

## **Economic Adviser**

### **Macro Research**

November 2023 ♦ Date of issue: 13 November 2023

# Contents

Special: Climate change has long influenced monetary policy .....	3
Climate change considerations long since an element of the monetary policy framework .....	3
Concretization and commitment to the Paris climate goals .....	3
Climate change is a problem factor for monetary policy decisions .....	4
 USA: What comes after the strong GDP figures? .....	5
What comes after the strong GDP figures? .....	5
NAHB index with an even weaker showing .....	5
The FOMC remains in watch-and-wait mode .....	6
 Euroland: Further ECB rate hike no longer necessary .....	7
Economic downturn: Summer with slight contraction in GDP .....	7
Economic and inflation developments provide good reasons for an ECB rate hike pause .....	7
ECB remains vigilant – market expectations for key-rate cuts in 2024 overly optimistic .....	8
 Germany: Growing risk of technical recession .....	9
GDP down in Q3 – possibility of technical recession in winter .....	9
Economic sentiment: October sees ifo Business Climate rise again for the first time since April .....	9
Inflation continued downwards in October, but core rate not likely to change much in the short term .....	10
 Japan: Yield control and a brittle rubber band .....	11
Yield control and a brittle rubber band .....	11
When will the "traditional" policy rate be raised? .....	11
How chronic is the yen's weakness? .....	11
 China: Ups and downs – but increasingly negative sentiment .....	12
More growth – but sentiment surveys give little hope .....	12
Bitter cocktail .....	12
Fiscal and monetary policymakers take action .....	12
 Britain: Interest rates – no descent from the peak as yet .....	13
Bank of England bides time – once again .....	13
Challenging overall situation calls for caution .....	13
A less hawkish decision to keep key rates steady .....	13
 Portfolio strategies .....	14
 Yield curve, Euroland .....	14
 Portfolio strategies .....	15

International yield curve: 3-month & 12-month horizons.....15

Portfolio strategies.....16

Stock market strategy; 3-month, 6-month & 12-month horizons.....16

Overview of forecasts.....17

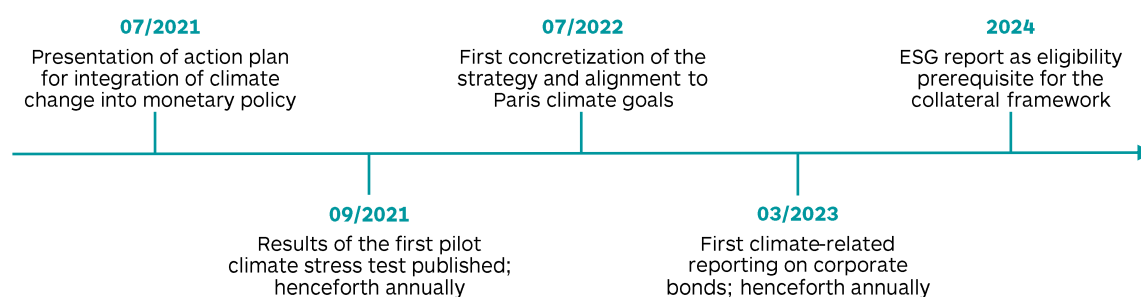
# Special: Climate change influences monetary policy

Analysts: Valentin Jansen, Christian Reuter

## Climate change considerations long since an element of the monetary policy framework

The omnipresent discourse on the topic of sustainability is frequently centred around the public and private sectors, alongside supranational institutions. That said, the central bankers in Frankfurt have long been active in this context as well. As ECB President Lagarde said as early as 2021 at the press conference on conclusion of the central bank's last regular strategic review: "We have acknowledged that climate change is an existential challenge for the world, and it is of strategic importance for the ECB's mandate." Although the ECB is primarily committed to price stability in the euro area, it recognizes the need to include climate change considerations in its monetary policy framework as an integral part of its mandate. The Governing Council therefore resolved to incorporate the impacts of climate change into future monetary policy strategy. A corresponding package of measures was presented that, besides initially internal resource building, explicitly specifies the incorporation of climate change considerations in monetary policy areas such as the collateral framework and purchase programs as well as risk management. As regards the latter, the results of the EU-wide pilot climate stress test were presented by ECB Vice-President de Guindos just a few months later, in September. A key milestone was thus reached in 2021 in terms of incorporating climate change considerations into the ECB's monetary policy operations – thanks to which the topic of climate change has long since become an integral part of the monetary policy framework.

Key milestones in the incorporation of climate change into the ECB's monetary policy operations



Sources: ECB, NORD/LB Macro Research

## Concretization and commitment to the Paris climate goals

In July 2022, one year after the conclusion of the strategy review and "a pilot climate stress test later", an important press release from the ECB provided details concretizing the climate change considerations envisaged for incorporation into its monetary policy operations. It specified the orientation of the carbon footprint of the corporate bond purchase program (namely "CSPP", which at the time accounted for around 10 percent of the overall portfolio) to the climate change mitigation goals of the Paris Agreement. Side note: This corresponds to the climate goals of the EU Commission, which have thus also received support from the central bankers since then. Specifically, the press release included adjustments to the collateral framework: "The Eurosystem aims to gradually decarbonize its corporate bond holdings, on a path aligned with the goals of the Paris Agreement. To that end, the Eurosystem will tilt these holdings towards issuers with better climate performance through reinvestments" – it was said for the first time. It was also specified that the expansion of risk management – for example through annual climate stress tests – should be continued, with account being taken of the ongoing EU initiatives on climate-related reporting. Last but not least, it was stated that reducing financial risk related to climate change on the Eurosystem's balance sheet would also play a key role in this context.

### **Climate change is a problem factor for monetary policy decisions**

Climate change, extreme weather events and the energy transition will in the future make it increasingly difficult for the ECB to take monetary policy decisions based on the assessment of the economic health of the eurozone. In an analysis published by the ECB staff in June 2023 as part of the monthly ECB Economic Bulletin, all three challenges were examined as influencing factors on potential output in the euro area. According to this, these variables already form an important part of the quarterly projections, which serve the central bankers as basis for interest rate decisions and other options for action. According to the author and ECB economist Miles Parker, unchecked climate change causes far more damage to the EU's potential output in the long term than the effects of a transition to a carbon-free economy. The "substantial localized impact" of climate change on certain regions and sectors – which was also investigated and addressed in the previous ECB climate stress test – and the uncertainty as to the reactions of companies and people made it even more difficult to assess the consequences, wrote Parker. This is particularly true also given the fact that monetary policy decisions are determined on a uniform basis for all 20 countries of the eurozone.

### **ECB Executive Board widely divided: for some the measures taken to date don't go far enough...**

Unsurprisingly, there are quite differing views to be heard from the ECB Executive Board itself on the integration of climate change considerations into the monetary policy framework as largely driven forward under President Lagarde. For some Executive Board members the measures taken to date don't go far enough, while others would rather that the ECB focusses back on its primary mandate. At the International Symposium on Central Bank Independence on 10 January 2023, Executive Board member Isabel Schnabel gave a groundbreaking speech in the context of green monetary policy, warning that the interest rate environment and high inflation are jeopardizing the green transformation, for which reason the ECB must further intensify its efforts. She stressed that the ECB would be unable to achieve its climate targets in the greening of its corporate bond holdings if the central bankers concentrate solely on reinvestments. They must therefore actively intervene in the holdings and, where necessary, exchange bonds even before maturity in favour of a better carbon footprint. Until this speech, the ECB had never talked about possible reallocations *within* the bond holdings, only of a "tilting" of reinvestments. Ms Schnabel hit a further pain point with her reference to the huge public sector bond holdings, which are known to account for the lion's share of the Eurosystem's balance sheet. Improving the carbon footprint of these holdings is far more challenging, however, she said, seeing as the orientation to the capital keys of the member states constrains an approach based on CO<sub>2</sub> intensity, for example. Moreover, a further constraint is imminent: With an already scaled-back portfolio under the Asset Purchase Programme (APP) and, according to current communication, the termination of reinvestment under the Pandemic Emergency Purchase programme (PEPP) at year-end 2024, the climatic effects of any reallocations are likely to become significantly less effective.

### **...and for others they are already going too far: price stability as the best ECB aid**

Bundesbank President Joachim Nagel recently stressed in May that the ECB can combat climate change and best support the transition to renewable energy sources by keeping inflation in check. Speaking at a conference in Eltville am Rhein, Nagel underlined that the central bank should unequivocally confirm its willingness to fulfil its mandate. Nagel explained: 'I see the safeguarding of price stability as the starting and reference point for any consideration of climate-related issues in monetary policy. He added that "the green transformation requires large-scale investments in technological innovations and renewable energies, and that decisions in this context "are easier to decide upon in an environment characterized by price stability." The ECB Executive Board is likely to agree on at least this sentence.

