

Economic Adviser

Macro Research

Contents

Special: The US bond market and the international interest rate correlation	2
USA: Consumers remain a reliable mainstay of the economy	4
Euroland: Economy picks up in Q2 – ECB declines taper debate (as yet)	6
Germany: Into recovery mode after GDP drop in Q1 – accelerated vaccination rate in April	8
Switzerland: Economic recovery to pick up pace in summer	10
Japan: Covid-19 remains in focus	11
China: Ongoing growth with slight slowdown in momentum	12
Britain: Successful vaccination campaign spurs economic recovery	13
Canada: BoC tapers its QE programme	14
Australia: The growth trend continues	15
Portfolio strategies: Yield curve, Euroland	16
Portfolio strategies: International yield curve – 3-month & 12-month horizons	17
Portfolio strategies: Stock market strategy; 3-month, 6-month & 12-month horizons	18
Overview of forecasts	19
Contacts at NORD/LB	20
Important information	22

Special

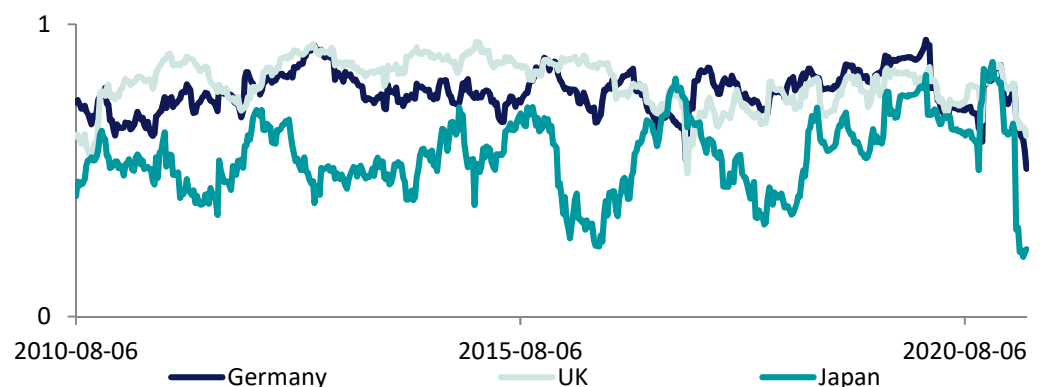
The US bond market and the international interest rate correlation

Analysts: Tobias Basse // Bernd Krampen

Rise in US long-term interest rates stopped for the time being

The data on the US economy released in recent weeks have been highly positive in the main. Besides the regional sentiment indicators – the Philadelphia Index, for example, rose to a pleasing 50.2 points in April – the figures on the development of retail sales are particularly worthy of note. In March as month under review, this time series registered highly impressive month-on-month growth of 9.8 percent. Announced at the same time, the slight upward revision of February's data is of course more of a side note against the background of this positive development, but is certainly still to be seen as positive and indeed puts the March data in an even brighter light. Consumption in the United States thus undoubtedly remains a mainstay of the North American economy's recovery. The US economy is thus on the verge of a veritable boom. The important NAHB index, too, has registered a further increase of late, which can clearly be taken as a positive signal for the US real estate market, at least in the short term. The data likewise recently published on the development of US industrial output could have been a bit more positive, but still revealed a month-on-month growth figure for March of 1.4 percent for this time series. Up-to-date figures on US consumer prices were also published, showing an annualized growth rate of 2.6 percent in March as month under review. The increase thus slightly exceeded the expectations of the market participants. The all in all positive economic data and the rise in inflation have not allowed the US government bond yields to rise any further, however. Indeed, the yield on the 10-year variety actually moved slightly away from the psychologically important 1.70 percent mark after the publication of the data. This development comes as no complete surprise: investors had expected positive news on the state of the economy and an increase in inflation. In the next days financial markets ought to be particularly interested in the outcome of the upcoming FOMC meeting. While wishing to record that the US economy is doing well, they will likely want to try not to send out any signals that could help make for higher bond yields in the USA.

Chart: Correlations among interest rates (in each case 10Y government bond yields to US securities)



Sources: Bloomberg, NORD/LB Macro Research

The international interest rate correlation

In the absence of corresponding impetus from the USA bond market there has been no further upward movement in the bond yields in Euroland either of late. The developments in the North American fixed income sector are beyond any doubt still of considerable relevance for the market events in Euroland. As is well known, the so-called international interest rate correlation assumes a close relationship between the returns in the various economically relevant nations around the world since debtors can obtain new financial resources at home or abroad. The exchange rate and the respective monetary policy in the corresponding currency areas naturally play a role as well in this context. The relationships among interest rates can be analysed empirically using rolling correlation coefficients, for example. We examine government bond yields in the 10-year maturity range and, in addition to the “benchmark” USA, focus on the three important countries Germany, the United Kingdom and Japan. We use weekly data (in each case 30 historical data points) in doing so, and consider first differences (i.e. changes in basis points). The results, as presented in the chart on page 2, show that the correlation between the changes in bond yields in the USA and Germany has recently decreased significantly. While continuing to clearly take a positive value, it now only stands in the range of 0.5 and, moreover, has recently fallen appreciably below the rolling correlation coefficient between British yields and the US rates. This result shows a less marked degree of parallelism between the two time series and is likely to be primarily a consequence of the recent sharp rise in interest rates in the land of unlimited opportunity. The correlation between the changes in yields in Japan and the USA is in the meantime rather to be found just above the zero line – so the two time series are in fact to be seen as not correlated. It should be borne in mind that the rolling correlation coefficient between the changes in capital market rates in both currency areas has always assumed comparatively low values over the entire period under review. This is likely at least a result of the activities of the Bank of Japan, which has been pursuing an extremely expansionary monetary policy for some time now. In any case, the results presented here (especially as regards Japan) suggest that central banks must play an important role in the analysis of the international interest rate correlation. This can then be of very considerable relevance, for example, if the Fed starts to orient its monetary policy more restrictively in the future while the ECB then hesitates even further for the moment.

