

2

EDITORIAL

"United States: the sobering record of real GDP forecasts during recessions"

4

MARKETS OVERVIEW

Recent market developments (foreign exchange, stock markets, interest rates, commodities, etc.)

6

ECONOMIC PULSE

Analysis of the recent economic data: Uncertainty, International Trade, mobility & vaccination

11

ECONOMIC SCENARIO

Main economic and financial forecasts.

12

CALENDARS

Last week's main economic data and key releases for the week ahead

16

FURTHER READING

Latest articles, charts, videos and podcasts of Economic Research

ECONOMIC RESEARCH



BNP PARIBAS

The bank
for a changing
world

US: THE SOBERING RECORD OF REAL GDP FORECASTS DURING RECESSIONS

Economic forecasting in the run-up to and during recessions is particularly challenging. An analysis of the Federal Reserve of Philadelphia's survey of professional forecasters shows that, since 1968, forecast errors during recessions are significantly higher than during non-recession periods. Moreover, forecast errors during recessions are predominantly positive, so forecasts tend to be too optimistic, even if they concern the next quarter. At the current juncture, there is broad consensus, if not unanimity, that downside risks to growth dominate due to the multiple headwinds and uncertainties. The historical forecast record is another reason to be mindful of these risks.

A recession is a period of high uncertainty: how much will demand, activity, employment, and corporate profits decline? How long will it last? For economic forecasters, it is a stressful period: the pressure to produce good forecasts rises proportionally to the difficulty of doing so because during a recession, the economy is in a state of flux. The relationships between the components of final demand -consumption, capital formation, exports- and their drivers become less predictable due to confidence effects, financial constraints, non-linearities, etc.

In 2018, a working paper of the IMF concluded that *"while forecasts in recession years are revised each month, they do not capture the onset of recessions in a timely way and the extent of output decline during recessions is missed by a wide margin."*¹ This result held for private as well as public sector forecasts.

Capturing the onset of a recession is particularly difficult: when will the tipping point be reached whereby an economy reacts to recent shocks in such a way that it corresponds to a recession? The IMF paper gives a sobering conclusion for advanced and emerging economies, but what about forecasts for the US specifically? The question is important given the weight of the US in the world.

1. Zidong An, João Tovar Jalles, and Prakash Loungani, *How Well Do Economists Forecast Recessions?*, IMF working paper 18/39, March 2018. The authors analyse GDP forecasts for 63 countries for the years 1992 to 2014. The private sector forecasts are taken from Consensus Economics and the public sector forecasts are from the IMF.

Chart 1 shows the forecast errors of the Survey of Professional Forecasters (SPF) conducted by the Federal Reserve Bank of Philadelphia.² The forecasts concern those made in the current quarter for the next quarter (henceforth labeled as Q-1).

At first glance it seems that recessions tend to be marked by large positive forecast errors, which implies that the depth of the recessions was underestimated. To analyse this in detail, chart 2 distinguishes between recession and non-recession periods and shows the results for various forecast horizons.⁴ The metric that is used is the root mean squared error (RMSE).⁵ One would expect an improvement of the forecast quality -a decline in the RMSE- when the forecast horizon shortens.

2. *"The Survey of Professional Forecasters is the oldest quarterly survey of macroeconomic forecasts in the United States. The survey began in 1968 and was conducted by the American Statistical Association and the National Bureau of Economic Research. The Federal Reserve Bank of Philadelphia took over the survey in 1990."* (Source: Federal Reserve Bank of Philadelphia).

3. The forecasts concern the growth of real GDP versus the previous quarter on a seasonally adjusted annualized rate.

4. Q-4 refers to the forecast made for the quarter under review 4 quarters ago. Data for 2020 have been excluded, considering the extreme swings related to the Covid-19 pandemic. Data start in 1968 Q4 but some data for Q-4 forecasts are missing in the early years of the survey. Data are available for all forecast horizons as of 1973 Q4.