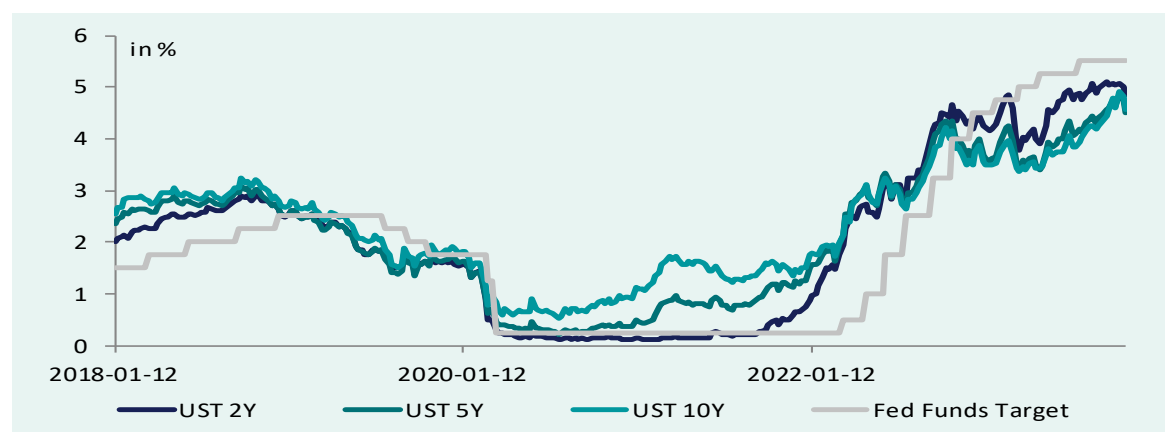
# USA: What comes after the strong GDP figures?

Analysts: Tobias Basse // Bernd Krampen

## What comes after the strong GDP figures?

The recently reported data on US GDP came as an upside surprise to virtually all observers, with an impressive growth figure of 4.9% (ann.). These are admittedly preliminary figures that are still highly susceptible to revision – but it can safely be said that private consumers appear to have made a lasting contribution to growth in the USA. Even possible data revisions are hardly likely to change this picture either. That said, the high interest rates and other burdening factors are now increasingly becoming a problem; The ISM Manufacturing PMI, for example, has fallen significantly and in October stood at just 46.7 points. A closer look at the verbal feedback from the surveyed purchasing managers made for gripping reading. First of all, it is interesting to note that there are no clearer indications of the burdensome factor of higher bond yields. Moreover, we find it remarkable that there are hardly any comments on the UAW strike. Interpreting this observation, it actually means that the strike by employees in the US automotive industry was not regarded as having had any major negative impact. It goes without saying that this news speaks against the interpretation that the strike has weighed to a significant degree on the mood among the survey respondents. The ISM Services PMI likewise registered a downward trend most recently, but was nevertheless able to remain above the "magical" 50-points growth threshold mark. It is interesting to note at this point that somewhat more reference to the UAW strike was to be found in the verbal feedback from purchasing managers in the US service sector, though the picture it provides is not really clear; some respondents evidently see negative effects – others rather not. Taken together, the two ISM PMIs show tendencies towards a significant slowdown in growth in the US economy.

Chart US Interest rates



Sources: Macrobond, NORD/LB Macro Research

## NAHB index with an even weaker showing

The National Association of Home Builders (NAHB) sentiment index likewise points very clearly in this direction. This key sentiment indicator for the American construction industry has now fallen to just 40 points, signalling a clear predominance of negative over positive feedback – especially since the Prospective Buyers Traffic sub-index now stands at just 26 points. This gives clear indication of a perceptible weakness on the demand side of the US real estate market. This is without doubt largely attributable to the currently prevailing high interest rate levels. In this context, the National Association of Home Builders stresses that this burdening factor appears to be hitting younger potential buyers particularly hard – and in this regard there are no clear signs of any improvement in the short term either.

### The FOMC remains in watch-and-wait mode

As expected, the FOMC held the Fed funds target rate unchanged at its recent meeting. While the monetary policymakers in Washington are to some extent maintaining the threat scenario of a rate hike for the moment, they would probably only really wish to take action in the face of major surprises in the US inflation trend; the "active" discussion about the possibility of a somewhat higher Fed funds target rate after all is currently helping deter the markets from clearly undesirable speculation over near-term rate cuts by the FOMC. In the absence of really unfavourable inflation data, the "key rate peak" has likely been reached in the USA. However, the initial cut of the Fed funds target rate can now be expected to come a bit later. In this environment, we consider the current US yield on 10-year US Treasuries to be quite reasonable from a tactical perspective. Indeed, after the recent setback we see no necessity for any larger movements in this time series in the short term. In the medium and long term, however, rather lower capital market rates are then to be reckoned with in the USA.

### Fundamental forecasts, USA

	2022	2023	2024
GDP	1.9	2.3	1.4
Private consumption	2.5	2.5	1.4
Govt. consumption	-0.9	1.5	0.5
Fixed investment	0.9	0.5	2.0
Exports	7.0	0.5	3.0
Imports	8.6	2.0	3.0
Inflation	8.0	4.2	2.9
Unemployment rate <sup>1</sup>	3.6	3.8	4.0
Budget balance <sup>2</sup>	-4.2	-3.7	-3.7
Current acct. balance <sup>2</sup>	-3.8	-3.4	-3.4

Change vs previous year as percentage; <sup>1</sup> as percentage of the labour force; <sup>2</sup> as percentage of GDP

Sources: Feri, NORD/LB Macro Research

### Quarterly forecasts, USA

	I/23	II/23	III/23	IV/23	I/24
GDP qoq ann.	7.0	2.1	4.9	-0.4	0.0
GDP yoy	1.7	2.4	2.9	2.2	1.6
Inflation yoy	5.8	4.0	3.5	3.4	3.1

Change as percentage

Sources: Feri, NORD/LB Macro Research

### Interest and exchange rates, USA

	09.11.	3M	6M	12M
Fed funds target rate	5.50	5.50	5.50	5.25
3M rate	5.37	5.35	5.30	5.00
10Y Treasuries	4.62	4.30	4.10	3.70
Spread 10Y Bund	198	160	150	120
EUR in USD	1.07	1.08	1.08	1.09

Sources: Bloomberg, NORD/LB Macro Research

# Euroland: Further ECB rate hike no longer necessary

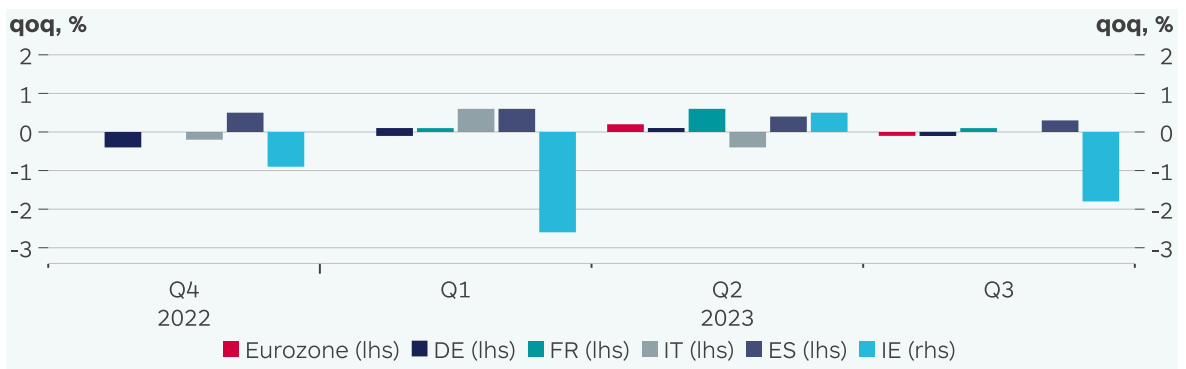
Analysts: Christian Lips, Chief Economist // Christian Reuter

## Economic downturn: Summer with slight contraction in GDP

The leading indicators had already indicated it, now the confirmation by Eurostat's initial flash estimate in late October: economic output in the eurozone area has contracted compared to the previous quarter, albeit only slightly, by -0.1 percent qoq. Among the major economies, real GDP in Spain has grown slightly and in France minimally, while stagnating in Italy and declining minimally in Germany. The flash estimate for Ireland's GDP indicates a sharp decline, though it should be noted that this time series has proved highly prone to revision in recent times.

The weakness will likely continue in the short term. On the one hand, key presence indicators are starting into Q4 with a statistical carry-over effect and, on the other, the PMIs for industry and the services sector also remain below the expansion threshold. Accordingly, the ECB will likely also make "dovish" adjustments to its projections in December. While the last economic forecast was still overly optimistic – we actually expect growth figures of just 0.5 and 0.9 percent for 2023/24 – the recent decline in inflation was unexpectedly sharp. It will thus then become increasingly difficult to justifiably maintain a "tightening bias".

