in line with the purpose of the indicator, namely to show the scope for wage increases that are neutral in terms of distribution policy. In other words: If the growth rate of nominal wages corresponds exactly to the indicator, the functional income distribution and thus the wage share remain constant. Since the GDP deflator only refers to domestic value added, it measures the companies' actual ability to pay. And this applies even under the changed circumstances like rising costs for imported raw materials and intermediate consumption.

For the European Union, Table 2 shows a scope of 7.0% nominal wage growth in 2022. The magnitude should be in a similar range in the current year (6.7%). For Germany, it is slightly below the EU average at 6.0% in 2022 and a forecast of 5.7% for 2023. The calculations make clear that quite significant wage increases are possible to coun-

**Labour productivity, GDP deflator and the distributionally-neutral margin for wage growth in the European Union, 2020–2023\***  
Change from prior year, in per cent (labour productivity and GDP deflator) and in per cent (distributionally-neutral margin for wage growth)

	Labour productivity				GDP deflator				Distributionally-neutral margin for wage growth			
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
<b>Northern Europe</b>												
Denmark	-0.9	2.3	0.0	0.7	2.6	2.8	7.6	0.2	1.7	5.2	7.6	0.9
Finland	-0.5	0.3	-0.4	0.4	1.6	2.2	4.2	4.4	1.2	2.5	3.9	4.7
Sweden	-0.8	4.1	-0.1	-0.7	2.0	2.9	5.7	5.7	1.1	7.1	5.6	4.9
<b>Western Europe</b>												
Austria	-4.9	2.5	2.3	-0.2	2.6	1.9	5.0	7.2	-2.5	4.5	7.4	7.0
Belgium	-5.4	4.4	1.2	0.6	1.5	2.8	5.9	3.8	-4.0	7.3	7.2	4.5
France	-7.1	4.2	0.2	0.4	2.8	1.3	3.0	5.4	-4.6	5.6	3.2	5.8
Germany	-2.9	2.5	0.5	-0.4	1.8	3.1	5.5	6.1	-1.2	5.6	6.0	5.7
Ireland	9.3	7.1	5.0	3.0	-1.6	0.7	5.3	4.6	7.6	7.8	10.6	7.8
Luxembourg	-2.5	2.1	-1.9	-0.8	4.7	6.2	6.4	5.5	2.1	8.4	4.4	4.7
Netherlands	-3.4	2.8	0.5	0.8	1.9	2.4	5.3	6.1	-1.5	5.3	5.8	7.0
<b>Southern Europe</b>												
Cyprus	-3.2	5.3	2.7	0.6	-1.2	2.9	6.4	5.0	-4.4	8.3	9.3	5.7
Greece	-7.3	5.6	2.0	1.6	-0.9	1.3	8.1	4.7	-8.1	6.9	10.3	6.4
Italy	-7.0	6.3	1.9	0.7	1.6	0.6	3.0	5.9	-5.5	7.0	5.0	6.7
Malta	-11.1	8.6	0.8	1.6	1.6	1.9	5.2	4.2	-9.7	10.7	6.0	5.9
Portugal	-6.6	3.5	4.6	1.9	2.0	1.5	4.4	5.8	-4.8	5.1	9.2	7.8
Spain	-7.5	3.0	2.6	1.1	1.2	2.3	4.3	4.4	-6.3	5.4	7.0	5.6
<b>Eastern Europe</b>												
Bulgaria	-1.7	7.4	2.1	1.2	4.3	7.1	15.1	10.4	2.5	15.1	17.5	11.8
Croatia	-7.4	11.8	3.8	0.6	0.7	2.0	8.2	7.5	-6.7	14.0	12.3	8.1
Czech Republic	-3.9	3.2	0.7	-0.5	4.3	3.3	8.6	11.3	0.3	6.6	9.3	10.8
Estonia	2.2	7.9	-5.6	-0.6	-0.5	6.0	16.6	10.3	1.7	14.3	10.0	9.6
Hungary	-3.5	6.0	2.8	0.5	6.4	6.4	15.3	13.0	2.7	12.8	18.5	13.6
Latvia	0.0	7.0	0.0	1.3	1.0	6.5	13.1	8.9	1.0	14.0	13.1	10.3
Lithuania	1.6	4.7	-3.0	1.2	1.9	6.3	16.8	10.4	3.5	11.4	13.3	11.7
Poland	-2.0	4.3	4.7	0.6	4.3	5.3	11.3	11.8	2.2	9.8	16.5	12.4
Romania	-1.7	3.9	4.6	3.5	4.1	5.2	13.4	10.7	2.4	9.3	18.6	14.5
Slovakia	-1.5	5.5	-0.1	1.2	2.4	2.4	7.5	9.8	0.9	8.0	7.4	11.1
Slovenia	-3.7	6.8	2.9	0.5	1.3	2.6	7.2	7.3	-2.5	9.6	10.3	7.9
<b>EU-27</b>	<b>-4.3</b>	<b>3.9</b>	<b>1.5</b>	<b>0.5</b>	<b>2.0</b>	<b>2.4</b>	<b>5.4</b>	<b>6.1</b>	<b>-2.3</b>	<b>6.4</b>	<b>7.0</b>	<b>6.7</b>

**Note:**

All data are based on the person concept (rather than full time equivalents). For France, the Netherlands, Italy and Spain as well as for the EU-27, this leads to minor discrepancies as compared to the publication by the European Commission (2023).

**Labour productivity** = Real GDP per person employed, change on prior year in % (person concept, not adjusted for changes in working time).

**GDP deflator** = implicit price index, as derived from the difference in changes in nominal and real GDP.

**Distributionally-neutral margin for wage growth** = product of changes in the GDP deflator and labour productivity.

\* Data for 2023 refer to a forecast by the European Commission.

teract the loss of real income for workers without reducing companies' profit margins.<sup>1</sup> At the same time, it should be borne in mind that the high arithmetical scope for distribution is largely due to the high GDP deflators. This applies in particular to the three Baltic States, where labour productivity has fallen or stagnated over the past year, as well as to Bulgaria and Hungary.

### 3 DEVELOPMENTS IN COLLECTIVELY-AGREED PAY

#### 3.1 The ECB indicator of negotiated wage rates

With its 'indicator of negotiated wage rates', the ECB aims to assess the potential impact of labour costs on future price increases by recording the results of collective bargaining in a timely manner. The data are neither seasonally nor weekday

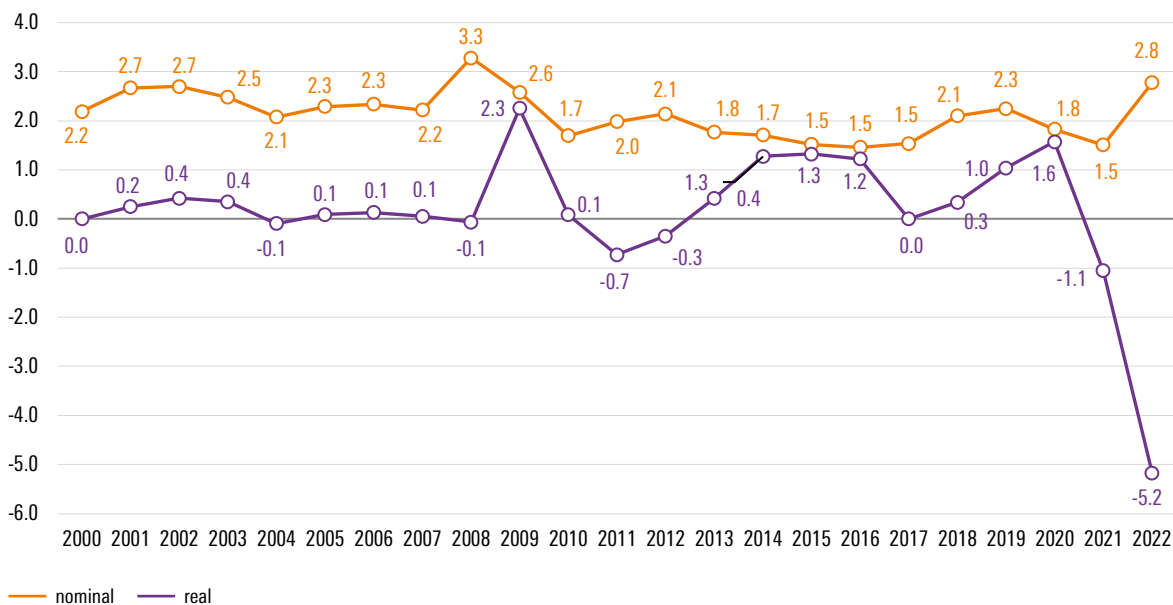
adjusted. They are collected for twelve countries, which represent around 98% of the economic power of the euro area (Kanutin 2015). In the second year of the pandemic, 2021, negotiated wages had only grown by a nominal 1.5%. They were thus at the lower end of the range of previous years. Since the wave of inflation set in at the same time, there was a real wage loss of 1.1% for 2021. The year 2022 brought a moderate nominal increase in negotiated wages of 2.8%. However, due to the energy price shock triggered by the Russian war of aggression against Ukraine, this was not nearly enough to compensate for inflation. For this reason, negotiated wages fell by 5.2% in real terms last year. This means a loss of purchasing power for workers unprecedented since the start of the time series in 2000 (Figure 1).

