Key messages

- Business sentiment has eased but it remains elevated. Services sector has suffered from new wave of infections. High inflation has caused decline in consumer sentiment.

- Growth drivers (financing conditions, income, profits) point towards ongoing sustained above potential growth, although the pace should slow.

- Central banks are in tightening mode. Fed is ending QE. Six rate hikes in 2022, starting in March. QT to follow. ECB’s PEPP to stop, temporary increase in APP. Two hikes this year (September and December), two more in 2023. Financial conditions to tighten.

- Supply bottlenecks act as a speed limit. Infections and inflation are the dominant risks to growth. Supply disruption should ease this year. Some early signs have appeared but visibility remains low. Inflation to decline more slowly and less than previously expected.
1. RECENT MARKET DEVELOPMENTS
Equity markets down on back of earnings growth outlook of certain tech companies and concern about rate hikes

Source: Refinitiv, BNP Paribas
Hawkish message from ECB caused rebound in EUR vs USD

Source: Refinitiv, BNP Paribas
Despite hawkish message from Fed, no broad-based weakening of emerging currencies

Source: Refinitiv, BNP Paribas
Higher US Treasury yields reflect higher real yields (1). Term premium stable as of late (2). Jump in yield on Gilts and Bunds on the back of central bank action/message (3). Eurozone spreads widen (4).

Source: Refinitiv, BNP Paribas
Upward trend in commodities continues (except for gold)

Source: Refinitiv, BNP Paribas
Market-based inflation expectations have moved lower, reflecting expected impact of monetary policy tightening on outlook for growth and inflation.

Source: Bloomberg, Refinitiv, BNP Paribas
Effective USD exchange rate continues to strengthen. This may end up weighing on exports.

Source: Refinitiv, BNP Paribas
Despite higher Treasury yields, high yield corporate bond markets are still relaxed

Source: Merrill Lynch, BNP Paribas
THE PANDEMIC: GROWING RESILIENCE OF ECONOMIC ACTIVITY
Covid new cases per million people
7-days moving average (chart produced on 31 January 2022)

Source: Reuters, BNP Paribas
Growing resilience of mobility data—a proxy for economic activity— to successive infection waves. Latest data show stabilization or even a pick-up in mobility.

* Google Mobility Reports show how visits and length of stay at different places change compared to a baseline. The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020. A figure of negative 30% indicates that traffic was down 30% compared to a baseline. The reports show trends over several weeks with the most recent data representing approximately 2-3 days ago—this is how long it takes to produce the reports. In order to smooth the series, we use a seven-day moving average of the raw data in the Google Mobility Reports. Source: Google.
THE INFLATION OUTLOOK: SUPPLY SHOCKS DOMINATE BUT SECOND ROUND EFFECTS ARE BUILDING
The dynamics of inflation: phase 1

From services to consumer goods

Demand shift
Supply bottleneck
Demand increase
Supply shift

Inflation impulse

Sector reallocation of labour force

The bank for a changing world
The dynamics of inflation: phase 2 (second round effects)

- Wages
  - Negotiation power (+)
  - Productivity (+)

- Sales prices
  - Pricing power (+)
  - Price elasticity of demand (-)

Inflation impulse

Transmission depends on strength of GDP growth. Between brackets: correlation with real GDP growth
Huge jump in inflation surprises

Source: Citigroup Inc., BNP Paribas
Delivery times, after lengthening considerably, have started to shorten slightly (though not in US)

<table>
<thead>
<tr>
<th>PMI - MANUFACTURING DELIVERY TIMES</th>
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<tbody>
<tr>
<td>Developed Markets</td>
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<td>Jan-22</td>
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A rising number means shorter delivery times.

