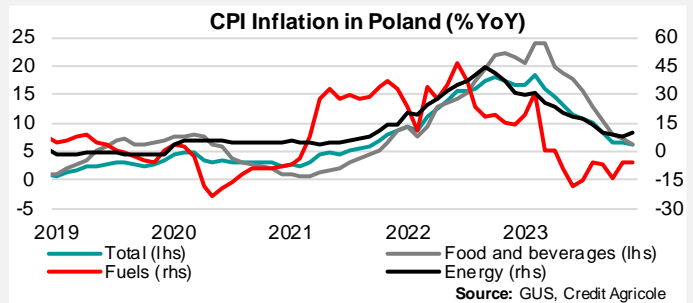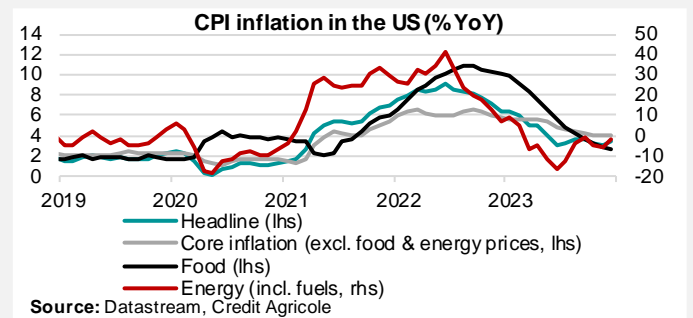## This week

The most important event this week will be the publication of Poland's January inflation figures, planned for Thursday. We expect inflation to have fallen from 6.2% YoY in December to 4.1% YoY in January. Inflation was driven down by lower contribution of all of its components. Our forecast is consistent with market consensus, and thus its materialisation will be neutral for the PLN and yields on Polish bonds.

CPI Inflation in Poland (% YoY)

Total (lhs)   Food and beverages (lhs)
Fuels (rhs)   Energy (rhs)

Source: GUS, Credit Agricole

Some important data from the US will be released this week. We expect the headline inflation to have fallen from 3.4% YoY in December to 3.0% in January, driven down by a drop in core inflation (3.8% vs. 3.9%) and a slower growth of energy prices. If our forecast was to materialise, that

CPI inflation in the US (% YoY)

Headline (lhs)
Core inflation (excl. food & energy prices, lhs)
Food (lhs)
Energy (incl. fuels, rhs)

Source: Datastream, Credit Agricole

would mean that US CPI inflation, and core inflation in particular, is falling at an increasingly slowing pace. Nonetheless, over the last couple of months we have been seeing a growing discrepancy between the CPI inflation path and the markedly lower PCE inflation path, the latter being used by Fed as preferred metrics for measuring the price growth rate. PCE core inflation decline indicates that interest rates might be cut earlier than we initially predicted in our baseline scenario, i.e. even as early as in Q2 2024 instead of July 2024. We expect the industrial production growth to have accelerated from 0.1% MoM in December to 0.2% MoM in January in relation to adverse weather conditions boosting production in the "utilities" category. We expect the nominal retail sales to have shrunk by 0.2% MoM in January vs. a 0.6% growth in December due to poorer sales results in the automotive industry. We expect the data on the number of housing starts (1,465k in January vs. 1,460k in December) and construction permits (1,490k vs 1,493k) to indicate that the activity in the US property market is still low. We believe that the preliminary University of Michigan index will show that household sentiment in the US has improved (80.0 pts vs. 79.0 pts) as a result of a good situation in the labour market and gradual inflation drop. We believe that the overall impact of US economy data on financial markets will be limited.

Data on Poland's balance of payments for December 2023 will be published today. We expect the current account balance surplus to have dropped to EUR 332m vs. EUR 1,325m in November 2023 in consequence of a lower balance on trade in the first place. We expect the exports growth rate to have dropped from -2.1% YoY in November to -3.4% in December, and the imports growth rate to have fallen from -8.0% YoY to -10.5%. Both rates were driven down by an unfavourable difference in the number of working days in December. In our opinion, the balance of payments figures will be neutral for the PLN and yields on Polish bonds.

