



Will artificial intelligence accelerate economic growth?

#### This week

The key event this week will be an FOMC meeting, scheduled for Wednesday. We expect the Fed to keep interest rates unchanged, with the federal funds target range at [5.25%, 5.50%]. We expect J. Powell to refrain from comments on the exact timing of the first rate cut at the press conference after the Source: Refinitiv, Credit Agricole



meeting, which will cool market expectations about the scale of monetary policy easing this year. Given that US inflation has been running below our earlier expectations, we see a downside risk to our interest rates scenario that expect the Fed to ease its monetary policy by 25bp in Q3 and by another 25bp in Q4 this year. We believe that incoming data showing that inflation continues to fall may result in the Fed going ahead with the first cut sooner, i.e. in Q2. However, we believe that market expectations of the probability of a first cut already in March (standing at ca. 50%) are overstated. A decision to keep rates unchanged at the January FOMC meeting would be in line with market expectations, however, the press conference may add to volatility in financial markets.

- Significant data from the Eurozone will be released this week. We expect that the Eurozone's QoQ GDP growth picked up to 0.1% in Q4 from -0.1% in Q3, while Germany's GDP growth is still negative at -0.1% QoQ, with no change between Q3 and Q4. We see a downside risk to our forecasts given a deterioration in PMI readings. We also forecast a drop in HICP inflation in the Eurozone, to 2.5% YoY in January from 2.9% in December, and a drop in core inflation, to 3.2% YoY from 3.4% in December. The drop in inflation is accounted for by lower energy prices and high base effects. At the same time, we expect Germany's HICP inflation to have fallen to 2.8% YoY in January from 3.8% in December, with the fall to a large extent accounted for by high base effects relating to last year's surge in natural gas prices. We believe that the release of inflation figures below market expectations, for both Germany and the Eurozone, may contribute to a slight appreciation of the PLN and a rise in prices of Polish bonds. At the same time, we do not expect the release of GDP figures to have any significant impact on financial markets.
- Some important data from the US will be released this week. Of key importance will be the release of US non-farm payrolls figures on Friday. We expect non-farm payrolls to have risen by 170k in January compared with 216k in December with a slight rise in unemployment, to 3.8% in January from 3.7% in December. Before the Friday release, some additional data on the labour market will be provided in the ADP report on non-farm private sector employment, which according to market expectations rose by 170k in January compared with 164k in December. Thursday will see the release of the US manufacturing ISM reading for January. We expect the index to have risen to 47.5 pts in January from 47.4 pts in December, which would be in line with January's rise in the US manufacturing PMI. We believe that both the Conference Board's index (we expect a rise to 113.5 pts in January from 110.7 pts in December) and the final University of Michigan index (78.8 pts vs 69.7 pts) will show improvement in US household sentiment, driven by a good situation in the labour market and gradually falling inflation. We believe that this week's US data releases will be neutral for financial markets.
- Business survey results for China's manufacturing will be released this week. Wednesday will see the release of the NBS PMI. The market expects a slight rise in the index, to 49.3 pts in January from 49.0 pts in December. China's Caixin PMI will be released on Thursday. The market expects a drop in the index, to 50.5 pts in January from 50.8 pts in December. Thus, business survey results will provide mixed signals about the sustainability and scale of the recovery in China. We believe that data from China will be neutral for financial markets.





Wednesday will see the release of the initial estimate of Poland's GDP growth in 2023. We expect GDP growth of 0.5% YoY vs. 5.3% in 2022. We see a downside risk to this forecast as retail sales data for November and December were below expectations. The main factors behind the slowdown in GDP growth include a decline in consumption amidst high inflation and an erosion of the real purchasing power of consumers, as well as a reduction in businesses' inventories accumulated earlier. Our GDP forecast is in line with market expectations, thus its materialization would be neutral for the PLN and yields on Polish bonds.

Poland's manufacturing PMI figures will be released on Thursday. We expect the PMI to have risen to 48.3 pts in January from 47.4 pts in December, which would be in line with an improvement shown by GUS data and with PMI rises in the Eurozone, including in Germany (see below). In our opinion, the release of PMI data will be neutral for financial markets.