Source: Markit PMI, BNP Paribas
Container shipping rates from Shanghai have stabilised. Same holds for Fed of NY global supply pressure index.
Pressure on manufacturing input prices is easing in many countries

The global manufacturing input prices PMI continued its downward trend in January, although its level remains high. The scores were lower than the previous month in the US and the euro area, as well as in several euro area countries, but the levels remain very high, reflecting that the vast majority of interviewed companies are facing higher input prices. Whereas the index jumped in Russia, Turkey registered a huge decline.
US: inflation is broad-based (1). Survey-based measures of price pressures are easing

US: PMI manufacturing components vs inflation

- Core PCE, y/y %
- PMI manufacturing: price pressures* (RHS)

*average of input prices index & inverted suppliers’ delivery times index

Source: HS Markit, BEA, BNP Paribas

US: ISM manufacturing components vs inflation

- Core PCE, y/y %
- ISM manufacturing: price pressures* (RHS)

*average of prices paid index & suppliers’ delivery times index

Source: ISM, BEA, BNP Paribas

US core inflation (y/y %)

- Core CPI
- Core PCE
- Dallas Fed trimmed mean core PCE

Source: BEA, BLS, Dallas Fed, BNP Paribas

US: manufacturing input prices or prices paid

- Markit
- ISM
- Core PCE, y/y % (RHS)

Source: HS Markit, ISM, BNP Paribas

US: manufacturing supplier’s delivery times

- 100 - Markit
- ISM
- Core PCE, y/y % (RHS)

Source: HS Markit, ISM, BNP Paribas

US: manufacturing prices pressures

- Markit
- ISM

Source: HS Markit, ISM, BNP Paribas

The bank for a changing world
US: survey-based price pressures have peaked so core inflation should follow. The real question is how quickly it will decline.

US: PMI manufacturing components vs inflation

US: ISM manufacturing components vs inflation

*average of input prices index & inverted suppliers' delivery times index

Source: IHS Markit, BEA, BNP Paribas

*average of prices paid index & suppliers' delivery times index

Source: ISM, BEA, BNP Paribas
Eurozone: upside surprises to inflation (1) have been very frequent since the spring of 2021, including for core inflation (2) (so it’s not only a matter of energy prices)
Contacts reported strong or growing demand across most sectors, but many said that supply constraints continued to limit their ability to meet that demand.

Manufacturers continued to describe healthy order books and long delivery times, but shortages of inputs made it difficult to meet orders.

The supply of manufactured goods struggled to keep pace with final consumer demand. Inventories of inputs and finished goods were consequently low, while stocks of semi-finished goods (and goods in transit) tended to be high.

Contacts in the construction and real estate sector also reported strong demand, especially in the booming residential segment.

Despite the spread of the Omicron variant since November, contacts in the services sector presented a relatively upbeat assessment of business conditions. In the case of travel and tourism, despite some interruption, the underlying trend was still one of recovering demand, aided inter alia by the reopening of travel to the United States in November. Retailers meanwhile observed that low footfall in shops was offset by a high ratio of sales to customers and by the continued strong growth of online activity. Contacts from a range of other services sectors also reported growing activity, which was particularly strong in digital-related sectors (IT, consulting) and employment services.

Looking ahead, most contacts remained optimistic about the outlook for activity in 2022. The spread of the Omicron variant would cause activity to moderate in the coming weeks, but the effect was expected to be relatively short-lived. Thereafter, strong order books would sustain activity in the manufacturing sector for several months, while the loosening of COVID-19 containment measures – once the latest wave of the pandemic passed – would give renewed impetus to the recovery of contact-dependent services. In this regard, contacts in the travel industry anticipated a relatively normal summer in 2022. The main risk to this benign outlook was the effect of higher and/or more persistent inflation (especially energy bills) eroding households’ real disposable income and therefore dampening final consumer demand. The recent spread of the Omicron variant also pushed back expectations of when the ongoing supply chain disruptions would ease, which for most contacts was expected to be at least six months or even a year.

Contacts continued to report tighter labour market conditions. There was both strong demand for labour and some lack of supply, although the situation varied significantly across companies, sectors and geographical areas.

Most contacts reported increasing prices and a more dynamic pricing environment, especially in the industrial sector.