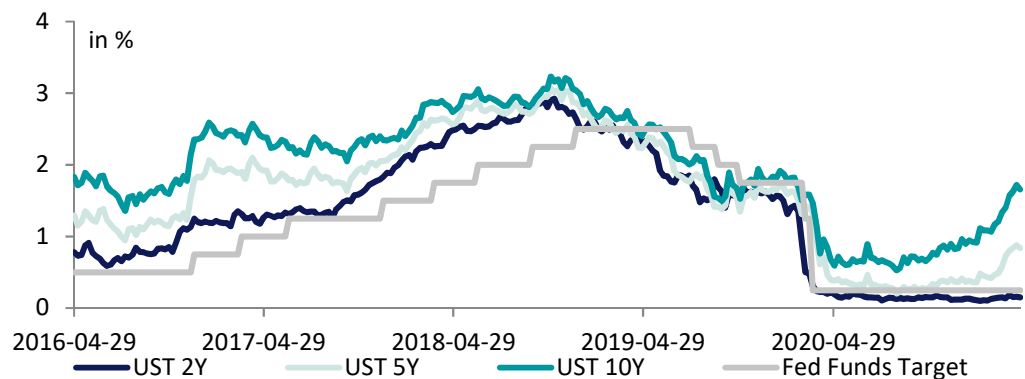
USA

Consumers remain a reliable mainstay of the economy

Analysts: Tobias Basse // Bernd Krampen

Consumers remain a reliable mainstay of the economy

After the weaker figures on retail sales in February, March has seen a veritable consumer frenzy again. The surprise in this context lies not in the direction of the movement but “merely” in its extent, with an impressive month-on-month increase of 9.8 percent reported for March. These figures are still provisional. Revisions are admittedly possible, but will hardly change the fundamental picture of the situation. Moreover, adjustments are possible in both directions – up or down. Indeed, the slight upward revision in the meantime carried out on February’s data makes the current upward trend look even more pleasing. And so the US consumer party goes on. Interestingly, what already in January was a marked increase was actually outshone by the developments in March. The retail sales control group – which is of core relevance for the GDP survey – admittedly rose by “just” 6.9 percent mom in March as month under review, which, in view of the movement in the headline time series, can almost be described as a rather unwelcome surprise, but this report certainly ought not to be rated negatively. In any event, the consumer remains an extremely reliable mainstay of the US economy, against which background we can expect pleasing data on real economic growth in the first quarter of 2021.

Chart: Interest rates in the USA

Sources: Bloomberg, NORD/LB Macro Research

Waiting for the FOMC

The markets are not reckoning on the forthcoming FOMC meeting making for any major news flow. The Federal Reserve undoubtedly intends to bolster the North American economy with low key interest rates for as long as possible. However, rising inflation rates and falling unemployment can be expected to trigger increasingly critical discussions among the central bankers as to when and how a slow and careful normalization of US monetary policy can be initiated. The unemployment rate, which is of particularly importance for the Fed, fell to just 6.0 percent in March in the widely watched U3 definition. In this context it should be borne in mind that the lacking availability of qualified personnel has appreciably slowed the creation of new jobs of late. The feedback from the Institute for Supply Management’s company surveys, for example, has recently delivered very clear indications in this direction. Attention now needs to be paid to the signals from the Fed, though no really unambiguous

indications of any imminent tightening of the central bank's monetary policy is likely for the time being, seeing as the central bankers are probably happy that the upward trend in the US capital market rates has come to an end for the moment. The Fed therefore has no interest in already sending out any signals in the very near term which could then send the bond yields shooting back up again.

US dollar likely to only briefly remain under pressure

The US currency has found itself under pressure again of late, with the mark of USD 1.20/EUR coming into focus in this context. For now, however, the US interest rates, which are still relatively high, are an aspect in favour of the greenback. The increasingly emergent positive development of the US economy should also be able to help the dollar in the coming 3 months.

Fundamental forecasts, USA

	2020	2021	2022
GDP	-3.5	5.6	3.0
Private consumption	-3.9	5.2	2.5
Govt. consumption	0.3	2.2	1.5
Fixed investment	-0.8	9.5	7.0
Exports	-12.9	8.0	5.0
Imports	-9.3	6.0	5.0
Inflation	1.2	2.9	2.5
Unemployment rate ¹	8.1	6.0	5.0
Budget balance ²	-15.4	-11.2	-7.0
Current acc. balance ²	-3.1	-2.6	-2.6

Change vs previous year as percentage; ¹ as percentage of the labour force; ² as percentage of GDP

Sources: Feri, NORD/LB Macro Research

Quarterly forecasts, USA

	II/20	III/20	IV/20	I/21	II/21
GDP qoq ann.	-31.4	33.4	4.3	5.7	7.4
GDP yoy	-9.0	-2.8	-2.4	0.2	12.1
Inflation yoy	0.4	1.2	1.2	1.9	3.6

Change as percentage

Sources: Feri, NORD/LB Macro Research

Interest and exchange rates, USA

	22.04.	3M	6M	12M
Fed funds target rate	0.25	0.25	0.25	0.25
3M rate	0.18	0.20	0.25	0.30
10Y Treasuries	1.54	1.55	1.65	1.85
Spread 10Y Bund	179	175	185	195
EUR in USD	1.20	1.17	1.17	1.16

Sources: Bloomberg, NORD/LB Macro Research

Euroland

Economy picks up in Q2 – ECB rejects taper debate (as yet)

Analyst: Christian Lips, Chief Economist

Economy shrinks anew in Q1 – leading indicators signal strong recovery

Q1 will likely have seen the eurozone's economic output shrink anew. Economic activity continued to be subdued by the high infection rates and voluntary and government-imposed restrictions on contact in most of the member states. These factors particularly impacted the hotel and hospitality industry, some service sectors, the stationary retail trade as well as art, cultural and educational institutions. The manufacturing sector continued its robust development, benefiting from the global economic recovery and rising foreign demand. However, the losses in value added in other areas of economic activity could not be fully compensated, especially as the at times unusually severe winter weather dampened construction output. With a forecasted quarter-on-quarter figure of -0.9 percent, real GDP will likely have shrunk as markedly as in Q4 2020. Progress on the vaccination front will allow gradual steps towards reopening the economy. Surveys are suggesting a strong recovery for spring and summer. At 53.7 points, the PMI Composite is well inside the expansion zone in April. The Economic Sentiment Indicator picked up particularly strongly in March (+7.6) and, at 101.0 points, is again above the long-term average.

ECB reaffirms March decisions – attentions already on the June meeting

As expected, the ECB made no adjustments to its monetary policy in April, leaving the key interest rates, the total volume and minimum term of the Pandemic Emergency Purchase Programme (PEPP), the parameters of the APP and the forward guidance unchanged. In its statement, the Governing Council reaffirmed the decisions taken at the March meeting, in particular with regard to the temporary acceleration of the PEPP bond purchases. The Council expects purchases under the PEPP to "continue to be conducted at a significantly higher pace" than during the first months of the year. Given the rather moderate acceleration last month, the formulation may come as a surprise. Temporarily lower net purchases were to be reckoned with over Easter, however. The Council intends to continue to make its purchases flexibly according to market conditions and with a view to preventing a premature tightening of financing conditions. The aim is to prevent developments that would be inconsistent with countering the "downward impact of the pandemic on the projected path of inflation". This affirms once again that the ECB will see through the temporary increase in inflation this year. In April, several Governing Council members had repeatedly stressed that in their view the pandemic is having a fundamentally disinflationary impact. ECB President Christine Lagarde reiterated at the press conference that the Council is closely monitoring the impact of exchange rate developments on the inflation outlook. In recent days, the EUR/USD exchange rate had again overstepped the mark of EUR 1.20. She added that the ECB still stands ready to adjust all its instruments as appropriate. This explicitly includes a further expansion of the PEPP, whereby the symmetry of possible adjustments in the future continues to be emphasized in the ECB statement. Ms Lagarde sees the near-term outlook as clouded by uncertainty, but, in light of the pandemic risks, this assessment comes as no great surprise either. The reactions in the financial markets were very subdued in view of the foreseeable results of the ECB meeting. The focus is already on the June meeting at which the PEPP purchase volume will also be reassessed.

