

THE INFLATION SITUATION IN POLAND IN 2022/23

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Purpose: the author main objective was to analyze the inflation, the economics situation in Poland and European countries act and other publications on the subject, the merits, the stages the idea, as well as to present the results of study showing the condition of Polish finances and inflation.

Design/methodology/approach: the objectives are achieved by inflation and core inflation analysis, literature study presented in the paper have been taken from government reports, NBP analysis and legal act from 2021-2023.

Findings: the paper and its summary discuss the main findings from the and the results of the Government reports, NBP analysis and legal act and literature study conducted.

Research limitations/implications: the paper presents the latest data, government reports, bank and economical prognosis and analysis of the subject's literature.

Originality/value: it is addressed to inflation researchers, entrepreneurs and others interested in the economic situation in Poland.

Keywords: inflation, core inflation, interest rates, embargo.

Category of the paper: research paper.

1. Introduction

What is inflation - inflation is a process of permanent increase in the average price level in the economy. The result of this process is a decline in the purchasing power of domestic money. The opposite phenomenon to inflation is deflation (Belka, 2005). There are many types of inflation depending on the criteria adopted, for example, according to the criterion of rate: deflation - negative inflation, creeping inflation - does not exceed 5% per year, moderate otherwise known as rolling, oscillates between 5-10% per year, galloping means annual price growth at a rate of two or three digits, from 10% upwards, hyperinflation is a monthly price increase exceeding 150% (Owsiak, 2002). One of the causes of inflation is an excessive increase in the money supply through its issuance by the Central Bank or creation in commercial banks, an unexpected and sharp increase in production costs (e.g. energy raw materials), which leads

to a reduction in aggregate supply, an increase in aggregate demand in the economy, an unbalanced state budget (expenditures from the budget exceed receipts), overinvestment in the economy (overdevelopment of the investment process financed by the state), a defective structure of the economy, import inflation (as the price of items imported by a country increases, the cost of production increases, and thus prices rise). Inflation, above all, is itself a tax. Since money is non-interest-bearing, it represents a tax on cash holdings. Keynes argues that it is "the form of taxation that people find most difficult to avoid. this po-tax can be imposed even by the weakest state, which cannot enforce anything else" (Keynes, 1930). According to a study conducted by Easterly and Fischer (using a sample of nearly 32,000 households from 38 countries), the poor are more likely than the rich to list inflation among their most serious economic problems; rising inflation lowers the share of the poorest households in total income generated in the economy inflation hinders people's rise out of poverty, inflation lowers the real dynamics of the lowest wages (Easterly, Fischer, 2001).

2. Internal and external factors of inflation

What makes inflation possible is the existence of states of matter that have a high energy density which cannot be rapidly lowered. In the original version of the inflationary theory (Guth, 2018; Starobinsky, 1980), the proposed state was a scalar field in a local minimum of its potential energy function. A similar proposal was advanced by Starobinsky, in which the high energy density state was achieved by curved space corrections to the energy-momentum tensor of a scalar field. The scalar field state employed in the original version of inflation is called a false vacuum, since the state temporarily acts as if it were the state of lowest possible energy density. There are many types of inflation and theories. According to the theory of John M. Keynes (Keynes, 1930), which was based on insufficient consumer and investment demand, laid the foundation for understanding the causes of inflation and formulating two main types of this phenomenon (Nasilowski, 1998):

1. Demand-pull inflation - this type of inflation is often observed during periods of war, when state expenditures on arms production resulting in high-capacity utilization led to sharp increases in the prices of goods and services.
2. Cost-push inflation - According to Keynes' theory, cost-push inflation is caused by labor unions that force wage increases resulting in higher manufacturing costs or by monopolies that raise the price of their products unrestrictedly to realize higher profits. A special type of inflation pushed by costs can be an example of inflation caused by the spectacular increase in oil prices forced by OPEC in 1973-1974 (the so-called Price Shock).

In another case, the hidden inflation can be also a problem. Hidden inflation - is a phenomenon characteristic of countries with centrally planned economies. It is expressed in a permanently maintained surplus of consumer demand over the deliberately limited supply of goods and services.