#### Last week

- Poland's industrial production fell by 3.9% YoY in December compared with a 0.3% YoY fall November, running above consensus and our forecast (-5.0 YoY). The slowdown in industrial production between November and December is to a large extent accounted for by statistical effects in the form of unfavourable difference in the number of working days. The slowdown in production was broad-based across three main segments: export-driven sectors, construction related sectors, and other sectors. Data shows that an important factor that stabilized industrial production was the recovery in construction seen in December. However, production in exportdriven sectors declined for the fourth month in a row, which is connected with the continuing low manufacturing activity in the Eurozone, including in Germany, and, consequently, lower demand for input goods manufactured in Poland (see MACROpulse of 22/01/2024). At the same time, growth in construction and assembly production picked up to 14.0% YoY in December from 3.9% in November, running well above market consensus and our forecast (4.0%). The reading is a positive surprise especially in the context of the unfavourable calendar effects mentioned above. The acceleration in growth in construction and assembly production between November and December was driven by growth picking up in all the categories: 'specialized construction activities', 'civil engineering works', and 'construction of buildings'. The acceleration in growth in all the segments is partially accounted for by last year low base effects. Growth in construction and assembly production in the 'civil engineering works' category was also driven by public sector entities' efforts to use up and account for EU funds available under the previous EU perspective 2014-2020 (see MACROpulse 22/01/2024). Last week's data on industrial production, construction and assembly production, and retail sales (see below) signals a downside risk to our YoY GDP growth forecast for Q4 (1.9% YoY vs. 0.5% in Q3).
- Nominal retail sales growth in Poland slowed down from 2.6% YoY in November to 0.5% in December, running markedly below the market consensus (4.6%) and our forecast (5.2%). The growth in retail sales in constant prices slowed down from -0.3% YoY in November to -2.3% in December, running markedly below the market consensus (2.5%) and our forecast (1.5%). Seasonally adjusted retail sales in constant prices decreased for the second month running in December, by 2.9% MoM. A YoY drop in sales expressed in constant prices was seen in most





categories. Activity in retail sales in December was curbed by households' poorer sentiments reflected in a decrease in the consumer confidence indicator regarding current major purchases and a slower growth of real wage fund (see below). Data on retail sales indicates a slight downside risk to our consumption growth forecast for Q4 (2.3% YoY vs. 0.8% in Q3). However, we are still optimistic about retail sales and consumption in the months to come. Private consumption will be supported by an upward adjustment of the benefit paid under the Family 500+ programme to PLN 800, minimum wage increase, inflation drop and increased wages of teachers and state administration personnel (see MACROpulse of 22/01/2024).

Nominal wage growth in Poland's business sector fell to 9.6% YoY in December from 11.8% in November, running below the market consensus (11.9%) and our forecast (12.4%). The main reason behind the forecast error was the difficulty connected with estimating the exact scale of paid bonuses and rewards, which tend to have a substantial share in wages paid out every December. In real terms, after the adjustments made to take into consideration the changes in prices, wages in companies rose by 3.2% YoY in December comparing to a 4.9% growth in November. Nominal wage growth slowdown was broad-based, and was seen in most categories. Such trend may be indicative of the wage pressure easing accompanying the inflation drop (see MACROpulse of 22/01/2024). Employment growth in the enterprise sector went down to -0.2% YoY in December vs. -0.1% in November, running above the market consensus, which was consistent with our forecast (-0.2%). The number of employed rose by 1.3k between November and December, mainly due to the increase in the number of FTEs in the "trade and repair of motor vehicles" and "construction" categories, while the continuing employment drop in the "manufacturing" had the opposite impact. Employment growth acceleration combined with a slower growth in real wages in the enterprise sector resulted in a decrease in the real wage fund growth rate in the enterprise sector, the rate being the product of employment and average wage adjusted for changes in prices, to 3.0% YoY in December vs. 4.7% YoY in November. Nonetheless, the average three-month real wage fund growth accelerated from 1.1% YoY in September to 4.5% in December, which was the highest rate since April 2022. It supports our consumption acceleration forecast for Q4 2024. The significant inflation drop that we expect to take place will boost wage fund and consumption growth in the quarters to come.