Chart: GDP contraction in the summer



Sources: Macrobond, Eurostat, NORD/LB Macro Research

## Economic and inflation developments provide good reasons for an ECB rate hike pause

Things are currently going according to plan for the ECB. A little over a year after the central bank set its tightening policy in motion, inflation in the eurozone has in the meantime fallen from over 10 percent to a level of 2.9 percent yoy in October. The widely watched inflation rate ex energy and food, namely the core rate, has likewise dropped of late, and now stands at 4.2 percent yoy. August and September saw a year-on-year double-digit drop in producer prices. At its last meeting, the ECB expressed satisfaction with the current price developments and the impact of its monetary policy. The ten key-rate hikes since July 2022 are having the intended effect in the real economy. The economy in the eurozone has cooled perceptibly, according to the ECB's Governing Council to a somewhat greater extent than initially assumed. Indeed, the ECB admitted that the risks in this context are of a downside rather than upside nature. The decision taken by the central bankers at their meeting in late October to hold the key rates unchanged thus came as anything but a surprise.

Given the more positive inflation trend of late and, at the same time, increased downside risks for the economy, the key interest rates have therefore likely peaked in this rate hike cycle. The further monetary policy debate will revolve around the question as to how long the key rates will be held at the current levels. At the present time we see no signs of any imminent easing, and the opportunity for moderate rate cuts is not likely to arise until mid-2024.



### ECB remains vigilant – market expectations for key-rate cuts in 2024 overly optimistic

The ECB's decision was also likely to have been unanimous in October because, with the outbreak of the war between Israel and Hamas, the risks to economic growth in the eurozone and beyond have additionally shifted downwards. However, ECB President Lagarde made it quite clear that, should the geopolitical risks give rise to fresh threats to the inflation target, the central bank won't hesitate to respond with rate hikes. A causative event in this context would, for example, be an upsurge in energy prices, which, also in light of the experiences from the current inflation episode, the ECB would certainly not brush aside as a transitory phenomenon.

The capital market rates had risen sharply in the run-up to the council's meeting. At the ensuing press conference, ECB President Lagarde emphasized that the central bank would be ready to use the programmes against unjustified spread widening again if necessary.

After various other central banks, including the Fed, likewise held their key rates unchanged, the markets have calmed down again, however. From today's perspective, the yield level is likely to have left its cyclical peak behind it. All the same, sharply falling interest rates ought not to be reckoned with in the near future. The markets are already pricing in an initial rate cut for the coming spring and a total in excess of 100 basis points over 2024 as a whole. This could turn out to be a bit too optimistic. The ECB stresses that it continues to view the current inflation process as sticky for the time being, for which reason the central bankers will only then lower interest rates when there are clear indications that inflation is back on a sustainable basis at the targeted level of 2 percent.

### Fundamental forecasts, Euroland

	2022	2023	2024
GDP	3.4	0.5	0.9
Private consumption	4.2	0.3	1.2
Govt. consumption	1.6	0.2	0.9
Fixed investment	2.8	1.0	1.3
Net exports <sup>1</sup>	0.0	0.3	-0.3
Inflation	8.4	5.5	2.4
Unemployment rate <sup>2</sup>	6.7	6.5	6.7
Budget balance <sup>3</sup>	-3.6	-3.4	-2.7
Current account balance <sup>3</sup>	-0.6	1.5	1.5

Change vs previous year as percentage, <sup>1</sup> as contribution to GDP growth; <sup>2</sup> as percentage of the labour force; <sup>3</sup> as percentage of GDP

Sources: Feri, NORD/LB Macro Research

### Quarterly forecasts, Euroland

	I/23	II/23	III/23	IV/23	I/24
GDP sa qoq	0.0	0.2	-0.1	0.1	0.3
GDP sa yoy	1.2	0.5	0.1	0.2	0.4
Inflation yoy	8.0	6.2	5.0	3.0	2.7

Change as percentage

Sources: Feri, NORD/LB Macro Research

### Interest rates, Euroland

	09.11.	3M	6M	12M
Repo rate ECB	4.50	4.50	4.50	3.75
3M rate	3.99	4.00	3.90	3.30
10Y Bund	2.65	2.70	2.60	2.50

Sources: Bloomberg, NORD/LB Macro Research

# Germany: Growing risk of technical recession

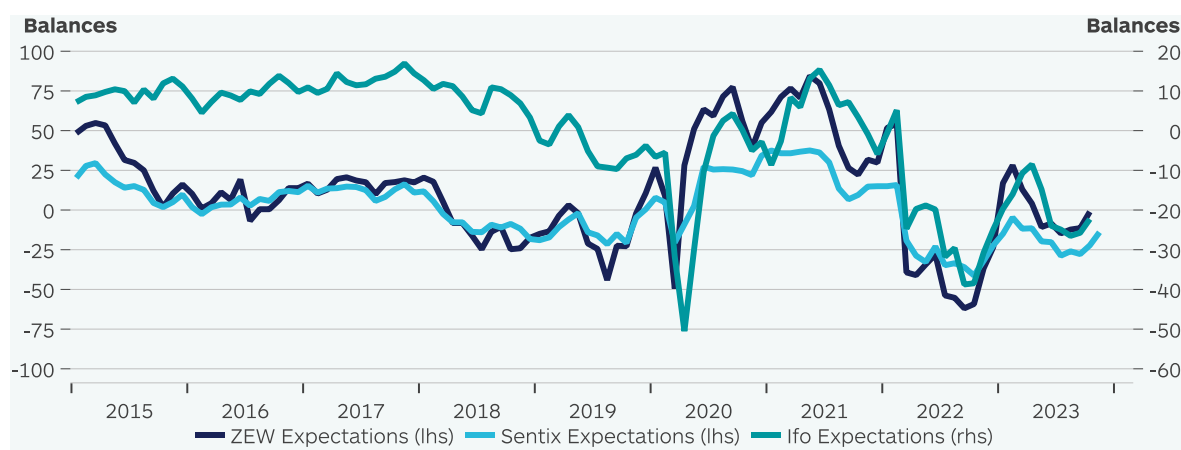
Analysts: Christian Lips, Chief Economist // Valentin Jansen

## GDP down in Q3 – possibility of technical recession in winter

As expected, Germany's economic output contracted in summer. That said, the initial estimate from Destatis suggests that real gross domestic product declined by "just" -0.1 percent qoq, with the figures for the preceding quarters revised slightly upwards. The conclusion thus to be drawn is that the current year has more or less been characterized by stagnation which – considering the negative carry-over effect in the wake of the weak Q4/2022, together with the negative effect of fewer working days this year – indicates a moderate decline in economic output of an estimated -0.4 percent. The slightly increased forecast value is solely attributable to the recent upward revision of the historical data in the official statistics. We have left the forecast for the immediate future, and in particular the nowcast for the current quarter, unchanged, however.

Germany's economic momentum will remain muted for the time being, and a minor technical recession this winter is a distinct possibility. The hard economic indicators reported for September as month under review were disappointing. Industrial output contracted by -1.4 percent mom, marking the fourth consecutive month of decline. In fact, all main groups registered declining output, though this was particularly marked where consumer goods were concerned (-4.9 percent mom). Output in construction, on the other hand, stagnated in September, which can almost be considered positive in light of the strains caused by the changed interest rate environment. Overall, output is therefore starting into Q4 with a negative carry-over effect of 0.9 percent. Retail sales have given a similarly weak showing to date. Nevertheless, the marked decline in inflation of late raises hopes for a boost in real private consumption in 2024, brought about then by further increasing real wages.

Chart: Bottoming out of business expectations



Sources: Macrobond, Destatis, NORD/LB Macro Research

## Economic sentiment: October sees ifo Business Climate rise again for the first time since April

After five consecutive months of decline, the ifo Business Climate index registered an unexpectedly sharp surge to 86.9 points in October as month under review. It should however be noted that the indicators stand at historically low levels, so that so far we can only speak of a bottoming out. In our view, a slight upturn in economic momentum can first be reckoned with in the course of 2024.

In October, corporate leaders rated their current business situation slightly better than in September, though at 89.2 points, this sub-index is still at its lowest level in around three years. On the bright side, there has at the same time been a slight upturn in business expectations; at 84.7 points, however, the outlook for the months ahead remains extremely bleak.

All the same, the ifo Business Climate did at least reaffirm the recently improved economic expectations among financial market experts (ZEW, sentix).

At the sectoral level, September saw slight improvements in the manufacturing sector (to -15.9 balance points) and in the services sector (-1.5), albeit starting from extremely low baseline values. Sentiment in the retail sector (-27.2), on the other hand, deteriorated again after a slight improvement in September. At -31.1 points, sentiment in the construction industry is moving virtually sideways in the wake of the ECB's tenth rate hike, thus remaining at its lowest level since early 2009 during the global financial crisis.

Despite the slight brightening of late, Germany's underlying economic sentiment remains at a low ebb, however. According to the survey of purchasing managers, German industry is still well inside the contraction zone in October as month under review, despite minimal improvements. Indeed, the services sector registered an unexpectedly marked deterioration.

