Poland: Policies dealing with the Inflation Crisis

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1. Introduction

The aim of the national case study is to investigate the recent inflationary developments in Poland, against the background of tendencies present in the EMU economies. It shall provide insights into the structural aspects of inflation in Poland, as well as into its outcomes for growth prospects and income distribution. For this purpose, main tendencies in nominal wages and corporate mark-ups, as well as the up-to-date strategies of the government and domestic trade unions are analysed.

The study combines quantitative analyses of data from Eurostat, AMECO and the national statistical office with a qualitative overview of policy making and the activities of social partners, including the trade unions comprising analyses of government regulations and reports and communications of respective unions.

It also collects up-to-date (as of September 2022), forecasts from varying sources regarding future developments of inflation, wages, and other key variables in the Polish economy. Notably, these forecasts tend to change on a regular basis, due to shocks (war, supply chains disruptions), evolution of government's policies, and positive feedbacks in inflationary processes themselves.

2. Recent price developments

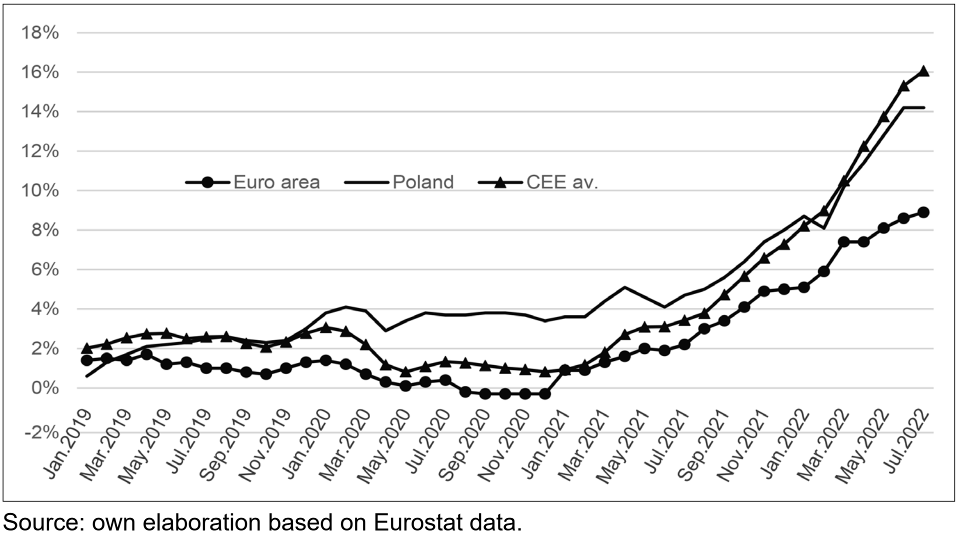
Current inflation in Poland is mainly caused by two big disruptions of the global economy in past years. The first one was the COVID pandemic, which came with several supply and demand shocks. The second one was obviously the Russian military aggression against Ukraine and disruptions to global energy and food markets, most strongly felt in neighbouring countries, including Poland. War in Ukraine also caused a lot of people to flee from the country, many of which sought refuge in Poland, elevating demand for basic goods.

As seen in Figure 1, inflationary tendencies in Poland started even slightly earlier than the pandemic, when inflation overpassed the Polish Central Bank's inflation target range (1.5%-3.5%) in January 2020, for the first time since 2012. Although being out of target, inflation remained stable at ca. 3%-4% for more than a year even after the pandemic started. It is important to note that inflation in 2020, although subdued, remained at elevated levels compared to other CEE countries. This may be connected to a relatively shallow recession in Poland, an outcome of a resilient economic structure with a large role of export-oriented manufacturing, combined with very expansionary monetary and fiscal policies (Astrov et. al, 2020; Astrov et. al, 2021). General government deficit amounted to 6.9% of GDP in 2020 (close to the EU average), while the Central Bank benchmark interest rate remained at a historical low 0.1% until even July 2021.

Since then, the price dynamic has been rising almost continuously until now, reaching 14.2% in July 2022 measured by the Harmonised Index of Consumer Prices (HICP index). This is now slightly lower than the average in the CEE, yet visibly (over 5 pps.) higher than in the euro area. Quite similar tendencies take place with respect to core inflation (excluding energy and unprocessed food) – see figure 2.

Most of the post-pandemic inflationary effects in Poland are similar to the ones in rest of the region and in the euro area. Lockdowns combined with massive financial support for business bumped gross private savings which were used for accelerated consumption in post-lockdown periods.

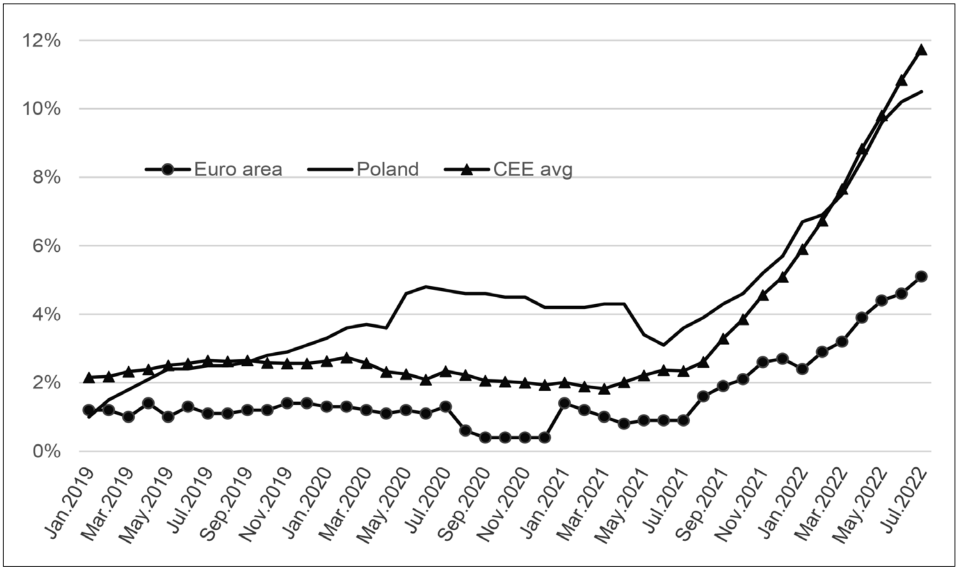
Figure 1: Monthly HICP inflation, year-by-year growth rates



Source: own elaboration based on Eurostat data.
Note: Series "CEE av." refers hereafter to a non-weighted arithmetic average of values for 11 CEE countries in the EU (Bulgaria, Czechia, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia, Slovakia).

This was especially important in Poland as most of the assistance programs to businesses consisted of non-repayable funds. The stay-at-home policy also limited spending on services and shifted private consumption towards goods. Hand in-hand with global circumstances (e.g., Chinese zero-COVID policy, which led to full or partial closures of ports; long-lasting delays in semi-conductors production in Taiwan, etc.), disruptions in supply chains were caused, which resulted in shortages of several types of goods.