5. Given that some forecast errors are positive and others negative, they are first squared before calculating the average, after which the square root of the average is calculated.

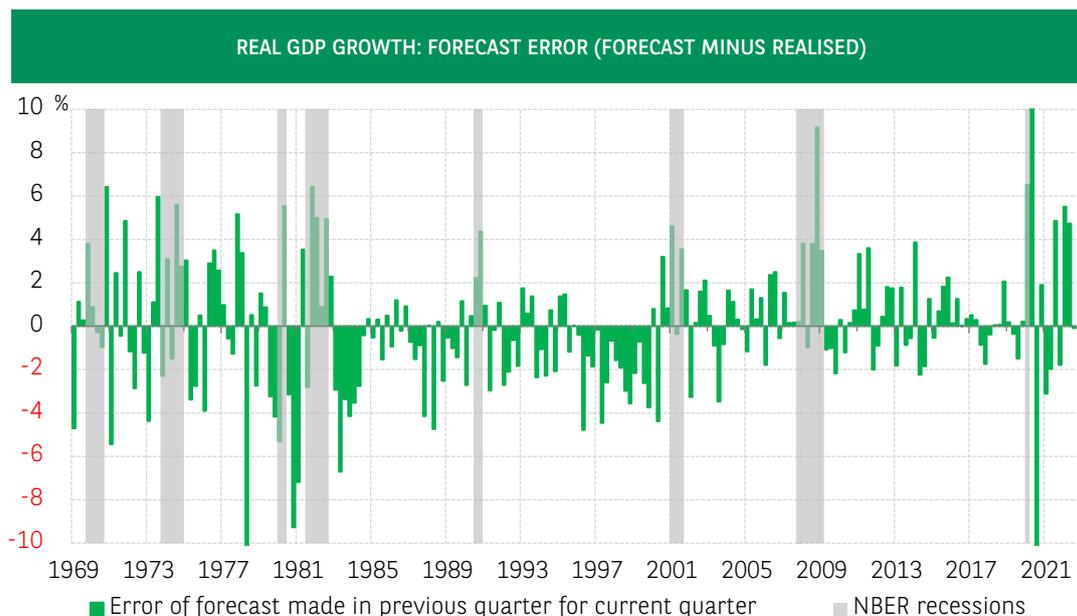


CHART 1

SOURCE: SURVEY OF PROFESSIONAL FORECASTERS, FEDERAL RESERVE BANK OF PHILADELPHIA, NBER, BNP PARIBAS



REAL GDP GROWTH: AVERAGE FORECAST ERROR (FORECAST MINUS REALISED)

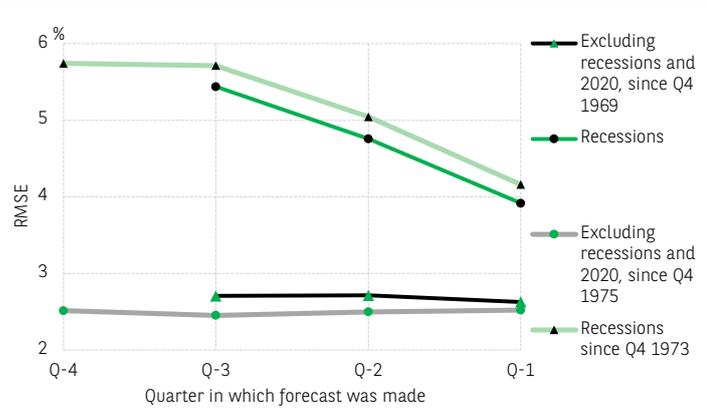


CHART 2 SOURCE: SURVEY OF PROFESSIONAL FORECASTERS, FEDERAL RESERVE OF PHILADELPHIA, BNP PARIBAS

This is indeed the case during recession periods, but outside these, the RMSE is stable across the different forecast horizons. The forecast errors for periods when the US was in recession are also considerably higher compared to non-recession periods.