On Tuesday, we will see a flash estimate of Poland's GDP for Q4 2023. Based on GUS data on GDP for 2023 published two weeks ago (see MACROpulse of 31/01/2024), we are estimating that GDP went up to 1.0% YoY in Q4 vs. a 0.5% growth in Q3 last year. Economic growth was

driven up by higher input of investments and inventories. The publication of GDP data should not meet with significant market reactions.
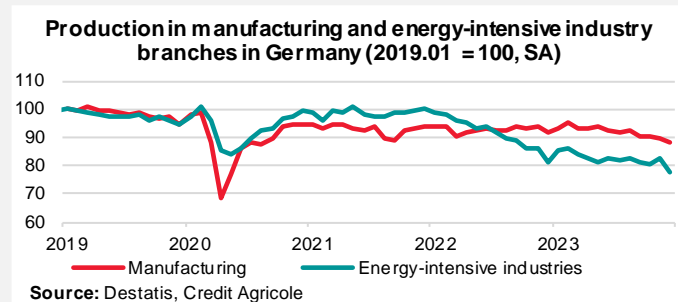
Last week

■ **Last week, the Monetary Policy Council decided to keep interest rates unchanged, with the NBP reference rate at 5.75%.** The Council's decision was consistent with our forecast and the market consensus. In its press release, the Council emphasized that the anticipated decline in inflation in the

Source: Reuters, Credit Agricole

Legend: NBP reference rate (%); Wibor 3M (%); FRA 3M (%)
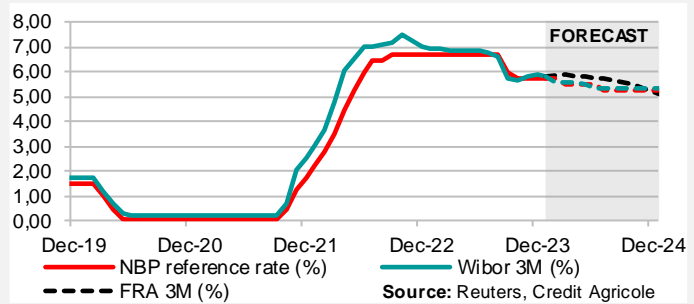
upcoming months will be temporary due to the expected phase-out of protective measures related to food and energy prices. The press release also noted the relatively low GDP growth in Poland in Q4 2023 and the high uncertainty regarding the economic growth prospects in key economies. Therefore, we believe that due to the high uncertainty, future monetary policy decisions will likely depend on the results of the March NBP projection (see MACROpulse of 07/02/2024). Last week also saw the NBP President A. Glapiński's customary press conference. He announced that inflation would return to the inflation target in March. However, he emphasized that due to the expected phase-out of protective measures related to food and energy prices, the inflation trajectory in H2 2024 is highly uncertain. A. Glapiński also mentioned that, barring any unforeseen events, it is unlikely that a majority of MPC members will support a cut in interest rates this year. He also shared his personal viewpoint that interest rates would remain unchanged until the end of the year. A. Glapiński also said that while the NBP may theoretically sell bonds acquired during the pandemic, such a move has not been discussed and is unlikely. He indicated that he, as well as the majority of the Council, opposes the sale of these bonds. The hawkish tone of the NBP President's press conference led to reduced expectations for interest rate cuts in Poland, driving the PLN exchange rate up. The NBP President's remarks introduce a significant upside risk to our scenario, which assumes the MPC will reduce interest rates by 25np points in both March and July this year.