#### **Inflation continued downward trend in October, but core rate likely to remain sticky**

October saw inflation drop to a level of 3.8 percent – its lowest since August 2021. Indeed, the annual rate of the euro-area harmonized consumer price index (HICP) fell to 3.0 percent yoy. Moreover, the core rate (ex energy and food), on which the ECB keeps a particularly close eye, fell once again, to 4.2 percent yoy. Domestic price pressure thus remains relatively persistent, but is now likewise gradually receding. Germany's inflation figures are in line with the general trend in the euro area, for which Eurostat is now actually indicating a rate of inflation with a 'two' before the decimal point again (2.9 percent yoy).

Due to the acutely tense situation in the Middle East, the oil and energy prices overall are now increasingly coming back into focus. Contrary to the widespread fears that the price of a barrel of Brent crude oil would not return to the levels seen in early October, it actually did. However, the situation remains volatile due to potential escalation of the Israel-Hamas conflict in the Middle East that could affect oil supplies. Accordingly, the ECB too emphasized in October the upside risks for inflation.

#### **Fundamental forecasts, Germany**

	<b>2022</b>	<b>2023</b>	<b>2024</b>
GDP	1.8	-0.4	0.8
Private consumption	3.9	-0.9	1.3
Govt. consumption	1.6	-2.2	1.4
Fixed investment	0.1	1.2	0.7
Exports	3.3	-0.6	2.0
Imports	6.6	-1.1	3.4
Net exports <sup>1</sup>	-1.3	0.2	-0.5
Inflation <sup>2</sup>	8.7	6.1	2.6
Unemployment rate <sup>3</sup>	5.3	5.7	5.7
Budget balance <sup>4</sup>	-2.5	-2.8	-2.3
Current account balance <sup>4</sup>	4.2	5.8	6.2

Change vs previous year as percentage, <sup>1</sup>as contribution to GDP growth; <sup>2</sup>HICP; <sup>3</sup>as percentage of the civil labour force (Federal Employment Office definition); <sup>4</sup>as percentage of GDP

Sources: Feri, NORD/LB Macro Research

#### **Quarterly forecasts, Germany**

	<b>I/23</b>	<b>II/23</b>	<b>III/23</b>	<b>IV/23</b>	<b>I/24</b>
GDP sa qoq	0.0	0.1	-0.1	0.0	0.2
GDP nsa yoy	0.2	-0.4	-0.8	-0.4	-0.4
Inflation yoy	8.7	6.9	5.7	3.2	3.3

Change as percentage

Sources: Feri, NORD/LB Macro Research

# Japan: Yield control and a brittle rubber band

Analysts: Tobias Basse // Bernd Krampen

## Yield control and a brittle rubber band

The adjustments to the Bank of Japan's YCC policy had already turned the former anchor chain into a fairly stretchable rubber band some time ago. Now, the central bankers have announced a further flexibilization of their yield curve control program. Indeed, one could in the meantime speak of a frail or brittle rubber band. The changes to the BoJ's monetary policy strategy do not come as a complete surprise. The economic environment in Japan had triggered a rather pronounced need for action on economic policy by the central bank. Consequently, the Bank of Japan found itself now having to announce that it would also allow the yields on 10-year government bonds to rise above a level of 1.0 percent. However, BoJ governor Kazuo Ueda, stressed that when looking at this time series, he would not expect to see levels significantly above this important mark in the near future.

## When will the "traditional" policy rate be raised?

There are still no signs of any great inflation problem in Japan as yet. That said, the deflationary concerns within the BoJ are now increasingly receding into the background. The most recently published data on the trend in consumer prices in Tokyo surprised with an increase in the annual rate to 3.3 percent in October as month under review. Higher costs for imported goods, which are likely a direct consequence of the yen's weakness, among other things, are undoubtedly a significant factor in explaining this development. The central bank needs to be increasingly vigilant in this environment. In the absence of any really pronounced surprises in the macroeconomic price data, however, the central bankers are well advised to try and wait for the review of its monetary policy strategy to be completed before raising the traditional policy rate. Against this background, a measure of this nature can first be expected in the course of 2024. The risk of nearer-term adjustments has increased of late, however.

## How chronic is the yen's weakness?

The yen's weakness could, in fact, well disrupt the central bankers' strategy of playing for time. In this context, a very close eye certainly needs to be kept on the "magical" mark of 150.00 JPY per USD. A number of high-ranking decision-makers in the Ministry of Finance appear to be thinking along the lines that an overly weak yen could weigh on domestic consumption in Japan. In this respect, there are likely to be quite some discussions between the economic policymakers in Tokyo with regard to the FX market. Of late, however, weaker US labour market data have at least somewhat helped the yen.

### Fundamental forecasts\*, Japan

	2022	2023	2024
GDP	1.0	2.2	1.0
Inflation	2.5	3.1	1.9
Unemployment rate <sup>1</sup>	2.6	2.6	2.5
Budget balance <sup>2</sup>	-5.9	-5.5	-4.0
Current account bal. <sup>2</sup>	1.8	3.1	3.1

\* Change vs previous year as percentage;

<sup>1</sup> as percentage of the labour force; <sup>2</sup> as percentage of GDP

Sources: Feri, Bloomberg, NORD/LB Macro Research

### Interest and exchange rates, Japan

	09.11.	3M	6M	12M
Policy rate	-0.10	-0.10	-0.10	-0.10
3M rate	0.07	0.05	0.05	0.10
10Y	0.84	0.80	0.80	1.00
Spread 10Y Bund	-181	-190	-180	-150
EUR in JPY	161	151	146	140
USD in JPY	151	140	135	128

# China: Ups and downs – but increasingly negative sentiment

Analysts: Tobias Basse // Bernd Krampen

## More growth – but sentiment surveys give little hope

The merely moderate growth in Q2 was followed in the third quarter by something of a recovery, with GDP up by 1.3 percent quarter on quarter. The annualized growth rate thus stands at 4.9 percent and, in consequence, very close to the target level of 5 percent per year. That said, the further data already available for October as month under review quite certainly indicate the onset of a persistent phase of economic weakness. The Caixin sentiment indicator, which is not only an important barometer for Asia alone, has fallen to just 49.5 points, and thus narrowly short of the "magical" 50-points mark generally considered an expansion threshold. Moreover, the CFLP Manufacturing PMI has likewise fallen to 49.5 points. This would indicate growing concerns in China's industrial sector about the current economic developments. The surveyed companies also registered a slowdown in the growth of their order intake, besides which this environment is making for a downturn in the employment situation. In addition, the companies participating in the survey are being hit by rising purchase prices. All told, China's industrial sector quite clearly has a weakening in demand to contend with.

## Bitter cocktail

It should in any case be noted that the weakness of global industry in October has now also hit China. And it goes without saying that the tense relationship between Washington and Beijing is likewise of no help whatsoever to China's export-oriented economy. A further negatively impacting factor is that, after the experiences of the COVID crisis, risk managers have taken the helm in many North American and European companies; a growing number of businesses now appear to be searching out further business partners outside of China in the interests of avoiding any major problems with supply chains in the future. This trend is, of course, not a positive one for China's economy. The government is now quite clearly very concerned about the situation, seeing as an economic slowdown can quite well make for some degree of discontent among the populace – which is something the powers that be in Beijing really do not like. Furthermore, the ongoing problems on the real estate market in the Middle Kingdom are unlikely to have been of any help to China's industry. Consequently, there is once again no monocausal explanation for the unfavourable October figures from the CFLP index and Caixin Manufacturing PMI. It therefore looks like Beijing has a cocktail of rather "bitter" influencing factors on its hands!

## Fiscal and monetary policymakers take action

Government policy is currently also characterized by the dismissal of some officials. There is a palpable air of unrest, and the globally difficult geopolitical environment is heightening the uncertainty. Meanwhile, the fiscal and monetary policymakers are taking money in their hands to ward off any potential economic threats.

### Fundamental forecasts\*, China

	2022	2023	2024
GDP	3.0	4.5	4.5
Inflation	1.9	1.8	2.0
Unemployment rate <sup>1</sup>	5.2	5.0	4.9
Budget balance <sup>2</sup>	-7.5	-4.2	-3.7
Current account bal. <sup>2</sup>	2.2	1.2	0.9

\* Change vs previous year as percentage

<sup>1</sup> as percentage of the labour force; <sup>2</sup> as percentage of GDP

Sources: Feri, Bloomberg, NORD/LB Macro Research

### Interest and exchange rates, China

	09.11.	3M	6M	12M
Deposit rate	1.50	1.50	1.50	1.50
3M SHIBOR	2.45	2.30	2.30	2.30
10Y	2.65	2.60	2.60	2.50
Spread 10Y Bund	0	-10	0	0
EUR in CNY	7.79	7.78	7.67	7.63
USD in CNY	7.28	7.20	7.10	7.00

# Britain: Interest rates – no descent from the peak as yet

Analysts: Constantin Lürer // Tobias Basse

## Bank of England bides time – once again

At its meeting ending on 1 November, the Bank of England's Monetary Policy Committee voted to leave the Bank Rate unchanged at its current peak of 5.25 percent. In doing so for the second time in a row, the central bankers indicated that a descent from the peak is not on their immediate agenda. This comes as no surprise to many observers, and some are also hoping that it signals an end to the rate hikes – at least for the time being.