Capital market rates likely to continue their upward trend – but "taper fear" premature

According to Lagarde, the possibility of a tapering of the PEPP was not discussed by the Council in April, and she described any discussion about the phasing out of the crisis instruments as "premature", adding that the ECB will not act in sync with the Fed either. Nevertheless, the question highlights a painful issue. The ECB will have to communicate a possible PEPP pace adjustment very carefully in order not to prematurely send a tapering signal to the markets – in particular against the background that the inflation rate will be significantly above 2 percent at times in the second half of 2021 and that the Fed will likely once again take its foot off the accelerator well ahead of the ECB. Given the short-term economic risks and high underutilization, we believe that a taper fear for the eurozone is unfounded. The ECB will not wish to tolerate a massive rise in interest rates, even if the economy improves significantly over the course of the year. That said, it is in the very nature of communication oriented far into the future that the ECB will very soon have to agree on an astute approach where crisis instruments are concerned. In an environment of significantly higher inflation, at least in the second half of the year, and a US economy that is more advanced in the recovery process, communication is likely to become a balancing act. To make matters worse, the strategic review has not yet been completed, as this makes additional areas of conflict between doves and hawks in the Council inevitable. It cannot be ruled out that the debates and compromises in respect of the strategic realignment will also influence the decision-making as regards the central bank's concrete monetary policy path. Against this background the months ahead promise to be exciting.

Fundamental forecasts, Euroland

	2020	2021	2022
GDP	-6.7	4.4	4.5
Private consumption	-8.0	3.0	4.9
Govt. consumption	1.2	3.8	1.2
Fixed investment	-8.4	7.3	6.1
Net exports ¹	-0.6	0.7	0.0
Inflation	0.3	1.7	1.3
Unemployment rate ²	8.0	8.2	7.8
Budget balance ³	-7.2	-7.5	-4.5
Current acc. balance ³	2.2	2.4	2.3

Change vs previous year as percentage; ¹ as contribution to GDP growth; ² as percentage of the labour force; ³ as percentage of GDP

Sources: Feri, NORD/LB Macro Research

Quarterly forecasts, Euroland

	II/20	III/20	IV/20	I/21	II/21
GDP sa qoq	-11.6	12.5	-0.7	-0.9	1.6
GDP sa yoy	-14.6	-4.2	-4.9	-2.0	12.5
Inflation yoy	0.2	0.0	-0.3	1.1	1.6

Change as percentage

Sources: Feri, NORD/LB Macro Research

Interest rates, Euroland

	22.04.	3M	6M	12M
Repo rate ECB	0.00	0.00	0.00	0.00
3M rate	-0.54	-0.52	-0.51	-0.48
10Y Bund	-0.25	-0.20	-0.20	-0.10

Sources: Bloomberg, NORD/LB Macro Research

Germany

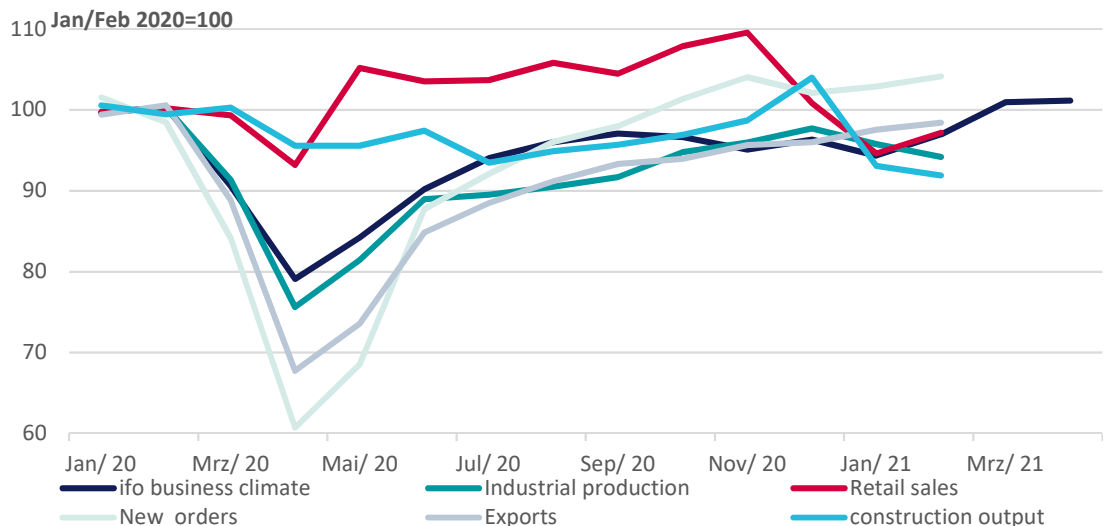
Into recovery mode after GDP drop in Q1 – accelerated vaccination rate

Analyst: Christian Lips, Chief Economist

Economic output in Q1 probably significantly lower than in the previous quarter

In contrast to Q4/2020, Germany's economic output contracted in Q1 this year. In the previous issues of the Economic Adviser we had already pointed out the various special factors that, in addition to the corona-induced measures, have had a temporary negative effect. The extremely weak retail sales figures registered in the first months of 2021 provide indication of the lockdown's impacts, though this setback is likely also attributable to pull-forward effects due to the reduced VAT rates that were in place until the end of the year. Above all the at times unusually adverse weather conditions were a millstone on construction output. The upshot was that construction output and retail sales in the first two months of the year were again well below their pre-crisis levels (see chart). On the other hand, the order situation for industry continued its upward trend, and this likely contributed to the significant upturn in sentiment. After a noticeable minus in Q1 we expect real GDP to register an equally appreciable rebound for the summer half-year. Our GDP forecast for 2021 stands at 3.2 percent, so the pre-crisis level ought to be reached again in early 2022.

Chart: Development of key economic indicators during the corona crisis



Sources: Bloomberg, NORD/LB Macro Research

Vaccination rate picks up significantly in April – sentiment indicators anticipate recovery