For longer forecast horizons -four or three quarters ahead-, this could reflect that recessions come as a surprise. For shorter horizons, including quarters when the economy was already in recession when the forecasts were made, it could be the result of new shocks and hard to anticipate dynamics during the recession. Another interpretation is that it is extremely difficult to anticipate the contraction of GDP during recessions.

Finally, as shown by the table, forecasts covering periods when the US was in recession, are too optimistic by a wide margin: this is the case for 70% of the forecasts for the next quarter and the number increases to 89% for the four quarters ahead forecast. At the current juncture, there is broad consensus, if not unanimity, amongst forecasters that downside risks to growth dominate due to the multiple headwinds and uncertainties. The historical forecast record also underpins this distribution of risks.

William De Vijlder

US REAL GDP GROWTH: FORECAST ERROR DURING RECESSION QUARTERS (FORECAST MINUS REALISED)

Recession quarters	Forecast horizon			
	Q-1	Q-2	Q-3	Q-4
1969 Q4	3.8	4.4	6.2	5.97
1970 Q1	0.9	2.0	2.1	non available
1970 Q2	-0.3	0.0	1.9	non available
1970 Q3	-1.0	-1.7	-1.3	non available
1973 Q4	-2.3	-0.7	-0.5	0.34
1974 Q1	3.1	5.7	7.0	7.43
1974 Q2	-1.5	-1.5	1.8	2.15
1974 Q3	5.6	6.0	5.8	7.25
1974 Q4	2.7	5.2	5.3	4.20
1980 Q1	-5.3	-2.7	-0.3	1.15
1980 Q2	5.5	5.2	10.6	9.24
1981 Q3	-2.8	-1.9	-1.4	0.05
1981 Q4	6.4	7.6	8.1	8.51
1982 Q1	5.0	9.5	10.1	10.65
1982 Q2	0.9	1.4	2.1	1.09
1982 Q3	4.9	5.9	6.9	5.87
1990 Q3	2.2	2.1	2.1	3.70
1990 Q4	4.4	5.5	6.3	5.93
2001 Q1	4.6	4.3	3.9	4.14
2001 Q2	-0.3	0.7	0.2	0.06
2001 Q3	3.6	4.9	4.9	4.80
2007 Q4	0.2	0.4	0.7	0.44
2008 Q1	3.8	4.3	4.5	4.68
2008 Q2	-1.0	0.0	0.6	0.69
2008 Q3	3.8	4.9	4.8	4.76
2008 Q4	9.2	10.3	11.3	11.24
2009 Q1	3.5	6.2	6.9	7.70
Percentage of quarters with positive forecast errors	70%	74%	85%	89%

TABLE 1 SOURCE: SURVEY OF PROFESSIONAL FORECASTERS, FEDERAL RESERVE OF PHILADELPHIA, BNP PARIBAS

” In the US, during recessions, forecast errors from the Survey of Professional Forecasters are predominantly positive, so forecasts tend to be too optimistic, even if they concern the next quarter. This implies that during recessions, risks of negative growth surprises dominate.

MARKETS OVERVIEW

OVERVIEW

Week 18-11-22 to 25-11-22

↗ CAC 40	6 644	▶ 6 712	+1.0 %	
↗ S&P 500	3 965	▶ 4 026	+1.5 %	
↘ Volatility (VIX)	23.1	▶ 20.5	-2.6 pb	
↗ Euribor 3M (%)	1.82	▶ 1.92	+10.1 bp	
↗ Libor \$ 3M (%)	4.66	▶ 4.73	+6.9 bp	
↘ OAT 10y (%)	2.48	▶ 2.43	-4.9 bp	
↘ Bund 10y (%)	2.02	▶ 1.97	-4.8 bp	
↘ US Tr. 10y (%)	3.83	▶ 3.71	-12.0 bp	
↗ Euro vs dollar	1.04	▶ 1.04	+0.4 %	
↘ Gold (ounce, \$)	1 754	▶ 1 750	-0.3 %	
↘ Oil (Brent, \$)	87.7	▶ 84.1	-4.1 %	