Preliminary data shows that the composite PMI (manufacturing and services) for the Eurozone increased from 47.6 pts in December to 47.9 pts in January, running below the market consensus (48.1 pts). Thus, the index was below the 50-point level that separates growth from contraction for the eighth month



running. The slight increase in the composite PMI was caused by an increase of the "current manufacturing output" component, while the decrease of the "business activity in services" had the opposite effect. Geography wise, a deterioration in business sentiment was seen in Germany and France, while other Eurozone economies saw an increase in activity, with the composite PMI going up above the 50-point mark for the first time in 5 months. As regards the composite PMI data, particularly noteworthy is the increase in the new orders component, which reached the highest level since June 2023, though it still remains markedly below the 50-point mark. New orders kept declining in both services and manufacturing, but at a slower rate. The enterprises try to compensate the continuing decline in orders by reducing their production backlogs. At the same time, both inputs and outputs inventories kept declining strongly in January in response to a poorer demand. It is worth noting that January saw the composite employment index rise for the first time since October (for manufacturing and services), which we believe reflects an improvement in the surveyed enterprises' expectations. Our conclusion is supported by the



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composite index value for the production expected in a 12-month horizon (in the manufacturing sector and services), which reached the highest value since May 2023 in January, and remains above the 50-point mark. Also noteworthy is the impact of the attacks on ships in the Red Sea on data. The attacks are reflected in longer delivery times in the manufacturing sector. January also saw an acceleration of input and output prices growth on the composite PMI level. However, there are differences between the sectors (the prices grow in services but keep on falling in the manufacturing sector), which can result from a better situation in services comparing to the manufacturing sector. From the point of view of Polish exports, of particular importance are trends in Germany, where the manufacturing PMI rose to 45.4 pts in January from 43.3 pts in December, printing ahead of market expectations (43.7 pts). The increase in the index resulted from higher contributions of 4 out of its 5 components (new orders, current output, inventories and delivery times), while lower contribution of employment component had the opposite effect. As regards the data breakdown, particularly noteworthy is a strong growth in the new orders (incl. export orders) component, though it remains well below the 50-point level that separates growth from contraction. Its growth resulted in a slower decline in current output. We believe there is a downside risk to our economic growth forecast for the Eurozone in Q1 (0.2% QoQ vs. 0.1% in Q4).

- Last week saw the publication of the Ifo index showing sentiment in German manufacturing, construction, trade and services. The ISM manufacturing index went down to 85.2 pts in January from 86.3 pts in December, running below market expectations (86.7 pts). The index thus fell to its lowest level since May 2020. The significant decline in the index was due to a drop of its components for both the assessment of the current situation and expectations. Deterioration was recorded in 3 out of the 4 sectors analysed (trade, construction and services) while the situation improved in manufacturing. Among the factors that pushed sentiment down, it is worth pointing to a further decline in orders in the services sector, as well as additional uncertainty related to fiscal policy and strikes by farmers and railwaymen in Germany. Taking into account the PMI indices published last week (see above), we see downside risks to our scenario that Germany's quarterly GDP growth will remain unchanged in Q1 compared to Q4 at -0.1%.
- The European Central Bank met last week and decided to keep interest rates unchanged. Consequently, the ECB's main interest rate currently stands at 4.50%, with the deposit rate at 4.00%. The ECB's decision was in line with our expectations and consensus. Comparing the January communication with the December one, the wording that inflationary pressures in the common currency area remain elevated and are mainly driven by high unit labour cost growth rate was removed. At the same time, the statement was reiterated that interest rates would be kept at restrictive levels for as long as necessary to dampen inflationary pressures, and that subsequent interest rate decisions would be taken on the basis of an assessment of the inflation outlook in the context of incoming economic and financial data, the pace of change in inflation and the strength of monetary policy transmission. At the post-meeting press conference, ECB President Ch. Lagarde indicated that a discussion on interest rate cuts had not yet begun. We believe that in terms of a decision on the timing of the first interest rate cut, the results of the ECB's March macroeconomic projection, as well as the publication of preliminary Q1 GDP data will be of key importance, as they may shed more light on future inflationary processes in the Eurozone and accelerate the Governing Council's decision on the first interest rate cut. At the same time, we maintain our scenario that the ECB will start a cycle of rate cuts in the Eurozone in September 2024, with a total scale of 75bp in 2024.
- Some significant data on the US economy was released last week. PCE inflation was unchanged in December vs. November at 2.6% YoY, while core PCE inflation eased to 2.9% YoY vs. 3.2% in November. The monthly seasonally adjusted growth rate of core inflation increased slightly in December to 0.2% vs. 0.1% in November, indicating that inflationary pressures are still at relatively high levels. Last week, we also saw the preliminary estimate of US Q4 GDP, according to which the annualised growth rate slowed to 3.3% vs. 4.9% in Q3, significantly above our





