Poland in international supply chains.
Global opportunities but local risks

Report by ING Bank Slaski and the European Economic Congress
May 2023

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Contribution from the European Economic Congress
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Thanks

We kindly thank the representatives of the following companies that participated in the survey, in alphabetical order: Amica, Bizon, Budimex, Bumech, CTL Logistics, Federal-Mogul Gorzyce, FoodWell (d. Bakalland), Grupa Żywiec, Kirchhoff Automotive Poland, LPP Logistics, Makarony Polskie, Metal-Fach, PKP Cargo, Polpharma, Port Gdansk, Raben Transport, Rohlig Suus Logistics, Stadler Poland, ZF Automotive Systems Poland Częstochowa, ZPUE.

We also thank the representatives of the following chambers of commerce: Polish-German Chamber of Commerce (AHK Poland), Scandinavian-Polish Chamber of Commerce (SPCC) and Italian Chamber of Commerce and Industry in Poland.

How to cite:
Leszek Kąsek (ed.), Poland in international supply chains. Global opportunities vs. local risks, Report by ING Bank Slaski and European Economic Congress, May 2023.

Introduction

Polish companies have shown great resilience in the face of unprecedented external shocks: a pandemic and Russian aggression against Ukraine. The global epidemic severed supply chains, and the war translated into absurdly high prices for energy carriers - especially gas and serious concerns about the availability of this resource during the heating season, which happily did not materialize.

Crisis management is beginning to become a Polish specialty - Polish managers and employees are responding to the increase in turbulence with more mobilization, work and dedication than usual. Flexible response at the company level during the crisis strengthens their resilience in the future, which is likely to be characterized by greater volatility, uncertainty, ambiguity.

As early as mid-2022, and especially after the lifting of China's pandemic restrictions in December, the performance of global supply chains had already returned to normal, as evidenced earlier this year by the decline in the New York Fed's compiled synthetic index to summer 2019 levels. The index of pressures in supply chains goes back in history to the late **1990s and shows that 2020-21 saw the arrival of the so-called "black swan"** (an unexpected, disruptive, strongly negative economic phenomenon). Unfortunately, right after the pandemic subsided, another **black bird appeared - the Russian invasion of Ukraine.**

Our joint report shows the scale of the economic shocks and the key channels of impact on the Polish economy by: financial turmoil, the collapse of trade with Russia and Belarus, and, in particular, the increase in price pressures in energy, metals or grain markets.

We juxtapose the conclusions - on the foundation of macroeconomic data - with information directly from Polish business (senior representatives of 20 companies from various industries) and 3 chambers of commerce (German, Scandinavian and Italian) operating in Poland.

Journalists from PTWP Group portals conducted in-depth interviews on behalf of ING Bank Slaski (January-March 2023). The full interviews are available in an open format - via links provided in the report.

The new, different normal creates not only costs or risks - distributed differently by sector - but also new challenges and opportunities arising from greater interest in Poland on the part of global or European companies. Their declarations, and sometimes already concrete business decisions, can mean larger orders and foreign investments in our country (**nearshoring** versus earlier offshoring).

In the context of geopolitical tensions, **our geographic location can be a curse, but also a springboard for economic development at the same time.** For Western economies, Poland - also by virtue of its nearly 25-year membership in NATO and 20-year membership in the EU - is a buffer against an aggressive Russia and a bridge to post-war activity in Ukraine. A diversified manufacturing base in our country can be an alternative to China/Asia as the factory of the world.

In the report, we argue, listening to entrepreneurs, **that the key to seizing global opportunities remains reducing local risks.** These include:

1. elevated inflationary pressures (and the associated high cost of borrowing),
2. price and wage spirals amplified by shortages of skilled workers,
3. Complicated and unstable taxes and regulations,
4. blockade of EU funds, and
5. slow energy transition.

Without an adequate energy strategy and unlocking the potential for investment in energy efficiency, renewables and grid modernization, we may be missing opportunities for independence and strengthened resilience. Polish companies are already clashing with increasingly stringent ESG requirements from supply chain partners.

ING Bank Slaski and PTWP Group, the organizer of the European Economic Congress, also experienced the effects of the pandemic and the Russian war in Ukraine. They have stood and continue to stand by the side of Polish business in difficult and challenging times. As a bank, we offer financing, advice, access to multi-sectoral knowledge and expertise. As a publisher, event and media company, we organize a platform for knowledge exchange, social dialogue and in-depth public discussion..

Every day we strive to support the development potential of the Polish economy even in an unstable environment. We hope that our joint report, which we are handing over to you, is one of the proofs of this.

Michał Mrożek
Vice President, ING Bank Śląski

Wojciech Kuśpik
Initiator and organizer of the European Economic CongressPresident of the Board, PTWP Group

Our storyline

1. Resilience of Polish companies to external shocks

Polish companies have shown great resilience to unprecedented external shocks: the Covid-19 pandemic and the war in Ukraine.

2. Return to normalcy in global supply chains 2023

After the lifting of pandemic restrictions in China, the functioning of global supply chains has largely returned to normal, and Polish companies have learned how to operate in a wartime environment across the eastern border and with greater uncertainty and volatility in the markets.

3. qualitative study by ING Bank Slaski and EEC - interviews with Polish companies

We know this firsthand - from 20 companies and 3 chambers of commerce operating in Poland, with whom we conducted in-depth interviews in January-March 2023.

4 Nearshoring - global opportunities vs. local risks in Poland

But in the 'other normalcy', the question quickly arose of whether and how Polish business could benefit from larger orders or investments by international companies - in a situation of better "pricing" of supply risks from a distant (China) or aggressive (Russia) country.

5. needed to reduce local risks, including in the area of ESG

It turns out that the key to capitalizing on global opportunities beyond our control anyway is to mitigate local risks. These include elevated inflationary pressures, unstable regulations and taxes, shortages of skilled workers, the blockage of EU funds from the National Recovery Plan, and the slow energy transition and the need to integrate ESG factors into business operations.

Resilience of Polish companies to external shocks

Increased uncertainty for doing business in Poland. Another test of companies' resilience

Poland's credit default swaps, 5-year US$, basis points

Source: Bloomberg. CDS are insurance rates against national bankruptcy.

”We are looking for new markets all the time. As for Russia, turnover has fallen quite sharply. And turnover with this country and Belarus is unlikely to improve. We are strengthening sales in other foreign markets all the time. Directions such as North and South America are developing well - we see great opportunities there and are developing exports. We are also present in countries such as Australia and New Zealand, South Africa is also not too bad in our case, exports to Central Africa are a bit more difficult to develop.

Janusz Kaźmierowski
vice president, Metal-Fach

The war in Ukraine has meant a spike in uncertainty in doing business in Poland as a frontier country.

- The outbreak of war in Ukraine has led to increased uncertainty and a higher risk premium for investments in Poland, as can be seen in CDS rates for Polish bonds. Poland began to be treated as a higher-risk country by investors.
- "Black swans" required a decisive and flexible response from Polish companies: diversifying suppliers, reorganizing internal processes or looking for alternative markets.

”The pandemic was a shock to everyone**; everyone tried to react as best they could in such uncertain circumstances.** Today, looking back, we can judge that just-in-time shopping didn't work in the first wave of the pandemic, but it should also be written in one sentence that the just-in-case system didn't work now - in the face of consumer weakness.

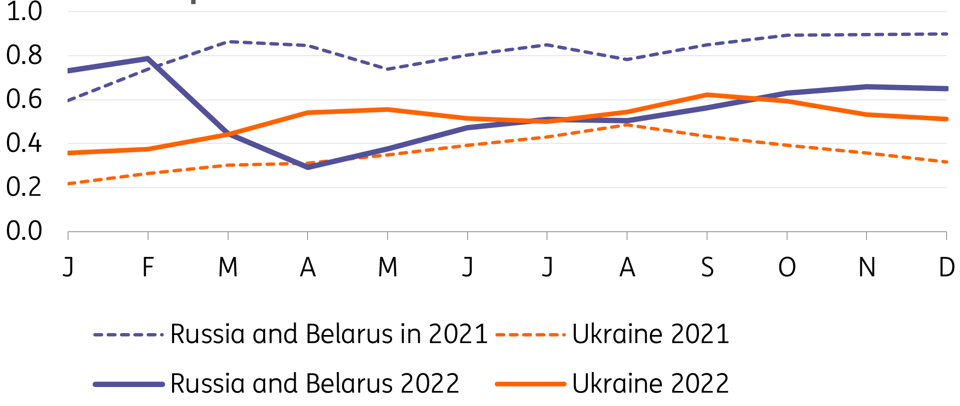
There are no easy decisions or simple solutions in times of high volatility. We have overreacted twice - in two different directions. It will be very difficult (if possible at all) **to return to the pre-pandemic world, but not directly because of covidu,** but because of the war in Ukraine and Russia's falling out with countries with which to do predictable business, and the trade war between China and the US.

Diversification of component sources, to which we have always attached great importance, has helped us greatly. Let us take dried plum as an example: here we have dozens of suppliers on three continents, in five different countries - just to be ready for supply shocks.

Tomasz Szafarczyk,
board member, FoodWell (d. Bakalland)

Sudden halt in exports to Russia and Belarus

Value of Polish exports to the East, EUR billion per month



Source: GUS, via MacroBond.

The direct impact of war through the foreign trade channel

- As a result of the start of a full-scale war in Ukraine and following the imposition of Western sanctions on Russia and Belarus, Polish exports to these markets shrank by more than half - compared to the previous year. The value of exports increased in the following months, but still at the end of the year it was significantly lower than a year earlier.
- At the same time, Polish exports to Ukraine increased markedly in 2022, and Poland became a bridge for supplies of armaments or petroleum products.
- Changes in trade with the East have necessitated a far-reaching reorganization of rail traffic, and the rapid cutoff from Russian energy in 2022 has also meant big changes for Polish ports and a surge in coal handling, which in previous years accounted for less than 10% of port cargo.
- Inefficiencies in the rail infrastructure quickly became apparent.

Rohlig Suus **Logistics redesigned supply chains** in such a way as to bypass Russian and Belarusian territory. In turn, we delivered cargo to Ukraine in such a way that it went to the western part of the country; from there, Ukrainians transported it further (...).

The pumping of fuel or gas both at ports and transshipment at land terminals at border crossings proved to be a problem. It also turned out that the **rail infrastructure was inefficient.** PKP Cargo concentrated on coal transport, which had the effect of limiting rail transport options for other cargo groups. The situation was saved by private carriers.

Andrzej Kozłowski
Rohlig Suus Logistics, board member

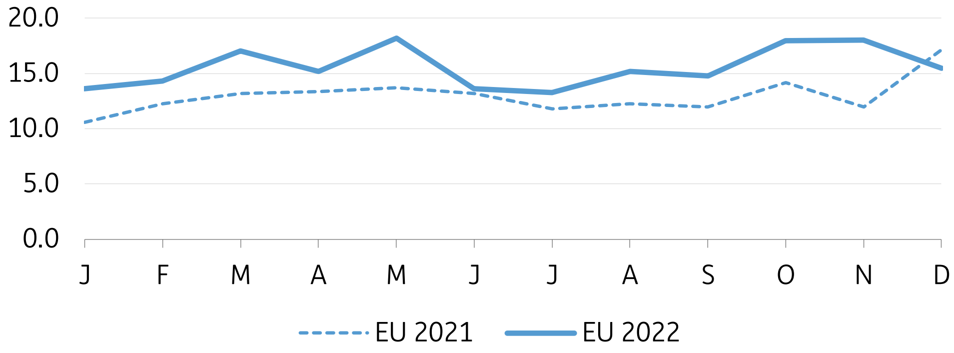
Russia's aggression against Ukraine has contributed (...) to a change in the direction of PKP Cargo's transportation of a large part of its cargo. For example, coal - instead of from terminals on the border with Belarus and Russia (Kaliningrad region) - we carry from Polish and foreign ports to customers throughout Poland. The war has also caused a decline in shipments from China on the so-called New Silk Road (NJS), but on the other hand, cargo shipments to and from Ukraine have increased significantly. (...).

For the time being, we are not seeing a decline in demand for rail freight services. But some freight items are declining.

Dariusz Szeliga
PKP Cargo, chairman

Rapid redirection of Polish exports to other markets, mainly to the European Union

Value of Polish exports to the EU, EUR billion per month



Source: GUS, via MacroBond.