Interest Rates

€ ECB	2.00		
Eonia	-0.51		
Euribor 3M	1.92		
Euribor 12M	2.86		
\$ FED	4.00		
Libor 3M	4.73		
Libor 12M	5.60		
£ BoE	3.00		
Libor 3M	3.64		
Libor 12M	0.81		

highest 22

2.00	at	02/11	
-0.51	at	03/01	
1.92	at	25/11	
2.88	at	24/11	
4.00	at	03/11	
4.76	at	23/11	
5.67	at	04/11	
3.00	at	03/11	
3.75	at	26/09	
0.81	at	03/01	

MONEY & BOND MARKETS

lowest 22

0.00	at	03/01	
-0.51	at	03/01	
-0.58	at	05/01	
-0.50	at	05/01	
0.25	at	03/01	
0.21	at	03/01	
0.58	at	03/01	
0.25	at	03/01	
0.26	at	03/01	
0.81	at	03/01	

Yield (%)

€ AVG 5-7y	2.64		
Bund 2y	2.14		
Bund 10y	1.97		
OAT 10y	2.43		
Corp. BBB	4.28		
\$ Treas. 2y	4.55		
Treas. 10y	3.71		
High Yield	8.89		
£ gilt. 2y	3.33		
gilt. 10y	3.12		

highest 22

2.79	at	28/09	
2.16	at	08/11	
2.44	at	21/10	
3.00	at	21/10	
5.14	at	21/10	
4.78	at	07/11	
4.23	at	24/10	
9.97	at	13/10	
4.59	at	27/09	
4.50	at	27/09	

lowest 22

-0.04	at	03/01	
-0.83	at	04/03	
-0.14	at	24/01	
0.15	at	04/01	
0.90	at	05/01	
0.70	at	04/01	
1.63	at	03/01	
5.07	at	03/01	
0.69	at	03/01	
0.97	at	03/01	

EXCHANGE RATES

1€ =		highest 22	lowest 22	2022	
USD	1.04	1.15 at 10/02	0.96 at 27/09	-8.5%	
GBP	0.86	0.90 at 28/09	0.83 at 14/04	+2.5%	
CHF	0.99	1.06 at 10/02	0.95 at 28/09	-4.9%	
JPY	144.91	147.34 at 26/10	125.37 at 04/03	+10.7%	
AUD	1.54	1.62 at 04/02	1.43 at 25/08	-1.4%	
CNY	7.45	7.45 at 25/11	6.75 at 14/07	+2.8%	
BRL	5.58	6.44 at 06/01	4.98 at 03/11	-12.0%	
RUB	63.40	164.76 at 07/03	55.60 at 26/09	-25.7%	
INR	85.02	85.96 at 11/02	78.49 at 27/09	+0.6%	

At 25-11-22 Change

COMMODITIES

Spot price, \$		highest 22	lowest 22	2022	2022(€)
Oil, Brent	84.1	128.2 at 08/03	79.0 at 03/01	+7.3%	+17.2%
Gold (ounce)	1 750	2 056 at 08/03	1 628 at 03/11	-4.0%	+4.9%
Metals, LME	3 777	5 506 at 07/03	3 453 at 27/09	-16.1%	-8.3%
Copper (ton)	7 975	10 702 at 04/03	7 160 at 14/07	-18.1%	-10.5%
wheat (ton)	284	4.7 at 17/05	263 at 10/11	+19.5%	+30.6%
Corn (ton)	257	3.2 at 28/06	226 at 03/01	+1.3%	+23.0%