## Challenging overall situation calls for caution

These hopes could well stem from the markedly decelerating upward movement in consumer prices in recent months. Apart from minor setbacks, the CPI shows a relatively clear downward trend. This trend has slowed somewhat of late, however, and inflation remains at an uncomfortably high level. The risk of further rising inflation remains high, mainly – but not solely – due to the various conflict hotspots around the world.

The slowly but surely rising rate of unemployment is also likely to increasingly become cause for concern, having risen well above the 4-percent mark of late. The UK economy is thus coming under perceptibly growing pressure. Given the current overall economic and political situation, therefore, neither an upward nor a downward interest rate adjustment looks likely. With its interest rate decisions, the Bank of England has, figuratively speaking, in recent times manoeuvred through highly challenging terrain peppered with icy spots and deep crevasses. A "higher for longer" scenario could be in the offing against this background.

## A less hawkish decision to keep key rates steady

Despite differences of opinion, the members of the MPC reached their decision in a democratic manner, though the 6-3 majority was relatively clear. As was to be expected, Catherine Mann pushed for a further hike of 25 basis points. Indeed, she could almost be given credit for not having demanded a hike of 50 bps. This can also be interpreted as recognition of the overall positive economic development. Megan Greene and Jonathan Haskel likewise voted – once again – for a rate hike in the same range. Jonathan Cunliffe switched camps and voted to hold the base rate at 5.25 percent. No one had advocated a rate cut, however. The mood is probably not going to fundamentally change either in the remainder of 2023. 2024 could make for completely new impulses, however.

### Fundamental forecasts\*, Britain

	2022	2023	2024
GDP	4.3	0.4	0.4
Inflation (CPI)	9.1	7.4	3.1
Unemployment rate <sup>1</sup>	3.7	4.2	4.7
Budget balance <sup>2</sup>	-5.2	-5.1	-3.5
Current account bal. <sup>2</sup>	-3.2	-3.5	-3.2

\* Change vs previous year as percentage

<sup>1</sup> as percentage of the labour force as per ILO concept,

<sup>2</sup> as percentage of GDP

Sources: Feri, Bloomberg, NORD/LB Macro Research

### Interest and exchange rates, Britain

	09.11.	3M	6M	12M
Repo rate	5.25	5.25	5.25	5.25
3M rate	#NV	5.40	5.40	5.40
10Y	4.27	4.30	4.30	4.20
Spread 10Y Bund	163	160	170	170
EUR in GBP	0.87	0.87	0.87	0.86
GBP in USD	1.22	1.24	1.24	1.27

# Portfolio strategies

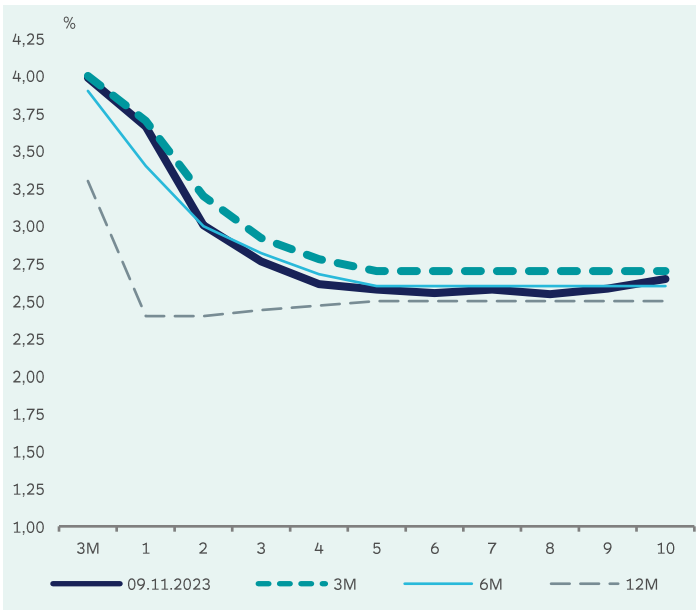
## Yield curve, Euroland

Yields and forecasts (Bunds/Swap)

	Yields (in %)	NORD/LB forecasts for horizons		
	09.11.2023	3M	6M	12M
3M	3.99	4.00	3.90	3.30
1Y	3.66	3.70	3.40	2.40
2Y	3.01	3.20	3.00	2.40
3Y	2.77	2.92	2.82	2.44
4Y	2.61	2.78	2.68	2.47
5Y	2.58	2.70	2.60	2.50
6Y	2.55	2.70	2.60	2.50
7Y	2.58	2.70	2.60	2.50
8Y	2.55	2.70	2.60	2.50
9Y	2.58	2.70	2.60	2.50
10Y	2.65	2.70	2.60	2.50
2Y (Swap)	3.52	3.80	3.60	2.95
5Y (Swap)	3.12	3.30	3.20	3.05
10Y (Swap)	3.14	3.30	3.20	3.05

Sources: Bloomberg, NORD/LB Macro Research

Yield curve forecasts (Bunds)



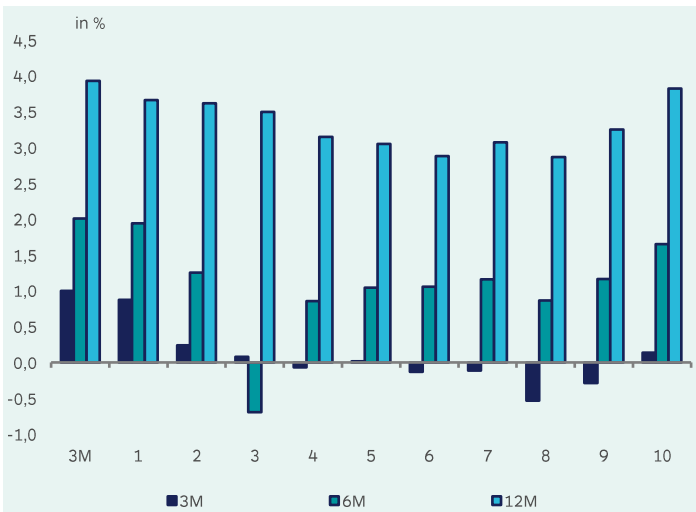
Sources: Bloomberg, NORD/LB Macro Research

Forecasts and total returns

	Total returns (in %) for horizons...		
	3M	6M	12M
3M	1.00	2.01	3.93
1Y	0.87	1.94	3.66
2Y	0.24	1.25	3.62
3Y	0.08	-0.69	3.50
4Y	-0.07	0.86	3.15
5Y	0.02	1.04	3.05
6Y	-0.13	1.06	2.88
7Y	-0.11	1.16	3.07
8Y	-0.53	0.87	2.87
9Y	-0.29	1.16	3.25
10Y	0.14	1.65	3.82

Sources: Bloomberg, NORD/LB Macro Research

Expected total returns



Sources: Bloomberg, NORD/LB Macro Research

A total return is the absolute profit from an investment in the time period under consideration, with account being taken of the pro-rata yields plus the price gains or losses to be anticipated on the basis of the forecast yield curve change.

# Portfolio strategies

## International yield curve: 3-month & 12-month horizons

### 3-month horizon

Expected total returns (as percentage) in euro					
	EUR	USD	GBP	JPY	CHF
1Y	0.9	0.1	1.4	6.8	0.8
2Y	0.2	-0.1	0.8	7.1	0.8
3Y	0.1	-0.2	0.1	7.2	0.7
4Y	-0.1	0.1	-0.9	7.4	0.9
5Y	0.0	0.4	-0.6	7.7	1.0
6Y	-0.1	-1.4	-1.1	7.7	1.1
7Y	-0.1	0.8	-1.3	8.1	1.1
8Y	-0.5	0.9	-0.4	8.2	1.4
9Y	-0.3	1.2	-0.2	8.2	1.6
10Y	0.1	1.4	1.0	7.9	1.7

Sources: Bloomberg, NORD/LB Macro Research

Expected total returns (as percentage) in national currencies				
	USD	GBP	JPY	CHF
1Y	1.3	1.1	-0.1	0.4
2Y	1.1	0.4	0.3	0.4
3Y	1.0	-0.2	0.3	0.4
4Y	1.3	-1.2	0.4	0.5
5Y	1.7	-0.9	0.8	0.7
6Y	-0.2	-1.4	0.7	0.7
7Y	2.0	-1.6	1.1	0.8
8Y	2.1	-0.7	1.2	1.1
9Y	2.5	-0.5	1.2	1.2
10Y	2.7	0.7	0.9	1.3