Risks in the form of a renewed escalation in infection rates are more of a short-term nature provided that, as planned, the vaccination campaign progresses a lot faster in the months ahead. The involvement of general practitioners appears to be starting to bear fruit, with the vaccination rate increasing significantly in April. Ultimately, however, the question as to when the economic recovery can really pick up pace also depends on the vaccination campaign's progress. We expect Q3 to see the most dynamic development, as the vaccination coverage likely achieved by then will enable steps towards the reopening of economic sectors that are currently on hold. Sentiment indicators and the financial markets are already

anticipating this recovery. April saw the ZEW economic expectations suffer a slight, unexpected setback, dropping somewhat from 76.6 to 70.7 balance points. At the same time, however, the assessment of the current situation across the economy improved significantly, from -61.0 to -48.8 balance points. The ZEW survey result is therefore on balance positive. The improvement in the situation assessment more than compensated for the decline in expectations. The slight drop in expectations ought not to be overinterpreted. Admittedly, uncertainties due to the development of the pandemic and new plans for a further lockdown extension cannot be ruled out at the present time, but whether these were really the reason must at least be questioned. The parallel improvement in the situation assessment would then at least be counterintuitive. It is more likely that the gradual recovery in the situation assessment after the difficult first quarter will now lead to slight technical corrections. At least in the past, this effect was to be seen time and time again in the ZEW survey – and it is not without reason that the ifo Institute additionally determines a climate index from both components in its survey. An analogously calculated “ZEW economic climate” results in a further increase for April as well. The vast majority of both financial market experts as well as companies – especially in industry – are continuing to look to the future with marked optimism. The developments on the stock markets likewise evidence the great optimism, with Germany's DAX index hitting a new all-time high of around 15,500 points in mid-April. The highly positive sentiment is being fuelled by robust industrial and foreign trade figures and ongoing supportive effects from monetary and fiscal policy. A great deal of optimism has already been priced in, however, so disappointments harbour a certain potential for setbacks. The most crucial determinant remains the further course of the pandemic, and in particular the vaccination campaign must be swiftly steered to success. Then, despite the third wave, GDP growth of 3.2 percent as forecast by our team for 2021 will be within reach.

Fundamental forecasts, Germany

	2020	2021	2022
GDP	-4.9	3.2	4.3
Private consumption	-6.1	1.3	6.9
Govt. consumption	3.3	2.1	1.3
Fixed investment	-3.1	2.6	5.7
Exports	-9.4	11.3	5.7
Imports	-8.5	7.8	8.5
Net exports ¹	-0.9	2.0	-0.8
Inflation ²	0.4	2.6	1.4
Unemployment rate ³	5.9	5.9	5.4
Budget balance ⁴	-4.2	-6.9	-2.5
Current acc. balance ⁴	6.8	6.9	6.5

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

Sources: Feri, NORD/LB Macro Research

Quarterly forecasts, Germany

	II/20	III/20	IV/20	I/21	II/21
GDP sa qoq	-9.7	8.5	0.3	-1.8	1.9
GDP nsa yoy	-11.3	-3.9	-2.7	-3.9	9.4
Inflation yoy	0.7	-0.2	-0.6	1.7	2.0

Change as percentage

Sources: Feri, NORD/LB Macro Research

Switzerland

Economic recovery to pick up pace in summer

Analyst: Christian Lips, Chief Economist

Signs point to recovery – Federal Council resolves easing despite rising infection rates

At present the signs in Switzerland are clearly pointing to recovery. March saw the KOF economic barometer literally leap to 117.8 points – its highest level since May 2010. Overall, the KOF forecasts a return to pre-crisis GDP as early as Q3 of this year. In calendar week 13 the SECO weekly economic activity index stood just 1 percent below the level registered in the fourth quarter of 2019. In the financial markets, too, the further course of economic development is being seen in an increasingly positive light with, for example, Switzerland's SMI blue-chip index just short of the all-time high of 11,270 points registered in February 2020. The reasons behind the Alpine republic's rapid economic recovery lie in the Federal Council's effective crisis management, the Covid resilience of Switzerland's key industries (pharmaceuticals and finance) as well as the undiminished attractiveness of Switzerland as a business location. Although four out of five self-selected criteria were not met, the Federal Council finally bowed to the pressure of the SVP party and business representatives and allowed extensive easing of the corona-induced restrictions as of 19.04.. These reopening measures will undoubtedly make for added momentum for the economy in the short term. However, there is also the risk of a renewed flare-up of the pandemic in this connection. We are maintaining our forecast that 2021 as a whole will see economic growth of 3.1 percent.

US Treasury Department removes Switzerland from list of currency manipulators

In the US Treasury's recent half-yearly report to Congress, it was noted, as already in December, that Switzerland meets all three currency manipulation criteria under a 2015 trade law. Nevertheless, no threat of sanctions was made as there had been under the Trump administration. On the contrary, Switzerland was removed from the list of currency manipulators because there was "insufficient evidence" of the country seeking to gain unfair advantage. Since the beginning of Joe Biden's presidency there has generally been a marked change in the attitude and tone of the US administration on bilateral and multilateral conflict issues. Moreover, the demand for the Swiss franc as a classic safe haven currency has also waned in the wake of globally receding uncertainty and growing optimism about the economy. This also reduces the pressure on the SNB for further massive FX interventions. The exchange rate has in the meantime settled above the mark of 1.10 EUR/CHF. Monetary policy remains expansionary, however, the key rates will remain at -0.75 percent for some time and the SNB will intervene on the FX market if necessary. Contributory factors hereto are the ECB's monetary policy stance and the low medium-term inflation expectations.

	Fundamental forecasts*, Switzerland			Interest and exchange rates, Switzerland				
	2020	2021	202**	22.04.	3M	6M	12M	
GDP	-2.9	3.1	3.4	SNB key rate	-0.75	-0.75	-0.75	-0.75
Inflation (CPI)	-0.7	0.2	0.5	3M rate	-0.75	-0.75	-0.75	-0.75
Unemployment rate ¹	3.1	3.5	3.3	10Y	-0.28	-0.30	-0.20	-0.10
Budget balance ²	-4.4	-2.2	-0.6	Spread 10Y Bund	-3	-10	0	0
Current acc. balance ²	4.1	7.0	7.5	EUR in CHF	1.10	1.11	1.12	1.11

* Change vs previous year as percentage; ¹ as percentage of the labour force; ² as percentage of GDP

Sources: Feri, Bloomberg, NORD/LB Macro Research

Japan

Covid-19 remains in focus

Analysts: Tobias Basse // Bernd Krampen

Waiting for the Bank of Japan

The financial markets are awaiting the outcome of the Bank of Japan's next meeting with great interest, although no adjustments are anticipated, at least as far as interest rate policy is concerned. The central bank in Tokyo will likely hold both the traditional key and the target yield on 10-year government bonds at their current levels. In the wake of their review of the BoJ's monetary policy framework in March, the central bankers can generally be expected to see little need for any greater changes elsewhere either. In view of recent remarks on Japanese economic policy from government circles, however, the central bank could well comment on the measures towards bolstering bank lending to the economy, which should then make for some movement in the financial markets. Moreover – as always – it will be very interesting to see how many dissenting opinions will go on record as regards an ongoing watch-and-wait stance on the part of the Japanese monetary policymakers. Any figure above 1 would certainly come as a considerable surprise for the interested observers at this point. In short, therefore, there is at least no great movement to be reckoned with at the BoJ.

Covid-19 remains in focus

Japan is again struggling with rising Covid-19 infection rates, in response to which new emergency regulations have already been put into force in a number of prefectures. Moreover, the government recently adopted additional fiscal support measures for the economy, among which the technical resources of the authorities are to be upgraded. In addition, high-ranking government representatives recently affirmed their commitment to enabling the Summer Olympics to take place, with the opening ceremony still scheduled to go ahead on 23 July. Overseas spectators will not be allowed into Japan to attend the Games, and no definitive decision has yet been taken as to whether domestic sports fans will be permitted into the events. We have pointed out on several occasions that the measures already adopted in the fight against the coronavirus will clearly curb the positive economic effects of what is probably the world's biggest sporting occasion. Moreover, leading members of the ruling party LDP have recently also emphasized that a cancellation of the Olympics must remain an option as well. In times of Corona, the Games are in any case more than disputed among the population.