■ **Some important data on German economy was released last week.** Monthly industrial production growth decelerated to -1.6% in December from -0.2% in November, running markedly below market expectations (-0.4%). Industrial production growth was driven down by slower growth in all main

Production in manufacturing and energy-intensive industry branches in Germany (2019.01 = 100, SA)

Legend: Manufacturing; Energy-intensive industries

Source: Destatis, Credit Agricole

categories: manufacturing, construction and energy sector. Particularly noteworthy is a marked production decline in energy-consuming sectors, with production in December reaching the lowest level since at least January 1991, which is the longest time series available. The strongest drop was seen in the "chemicals and chemical products" (-7.6%) and "other non-metallic mineral products" (-7.1%) categories. The decline in the latter category can also be linked to a marked decline in activity in the construction sector. Last week, data on manufacturing orders was released showing that growth in such orders picked up to 8.9% MoM in December from 0.0% in November, which was markedly above market expectations (0.0%). This was the strongest growth since June 2020. The strong month-on-month growth in the number of orders in

December resulted primarily from large one-off orders in "other transport equipment" (+110.9% due to exceptionally large orders for aircrafts), "electrical equipment" (+38.7%) and "finished metal products excluding machinery and equipment" (+18.0%) categories. The increase was seen in both domestic and export orders, with more orders coming from other Eurozone countries. It is worth noting, though, that the data is strong only on the surface, with a strong drop in the number of orders having been seen in the key category of the German industry, i.e. "vehicles, trailers and semi-trailers" (-14.7%), where the orders have dropped to the lowest level since May 2020. The data from the German industry is indicative of a poorer outlook for German demand for intermediate goods manufactured in Poland, particularly for the automotive industry. At the same time, the data carries a downside risk to our forecast, in which the quarterly GDP growth rate in the Germany is to go up from -0.3% in Q4 2023 to -0.1% in Q1 2024.

Is Poland ready for an AI technology shock?

In the MACROmap of 29/01/2024, we examined the impact of the advancement of artificial intelligence (AI) on the global economy. The focus of this analysis is to evaluate Poland's preparedness for a technology shock in AI relative to other countries.
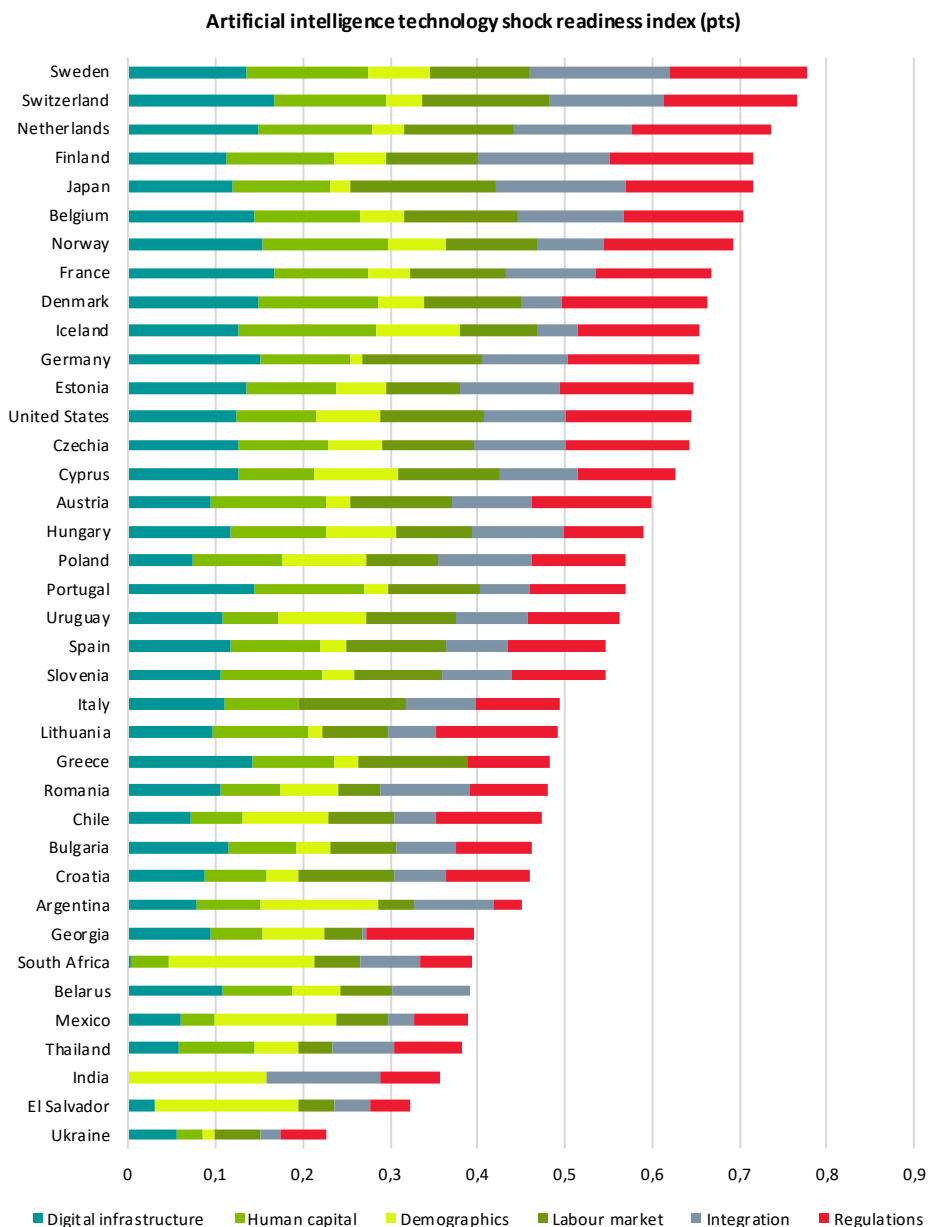
Our analysis assumes that the development and implementation of AI technologies will progress gradually over the next few years. This aligns with the current scientific consensus that AI will not surpass human intelligence within the next decade (see MACROmap of 29/01/2024).