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forecast (1.7%)and market expectations (2.0%). The GDP growth slowdown was driven by lower contributions from consumption, government spending, investment and inventories, while higher contribution from net exports had the opposite effect. On Thursday,



data on durable goods orders was published, which stabilised in December at the November level (growth rate of 0.0% MoM), in line with consensus. Excluding transportation, MoM growth in durable goods orders rose to 0.6% in December from 0.5% in November. At the same time, growth in orders for non-military capital goods dropped to 1.8% YoY in December from 2.2% in November. The growth rate of these orders indicates a moderate increase in investment. Last week also saw a publication of data on new homes sales which increased to 664k in December vs. 615k in November. The significant increase in sales was largely the result of a rebound after its strong November decline, while data published two weeks ago on new building permits, construction starts and existing-home sales point to continued depressed activity in the US real estate market (see MACROmap of 22/01/2024). Given the higher-than-expected resilience of US consumption to restrictive monetary policy, as well as the lesser magnitude of the slowdown in investments, we have revised upwards our forecast for US economic growth in the coming quarters. Under our updated scenario, annualised US GDP growth will slow to 1.3% in Q1 (0.4% before revision), 1.1% (0.7%) in Q2, 0.5% (1.0%) in Q3 and -0.8% (-0.6%) in Q4. At the same time, we forecast that the US economy will experience a slight recession in late 2024 and early 2025. As a result, US GDP will increase by 1.6% (1.2%) in 2024 and by 0.4% (0.5%) in 2025.

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The term artificial intelligence was first used in the 1950s by J. McCarthy. However, for most of the time since then, artificial intelligence has been treated more as an element of science fiction and less as a tool with real-world applications. This view has been gradually changing with the development of technology and the increase in available computing power. In recent years, the impact of artificial intelligence on growth prospects has become an increasingly widely commented topic. A breakthrough in this respect was the development of so-called Large Language Models (LLMs), an example of which is the ChatGPT developed by Open AI, among others. The capabilities of these models (e.g. answering difficult questions, solving mathematical problems, reasoning abstractly based on the provided data) signal that artificial intelligence can have a significant impact on economic growth even in the short term. Below, we attempt to illustrate the channels of this influence while highlighting the wide range of uncertainty in the development of these processes.



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Most models describing economic growth over the long term use a socalled production function. It is a (more or less complicated) mathematical function that links the volume of output produced (i.e. GDP) to the input of the factors of production. The factors of production are physical capital (in simple terms. all the tools. equipment, machines, factories that

are used in the production process) and the labour input (in simple terms, the number of employees). An additional element linking the means of production to the volume of production is the so-called Total Factor Productivity (TFP). TFP is equated with the efficiency of the use of inputs to produce GDP. The increase in TFP can be simply interpreted as technological progress. The more advanced the production technology we have, the higher the TFP and the more efficiently we can use capital and labour to produce output. TFP growth is an important factor responsible for shaping economic growth. In Poland, for example, TFP has grown at an average rate of 2.1% per year over the past decade (see chart). This means that the average economic growth rate was bumped up by 2.1 pp due to productivity growth.







of artificial intelligence in a company can increase the rate of increase in employee productivity in this company by an average of around 3 pp. However, this result is highly sensitive to the assumptions made during the estimation and varies between 1.7 and 6.9 pp depending on the source. This would mean that artificial intelligence could be a factor that will boost economic growth more than any of the previous breakthrough inventions (the steam engine, electricity and the microprocessor). At the same time, it is worth noting that, in contrast to previous technological revolutions, the expected increase in efficiency will come not through mechanisation but through automation, i.e. the substitution or support of human mental work with computer algorithms.







However, considering the impact of artificial intelligence only in terms of its impact on labour productivity is a simplification of reality. To better illustrate the impact of artificial intelligence on economic growth, we can use a theoretical model that treats the volume of output produced (GDP) as the sum of individual tasks. By 'task' we mean every smallest element of the production process. If such a task cannot be automated, manpower is used to perform it. In contrast, if a task can be automated, capital (e.g. machines, robots, computers) is used to perform it. As a result, the volume of global production can be simplified to represent the sum of capital and labour in proportions corresponding to the degree of automation of the economy. In this model, artificial intelligence should be seen as a tool to automate more and more tasks. Unlike previous industrial and technological revolutions, which mainly automated simple, repetitive jobs, artificial intelligence leads to the automation of more complex processes. The expected increase in automation of tasks due to the development and spread of artificial intelligence will therefore lead to an increase in demand for capital and a decrease in demand for labour. A decrease in labour demand will lead to a reduction in employment (or even zero employment) within certain occupations.