Fundamental forecasts*, Japan

	2020	2021	2022
GDP	-4.8	2.9	2.0
Inflation	0.0	0.1	0.6
Unemployment rate ¹	2.8	3.0	2.8
Budget balance ²	-13.0	-8.0	-5.3
Current acc. balance ²	3.2	3.5	3.5

* Change vs previous year as percentage

Interest and exchange rates, Japan

	22.04.	3M	6M	12M
Key rate	-0.10	-0.10	-0.10	-0.10
3M rate	-0.07	0.05	0.05	0.10
10Y	0.07	0.10	0.15	0.20
Spread 10Y Bund	32	30	35	30
EUR in JPY	130	128	129	128
USD in JPY	108	109	110	110

¹ as percentage of the labour force; ² as percentage of GDP

Sources: Feri, Bloomberg, NORD/LB Macro Research

China

Ongoing growth with slight slowdown in momentum

Analysts: Tobias Basse // Bernd Krampen

GDP growth somewhat subdued in Q1/2021 due to New Year and normalization

Following China's GDP collapse in Q1/2020, the last quarters of the year were already marked by significant growth. This was no longer the case for Q1 of this year, however: the uptick of 0.6 percent qoq fell well short of expectations and was the second-lowest quarterly increase since 2011. This setback is only tempered somewhat by the upward revision of the previous month's level. In the meantime, higher infection rates and thus economic restrictions, especially during the Chinese New Year festivities in mid-February when more severe restrictions were placed on mobility, had had a detrimental impact. It is precisely this that is reflected in China's not exactly buoyant economic performance in Q1 as a whole. That said, the annualized rate literally skyrocketed to 18.3 percent - the highest since the 1990s. However, it should be borne in mind that China already experienced the GDP collapse in the first quarter of 2020 – at that time with a figure close on -10 percent qoq. This level now made itself felt in the statistics, and four successive qoq increases followed (with 10.1, 3.1, 3.2 and now 0.6 percent). It is thus evident that the pace of growth is slowly losing momentum and normalizing again. The phase of relatively straightforward upward countermovements is now likely to be superseded by qoq increases at a fairly constant rate of around 1.5 percent (equating to an annualized rate of about 6 percent). This trend by no means comes as a surprise: the corporate surveys polled by CFPL and Caixin had in the course of recent months intermittently registered predominantly slight downward movements but at all times remained above the mark of 50 points considered as expansion threshold. The indicators for March as month under review picked up again more clearly, with the CFLP Manufacturing PMI up from 50.6 to 51.9 points and the CFLP Services PMI from 51.4 to 56.3 points. In this respect the outlook has brightened again.

Fiscal and monetary policymakers not about to act – renminbi appreciates temporarily

Given the recoveries seen in the monthly data, the monetary and fiscal policymakers will remain in watch-and-wait mode. The key interest rates will remain unchanged for the time being, but monetary policy measures could be made somewhat less expansionary. The smouldering credit risks of state-owned enterprises remain an economic hazard. The renminbi came under some pressure due to the vaccination-related brightening of the situation in the USA but has recovered again of late, with the US dollar just above the CNY 6.50 mark. Over the next twelve months we expect a gradual appreciation of the US dollar in the wake of the US economy's dynamic recovery.

Fundamental forecasts*, China

	2020	2021	2022	Interest and exchange rates, China				
				22.04.	3M	6M	12M	
GDP	2.3	8.5	5.5	Deposit rate	1.50	1.50	1.50	1.50
Inflation	1.6	1.6	2.3	3M SHIBOR	2.60	2.80	2.90	2.90
Unemployment rate ¹	3.8	3.8	3.6	10Y	3.16	3.30	3.30	3.40
Budget balance ²	-11.4	-5.8	-4.3	Spread 10Y Bund	341	350	350	350
Current acc. balance ²	1.9	1.5	1.2	EUR in CNY	7.80	7.72	7.78	7.77
* Change vs previous year as percentage				USD in CNY	6.49	6.60	6.65	6.70

¹ as percentage of the labour force; ² as percentage of GDP

Sources: Feri, Bloomberg, NORD/LB Macro Research

Britain

Successful vaccination campaign spurs economic recovery

Analysts: Tobias Basse // Bernd Krampen

Successful vaccination campaign significantly brightens growth prospects

Britain is making good progress towards gradually vanquishing the third wave of the pandemic. The vaccination campaign was successful, with the infection rates falling massively in Q1 and the number of fatalities per day in the lower double-digit range of late. The government in London has in the meantime ushered in the third of four phases of easing the corona-induced restrictions: the opening of schools in March, the end of the “stay-at-home” order in late March and, most recently, the reopening of non-essential shops, leisure facilities and (outdoor) catering since 12 April. The mobility data accordingly took a significant upward curve. Following a slump in January, retail sales already picked up significantly in February and especially in March. Industrial output likewise got off to a weak start into 2021, but will likely continue recovering as well, against which background GDP could perhaps at best have stagnated in Q1. Britain was hit particularly hard by the pandemic a year ago, and at the end of 2020 registered GDP that was almost 10 percent down in year-on-year comparison. Still, the United Kingdom now appears to have good prospects for economic recovery, provided mistakes like those made in 2020 are not repeated. However, there are now also political risks to be contended with in the form of the parliamentary elections in Scotland on 6 May, which could point the way to a discussed referendum on independence, as well as the unrest in Northern Ireland.

BoE and gilt yields at turning point – pound in sideways movement of late

Just as the vaccination campaign was successful and the infection rates fell, the picture has changed on the British bond market as well: instead of speculation about a further interest rate cut by the BoE, the tide turned to the prospects of a less expansionary monetary policy. The yield on 10-year gilts rose to 0.80 percent within weeks, and it is conceivable that at its next monetary policy meeting in May the Bank of England will address the possibility of a tapering. However, we do not expect that to be done before the coming autumn, and are reckoning with an initial rate hike in 2023. In contrast to the situation in the USA, the BoE has no discussion to conduct on an increase in inflation, the rate of which currently stands at 0.7 percent. After a prolonged phase of appreciation against the euro, the pound lost significantly in value at the beginning of April. The topics of Scotland, Northern Ireland, but also the vaccination catch-up process in Euroland, were contributory factors in this context. We see the prospect of the pound weakening somewhat again.