Most contacts expected wage growth to pick up somewhat this year.

“Typically, contacts said they expected average wage increases to move from around 2% in the recent past to 3% or possibly more this year. Significantly higher rates of wage inflation were described or anticipated in relation to those jobs for which it was a challenge to recruit and retain staff, for example in the fields of construction and road haulage and for IT experts and software engineers.”
Eurozone: declining survey-based price pressure gauges should be followed by lower inflation. Base effects will also contribute.

Eurozone: PMI manufacturing components vs inflation

- HICP exc. energy & unprocessed food (y/y %)
- PMI manufacturing: price pressures* (+12M, RHS)

*average of input prices index & inverted suppliers' delivery times index

Source: IHS Markit, Eurostat, BNP Paribas
Eurozone: contributions to HICP inflation (y/y %) in December 2021 show key role played by energy and food.
Eurozone: a long tail of small inflation increases adds up to something significant

Contributions of 2bp or less have been omitted. In total, they represent a change in annual inflation since March 2021 of 149 basis points.
THE GROWTH OUTLOOK
Growth to remain strong but it should slow down

1. Mechanical recovery in sectors which had suffered previously from restrictions and subsequently had benefitted from restrictions being lifted, has run its course

2. Concern about new waves of infections
   - Precautionary behaviour weighing on certain spending categories
   - Supply disruption due to absenteism

3. Supply bottlenecks weighing on growth (construction sector, automobile industry)

4. Reaction to price increases in certain sectors, in particular energy
   - Particularly relevant for lower income households (low or zero savings rate)

5. Corporate capital formation: accelerator effect losing steam

6. Less expansionary fiscal policy implies private sector needs to take over as growth engine

7. Monetary tightening in the US, with global spillover effects

On the other hand, growth should benefit from:
- The decline in inflation
- The easing of supply bottlenecks
Growth surprises back in positive territory, except in US

Source: Citigroup Inc., BNP Paribas
Albeit in a rather uneven manner, the US economy has bounced back swiftly from the Covid-19 pandemic and is now stronger than in 2019.

Its growth rate, at 5.5% in 2021, is likely to return gradually to normal.

Longer and stronger than expected, the upturn in inflation is also likely to ease, if only due simply to the basis of comparison (once prices stop being compared to their depressed levels of 2020).

The return towards the 2% target could, however, be hampered by rising prices for services, particularly rents. The situation in the labour market has improved: with a rising activity rate and unemployment dropping significantly below 5% of the active population, the economy is approaching full employment.

The Federal Reserve has started tapering and this should lead to net asset purchases ending in March this year.

The tone of the minutes of the December meeting of the FOMC was hawkish.

Given current particularly elevated inflation, the inflation outlook and the strength of the labour market, as reflected in the unemployment rate that has dropped below 4.0%, we expect a first rate hike in March, followed by five additional hikes in 2022 and three more in 2023.

In addition, we expect the reduction of the balance sheet (quantitative tightening) to start in July this year.

These policy changes should put upward pressure on Treasury yields.
US: business surveys are softening

US: ISM and PMI manufacturing

US: Philadelphia Fed indicator of general business activity

US: ISM and PMI services

US: leading economic indicators

US: consumer confidence

Source: ISM, HES Markit, BNP Paribas

Source: Philadelphia Fed, BNP Paribas

Source: ISM, HES Markit, BNP Paribas

Source: OECD, Conference Board, BNP Paribas

Source: University of Michigan, Conference Board, BNP Paribas

BS:

The bank for a changing world
US: declining order backlogs but also of incoming orders

US manufacturing ISM

Source: ISM, BNP Paribas

US manufacturing ISM vs GDP growth

Source: ISM, BEA, BNP Paribas

The bank for a changing world
US: despite high inflation, households are upbeat about their expected earnings and spending growth
US: corporate investments’ drivers look good but supply constraints are a headwind

Nonfinancial corporate business, integrated accounts as % of GVA

- Fixed investment as % of GVA
- Net operating surplus as % of GVA
- Capacity utilisation rate, all industry (RHS)

bars mark recession periods

Source: Federal Reserve (Flow of Funds), BNP Paribas

US regional Fed manufacturing surveys: index of future capital expenditures

- NY Fed
- Philadelphia Fed
- Dallas Fed
- Kansas City Fed

3-month moving average

Source: Federal Reserve banks of New-York, Philadelphia, Dallas & Kansas City, BNP Paribas
US: housing construction activity constrained by supply bottleneck issues.