The quarterly data show how wage policy is geared on the ongoing crisis (Figure 2). The nominal collective wage increases remained well below 2% until the fourth quarter of 2021 and then only picked up with rising inflation in 2022. It is noteworthy, however, that nominal collective wage growth, with peak values of 2.9% each in the 3rd and 4th

Figure 1

#### Trends in negotiated wage rates in the eurozone, 2000–2022

Change from prior year, in per cent



**Note:** Real changes are inflation adjusted, based on the Harmonised Index of Consumer Prices (HICP).

Source: European Central Bank (Indicator of negotiated wage rates) and European Commission, AMECO Database (current as of 15 May 2023); authors' calculations.



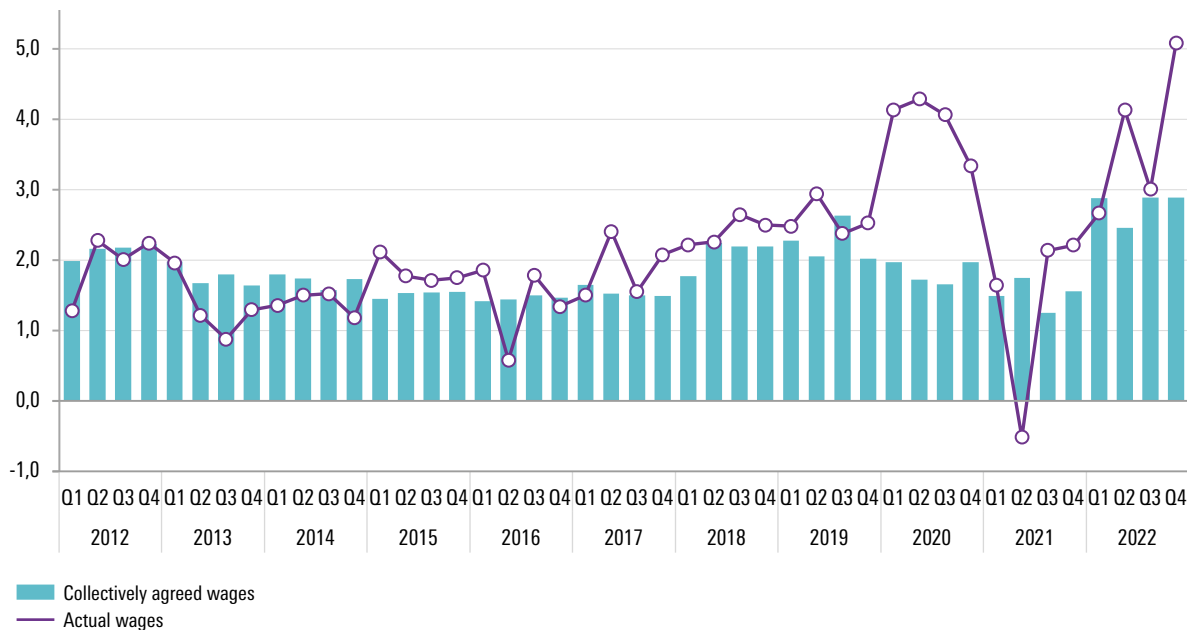
<sup>1</sup> As pointed out before, any forecast is subject to great uncertainty, due to the development of core inflation (excluding energy prices), financial market developments, fiscal policy decisions, and external developments such as the Russian war against Ukraine (European Commission 2023a, p.5).



Figure 2

**Trends in negotiated wage rates and actual wages in the eurozone, 2012–2022**

Change from quarter one year ago, in per cent



**Note:**

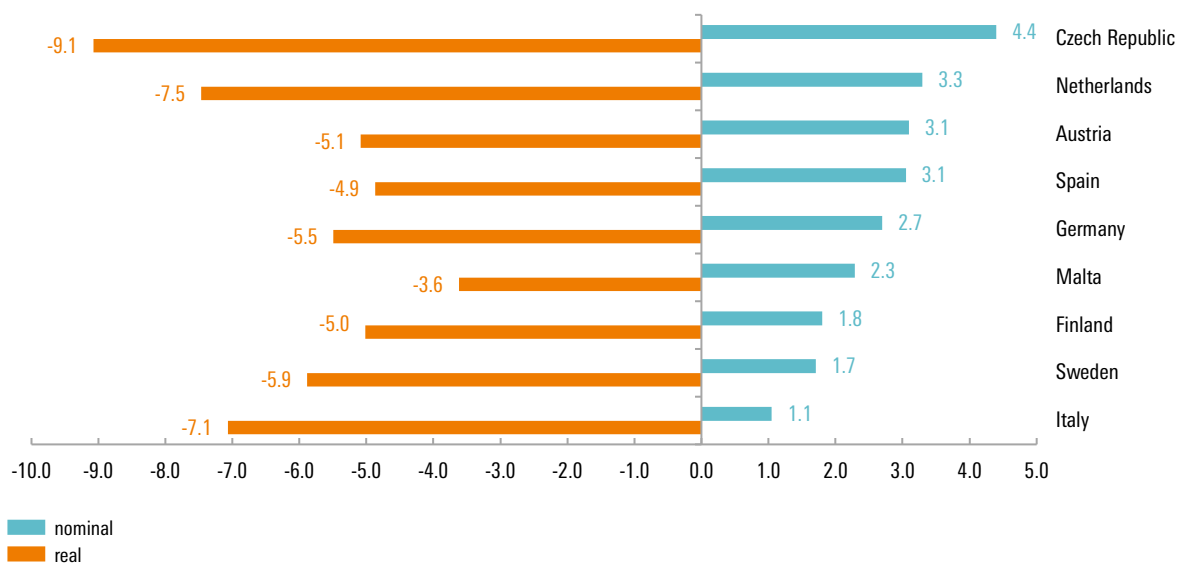
Actual wages refer to wages and salaries, NACE sections B to S (i. e. industry, construction and services, except activities of households as employers and extra-territorial organisations and bodies). Excludes non-wage labour costs. Data are calendar adjusted, but not seasonally adjusted.

Source: European Central Bank, authors' calculations.

Figure 3

**Trends in negotiated wage rates in selected EU Member States, 2022\***

Change from prior year, in per cent



\* Real-terms changes in negotiated wage rates are based on inflation as measured by the Harmonised Index of Consumer Prices (HICP); some data are still preliminary.

Source: Eurofound, EurWORK's database on wages, working time and collective disputes; European Commission, AMECO Database (current as of 15 May 2023); authors' calculations



quarters of 2022, remained below the 3% mark. The ECB uses this as a benchmark for a stability-oriented wage policy. It is derived from the long-term trend growth in productivity of 1% per year and the ECB's inflation target of 2% (Lane 2023). As a result, no inflation-accelerating impulses emanated from the collectively bargained wages.

On the other hand, larger increases can be seen in the hourly wages actually paid, the actual earnings, which are also collected by the ECB. The unusual fluctuations in 2020 and 2021 can primarily be attributed to compositional effects and distortions caused by the pandemic and the subsequent recovery (Lübker/Janssen 2022, p.319f.; Bodnár et al. 2022, p.117ff.). These effects came to an end in the course of 2022, so that the growing difference between negotiated wages and actual earnings can currently be interpreted again in terms of a wage drift. In Germany, for example, the Bundesbank expects a clearly positive wage drift for the years 2023 and 2024 and, on this basis, forecasts growth in actual wages of around 5% (Bundesbank 2022a, p.33).

With its experimental, forward-looking wage tracker, the ECB forecasts the future development of negotiated wage rates. The indicator is based on data from the euro countries Germany, France, Italy, Spain, the Netherlands, Greece and Austria, which are weighted according to the number of workers. A prognosis is possible because many collective agreements contain step-by-step wage increases that only gradually come into force during the term of the collective agreement (see also Schulten/WSI-Tarifarchiv 2023). According to this, the collective agreements concluded in 2022 provided for wage increases of 4.4% in 2022 and further increases of 4.8% which will take effect in the course of 2023. This shows the time-delayed reaction of wage policy to falling real wages due to inflation. Although the experimental data outline a trend, they only capture a section of collective bargaining and cannot fully reflect future developments (Lane 2023).