At 25-11-22 Change

EQUITY INDICES

	Index	highest 22	lowest 22	2022	Year 2022 to 25-11, €
World					+28.0%
MSCI World	2 704	3 248 at 04/01	2 368 at 12/10	-16.3%	+4.8%
North America					-0.7%
S&P500	4 026	4 797 at 03/01	3 577 at 12/10	-15.5%	-3.6%
Europe					-5.8%
EuroStoxx50	3 962	4 392 at 05/01	3 279 at 29/09	-7.8%	-6.7%
CAC 40	6 712	7 376 at 05/01	5 677 at 29/09	-0.6%	-8.0%
DAX 30	14 541	16 272 at 05/01	11 976 at 29/09	-8.5%	-8.5%
IBEX 35	8 417	8 934 at 27/05	7 261 at 12/10	-0.3%	-9.6%
FTSE100	7 487	7 672 at 10/02	6 826 at 12/10	+0.1%	-9.6%
Asia					-10.3%
MSCI, loc.	1 114	1 165 at 05/01	1 012 at 30/09	-0.2%	-11.1%
Nikkei	28 283	29 332 at 05/01	24 718 at 09/03	-1.8%	-15.7%
Emerging					-16.4%
MSCI Emerging (\$)	941	1 267 at 12/01	843 at 24/10	-2.4%	-16.7%
China	56	86 at 20/01	47 at 31/10	-30.9%	-17.9%
India	799	891 at 13/01	699 at 17/06	+4.0%	-21.8%
Brazil	1 435	2 003 at 04/04	1 311 at 14/07	-3.8%	-31.5%

At 25-11-22 Change

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

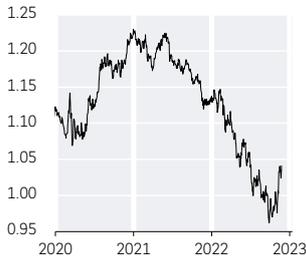
	Year 2022 to 25-11, €	Year 2022 to 25-11, \$
Oil & Gas	+79.3%	+79.3%
Commodities	+19.0%	+19.0%
Insurance	+16.4%	+16.4%
Banks	+8.0%	+8.0%
Food industry	+7.7%	+7.7%
Health	+3.3%	+3.3%
Media	+3.3%	+3.3%
Utilities	+0.9%	+0.9%
Chemical	-3.0%	-3.0%
Index	-4.1%	-4.1%
Travel & leisure	-6.4%	-6.4%
Telecoms	-8.1%	-8.1%
Industry	-9.0%	-9.0%
Car	-11.6%	-11.6%
Construction	-11.6%	-11.6%
Consumption Goods	-19.7%	-19.7%
Technology	-23.8%	-23.8%
Retail	-29.9%	-29.9%
Real Estate	-36.6%	-36.6%

SOURCE: REFINITIV, BNP PARIBAS,

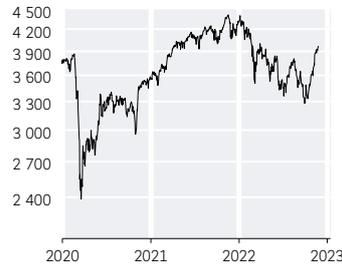


MARKETS OVERVIEW

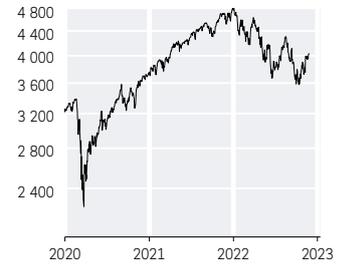
EURO-DOLLAR



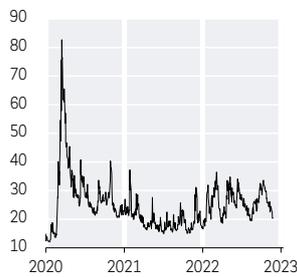
EUROSTOXX50



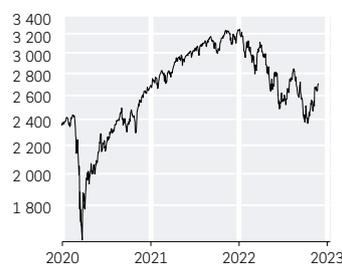
S&P500



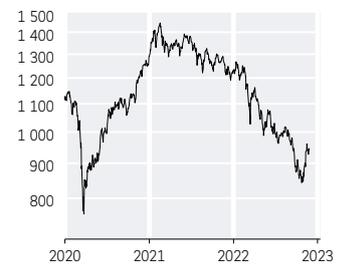
VOLATILITY (VIX, S&P500)