To evaluate the readiness of different countries for an AI technology shock, we created an index that reflects the current preparedness of selected countries to reap the benefits associated with the implementation of AI. The index components cover key areas for the widespread applicability of AI, selected based on a literature review. Our index focuses on 6 areas:

- **Digital infrastructure**. The quality of digital infrastructure is crucial for the applicability of AI tools in day-to-day operations. We used broadband internet access per 100 residents as a measure of digital infrastructure development.
- **Human capital.** The higher the human capital, the greater the potential for AI to complement human work. We assessed human capital levels in each country using three indicators: the percentage of the population using the internet, the number of researchers in the R&D sector per 1 million inhabitants, and the proportion of the workforce with higher education.
- **Demographics**. Age affects the capacity to adapt to new technologies, both in terms of the ability to use them and the willingness to switch careers. We approximated demographic conditions using the share of the 15-49 age group in the workforce.
- **Labour market.** This reflects how the employment structure is exposed to technology shocks in AI. We assume that as long as AI does not surpass human intelligence, it will remain complementary to human labour. We therefore anticipate economic benefits from increased labour productivity will outweigh adjustment costs in the labor market We estimated employment structure exposure to AI technology shocks using a methodology presented in an article by the International Labour Organization (Gmyrek et al., 2023), which employs the GPT-4 model to characterize individual professional groups and assign exposure levels to generative AI (i.e. AI that can create content based on training data) to them. According to the study, office workers are most exposed to an AI technology shock, with industrial workers and craftsmen being least exposed. Our analysis applied these exposure assessments across different job groups and multiplied them by the employment structure in individual countries to calculate aggregated

indices of labour market exposure to AI development. Our findings indicate that Japan, Switzerland, and Germany are most exposed to an AI technology shock, with Poland ranking in the middle.

- **Integration.** This category approximates the degree to which a country is integrated with global supply chains of IT services. Greater integration of an economy with international IT services supply chains increases the chances of accessing technology, as well as support in the application of these technologies. We approximated the level of countries' integration with international supply chains using the share of services, mainly in the area of IT, in total service exports and imports. Taking into account data for both exports and imports allows for the assessment of the degree of integration with both the initial and final sections of the supply chain.

- **Regulations**. Regulations can facilitate or hinder AI implementation in the economy. Effective regulation that accurately identifies AI-related risks while not stifling development in "non-controversial" areas is essential. For the purpose of this assessment, we used a World Bank index describing regulatory quality.