Fundamental forecasts*, Britain

	2020	2021	2022	Interest and exchange rates, Britain				
				22.04.	3M	6M	12M	
GDP	-9.8	5.4	5.5	Repo rate	0.10	0.10	0.10	0.10
Inflation (CPI)	0.9	1.5	1.9	3M	0.09	0.10	0.10	0.10
Unemployment rate ¹	4.5	6.0	5.4	10Y	0.74	0.75	0.85	1.10
Budget balance ²	-17.3	-10.0	-5.0	Spread 10Y Bund	99	95	105	120
Current acc. balance ²	-3.5	-4.0	-4.0	EUR in GBP	0.87	0.90	0.90	0.90
* Change vs previous year as percentage				GBP in USD	1.38	1.30	1.30	1.29

¹ as percentage of the labour force as per ILO concept; ² as percentage of GDP

Sources: Feri, Bloomberg, NORD/LB Macro Research

Canada

BoC tapers its QE programme

Analysts: Tobias Basse // Bernd Krampen

Third wave poses challenges for Canada

Canada's GDP grew by 0.7 percent in January despite the corona-induced measures, and the economy, too, has given a relatively robust showing of late. The Ivey PMI and the Markit Manufacturing PMI showed a very clear recovery for March as month under review, and there was unexpectedly strong growth in employment as well, with around 303,000 new jobs. The March data are a reminder that economic activity picks up relatively quickly again once the threat from the virus subsides. Canada is currently struggling with a severe third wave, however, which is accompanied by new, more transmissible variants of the coronavirus and hitting Ontario particularly hard. Canada's most populous province, with a population of 14.5 million is currently struggling with record numbers of coronavirus cases, hospital admissions and intensive care patients threatening to overburden the health system. The virus remains the greatest threat to economic growth, and the developments in Ontario show clearly that it is too early to declare victory over the pandemic. On the positive side, the distribution of vaccines in Canada is speeding up and the government is continuing its support for the country's households and businesses towards mitigating the economic impacts of the containment measures.

BoC tapers its bond purchases

The BoC recently cut the pace of its bond purchases from CAD 4 billion to 3 billion per month. The forward guidance for the QE programme was generally left unchanged. The BoC reiterated that "decisions regarding further adjustments to the pace of net purchases will be guided by the ongoing assessment of the strength and durability of the recovery." With confidence in the economic recovery strong and economic activity more resilient than expected, the Governing Council may consider further QE tapering as early as July. The BoC also predicts that the output gap will close as early as the second half of 2022 rather than in 2023 as previously assumed. This means that initial interest rate hikes could well become a distinct possibility earlier than expected by the markets up to now – possibly already in the second half of next year.

Fundamental forecasts*, Canada

	2020	2021	2022
GDP	-5.4	5.9	4.0
Inflation	0.7	2.1	2.0
Unemployment rate ¹	9.6	7.7	6.2
Budget balance ²	-16.0	-5.6	-2.7
Current acc. balance ²	-1.9	-1.8	-1.6

* Change vs previous year as percentage

¹ as percentage of the labour force; ² as percentage of GDP

Interest and exchange rates, Canada

	22.04.	3M	6M	12M
O/N target rate	0.25	0.25	0.25	0.25
3M	0.09	0.15	0.20	0.20
10Y	1.52	1.50	1.60	1.80
Spread 10Y Bund	177	170	180	190
EUR in CAD	1.50	1.51	1.52	1.51
USD in CAD	1.25	1.29	1.30	1.30

Sources: Feri, Bloomberg, NORD/LB Macro Research

Australia

The growth trend continues

Analysts: Tobias Basse // Bernd Krampen

Ongoing low infection rates make for an improved outlook

The corporate sentiment surveys are indicating growing optimism among the companies polled, as evidenced by the AiG PMIs for both the manufacturing sector (59.9 points) and the service sector (58.7 points). The renewed decline in the unemployment rate from 5.8 to 5.6 percent is a pleasing development. By contrast, retail sales continued their zigzag movement. In this context the trend in real estate prices is in the meantime undoubtedly also having a detrimental impact on many private households. In any event, increased savings and the fiscal policies are currently bolstering consumption. The infection rates remain low, but the vaccination campaign, which got off to an extremely late start, was accompanied by some problems at the outset. These included, among other things, the floods in the south-east of the country, which can be expected to have additionally weighed somewhat on the economy in Q1. GDP growth in the first quarter is thus likely to have been only slightly positive – with prospects for stronger momentum in Q2.

RBA intends to continue bolstering Australia's economy

Once again, the Reserve Bank of Australia had no intention of taking the international financial markets by surprise. As expected, the monetary policymakers held both the traditional key interest rate and the target yield on 3-year government bonds unchanged. The central bankers in Sydney intend to continue bolstering the Australian economy by way of a loose monetary policy – and have explicitly put precisely this plan on record as well. While the RBA officials see clear (and unexpectedly sustainable) tendencies towards a recovery in Australia's economy, they continue to diagnose free capacities, against which background they expect no great price pressure in the foreseeable future. The central bank accordingly expects no sustainable stabilization of the inflation rate in the range of 2-3 percent again until 2024, which should leave the RBA leeway for maintaining an extremely loose monetary policy stance. Overheating trends in the country's real estate market could become a problem, however, for which reason the RBA intends keeping a close eye on the home-loans situation. Moreover, in the Financial Stability Review it was also emphasized that property prices should also be carefully monitored. Global stock market developments are, of course, also highly relevant for the Australian dollar as high-beta currency, which has tended to move sideways between USD 0.76 and 0.80 since the start of the year. Looking ahead, we expect to see a slight depreciation.

Fundamental forecasts*, Australia

	2020	2021	2022
GDP	-2.4	4.4	3.3
Inflation	0.8	1.8	1.7
Unemployment rate ¹	6.5	6.0	5.3
Budget balance ²	-8.0	-9.5	-5.0
Current acc. balance ²	2.5	1.4	0.5

* Change vs previous year as percentage

¹ as percentage of the labour force; ² as percentage of GDP

Interest and exchange rates, Australia

	22.04.	3M	6M	12M
Cash target rate	0.10	0.10	0.10	0.10
3M	0.04	0.05	0.10	0.15
10Y	1.64	1.70	1.80	2.00
Spread 10Y Bund	189	190	200	210
EUR in AUD	1.56	1.56	1.58	1.58
USD in AUD	0.77	0.75	0.74	0.74

Portfolio strategies

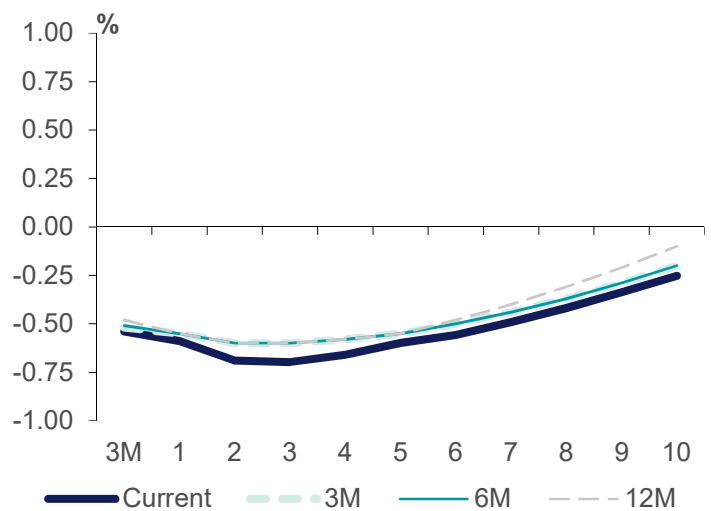
Yield curve, Euroland

Yields and forecasts (Bunds/Swap)