**US housing indicators**

- New private housing starts (thousand, a.rate)
- New private housing units authorized by building permits (thousand, a.rate)
- Monthly supply of new homes on market (RHS)

*Source: US Census Bureau, BNP Paribas*
US: exports order assessment is weakening. Past dollar strength is acting as a headwind

Source: BEA, Federal Reserve, BNP Paribas

Source: ISM, BNP Paribas
After a strong Q3, growth in Q4 2021 was, as expected, significantly weaker (+0.3% t/t according to the first Eurostat estimate). Although a normalisation of growth, i.e. a gradual slowdown, was to be expected, headwinds have increased (supply-side problems, surging inflation and uncertainties arising from the new wave of the pandemic).

However, business climate surveys continue to show resilience of companies. Moreover, hiring intentions remain elevated.

Households remain confident about the labour market outlook but surveys show the negative impact of inflation and energy costs on household confidence

Although the downside risks have increased, our scenario for 2022 remains fairly optimistic. This is because there is no shortage of tailwinds – supportive policy mix, a build-up of forced savings that can support spending going forward, scope for the service sector to catch-up, the need for companies to invest and rebuild inventories.

Growth will remain well above its trend rate in 2022. We also expect it to be not much lower than its 2021 figure (4.2% versus 5%).

However, growth risks are tilted to the downside while inflation risks are to the upside.

Behind the current temporary pressures on prices, more sustained and widespread factors are also at play. We expect average inflation to be higher in 2022 than in 2021 (5% after 2,6%). Inflation should decline this year due to base effects but more slowly than anticipated previously.
Eurozone economic sentiment has peaked but remains elevated

Eurozone: activity indicators

- Economic Sentiment Index
- Industrial confidence indicator
- Services confidence indicator
- Construction confidence indicator
- Consumer confidence indicator
- Retail trade confidence indicator

Source: European Commission surveys, BNP Paribas
Eurozone: the labour market is in good shape, employment expectations remain very high.

Source: IHS Markit, ECB, BNP Paribas
Eurozone: household consumption to benefit from expected income evolution but suffering from high inflation and pandemic situation. Unemployment expectations have dropped.

Eurozone: consumer survey, unemployment expectations

How do you expect the number of people unemployed to change over the next 12 months? (net balance in %)

Household savings rate (RHS)

Source: European Commission surveys, Eurostat, BNP Paribas
Eurozone: banks getting more cautious on housing loans. Building permits are down in several countries

**Eurozone: recent approval of bank loans**

- **net % balance of opinions**
  - Up: tightening
  - Down: loosening

Source: ECB (Bank Lending Survey), BNP Paribas

**Building permits, residential buildings exc. residences for communities**

- **Volume index, Q1-2000 = 100**

Source: Eurostat, BNP Paribas
Eurozone: corporate investment drivers looking good

Capacity utilisation rate

Source: European Commission surveys, BNP Paribas

MSCI EMU: weighted average EPS 12 months forward

Source: IBES, BNP Paribas
Fiscal policy to provide positive impulse of 1% of GDP this year (source: European Commission)

Public investment, 2009-22

(Percentages of GDP)

Source: European Commission (AMECO database) and ECB calculations.