The closure of such important markets for us as Russia and Ukraine has forced us to change our development trajectory **in a very significant way and start expanding in other countries**. At the moment, our attention is focused on Southern and Western European markets. Among them is Romania, for example, where we have doubled the number of stores in the last 2 years. In addition, we intend to develop our stationary network also in Italy and Greece, where we have already opened our first stores. We also plan to increase the number of stores in Finland or the United Kingdom.

Sebastian Sołtys
vice president, LPP Logistics

Increase in exports to the West and other markets

- The loss of the Russian and Belarusian markets after the introduction of Western sanctions, prompted Polish exporters to look for alternatives, the EU market was a natural direction for expansion. Throughout 2022, the value of Polish exports to the EU, expressed in euros, increased by 20%.
- The gradual shift away from Russian fossil fuels at the EU level and on an accelerated basis in Poland (banning coal imports from Russia from April 2022 and Gazprom turning off the gas tap from May) has triggered profound changes in imports. The risk of energy shortages during the heating season has forced the mobilization of coal importers from directions other than Russia.

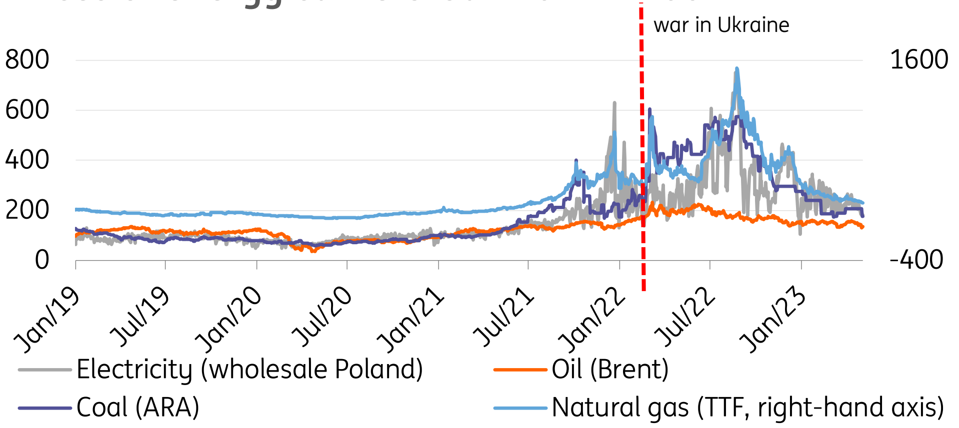
Certainly, **the war had an impact on changing the structure of our transshipments. Before the outbreak of the war, coal was a declining commodity in the Port of Gdansk, already accounting for only 8-10 percent of our transshipments.** Poland's separation from Russian coal changed everything (...). The largest mobile handling facility with a capacity of 19,000 tons of coal per day, which was purchased by our company PG Eksploatacja SA. - is a real game changer, as our old rail cranes handle about 7-8 thousand tons at the same time (...).As for other cargo groups, we do not observe a pandemic effect. **There is also no phenomenon of congestion in our port (...).**

In my opinion, Ukrainian entities and their international **trade partners should seriously consider the possibility of creating a window, eventually perhaps a door, for trade at Polish ports.**

Sławomir Michalewski,
vice president, Port Gdańsk

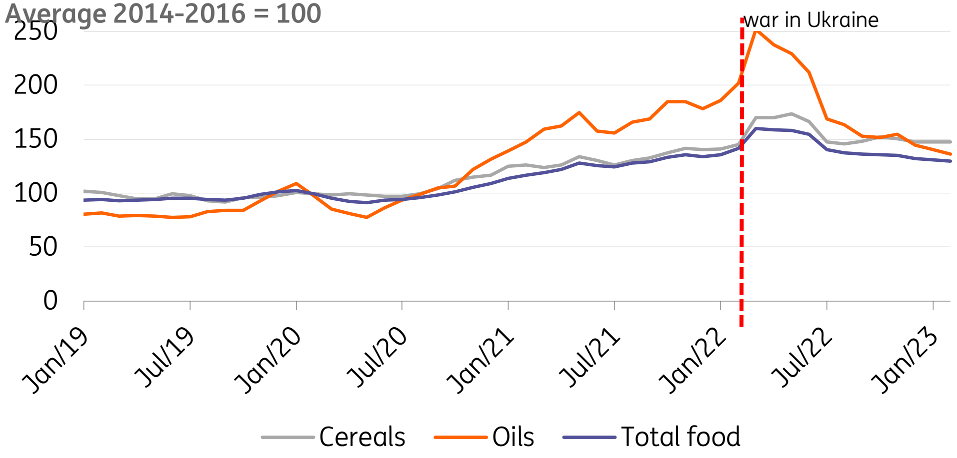
Energy shock 2022 and rising food prices

Prices of energy carriers: Jan 2021 = 100



FAO global food price indexes

Average 2014-2016 = 100



Source: Bloomberg.

The impact of the war on companies' costs by the explosion of energy prices, especially natural gas in 2022.

- Record high prices of energy carriers were the main channel of the war's impact on Polish companies. Price fluctuations had already begun before the war, with a local maximum in the summer of 2022 (a 16-fold increase in gas prices, a 6-fold increase in coal and electricity prices than in early 2021). In the following months, prices stabilized, although they remain significantly higher than before the pandemic..
- The war in Ukraine has translated into an increase in global food prices, especially in categories in which the country is an important supplier (oils, grains). The initial supply shocks also had an impact on other prices through so-called second-round effects.

" The place of the pandemic - as the main challenge - was taken last year by the war in Ukraine. Its effect is more expensive base commodities and high inflationary pressure in at least several areas at once: utilities, food, loan installments, durable goods have become more expensive. Consumers are less willing to spend money. **While the pandemic is now just an ominous murmur, inflationary pressure is still with us and - unfortunately - is doing well.**

Tomasz Szafarczyk,
board member, FoodWell (former Bakalland)

" Supply chain disruptions related first to the pandemic and then to the war in Ukraine have **impacted production costs by double-digit percentages.**

Magdalena Brzezińska,
director of corporate affairs, Grupa Żywiec

Energy shock the main effect of war in company surveys (SMEs)

SME companies affected by war in Ukraine

Survey by GfK, August 2022 , N=300

How has your company felt the war effects (apart from the increase in energy prices), in %

Source: Survey by GfK for ING Banku Śląski. More: https://ekonomiczny.ing.pl/publikacja/773031

Rising energy and fuel costs are the most common effect of the war in Ukraine.

- Findings from ING Bank Slaski's commissioned August 2022 quantitative survey of 300 small and medium-sized companies show that one in three companies also felt other consequences of the war in Ukraine, in addition to the severe energy shock (the consequences in our qualitative survey are indicated, among others, by the following assessment of a manager of Makarony Polskie).
- SME companies pointed primarily to the loss of markets across the eastern border, secondarily to the "domino" effect, i.e. feeling the effects indirectly, by cooperators doing business with companies from Russia, Ukraine or Belarus.
- More than half of the companies that have not yet been affected by other effects of the war expect that they may soon be; less than half expect higher energy prices to be the main/only effect.

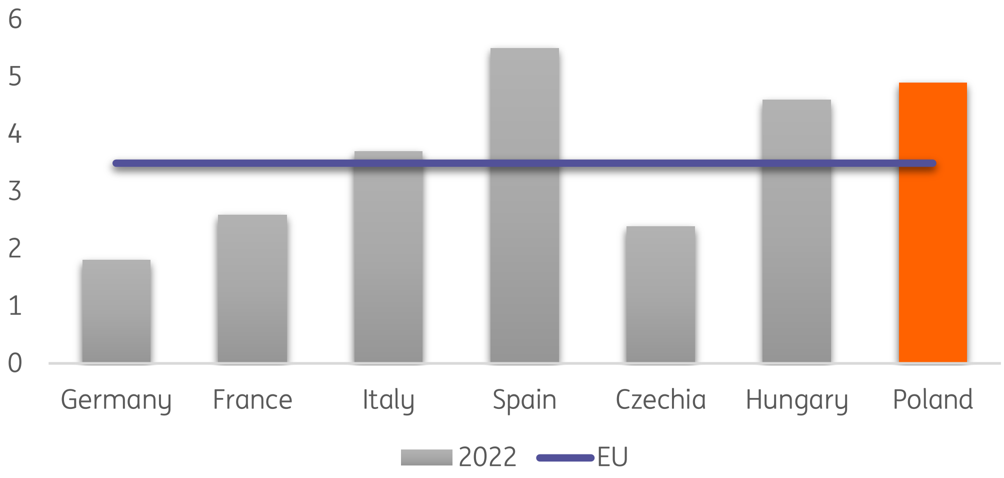
" When you look at our operations, the level of each of the major **"cost carriers" year-on-year increased by a minimum of 60 percent. The exception is labor costs, which increased by about 30 percent.** In real terms, we managed to maintain the level of product margins. However, this was at the cost of many measures - starting with changes in the approach to the operation of the entire company, through purchasing policy, production to sales and logistics. (...).

Demand-supply shocks are so large that it's hard to talk about halting increases... The most likely scenario? A decline in growth rates and a lower ceiling on maximum increases. **On the other hand, we don't see any room for lowering trade margins.**

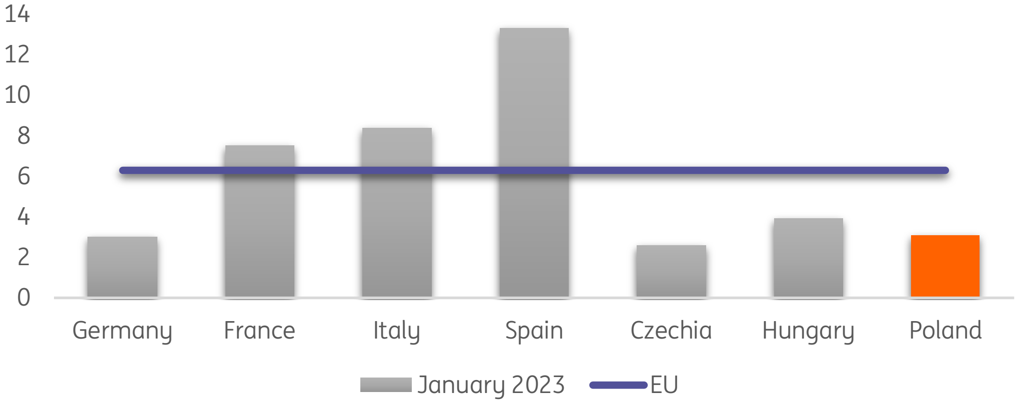
Wiktor Daniłowski,
finance team leader, Makarony Polskie

Polish business resilience to shocks: favorable macro picture

GDP growth, in %



Unemployment rate, in %



Source: Eurostat.

Macro data for 2022 confirms the great resilience of the Polish economy to the shock of war.

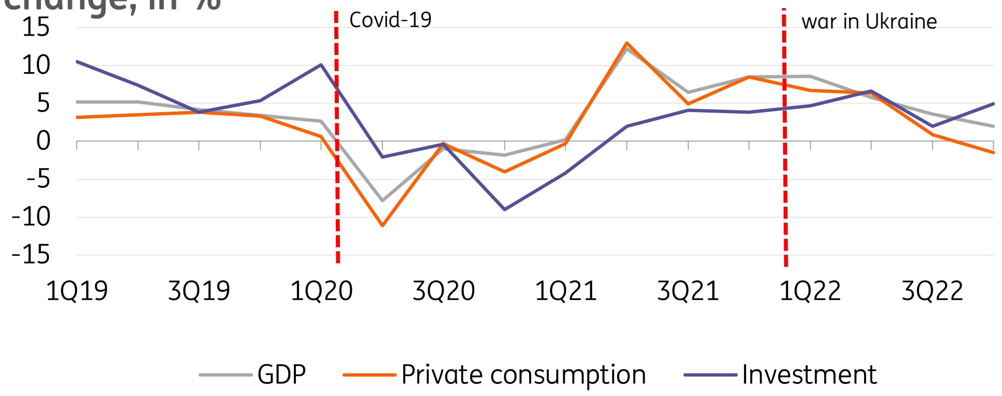
- Poland's indicators of economic activity - rapid GDP growth and a record-low unemployment rate - attest to the economy's resilience to shocks.
- Nonetheless, it is worth remembering that the Polish economy entered 2022 in a strongly heated economic climate, supported by loose fiscal policy and zero interest rates. Inflationary pressures began to build up, particularly evident in core inflation.