Sources: Bloomberg, NORD/LB Macro Research

### 12-month horizon

Expected total returns (as percentage) in euro					
	EUR	USD	GBP	JPY	CHF
1Y	3.7	3.1	6.5	15.3	0.9
2Y	3.6	3.1	5.8	15.5	0.8
3Y	3.5	3.9	5.8	15.9	0.8
4Y	3.1	4.8	4.9	16.2	0.8
5Y	3.0	5.8	5.4	16.5	0.6
6Y	2.9	4.3	5.0	16.5	0.3
7Y	3.1	7.1	4.6	16.8	0.1
8Y	2.9	7.4	5.4	16.8	0.2
9Y	3.3	8.1	5.4	16.6	0.0
10Y	3.8	8.4	6.4	16.0	0.0

Sources: Bloomberg, NORD/LB Macro Research

Expected total returns (as percentage) in national currencies				
	USD	GBP	JPY	CHF
1Y	5.3	5.0	-0.1	1.6
2Y	5.3	4.3	0.2	1.5
3Y	6.2	4.2	0.5	1.5
4Y	7.1	3.4	0.7	1.5
5Y	8.1	3.8	1.1	1.3
6Y	6.6	3.4	1.0	1.0
7Y	9.4	3.1	1.3	0.8
8Y	9.8	3.9	1.3	0.9
9Y	10.5	3.8	1.1	0.7
10Y	10.8	4.8	0.6	0.7

Sources: Bloomberg, NORD/LB Macro Research

A total return is the absolute profit from an investment in the time period under consideration, with account being taken of the pro-rata yields plus the price gains or losses to be anticipated on the basis of the forecast yield curve and exchange rate change.



# Portfolio strategies

## Stock market strategy; 3-month, 6-month & 12-month horizons

Levels and performance

Index	Level as at	Status		Performance since	
	09.11.2023	Prev. month	Start of year	Prev. month	Start of year
DAX	15,352.54	14,810.34	13,923.59	3.66%	10.26%
MDAX	25,819.66	24,040.19	25,117.57	7.40%	2.80%
EuroSTOXX50	4,229.20	4,061.12	3,793.62	4.14%	11.48%
STOXX50	3,907.03	3,811.86	3,651.83	2.50%	6.99%
STOXX600	447.80	433.66	424.89	3.26%	5.39%
Dow Jones	33,891.94	33,052.87	33,147.25	3.21%	2.91%
S&P 500	4,347.35	4,193.80	3,839.50	4.51%	14.15%
Nikkei	32,646.46	30,858.85	26,094.50	5.79%	25.11%

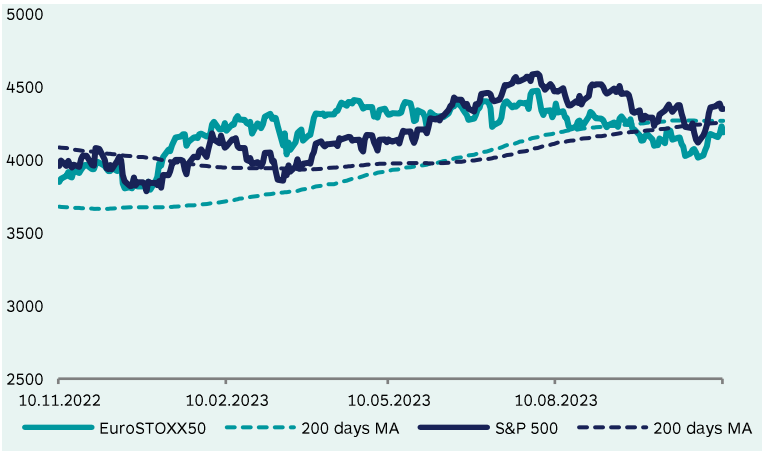
Sources: Bloomberg, NORD/LB Macro Research

Index forecasts

Index	NORD/LB forecast for horizons ...		
	3M	6M	12M
DAX	15,950	16,500	17,000
MDAX	28,000	28,900	30,000
EuroSTOXX50	4,350	4,500	4,650
STOXX50	3,900	4,000	4,300
STOXX600	450	470	480
Dow Jones	34,000	35,000	37,000
S&P 500	4,350	4,440	4,600
Nikkei	33,000	33,500	34,000

Sources: Bloomberg, NORD/LB Macro Research

EuroSTOXX50 and S&P500



Sources: Bloomberg, NORD/LB Macro Research

Date of going to press for data, forecasts and texts was Friday, 10 November 2023.

The next English issue of Economic Adviser will be appearing on 18 December 2023.

# Overview of forecasts

## Fundamental forecasts

in %	GDP growth			Rate of inflation			Unemployment rate <sup>1</sup>			Budgetary balance <sup>2</sup>		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
USA	1.9	2.3	1.4	8.0	4.2	2.9	3.6	3.8	4.0	-4.2	-3.7	-3.7
Euroland	3.4	0.5	0.9	8.4	5.5	2.4	6.7	6.5	6.7	-3.6	-3.4	-2.7
Germany	1.8	-0.4	0.8	8.7	6.1	2.6	5.3	5.7	5.7	-2.5	-2.8	-2.3
Japan	1.0	2.2	1.0	2.5	3.1	1.9	2.6	2.6	2.5	-5.9	-5.5	-4.0
Britain	4.3	0.4	0.4	9.1	7.4	3.1	3.7	4.2	4.7	-5.2	-5.1	-3.5
Switzerland	2.4	1.2	1.0	2.8	2.2	1.8	2.2	2.0	2.2	1.0	0.4	0.6
China	3.0	4.5	4.5	1.9	1.8	2.0	4.0	5.0	4.9	-7.5	-4.2	-3.7

Change vs previous year as percentage; <sup>1</sup> as percentage of the labour force (Germany: as per Federal Employment Office definition); <sup>2</sup> as percentage of GDP  
Sources: Feri, NORD/LB Macro Research

## Key interest rates

In %	09.11.23	3M	6M	12M
USD	5.50	5.50	5.50	5.25
EUR	4.50	4.50	4.50	3.75
JPY	-0.10	-0.10	-0.10	-0.10
GBP	5.25	5.25	5.25	5.25
CHF	1.75	1.75	1.75	1.75
CNY	1.50	1.50	1.50	1.50

Sources: Bloomberg, NORD/LB Macro Research

## Exchange rates

EUR in...	09.11.23	3M	6M	12M
USD	1.07	1.08	1.08	1.09
JPY	161	151	146	140
GBP	0.87	0.87	0.87	0.86
CHF	0.96	0.96	0.97	0.97
CNY	7.79	7.78	7.67	7.63

## Interest rates (government bonds)

	3M rates				Yields 2Y				Yields 5Y				Yields 10Y			
	09.11.	3M	6M	12M	09.11.	3M	6M	12M	09.11.	3M	6M	12M	09.11.	3M	6M	12M
USD	5.37	5.35	5.30	5.00	5.02	4.90	4.60	3.90	4.64	4.40	4.10	3.60	4.62	4.30	4.10	3.70
EUR	3.99	4.00	3.90	3.30	3.01	3.20	3.00	2.40	2.58	2.70	2.60	2.50	2.65	2.70	2.60	2.50
JPY	0.07	0.05	0.05	0.10	0.08	0.00	0.00	0.00	0.40	0.30	0.30	0.38	0.84	0.80	0.80	1.00
GBP	#NV	5.40	5.40	5.40	4.62	5.00	4.90	4.50	4.25	4.74	4.68	4.39	4.27	4.30	4.30	4.20
CHF	1.70	1.75	1.75	1.70	1.30	1.20	1.20	1.00	1.07	1.00	1.00	1.10	1.07	1.00	1.00	1.20

Sources: Bloomberg, NORD/LB Macro Research

## Spreads (bp)

	3M EURIBOR				2Y Bunds				5Y Bunds				10Y Bunds			
	09.11.	3M	6M	12M	09.11.	3M	6M	12M	09.11.	3M	6M	12M	09.11.	3M	6M	12M
USD	138	135	140	170	201	170	160	150	206	170	150	110	198	160	150	120
JPY	-392	-395	-385	-320	-292	-320	-300	-240	-218	-240	-230	-213	-181	-190	-180	-150
GBP	#NV	140	150	210	161	180	190	210	168	204	208	189	163	160	170	170
CHF	-228	-225	-215	-160	-171	-200	-180	-140	-151	-170	-160	-140	-158	-170	-160	-130

Sources: Bloomberg, NORD/LB Macro Research

## Annex



### **Contacts at NORD/LB**

Dr. Martina Noss  
Head of Research  
+49 172 512 2742  
martina.noss@nordlb.de



Christian Lips  
Chief Economist  
Head of Macro Research  
+49 172 735 1531  
christian.lips@nordlb.de