### 3.2 Collective bargaining developments in selected EU Member States

Complementing the data from the ECB, the European Foundation for the Improvement of Living and Working Conditions (Eurofound) provides comprehensive data on collective bargaining in the EU-27 in its EurWORK database (Figure 3). For the year 2022, there is a certain spread in nominal wage increases from 1.1% in Italy to 4.4% in the

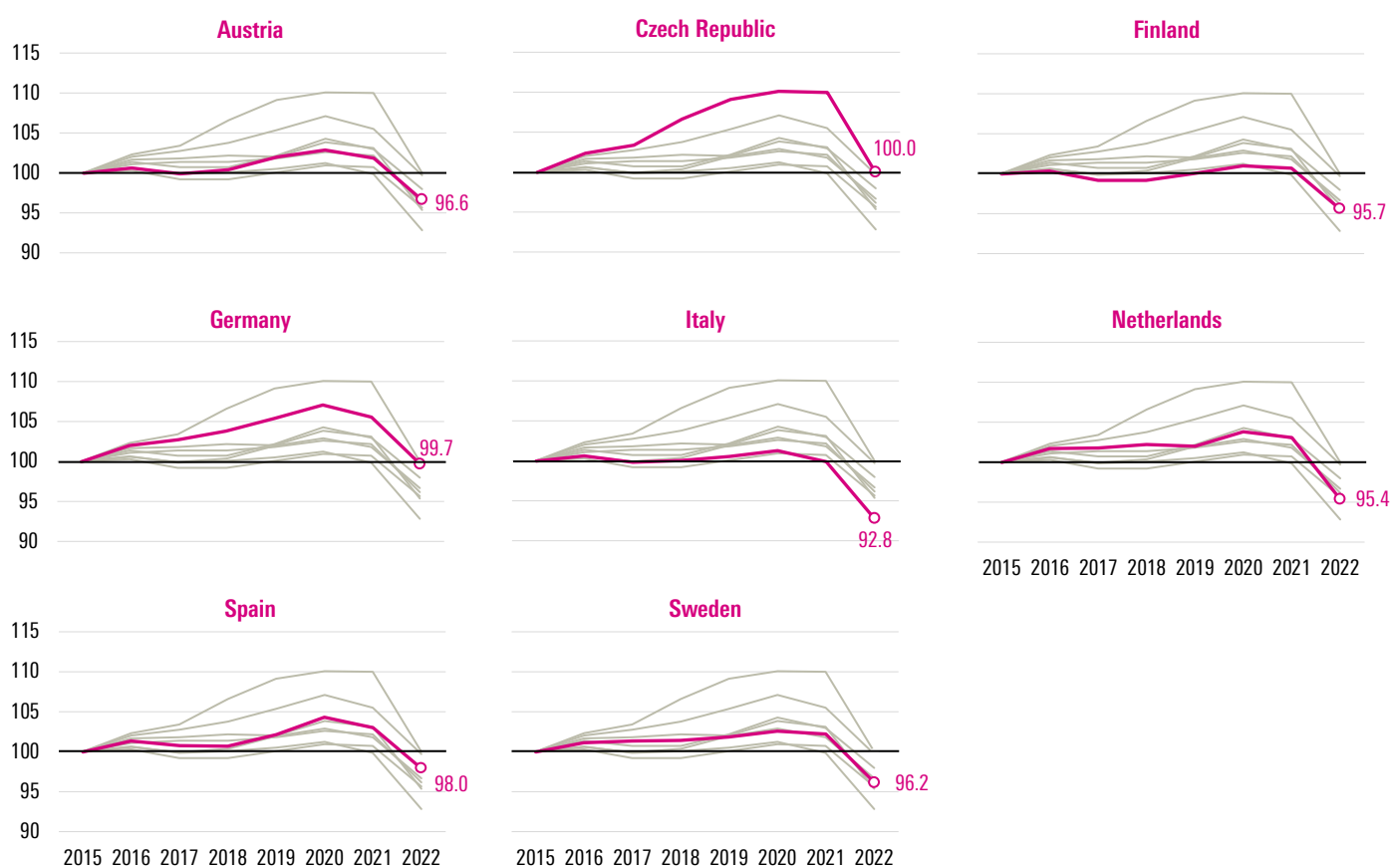
Czech Republic. Germany (2.7%) is in the middle.<sup>2</sup> Data from the Federal Statistical Office (2023c) are also available for Germany, according to which negotiated wages rose by only 2.3% in the 1st quarter of 2023 compared to the same quarter in the previous year. For France, the second largest economy in the EU, no Eurofound data were available for 2022 at the time of publication. According to the French National Bank, nominal negotiated wages grew by around 5%. In more than 150 sectors, review clauses in collective agreements linked to the inflation trend or the indexed minimum wage ensured that these were renegotiated (sometimes twice) in 2022 and that higher agreements were reached (see also Lübker/Schulten 2023, p.115ff.). Nevertheless, according to the assessment of the French National Bank, the high settlements in 2022 did not give any impetus in the direction of a wage-price spiral (Gautier 2023).

For none of the euro countries considered here did the collectively bargained wages provide an inflation-driving impetus. At the same time, however, the moderate increases in collectively agreed wages mean that their purchasing power is declining significantly in all selected countries. Despite the higher nominal wages, workers in the Czech Republic (-9.1%) and the Netherlands (-7.5%) together with Italy (-7.1%) must accept the highest real losses. In Germany, negotiated wages decline by 5.5% in 2022 if the HICP is used for price adjustment – as is consistently done throughout the European Collective Bargaining Report. If the national consumer price index is used instead, the real loss is slightly smaller at 4.7% (WSI Tarifarchiv 2022). In France (not tabulated) the real losses of 0.8% are comparatively small.

The long-term perspective makes it clear that the recent rise in prices has completely erased the real gains made in collectively-agreed wages the past few years: while negotiated wages have grown moderately but steadily in real terms in most countries since 2015, there was a trend reversal in 2021 and a crash in 2022 as inflation rose. In all countries considered, they fell below the level of seven years ago in 2022; in some countries they are now four or more percentage points below their starting level (Figure 4).

<sup>2</sup> For the year 2022, Eurofound has kindly provided advance data on collective wage developments, which were already available at the time of publication.

Trends in inflation-adjusted negotiated wage rates in selected EU Member States, 2015–2022\*  
Index, 2015 = 100



\* Real-terms changes in negotiated wage rates are based on inflation as measured by the Harmonised Index of Consumer Prices (HICP); some data are still preliminary.

Source: Eurofound, EurWORK's database on wages, working time and collective disputes; European Commission, AMECO Database (current as of 15 May 2023); authors' calculations

WSI

## 4 TRENDS IN ACTUAL WAGES

### 4.1 Trends in wages and consumer prices

In addition to collective bargaining, numerous other factors influence the development of the wages and salaries. The European Collective Bargaining Report approximates these actual wages as compensation of employees per employee, hence including employers' social security contributions. Based on the AMECO database of the European Commission, Table 3 shows the development of nominal wages. These are price-adjusted using the Harmonized Index of Consumer Prices (HICP), so that the development of real wages is shown in the last column.

While nominal wages in the European Union stagnated in the 2020 pandemic year, there was

a significant recovery (4.0%) in 2021 (Lübker/Janssen 2022, p. 321). In 2022, nominal wages increased by 4.8%, driven by above-average growth in some Eastern European countries, including Bulgaria (18.4%), Estonia (8.3%), Poland (13.2%), Latvia (9.0%), Lithuania (10.6%), Romania (11.1%) and Hungary (15.0%). Wage developments in the large economies of Germany (4.2%), France (5.0%) and Italy (4.8%) were around the average.

For the current year, the forecast by the European Commission indicates a continuation of this trend. Again, nominal wages in many Eastern European countries are particularly likely to grow much more strongly than the average for the European Union (5.9%). Nominal wage growth of more than 10% is expected for each of the three Baltic countries in 2023. Since this is not backed by corresponding productivity gains, the Macroeconomic Policy Institute (IMK) warns that there is a risk that unit labour costs will diverge within