> **Our country's rise to global prominence has continued uninterrupted since 1989; it has had its better and worse moments,** but the direction is clear. The war has only highlighted some aspects that we didn't realize - how prosperous a country we are, how good our logistical infrastructure is (yes, I'll probably be the first Pole in history to write that we have very good roads - if there are any); how the usually bickering politicians are able to behave decently in a moment of trial; the fact that we have a professional army, etc.(...).
>
> Europe already looks different - the center of gravity has now **shifted from the Paris-Berlin axis to the Berlin-Warsaw axis**. A win for Ukraine would make this new arrangement stay with us for longer.

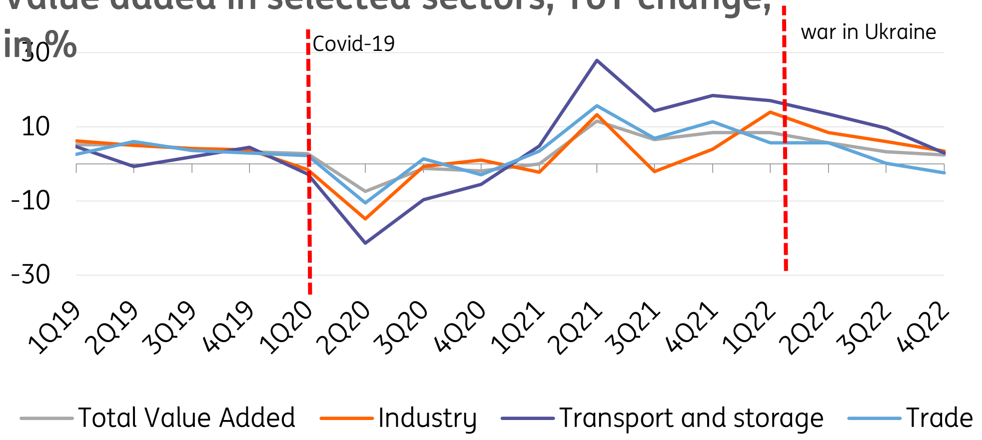
Tomasz Szafarczyk,
board member, FoodWell (d. Bakalland)

Increasingly strong downturn during 2022 and large sector divergences

GDP growth and its key components, YoY change, in %



Value added in selected sectors, YoY change, in %



Source: CSO.

Annual figures for 2022 obscure the picture of economic prosperity during the year and the effects of the war in Ukraine.

- The economic downturn during the year is well reflected in the quarterly economic growth rate, which fell from 8.6% y/y in Q1. 2022 to 2.0 percent in Q4 2022. This took place against a backdrop of relatively volatile investment growth (a bottom in Q3 2022, but a rebound in Q4 2022) and a steady decline in private consumption growth, which was negative -1.5 percent y/y in Q4 2022.
- The decline in private consumption was due to the erosion of household disposable income caused by accelerating inflation.
- The war unevenly affected sectors of the economy.

" For now, we do not see a decline in demand. We have a very extensive product portfolio (...). This does not mean that we do not see the threat of a decline in demand - due to continued inflation. Many people may give up or cut back on their drug purchases even at the expense of their health, because they are "out of line" with their budgets.

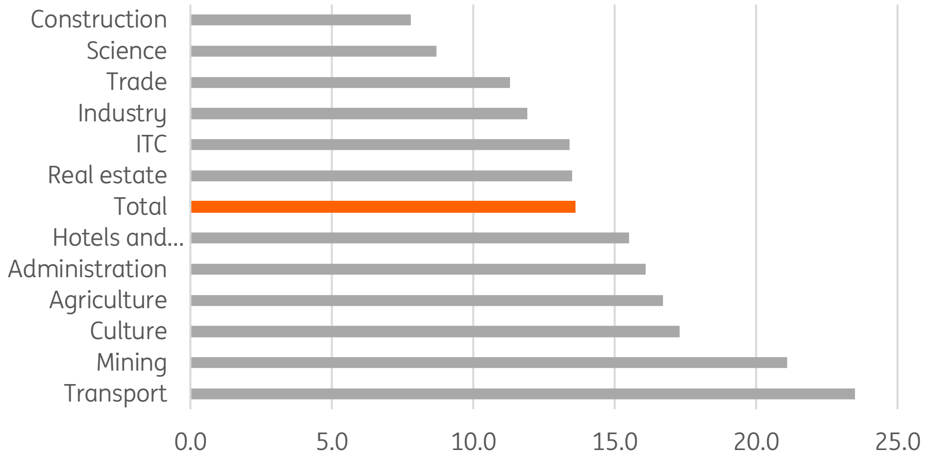
Sebastian Szymanek,
chairman, Polpharma

" Our customers who supply large, international retail chains in sectors such as interiors and fashion tell us that warehouses are full. This means that current consumption must have fallen.... **As a result, these companies are reducing orders in China** - and this is showing up in logistics.

Grzegorz Bogacki,
chairman, CTL Logistics

Disparities in activity between industry and services and at the industry level

Wage growth, by sector (YoY change, in %, February 2023)



Source: Eurostat.

"I'll say perversely: **the blocking of exports or the imposition of sanctions on Russia even helped us a little, the automotive industry, in the case of semiconductors, because supplies previously planned for industry in that country could go to other markets**....On the other hand: during the pandemic, we had a boom in electronics and home appliances, because people - unable to travel or spend on leisure entertainment or dining out - increased their purchases of electronics. Now this trend has slowed down and semiconductor manufacturers are looking more favorably at other industries.

Paweł Cygan
managing director, Kirchhoff Automotive Polska,

Already in the pandemic there was a large variation in activity after sectors, a large variation in wages in the economy also occurred in the context of the war.

- During the epidemic restrictions, the industry benefited from increased demand for durable goods (modernization, renovation and housing construction) and restrictions from the availability of services.
- Once the restrictions were lifted, demand shifted again to previously unavailable (temporary) services, leading to a reduction in demand for durable goods.

High inflation also leads to sector shifts and distortions:

- Price dispersion between sectors and within sectors increased (costs of price monitoring and supplier diversification). Rising prices encouraged the creation of (speculative) inventories. There has also been greater differentiation of wages and profits between economic departments. In 2023, the increase in wage pressure will be shot up by two increases in the minimum wage.

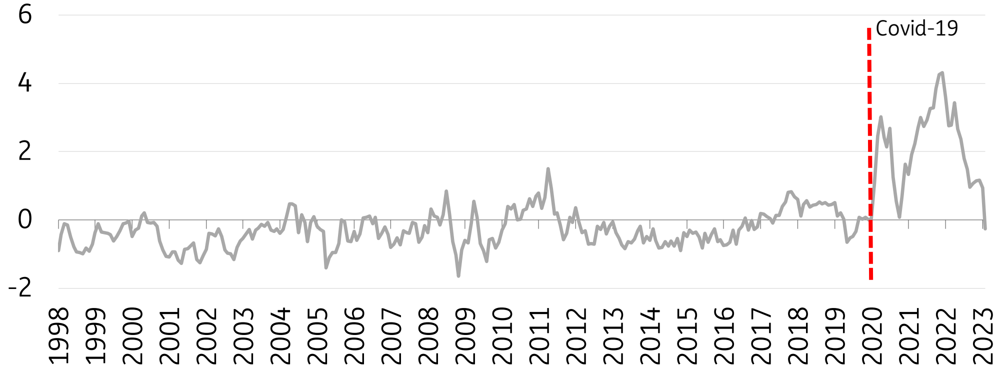
"**And as for machinery prices: we are thinking about increases rather than decreases. Because** - on the one hand - we know what's going on in terms of energy, and what the **supply chains** are like, and the price increases I've already mentioned for our suppliers. On the other hand: even if these rationales were to be tempered a bit, it should be mentioned, for example, that we will have to deal with minimum wage increases twice this year (once they have already risen, the second time they will be raised as of July).In principle, there are no minimum wage earners in our plant, but you have to remember, for example, how many of the services we use are based on the minimum wage. Inflation itself also causes the fact that the cost of wages for our employees must rise.

Janusz Kaźmierowski
vice president, Metal-Fach

Return to normalcy in global supply chains 2023.

Return to normal supply chains in early 2023.

Pressure in global supply chains, NY Fed
Deviation from multi-year average



Source: New York Fed https://www.newyorkfed.org/research/policy/gscpi#/overview . Wzrost indeksu oznacza pogorszenie funkcjonowania globalnych łańcuchów dostaw, spadek – poprawę.

A slow improvement in the supply of active substances is evident, but it is difficult to predict what effect the next covid waves in China will have on the economy.

Sebastian Szymanek,
chairman, Polpharma

[In the home appliance industry] we are seeing a decline in demand across Europe. However, we must remember that 2022 was an "emergency" year and customer purchases did not match actual multi-year needs. Now we are seeing a rebound - and probably 2023 will be a year of **returning** to the normality of 2019-2020.

Robert Stobiński
board member, Amica

By early 2023, the operation of global supply chains had returned to pre-pandemic and pre-war normality.

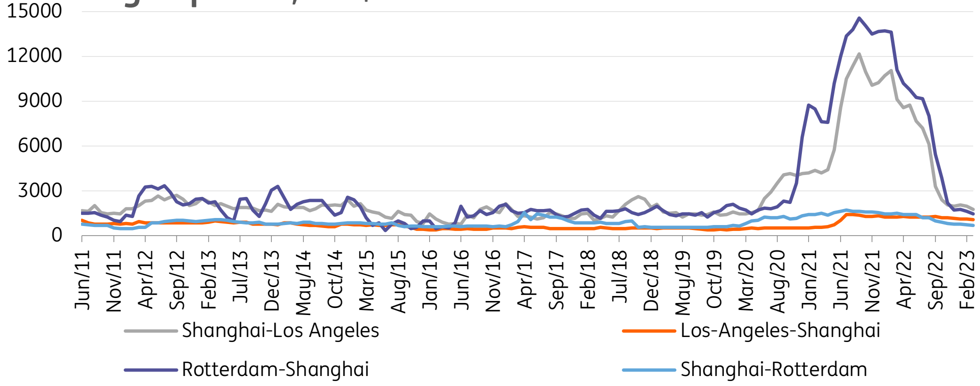
- According to the New York Fed (Federal Reserve Bank), at the beginning of 2023, the index of pressure in global supply chains fell below its multi-year average, to the level last recorded before the pandemic - in the summer of 2019. Just a year earlier, the index had reached historic highs. It includes, among other things, freight and air freight costs, components of the PMI and ISM indices describing supply delays, adjusted for demand effects for seven markets: US, Eurozone, UK, China, Japan, South Korea and Taiwan.
- The normalization of the index has been served by (virtually) lifting pandemic restrictions in China and moving away from the Zero-Covid policy promoted by the Chinese authorities.
- As of 2022/23, most of the components of the index had a positive impact on its value, i.e. they reduced the level of pressure in supply chains. In the latest update, Fed economists pointed in particular to improved delivery times in the Eurozone.
- Tensions in supply chains have been declining over the course of 2022, as felt, among others, by the automotive industry, which previously suffered from chip shortages.

However, most Italian companies located in Poland did well in both the era of the global epidemic and the war in Ukraine. However, **companies were adjusting to the new conditions by changing suppliers**. (...) Another shock came with the outbreak of war, which of course caused a lot of anxiety among entrepreneurs.

Elisabetta Caprino
managing director, Italian Chamber of Commerce and Industry in Poland

Back to pre-pandemic ocean freight rates, practices a little different, however

Sea freight prices, US$ / container



Source: Bloomberg. 40-feet container.

In certain industries, cargo shipped from Central and Eastern Europe to Western Europe has increased by up to 20 percent. This means that these goods are produced in our region, rather than imported from China, for example, that is, it indirectly indicates that some of our contractors have already **implemented a nearshoring process.**

Magdalena Szaroleta
commercial director, Raben Transport

You have to have warehouses and bear the costs of maintaining them. Otherwise, it will be easy to fall victim to supply problems, as was the case with the automobile industry, which - due to the lack of chips - had to stop production or produce cars "for the yard." In my opinion, it is better to protect yourself and be ready for the next covid or something even worse.