However, the spread of artificial intelligence does not necessarily have an unequivocally negative impact on labour demand. Firstly, new 'tasks' may emerge in the production process which cannot be automated and thus will lead to increased demand for labour. An example of such new tasks would be jobs related to the implementation and development of artificial

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intelligence (computer scientists, researchers, technicians). Furthermore, artificial intelligence is not always a substitute for labour, but can also have complementary properties to human labour. According to a report by the International Monetary Fund, globally around 40% of jobs are at risk of extinction due to the development of artificial intelligence. This percentage is higher in developed economies (around 60%) due to the greater importance of the service sector. However, estimates in the report signal that around half of the workforce within the categories at risk are likely to use AI as a tool to support their work, increasing their productivity and thus avoiding substitution. Nevertheless, the medium- and longterm net effect of the above-mentioned processes is expected to be a decline in labour demand.



An important, yet difficult to predict issue in the context of the impact of artificial intelligence on economic growth is how it will affect productivity developments. In this respect, we can consider several scenarios. Scenario 1, the baseline, assumes no implementation of artificial intelligence, which will result in productivity growth remaining

constant (for example, 1% per year). Scenario 2 assumes that the implementation of artificial intelligence, like the previous revolutions (industrial and digital), will contribute to a temporary bump in productivity growth (for example, by 3 pp over a 20-year horizon). The difference between the annual volume of GDP in these two scenarios in 20 years' time would be 80%. In this context, we must also consider scenario 3, in which the so-called technological singularity would be achieved. This is a situation where artificial



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intelligence will surpass human intellectual capacity. It could therefore produce even more efficient artificial intelligences, triggering exponential technological progress. In such an extreme case, productivity growth and thus economic growth would continuously accelerate. Scenario 3 assumes that, after an initial surge in productivity, its growth rate will increase by 1% per year. In this case, GDP in 20 years' time would be 94% higher in Scenario 3 than in Scenario 1 and 8% higher than in Scenario 2. But at a horizon of 75 years, it would already be 35 times higher than in Scenario 1 and 20 times higher than in Scenario 2. Thus, there would be asymptotic GDP growth (see chart).

However, it is currently difficult to predict if and when the technological singularity will be reached. Some researchers suggest that it may occur within a horizon of 10-20 years. At the same time, it is worth noting that the occurrence of this phenomenon would contribute to a strong decline in employment relative to current levels. Only people whose work cannot be replaced by artificial intelligence would remain employed. This would be a difficult social problem to accept and would require government intervention. It could consist of slowing down the development or banning the use of artificial intelligence in certain sectors of the economy or taxing the companies using it. Another solution would be to establish a so-called unconditional basic income, i.e. the granting of a fixed cash benefit without conditions.

In the shorter term, before the technological singularity is reached, the impact of artificial intelligence on the rate of economic growth will materialise mainly through the channel of gradual productivity growth and the substitution of labour with capital. The scale of this impact will depend on the speed of adaptation of the production process to the new technological reality. In this context, many questions arise as to the impact of artificial intelligence on the economic situation in Poland. Will we benefit from this positive supply shock more than the more developed economies of Europe, allowing Poland to accelerate the process of catching up with them? Will the expected increase in productivity and decrease in labour demand offset the adverse consequences of Poland's declining population? Or will the position of a follower rather than a leader in the process of technological transformation contribute to a widening of the income gap with richer countries in the Eurozone? We will address these issues in subsequent MACROmaps.



Last week, the EURPLN rate increased to 4.3667 (the PLN weakened by 0.4%). Throughout last week, the EURPLN exchange rate largely followed the EURUSD, while the importance of domestic factors was limited. Initially, there was a temporary strengthening of the USD against the EUR and a consequent depreciation of the PLN against the EUR, helped by reduced expectations of interest rate cuts in the US. There was a correction on Wednesday. On the other hand, the tone of the ECB meeting led to a renewed weakening of the EUR against the USD.



This week's FOMC meeting could be important for the PLN. In our view, it may encourage increased volatility in the EURPLN. On the other hand, the publication of preliminary inflation data in Germany and the entire Eurozone may lead to a slight strengthening of the PLN. We believe that other data releases from the Polish and global economies scheduled for this week will be neutral for the PLN.