Tobias Basse  
Macro Research  
+49 511 361-2722  
tobias.basse@nordlb.de



Bernd Krampen  
Macro Research  
+49 162 103 1939  
bernd.krampen@nordlb.de



Christian Reuter  
Macro Research  
+49 152 0412 9316  
christian.reuter@nordlb.de



Valentin Jansen  
Macro Research  
+49 157 8516 7232  
valentin.jansen@nordlb.de



Constantin Lürer  
Macro Research  
+49 157 8516 4838  
constantin.lueer@nordlb.de

## **Further contacts**

### **Sales**

Institutional Sales  
+49 511 9818-9440

Sales Sparkassen &  
Regional Banks  
+49 511 9818-9400

Sales MM/FX  
+49 511 9818-9460

Sales Europe  
+352 452211-515

Sales Asia  
+65 64 203136

### **Origination & Syndicate**

Origination FI  
+49 511 9818-6600

Origination Corporates  
+49 511 361-2911

### **Treasury**

Liquidity Management  
+49 511 9818-9620  
+49 511 9818-9650

### **Trading**

Covereds/SSA  
+49 511 9818-8040

Financials  
+49 511 9818-9490

Governments  
+49 511 9818-9660

Federal States/Regions  
+49 511 9818-9550

Frequent Issuers  
+49 511 9818-9640

### **Sales Wholesale Customers**

Corporate Customers  
+49 511 361-4003

Asset Finance  
+49 511 361-8150

# Disclaimer/Additional Information

This Information report (hereinafter the „Material“) was drawn up by NORDDEUTSCHE LANDESBANK GIROZENTRALE („NORD/LB“). The supervisory authorities in charge of NORD/LB are the European Central Bank („ECB“), Sonnemannstraße 20, D-60314 Frankfurt am Main, and the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht - „BaFin“), Graurheindorfer Str. 108, D-53117 Bonn, and Marie-Curie-Str. 24-28, D-60439 Frankfurt am Main. Details about the extent of NORD/LB's regulation by the respective authorities are available on request. Generally, this Material or the products or services described therein have not been reviewed or approved by the competent supervisory authority.

This Material is addressed exclusively to recipients in Australia, Austria, Belgium, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Indonesia, Ireland, Italy, Korea, Luxembourg, the Netherlands, New Zealand, Poland, Portugal, Singapore, Spain, Sweden, Switzerland, the Republic of China (Taiwan), Thailand, the United Kingdom and Vietnam (hereinafter the „Relevant Persons“ or „Recipients“). The contents of this Material are disclosed to the Recipients on a strictly confidential basis and, by accepting this Material, the Recipients agree that they will not forward to third parties, copy in whole or in part or translate into other languages, and/or reproduce this Material without NORD/LB's prior written consent. This Material is only addressed to the Relevant Persons and any persons other than the Relevant Persons must not rely on the information in this Material. In particular, neither this Material nor any copy thereof must be forwarded or transmitted to Japan or the United States of America or its territories or possessions or distributed to any employees or affiliates of Recipients resident in these jurisdictions.

This Material is not an investment recommendation/investment strategy recommendation, but customer information solely intended for general information purposes. For this reason, this Material has not been drawn up in consideration of all statutory requirements with regard to the impartiality of investment recommendations/investment strategy recommendations. Furthermore, this Material is not subject to the prohibition of trading before the publication of investment recommendations/investment strategy recommendations.

This Material and the information contained herein have been compiled and are provided exclusively for information purposes. This Material is not intended as an investment incentive. It is provided for the Recipient's personal information, subject to the express understanding, which is acknowledged by the Recipient, that it does not constitute any direct or indirect offer, recommendation, solicitation to purchase, hold or sell or to subscribe for or acquire any securities or other financial instruments nor any measure by which financial instruments might be offered or sold.

All actual details, information and statements contained herein were derived from sources considered reliable by NORD/LB. For the preparation of this Material NORD/LB uses issuer-specific financial data providers, own estimates, company information and public media. However, since these sources are not verified independently, NORD/LB cannot give any assurance as to or assume responsibility for the accuracy and completeness of the information contained herein. The opinions and prognoses given herein on the basis of these sources constitute a non-binding evaluation of NORD/LB. Any changes in the underlying premises may have a material impact on the developments described herein. Neither NORD/LB nor its governing bodies or employees can give any assurance as to or assume any responsibility or liability for the accuracy, adequacy and completeness of this Material or any loss of return, any indirect, consequential or other damage which may be suffered by persons relying on the information or any statements or opinions set forth in this Material (irrespective of whether such losses are incurred due to any negligence on the part of these persons or otherwise).

Past performances are not a reliable indicator of future performances. Exchange rates, price fluctuations of the financial instruments and similar factors may have a negative impact on the value and price of and return on the financial instruments referred to herein or any instruments linked thereto. In connection with securities (purchase, sell, custody) fees and commissions apply, which reduce the return on investment. An evaluation made on the basis of the historical performance of any security does not necessarily give an indication of its future performance.

This Material neither constitutes any investment, legal, accounting or tax advice nor any representation that an investment or strategy is suitable or appropriate in the light of the Recipient's individual circumstances, and nothing in this Material constitutes a personal recommendation to the Recipient thereof. The securities or other financial instruments referred to herein may not be suitable for the Recipient's personal investment strategies and objectives, financial situation or individual needs.

Also this Material as a whole or any part thereof is not a sales or other prospectus. Correspondingly, the information contained herein merely constitutes an overview and does not form the basis for an investor's potential decision to buy or sell. A full description of the details relating to the financial instruments or transactions which may relate to the subject matter of this Material is set forth in the relevant (financing) documentation. To the extent that the financial instruments described herein are NORD/LB's own issues and subject to the requirement to publish a prospectus, the conditions of issue applicable to any individual financial instrument and the relevant prospectus published with respect thereto as well NORD/LB's relevant registration form, all of which are available for downloading at [www.nordlb.de](http://www.nordlb.de) and may be obtained, free of charge, from NORD/LB, Friedrichswall 10, 30159 Hanover, shall be solely binding. Any potential investment decision should at any rate be made exclusively on the basis of such (financing) documentation. This Material cannot replace personal advice. Before making an investment decision, each Recipient should consult an independent investment adviser for individual investment advice with respect to the appropriateness of an investment in financial instruments or investment strategies as contemplated herein as well as for other and more recent information on certain investment opportunities.

Each of the financial instruments referred to herein may involve substantial risks, including capital, interest, index, currency and credit risks, political, fair value, commodity and market risks. The financial instruments could experience a sudden substantial deterioration in value, including a total loss of the capital invested. Each transaction should only be entered into on the basis of the relevant investor's assessment of its individual financial situation as well as of the suitability and risks of the investment.

NORD/LB and its affiliates may, for their own account or for the account of third parties, participate in transactions involving the financial instruments described herein or any underlying assets, issue further financial instruments having terms that are the same as or similar to those governing the financial instruments referred to herein as well as enter into transactions to hedge positions. Such actions may affect the price of the financial instruments described in this Material.

To the extent the financial instruments referred to herein are derivatives, they may involve an initial negative market value from the customer's point of view, depending on the terms and conditions prevailing as of the transaction date. Furthermore, NORD/LB reserves the right to pass on its economic risk from any derivative transaction it has entered into to third parties in the market by way of a mirror image counter-transaction.

Further information on any fees which may be included in the sales price is set forth in the brochure „Customer Information Relating to Securities Transactions“ which is available at [www.nordlb.de](http://www.nordlb.de).

The information set forth in this Material shall supersede all previous versions of any relevant Material and refer exclusively to the date as of which this Material has been drawn up. Any future versions of this Material shall supersede this present version. NORD/LB shall not be under any obligation to update and/or review this Material at regular intervals. Therefore, no assurance can be given as to its currentness and continued accuracy.

By making use of this Material, the Recipient shall accept the foregoing terms and conditions.

NORD/LB is a member of the protection scheme of Deutsche Sparkassen-Finanzgruppe. Further information for the Recipient is set forth in clause 28 of the General Terms and Conditions of NORD/LB or at [www.dsgv.de/sicherungssystem](http://www.dsgv.de/sicherungssystem).

## Additional information for recipients in Australia

NORD/LB IS NOT A BANK OR AN AUTHORISED DEPOSIT TAKING INSTITUTION AUTHORISED UNDER THE BANKING ACT 1959 OF AUSTRALIA. IT IS NOT REGULATED BY THE AUSTRALIAN PRUDENTIAL REGULATION AUTHORITY.

NORD/LB is not providing personal advice with this Material, and has not considered one or more of the recipient's objectives, financial situation and need (other than for anti-money laundering purposes).

## Additional information for recipients in Austria

None of the information contained in this Material constitutes a solicitation or offer by NORD/LB or its affiliates to buy or sell any securities, futures, options or other financial instruments or to participate in any other strategy. Only the published prospectus pursuant to the Austrian Capital Market Act should be the basis for any investment decision of the Recipient.