Artificial intelligence technology shock readiness index (pts)

Legend: ■ Digital infrastructure ■ Human capital ■ Demographics ■ Labour market ■ Integration ■ Regulations

Source: World Bank, Credit Agricole

All variables used in the index construction were standardized using the following formula:

$$Standardized\ variable\ x\ = \frac{x - x_{min}}{x_{max} - x_{min}}$$

For categories with more than one variable, we aggregated them by calculating the geometric mean, which better reflects the complementary nature of these variables than an arithmetic mean. The latter could artificially inflate the value of components. For example, a society with a high proportion of people with higher education in the workforce and a low proportion of people using the Internet is in a worse position in terms of implementing AI than a society with moderately balanced proportions. In the first case, a small percentage of Internet users would limit the potential of people with higher education.

The final index is the arithmetic average of the sub-indices for each category, ranging from 0 to 1. A higher value indicates a country's greater readiness for AI technology shocks. All data used for the index construction was sourced from the World Bank. The analysis covered a sample of 38 countries, with the sample size determined by data availability. The analysis is cross-sectional and covers data from 2019-2022. In the case of data gaps, the most recent value was used.

Sweden, Switzerland, and the Netherlands top our index, reflecting their wealth, human capital, and strong institutions. Poland ranks in the middle, outperformed by Estonia, Hungary, and Czechia among Central and Eastern European and Baltic states. Notably, the lower ranking of the US is primarily due to deficits in human capital, including a lower proportion of the workforce with higher education.

Structure of the artificial intelligence technology shock readiness index
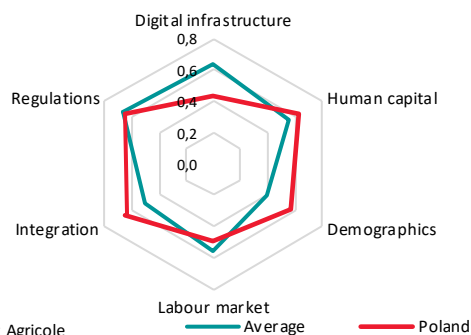
Source: World Bank, Credit Agricole

To assess Poland's potential for leveraging AI, it is crucial to identify the strengths and weaknesses of the Polish economy. To this end, we compared individual components of the readiness index applicable to Poland with their average values in the analysed sample of countries. This comparison highlights Poland's advantages in human capital, demographics, and integration with global IT service chains. However, Poland scores below average in digital infrastructure (persistent low share of households with broadband internet access), labour market structure (partly due to overemployment in agriculture), and the regulatory environment (including recent erosion of institutions as documented by international studies). It is worth noting that these are areas that can be improved relatively quickly, which, we believe, signals the need for urgent inclusion of these elements in economic policy aimed at incorporating AI into the state's long-term development strategy.

The level of readiness for AI technology shocks is crucial for realizing the long-term benefits associated with AI. Therefore, our next MACROmap will explore how AI technology shocks will influence Poland's convergence with wealthier EU economies.