Grzegorz Bogacki,
chairman, CTL Logistics

Ocean freight rates have returned to pre-pandemic levels, but that doesn't mean companies will return to old practices.

- Precautionary motives in companies argue for maintaining higher inventory levels than in the days before the pandemic and the war in Ukraine.
- Freight rates translated into a limited boost to producer and consumer inflation. The impact of the firing of ocean freight prices on unit commodity prices was pro-inflationary, but limited. For example: LPP claimed that rates rose from PLN 1 to PLN 5 per shirt.
- According to a study by the National Bank of Poland - the July 2022 Inflation Report. - disruptions in supply chains accounted for about a third of the increase in producer (PPI) and consumer (CPI) inflation.
- The limited impact on inflation in Poland during high growth in 2022 simultaneously means a moderate impact on disinflation in 2023.

A great many other risks also persist. **Rising inflation, and with it the cost of working capital,** will influence decisions to reduce inventory levels and slowly return to just-in-time processes. And these are the plans we have for 2023: to reduce working capital and revise all safety stock - both raw materials and finished goods - to levels as they were before the pandemic.

Sebastian Szymanek,
chairman, Polpharma

Companies have permanently changed their purchasing practices: multi-sourcing

Although the operation of global supply chains has returned to pre-pandemic levels, companies have changed some of their practices.

- In order to increase security of supply, companies have led to diversification of suppliers and, in place of one or two trusted suppliers, there are more suppliers that can be relied on in a crisis (multi-sourcing in place of double or single sourcing).
- Companies operating in Poland have made good use of the crisis and made many bottom-up changes to improve flexibility and efficiency, invested in the skills of their employees, and accelerated digitization and automation processes.

" Companies have become more cautious. But I wouldn't classify this as a general turn away from just-in-time. Rather, **it's about building "second pillars" in supply chains** and, where it makes sense, switching to partners in the regional neighborhood.

Whether company decisions and processes are permanently adapted to reality often depends on the market environment and **industry**. We can certainly assume that companies are adapting in terms of **energy procurement and logistics.(...)**

It cannot generally be said that German companies are turning away from China. On the contrary, investments in the Middle Kingdom continue**. However, awareness of creating alternatives has increased**, as evidenced by the increase in localization projects in our Chamber.

Lars Gutheil
President, Polish-German Chamber of Commerce (AHK Polska)

" Diversification of the supply chain, including **multisourcing** (a purchasing policy that involves maintaining business relationships and sourcing from more than one supplier of goods or services - editor's note) is an increasingly common strategy for strengthening resilience to unpredictable turbulence.

Agnieszka Zielińska
managing director, Scandinavian-Polish Chamber of Commerce (SPCC)

" Until now, it was the contractors who came to us with an offer and encouraged us to cooperate; now it was we who had to start looking for new business partners. While the principle of having alternative suppliers had always been with us, the pandemic meant that we needed not one, but several backup options. Double sourcing was no longer enough, we had to switch to **multisourcing** (taking product from multiple entities; **double sourcing** is a type of it).

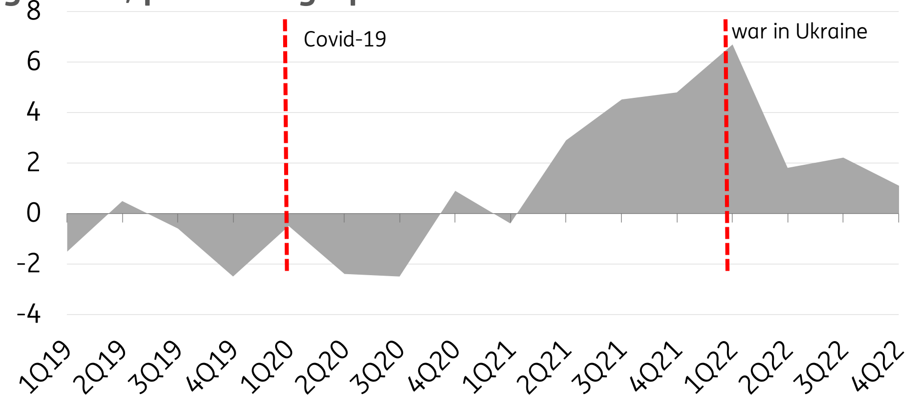
Like the vast majority of companies, we relied **on building inventory**. We had no choice but to double them. This placed an additional burden on the company, but such a move was nevertheless necessary to safeguard production. We also placed even more emphasis on **cooperation with suppliers.**

However, I think that even if we return to just-in-time, **it will be a different system than before.The** last three years have taught us a lot in terms of risk management. Our purchasing team has doubled in size, which shows the number of challenges it faces on a daily basis. I also think that there is no single, effective strategy. Perhaps some companies will return to just-in-time, some will stay with just-in-case, and still others will combine both strategies.

Wojciech Marcinkowski,
board member, ZPUE

Return to just-in-time procurement, with some exceptions and with sector specificity

Inventory growth, contribution to GDP growth, percentage points.



Source: CSO.

Our company's inventory policy has undoubtedly changed. In times of uncertainty, we decided to produce a one-month stock of basic assortments and sell out gradually until the end of 2024. In times of supply and demand shocks, the just-in-time strategy does not work.

Wiktor Danilowski,
kierownik zespołu finansów, Makarony Polskie

We basically **still work on a just-in-time system.** We already diversified suppliers and reduced warehouses a few years ago. In our case, the just-in-time system still works.

Adam Krępa, prezes
chairman, Federal-Mogul Gorzyce

Disorders during pandemics and war are lessons for companies for normal times.

- Amid strict pandemic restrictions, 2020 was a time of melting inventories. Inventory data in the national accounts suggest that companies began accumulating elevated inventories from the beginning of 2021 and continued the process in 2022, albeit on a smaller scale. At the local maximum in 1Q. 22 inventory build-up accounted for more than 6 pp of GDP growth.
- Normalization in supply chains in 2023 suggests a decline in inventory growth.

We are trying to optimize inventory levels through the use of IT tools.... Certainly, the disruption in the supply chain had an impact on the **temporary increase in inventories**, but by the end of 2022 we were already back to pre-pandemic levels. We don't see a change in inventory structure today, but we do see increasing geographic **diversification of component suppliers.**

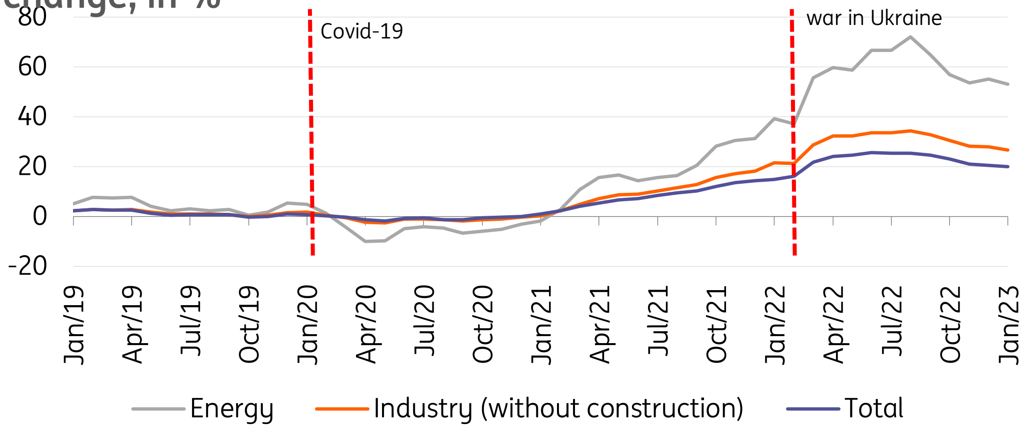
Robert Stobiński
board member, Amica

The company had to do its homework on liquefying the inventory left over after the closure of such important markets. Therefore, the overriding goal for this year is to increase the turnover of goods. Inventory is not only excess warehouse space, but also frozen capital (...). We have been forced **to change our systems, to put extra time buffers on assumed transportation times, making the supply chain strategy more like a just-in-case model than just-in-time.**

Sebastian Sołtys
vice president, LPP Logistics

Accelerating inflation additional justification for stockpiling in 2022

PPI producer inflation and components, YoY change, in %



Source: Eurostat.

The accumulation of surplus stocks was justified by accelerating inflation.

- In inventory management, after just-in-case orders (profitable with accelerating inflation), there has been no return to just-in-time, although industries have their own peculiarities (for example, in automotive just-in-time is natural).
- In light of the raging prices of energy or metals on world markets, making stocks of raw materials made economic sense, assuming, of course, that the goods could be stored and that companies had storage space. Some companies did so for speculative reasons.
- As in other markets, the increase in demand for warehouses has translated into an increase in warehouse rates over time. This was a European trend, but the disparity between European and Polish rates has narrowed.

The sudden increase in the price of materials came from pure speculation. When the market stabilized, semi-finished products and components started flowing to us again, but we were already experiencing noticeable delays in vehicle production. Even the big players, with production facilities spread around the world, were not supplying us with components - for the same reason.

Tomasz Prejs
chairman, Stadler Polska

Another important skill proved to **be how we were able to navigate** the electronics market, where dealers and brokers of needed components operated. It turned out that some companies had made a stock of strategically important components for us - just to resell them at a profit (...).

We will certainly return to a just-in-time approach, because no one has the resources to suddenly start stocking components a year ahead. The second thing: products in electronics and automotive change so often that it would be too risky to stock components - they could turn out to be useless for production after a certain time. A return to just-in-time seems inevitable, because it is natural.

Krzysztof Gablankowski,
director, Zakład Elektroniki ZF Automotive Systems Poland Częstochowa

Pricing policies and trade margins during a downturn

Neither increases earlier nor price cuts today are an automatic process in companies.

- Companies held off on proportionate price increases for their own goods and services during the period of supply shocks (uncertainty), and this means they have less room to cut margins now.
- Manufacturers suggest that distributors have more room to reduce margins.

" **The margins of manufacturers and retail chains are easy to check by the available financial reports of one and the other.** We, as manufacturers, do not currently have the space to lower our margins; how can we do so if most of us have a net profit in the neighborhood of a statistical error? **If there is "fat" somewhere in the value-added chain, I wouldn't look for it in manufacturers.**

Tomasz Szafarczyk,
board member, FoodWell (former Bakalland)

" **The second shock was rampant inflation and uncertainty about the future financial condition of consumers.** This, in turn, caused them to shop less frequently, to reach for beer less often. **Per capita beer consumption has dropped from 100 liters per person before the pandemic to 92 liters today.** High operating costs are triggering the need for price hikes, and beer is an acutely price-elastic product, which is further inhibiting demand growth.(...)Current price increases are not sufficient to offset "**producer inflation.**" Prices will therefore continue to rise.

Magdalena Brzezińska,
director of corporate affairs, Grupa Żywiec

" Rising prices for components, energy and labor costs make it impossible to lower prices - despite declining demand. **Higher prices will already stay with us in the long term.**

Robert Stobiński
board member, Amica

" I don't see any room **for price increases, and commercial margins will certainly be reduced** - if only due to inflation and the apparent deceleration of the construction market, including real estate development, where we are seeing a decline in new investments of up to 70 percent. A similar decline applies to local government roads.

Ewelina Karp-Kręglicka,
director of purchasing office, Budimex

" We are analyzing business risks on an ongoing basis, **including the outlook for consumption in a high-inflation environment across Europe, as this has a direct bearing on the outlook for transportation demand (...).**

In transportation, margins have remained low at a few percent for many years. If a carrier is to meet customer expectations, deliver on time, have a high-quality fleet of vehicles and an adequate number of drivers, there is no way to lower prices amid rising costs and the disruptions that occur. **Costs are further increased by obligations for transport to meet environmental standards**.

Magdalena Szaroleta
commercial director, Raben Transport

Qualitative study

ING Bank Slaski and EEC - interviews with companies

Scope of the study. Framework questionnaire for interviews

Scope of Supply Chains Survey 2023.