For regulatory reasons, products mentioned in this Material may not be offered into Austria and are not available to investors in Austria. Therefore, NORD/LB might not be able to sell or issue these products, nor shall it accept any request to sell or issue these products, to investors located in Austria or to intermediaries acting on behalf of any such investors.

## Additional information for recipients in Belgium

Evaluations of individual financial instruments on the basis of past performance are not necessarily indicative of future results. It should be noted that the reported figures relate to past years.

## Additional information for recipients in Canada

This Material is a general discussion of the merits and risks of a security or securities only, and is not in any way meant to be tailored to the needs and circumstances of any Recipient.

## Additional information for recipients in Cyprus

This Material constitutes an analysis within the meaning of the definition section of the Cyprus Directive D1444-2007-01 (No 426/07). Furthermore, this material is provided for informational and advertising purposes only and does not constitute an invitation or offer to sell or buy or subscribe any investment product.

## Additional information for recipients in Czech Republic

There is no guarantee to get back the invested amount. Past performance is no guarantee of future results. The value of investments could go up and down. The information contained in this Material is provided on a non-reliance basis and its author does not accept any responsibility for its content in terms of correctness, accuracy or otherwise.

## Additional information for recipients in Denmark

This Material does not constitute a prospectus under Danish securities law and consequently is not required to be nor has been filed with or approved by the Danish Financial Supervisory Authority as this Material either (i) has not been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market within the meaning of the Danish Securities Trading Act or any executive orders issued pursuant thereto, or (ii) has been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market in reliance on one or more of the exemptions from the requirement to prepare and publish a prospectus in the Danish Securities Trading Act or any executive orders issued pursuant thereto.

## Additional information for recipients in Estonia

It is advisable to examine all the terms and conditions of the services provided by NORD/LB. If necessary, Recipient of this Material should consult with an expert.

## Additional information for recipients in Finland

The financial products described in this Material may not be offered or sold, directly or indirectly, to any resident of the Republic of Finland or in the Republic of Finland, except pursuant to applicable Finnish laws and regulations. Specifically, in the case of shares, those shares may not be offered or sold, directly or indirectly, to the public in the Republic of Finland as defined in the Finnish Securities Market Act (746/2012, as amended). The value of investments may go up or down. There is no guarantee to get back the invested amount. Past performance is no guarantee of future results.

## Additional information for recipients in France

NORD/LB is partially regulated by the Autorité des Marchés Financiers for the conduct of French business. Details about the extent of our regulation by the respective authorities are available from us on request.

This Material constitutes an analysis within the meaning of Article 24(1) Directive 2006/73/EC, Article L544-1 and R.621-30-1 of the French Monetary and Financial Code and does qualify as recommendation under Directive 2003/6/EC and Directive 2003/125/EC.

**Additional information for recipients in Greece**

The information herein contained describes the view of the author at the time of its publication and it must not be used by its Recipient unless having first confirmed that it remains accurate and up to date at the time of its use.

Past performance, simulations or forecasts are therefore not a reliable indicator of future results. Mutual funds have no guaranteed performance and past returns do not guarantee future performance.

**Additional information for recipients in Indonesia**

This Material contains generic information and has not been tailored to certain Recipient's specific circumstances. This Material is part of NORD/LB's marketing materials.

**Additional information for recipients in Ireland**

This Material has not been prepared in accordance with Directive 2003/71/EC, as amended, on prospectuses (the "Prospectus Directive") or any measures made under the Prospectus Directive or the laws of any Member State or EEA treaty adherent state that implement the Prospectus Directive or those measures and therefore may not contain all the information required where a document is prepared pursuant to the Prospectus Directive or those laws.

**Additional information for recipients in Japan**

This Material is provided for information purposes only and it is not intended to solicit any orders for securities transactions or commodities futures contracts. While we believe that the data and information contained in this Material is obtained from reliable sources, we do not guarantee the accuracy or completeness of the data and information.

**Additional information for recipients in Korea**

This Material has been provided to you without charge for your convenience only. All information contained in this Material is factual information and does not reflect any opinion or judgement of NORD/LB. The information contained in this Material should not be construed as an offer, marketing, solicitation or investment advice with respect to financial investment products in this Material.

**Additional information for recipients in Luxembourg**

Under no circumstances shall this Material constitute an offer to sell, or issue or the solicitation of an offer to buy or subscribe for Products or Services in Luxembourg.

**Additional information for recipients in New Zealand**

NORD/LB is not a registered Bank in New Zealand. This Material is general information only. It does not take into account your financial situation or goals and is not a personalized financial adviser service under the Financial Advisers Act 2008.

**Additional information for recipients in Netherlands**

The value of your investments may fluctuate. Results achieved in the past do not offer any guarantee for the future (De waarde van uw belegging kan fluctueren. In het verleden behaalde resultaten bieden geen garantie voor de toekomst).

**Additional information for recipients in Poland**

This Material does not constitute a recommendation within the meaning of the Regulation of the Polish Minister of Finance Regarding Information Constituting Recommendations Concerning Financial Instruments or Issuers thereof dated 19 October 2005.

**Additional information for recipients in Portugal**

This Material is intended only for institutional clients and may not be (i) used by, (ii) copied by any means or (iii) distributed to any other kind of investor, in particular not to retail clients. This Material does not constitute or form part of an offer to buy or sell any of the securities covered by the report nor can be understood as a request to buy or sell securities where that practice may be deemed unlawful. This Material is based on information obtained from sources which we believe to be reliable, but is not guaranteed as to accuracy or completeness. Unless otherwise stated, all views herein contained are solely expression of our research and analysis and subject to change without notice.

**Additional information for recipients in Singapore**

This Material is intended only for Accredited Investors or Institutional Investors as defined under the Securities and Futures Act in Singapore. If you have any queries, please contact your respective financial adviser in Singapore.

This Material is intended for general circulation only. It does not constitute investment recommendation and does not take into account the specific investment objectives, financial situation or particular needs of the Recipient.

Advice should be sought from a financial adviser regarding the suitability of the investment product, taking into account the specific investment objectives, financial situation or particular needs of the Recipient, before the Recipient makes a commitment to purchase the investment product.

**Additional information for recipients in Sweden**

This Material does not constitute or form part of, and should not be construed as a prospectus or offering memorandum or an offer or invitation to acquire, sell, subscribe for or otherwise trade in shares, subscription rights or other securities nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. This Material has not been approved by any regulatory authority. Any offer of securities will only be made pursuant to an applicable prospectus exemption under EC Prospectus Directive, and no offer of securities is being directed to any person or investor in any jurisdiction where such action is wholly or partially subject to legal restrictions or where such action would require additional prospectuses, other offer documentation, registrations or other actions.

**Additional information for recipients in Switzerland**

This Material has not been approved by the Federal Banking Commission (merged into the Swiss Financial Market Supervisory Authority "FINMA" on 1 January 2009).

NORD/LB will comply with the Directives of the Swiss Bankers Association on the Independence of Financial Research, as amended.

This Material does not constitute an issuing prospectus pursuant to article 652a or article 1156 of the Swiss Code of Obligations. This Material is published solely for the purpose of information on the products mentioned in this advertisement. The products do not qualify as units of a collective investment scheme pursuant to the Federal Act on Collective Investment Schemes (CISA) and are therefore not subject to the supervision by the Swiss Financial Market Supervisory Authority (FINMA).

**Additional information for recipients in the Republic of China (Taiwan)**

This Material is provided for general information only and does not take into account any investor's particular needs, financial status, or investment objectives. Nothing in this Material should be construed as a recommendation or advice for you to subscribe to a particular investment product. You should not rely solely on the Material provided when making your investment decisions. When considering any investment, you should endeavour to make your own independent assessment and determination on whether the investment is suitable for your needs and seek your own professional financial and legal advice.

NORD/LB has taken all reasonable care in producing this Material and trusts that the information is reliable and suitable for your situation at the date of publication or delivery, but no representation or warranty of accuracy or completeness is given. To the extent that NORD/LB has exercised the due care of a good administrator, we accept no responsibility for any errors, omissions, or misstatements in this Material. NORD/LB does not guarantee any investment results and does not guarantee that the strategies employed will improve investment performance or achieve your investment objectives.

**Additional information for recipients in the UK**

NORD/LB is subject to limited regulation by the Financial Conduct Authority ("FCA") and the Prudential Regulation Authority ("PRA"). Details about the extent of our regulation by the FCA and PRA are available from NORD/LB on request.

This Material is a financial promotion. Relevant Persons in the UK should contact NORD/LB's London Branch, Investment Banking Department, Telephone: 0044 / 2079725400 with any queries.

Investing in financial instruments referred to in this Material may expose an investor to a significant risk of losing all of the amount invested.

**Time of going to press:**

Monday, 13 November 2023 1:57 PM CET