Table 3

## Trends in wages and consumer prices in the European Union, 2020–2023\*

Change from prior year, in per cent

	Nominal wages				Consumer prices (HICP)				Real wages			
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
<b>Northern Europe</b>												
Denmark	2.6	2.9	2.9	4.9	0.3	1.9	8.5	4.3	2.2	1.0	-5.2	0.6
Finland	0.4	3.6	3.2	4.5	0.4	2.1	7.2	4.8	0.0	1.5	-3.7	-0.3
Sweden	2.5	4.3	2.8	4.0	0.7	2.7	8.1	6.0	1.8	1.6	-4.8	-1.8
<b>Western Europe</b>												
Austria	1.8	2.8	4.6	8.3	1.4	2.8	8.6	7.1	0.4	0.0	-3.7	1.1
Belgium	-1.6	4.1	7.2	9.0	0.4	3.2	10.3	3.4	-2.0	0.9	-2.8	5.4
France	-2.7	4.7	5.0	5.4	0.5	2.1	5.9	5.5	-3.2	2.6	-0.8	-0.1
Germany	0.4	3.1	4.2	5.5	0.4	3.2	8.7	6.8	0.0	-0.1	-4.1	-1.3
Ireland	3.7	2.6	4.2	5.6	-0.5	2.4	8.1	4.6	4.2	0.2	-3.6	0.9
Luxembourg	1.2	6.0	5.4	6.9	0.0	3.5	8.2	3.2	1.2	2.5	-2.6	3.6
Netherlands	4.8	2.2	3.9	5.5	1.1	2.8	11.6	4.9	3.7	-0.6	-7.0	0.6
<b>Southern Europe</b>												
Cyprus	-0.5	3.8	3.8	6.3	-1.1	2.3	8.1	3.8	0.6	1.6	-4.0	2.4
Greece	-0.6	2.3	0.3	3.6	-1.3	0.6	9.3	4.2	0.6	1.8	-8.2	-0.6
Italy	-4.1	5.9	4.8	3.9	-0.1	1.9	8.7	6.1	-3.9	3.9	-3.6	-2.1
Malta	-0.4	4.6	2.8	5.6	0.8	0.7	6.1	5.4	-1.2	3.9	-3.1	0.2
Portugal	1.5	4.1	6.1	5.7	-0.1	0.9	8.1	5.1	1.6	3.1	-1.9	0.6
Spain	0.5	2.7	3.2	4.9	-0.3	3.0	8.3	4.0	0.8	-0.3	-4.8	0.9
<b>Eastern Europe</b>												
Bulgaria	7.2	11.3	18.4	13.5	1.2	2.8	13.0	9.4	5.9	8.2	4.7	3.8
Croatia	1.2	10.4	7.9	7.5	0.0	2.7	10.7	6.9	1.2	7.5	-2.5	0.6
Czech Republic	3.1	5.0	5.5	7.3	3.3	3.3	14.8	11.9	-0.1	1.7	-8.1	-4.1
Estonia	6.2	9.8	8.3	10.3	-0.6	4.5	19.4	9.2	6.8	5.1	-9.3	1.1
Hungary	3.0	8.8	15.0	14.6	3.4	5.2	15.3	16.4	-0.4	3.4	-0.2	-1.5
Latvia	5.0	11.1	9.0	10.8	0.1	3.2	17.2	9.3	4.9	7.6	-7.1	1.4
Lithuania	6.6	11.9	10.6	10.4	1.1	4.6	18.9	9.2	5.5	7.0	-7.0	1.1
Poland	5.3	4.7	13.2	12.7	3.7	5.2	13.2	11.7	1.6	-0.5	0.0	0.9
Romania	4.0	1.9	11.1	9.6	2.3	4.1	12.0	9.7	1.7	-2.1	-0.8	-0.1
Slovakia	3.9	6.9	6.0	9.7	2.0	2.8	12.1	10.9	1.8	4.0	-5.4	-1.1
Slovenia	3.4	7.9	4.3	7.7	-0.3	2.0	9.3	7.0	3.7	5.8	-4.6	0.7
<b>EU-27</b>	<b>0.0</b>	<b>4.0</b>	<b>4.8</b>	<b>5.9</b>	<b>0.7</b>	<b>2.9</b>	<b>9.2</b>	<b>6.7</b>	<b>-0.7</b>	<b>1.1</b>	<b>-4.0</b>	<b>-0.7</b>

**Note:**

All data are based on the person concept (rather than full time equivalents). For France, the Netherlands, Italy and Spain as well as for the EU-27, this leads to minor discrepancies as compared to the publication by the European Commission (2023). In contrast to the WSI, the European Commission uses the price index for private consumption to calculate real wages; this also leads to minor differences between the two publications.

**Nominal wages** = nominal compensation of employees per person employed, change from prior year in % (not adjusted for changes in working time).

**Consumer prices** = Harmonised index of consumer prices (HICP), change on prior year in %.

**Real wages** = nominal compensation of employees per person employed, inflation adjusted based on the Harmonised Index of Consumer Prices (HICP), change from prior year in % (not adjusted for changes in working time).

\* Data for 2023 refer to a forecast by the European Commission.

the monetary union. As a result, new imbalances could develop, not unlike those that contributed to the emergence of the euro crisis a decade ago (Herzog-Stein/Stein 2023).

A look at real wages shows a completely different picture – similar to the development of collectively agreed wages. Real wages are determined by the rising wave of inflation since the second half of 2021. In the previous year, the European Collective Bargaining Report therefore warned of a possible loss of purchasing power of 2.9% on average in the European Union for the year 2022. The present report must now adjust the value downwards: real wages fell in 2022 by 4.0%, significantly more than predicted. Workers in almost all EU countries had to cope with high real wage losses. In Estonia (-9.3%), Latvia (-7.1%), Lithuania (-7.0%) and the Czech Republic (-8.1%) the decline was particularly pronounced, but similar values were also recorded in the Netherlands (-7.0%) and Greece (-8.2%). In Germany, the drop in real wages was 4.1%. Only in the low-wage country of Bulgaria (4.7%) was positive real wage growth recorded; in Poland (0.0%) losses in purchasing power were only just avoided.

Further losses are looming in many countries in 2023 – including Sweden (-1.8%), Italy (-2.1%) and the Czech Republic (-4.1%) – while real wages are expected to stagnate in most countries. The European Commission is also forecasting a further drop in real wages of 1.3% for Germany. However, this could prove to be overly optimistic, since real wages in the first quarter of 2023 were already 2.7% below the previous year's figure according to calculations by the Federal Statistical Office (2023d). Only in a few countries – Belgium (5.4%), Luxembourg (3.6%), Cyprus (2.4%), Bulgaria (3.8%) – real wages could increase again. Overall, in 2023 there is a risk of a further real wage loss of 0.7% for workers in the European Union.

The reason for the high loss of purchasing power is the rise of consumer prices. While a price increase could already be observed in the pre-war year 2021, the year 2022 brought a veritable explosion: In October the HICP peaked with a year-on-year increase of 10.6%. At 9.2%, the annual average in 2022 was also well above the inflation target of the ECB (Table 3). While inflation was initially stoked by external factors, such as the energy price shock in the wake of the Russian invasion of Ukraine, domestic factors are increasingly driving prices (European Commission 2023a, p. 29). Consider that shortly after the start of the Russian war of aggression, energy prices rose by more than 40% and remained at this high level until October 2022. Since then, however, energy prices have fallen drastically again, so that they have a dampening effect on inflation (European Commission 2023a, p. 39). In Germany, import prices in April 2023 were a total of 7.0% below the same month of the previous year (Federal Statistical Office 2023e).

Inflation drivers continue to be food prices, which are a huge burden for poorer households. Non-energy industrial products and services have also continued to become more expensive. State support programs such as one-off payments or price caps have been adopted in most EU countries (for an overview see Cantero Guerrero/Aumayr-Pintar 2023). They can, however, only partially compensate for the persistently high prices for everyday goods and often only for a limited time. The situation remains particularly problematic in Eastern European EU countries, where a significant proportion of the population spends a large part of their income on essential goods. Inflation thus exacerbates social divisions in the EU, both between regions and within EU countries: panel data of the European Household Survey indicate that recent price increases have increased material and social deprivation by around 2% (Menyhért 2022, p. 29).

Lower income groups are particularly affected by the inflation of basic consumer goods. Therefore, the minimum wage policy plays a central role in cushioning the consequences of inflation – in addition to collective bargaining (see Aumayr-Pintar/Vacas-Soriano 2023). The WSI Minimum Wage Report indicates a record median nominal increase in minimum wages of 12% in the European Union for 2023 (Lübker/Schulten 2023). Adjusted for inflation, however, minimum-wage workers only have a median real wage increase of 0.6%. This value also conceals the fact that in half of the EU countries with statutory minimum wages, real wage losses have to be coped with (ibid.).

## 4.2 Distributional outcomes and the functional income distribution

The distributional outcome can be calculated by comparing the actual wage development with the calculated distributionally-neutral margin for wage growth (Table 4).<sup>3</sup> Since nominal wage growth (Table 3) has lagged far behind the product of productivity and price developments (Table 2) in recent years, the result is a clearly negative distributional outcome in both 2021 (-2.4%) and 2022 (-2.2%). Likewise, for Germany there is a negative balance of a similar magnitude in 2021 (-2.5%) and 2022 (-1.8%). At the level of the EU-27, this trend is likely to continue in 2023 (-0.8%) despite the recent increase in nominal wages. Recall that the distributionally-neutral margin for wage growth in the present European collective bargaining report is

<sup>3</sup> As explained above, the distributionally-neutral margin for wage growth in the European Collective Bargaining Report has been calculated on the basis of the GDP deflator since the 2021/2022 edition (Lübker/Janssen 2022, p. 323).