	Yields (in %)			
	Current	3M	6M	12M
3M	-0.54	-0.52	-0.51	-0.48
1Y	-0.59	-0.55	-0.55	-0.55
2Y	-0.69	-0.60	-0.60	-0.60
3Y	-0.70	-0.60	-0.60	-0.60
4Y	-0.66	-0.58	-0.58	-0.58
5Y	-0.60	-0.55	-0.55	-0.55
6Y	-0.56	-0.50	-0.50	-0.48
7Y	-0.49	-0.44	-0.44	-0.40
8Y	-0.42	-0.37	-0.37	-0.31
9Y	-0.34	-0.29	-0.29	-0.21
10Y	-0.25	-0.20	-0.20	-0.10
2Y (Swap)	-0.49	-0.40	-0.40	-0.40
5Y (Swap)	-0.30	-0.25	-0.25	-0.25
10Y (Swap)	0.06	0.15	0.15	0.25

Sources: Bloomberg, NORD/LB Macro Research

Yield curve forecasts (Bunds)



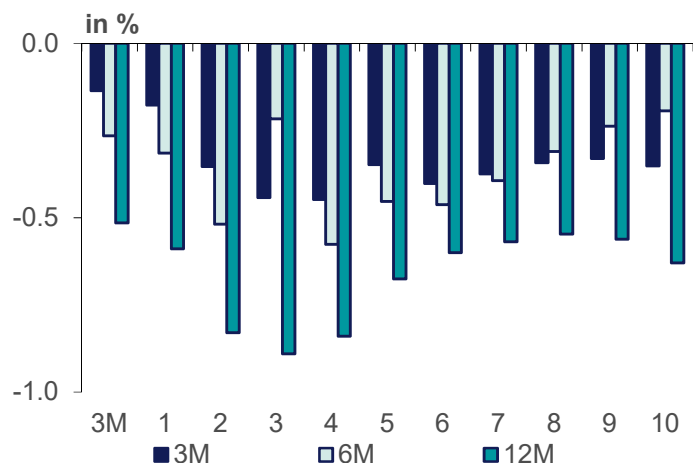
Sources: Bloomberg, NORD/LB Macro Research

Forecasts and total returns

	Total returns (in %) for horizons...		
	3M	6M	12M
3M	-0.13	-0.26	-0.52
1Y	-0.18	-0.31	-0.59
2Y	-0.35	-0.52	-0.83
3Y	-0.44	-0.22	-0.89
4Y	-0.45	-0.58	-0.84
5Y	-0.35	-0.45	-0.67
6Y	-0.40	-0.46	-0.60
7Y	-0.37	-0.39	-0.57
8Y	-0.34	-0.31	-0.55
9Y	-0.33	-0.24	-0.56
10Y	-0.35	-0.19	-0.63

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 %) in euro				
	EUR	USD	GBP	JPY	CHF
1Y	-0.2	2.7	-3.6	1.2	-0.9
2Y	-0.4	2.7	-3.6	1.2	-0.9
3Y	-0.4	2.8	-3.5	1.1	-0.9
4Y	-0.4	3.1	-3.6	1.0	-0.8
5Y	-0.3	3.1	-3.5	1.0	-0.7
6Y	-0.4	3.5	-3.2	0.9	-0.7
7Y	-0.4	3.7	-3.1	0.8	-0.8
8Y	-0.3	3.7	-2.5	0.8	-0.5
9Y	-0.3	3.5	-2.3	0.9	-0.5
10Y	-0.4	3.4	-3.2	1.1	-0.4

Sources: Bloomberg, NORD/LB Macro Research

	Expected total returns (as %) in national currencies			
	USD	GBP	JPY	CHF
1Y	0.0	-0.1	-0.1	-0.2
2Y	0.0	-0.1	-0.2	-0.2
3Y	0.1	0.0	-0.2	-0.2
4Y	0.4	0.0	-0.3	-0.1
5Y	0.4	0.0	-0.4	0.0
6Y	0.8	0.4	-0.5	0.0
7Y	1.0	0.4	-0.5	-0.1
8Y	1.0	1.0	-0.5	0.2
9Y	0.8	1.3	-0.4	0.2
10Y	0.6	0.3	-0.2	0.3

Sources: Bloomberg, NORD/LB Macro Research

12-month horizon

	Expected total returns (as %) in euro				
	EUR	USD	GBP	JPY	CHF
1Y	-0.6	3.7	-3.5	1.2	-1.5
2Y	-0.8	3.6	-3.7	1.0	-1.5
3Y	-0.9	4.0	-3.7	1.0	-1.4
4Y	-0.8	4.1	-3.9	0.8	-1.3
5Y	-0.7	4.2	-3.9	0.8	-1.2
6Y	-0.6	4.2	-3.8	0.6	-1.3
7Y	-0.6	4.4	-4.0	0.5	-1.6
8Y	-0.5	4.3	-3.7	0.4	-1.5
9Y	-0.6	4.0	-3.7	0.4	-1.7
10Y	-0.6	3.4	-4.6	0.5	-1.8

Sources: Bloomberg, NORD/LB Macro Research

	Expected total returns (as %) in national currencies			
	USD	GBP	JPY	CHF
1Y	0.1	0.0	-0.1	-0.8
2Y	0.0	-0.1	-0.3	-0.8
3Y	0.4	-0.2	-0.4	-0.7
4Y	0.5	-0.3	-0.5	-0.6
5Y	0.6	-0.4	-0.6	-0.5
6Y	0.6	-0.3	-0.7	-0.6
7Y	0.7	-0.5	-0.8	-0.9
8Y	0.7	-0.1	-0.9	-0.8
9Y	0.4	-0.2	-0.9	-1.0
10Y	-0.1	-1.1	-0.8	-1.1

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 22.04.2021	Status		Performance since	
		Prev. month	Start of year	Prev. month	Start of year
DAX	15,320.52	15,008.34	13,718.78	2.08%	11.68%
MDAX	32,872.95	31,717.36	30,796.26	3.64%	6.74%
EuroSTOXX50	3,976.41	3,919.21	3,552.64	1.46%	11.93%
STOXX50	3,386.11	3,323.18	3,108.30	1.89%	8.94%
STOXX600	436.64	429.60	399.03	1.64%	9.43%
Dow Jones	34,137.31	32,981.55	30,606.48	3.50%	11.54%
S&P 500	4,173.42	3,972.89	3,756.07	5.05%	11.11%
Nikkei	29,188.17	29,178.80	27,444.17	0.03%	6.35%