Figure 2: Monthly core inflation (excluding energy and unprocessed food), year-by-year growth rates



Source: own elaboration based on Eurostat data.

During the worst phase of the pandemic, Poland's inflation rate was well above the CEE average, while the opposite has been the case since early 2022 and the Russian invasion. This could be partly ascribed to the diverse production and consumption structures, which we present below.

The most burning inflationary issue at the moment is caused by the war across the Polish eastern border. As can be seen in Table 1, like in most Central and Eastern European (CEE) countries, expenses on energy have a higher share in Poland's consumption basket than in most of West European countries.

Therefore, despite energy price spikes not being higher than EU average, their effect on inflation is definitely above average. Energy makes up almost 13% of the Polish 2021 HICP consumption basket, which makes the country's inflation the third most dependent on energy prices across all EU member states. On the other hand, energy inflation in Poland was lower than in many EU countries and never surpassed 40%. Relatively low energy price increases might be the reason why Polish inflation is below CEE average in 2022, although it was higher in prior months.

Another important inflationary category is transport, where prices increased by nearly a quarter compared to July 2022 – much faster than in the euro area, yet similarly to other CEE economies. A more detailed analysis of Eurostat data shows this effect to be caused by two reasons. First, fuel prices throughout the CEE increased faster (as compared to Western Europe), due to a larger share of raw fuel cost in its total price. In other words, 1% growth in the global oil price has had a bigger impact on fuel prices in the CEE countries, as they levy relatively lower taxes on fuels. The second reason lies in a negligible average inflation of 1.6% in transport services in the euro area, versus a higher one in CEE region (12.1%) and a very high one in Poland (20.6%). These numbers might be explained by underfinanced and undeveloped public transport in Poland outside of large cities. However, the ultra-low inflation in the euro area is partially a statistical artefact, driven mostly by Germany and its '9-euro ticket' policy.

Table: 1 HICP inflation categories, annual growth rates (as of July 2022) and weights in consumption baskets (2021)

	Euro area		CEE av.		Poland	
	Value	Weight	Value	Weight	Value	Weight
Food and non-alcoholic beverages	11.5	17.3	20.6	22.6	14.0	18.6
Alcoholic beverages, tobacco and narcotics	3.5	4.5	6.7	7.4	7.2	6.4
Clothing and footwear	0.0	5.3	5.6	5.1	4.6	4.7
Housing, water, electricity, gas and other fuels	17.7	17.8	29.8	13.6	24.7	18.1
Of which: Energy	39.6	9.5	42.6	12.2	36.4	13.0
Furnishings, household equipment and routine household maintenance	6.9	6.8	11.4	6.7	10.2	6.4
Health	1.3	5.0	6.0	5.9	7.4	6.5
Transport	12.7	13.7	23.2	12.1	23.2	12.0
Communications	-0.8	3.2	1.1	4.2	4.8	2.6
Recreation and culture	4.4	8.0	9.2	7.6	11.0	8.1
Education	-0.9	1.0	4.0	1.5	5.7	1.0
Restaurants and hotels	8.3	7.5	16.6	6.1	16.5	3.8
Miscellaneous goods and services	3.0	10.0	8.8	7.3	7.3	11.8
Overall index excluding energy and unprocessed food **(Core inflation)**	5.1	85.5	11.7	82.0	10.5	82.4

Source: own elaboration based on Eurostat data.
Note: "Value" denotes annual rate of change of prices in HICP category (in %), "Weight" is the share in basket (in %).

Notably, both rising prices of oil and energy sources have broad impacts on production costs across nearly all industries, contributing in turn to higher inflation e.g., in food production, construction or restaurants and hotels.

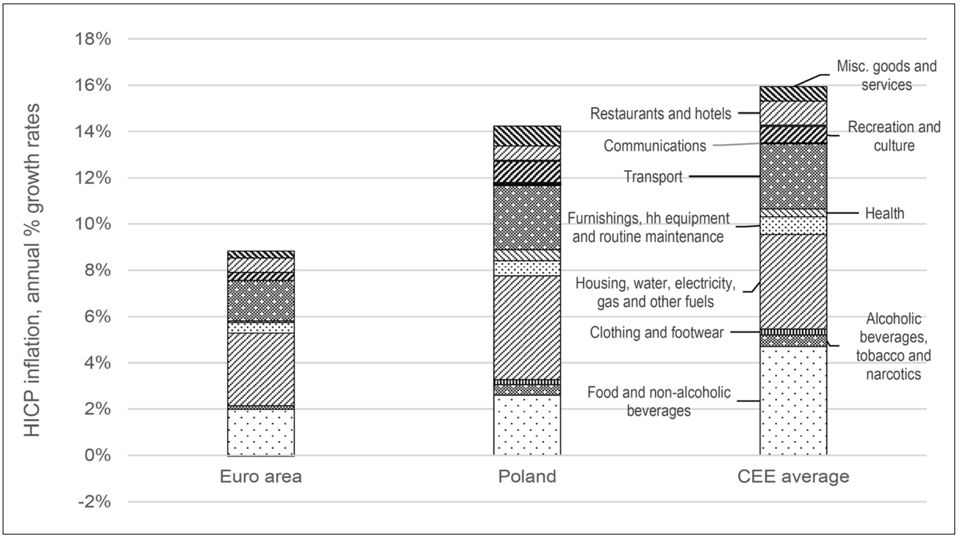
Yet another effect of the Russian war against Ukraine was food price developments, which are responsible for over 2.6 ppt. of about 14% Polish inflation in July 2022. Although larger than in the euro area, the importance of food prices in creating HICP inflation is relatively small in comparison to other countries of the region. Expenditure on food makes up about 18% of the Polish consumption basket – which is significantly higher than Germany's 12.7%, yet still much smaller than 30% in Romania, for instance. Also, food inflation of 14% is much lower than the CEE average of 20.6%, which could be due to lower import dependencies in this sector in Poland, as Poland is the third largest net exporter of food products in the EU.

Figure 3 summarises the structure of HICP inflation annual growth rate as of July 2022, by main consumption categories. It takes a quick look at the figure to notice big contributions of housing and transport categories in Polish and CEE inflation. That is mostly because of energy and fuel prices being included in them, which, as pointed out earlier, make up a significantly bigger part of Central and Eastern European household expenses than it is the case for the euro area as a whole.

It is worth to mention that, while not being a very significant part of the current Polish inflation with a contribution of around 0.48 ppt., price developments in the category "health" are significantly more hurtful to the Polish citizens than to people living in the rest of the region and the euro zone. The equivalent contribution to headline inflation from the "health" category for CEE as a whole is 0.35 ppt., while for the euro area it is an almost negligible 0.06 ppt. That may be due to the weakness of public health systems throughout the region, and particularly in Poland, which pushes more and more citizens to seek medical services in the private sector.