Table 4

### Distributional outcomes and functional income distribution in the European Union, 2020–2023\*

In percentage points (distributional outcome) and in per cent (labour share)

	Distributional outcome				Labour share (adjusted)			
	2020	2021	2022	2023	2020	2021	2022	2023
<b>Northern Europe</b>								
Denmark	0.9	-2.2	-4.7	4.0	55.5	54.3	52.0	54.1
Finland	-0.7	1.1	-0.7	-0.2	52.3	52.8	52.5	52.4
Sweden	1.3	-2.8	-2.8	-0.9	49.9	48.7	47.4	47.0
<b>Western Europe</b>								
Austria	4.3	-1.7	-2.8	1.3	57.5	56.5	55.1	55.8
Belgium	2.4	-3.2	0.0	4.5	60.4	58.6	58.6	61.1
France	1.9	-0.9	1.8	-0.5	58.1	57.6	58.7	58.4
Germany	1.6	-2.5	-1.8	-0.2	59.7	58.3	57.3	57.2
Ireland	-3.9	-5.2	-6.4	-2.2	31.9	30.4	28.6	28.0
Luxembourg	-0.9	-2.3	1.0	2.3	52.9	51.8	52.3	53.4
Netherlands	6.3	-3.2	-2.0	-1.4	61.1	59.3	58.2	57.4
<b>Southern Europe</b>								
Cyprus	3.9	-4.5	-5.5	0.6	52.0	49.9	47.3	47.6
Greece	7.5	-4.6	-10.0	-2.8	54.6	52.2	47.5	46.2
Italy	1.5	-1.1	-0.2	-2.8	53.4	52.8	52.7	51.3
Malta	9.3	-6.0	-3.2	-0.3	55.5	52.5	50.9	50.7
Portugal	6.3	-1.0	-3.1	-2.2	56.1	55.6	54.0	52.9
Spain	6.8	-2.7	-3.8	-0.7	57.9	56.4	54.4	54.1
<b>Eastern Europe</b>								
Bulgaria	4.7	-3.8	0.9	1.8	60.7	58.7	59.2	60.1
Croatia	8.0	-3.6	-4.4	-0.6	56.4	54.6	52.4	52.1
Czech Republic	2.8	-1.6	-3.8	-3.4	53.3	52.5	50.7	49.1
Estonia	4.5	-4.5	-1.7	0.7	56.9	54.7	53.8	54.2
Hungary	0.3	-4.1	-3.5	1.0	45.0	43.3	42.1	42.5
Latvia	4.0	-2.9	-4.1	0.5	57.5	56.0	53.9	54.2
Lithuania	3.1	0.5	-2.7	-1.3	54.0	54.3	53.0	52.4
Poland	3.1	-5.1	-3.3	0.3	51.5	49.1	47.7	47.8
Romania	1.6	-7.4	-7.5	-4.9	50.9	47.4	44.4	42.5
Slovakia	3.0	-1.1	-1.4	-1.4	50.7	50.2	49.6	48.9
Slovenia	5.8	-1.6	-6.0	-0.2	66.2	65.2	61.7	61.6
<b>EU-27</b>	<b>2.3</b>	<b>-2.4</b>	<b>-2.2</b>	<b>-0.8</b>	<b>56.8</b>	<b>55.6</b>	<b>54.8</b>	<b>54.6</b>

**Note:**

All data are based on the person concept (rather than full time equivalents).

**Distributional outcome** = balance of nominal wage growth and the distributionally-neutral margin for wage growth (see Table 2), in percentage points.

**Labour share (adjusted)** = Compensation of employees per employee, in % of GDP per person employed (at current market prices, person concept, not adjusted for working time).

\* Data for 2023 refer to a forecast by the European Commission.



calculated on the basis of the GDP deflator. Hence, the mechanics of the national accounts framework directly link the negative distributional outcome to the functional distribution of income (see also Lübker/Schulten 2018, pp. 402ff.).<sup>4</sup>

Accordingly, the national accounts also record a falling share of compensation of employees in national income: the adjusted wage share has fallen continuously since the pandemic year 2020 (56.8%) in the EU-27. It is expected to decline further to 54.6% in 2023. The sharpness of the decline can be partly explained by the elevated baseline value for 2020. But even in a long-term comparison, the wage share is currently unusually low: In the period from 2010 to 2019, it was still 55.4% on average in the EU-27 (not shown in the table). Germany is also one of the EU countries where wage income has lost ground. Here, the adjusted wage share fell from 59.7% (2020) to 57.3% (2022).

## 5 INFLATION LOSERS AND INFLATION BENEFICIARIES

### 5.1 Price increases lead to rising profit margins

The previous sections have shown that, given the gap between nominal wage growth and the rise in consumer prices, workers have suffered a significant drop in real wages over the past year: according to the available data, they are unambiguously the losers in the recent wave of inflation. But employers, too, sometimes give the impression that their companies are suffering from the high inflation. At first sight, the significant rise in world market prices for energy, agricultural raw materials, and intermediate inputs over the course of 2021 and 2022 makes this representation seem plausible (Dullien/Tober 2023, p.3). Nonetheless, this narrative needs to be questioned, as the higher prices charged by companies for their end products are reflected in corporate balance sheets in the form of higher revenues – a diametrical contrast to the position of consumers, for whom higher prices mean higher expenditures. Changes in the functional income distribution in favour of capital incomes also suggests that profits have not suffered a hit.

In the previous edition, the European Collective Bargaining Report argued that many companies had increased their prices more than would have been necessary to compensate for their increased costs (Lübker/Janssen 2022, p.319). The leading German automobile manufacturers served as an example of this, given that they openly referred to an “improved pricing environment” as a main explanation for increased corporate profits (ibid.). In the meantime, the Bundesbank (2023) has examined the earnings situation of German companies on the basis of a much broader sample.<sup>5</sup> It arrives at the conclusion that “cost increases were largely passed on to consumers”, while this was not the case when input costs declined (ibid., p.70). The companies also benefited from the moderate growth in wages, so that “reported personnel expenses fell relative to total output” (ibid.) [authors’ translation].

As a result, companies in Germany were able to significantly expand their profit margins at the expense of consumers and, according to calculations by the Bundesbank, achieved a return on sales of 5.1% in 2021 before taxes, the highest value since 2007 (ibid.). Balance sheets for companies listed on the Frankfurt Stock Exchange also suggest that revenues and, to a lesser extent, corporate profits continued to grow through 2022 in all sectors of the economy.<sup>6</sup> Joachim Ragnitz (2022) from the ifo Institute Dresden also draws the conclusion that German companies have not only passed on cost increases to their customers, but have further fuelled inflation by increasing their profit margins. “In particular in agriculture and forestry, [...] as well as in the construction industry and in trade, hospitality and transport [...], companies have increased their prices significantly more than would have been expected due to the rise in input prices” (ibid., p.25) [authors’ translation].

### 5.2 Contributions of wages and profits to the GDP deflator

Most recently, the European Commission (2023, p.29) pointed out in its Spring 2023 Economic Forecast that the development of profits is a key driving force behind high inflation across Europe. The starting point for the Commission’s calculations is the GDP deflator, which is also used in Section 2.3 of the present report to determine the distributionally-neutral margin for wage growth.

<sup>4</sup> This is not necessarily the case if the distributionally-neutral margin for wage growth is calculated on the basis of the HICP (Lübker/Schulten 2017, p.423). By changing the basis of calculation to the GDP deflator, the uncertainty in the interpretation of the distribution balance with regard to the functional income distribution is eliminated (see also Lübker 2020, p.274).

<sup>5</sup> The annual financial statements of around 23,000 companies were included in the study, which were extrapolated using information from the company register (Bundesbank 2023, p.70).

<sup>6</sup> Due to the reporting requirements, recent data are available for the around 230 companies listed in the Prime Standard of the Frankfurt Stock Exchange (Bundesbank 2023, p.80).

Since nominal GDP can be broken down into its main components on the income side – compensation of employees and gross operating surplus –, changes in the GDP deflator can also be traced back to the development of wages and profits.<sup>7</sup> The third, much smaller component of GDP at market prices is the balance of taxes linked to production and imports, minus subsidies. Hence, changes in taxes – such as Germany’s temporary reduction in VAT in 2020 – can also affect the GDP deflator. **Figure 5** is based on the methodology used by the Commission in its Spring 2023 Economic Forecast (European Commission 2023, pp. 29ff.).<sup>8</sup> Accordingly, a caveat stressed by the Commission also applies here: The decomposition is purely an accounting exercise and cannot be understood in the sense of a causal analysis (*ibid.*, p. 29).

Since compensation of employees makes up a higher proportion of GDP than gross operating surplus, wages can be expected to make a higher contribution to the GDP deflator (see also Arce/Hahn/Koester 2023, **Figure 3**).<sup>9</sup> To account for this bias, **Figure 5** therefore first shows the development of unit labour costs (wage inflation) and unit capital costs (profit inflation). While both indicators fluctuated around the GDP deflator (shown as a line) in previous years without any recognizable pattern, the rates of increase in unit capital costs are significantly above those of unit labour costs in 2021 (4.6%) and 2022 (7.0%). This is also the case in the forecast for 2023 (7.6%). This supports the assessment made by the European Commission (2023, p. 31), namely that domestic price pressure is currently emanate from profits in particular.