MSCI WORLD (USD)



MSCI EMERGING (USD)



10Y BOND YIELD, TREASURIES VS BUND



10Y BOND YIELD



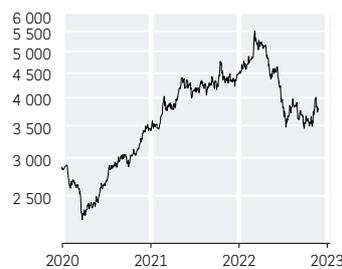
10Y BOND YIELD & SPREADS

Year 2022 to 25-11			
4.46%	Greece	249 bp	
3.74%	Italy	177 bp	
2.96%	Spain	99 bp	
2.76%	Portugal	79 bp	
2.57%	Austria	59 bp	
2.55%	Finland	57 bp	
2.54%	Belgium	57 bp	
2.43%	France	45 bp	
2.39%	Ireland	42 bp	
2.24%	Netherlands	27 bp	
1.97%	Germany		

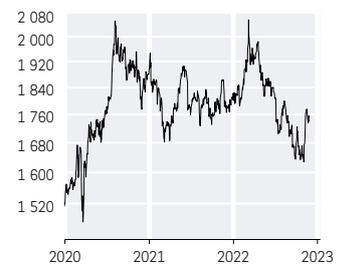
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS



ECONOMIC PULSE

UNCERTAINTY: THE INCREASE OF CORPORATE UNCERTAINTY CONTINUES

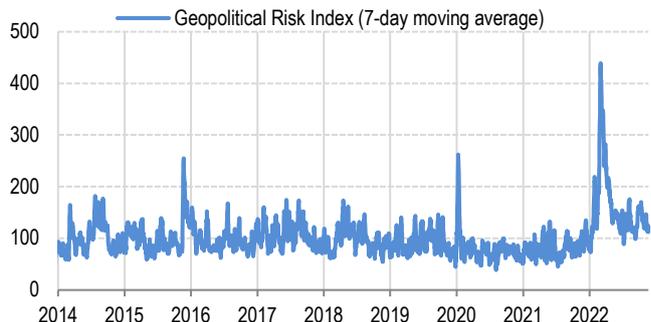
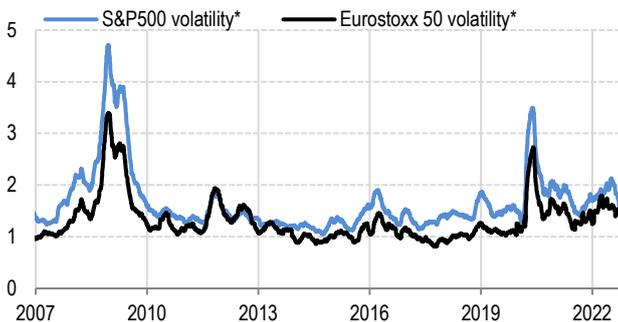
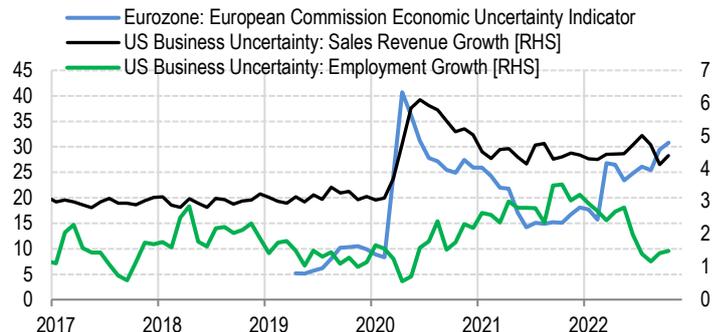
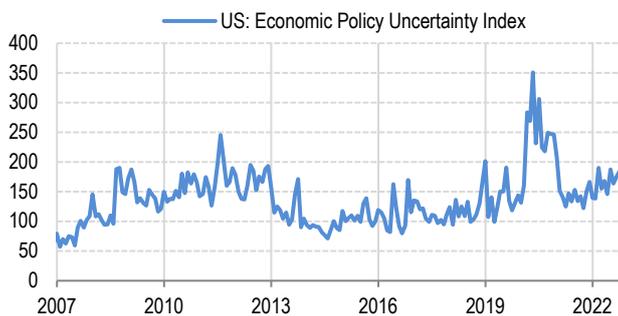
Our different uncertainty gauges are complementary, in terms of scope and methodology. Starting top left and continuing clockwise, US economic policy uncertainty based on media coverage has been on a rising trend over the past twelve months. This is related to the policy tightening by the Federal Reserve.