Other inflationary factors include the characteristics of the Polish labour market, such as a very low unemployment rate, a high rate of vacancies in the business sector, high flexibility and a bold minimum wage policy by the government, which altogether increase wage pressure compared to the "old EU" countries. Real wages, although falling, are doing better than in most of the Western states. On the other hand, in strategic sectors (eg. trade, energy), the mark-ups were rising. Firms in Poland had it easier to raise the prices on the domestic market, while mark-ups of exporting companies rose more slowly, with lower increases in the producer price index compared to Western economies (producer prices in industry increased annually by 25% in Poland, compared to ca. 30% in the euro area). Lower levels of PPI make the cost pressure a less significant factor of Polish inflation.

Figure 3: HICP inflation structure, contribution of components of the consumption basket to annual % growth rates (as of July 2022)

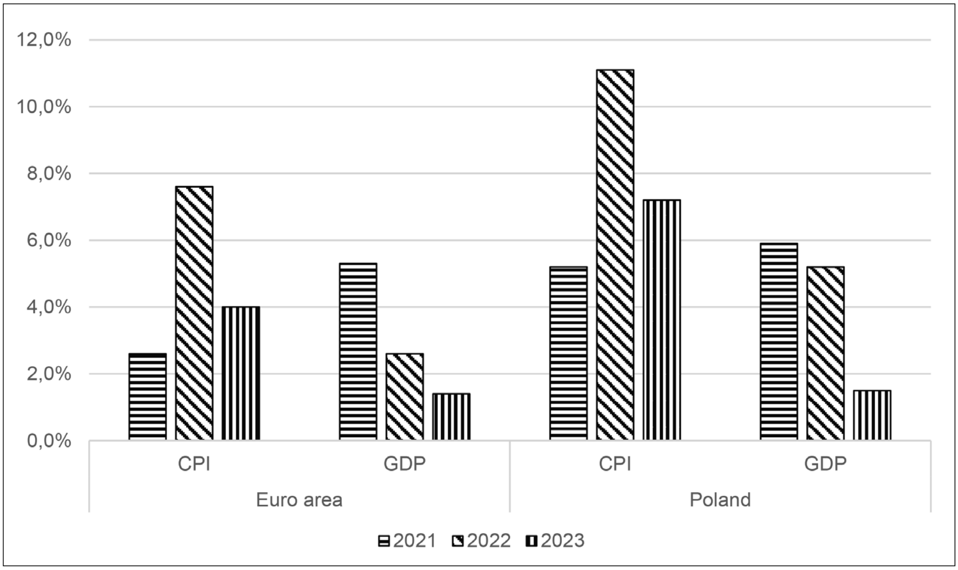


Source: own elaboration based on Eurostat data.
Note: contribution expresses components' price growth multiplied by its weight in the basket.

There is undoubtful inflationary pressure through the exchange rate channel – the Polish Zloty (PLN) was the second most depreciating EU currency throughout the previous year. Its exchange rate in late September 2022 weakened by ca. 25% against the US-dollar and by ca. 14% against the Euro since the beginning of the Russian invasion in Ukraine. This contributed to the inflation of imported goods, mainly fuels, and constituted an important argument in favour of a more restrictive monetary policy.

Figure 4 captures core data from the recent (interim) summer 2022 forecast of the European Commission. It projects annual average inflation to reach 11.1% in 2022, and to drop significantly to 7.2% in 2023. Similar tendencies, though at much lower levels, are expected to take place in the euro area. Regarding output dynamics, real GDP growth should attain strong 5.2% in 2022, and slow down to 1.5% in 2023.Conversely, the euro area is growing way slower in the current year, yet it is expected to have similar GDP dynamics next year.

Figure 4: European Commission Summer 2022 Economic Forecast, annual growth in %



Source: own elaboration based on EC data.

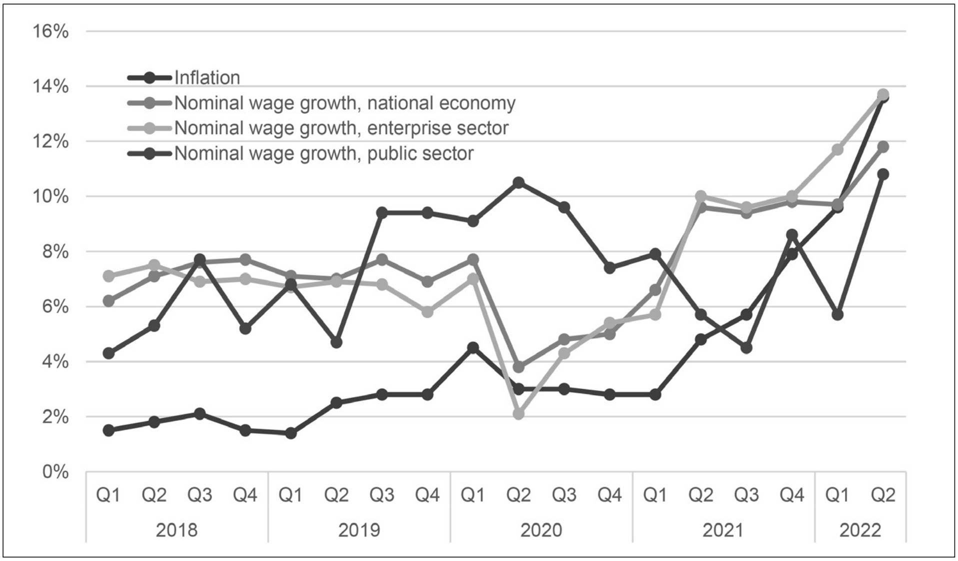
3. Nominal wage and corporate margins

3.1 Development of nominal Wages

According to most recent data, nominal growth in average wages in Q2 of 2022 amounted to 11.8%, compared to the same period in 2021. Figure 5 demonstrates that this was almost 2 ppt. lower than the rate of consumer inflation in the respective period (13.6%). A decrease in real wages has occurred for the first time in many years, after continuous growth of average real wages. It is even more striking when related to the fact that Poland's GDP in Q2 grew by 5.5% (in constant prices, annual), and the unemployment rate fell to a historic low of 2.6%. This shows the distributive character of the inflation processes, and a profound institutional weakness of Polish labour, which shall be elaborated in further parts of the chapter.

A more detailed analysis shows that negative growth in real wages was largely driven by wage developments in the public sector, where wages have been lagging behind inflation since Q3 2021. On the contrary, average nominal wages in the private sector increased by 13.7%, just above the consumer price index.