When decomposing the GDP deflator itself, the unusually high contribution of profits also stands out (bars in **Figure 5**). For the European Union as a whole (panel a), profits contributed 1.5 and 2.3 percentage points to the GDP deflator in 2021 and 2022, respectively. In the forecast for the current year, the continued profit growth will again make a significant contribution to domestic inflation (2.5 percentage points). For comparison: In the years from 2010 to 2020, the contribution of the gross operating surplus to the GDP deflator averaged 0.5 percentage points. Therefore, the contribution of profits to domestic price pressures is three to five times above its long-run trend. In contrast, only a minimal contribution to inflation can be identified

for wages in 2021 (0.2 percentage points), which only increases to 1.8 percentage points in 2022 and, in the forecast, to 2.9 percentage points in 2023. However, as explained above, this must be viewed in relation to the higher share of wages in GDP.

Looking at the development in the five largest economies in the European Union, a similar pattern emerges – with one important exception (**Figure 5**, panels b to f). Since 2021, gross operating surplus has made a disproportionate contribution to the GDP deflator in Germany, Italy, Spain and the Netherlands, although its impact is distributed slightly differently over the calendar years between countries. What all four economies have in common is that unit capital costs rose faster than unit labour costs in the 2022/23 period and in some cases also in 2021. The situation is different in France, where unit labour costs increased by 4.9% in 2022 (and similar growth is expected in 2023). This is well above the EU-27 average (3.3%). Since profits remained subdued in France, the overall GDP deflator grew at only 3.0%, well below the average for the EU-27. Likewise, France saw a below-average increase in consumer prices of 5.9% (see **Table 3**). This demonstrates, in line with the caveat made above, that the causal relationship between wages and inflation is tentative and conditional on the development of profits.

When looking at the quarterly national accounts, profits have gained momentum since the 3rd quarter of 2021, supported by both manufacturing and services (European Commission 2023a, p. 30). By the 4th quarter of 2022, unit capital costs increased in all EU-27 countries, mostly at a faster rate than the GDP deflator (*ibid.*). Calculations by the European Central Bank (ECB) also show an increasing contribution of profits to domestic inflation (Panetta 2023). Overall, profits have made a larger contribution to the GDP deflator than wages since the 4th quarter of 2019 in the eurozone. This disparity is particularly pronounced in the mining and utilities sector and in agriculture, where excess profits accumulated due to rising commodity prices. But profits also increased significantly in manufacturing, construction and the trade, transport and hospitality sector (*ibid.*).

In sum, companies have recently succeeded in raising their sales prices more than would have been necessary to compensate for the rising costs of imported raw materials and intermediate inputs. Given the data, even liberal economists share the finding of “profit inflation” and see companies as “inflation winners” (Ragnitz 2022). This prompts the obvious question how the companies managed to impose their higher margins on consumers. This is unusual for crisis situations, where the default expectation is that rising costs for primary products and the weak economy adversely affect profits (Arce/Hahn/Koester 2023).

To explain the unusual surge in profits, the current debate centers on two explanations: On the

<sup>7</sup> This takes place in the generation of income account (Eurostat 2014, margin no. 8.18).

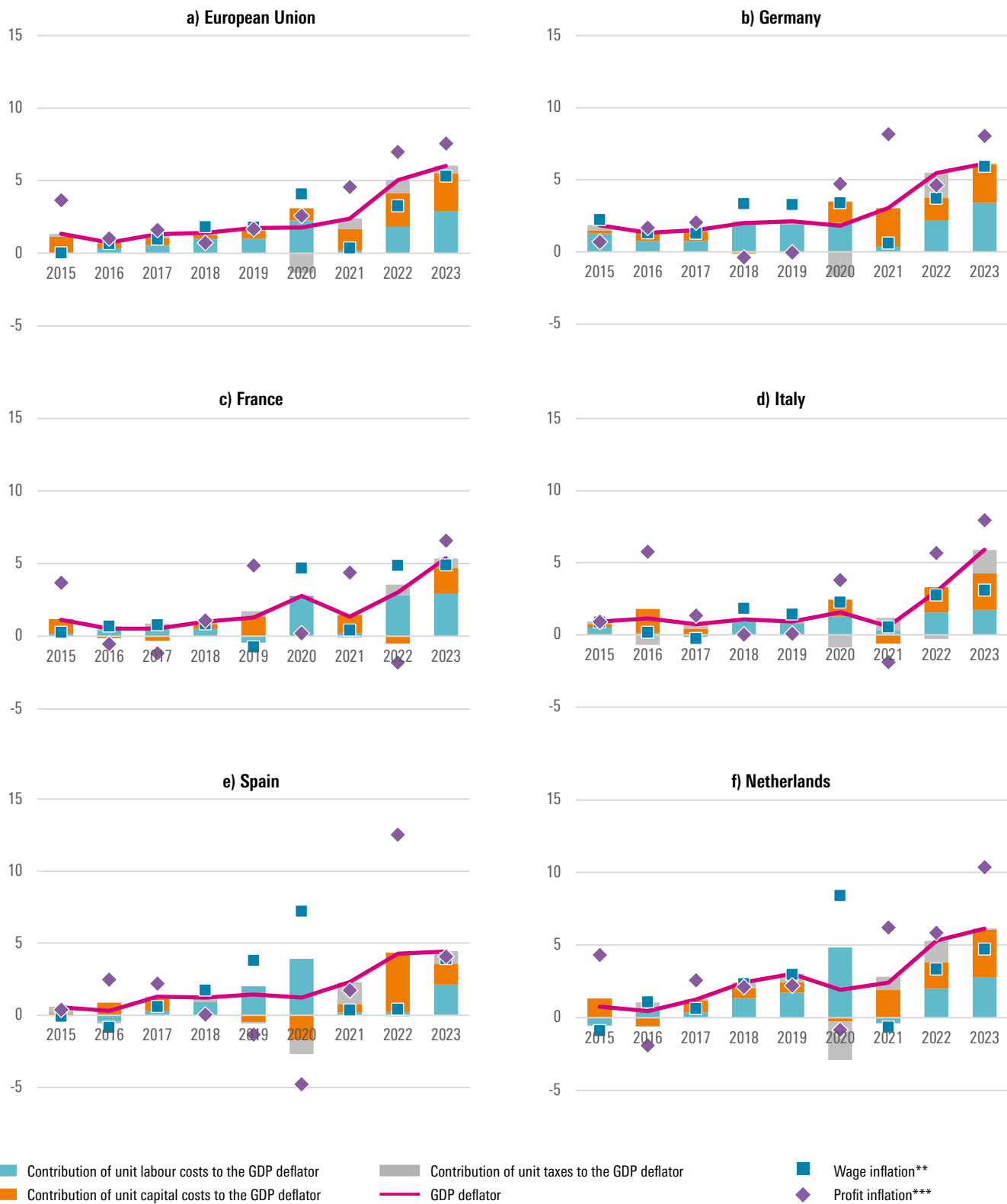
<sup>8</sup> Profits are defined as gross operating surplus (i. e. before depreciation) and wages as compensation of employees (i. e. including employers’ social security contributions). Income from self-employment is distributed proportionally to wages and profits, following the example of the European Commission (2023, p. 29).

<sup>9</sup> Nonetheless, for the years 2010 to 2020, the contribution made by the compensation of employees to the GDP deflator was only 0.7 percentage points on average.



**Development of the GDP deflator and its components on the income side, 2015–2023\***

In per cent (GDP deflator, wage and profit inflation) or in percentage points (contributions to the GDP deflator)



\* Figures for 2023: European Commission forecast.  
 \*\* Wage inflation (year-on-year growth rate of unit labour costs)  
 \*\*\* Profit inflation (year-on-year growth rate of unit capital costs)

one hand, reference is made to the imbalance between supply and demand. During the corona pandemic, in particular, this led to rising goods prices and, when lockdowns were phased out, to excess demand in the service sector (European Commission 2023a, p. 30f.). On the other hand, behavioural economics might hold another explanation: The rising cost of raw materials in the course of the Russian war of aggression against Ukraine might have served as a convenient excuse to push through price increases (ibid.). Since the companies could assume that their competitors would also raise their prices, they can take this step without having to fear losing market share. This applies in particular to markets with low levels of competition (see also Weber/Wasner 2023).

## 6 CONCLUSION: WILL EUROPE FIND A JUST WAY OUT OF THE CRISIS?

This year's European Collective Bargaining Report shows with alarming clarity that workers are the losers in the current wave of inflation: across Europe, the purchasing power of wages fell by 4.0% last year. For the current year, the European Commission forecasts a further drop in real wages of 0.7%. The situation is very similar in Germany, where, according to the data presented in this report, real wages fell by 4.1% (2022) and are expected to fall by a further 1.3% (2023). Given that nominal wages continued to grow, the main reason for this is the rapidly increasing consumer prices, which were initially driven by the rise in the price of energy imports. However, import prices are now falling again, so that the persistence of inflation is mainly due to domestic factors.