Last week, 2-year IRS rates increased to 5.13 (up by 12bp), 5-year rates to 4.67 (up by 15bp) and 10-year ones to 4.81 (up by 17bp). In the first part of last week, we saw IRS rates rise following the core markets, which was a continuation of the trend seen earlier of lower expectations of interest rate cuts by major central banks. Thursday saw a correction and trend reversal. Last week also saw a debt auction held by the Ministry of Finance, at which it sold 2-, 5-, 16-, 19- and 23-year bonds by PLN 10.0bn with demand at PLN 16.0bn. The large supply of bonds at the auction favoured an increase in spreads between Polish and German bonds and the difference between bond yields and IRS rates (asset swap).

This week, the FOMC meeting will be crucial for the IRS rates and may lead to their increased volatility. At the same time, the publication of preliminary inflation data in the Eurozone, including Germany, may contribute to the decline in IRS rates. In our opinion, other data releases from the Polish and global economies scheduled for this week will be neutral for the IRS rates.





### Forecasts of the monthly macroeconomic indicators

Main monthly macroeconomic indicators in Poland														
Indicator	Dec-22	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
NBP reference rate (%)	6,75	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
EURPLN*	4,69	4,71	4,70	4,68	4,59	4,53	4,43	4,40	4,47	4,63	4,45	4,35	4,33	4,38
USDPLN*	4,38	4,33	4,45	4,31	4,16	4,23	4,06	4,00	4,12	4,37	4,21	4,00	3,93	4,04
CHFPLN*	4,72	4,70	4,72	4,71	4,66	4,64	4,52	4,59	4,66	4,78	4,62	4,56	4,64	4,65
CPI inflation (% YoY)	16,6	16,6	18,4	16,1	14,7	13,0	11,5	10,8	10,1	8,2	6,6	6,6	6,2	
Core inflation (% YoY)	11,5	11,7	12,0	12,3	12,2	11,5	11,1	10,6	10,0	8,4	8,0	7,3	6,9	
Industrial production (% YoY)	0,9	1,8	-1,0	-3,1	-6,0	-2,8	-1,1	-2,3	-1,9	-3,3	1,9	-0,7	-3,9	
PPI inflation (% YoY)	20,5	20,1	18,2	10,3	6,2	2,8	0,3	-2,1	-2,9	-2,7	-4,2	-4,7	-6,4	
Retail sales (% YoY)	15,5	15,1	10,8	4,8	3,4	1,8	2,1	2,1	3,1	3,6	4,8	2,6	0,5	
Corporate sector wages (% YoY)	10,3	13,5	13,6	12,6	12,1	12,2	11,9	10,4	11,9	10,3	12,8	11,8	9,6	
Employment (% YoY)	2,2	1,1	0,8	0,5	0,4	0,4	0,2	0,1	0,0	0,0	-0,1	-0,2	-0,1	
Unemployment rate* (%)	5,2	5,5	5,6	5,4	5,3	5,1	5,1	5,0	5,0	5,0	5,0	5,0	5,1	
Current account (M EUR)	-1722	2246	1467	1372	-230	589	1272	157	556	1176	2119	1325		
Exports (% YoY EUR)	11,6	19,2	14,8	16,1	1,8	4,3	4,0	0,0	-2,3	-4,2	2,3	-2,1		
Imports (% YoY EUR)	14,6	10,4	-1,6	3,3	-9,6	-5,0	-5,8	-7,4	-11,9	-14,7	-7,7	-8,0		