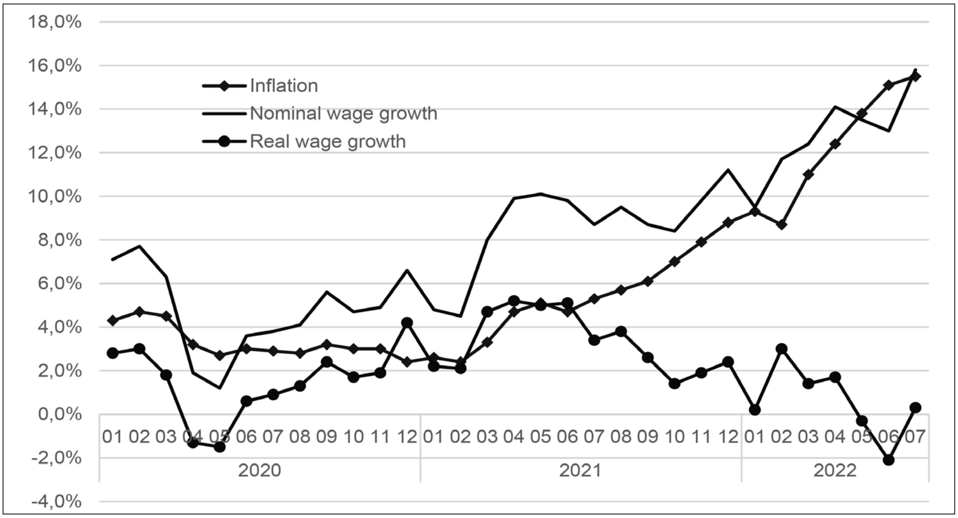
Figure 5: Nominal wage developments, quarterly data (annual growth)



Source: own elaboration of Polish Statistical Office (GUS) data.

Looking into monthly data for the business sector (companies with 10 workers or more), we see that accelerating inflation in Poland has caught up steadily with the nominal wage growth (Figure 6). In turn, a relatively dynamic growth of real wages in the first half of 2021 turned into stagnation – or even decline – of the workers remunerations' purchasing power in the first half of 2022.

Figure 6: Wage growth in the business sector, monthly data (annual growth rates)



Source: own elaboration of Polish Statistical Office (GUS) data.

Analyses of nominal wage developments in eleven major industries of the business sector demonstrate that only two of them achieved growth beyond that of the CPI (Table 2). These sectors were: transportation and storage, and financial and insurance activities. In the first case, it may be partly driven by the recent EU mobility package, which introduced changes in the remunerations of trans-border drivers. In finance, it might be related to the overall improved results of this sector in the environment of rising interest rates.

In most sectors, including the largest ones of manufacturing and trade, wage growth was disappointing and did not reach the levels of consumer price inflation. The situation of workers in social service sectors (education, health and social work) should be of particular concern, as lately, even average nominal wages in this area were virtually stagnant or even falling.

Table 2: Nominal wage growth by the industry of business sector

	2020				2021				2022	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
CPI	4.5	3.0	3.0	2.8	2.8	4.8	5.7	7.9	9.6	13.6
Business sector	7.0	2.1	4.3	5.4	5.7	10.0	9.6	10.0	11.7	13.7
Industry	6.6	0.9	3.6	6.8	6.1	11.4	9.0	7.8	10.1	12.1
Mining and quarrying	4.1	2.5	-4.3	4.6	3.2	7.2	11.2	3.9	18.0	12.8
Manufacturing	6.8	0.5	4.4	7.1	6.5	12.7	9.1	8.9	10.0	12.5
Electricity, gas, steam and air conditioning supply	7.4	3.2	1.2	8.5	4.7	4.9	9.3	2.8	8.2	9.5
Water supply sewerage, waste management and remediation activities	7.1	3.9	5.6	5.4	6.1	7.1	7.4	7.6	8.5	10.6
Construction	6.3	0.8	4.9	2.7	3.8	8.4	9.0	9.8	13.8	12.5
Wholesale and retail trade, repair of motor vehicles and motorcycles	7.7	3.6	3.7	4.3	5.7	8.3	10.8	12.5	11.7	12.8
Transportation and storage	6.1	0.6	2.3	1.2	3.1	8.1	8.2	9.3	15.0	24.9

Information and communi-cation	6.3	1.2	8.2	5.3	5.8	9.9	8.3	11.3	11.2	11.7
Financial and insurance activities	10.8	7.5	-0.4	1.8	1.0	2.6	11.2	14.5	14.7	17.4
Real estate activities	6.7	3.9	5.9	7.1	5.0	7.9	4.2	7.8	9.5	10.4
Education	9.4	10.8	7.8	7.3	8.3	9.3	6.2	4.2	3.4	6.2
Human health and social work activities	7.1	6.3	7.9	12.5	18.5	24.9	16.5	10.2	4.1	-1.7

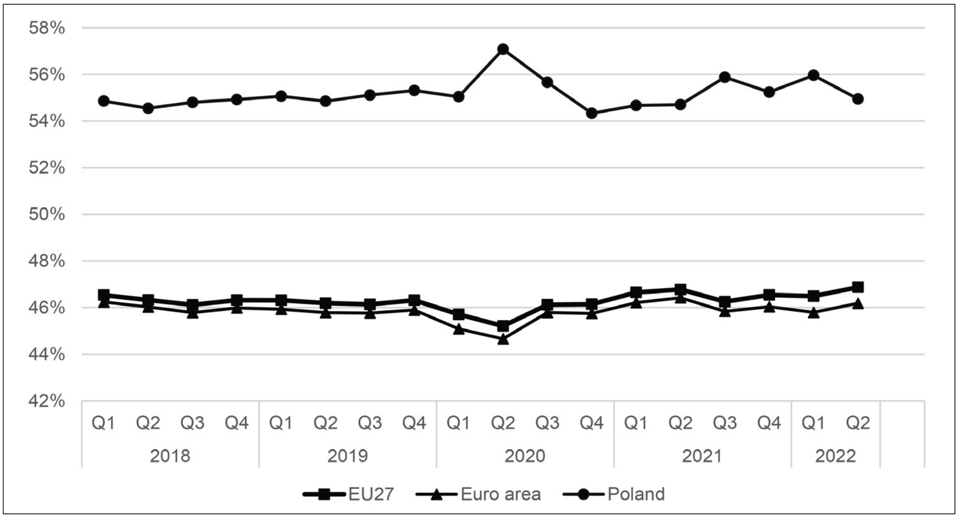
Source: own elaboration of Polish Statistical Office (GUS) data.

3.2 Development of Corporate margins

Analysis of *corporate mark-ups,* due to data limitations is a more difficult task. Here, we utilise diverse datasets to create a broad picture of business profitability in recent quarters. We start with general, macroeconomic accounts (which are timely and accurate), and proceed to more specific, but perhaps less precise, statistics on the financial results of the corporate sector.

Gross operating surplus, as a broad category of the profit stream in the national economy, has been relatively stable in Poland in recent years. It fluctuated around 55% of value added – a share much higher than the one observed on average in the euro zone. In the 2nd and 3rd quarter of 2020, it increased even over 57%. This was a result of generous government subsidies distributed to businesses during the lockdowns (see Figure 7). Both facts, when compared to developments in the euro zone, reflect a strong political position of the corporate sector in the Polish economy. Most recent developments show a growing profit share in the range 55%-56%, which could be interpreted as a sign for profitability and mark-ups remaining strong. This occurs obviously at the cost of the share of employees' compensations.