In the public debate, the trade unions are often confronted with the blanket accusation that their wage demands are further fuelling inflation. However, a sober look at data from the European Central Bank and Eurofound shows that the development of negotiated wages cannot explain the high inflation rates of recent months. In the euro zone, collectively-agreed wages increased by 2.8% in 2022, only a slight increase over the previous year (1.5%). However, the growth rate was still below the threshold of 3%, which is seen as in line with price stability. The threshold results from trend growth in productivity of 1% and the ECB's inflation target of 2%. With an increase in negotiated wages of 2.7% in 2022, Germany corresponds to this pattern. According to calculations by the Federal Statistical Office (2023e), modest wage growth at the same rate continued at the beginning of the current year. Even employer-oriented observers such as Lesch and Eckle (2023, p. 4) from the German Economic Institute (IW) therefore

see the current collective bargaining policy as "in line with framework for stability" [authors' translation].

In contrast to wages, profits were, for a long time, hardly the focus of the public debate about the causes of inflation. This is in part due to the fact that companies presented themselves very emphatically as the victims of cost increases. The previous year's European Collective Bargaining Report raised doubts about this representation with reference to good company balance sheets (Lübker/Janssen 2022, p. 319). In the meantime, surveys by the Bundesbank (2023) confirm on a broad data basis that German companies have not only succeeded in passing on cost increases to consumers, but that they have also increased their profit margins by increasing prices.

With the help of the national accounts, the contribution of profits and wages to internal inflation can be examined for the entire European Union. The analysis shows that unit capital costs are currently rising faster than unit labour costs. The profit increases therefore make a significant contribution to the GDP deflator and thus to domestic inflation. The finding of "profit inflation" and the associated diagnosis that companies are among the "inflation winners" also applies to the case of Germany (e.g. Ragnitz 2022). In view of the real wage losses for workers, this imbalance in terms of distribution policy is also a problem of distributional justice.

Future collective bargaining policy is therefore faced with a dilemma: the moderate collective wage increases of recent years were consistent with stability, but also associated with significant real wage losses. In all countries examined, they have erased the real gains made through collective wage increases since 2015. In addition, companies – as described above and with the exception of France – have not practiced reciprocal profit restraint. Therefore, in the midst of the crisis, there was a significant redistribution away from wages and in favour of capital income. The new collective agreements from 2022 show that the European trade unions have reacted to this with higher wage settlements. Nonetheless, they still fall short of inflation, so real wage losses continue. In addition, the reach of collective bargaining is only limited – not least due to the reduced collective bargaining coverage in many countries – so that actual wages in the euro zone are currently rising faster than collective wages (i.e. wage drift).

In Germany, too, the debate is now more nuanced than it was a year ago (Lübker/Janssen 2022, p. 325f.). There are still voices, like the economic policy spokeswoman for the CDU/CSU parliamentary group Julia Klöckner (2023), who repeat the old chorus and warn of the dangers of a possible wage-price spiral and – grossly contrary to the facts – argue that inflation had also led to vanishing corporate profits. Referring to Ragnitz (2022), Lesch and Eckle (2023, p. 22), on the other

hand, speak of a kind of “double risk”, namely a “combination of profit-price and wage-price spiral” [authors’ translation]. For the ECB, too, the development of profits now plays a much more prominent role in estimating future inflationary pressure than was the case in the past (e.g. Panetta 2023).

This recognizes the role of profits in the current inflation dynamics. In fact, higher wages only lead to inflation if companies maintain or expand their profit margins (see also Arce/Hahn/Koester 2023). This points towards a possible way out of the current problem of high inflation, falling real wages and the associated, adverse shifts in the functional income distribution: a normalization of profit mar-

gins. The European Commission (2023a, p.31) accordingly hopes that this scenario could materialize in the coming year. This could be brought about by an easing of supply bottlenecks, a decline in pent-up demand and a weak global economy. The currently elevated profit margins therefore offer a buffer to absorb future increases in unit labour costs (ibid.). A recent study by the International Monetary Fund (IMF) also suggests that, as has often happened in the past, there could be a combination of stronger nominal wage growth and falling inflation – and thus a catch-up movement in real wages (Alvarez et al. 2022). However, such a benign outcome cannot be taken for granted.

## REFERENCES

- Ahlers, E./Villalobos, V. Q. (2022):** Fachkräftemangel in Deutschland. Befunde der WSI Betriebs- und Personalrätebefragung 2021/22. Wirtschafts- und Sozialwissenschaftliches Institut der Hans Böckler Foundation, WSI Report Nr. 76, Dusseldorf
- Alvarez, J./Bluedorn, J./Hansen, N.-J./Huang, Y./Pugacheva, E./Sollaci, A. (2022):** Wage-Price Spirals: What is the Historical Evidence? International Monetary Fund: IMF Working Paper No. 2022/221, Washington D.C.
- Arce, O./Hahn, E./Koester, G. (2023):** How tit-for-tat Inflation can Make Everyone Poorer, The ECB Blog, 30 March 2023, <https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog.230330~00e522ecb5.en.html>
- Aumayr-Pintar, C./Vacas-Soriano, C. (2023):** Minimum Wage Hikes Struggle to Offset Inflation, Eurofound, 23 January 2023, <https://www.eurofound.europa.eu/publications/article/2023/minimum-wage-hikes-struggle-to-offset-inflation>
- Bodnár, K./Gonçalves, E./Górnicka, L./Koester, G. (2022):** Wage developments and their determinants since the start of the pandemic, in: ECB Economic Bulletin, Issue 8/2022, pp. 117–129
- Bundesbank (2022a):** Perspektiven der deutschen Wirtschaft für die Jahre 2023 bis 2025, in: Monatsbericht 74 (12), 12/2022, pp. 17–45, <https://www.bundesbank.de/resource/blob/892964/bbd7cffb91f93da1255b-118db7bf6da5/mL/2022-12-prognose-data.pdf>
- Bundesbank (2023):** Ertragslage und Finanzierungsverhältnisse deutscher Unternehmen im Jahr 2021, in: Monatsbericht 75 (3), 3/2023, S. 69–84, <https://www.bundesbank.de/resource/blob/906392/71f97029ca27bb6c1c10fe380ab602d9/mL/2023-03-monatsbericht-data.pdf>
- Cantero Guerrero, M./Aumayr-Pintar, C. (2023):** Measures to Lessen the Impact of the Inflation and Energy Crisis on Citizens, Eurofound, 30 January 2023, [https://www.eurofound.europa.eu/publications/article/2023/measures-to-lessen-the-impact-of-the-inflation-and-energy-crisis-on-citizens?pk\\_campaign=policywatch&pk\\_source=footer](https://www.eurofound.europa.eu/publications/article/2023/measures-to-lessen-the-impact-of-the-inflation-and-energy-crisis-on-citizens?pk_campaign=policywatch&pk_source=footer)
- Creutzburg, D. (2023):** Wie die Löhne die Preise treiben, in: Frankfurter Allgemeine Zeitung online (current as of 22 February 2023), <https://www.faz.net/aktuell/wirtschaft/inflation-und-tarifkonflikt-steht-eine-lohn-preis-spirale-bevor-18695879.html#void>
- Dullien, S./Herzog-Stein, A./Hohlfeld, P./Rietzler, K./Stephan, S./Tober, S./Theobald, T./Watzka, S. (2023):** Schwache Dynamik nach Energiepreisschocks und Zinserhöhungen – Prognose der wirtschaftlichen Entwicklung 2023/2024. Macroeconomic Policy Institute (IMK) of the Hans Böckler Foundation: IMK Report Nr. 180, March 2023, Dusseldorf, [https://www.imk-boeckler.de/fpdf/HBS-008580/p\\_imk\\_report\\_180\\_2023.pdf](https://www.imk-boeckler.de/fpdf/HBS-008580/p_imk_report_180_2023.pdf)
- Dullien, S./Rietzler, K./Tober, S. (2023):** Nettoeinkommen der Arbeitnehmenden: Spürbare Kaufkraftlücke trotz kräftiger staatlicher Entlastung. Macroeconomic Policy Institute (IMK) of the Hans Böckler Foundation: IMK Policy Brief Nr. 151, June 2023, Dusseldorf
- Dullien, S./Tober, S. (2023):** IMK Inflationsmonitor. Inflationsrate im März 2023 deutlich geringer, Inflationsunterschiede zwischen Haushalten weiter hoch. Macroeconomic Policy Institute (IMK) of the Hans Böckler Foundation: IMK Policy Brief Nr. 148, April 2023, Dusseldorf
- ECB (European Central Bank) (2023):** Monetary Policy Decisions, Press Release, 15 June 2023
- Eures (2023):** Report on Labour Shortages and Surpluses 2022, Publications Office of the European Union, Luxembourg
- Eurofound (2023):** EurWORK's Database on Wages, Working Time and Collective Disputes (in press)
- European Commission (2022a):** European Economic Forecast. Spring 2022. Publications Office of the European Union: Institutional Paper 173, May 2022, Luxembourg
- European Commission (2022b):** European Economic Forecast. Autumn 2022. Publications Office of the European Union: Institutional Paper 187, November 2022, Luxembourg
- European Commission (2023a):** European Economic Forecast. Spring 2023. Publications Office of the European Union: Institutional Paper 200, Mai 2023, Luxembourg
- European Commission (2023b):** European Economic Forecast. Winter 2023. Publications Office of the European Union: Institutional Paper 194, February 2023, Luxembourg
- Eurostat (2014):** European system of accounts – ESA 2010, Luxembourg
- Federal Statistical Office of Germany (2023a):** Bruttoinlandsprodukt: Ausführliche Ergebnisse zur Wirtschaftsleistung im 1. Quartal 2023. Wirtschaftsleistung auch im 1. Quartal 2023 im Minus, Press Release Nr. 203, 25 May 2023
- Federal Statistical Office of Germany (2023b):** Preisentwicklung in den EU-Staaten: Energie 2022 deutlich teurer, <https://www.destatis.de/Europa/DE/Thema/Wirtschaft-Finzen/Inflation.html>
- Federal Statistical Office of Germany (2023c):** Reallöhne im 1. Quartal 2023 um 2,3 % niedriger als im Vorjahresquartal, Press Release Nr. 206, 30 May 2023
- Federal Statistical Office of Germany (2023d):** Tarifverdienste im 1. Quartal 2023 um 2,7 % höher als im Vorjahresquartal, Press Release Nr. 209, 31 May 2023
- Federal Statistical Office of Germany (2023e):** Importpreise im April 2023: -7,0 % gegenüber April 2022, Press Release Nr. 207, 31 May 2023, [https://www.destatis.de/DE/Presse/Pressemittelungen/2023/05/PD23\\_207\\_614.html](https://www.destatis.de/DE/Presse/Pressemittelungen/2023/05/PD23_207_614.html)
- Fuest, C./Jäger, S. (2023):** Können höhere Löhne zur Überwindung des Fachkräftemangels beitragen?, in: Wirtschaftsdienst – Zeitschrift für Wirtschaftspolitik 103 (4), April 2023, pp. 253 – 258
- Gautier, E. (2023):** Negotiated Wage Increases: What is the Picture for 2022? Banque de France, Post n°301 (last updated on 2 March 2023), <https://blocnotesdeleco.banque-france.fr/en/blog-entry/negotiated-wage-increases-what-picture-2022>
- Herzog-Stein, A./Stein, U. (2023):** Arbeits- und Lohnstückkostenentwicklung 2022: Energiepreisschocks führen zu steigenden Arbeitskosten bei fallenden Reallöhnen. Macroeconomic Policy Institute (IMK) of the Hans Böckler Foundation: IMK-Report, Dusseldorf (in press)
- IAB (Institut für Arbeitsmarkt- und Berufsforschung) (2023):** Arbeitskräfteknappheits-Index, <https://iab.de/daten/arbeitskraefteknappheits-index/>