The latest observations however do not show a clear trend. In the US, the latest data show a rebound of business uncertainty about sales revenue growth as well as employment growth. The European Commission's uncertainty index has increased further. The geopolitical risk index, which is based on media coverage, shows no clear direction, although the latest data have declined somewhat.

Finally, the cross-sectional standard deviation of daily stock market returns of individual companies – a measure of financial uncertainty – has been on a declining trend in the Eurozone whereas the latest observations see an increase in the US after a significant decline.

William De Vijlder

CHANGES IN UNCERTAINTY



volatility = 60-day moving average of the cross-sectional standard deviation of daily returns of the index constituents

SOURCE: REFINITIV, ECONOMIC POLICY UNCERTAINTY, EUROPEAN COMMISSION, ATLANTA FED, GPR INDEX (MATTEOACOVIELLO.COM), BNP PARIBAS



ECONOMIC PULSE

INTERNATIONAL TRADE: UNCERTAIN TIMES AHEAD AS WINTER APPROACHES

Disruption in global trade has continued to abate. Despite this, there could still be major trade friction this winter, in addition to the direct repercussions of the war in Ukraine. China is facing a record rise in Covid-19 infections, and its Zero-Covid policy has shut down several plants in Henan province, which is home to the production lines for major global technology groups. In South Korea, another trucker strike began on 24 November and could further disrupt production lines in Asia. These strikes follow on from others across the world (UK, South Africa and Greece), which reflect the tense social mood driven by the sharp rise in food and energy prices.

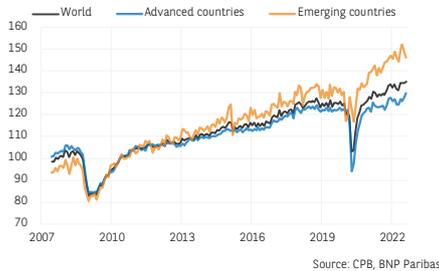
However, the direction of travel is clear. The Freightos index (see graph 5), which measures developments in global freight prices, has continued to decline in November (-10% over the first three weeks of the month), hitting its lowest level in two years. The value-chain-pressures synthetic index, which is published by the Federal Reserve of New York, is also falling. However, there is one exception to this trend. Shipping prices for oil products are soaring as a result of a shortage in ships, mainly due to high demand from European countries for liquefied natural gas. As a matter of fact, the Baltic dry indices, specifically for crude oil (dirty tanker) and refined oil (clean tanker), have both risen more than a third since the end of October.

Industrial activity has continued to slow, judging by the global manufacturing PMI, which fell further in October, from 49.8 in September to 49.4. The volume of world exports, calculated by the CPB (chart 1), has grown modestly so far during 2022 (+0.8% between December 2021 and August 2022), but reached nonetheless a new record level over the summer. The increase was mainly driven by Africa and the Middle East (+6.0% during the first eight months of the year), the United States (+4.0%) and the euro zone (+2.8%), while exports from Central and Eastern Europe plunged (-18.7%), due to the war in Ukraine. Chinese exports also decreased over the period (-1.0%).