NBP President's statement drives PLN exchange rate up

FX rates

Source: Refinitiv — EURPLN (lhs) — USDPLN (rhs) — CHFPLN (lhs) — GBPPLN (rhs)
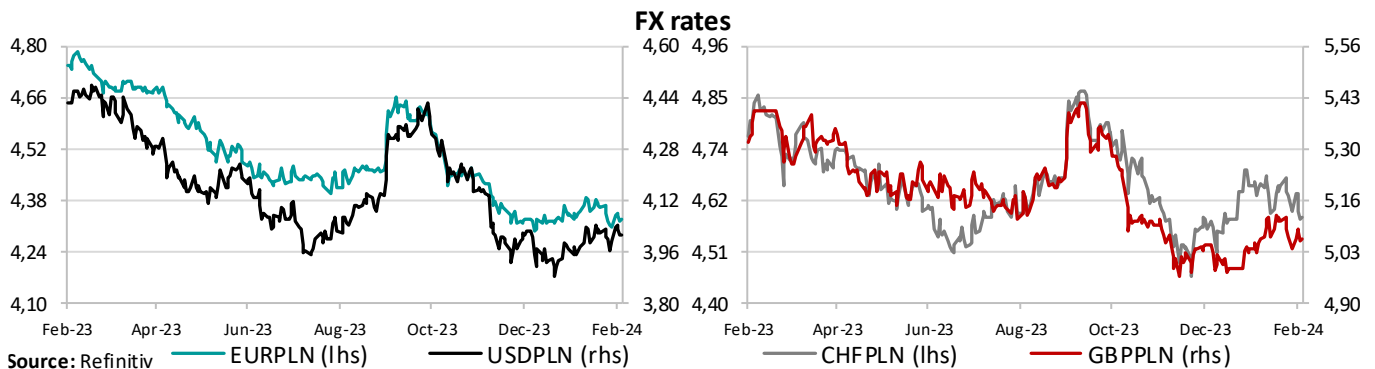
Last week, the EURPLN exchange rate rose to 4.3276 (weakening of the PLN by 0.5%). Early last week saw an uptick in the EURPLN rate, in anticipat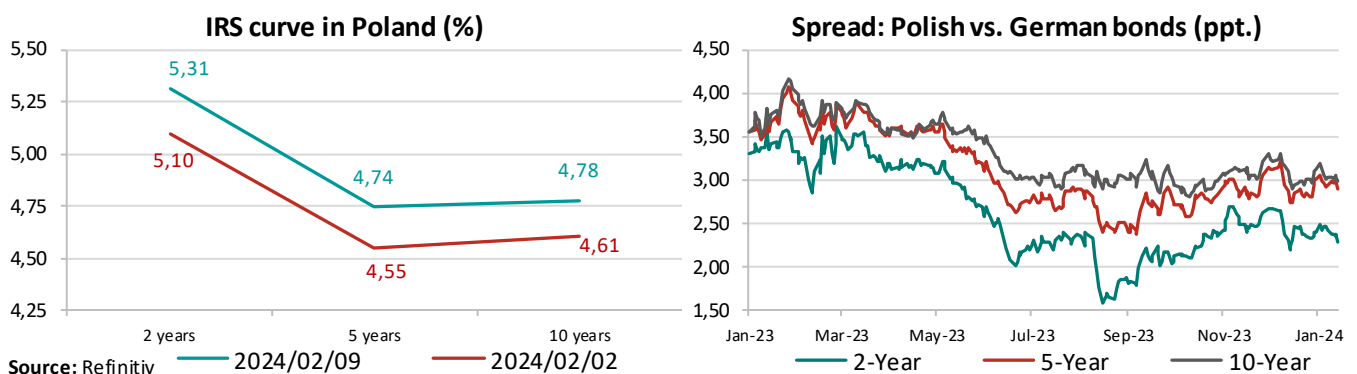ion of NBP President A. Glapiński's press conference. The hawkish tone of the conference prompted a correction and a subsequent strengthening of the PLN. The EURUSD rate showed relatively low volatility, supported by a rather uneventful calendar of macroeconomic events.

This week, the publication of domestic inflation figures will be crucial for the Polish currency. Should our forecast, which aligns with the consensus, materialise, this data is unlikely to significantly influence the PLN exchange rate. We believe that other economic data releases scheduled for this week, both from Poland and the global economy, will have a neutral impact on the PLN exchange rate.

Domestic inflation data in the market's spotlight

IRS curve in Poland (%)

Spread: Polish vs. German bonds (ppt.)

Source: Refinitiv — 2024/02/09 — 2024/02/02 — 2-Year — 5-Year — 10-Year

Last week, 2-year IRS rates rose to 5.31 (up by 21bp), 5-year to 4.74 (up by 19bp), and 10-year to 4.78 (up by 17bp). Last rise in IRS rates followed the core markets. The increase in yields on these markets was supported by diminishing expectations for monetary policy easing from the world's leading central banks, notably after the release of exceptionally strong US labour market data two weeks prior (see MACROmap of 06/02/2024). In Poland, an additional factor driving the increase in IRS rates was the hawkish tone of NBP President A. Glapiński's press conference, which contributed to reduced expectations for interest rate cuts in Poland. Currently, FRA contracts are pricing in rate cuts totalling 50bp by the end of this year.