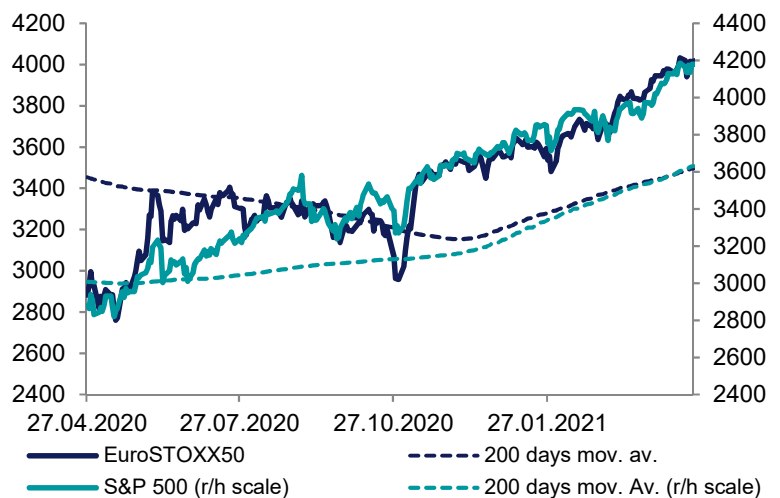
Sources: Bloomberg, NORD/LB Macro Research

Index forecasts

Index	NORD/LB forecast for horizons ...		
	3M	6M	12M
DAX	14,100	15,000	15,500
MDAX	30,500	32,300	33,900
EuroSTOXX50	3,650	3,870	4,000
STOXX50	3,100	3,275	3,400
STOXX600	400	425	440
Dow Jones	32,000	33,500	34,000
S&P 500	3,900	4,075	4,150
Nikkei	28,250	29,500	29,750

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, 23 April 2021**.

The next English issue of Economic Adviser will be appearing on **24 May 2021**.

Overview of forecasts

Fundamental forecasts

in %	GDP growth			Rate of inflation			Unemployment rate ¹			Budgetary balance ²		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
USA	-3.5	5.6	3.0	1.2	2.9	2.5	8.1	6.0	5.0	-15.4	-11.2	-7.0
Euroland	-6.7	4.4	4.5	0.3	1.7	1.3	8.0	8.2	7.8	-7.2	-7.5	-4.5
Germany	-4.9	3.2	4.3	0.4	2.6	1.4	5.9	5.9	5.4	-4.2	-6.9	-2.5
Japan	-4.8	2.9	2.0	0.0	0.1	0.6	2.8	3.0	2.8	-13.0	-8.0	-5.3
Britain	-9.8	5.4	5.5	0.9	1.5	1.9	4.5	6.0	5.4	-17.3	-10.0	-5.0
Switzerland	-2.9	3.1	3.4	-0.7	0.2	0.5	3.1	3.5	3.3	-4.4	-2.2	-0.6
China	2.3	8.5	5.5	1.6	1.6	2.3	3.8	3.8	3.6	-11.4	-5.8	-4.3
Canada	-5.4	5.9	4.0	0.7	2.1	2.0	9.6	7.7	6.2	-16.0	-5.6	-2.7
Australia	-2.4	4.4	3.3	0.8	1.8	1.7	6.5	6.0	5.3	-8.0	-9.5	-5.0

Change vs previous year as percentage; ¹ as percentage of the labour force (Germany: as per Federal Employment Office definition); ² as percentage of GDP

Sources: Feri, NORD/LB Macro Research

Key rates

In %	22.04.21	3M	6M	12M
USD	0.25	0.25	0.25	0.25
EUR	0.00	0.00	0.00	0.00
JPY	-0.10	-0.10	-0.10	-0.10
GBP	0.10	0.10	0.10	0.10
CHF	-0.75	-0.75	-0.75	-0.75
CNY	1.50	1.50	1.50	1.50
CAD	0.25	0.25	0.25	0.25
AUD	0.10	0.10	0.10	0.10

Exchange rates

EUR in...	22.04.21	3M	6M	12M
USD	1.20	1.17	1.17	1.16
JPY	130	128	129	128
GBP	0.87	0.90	0.90	0.90
CHF	1.10	1.11	1.12	1.11
CNY	7.80	7.72	7.78	7.77
CAD	1.50	1.51	1.52	1.51
AUD	1.56	1.56	1.58	1.58

Sources: Bloomberg, NORD/LB Macro Research

Sources: Bloomberg, NORD/LB Macro Research

Interest rates (government bonds)

	3M rates				Yields 2Y				Yields 5Y				Yields 10Y			
	22.04.	3M	6M	12M	22.04.	3M	6M	12M	22.04.	3M	6M	12M	22.04.	3M	6M	12M
USD	0.18	0.20	0.25	0.30	0.15	2.60	0.25	0.30	0.79	0.85	0.95	1.15	1.54	1.55	1.65	1.85
EUR	-0.54	-0.52	-0.51	-0.48	-0.69	-0.60	-0.60	-0.60	-0.60	-0.55	-0.55	-0.55	-0.25	-0.20	-0.20	-0.10
JPY	-0.07	0.05	0.05	0.10	-0.14	-0.10	-0.05	-0.05	-0.11	-0.03	0.03	0.04	0.07	0.10	0.15	0.20
GBP	0.09	0.10	0.10	0.10	0.04	0.10	0.15	0.30	0.32	0.34	0.41	0.60	0.74	0.75	0.85	1.10
CHF	-0.75	-0.75	-0.75	-0.75	-0.78	-0.80	-0.75	-0.75	-0.58	-0.60	-0.55	-0.50	-0.28	-0.30	-0.20	-0.10

Sources: Bloomberg, NORD/LB Macro Research

Spreads (bp)

	3M EURIBOR				2Y Bunds				5Y Bunds				10Y Bunds			
	22.04.	3M	6M	12M	22.04.	3M	6M	12M	22.04.	3M	6M	12M	22.04.	3M	6M	12M
USD	71	72	76	78	84	80	85	90	139	140	150	170	179	175	185	195
JPY	47	57	56	58	55	50	55	55	49	53	58	59	32	30	35	30
GBP	63	62	61	58	73	70	75	90	92	89	96	115	99	95	105	120
CHF	-21	-23	-24	-27	-9	-20	-15	-15	2	-5	0	5	-3	-10	0	0

Sources: Bloomberg, NORD/LB Macro Research

Annex

Contacts at NORD/LB

Macro Research



Dr. Martina Noss

Head of Research/Economics

+49 511 361-2008

martina.noss@nordlb.de



Christian Lips

Chief Economist

Head of Macro Research

+49 511 361-2980

+49 172 735 1531

christian.lips@nordlb.de



Tobias Basse

Macro Research

+49 511 361-9473

tobias.basse@nordlb.de



Bernd Krampen

Macro Research

+49 511 361-9472

bernd.krampen@nordlb.de

assisted by: Daniel von Ahlen, David Eckert

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 203131

Origination & Syndicate

Origination FI	+49 511 9818-6600
Origination Corporates	+49 511 361-2911

Treasury

Collat. Management/Repos	+49 511 9818-9200
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 research study (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, Japan, 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 (completely or in parts), translate 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 promotional material 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 and may be obtained, free of charge, from NORD/LB, Georgsplatz 1, 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.

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.

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 L.544-1 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 Analysis 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 Analysis 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

4/26/2021 3:35 PM CET