- The qualitative study by ING Bank Slaski and the European Economic Congress (EEC) consisted of interviews with representatives of 20 companies operating in Poland and the heads of 3 chambers of commerce in Poland (German, Scandinavian and Italian). The interviews were conducted by journalists of the WNP.PL portal in January-March 2023.
- Our survey is an update of last year's study summarized in the report Poland in Global Supply Chains in Pandemics and War.
- We conducted several interviews (e.g. Port of Gdansk, Polpharma) with the same people, which makes it possible to compare the dramatic and uncertain situation a year ago and with the relatively normalized - despite the still ongoing war in Ukraine - external situation for Polish business at the beginning of this year.
- In addition to gaining a better understanding of the effects of external shocks on the Polish economy, the aim of the survey this year was to identify opportunities for Poland resulting from the reduction of offshoring by multinational companies in favor of nearshoring, i.e. shortening global supply chains and focusing more on local markets or economically integrated regions, such as the European Union.

The framework set of questions addressed the following issues:

1. What has happened in supply chains in the last 12 months;
2. What has been the company's response, particularly inventory management;
3. Assessment of government support;
4. Assessment of the sustainability of changes in foreign trade;
5. Companies' pricing practices in the context of the economic downturn;
6. New export markets;
7. Prospects for nearshoring: activity of Western companies in Poland;
8. Foreign investment by Polish companies;
9. ESG requirements in supply chains.

Cross-section of companies participating in the survey (20 companies, 3 chambers of commerce)

A diverse group of interviewees:

- Representatives of industrial processing companies and logistics and transportation companies took part in the survey. They were persons holding management positions at the companies.

Industrial processing industries:

Automotive

Federal-Mogul Gorzyce, Adam Krępa, chairman

Kirchhoff Automotive Polska, Paweł Cygan, managing director

ZF Automotive Systems Poland Częstochowa, Krzysztof Gablankowski, director

Machinery and equipment

Amica, Robert Stobiński, board member

Bizon, Piotr Komierowski, company founder

Metal-Fach, Janusz Kaźmierowski, vice president

Stadler Polska, Tomasz Prejs, CEO

ZPUE, Wojciech Marcinkowski, board member

Pharmaceutical

Polpharma, Sebastian Szymanek, CEO

Clothing

LPP Logistics, Sebastian Sołtys, vice president

Food

FoodWell (former Bakalland), Tomasz Szafarczyk, board member

Grupa Żywiec, Magdalena Brzezińska, director of corporate affairs

Makarony Polskie, Wiktor Daniłowski, finance team leader

Construction industry

Budimex, Ewelina Karp-Kręglicka, director of purchasing office

Transport, forwarding, Logistics

CTL Logistics, Grzegorz Bogacki, chairman

PKP Cargo, Dariusz Szeliga, chairman

Port Gdańsk, Sławomir Michalewski, vice president

Raben Transport, Magdalena Szaroleta, commercial director

Rohlig Suus Logistics, Andrzej Kozłowski, Board member

Coal mining company

Bumech, Marcin Sutkowski, CEO

Foreign chambers of commerce operating in Poland:

Polish-German Chamber of Commerce (AHK Polska), Lars Gutheil, chairman.

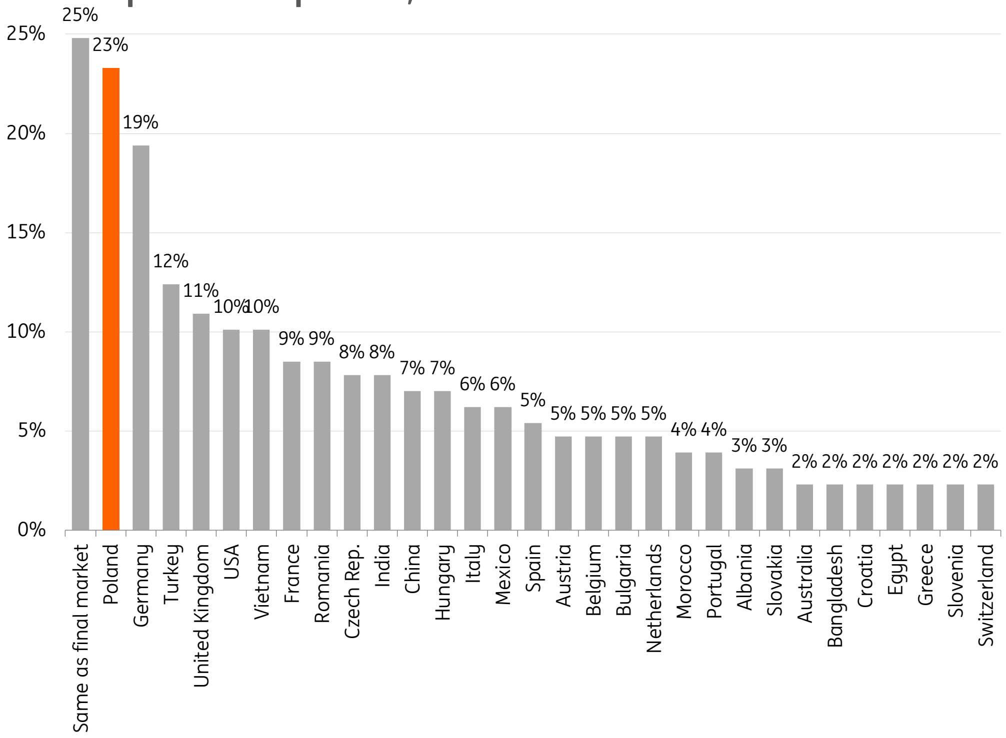
Scandinavian-Polish Chamber of Commerce (SPCC), Agnieszka Zielińska, managing director

Italian Chamber of Commerce and Industry in Poland, Elisabetta Caprino, managing director

Nearshoring - global opportunities for Poland

Nearshoring – Opportunities for Poland when relocating activities of global companies

Most popular sourcing and reshoring locations for European companies, N=210



Source: Alex Hadwick (red.), Reuters Events, Supply Chain white paper in partnership with Maersk, Supply Chain: A generational shift in sourcing strategy A global and European deep dive into near-sourcing, nearshoring and reshoring in the post-pandemic world, październik 2022.

Poland as a popular location for moving supplies or business closer to markets (nearshoring).

- In the „new normalcy" the question quickly arose of whether and how Polish business could benefit from larger orders or investments by international companies - in a situation of better pricing of supply risks from a distant (China) or aggressive (Russia) country.
- Declarations from international companies (last year's Reuters Events report) are very promising - Poland is indicated as the No. 1 location for European companies when deciding to relocate to another country - other than their country of origin.
- Declarations by companies in our survey suggest that nearshoring will be a gradual process, it is already being realized through supplier diversification, in the medium or long term, foreign investment can be expected to increase.
- Poland and countries in the region can also benefit from the rise of protectionism in the U.S. and investment by U.S. companies in friendly countries (friendshoring).

" The cost of production, the cost and time of transportation or the resulting lower flexibility in responding to changes - such as in fashion or demand - are all variables that lead companies to consider nearshoring. In the case of the largest companies, we may not be dealing with a complete relocation of production to Europe, but with the aforementioned diversification of the supply chain.

Agnieszka Zielińska
managing director, (SPCC) Scandinavian-Polish Chamber of Commerce

The potential for nearshoring is visible: procurement opportunities first, then investment

According to Polish companies, nearshoring is already happening (diversification), but the sectoral dimension is important.

- Moving the activities of global companies closer to their markets in the first phase involves the aforementioned diversification of suppliers, rather than abandoning existing suppliers altogether.
- On the cusp of disruption during pandemics and war, companies are reassessing risks. Previously underestimated risks of supplying Western Europe or the US from distant China or aggressive Russia are prompting companies to look for new suppliers or places for new investments. Poland has a lot to offer, including within its special economic zones.
- Involvement in the Polish market for European companies can provide a bridgehead for further investment by European companies in Ukraine.
- The nearshoring question also has an important sectoral dimension: more opportunities in high-tech (automotive, machinery manufacturing) and logistics industries, less in light industry (clothing, footwear) and energy-intensive industries - due to Asia's cost advantages and expensive energy in Europe. This also creates an opportunity for Polish companies to move up the ladder of global value chains.

" In recent years, **our country has become a true logistics hub of Europe**. We are favored not only by our central location in Europe, but also by seaports that are expanding, as well as other investments, such as roads. We have nearly 30 million square meters of warehouse space in Poland, which is more than half of the total warehouse space available in Central Europe.

Sebastian Sołtys
vice president, LPP Logistics

" In our view, **nearshoring today should be understood primarily as an increase in diversification of supply sources**, that is, not relying almost 100 percent on China, but finding suppliers closer to their markets. If a company in Europe previously received 80 percent of its volume from China and 20 from Turkey, it now receives 65 percent from China, for example, and as little as 35 percent from Turkey.

Factory relocation is also involved, **but these are lengthy processes**. Besides, the investments made in Asia have not yet paid off in many cases. And until that happens, they will continue to operate there. Some large companies, however, have already decided to relocate, but it will take two to three years for the final result.

Andrzej Kozłowski
Rohlig Suus Logistics, board member

" Manufacturing plants in Poland **have high ratings among managers of many multinational companies and corporations**. This is a condition that has persisted for years and can be an argument for locating new production or new plants here.

Adam Krępa, prezes
chairman, Federal-Mogul Gorzyce

" Italian companies are trying to discern themselves in the new conditions. **Poland remains a promising market:** for example, Stellantis has expanded production - a new model of Jeep Avenger with electric drive is being assembled here. Poland is a very interesting and strategic market for investors from Italy - because of the large investment opportunities (also thanks to European funds, which were used, among other things, for the construction of infrastructure). **Special economic zones have also been built in Poland.**

Elisabetta Caprino
managing director, Italian Chamber of Commerce and Industry in Poland

War in Ukraine as a risk and an opportunity for Poland

The war in Ukraine represents both a risk and an opportunity for Poland.

- After the start of the Russian aggression against Ukraine, the risks for Poland as a frontline country mainly became apparent, but increased interest in our country and its political role in the war in Ukraine may create opportunities for foreign investment.
- The hospitality of Poles in welcoming refugees from Ukraine is admired around the world. Some of them have taken up jobs in Poland and may stay for longer.
- Of great importance for engagement in Poland as a bridge to activity in Ukraine will be the further course of the Russian-Ukrainian war and the geopolitical situation, including mainly China's possible military assistance to Russia.

" **It all depends on how global politics is shaped.** Because if a variant were to come true, that China would strongly ally with Russia, and an alliance of democratic countries would stand up and start imposing sanctions on China, the world would turn upside down... Then there would perhaps be a chance to return - from far away Asia - to more production in Europe, but this would be an operation calculated for years. And we would certainly have a kind of "cut-off" from all sorts of goods that a lot of people can now afford, because, however, Asian markets caused world consumption to increase significantly (production there was much cheaper). In an arrangement where China will cooperate with the democratic world, the European Union, and nothing will change in international relations (no sanctions will be imposed), I rather see no reason for mass production from China to move here - to Europe and Poland.

Janusz Kaźmierowski
vice president, Metal-Fach

" In a way, the war in Ukraine is affecting us in a positive way - a large group of good workers from Ukraine has appeared, with whom we can easily communicate.

Krzysztof Gablankowski,
director, Zakład Elektroniki ZF Automotive Systems Poland Częstochowa

" However, there is a catch here - the word "if." **If Ukraine is victorious in the war with Russia,** then - in my opinion - Poland as a country, and especially our business, will be one of the biggest winners of the new global economic, financial and political puzzle. **Europe already looks different - the center of gravity has now shifted from the Paris-Berlin axis to the Berlin-Warsaw axis.** A win for Ukraine would make this new arrangement stay with us for longer.

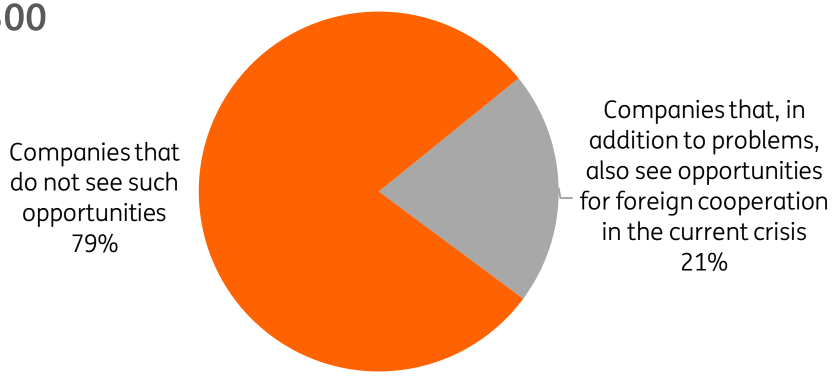
Tomasz Szafarczyk,
board member, FoodWell (former Bakalland)

" **Storage costs have gone high across Europe**, and the gap between the Polish market and other European markets has narrowed significantly. On the other hand, we still see interest from **new customers coming to the Polish market.** Perhaps no longer on the same scale as before, but some customers are still moving their distribution and logistics centers to Poland. There are companies that are opening logistics centers in Poland aimed only at the Ukrainian and Moldovan markets.