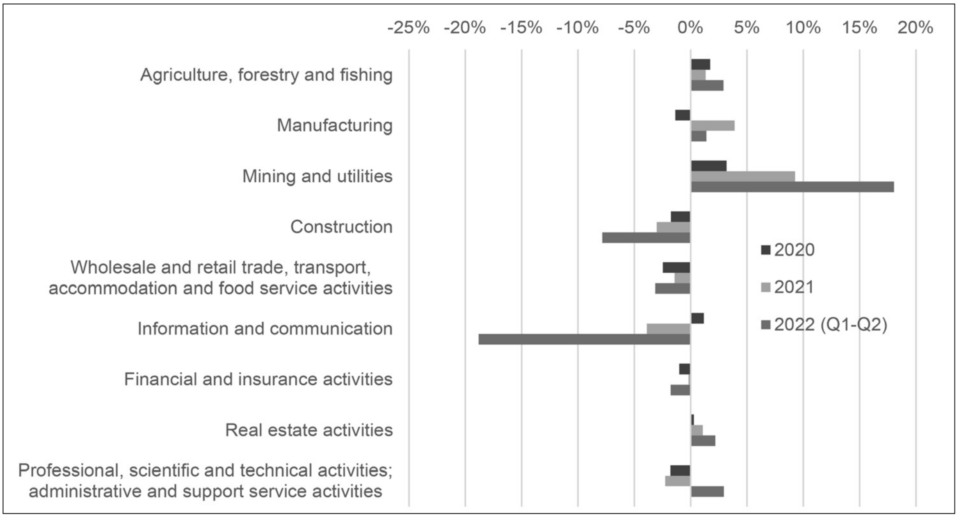
Figure 7: Gross operating surplus and mixed income as a share of value added in national economy (profit share)



Source: Eurostat National Accounts, seasonally and calendar adjusted data.

Data in major sectors of the national economy demonstrate that profit share developments have been very divergent depending on the sector (Figure 8). The share of gross operating surplus and mixed income in value added has increased visibly since 2019 only in a few sectors. This refers in particular to mining and utilities, where the profit share has been growing steadily since 2019 – altogether by nearly 20 ppt. Apparently, growing prices of natural resources, electricity and other utilities have been driven by higher margins of suppliers, which also fuelled aggregate profits in the national economy. In other sectors which had increased profit shares, like agriculture, manufacturing and real estate activities, the increases have been less stable and much weaker. There are also industries in Poland's economy, like construction and information and communication, where employees' compensations have increased their share in value added, at the cost of lower profit shares. This does not mean that mark-ups diminished in these sectors as well – it will be subject to scrutiny below.

Figure 8: Change in sector-level profit share in comparison to pre-pandemic levels (deviation in gross operating surplus and mixed income as a share of value added, percentage points)



Source: Eurostat National Accounts, seasonally and calendar adjusted data.

Finally, let us compare dynamics of gross operating surplus in Poland and in the euro zone. Table 3 presents the nominal growth rates (compared to analogous quarters in previous year) of this income stream in the national economy, and for broad sectors of financial and non-financial corporations. This comparison leads to several interesting observations. First, growth of gross operating surplus in the national economy and the non-financial corporations has been much more stable in Poland than in the euro zone, thanks to massive government subsidies in 2020. Second, in most recent quarters (since the middle of 2021), gross operating surplus in Poland has been growing much faster than in the euro zone, steadily exceeding the growth rates of consumer prices and nominal wages. This not only stabilised profits in real terms, but arguably also contributed to the inflationary process in Poland. No such strong tendency has been visible in the euro zone. Third, quite the opposite situation has taken place in the financial sector, whose surplus has been very unstable in Poland (as compared to the euro zone). Different dynamics of the interest rates might have been behind this instability.

Table 3: Nominal growth of gross operating surplus

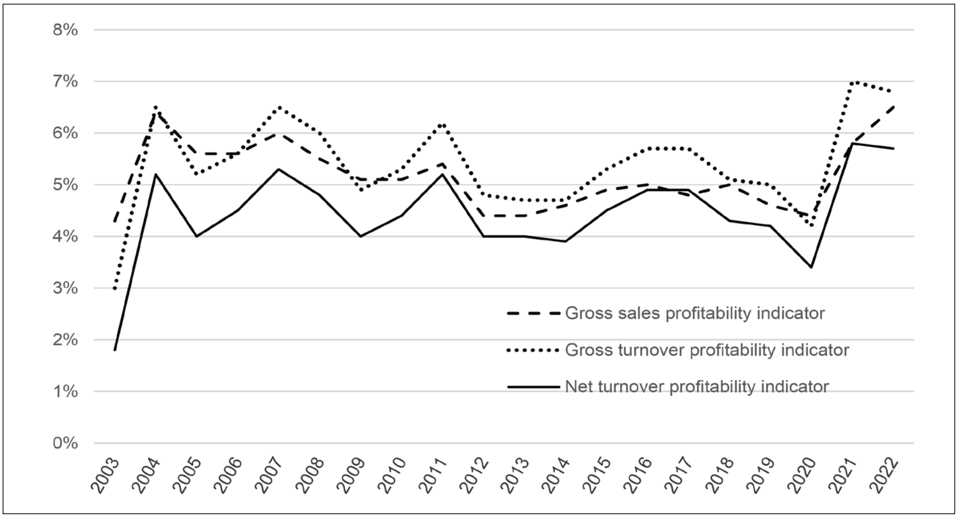
		2020				2021				2022	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Euro zone	National economy	-2.2%	-11.5%	-1.3%	-1.4%	5.0%	18.0%	6.1%	7.6%	6.1%	6.7%
	Financial corporations	1.1%	-9.5%	-2.8%	-4.0%	-3.6%	6.8%	-1.1%	-3.0%	1.9%	NA
	Non-financial corporations	-4.5%	-20.0%	-3.8%	0.3%	8.0%	31.9%	8.0%	5.8%	4.4%	NA
Poland	National economy	7.7%	12.9%	6.6%	0.5%	3.0%	-0.8%	7.6%	14.7%	18.3%	15.7%
	Financial corporations	19.3%	2.6%	-26.5%	-0.8%	-12.9%	-4.4%	49.1%	50.2%	13.7%	NA
	Non-financial corporations	8.0%	10.8%	11.7%	0.9%	5.8%	5.3%	9.8%	18.5%	25.7%	NA

Source: Eurostat National Accounts, seasonally and calendar adjusted data.

Let us now turn to more specific data from the national statistical office (Statistics Poland, GUS) which show financial results of non-financial enterprises employing more than 49 persons (more than 9 in some cases). In the categories of middle and large enterprises, one can see a spike in profitability indicators. All three measures presented in Figure 9 refer essentially to the return to sales ratio, which in other words captures the average margin in the business sector. The gross margin on sales (blue line) first reached its minimum of 4.4% in the first half of 2020, and since then has risen to even 6.5% in the first half of 2022. Big companies were able to increase their mark-ups on unit costs to new historical heights.

Factors that contributed to this development were high-capacity utilisation, strong (oligopoly) bargaining power in many industries, and overall dynamic inflationary conditions, in which raising prices were expected and willingly accepted by buyers. Notably, the activity was boosted not only by strong final (consumer and export) demand, but also by huge additional intermediate demand for inventories. It means that business purchases within the supply chains contributed to the inflationary pressures, and – at least for a couple of quarters – allowed the firms to maintain high margins.