According to Deputy Finance Minister Artur Soboń the high inflation in recent months in Poland was mainly due to external factors. He pointed to global energy and fuel prices, war, shortages in the food market, hostilities in Ukraine, sanctions against commodity giants Russia, and disruptions in the global supply chain (Polish Press Agency, 2022). Logistics are affected by the COVID-19 pandemic, tightening restrictions in China and other Asian countries, but also by minor crises. The most famous case in recent years is the blocking of the Suez Canal for nearly a week by the container ship Ever Given.

The causes of inflation in Poland are not only external but also internal factors. The rise in prices is also due to the excessive issuance of money by the NBP, extensive welfare and assistance programs, lack of discipline in budget spending, failure to adjust the structure of the economy to current economic realities, or distorted relations between domestic demand and supply (Government help for entrepreneurs 2021-22, and 500+ program).

3. Inflation in Europe

In Europe, inflation was highest in Moldova (27.1 percent) and the Baltics. In particular, Estonia, which was experiencing the highest inflation rate in the eurozone, saw its annual inflation rate rise from 6.4 percent in September 2021 to 24.2 percent. October 2022 was the first month when HICP inflation in the eurozone exceeded the 10 percent level. In several Eurozone countries, price growth has been above 20% for some time. The Eurozone's Harmonized Index of Consumer Prices (HICP) was 10.7 percent higher in October. October 2022 was the first month when HICP inflation in the eurozone exceeded the 10% level. In several Eurozone countries, price growth has been above 20% for some time. The Eurozone's Harmonized Index of Consumer Prices (HICP) was 10.7 percent higher in October. A surge in fuel and energy prices (up 43 percent year-on-year, compared to 43.9 percent in September and 35.6 percent in August) was largely responsible for the near-record high inflation in Germany, as in the rest of Europe. Food price growth also accelerated (to 20.3% vs. 18.7%). Services became more expensive at an even faster pace than in previous months (4.0% vs. 3.6%). In addition, upward pressure on prices was reduced by the re-education of the VAT rate on gas from 19% to 7%. It's also worth taking a correction for the fact that when comparing inflation readings between countries - their authorities interact to varying degrees with commodity prices and macroeconomic indicators, temporarily distorting their comparability. Such effect might further intensify in the spring months, when new administratively imposed energy prices for households came into effect.

4. How much was inflation in Poland?

The Central Statistical Office (CSO) reported that inflation in Poland in November 2022 was 17.4 percent. October's reading reached 17.9 percent, the highest since December. However, since March 2022, there has been a series during which the CSO has reported higher and higher readings month after month. According to the quick estimate, consumer prices rose 17.4 percent (price index 117.4) in November 2022 compared to November 2021, and rose 0.7 percent (price index 100.7) compared to October 2022. November inflation was considered lower than expected. This was the first decline in inflation since the middle of last year (not counting the introduction of the Shield in February). In November, inflation fell to 17.4%. Of note is the decline in energy prices. Core inflation remained on an upward trend (rising to around 11.3%)

In July, the National Bank of Poland (NBP) published the MPC's forecast that inflation in Poland for the whole of 2022 would be 14.2% - in November it updated it to 14.5%. By contrast, prices would be already raised by 13.1% in 2023 (NBP forecast, 11. 2022). Earlier analysis said inflation would be 12.3%. The peak of increases in the current crisis would come in the first quarter of this year, at 19.8-20%. This would result primarily from:

- the return of 23% VAT for gas,
- the expected increase in the prices of services and goods, which would be influenced, among other things, by a higher minimum wage,
- limiting so-called 'anti-inflationary shields'.

The National Bank of Poland's most pessimistic scenario assumes about 23% for March 2023. For 2024, the NBP forecasts a CPI of 5.9%. As recently as July, it was 4.1%. NBP analysts predicted an acceleration of inflation in September, meanwhile, a significant increase in readings occurred as early as August 2022. Since November, the rate of price growth has been declining minimally. According to NBP forecasts, declines in inflation readings would begin in the second quarter of 2023. Some experts point out that price would increase for consumers were still much lower than for producers - the PPI for manufacturing goods in November was 20.8%. In previous months, readings hit as high as 24.6%. Slight decline in the rate of growth of producer prices were associated with the calming of the energy market.

In December, inflation fell to 16.6 percent year-on-year from 17.5 percent in November, the CSO said in its final reading. The peak in the rate of growth of consumer prices might come in February and reach around 20 percent. Average consumer inflation for the whole of 2022 was 14.4 percent, compared to 4.9 percent in 2021 (CSO, 12. 2022).