This week, the publication of domestic inflation figures will be key for IRS Rates. However, we believe that their impact on the yield curve will be limited. We anticipate that other data releases from both the Polish and global economy will have a neutral effect on IRS rates.

Forecasts of the monthly macroeconomic indicators

| Main monthly macroeconomic indicators in Poland |||||||||||||||
Indicator	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
NBP reference rate (%)	6,75	6,75	6,75	6,75	6,75	6,75	6,75	6,75	6,00	5,75	5,75	5,75	5,75	5,75
EURPLN*	4,71	4,70	4,68	4,59	4,53	4,43	4,40	4,47	4,63	4,45	4,35	4,33	4,32	**4,35**
USDPLN*	4,33	4,45	4,31	4,16	4,23	4,06	4,00	4,12	4,37	4,21	4,00	3,93	4,00	**4,03**
CHFPLN*	4,70	4,72	4,71	4,66	4,64	4,52	4,59	4,66	4,78	4,62	4,56	4,64	4,64	**4,61**
CPI inflation (% YoY)	16,6	18,4	16,1	14,7	13,0	11,5	10,8	10,1	8,2	6,6	6,6	6,2	**4,1**	
Core inflation (% YoY)	11,7	12,0	12,3	12,2	11,5	11,1	10,6	10,0	8,4	8,0	7,3	6,9	**6,4**	
Industrial production (% YoY)	1,8	-1,0	-3,1	-6,0	-2,8	-1,1	-2,3	-1,9	-3,3	1,9	-0,3	-3,9	**1,0**	
PPI inflation (% YoY)	20,1	18,2	10,3	6,2	2,8	0,3	-2,1	-2,9	-2,7	-4,2	-5,1	-6,4	**-8,3**	
Retail sales (% YoY)	15,1	10,8	4,8	3,4	1,8	2,1	2,1	3,1	3,6	4,8	2,6	0,5	**3,6**	
Corporate sector wages (% YoY)	13,5	13,6	12,6	12,1	12,2	11,9	10,4	11,9	10,3	12,8	11,8	9,6	**10,5**	
Employment (% YoY)	1,1	0,8	0,5	0,4	0,4	0,2	0,1	0,0	0,0	-0,1	-0,2	-0,1	**-0,4**	
Unemployment rate* (%)	5,5	5,6	5,4	5,3	5,1	5,1	5,0	5,0	5,0	5,0	5,0	5,1	**5,4**	
Current account (M EUR)	2246	1467	1372	-230	589	1272	157	556	1176	2119	1325	**332**		
Exports (% YoY EUR)	19,2	14,8	16,1	1,8	4,3	4,0	0,0	-2,3	-4,2	2,3	-2,1	**-3,4**		
Imports (% YoY EUR)	10,4	-1,6	3,3	-9,6	-5,0	-5,8	-7,4	-11,9	-14,7	-7,7	-8,0	**-10,5**		