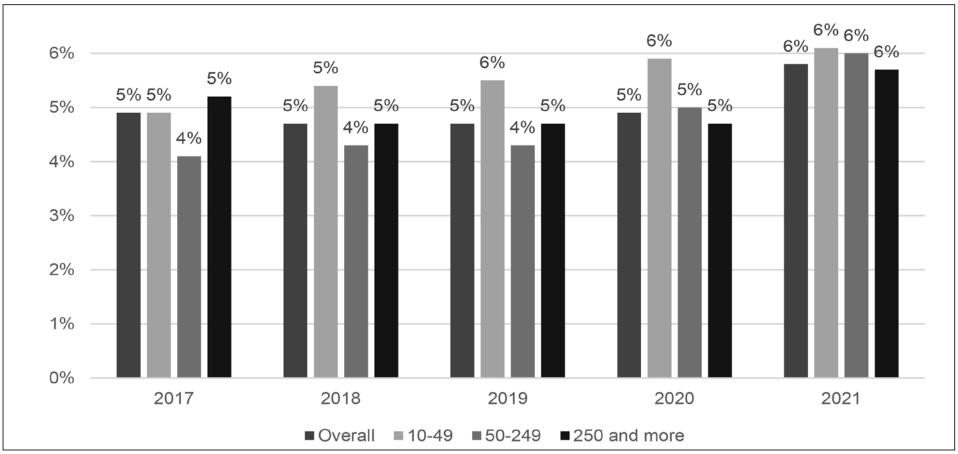
Figure 9: Profitability in non-financial corporations (employing 50 people or more), first half of the year, in %



Source: own elaboration, based on Statistics Poland data.

Annual data up until 2021 shows that the growth of margins already started in 2020, covering all enterprises in all observed size categories (there is no data for micro-ones). Average gross sales profitability increased by 1.1 ppt. between 2019 and 2021, which constitutes nearly a quarter of the initial value of this indicator. The growth was most pronounced in medium size enterprises, which increased their margins by 1.7 ppt. (40% of the initial level!).

Figure 10: Gross sales profitability in non-financial corporations by employment class, annual, in %



Source: own elaboration, based on Statistics Poland data.

Finally, let us compare developments in profitability of the business sector by industry. Table 4 contains data on gross turnover profitability in units employing 50 people or more, in halves of respective years. Margins increased in comparison to pre-pandemic times by 2 ppt. and have remained at the elevated level since the first half of 2021. This growth occurred in nearly all industries at first, except for real estate activities, and it was most pronounced in the utilities, construction, and ICT. More recently, however, the tendencies started to slowly reverse, and some industries saw declining margins. Now, mining and quarrying is the branch with record-high profitability, and its margins contribute to rising costs in downstream industries and to overall inflationary pressures.

Table 4: Gross turnover profitability by sector (employing 50 people or more), first half of the year, in %

	2019H1	2019H2	2020H1	2020H2	2021H1	2021H2	2022H1	Change 2019-22
Business economy	5.3	4.3	4.4	4.9	7.5	6.9	7.3	2.0
Industry	6.8	5.5	5.6	5.2	8.6	7.8	8.8	2.0
Mining and quarrying	8.6	4.6	-2.1	-4.5	3.3	11.7	30.6	22.0
Manufacturing	6.0	5.4	4.1	5.1	7.9	7.3	7.5	1.5
Electricity, gas, steam and air conditioning supply	10.2	6.0	14.6	7.4	12.6	9.0	10.1	-0.1
Water supply sewerage, waste management and remediation activities	7.8	6.9	9.9	9.3	13.4	12.0	11.0	3.2
Construction	3.7	5.2	5.1	5.9	8.3	9.7	7.5	3.8
Wholesale and retail trade repair of motor vehicles and motorcycles	2.6	2.9	2.4	3.2	4.3	4.4	4.4	1.9
Transportation and storage	4.6	3.9	1.2	2.2	5.3	5.5	5.9	1.3
Information and communication	9.6	10.5	10.8	12.5	25.0	23.0	11.6	2.0
Real estate activities	8.1	7.5	9.3	8.1	8.3	7.4	6.2	-1.9

Source: own elaboration, based on Statistics Poland data.

Table 5 contains a comprehensive summary of three forecasts: from the AMECO model of the European Commission, a recent inflation project of Polish central bank NBP, and from the established economic analyses of the commercial bank PKO BP. The latter two are the most up-to-date, and they agree that inflation will be at heightened levels in 2022, but also in

2023. Increasing costs of energy and heating, but also path-dependence of inflation itself will perpetuate the growth of consumer prices to the subsequent year. In line with interim EC forecasts, a significant slowdown of output growth is expected, which may even continue in 2023.

This will have a profound impact on incomes, however mediated by the changes in distribution of GNI. The dynamics of nominal wages are forecasted to be below the CPI index, and real wages are expected decrease in 2022-23 (altogether by some 6%). In turn, the wage share may shrink significantly as well, by over 7% in 2022 and 5% in 2023. Combined, this means that the labour share in GDP will drop from about 48% to an astoundingly low 42-43%.

The reverse side of the decline in the wage share is a growing average margin. Nominal unit labour costs are expected to grow below inflation, which also suggests that profit shares will be maintained – even controlling for the possible impact of imported intermediate inputs. Spring estimations by AMECO forecasted the gross operating surplus to grow nominally by 18% in 2022 and over 11% in 2023, exceeding the developments of CPI and nominal wages. It seems that corporate bargaining power will remain strong, and that conditions of economic slowdown may further contribute to the deterioration of the situation of workers (both in absolute and relative terms).

Table 5: Summary of economic forecasts, annual % changes of respective variables

	AMECO		NBP			PKO Bp	
	2022	2023	2022	2023	2024	2022	2023
GDP	3.7	3.0	4.7	1.4	2.2	4.9	1.3
CPI	11.6	7.3	14.2	12.3	4.1	13.1	11.5
Nominal wage	9.5	8.0	10.8	9.4	6.1	9.4	8.6
Real wage	-2.1	0.7	-3.4	-2.9	2.0	-3.7	-2.9
Wage share (implied)	-3.7	-2.4	-7.2	-5.1	-1.4	-8.0	-4.4
Nominal ULC	6.0	5.0	6.8	7.0	2.5	5.1	7.1
Gross operating surplus, nominal	17.9	11.4	NA	NA	NA	NA	NA

Source: own elaboration, based on diverse data. AMECO(nd), NBP (2022), PKO-BP (2022b)

4. Measures taken by the national government to limit price rises or to cushion their effects on households

From the end of 2021 onwards, the Polish government introduced various - mainly fiscal, but also regulatory tools with the aim to shield citizens from the consequences of rising prices. Already in October 2021, the first measures to protect the most vulnerable part of the population from surging energy prices were suggested, and finally presented in late November. Similar to the measures introduced during the most acute phase of the COVID-19 crisis, the package was called an "anti-inflationary shield". It consisted of several temporary measures:

- Reduction of VAT on electricity from 23 to 5% (from January to March 2022)
- Reduction of VAT on natural gas from 23 to 8% (from January to March 2022)
- VAT reduction for the so-called system heat (heating from radiators) from 23 to 8% (from January to March 2022)
- Reduction of excise duty on motor fuels and electricity to the lowest level possible under EU regulations (until May 2022)
- exemption from excise duty on electricity for households
- exclusion of sales of motor fuels from the retail tax (from January to May 2022)
- implementation of financial support for heating for most vulnerable households (from January until May 2022)

According to Bruegel estimates (Sgaravatti et. al 2021), this was supposed to cost around 2 bn. EUR (ca. 0.3% of GDP). All the measures described were supposed to cushion the effect of inflation on households and firms. However, together with these changes, a reduction in budgetary spending on administration was declared, but not formally regulated. It is important to note that the budget for 2022 was based on an unrealistic assumption of inflation averaging around 3,3% during the year. This made it possible to reduce real spending on the civil service and broader employees of the budgetary sphere, where in June 2022, the average compensation rose by less than 6% y/y while the inflation rate reached 15.5%. Together with a strong rise in revenues, this made it possible for the government to enjoy a budgetary surplus in the first half of 2022, at the same time unveiling large redistribution programs, including anti-inflationary shields and energy subsidies.

Already in January 2022, a second part of the anti-inflationary shield was announced, which significantly broadened the scope of the cushioning measures. It consisted of a set of instruments introduced until July 2022:

1. reduction of VAT on fuel from 23% to 8%,
2. extension of the 5% VAT rate on electricity,
3. lowering the VAT rate for heat to 5%,
4. introducing a zero VAT rate on fertilizers and other selected means used in agricultural production,
5. introducing a zero VAT rate on natural gas,
6. introducing a zero VAT rate for basic food products, previously subject to a 5% rate.

The partially state-owned Bank Polski (PKO) (2022a) estimated that the measures included in both shields would cost the budget up to 7.5 bn. EUR.

Besides dealing with immediate consequences of rising prices, the government decided to deal with the cost consequences of the central bank reaction to inflation, amounting to persistent interest rate increases.

It is important to note here that the Polish market for housing credit suffered from a peculiarity for many years – almost all mortgage credits until 2022 were based on variable interest rates. This generated a lot of budget strain for many households during the period of rising interest rates. Acknowledging this, and observing some pickup in repayment delays, the government decided to first, expand the Fund for Creditors Assistance run by the Polish Development Bank, helping struggling private creditors, and second, legislate mortgage credit holidays for the majority of creditors during 2022-2023.

1. the Fund for Creditors Assistance was considerably enlarged, from previous 600 m. PLN (ca. 127 m. EUR) to 2 bn. PLN (425 m. EUR) from 2022 onward.
2. credit holidays target all persons with mortgage credits devoted to own housing needs. It gives the possibility to abstain from paying four loan instalments in 2022 (two in the second quarter and two in the last quarter of the year), and another four in 2023 (one in each quarter)

Although this is not a fiscal, but regulatory measure, it basically reverses some of the transfer from creditors to banks resulting from increases in interest rates. The Polish Bank Association (2022b), representing most of the banks, estimates it will cost the sector 18.3 bn. PLN (3.89 bn. EUR, which can be treated more or less as a transfer from banks to households). The appropriate legislation was passed in July 2022.

At the same time, the government announced an extension of the measures included in the anti-inflationary shields until October 2022. We have found no official estimates of the size of budgetary revenue lost due to the extension, but according to the words of deputy finance minister

Artur Soboń, every month of the extension "costs" the budget around 2.5 bn. PLN (530 m. EUR), so extension by 3 months should be treated as fiscal expansion of 7.5 bn. PLN (1.6 bn. EUR). Another extension of the shields until the end of 2022 was announced in September (based on previous calculations it would amount to 5 m. PLN/1.1 bn. EUR).

Another piece of legislation to ease the burden of rising energy costs, teased by the government for some time was an Act on Coal Allowance, which prescribes a onetime transfer in 2022 of 3 td. PLN (637 EUR) to every household heating the house primarily with coal. The budgetary expenditure forecast by the government is 11.5 bn. PLN (2.44 bn. EUR).

Although picking coal users as beneficiaries of the transfers had some merit (they consisted to a large extent of energy and cash poor households), public opinion was quick to notice its ecological impact and the fact that a lot of rich households would also benefit from it. This led to announcement of an extension of the allowance system so that it covers households using different heating fuels, including so-called system-heat (which would benefit from price regulation linked to a system of compensation to energy providers). The budgetary cost of the allowance was estimated at 10 bn. PLN (2.12 bn. EUR). As of September, a relevant act was in the legislative process.

During the second half of September, a host of additional measures was announced, to be implemented from the beginning of 2023. They include a price cap on electricity of up to 2.000 kWh of annual consumption (so-called "solidarity shield"), as well as still unspecified energy price caps for local governments and providers of crucial social services (so-called "fragile users"), transfers to large energy intensive firms and a windfall tax levied on energy companies. The details of the proposals and their total fiscal impact is unknown at the moment of writing.

The following table summarises the size of the cushioning measures.

Table 6: Summary of the cushioning measures in Poland

Measure	Duration	Size	Source	Beneficiaries
Anti-inflationary shield 1.0	January-March/ May 2022	2 bn. EUR	Lost budgetary revenue	Households and firms
Anti-inflationary shield 2.0	January-July 2022 (and extension of previous measures)	5.5 bn. EUR	Lost budgetary revenue	Households and firms
Extension of the shields until the end of 2022	August-December 2022	2.7 bn. EUR	Lost budgetary revenue	Households and firms

Fund for Creditor Assistance	2022	N/A	Possibly lost budgetary revenue, cost difference between cost of financing and interest rate	Households
Credit holidays	2022-2023	3.89 bn. EUR	Lost revenue of banks	Households
Coal Allowance	One time transfer in 2022	2.44 bn. EUR	Budgetary expenditure	Households
Allowance expansion	One time transfer in 2022	2.12 bn. EUR	Budgetary expenditure	Households
Sum	**18.65 bn. EUR (ca. 3.2% of GDP)**			

Source: own elaboration.

The evaluation of the measures, although they don't seem to be out of the scope of instruments announced in other European countries, should be disadvantageous due to their one-sidedness. They mostly amount to redistributive tools (mostly a redistribution of additional tax revenue, but also real redistribution from the employees of the budgetary sphere to firms and households enjoying tax breaks and allowances, as well as from banks to households). No relevant new special measures to decrease the dependence on fossil fuels, besides the previously existing were announced. No investment or incentives to use public transportation were provided. This means that basically no structural anti-inflationary measures were announced (as of September 2022). On the 3rd of September, the leader of the ruling party, Jarosław Kaczyński, suggested that works on a new incentives scheme are under way. It shall link the unit costs of energy with overall household's energy consumption, with a threshold of 2.000 kWh for annual consumption.