5. Inflation in Poland and interest rates

A gradual reduction in the central bank's reference rate would be feasible with a significant slowdown in inflation. The president of the NBP predicted that the Monetary Policy Council would raise interest rates once or twice by about 25 basis points in an ongoing cycle of increases starting in October 2021. The amount of inflation in the coming months also depends on many other factors. Increases and decreases in fuel prices have a direct impact on the prices of products and services (Kisiel, 2022). Price decreases in July and August were smaller than forecast. October brought further increases, and in November came small decreases. As of January 1, 2023, VAT on fuels was restored from 8% to 23%, which should theoretically translate into increases at stations - for some experts and politicians, the lack of change is evidence that for the last months of 2022 Orlen artificially inflated margins on wholesale fuel sales (Mirek, 2018). This is also to be indicated by lower prices at foreign stations owned by the company, e.g., the Czech Republic, where the government lowered excise taxes and VAT on fuels remained unchanged is also evidenced by data and data collected by the European Commission. The net wholesale price of diesel in December across the EU was highest in Sweden and Poland (WP, 2022).

Inflation in July 2023 was 10.8 percent. - CSO reported. Month-on-month, prices fell by 0.2 percent, the first such situation since January 2022. Such a reading also marks the first time since the end of 2019 that prices have not risen three months in a row. According to the CSO (quick estimate), in July 2022 - July 2023, food became 15.6 percent more expensive, and energy carrier's 16.7 percent more expensive. Fuels for private transportation vehicles became as much as 15.5 percent cheaper. In June 2023, inflation stood at 11.5 percent. The inflationary reading has been moving sharply downward since February, when the CSO recorded a 21st century record high of 18.4 percent. In turn, mBank analysts calculate that core inflation (excluding energy and food prices) fell from 11.1% y/y to around 10.7% y/y (MB analysis, 2023).

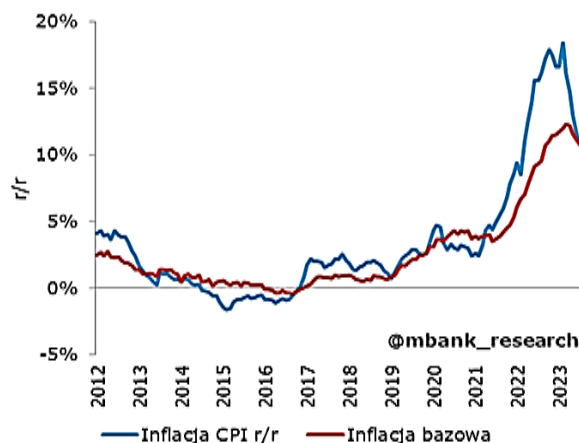
Tabela 1.

Monthly inflation in Poland in 2022

January	CIP 9,4%, HICP 8,7%
February	CIP 8,5%, HICP 8,1%
March	CIP 11,0%, HICP 10,2%
April	CIP 12,4%, HICP 11,4%
May	CIP 12,4%, HICP 11,4%
Jun	CIP 15,5%, HICP 14,2%
July	CIP 15,6%, HICP 14,2%
August	CIP 16,1%, HICP 14,8%
September	CIP 17,2%, HICP 15,7%
October	CIP 17,9%, HICP 16,4%
November	CIP 17,9%, HICP 16,4%

Source: Own elaboration on the basis of CSO.

Table 2.
Inflation year by year



Source: mbank research 31 of July 2023.

President Glapinski announced at a conference after the MPC's July meeting, "if inflation in September is in single digits, and forecasts indicate declines in inflation in the next quarters, a rate cut in September is possible". In turn, forecasts predict that the next cut will be in November (both by 25 basis points).