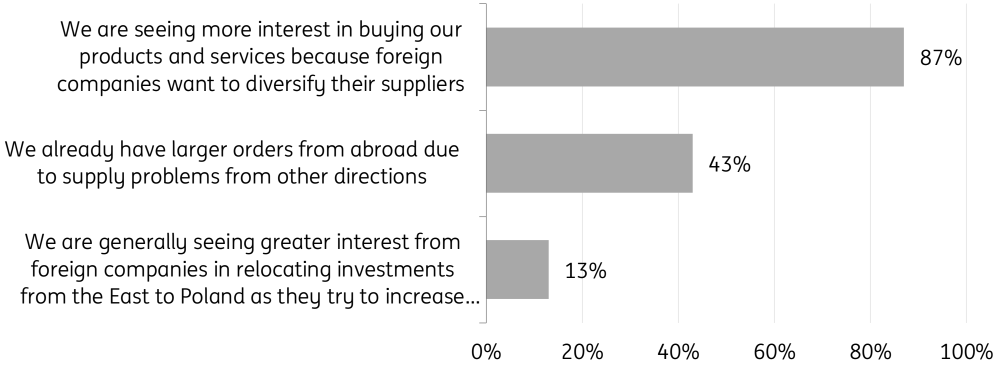
Andrzej Kozłowski
board member, Rohlig Suus Logistics

Larger companies seem more convinced about nearshoring than SMEs

Do SME companies see an opportunity for more foreign cooperation in the current crisis %, N=300



If YES, what are the chances? N=63 (small sample)



Source: GfK survey for ING Banku Śląski. Find more: https://ekonomiczny.ing.pl/publikacja/773031

Only 20% of SMEs see opportunities for greater foreign cooperation in the context of the war in Ukraine.

- Our recent quantitative survey in the SME segment shows that only one in five companies see opportunities for themselves from the war. In the SME sample, it is more often large companies and industrial firms (29% of the latter).
- Among companies that see growth opportunities in the context of the war, greater interest in purchasing in Poland as part of supplier diversification was cited most often, but half also indicated an increase in orders.

> We expect that (...) the high level of cargo shipments to and from Ukraine will continue. But we also assume that the war will end soon, and we will carry mainly goods for the reconstruction of the country to Ukraine, and grain, vegetable oils, industrial products and other cargoes from Ukraine.

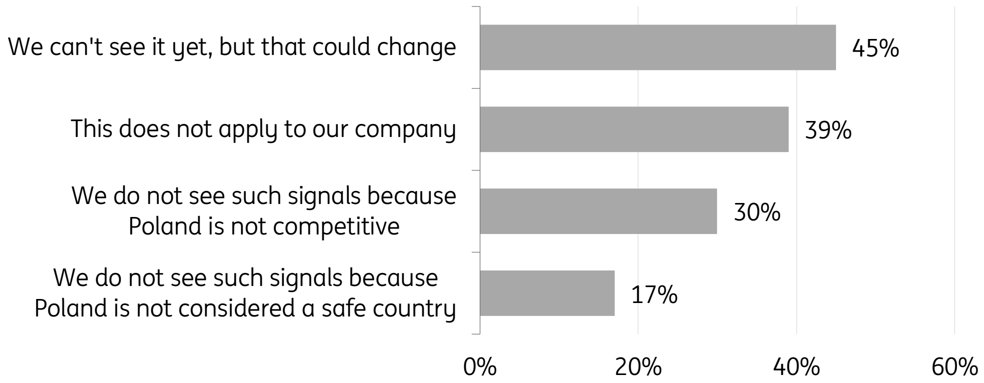
Dariusz Szeliga
PKP Cargo, chairman

> The transformation of global supply chains is making Poland even more attractive to German investors. We notice this in the number of inquiries we receive about finding a location (...).As an investment country, Poland is becoming more attractive because it combines geographic proximity, not bad infrastructure and well-trained staff. In addition, very many companies with German capital operate in Poland, know and appreciate the market and have confidence in Polish suppliers and partners.

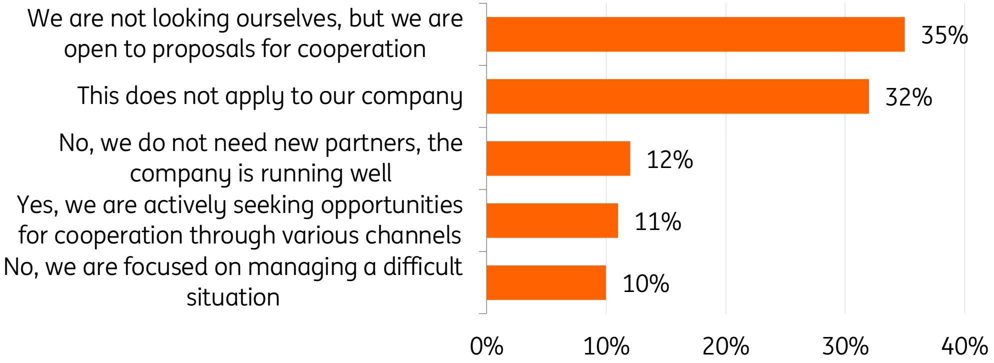
Lars Gutheil
president, Polish-German Chamber of Commerce (AHK Polska)

SME companies are open to foreign cooperation, but only one in ten is actively seeking it

Why SME companies do not see opportunities for greater foreign cooperation, N=237



Do SME companies actively seek foreign cooperation, N=300



Source: GfK survey for ING Bank Śląski. Find more: https://ekonomiczny.ing.pl/publikacja/773031

SMEs are rather skeptical about the possibility of foreign cooperation in the context of the war in Ukraine.

- Only one in ten SME companies is actively trying to reach out to potential partners, 35% of companies are open to cooperation, but are waiting for offers.
- Sector specificity is important. For example: due to the recovery of the automotive sector in Europe and the growing importance of energy investments, companies in these sectors are among the winners.

" The corporation had plants in Russia that produced for the Russian market, but also exported to Germany as well. There were also plans to locate new production there. Sanctions after the outbreak of war caused both current production and yet-to-be-planned contracts scheduled for Russia to go.

Adam Krępa, prezes
chairman, Federal-Mogul Gorzyce

" The situation varies from sector to sector. Over the past years, companies have been building up inventories and are now trying to liquidate them, so the number of orders from suppliers is not as high as before. There will therefore be a market correction. How big it will be depends on the industry and what is happening in its immediate environment. In the electric power sector, we are not seeing a downward trend - there is no sign of a market collapse. ZPUE is not experiencing declining interest in our products.

Wojciech Marcinkowski,
board member, ZPUE


Need to reduce local risks,
including in the ESG area

Key reduction of local risks to take advantage of global opportunities

The key to capitalizing on global opportunities that are beyond our control anyway is to mitigate local risks. These include:

1. High inflation;
2. Spiraling prices and wages with shortages of skilled workers;
3. Complicated and unstable regulations and taxes;
4. Insufficient public support for private investment, including the blockage of EU funds from the National Recovery Plan (NRP);
5. Slow energy transition with increasing role of ESG requirements in supply chains of multinational companies.

EU climate policy as a constraint on energy-intensive industries (unless the energy of the future is green and cheap).

- High emission allowance prices on the path to climate neutrality 2050.

Our country is becoming less and less attractive for investment. The advantage of lower wages unfortunately no longer provides as much of an incentive for investors as it did a decade ago. Energy costs have become prohibitive for manufacturers. And also taking into account the legal environment in Poland: I don't think we are a friendly country for investment....

Piotr Komierowski
company founder, Bizon

A growing shortage of skilled workers, bureaucracy - such as in tax regulations and slow implementation of the energy transition - are the main risks for German investment in Poland.

Lars Gutheil
President, Polish-German Chamber of Commerce (AHK Poland)

We carry grain from Ukraine, but the belief that Poland could play a big role here was wrong from the beginning. We don't have adequate grain ports in our country. Compared to Ukrainian ports, it's more of a manufac...

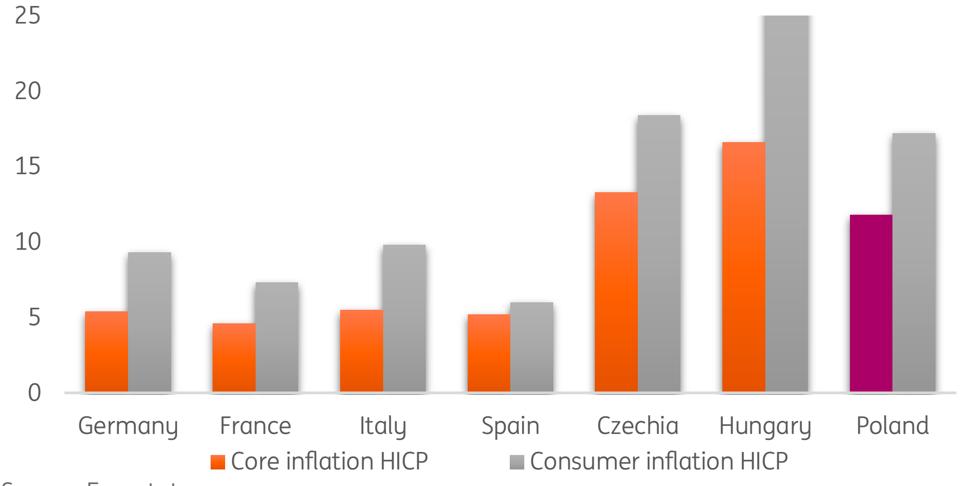
Grzegorz Bogacki,
chairman, CTL Logistics

In the future, certainly - in addition to security and relative political stability - the costs associated with the need to adapt to climate change or regulation will influence production location decisions (...).[Regarding ESG factors] - We believe that this kind of proactive attitude brings benefits to the company in the form of cost savings, lowering the risk of the business, increasing credibility and trust among business partners or attractiveness among job candidates.

Magdalena Brzezińska,
director of corporate affairs, Grupa Żywiec

Risk # 1: High inflation

Inflation (YoY change, in %, February 2023)



Source: Eurostat

Our costs have increased significantly. In order to maintain the level of production at a satisfactory level, we had to pay more for equipment, machinery, energy carriers, as well as for various components or spare parts. The cost of warehouse management has also increased (...). **The prices of the steel we order are not going down.** Interestingly: prices of steel for construction purposes have come down, while steel with higher quality parameters - used in mining - remains very expensive (...).

The upward **pressure on "factors of production," including wages, on the other hand, is not going away.** Since the fall of 2021, that is, in 1.5 years, the cost of producing one gigajoule has doubled for us!

Marcin Sutkowski
CEO, Bumech

High inflation has eroded real incomes.

In recent quarters, demand barriers - due to high, "sticky" inflation - have replaced supply barriers in Poland, which have ceased with the normalization of the supply chain situation. Companies are reporting high scale of price increases.

Above all, what is needed (...) is the elimination of those risks that may reduce our attractiveness. I am referring to high inflation - higher than in Western countries - and high prices for energy and its carriers.