Source: ECB, Economic bulletin, January 2022
Eurozone: export orders assessment at record level in European Commission’s survey

Eurozone: real exports growth and export order books

- Exports of G&S (volume, q/q % change)
- Industry survey: export order books (RHS)

Source: Eurostat, European Commission, BNP Paribas
The balance of prospects/risks for EM has been deteriorating since end-2021-early 2022
- The real estate sector crisis in China
- Acceleration in inflation across-the-board and extension of monetary policy tightening
- Looming US monetary tightening (leading to non-resident investment outflows from domestic bond markets, China excepted)
- Geopolitical/social tensions (Ukraine, Kazakhstan), armed conflict/military coup in Africa
- Emergence of new waves of Covid-19 infection with the Omicron variant (China, Latam countries)

A larger than expected growth slowdown in 2022
- Uncertain ease/normalisation of supply chain disruptions (Omicron variant wave, lasting bottlenecks on transit systems, labour shortages)
- Constraints on growth in China (measures to cleaning up the property market, reducing financial risk and tightening regulation) despite the gradual easing of monetary & fiscal policies
- Stagnation in Brazil (strong monetary tightening, market skepticism about fiscal consolidation and debt stabilization)
- Risk of recession in Turkey following the financial turmoil at end-2021
- Capped growth in Russia (inflationary pressures, low private investment, risk of hard international sanctions)

Most of banking sectors have showed strong resilience to the crisis and have helped financing fiscal deficits.
China: slowing down

- **Growth slowdown observed during 2021…**
  - In the industrial sector, after a summer that was badly disrupted by power cuts and supply-chain problems, the situation improved slightly in Q4 mainly thanks to a strong performance of exports.
  - But in the services sector, growth decelerated sharply as a result of: tougher regulations (particularly in the digital and tutoring sectors), successive waves of Covid-19 and the resulting travel restrictions, and the real estate crisis.
  - Because of the severe tightening in their credit conditions, property developers have significantly reduced investment entailing a contraction in construction activity and housing sales.

- … **is likely to persist in 2022**
  - In the coming months, manufacturing output and exports are likely to suffer from repercussions arising from the latest wave of the pandemic, i.e. lockdowns and disruption to factories and the transportation of goods.
  - Despite low inflation, household spending will remains constrained by i/the authorities’ strict zero-Covid strategy, ii/weaker demand for housing-related goods due to the decline in home sales, iii/ negative wealth effects resulting from the correction in real estate prices, and consumer concerns about Covid risks and about further deterioration in the labour market.

- **The authorities are adopting a more expansionary policy mix.** On the fiscal policy front, spending on infrastructure projects appears to show some signs of improvement. In the real estate sector, the authorities have made adjustments to avoid a collapse in the market, without changing the macroprudential limits imposed on developers. Mortgage lending conditions and developers’ access to certain types of short-term financing have even been eased in recent weeks. Most importantly, the central bank has gradually loosened monetary and credit conditions.

- **But the medium term strategy entails a cost in terms of growth in the ST.** The tightening of the regulatory environment and prudential rules in the real estate sector form part of Beijing’s medium-term strategy, which aims to make China’s growth model more sustainable, less dependent on credit, greener and more inclusive, and to promote “common prosperity” under the government’s control. This strategy will likely weight on growth in the ST as it would i/ reduce corporate debt levels while reducing financial risk, ii/ clean up the property market while moderating the cost of housing, iii/ increase control both over activities related to social issues (such as education and wealth distribution) and over enterprises that collect data (especially in the digital industry), and iv/ limit the expansion of digital groups that have overly dominant positions in their market.
China

China: inflation rates, y/y %

Source: NBS, BNP Paribas

China: house price growth, y/y % (70 large and medium cities)

Source: NBS, BNP Paribas

China: CIA 100 Cities house price

Index, January 2011 = 100

Source: China Index Academy, BNP Paribas

China: retail sales, y/y %

Nominal
Real (CPI deflated)

Source: NBS, BNP Paribas
China: unemployment rate vs PMI employment

Source: China Index Academy, BNP Paribas
FORECASTS
Forecasts: growth

<table>
<thead>
<tr>
<th>GDP growth forecasts</th>
<th>Annual (% y/y)</th>
<th>Quarterly (% q/q)</th>
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<tr>
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</table>