\*end of period

### Forecasts of the quarterly macroeconomic indicators

Main macroeconomic indicators in Poland												
Indicator		2023				2024				2022	0000	2024
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
Gross Domestic Product (% YoY)		-0,3	-0,6	0,5	1,9	2,3	2,6	2,9	3,3	5,3	0,5	2,8
Private consumption (% YoY)		-2,0	-2,8	0,8	2,3	2,5	3,0	3,3	3,5	5,2	-0,4	3,1
Gross fixed capital formation (% YoY)		6,8	10,5	7,2	7,3	5,3	1,9	2,6	2,0	4,9	7,9	2,7
Export - constant prices (% YoY)		3,8	-3,2	-11,0	2,3	3,9	5,0	4,3	4,5	6,7	-2,1	4,4
Import - constant prices (% YoY)		-3,2	-6,8	-20,3	3,7	4,6	5,6	6,0	5,5	6,8	-6,6	5,4
GDP growth contributions	Private consumption (pp)	-1,3	-1,6	0,5	1,2	1,5	1,7	1,9	1,8	2,9	-0,2	1,7
	Investments (pp)	0,9	1,5	1,2	1,6	0,7	0,3	0,5	0,5	0,8	1,3	0,5
	Net exports (pp)	4,6	2,1	5,9	-0,8	-0,1	0,0	-0,5	-0,6	0,2	2,7	-0,3
Current account (% of GDP)***		-0,7	-0,1	0,6	0,8	1,0	0,5	-0,3	-1,0	-2,4	0,8	-1,0
Unemployment rate (%)**		5,4	5,1	5,0	5,1	5,2	4,9	4,8	5,0	5,2	5,1	5,0
Non-agricultural employment (% YoY)		1,5	1,1	1,4	0,7	0,0	-0,5	-0,6	-1,0	0,6	1,2	-0,5
Wages in national economy (% YoY)		14,3	13,8	11,0	9,9	9,5	8,6	8,8	9,0	12,1	12,2	9,0
CPI Inflation (% YoY)*		17,0	13,1	9,7	6,5	3,2	2,3	4,2	4,2	14,3	11,6	3,5
Wibor 3M (%)**		6,89	6,90	5,77	5,88	5,63	5,38	5,38	5,38	7,02	5,88	5,38
NBP reference rate (%)**		6,75	6,75	6,00	5,75	5,50	5,50	5,25	5,25	6,75	5,75	5,25
EURPLN**		4,68	4,43	4,63	4,33	4,42	4,40	4,38	4,36	4,69	4,33	4,36
USDPLN**		4,31	4,06	4,37	3,93	4,09	4,11	4,13	4,15	4,38	3,93	4,15

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





#### Calendar

TIME	COUNTRY		PERIOD	PREV.	FORECAST*		
				VALUE	СА	CONSENSUS**	
		Tuesday 01/30/2024					
10:00	Germany	Preliminary GDP (% QoQ)	Q4	-0,1	-0,1	-0,3	
11:00	Eurozone	Business Climate Indicator (pts)	Jan	-0,45		-0,27	
11:00	Eurozone	Preliminary GDP (% QoQ)	Q4	-0,1	0,1	-0,1	
15:00	USA	Case-Shiller Index (% MoM)	Nov	0,6		0,5	
16:00	USA	Consumer Confidence Index	Jan	110,7	113,5	115,0	
		Wednesday 01/31/2024					
2:30	China	NBS Manufacturing PMI (pts)	Jan	49,0		49,3	
10:00	Poland	Annual GDP (% YoY)	2023	5,3	0,5	0,5	
14:00	Germany	Preliminary HICP (% YoY)	Jan	3,8	2,8	3,4	
14:15	USA	ADP employment report (k)	Jan	164		135	
15:45	USA	Chicago PMI (pts)	Jan	46,9		48,0	
20:00	USA	FOMC meeting (%)	Jan	5,50	5,50	5,50	
		Thursday 02/01/2024					
2:45	China	Caixin Manufacturing PMI (pts)	Jan	50,2		50,5	
9:00	Poland	Manufacturing PMI (pts)	Jan	47,4	48,3	48,2	
9:55	Germany	Final Manufacturing PMI (pts)	Jan	45,4	45,4	45,4	
10:00	Eurozone	Final Manufacturing PMI (pts)	Jan	46,6	46,6	46,6	
11:00	Eurozone	Unemployment rate (%)	Dec	6,4		6,4	
11:00	Eurozone	Preliminary HICP (% YoY)	Jan	2,9	2,5	2,8	
13:00	UK	BOE rate decision (%)	Jan	5,25		5,25	
15:45	USA	Flash Manufacturing PMI (pts)	Jan	50,3			
16:00	USA	ISM Manufacturing PMI (pts)	Jan	47,4	47,5	47,3	
		Friday 02/02/2024					
14:30	USA	Unemployment rate (%)	Jan	3,7	3,8	3,8	
14:30	USA	Non-farm payrolls (k MoM)	Jan	216	170	173	
16:00	USA	Final U. of Michigan Sentiment Index (pts)	Jan	78,8	78,8	78,8	
16:00	USA	Factory orders (% MoM)	Dec	2,6	-0,4	0,2	

\*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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