Adam Krępa, prezes
chairman, Federal-Mogul Gorzyce

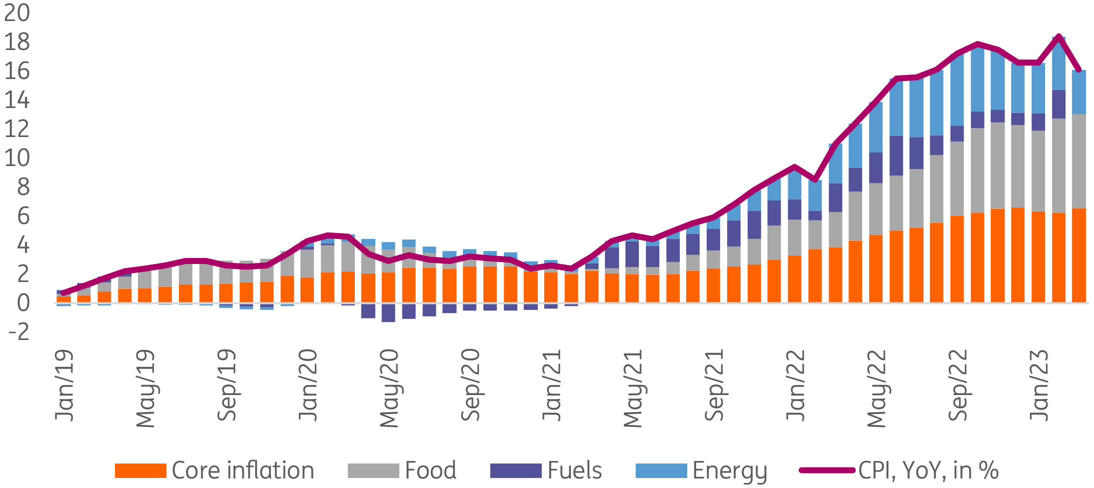
Prices, which for some commodities rose by practically 100 percent in 2021 compared to 2020. - rose again at the outbreak of war last February by another 50 to 60 percent over what they already were. This absolutely was the culmination and blocking of consumption - hence such a dramatic drop in sales and demand for consumer products at the moment. These are the effects of the war, as well as, it must be added, the monstrous greed of those who have **a monopoly in their hands, that is, in my case, suppliers: steel, electricity, fuels, including for vehicles or gas** - I repeat: the price increases have absolutely no market justification; only and only the increase in tension has allowed suppliers to hike prices.

To this should be added **inflation**. In the case of our country - in my opinion - it has already been developing since 2016, while being "cranked up" by the effects of the pandemic. Empty money released into the market at the time of the global epidemic has caused manufacturers in this latitude to become much less competitive with imports.

Piotr Komierowski
company founder, Bizon

High inflation distorts market signals and increases the cost of monitoring price changes

Decomposition of CPI inflation in Poland, YoY change, in %)



Source: CSO, ING

Despite disinflation in 2023, Poland may face elevated inflation, at least until the end of 2024.

- Global disinflation - thanks in part to the normalization of global supply chains - will be accompanied by a decline in CPI inflation in Poland.
- However, core inflation (a basket of prices excluding energy and foodstuffs) will remain high and difficult to reduce.
- High inflation also creates additional costs for monitoring price changes and responding to market impulses to avoid the traps of nominal money illusion and financial losses. High inflation weakens the fundamentals of the zloty exchange rate, and a weakening currency intensifies price pressures.

" **The pandemic caused a halt in social activity,** locking people indoors and cancelling all mass events - and this was the first negative shock to beer consumption. **The second shock was rampant inflation and uncertainty about the future financial condition of consumers.** This in turn caused them to shop less frequently. The high cost of operations triggers the need for price increases, and **beer is an acutely price-elastic product, which further inhibits demand growth.**

Magdalena Brzezińska,
director of corporate affairs, Grupa Żywiec

" It's certainly harder to work in finance or pricing now.... Because nowadays you won't set one inventory price for the year, from which you will go out, impose a margin and set a fixed price list. (...) This doesn't apply only to us, but also to other agricultural machinery manufacturers. Price lists have been able to change several times during the year... **You have to monitor prices smoothly all the time; pricing must be done on an ongoing basis. Unfortunately, you have to react quickly**, because at some point you can sell your products at a loss and suddenly wake up with no profitability.

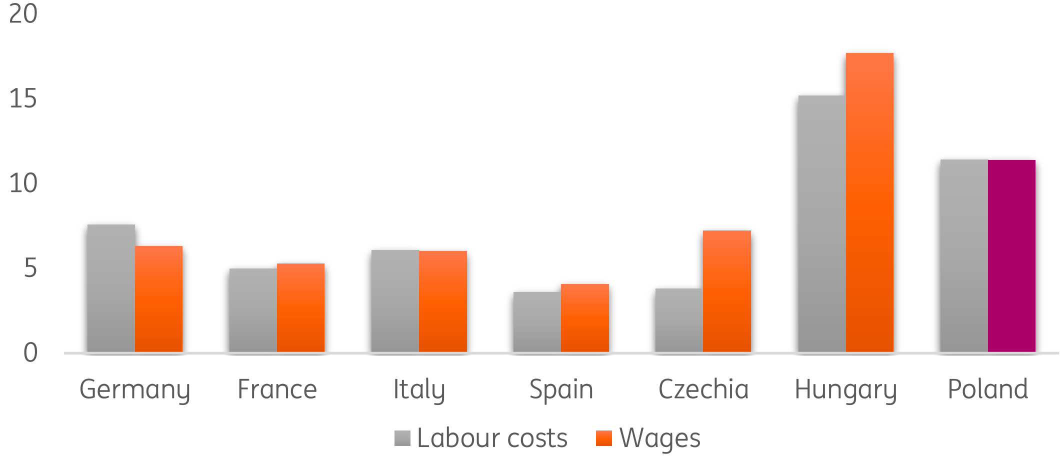
Janusz Kaźmierowski
vice president, Metal-Fach

" Supply problems and high component prices are compounded by **the weakening of the zloty.** Poland is seen as a country of some financial risk, plus it borders Ukraine. The shock on the currency markets after the outbreak of war also affected us. We can't order everything in zlotys, and we pay for some orders in foreign currencies: in euros, dollars or Swiss francs.

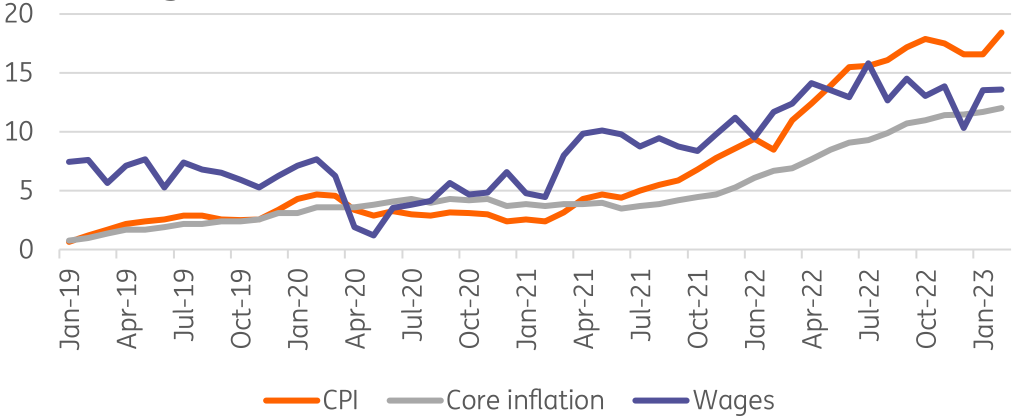
Tomasz Prejs
chairman, Stadler Polska

Risk #2: Price-wage spiral with shortages of skilled workers

Labor cost dynamics, YoY change, in %, 4Q 2022.



Price-wage inflation spiral in Poland, YoY changes, in %



Source: Eurostat

The price and wage spiral will affect the persistence of inflation.

- Energy shocks and supply chain disruptions have translated into wage pressures over time, which will drive up core inflation. Continued shortages of skilled workers will further sustain wage pressures.
- Some companies point to the need to seek skilled workers from abroad.

" The biggest structural problem for Italian companies in Poland remains **the lack of labor** (...). This problem was also present before the time of the pandemic, but because of the war in Ukraine, the trouble of getting workers has increased even more (there were many Ukrainians working in the automotive industry who left to fight for their country).

Elisabetta Caprino
managing director, Italian Chamber of Commerce and Industry in Poland

" Another element is **to increase the availability of skilled workers. I think we should think about good conditions for foreign workers.**

Paweł Cygan
managing director, Kirchhoff Automotive Polska,

Risk #3: Complicated and unstable regulations and taxes

Companies complain about the instability of the law and taxes in Poland:

- The demand for simplification and stabilization of laws, including tax laws, has traditionally been cited as a significant barrier to investment. These voices gained strength after the introduction of the Polish Order from the beginning of 2022.

" It seems that production location decisions are driven primarily by production costs, regulatory constraints and the availability of personnel. Therefore, I do not think that the nearshoring process will be significant. **Europe is currently too over-regulated,** the requirements for manufacturers are inadequate to those of offshoring competitors. In my opinion, a very interesting region for investment will be North Africa, possibly the Middle East. I see a trend of shifting production from China precisely to these regions (...)

As for investments in Poland, unfortunately, as long as we do not ensure the stability of the legislation, the number of investments will not significantly increase. Investors need to know that the funds invested are safe.

Robert Stobiński
board member, Amica

" Serious companies like to be taken seriously.... They need stable regulations.

Marcin Sutkowski
CEO, Bumech

" First of all, what is **needed is a simplification of the tax system**, which, after the changes called the Polish Arc, has become even more complicated than before. I have the opportunity to juxtapose conditions here in conversations with colleagues from other countries, and it seems that we have the most complicated tax system. Often in conversations - for example, with colleagues at headquarters in Germany - I have a lot of difficulty explaining to them the intentions of legislators and the current changes in the system, comparing it with how the tax system works in their country.

Paweł Cygan
managing director, Kirchhoff Automotive Polska

" In Poland, **the application of ESG principles or requirements is most often decided by consumers** - through their purchasing choices; only later does the state step in by introducing legal regulations.

Wiktor Daniłowski,
finance team leader, Makarony Polskie

Risk No. 4: Insufficient public support for private investment, including the blocking of EU funds from the National Reconstruction Plan (NRP).

Questionable nearshoring in the pharmaceutical or light industry.

- Big plans to reduce health risks through support for the pharmaceutical industry, including at the EU level, look very modest for now. Asia has huge competitive advantages in the light industry.

Nearshoring is out of the question in European pharma. On the contrary, the trend of offshoring, which has been going on for about 20 years, i.e. dependence on producers of intermediates in Asia, continues to deepen. The issue of potential support for investment in the European Union for the production of active pharmaceutical ingredients (APIs) has come up in discussions on several occasions. However, no decisions have been made, and consequently no practical action (...).

Yes, there are a few countries that take this problem seriously and have a pragmatic approach [e.g. France, Germany, Hungary]. (...). This will not change the overall trend. **The future of active substance production is a foregone conclusion, doomed to be imported**. Now the fight goes to inhibit further abandonment of European suppliers of packaging materials and additives, in favor of cheaper Asian ones. But I see it blackly...

The cost of transporting light intermediates imported from Asia is relatively insignificant in the total cost of drug production, while labor, energy, access to utilities, lower environmental costs, etc. are cheaper there. (...). The bulk of the products the industry can just as well produce "cleanly" in Europe. Only that it will cost more.

Sebastian Szymanek,
chairman, Polpharma

The bulk of our production is located in Asia, where production capacity in countries such as China, India and Bangladesh has been built up over decades.

Sebastian Sołtys
LPP Logistics, wiceprezes

KPO blockade slows down infrastructure investment.

- The blockage of EU funds from the NIP affects the disruption of infrastructure investments, funds from the Polish Development Fund (PFR) have a mitigating role here. The implementation of NIP in other EU countries highlights the real costs of a legal dispute with the European Commission.

We are facing **a minimum of one year's downtime** - before Poland receives subsidies, funds will be released from the National Reconstruction Plan, for example (...). In Poland, we have won rail contracts with a total value of more than PLN 2 billion, but the contracts are not yet signed - **due to the lack of KPO funding**. Fortunately, the PFR has declared to launch bridge financing for these investments.