5. Reaction by social partners and wage setters to the inflationary development

Before moving to the description of the role of social partners in inflationary developments, let us briefly present the shape of the social dialogue in Poland. Poland is an example of a dependent market economy and its industrial relations could be perceived as liberal (Nölke, A., & Vliegenthart, A., 2009). Both union density and collective bargaining coverage remain at one of the lowest levels throughout the EU. Trade unions are present mostly within the public sector and in large, industrial state-owned enterprises. Union activity is restricted by unfavourable regulations, nonetheless recent years have seen a rising militancy of the working class with multiple firm-level collective disputes, some of them even leading to strikes.

On the side of business associations, there are at least four significant federations, some of which are dominated by multinational corporations. Formally, economic policymaking in Poland should be subject to a tripartite coordination on the forum of the Social Dialogue Council (RDS). However, subsequent governments have limited its role to a façade organisation, and the current ruling party has been marginalising the social partners and openly ignoring them in the law-making process.

In this context, there has been little space for a concerted, tripartite approach to contain inflation, reduce second round effects or share adjustment burdens. Rather, inflation and the conditions of high-capacity utilisation accentuated the distributional conflict between wage earners and employers. Both sides utilised diverse ways to attempt to maintain income shares.

First these included firm-level processes of price-setting and wage bargaining. As demonstrated in section 3, nominal wage growth managed to catch up with the overall price index (at least in some industries) for a long time (until the 2nd quarter of 2022). Certainly, full employment and increased militancy of organised labour were key conditioning factors in this process. However, in time, another factor namely, growing business margins outweighed the wage adjustments. They increased the profit share of GDP, and additionally contributed to inflation, which was largely driven by costs of imported energy fuels.

Second, it is the public activity of trade unions and business associations and the pressure they tried to put on the policymakers. On the side of workers, one can find such activities as:

- negotiations, collective disputes and strikes over wage growth in companies (OZZ Inicjatywa Pracownicza, 2022);
- protests in the public sphere, organised by workers of heavy industry, science, health care and education;
- petitions to the government to “stop the inflation”, to valorise transfers, minimum wages and wages in the public sector, and to adjust the current way of calculating mortgage interest rate (Biuro Prasowe OPZZb, 2022);
- postulates against budget austerity (Gardias, 2022).

Business organisations focused their communications on criticising the minimum wage policy, as a factor potentially leading to stagflation in Poland (Lewiatan, 2022a). Another recent initiative from their side was the idea to cut the rates of the capital gains tax. Arguably, such a reform shall incentivise financial savings and in turn relax the inflationary pressure of effective demand (Lewiatan, 2022d).

Interestingly enough, social partners that reside in the aforementioned Social Dialogue Council managed to construct joint resolutions on topics related to inflation. But these referred to rather narrow issues, often on industry-level, in which interests of businesses and workers coincided. For instance, the organisations asked the government to:

- stabilise energy prices and guarantee energy and gas supplies for energy-intensive manufacturing (OPZZ, 2022).
- to stabilise wood prices for local industry (Social Dialogue Council, 2022a).
- to extend tariff protection of gas purchasers for trade unions themselves (Social Dialogue Council, 2022b)
- to stabilise the prices of EU ETS (prices of carbon emissions certificates).
- to increase fees for technical monitoring of motor vehicles – in the conditions of rising costs.

No such consensus can be found in more general issues, related to nation-wide macroeconomic developments, or even less so on the broad socio-economic impact of industry-level price increases. A good example is a recent discussion about the government budget for 2023. Despite certain space for cooperation, no joint communication was issued (NSZZ Solidarność – Komisja Krajowa, 2022). Trade unions (even including Solidarność, usually allied with the government) criticised budget assumptions, proposed anti-inflationary measures and wage-bill growth in the public sector. The opinion of businesses' representatives was more in line with the government. Also, conflictual arguments have been increasingly prevalent, with unions openly criticising growing margins and profits, while businesses are warning against rising wage-pressure (cf. Biuro Prasowe OPZZ, 2022a; Konfederacja Lewiatan, 2022c). As reported recently by prof. Jacek Męcina, consultant of the Lewiatan Confederation:

The discussion initiated in the Social Dialogue Council on the increase in wages in the state budget and the minimum wage indicates that there are large differences in this respect, primarily in the context of the threat of inflation and the winding up of a price-wage spiral that will hit not only the economy, but also real household income. (Konfederacja Lewiatan, 2022b)

Table 7: Summary Tick Box List for Poland

Category	Presence in Poland	Refers to:
Energy tax cut	✓	In 2022, extension in 2023 not decided yet
Gasoline tax cut	✓	In 2022, extension in 2023 not decided yet
VAT tax cut	✓	In 2022 on food, fuels, energy and heat gas, fertilizers, extension in 2023 not decided yet
Retail price control	✓	In 2023, price caps for energy and heat for households and social-purpose organisations; lower caps up to certain consumption quantity
Wholesale price control	☐	
State-owned company mandate	✓	Fuel price rebates from state-owned petrol company, Guaranteed coal prices in state-owned retailers
Windfall profits tax	☐	
Transfers to (vulnerable) households	✓	2022 and 2023: transfers to coal heating (cover all eligible households, with no means-test), Means-tested support for mortgage payments
Transfers to (vulnerable) firms	✓	Agriculture: subsidies to costs of fertilizers; direct subsidies for small farms Compensations to 92 energy-intensive companies (170 Mln EUR)
Unilateral wage policy/ guideline	☐	
Bi- or tripartite agreement social pact	☐	
Other measures	☐	
Minimum wage policy	✓	Double valorisation in 2023: by 15,9% in January and another 3,2% in July.
Diverse measures to prevent coal and gas shortage during winter	✓	Intervention purchases of coal and gas in international markets by SOEs
Mortgage `vacations’	✓	Possible delay of mortgage payments in 2022 and 2023

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Abstract

The aim of the national case study is to investigate the recent inflationary developments in Poland, against the background of tendencies present in the EMU economies. It provides insights into the structural aspects of inflation in Poland, as well as into its outcomes for growth prospects and income distribution. For this purpose, the main tendencies in nominal wages and corporate mark-ups, as well as the up-to-date strategies of the government and domestic trade unions are analysed.

The study combines quantitative analysis with qualitative overview of policy making and the activities of social partners, including the trade unions.

First, we demonstrate that post-pandemic inflationary dynamics in Poland are similar to the CEE average, yet much higher than in the EMU. This can be attributed to the composition of the consumption basket, with a relatively high share of energy, food and transport expenses. There are also inflationary pressures from a strong expansion, as reflected in low unemployment, full capacity utilisation and exchange rate depreciation.

Second, we identified strong redistributive effects of the inflation in Poland, as reflected in declining real wages and labour share in national income. We see extraordinarily high mark-ups and profits in the business sector, particularly in 2021. Finally, we identify the social dialogue in Poland as conflictual, with virtually no coordinated efforts to limit the rate of inflation. Under such conditions, government policies are of even higher importance. These focused primarily on mitigating the social costs of inflation for households, and mostly took form of economy-wide tax cuts and transfers.