*end of period

Forecasts of the quarterly macroeconomic indicators

| Main macroeconomic indicators in Poland ||||||||||||
| Indicator | 2023 | | | | 2024 | | | | 2023 | 2024 | 2025 |
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Gross Domestic Product (% YoY)	-0,3	-0,6	0,5	1,0	1,5	2,8	3,1	3,5	0,2	2,8	3,5
Private consumption (% YoY)	-2,0	-2,8	0,8	-0,1	2,0	4,0	4,3	4,5	-1,0	3,7	3,5
Gross fixed capital formation (% YoY)	6,8	10,5	7,2	7,6	3,0	2,2	2,4	1,2	8,0	2,0	8,8
Export - constant prices (% YoY)	3,8	-3,2	-11,0	-5,8	1,0	3,8	5,3	6,0	-4,3	4,0	5,5
Import - constant prices (% YoY)	-3,2	-6,8	-20,3	-13,3	4,6	6,5	7,1	8,2	-11,2	6,6	7,0
GDP growth contributions — Private consumption (pp)	-1,3	-1,6	0,5	-0,1	1,2	2,3	2,5	2,2	-0,8	2,1	2,0
GDP growth contributions — Investments (pp)	0,9	1,5	1,2	1,7	0,4	0,3	0,4	0,3	1,8	0,4	1,5
GDP growth contributions — Net exports (pp)	4,6	2,1	5,9	4,3	-2,0	-1,2	-0,6	-0,7	5,4	-1,1	-0,5
Current account (% of GDP)***	-0,7	-0,1	0,6	0,8	1,0	0,5	-0,3	-1,0	0,8	-1,0	-0,5
Unemployment rate (%)**	5,4	5,1	5,0	5,1	5,2	4,9	4,8	5,0	5,1	5,0	5,0
Non-agricultural employment (% YoY)	1,5	1,1	1,4	0,7	0,0	-0,5	-0,6	-1,0	1,2	-0,5	-0,5
Wages in national economy (% YoY)	14,3	13,8	11,0	12,0	9,5	12,0	11,3	11,5	12,8	11,1	8,0
CPI Inflation (% YoY)*	17,0	13,1	9,7	6,5	3,2	2,3	4,2	4,2	11,6	3,5	4,0
Wibor 3M (%)**	6,89	6,90	5,77	5,88	5,63	5,38	5,38	5,38	5,88	5,38	4,88
NBP reference rate (%)**	6,75	6,75	6,00	5,75	5,50	5,50	5,25	5,25	5,75	5,25	4,75
EURPLN**	4,68	4,43	4,63	4,33	4,42	4,40	4,38	4,36	4,33	4,36	4,32
USDPLN**	4,31	4,06	4,37	3,93	4,09	4,11	4,13	4,15	3,93	4,15	3,86

* quarterly average
** end of period
***cumulative for the last 4 quarters

Calendar

TIME	COUNTRY	INDICATOR	PERIOD	PREV. VALUE	FORECAST*	
					CA	CONSENSUS**
Tuesday 02/13/2024						
11:00	Germany	ZEW Economic Sentiment (pts)	Feb	15,2		17,5
14:00	**Poland**	**Current account (M EUR)**	**Dec**	**1325**	**332**	**-408**
14:30	USA	CPI (% MoM)	Jan	0,3	0,2	0,2
14:30	USA	Core CPI (% MoM)	Jan	0,3	0,3	0,3
Wednesday 02/14/2024						
10:00	**Poland**	**Flash GDP (% YoY)**	**Q4**	**0,5**	**1,0**	**1,1**
11:00	Eurozone	GDP flash estimate (% YoY)	Q4	0,1		0,1
11:00	Eurozone	Preliminary GDP (% QoQ)	Q4	0,0	0,1	0,0
11:00	Eurozone	Industrial production (% MoM)	Dec	-0,3		-0,3
Thursday 02/15/2024						
10:00	**Poland**	**CPI (% YoY)**	**Jan**	**6,2**	**4,1**	**4,1**
14:30	USA	NY Fed Manufacturing Index (pts)	Feb	-43,7		-12,5
14:30	USA	Retail sales (% MoM)	Jan	0,6	-0,2	0,1
14:30	USA	Philadelphia Fed Index (pts)	Feb	-10,6		-8,0
15:15	USA	Capacity utilization (%)	Jan	78,6		78,8
15:15	USA	Industrial production (% MoM)	Jan	0,1	0,2	0,3
16:00	USA	Business inventories (% MoM)	Dec	-0,1		0,3
Friday 02/16/2024						
14:30	USA	Building permits (k)	Jan	1493	1490	1512
14:30	USA	Housing starts (k MoM)	Jan	1460	1465	1470
16:00	USA	Initial U. of Michigan Sentiment Index (pts)	Feb	79,0	80,0	80,0

*The forecasts of macroeconomic indicators for Poland were prepared by Credit Agricole Bank Polska S.A. The forecasts of foreign indicators were prepared by Crédit Agricole Corporate and Investment Bank
** Refinitiv

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