1) Q1, Q2 and Q3 2021 data are actual. (2) Global growth forecasts are based on BNP Paribas country estimates, which account for about 82% of world GDP, and a mix of BNPP calculations and IMF forecasts for the remaining 18% of the world. The countries are GDP-weighted using IMF GDP PPP data. (3) The EM aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises the EM economies listed in footnotes (4)–(6). (4) The Latam aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises Argentina, Brazil, Chile, Colombia and Mexico. (5) The CEEMEA aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises Bahrain, the Czech Republic, Egypt, Hungary, Kuwait, Oman, Poland, Qatar, Romania, Russia, Saudi Arabia, South Africa, Turkey and UAE. (6) The EM Asia aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises India, Indonesia, Malaysia, South Korea and Thailand. Sources: National statistical agencies, IMF, Macrobond, BNP Paribas forecasts.

Source: BNP Paribas Global Markets
## Forecasts: inflation

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<td>CEEMEA (4)</td>
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<td>7.1</td>
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<td>6.3</td>
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<tr>
<td>EM Asia (5)</td>
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<td>4</td>
<td>3.6</td>
<td>3.1</td>
<td>4.1</td>
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<td>3.9</td>
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</table>

1) Q1, Q2 and Q3 2021 data are actual. (2) The EM aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises the EM economies listed in footnotes (3)–(5). (3) The Latam aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises Brazil, Chile, Colombia and Mexico. (4) The CEEMEA aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises Bahrain, the Czech Republic, Egypt, Hungary, Kuwait, Oman, Poland, Qatar, Romania, Russia, Saudi Arabia, South Africa, Turkey and UAE. (5) The EM Asia aggregate is GDP-weighted using IMF 2019 GDP PPP data and comprises India, Indonesia, Malaysia, South Korea and Thailand.

Sources: National statistical agencies, IMF, Macrobond, BNP Paribas forecasts

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Source: BNP Paribas Global Markets

The bank for a changing world
## Interest rates, exchange rates and oil

### INTEREST & EXCHANGE RATES*

<table>
<thead>
<tr>
<th>Interest rates, %</th>
<th>Q1 2022 e</th>
<th>Q2 2022 e</th>
<th>Q3 2022 e</th>
<th>Q4 2022 e</th>
<th>Q4 2023 e</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US</strong></td>
<td></td>
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<tr>
<td>Fed Funds (upper limit)**</td>
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<td>1.50</td>
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<td><strong>Ezone</strong></td>
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<tr>
<td>Deposit rate**</td>
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<td>-0.25</td>
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<td>OAT 10y</td>
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<tr>
<td>Roba Rate</td>
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<td>JGB 10y</td>
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<th>Q1 2022 e</th>
<th>Q2 2022 e</th>
<th>Q3 2022 e</th>
<th>Q4 2022 e</th>
<th>Q4 2023 e</th>
</tr>
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<tbody>
<tr>
<td><strong>USD</strong></td>
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</tr>
<tr>
<td>EUR / USD</td>
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<td>1.12</td>
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<td>USD / JPY</td>
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<td>GBP / USD</td>
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<td>EUR / GBP</td>
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</table>

<table>
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<th>Brent</th>
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<th>Q2 2022 e</th>
<th>Q3 2022 e</th>
<th>Q4 2022 e</th>
<th>Q4 2023 e</th>
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<td>87</td>
<td>94</td>
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*FORECASTS PRODUCED ON 22 NOVEMBER 2021. FORECASTS WITH "**" HAVE BEEN UPDATED SINCE 07/02/2022. SOURCE: BNP PARIBAS (E: ESTIMATES & FORECASTS) (MARKET ECONOMICS, INTEREST RATE STRATEGY, FX STRATEG, COMMODITIES DESK STRATEGY)

Sources: BNP Paribas (e: Estimates & forecasts) (Market Economics, Interest Rate Strategy, FX Strategy, Commodities Desk Strategy)