Ewelina Karp-Kręglicka,
purchasing office director, Budimex

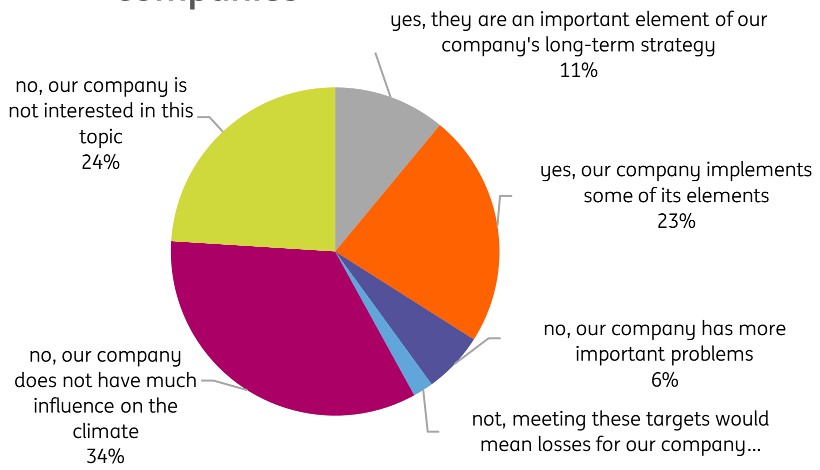
There are problems with financing purchases . Most tenders issued in Poland are heavily subsidized by EU funds. While there are commercial mechanisms in place, it is understandable that if one can buy rolling stock with 85 percent financing or on a commercial loan to be repaid over 25 years, the first solution is chosen. The problem is that the funds for rolling stock written into the National Reconstruction Plan have still not been released. Therefore, there are no tenders on the procurement market. The entire rail industry and its facilities are waiting for the release of the KPO; carriers, manufacturers and their sub-suppliers are waiting. Stadler Poland has more than a thousand of them; they work, among other things, thanks to our orders.

Realizując zamówienia eksportowe, widzimy, że rynek zasilony środkami z KPO wygląda inaczej. Uruchamiane są przetargi, do których przystępujemy. Mam przede wszystkim na myśli państwa Europy Środkowej i Wschodniej, poza Polską, w których jesteśmy aktywni. W tych krajach lokalne odpowiedniki KPO bardzo pomagają.

Tomasz Prejs
chairman, Stadler Polska

Risk #5: Slow energy transition with increasing role of ESG requirements.

Companies with decarbonization and climate neutrality goals, %, N= 1696, SMEs and large companies



Source: NBP, Szybki Monitoring, 100th edition, January 2023.

We apply our code of behavior - a supplement for suppliers - which we require them to follow. In it, we transfer our customers' requirements to our supply chain. We are developing systems to measure the CO2 footprint on each of our products, not only inside our processes, but also counting what enters our processes in the form of energy, materials or intermediates.In Poland, we are at a disadvantage in this regard - because of our domestic energy mix.

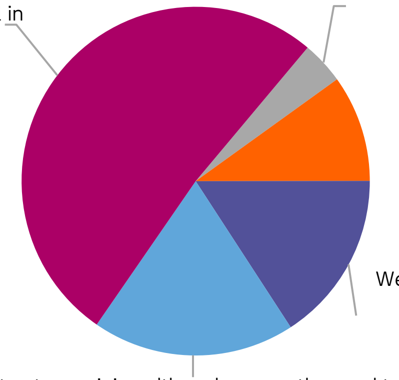
Paweł Cygan
managing director, Kirchhoff Automotive Polska,

Polish large companies follow global megatrends in climate declarations, SMEs are more skeptical.

- Our qualitative research in large companies indicates that awareness of the growing role of ESG factors is present in Polish large companies. And this time, statements from company representatives confirm this. Companies point to specific energy-efficient measures (energy-efficient buildings, photovoltaic panels, railroad expansion, intermodal transport, electric cars).
- However, the situation is different in the SME sector, which accounts for roughly half of Poland's GDP and about two-thirds of employment in the business sector.
- The NBP survey shows that about a third of companies in Poland are striving to reduce CO2 emissions and become climate neutral, with only one in 10 companies making this activity an important part of their long-term strategy. The motivation for companies to take such action is, from the most frequently cited factors, a sense of responsibility for the state of the environment, efforts to reduce operating costs, securing the continuity of electricity supply and legal obligations.
- Two-thirds of the companies surveyed by the NBP do not say they are pursuing decarbonization goals, and nearly 60 percent of companies say they have little or no interest in climate impact.
- Meanwhile, the EU's ambitious climate policy is creating more and more regulatory requirements for companies, including reporting on emissions generated in supply chains.

Carbon footprint testing will be required at the scale of the entire supply chain

Polish companies studying carbon footprint, in %, N= 1696, SMEs and large companies



Source: NBP, Szybki Monitoring, 100th edition, January 2023.

> In the ESG strategy adopted in December 2022, we clearly indicate the time horizon in which we will implement the requirements for our **suppliers**, but also for our production. However, I would like to point out an often-overlooked effect: **implementing "green" production** throughout the value chain often means **an increase in costs.** So will our customers be aware to such a degree that they will accept a price increase? Certainly, on the other hand, there is a very good trend of reconciling the need to **save energy** through products, and therefore the savings for the customer coming from reducing the negative impact on the environment during the use of products.

Robert Stobiński
członek zarządu, Amica

ESG requirements in the supply chain are not a barrier to collaboration today, but tomorrow will be different.

- So far, ESG obligations are not a real obstacle to cooperation between companies, purchasing policy or foreign investment in Poland. Polish companies are still actively participating in international trade.
- The NBP survey shows, however, that only less than 15 percent of companies say they study their carbon footprint, with 10 percent of all companies studying their own carbon footprint, while 4 percent say they study both their carbon footprint and across their supply chain. Overall, about a third of companies do not study their carbon footprint, but plan to do so in the near future (16 percent) or do not plan to, but see a need to (19 percent). However, more than half of companies are not interested in the topic.
- However, if Polish companies do not make an effort to "go green" in the coming years, they may lose competitiveness and their position among suppliers to companies that are generally higher up the value chain ladder. Without including SMEs in the process, Polish companies can expect a new wave of disruption in supply chains later this decade.

> We know that the **EU has started working on regulations for small and medium-sized companies as well.** I will emphasize that currently large companies are not able to report certain indicators unless they have information on, for example, emissions from the technological processes of companies cooperating in the supply chain.

Ewelina Karp-Kręglicka,
director of purchasing office, Budimex

Little room for nearshoring in energy-intensive industries unless using RES

EUA emission allowance prices, €/tCO2

Source: Bloomberg.

On January 1, 2023, Germany's Law on Due Diligence Obligations of Businesses in Supply Chains - the **Lieferkettengesetz** - went into effect. It imposes a number of obligations on German businesses to comply with human rights and environmental standards at direct and **This law undoubtedly also indirectly affects many Polish comindirect suppliers around the world. (...) panies that export goods or services to Germany.**

Lars Gutheil
President, Polish-German Chamber of Commerce (AHK Poland)

Poland's energy mix today makes investment in energy-intensive industries virtually impossible.

- The need to take ESG criteria into account in Polish business - which is heavily integrated into European supply chains - is justified by the increasing stringency and consistency in the implementation of EU climate policy, which affects, among other things, the maintenance of high prices for EU emission allowances.

The war in Ukraine has shown emphatically that **energy transition is crucial for the development of the Polish economy**. The cost and carbon intensity of energy sources has become an important factor that investors take into account, so legislative initiatives to support the development of renewable energy sources are also very important in this context (...).

However, in accordance with the requirements of the new EU directive on CSRD (on sustainability reporting - note) , which will apply to some companies in Poland from 2024, the **responsibility of companies will extend not only to their own supply chains, but also to their business partners.**

Be that as it may: suppliers have been adapting to these requirements for some time now, wanting to remain competitive and - for example - to enable their partners **to monitor their carbon footprint.** Another aspect is companies' access to financing. ESG risk factors are among the extremely important elements considered by banks when evaluating a **customer's credit rating.**

Agnieszka Zielińska
managing director, Scandinavian-Polish Chamber of Commerce (SPCC)

Informacje i zastrzeżenia

- Analityk(cy), który przygotował ten raport zaświadcza, że poglądy wyrażone w niniejszym raporcie odzwierciedlają jego/ ich osobiste poglądy na temat instrumentów finansowych i żadna część jego / ich wynagrodzenia nie jest i nie będzie bezpośrednio lub pośrednio powiązana zamieszczeniem poszczególnych rekomendacji (o ile występują) lub opinii w niniejszym raporcie.
- Analityk(cy) zapewnia (zapewniają), że raport został przygotowany z należytą starannością i rzetelnością w oparciu o ogólnodostępne fakty i informacje uznane przez Analityka za wiarygodne, rzetelne i obiektywne, jednak ING Bank Śląski S.A.. ani Analityk nie gwarantują, że są one w pełni dokładne i kompletne.
- ING Bank Śląski S.A. ani Analityk nie ponoszą odpowiedzialności za decyzje inwestycyjne podjęte na podstawie rekomendacji, ani za działania i szkody poniesione w wyniku decyzji inwestycyjnych podjętych na podstawie rekomendacji i informacji w niej zawartych. Odpowiedzialność za decyzje inwestycyjne podjęte w oparciu o treść rekomendacji ponoszą wyłącznie inwestorzy.
- Przedstawione w raporcie prognozy oraz elementy ocen, jak również zalecenia i sugestie zachowań inwestycyjnych, oparte są wyłącznie o analizę przeprowadzoną przez Analityka, bez uzgodnień z innymi podmiotami i opierają się na szeregu założeń, które w przyszłości mogą okazać się nietrafne. ING Bank Śląski S.A. ani Analityk nie udzielają żadnego zapewnienia, że podane prognozy sprawdzą się.
- Rekomendacja wydawana przez ING Bank Śląski S.A. obowiązuje do momentu zrealizowania kursu docelowego, chyba, że zostanie wcześniej zaktualizowana. Aktualizacja jest uzależniona od sytuacji rynkowej oraz subiektywnej oceny Analityka.
- Wszelkie prognozy dotyczące poziomu kursów walutowych nie odnoszą się do instrumentów finansowych opartych o te kursy walutowe.
- Nadzór nad ING Bankiem Śląskim S.A. sprawuje Komisja Nadzoru Finansowego.
- Inwestowanie w instrumenty finansowe, w tym w papiery wartościowe, wiąże się z szeregiem ryzyk związanych m.in. z sytuacją makroekonomiczną kraju i na rynkach giełdowych, zmianami przepisów prawa i innych regulacji dotyczących działalności podmiotów gospodarczych. Inwestorzy korzystający z rekomendacji nie mogą zrezygnować z przeprowadzenia niezależnej oceny i uwzględnienia innych okoliczności niż wskazywane przez Analityka czy przez ING Bank Śląski S.A.

UJAWNIENIA

- Wynagrodzenie analityków nie jest bezpośrednio związane z poszczególnymi transakcjami na instrumentach finansowych realizowanymi przez ING Bank Śląski lub jakikolwiek inny podmiot z Grupy ING, chociaż pośrednio uzależnione jest od ogólnego wyniku finansowego ING Banku Śląskiego.
- Ceny instrumentów finansowych: Ceny są ustalane z poprzedniego dnia zamknięcia na rynku krajowym, chyba że zaznaczono inaczej.
- Zawieranie transakcji: ING Bank Śląski S.A. i każdy z jego pracowników, w tym Analitycy zakresie dozwolonym przez obowiązujące przepisy, mogą zawierać transakcje na instrumentach finansowych, o których mowa w niniejszym raporcie.
- ING Bank Śląski S.A. jest aktywnym uczestnikiem rynku walutowego oraz instrumentów finansowych, w tym instrumentów pochodnych i skarbowych papierów wartościowych, które mogą być przedmiotem rekomendacji.
- ING Bank Śląski S.A. oświadcza, że jest animatorem rynku lub dostawcą płynności w odniesieniu do skarbowych papierów wartościowych wyemitowanych przez Ministerstwo Finansów (pełni funkcję Dealera Skarbowych Papierów Wartościowych).
- Jednocześnie wprowadzone wewnętrzne rozwiązania organizacyjne (np. odseparowanie fizyczne osób sporządzających rekomendacje od jednostek zawierających transakcje) oraz obowiązujące bariery informacyjne mają na celu zapobieganie konfliktom interesów.
- Polityka przeciwdziałania konfliktów interesów: ING Bank Śląski S.A. zarządza konfliktami interesów mogącymi powstać w wyniku przygotowania i opublikowania rekomendacji w tym wprowadza odpowiednie rozwiązania organizacyjne, proceduralne i bariery informacyjne, które są monitorowane przez jednostkę Compliance.

Data sources: Macrobond, Bloomberg, Eurostat, GUS, NBP, ING, GfK Polonia, WNP.pl.