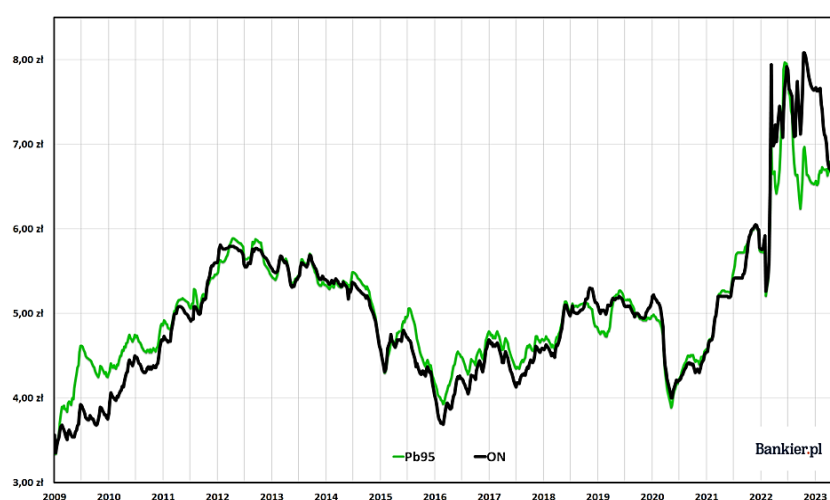
6. Energy and fuel commodity prices

The energy industry was seeing further price increases. Increases in energy raw materials were certain. 1 MWh on the POLPX has already costed more than PLN 2160 in annual contracts. Despite the declines on the exchange (last weeks about 1,100 PLN/MWh), suppliers' offers did not always take them into account, as local government officials, among others, have complained. A freeze CE energy of municipalities and counties was anticipated, for large entrepreneurs no longer. According to the Lewiatan Confederation, 81% of entrepreneurs were planning further price increases for the first months of 2023 due to rising business costs. Business electricity (consumption rate) in September became 50-300% more expensive, depending on the supplier. Gas and gas supply rates would also increase, including for residential customers. According to the ERO, fees for households would increase by 0.5-0.7%. The increases in early 2023 will be painfully felt by many companies. Some will liquidate, suspend or reduce operations, the rest will pass the costs on to customers, which will ultimately affect consumers. There has been a slow decline in the price of heating coal, which is of great importance for households. Inflation is forcing people to incur unnecessary expenses. On the one hand, entrepreneurs, often changing prices, have to convince customers to change prices; on the other hand, consumers, wanting to protect themselves from the inflation tax, have to swap their consumer habits and bear the costs of change.

From Jun 2023, Pb95 gasoline prices have remained largely unchanged. Also, average ON prices have remained relatively stable since May. All the while, LPG has been getting cheaper, costing the least since March 2022. The broader picture is that fuels are still expensive, but at the same time much cheaper than they were a year ago. As recently as June 2022, gasoline prices in Poland approached PLN 8/l for the first (and hopefully last!) time. Diesel fuel also paid almost PLN 8/l, and LPG was priced at more than PLN 3.50/l. Now Pb95 gasoline is on average PLN 1.09/l cheaper (or 14.4%) than a year ago. Diesel over the past 12 months has shrunk by 18.3% (by PLN 1.40/l), and autogas by 17.3% (59 gr/l) (Bankier.pl, 2023).

Table. 3

Average fuel prices in Poland



Source: Bankier.pl, 14 of July 2023.

Conclusion

Inflation has been observed throughout the European Union since July 2021. However, the price crisis is not affecting all member states to the same extent. Some EU countries have already surpassed the 20 percent year-on-year inflation threshold, while in others CPI rates have not yet hit 7 percent. This is influenced, among other things, by the different shape of economies, the energy mix, the tax system, the decisions of Central Banks, the currency, the extent of social welfare and many other factors (Zielinski, Sawulski, 2022). The outbreak of war in Ukraine, the embargo on energy resources imposed on Russia, causes the energy industry to record continuous increases in energy prices, which translates directly to businesses and consumers. This causes consumers to be encouraged to optimize their energy consumption and atmospheric emissions (Kuzior, Postrzednik, 2022) In several Euroland countries, price increases have exceeded 20% for some time now. The Harmonized Index of Consumer Prices

(HICP) in the Eurozone, in October, was 10.7 percent higher. A surge in fuel and energy prices. Inflation has serious negative effects such as; reduction in purchasing power, rapid price increases cause people to have less money for purchases and investments. This means that their purchasing power decreases. Trade imbalance: rising prices make trade difficult, as producers and sellers must adhere to tight budgets, planning difficulties: increased prices make it difficult for companies to plan their operations. This is especially true for companies that must adjust to rapidly changing price levels. The last and very important effect is disorganization of the economy, because rising prices too quickly lead to economic chaos. This can cause the economy to collapse and destabilize the financial market.

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