- Kanutin, A. (2015):** The ECB's Experimental Indicator of Negotiated Wages, Paper presented at the ISTAT Workshop on Labour Costs, Rome (5.–6. May 2015)
- Klößner, J. (2023):** Lohn-Preis-Spirale schadet dem Wirtschaftsstandort, Press release of the CDU/CSU parliamentary group, 26 February 2023, <https://www.cducsu.de/presse/pressemitteilungen/lohn-preis-spirale-schadet-dem-wirtschaftsstandort>
- Lane, P. (2023):** Underlying Inflation, Lecture by Philip R. Lane, Member of the Executive Board of the ECB, Trinity College Dublin, 6 March 2023, <https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230306~57f17143da.en.html>
- Lesch, H./Eckle, L. (2023):** Konzertiert gegen die Lohn-Preis-Spirale, Tarifpolitischer Bericht 2. Halbjahr 2022. German Economic Institute: IW-Report Nr. 11, February 2023, Cologne, <https://www.iwd.de/artikel/die-gefahr-der-lohn-preis-spirale-543073/>
- Lopez-Garcia, P./Szörfi, B. (2021):** Key Factors behind Productivity Trends in Euro Area Countries, in: Economic Bulletin July 2021, pp.92–114
- Lübker, M. (2020):** Europäischer Tarifbericht des WSI – 2019/2020: Tarifpolitik in Zeiten der Corona-Pandemie, in: WSI-Mitteilungen 73 (4), pp.266–277, [https://www.wsi.de/data/wsimit\\_2020\\_04\\_luebker.pdf](https://www.wsi.de/data/wsimit_2020_04_luebker.pdf)
- Lübker, M./Janssen, T. (2022):** Europäischer Tarifbericht des WSI – 2021/2022: Tarifpolitik im Zeichen von Krise, Krieg und Inflation, in: WSI-Mitteilungen 75 (4), pp.314–327, <https://www.wsi.de/de/wsi-mitteilungen-europaeischer-tarifbericht-des-wsi-20212022-42448.htm>
- Lübker, M./Schulten, T. (2017):** Europäischer Tarifbericht des WSI – 2016/2017: Lohnentwicklung und Ungleichheitsdynamiken, in: WSI-Mitteilungen 70 (6), pp.421–431, [https://www.wsi.de/data/wsi-mit\\_2017\\_06\\_luebker.pdf](https://www.wsi.de/data/wsi-mit_2017_06_luebker.pdf)
- Lübker, M./Schulten, T. (2018):** Europäischer Tarifbericht des WSI – 2017/2018: Lohnentwicklung und Ungleichheitsdynamiken, in: WSI-Mitteilungen 71 (5), pp.401–412, [https://www.wsi.de/data/wsi-mit\\_2018\\_05\\_luebker.pdf](https://www.wsi.de/data/wsi-mit_2018_05_luebker.pdf)
- Lübker, M./Schulten, T. (2023):** WSI-Mindestlohnbericht 2023: Kaufkraftsicherung als zentrale Aufgabe in Zeiten hoher Inflation, in: WSI-Mitteilungen 76 (2), pp.112–122, <https://www.wsi.de/de/wsi-mitteilungen-wsi-mindestlohnbericht-2023-kaufkraftsicherung-aufgabe-in-zeiten-hoher-inflation-47951.htm>
- Menyhárt, B. (2022):** The Effect of Rising Energy and Consumer Prices on Household Finances, Poverty and Social Exclusion in the EU, Publications Office of the European Union, Luxembourg
- Panetta, F. (2023):** Everything Everywhere all at Once: Responding to Multiple Global Shocks, Speech at a panel on “Global shocks, policy spillovers and geo-strategic risks: how to coordinate policies” at The ECB and its Watchers XXIII Conference, Frankfurt, 22 March 2023
- Ragnitz, J. (2022):** Gewinninflation und Inflationsgewinner. Ifo Institut: ifo Dresden berichtet 29 (5), pp.24–28
- Schulten, T./WSI-Tarifarchiv (2023):** Tarifpolitischer Jahresbericht 2022: Tarifpolitik unter den Bedingungen historisch hoher Inflationsraten, in: WSI-Mitteilungen 76 (2), pp.123–132, <https://www.wsi.de/de/wsi-mitteilungen-tarifpolitischer-jahresbericht-2022-47950.htm>
- Weber, I./Wasner, E. (2023):** Seller's Inflation, Profits and Conflict: Why can Large Firms Hike Prices in an Emergency? UMassAmherst Economics: Economics Department Working Paper Series 343, University of Massachusetts
- WSI-Tarifarchiv (2022):** Tariflöhne steigen 2022 durchschnittlich um 2,7 Prozent – hohe Inflation führt zu Reallohnverlust von 4,7 Prozent, Press Release, 13 December 2022

## IMPRINT

### Issue

WSI Report No. 86e, July 2023

WSI European Collective Bargaining Report – 2022 / 2023

ISSN 2366-7079

### Publisher

Institute of Economic and Social Research (WSI)

of the Hans Böckler Foundation

Georg-Glock-Straße 18, 40474 Düsseldorf

Phone +49 (211) 7778-187

<http://www.wsi.de>

### Press contact

Rainer Jung, +49 (211) 7778-15 0

[rainer-jung@boeckler.de](mailto:rainer-jung@boeckler.de)

Layout: Yuko Stier Grafikdesign

### Contact

Thilo Janssen

Institute of Economic and Social Research (WSI)

of the Hans Böckler Foundation

Georg-Glock-Straße 18, 40474 Düsseldorf

Phone +49 (211) 7778-650

[thilo-janssen@boeckler.de](mailto:thilo-janssen@boeckler.de)

[www.wsi.de](http://www.wsi.de)

This publication is licensed under the

Creative Commons Lizenz CC BY 4.0 International

(<https://creativecommons.org/licenses/by/4.0/legalcode.de>)