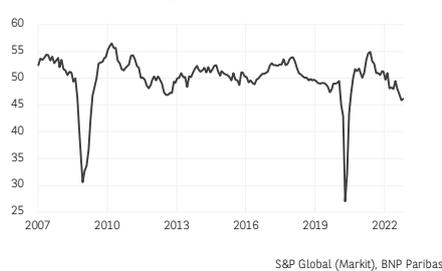
Guillaume Derrien

INTERNATIONAL TRADE INDICATORS

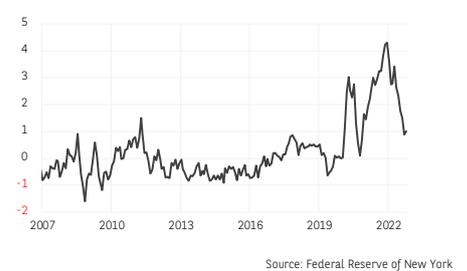
1. World exports by area, volume (index 2010 = 100)



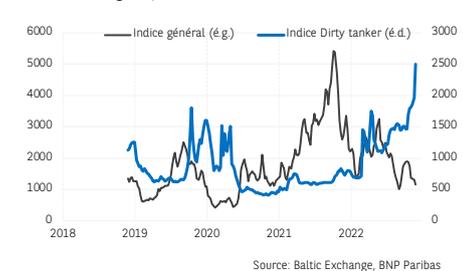
2. Global manufacturing PMI, new export orders



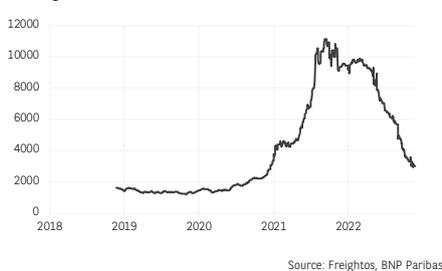
3. Global supply-chain pressures index



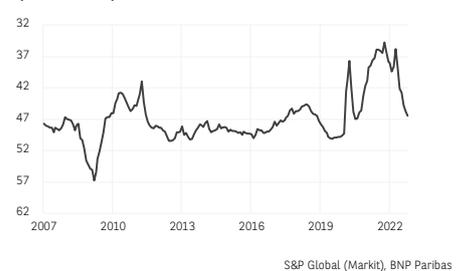
4. Baltic Exchange Dry Index



5. Freight rate index



6. Global manufacturing PMI, delivery times (Inverted line)



ECONOMIC PULSE

COVID-19: THE NUMBER OF CASES IS RISING AGAIN AROUND THE WORLD

Between 17 and 23 November, 2.9 million new cases of Covid-19 were recorded worldwide, an increase of 13% on the previous week. This is the second consecutive week with an increased number of infections. All the regions of the world are affected, with South America notable for a significant resurgence in cases (+43%, chart 1), particularly in Brazil (+71%). In Asia, the trend has also continued to rise (+14%). As for other regions, the number of new cases is also up in Europe (+9%), North America (+7%) and, to a lesser extent, Africa (+2%). To date, 68.4% of the global population has received at least one dose of a Covid-19 vaccine, and 13 billion doses have been administered worldwide (chart 2).

The weekly GDP substitution indicator is relatively stable in the United States, France and Italy and on a slightly downward trend in Japan and Spain. A slight recovery was seen in Belgium on the last point, and in Germany, while a clear drop emerged in the United Kingdom (chart 3).

This tracker is produced by the OECD using Google Trends data from searches relating to consumption, the labour market, real estate, industrial activity and uncertainty. The tracker shown here is calculated on a rolling basis over one year.

Tarik Rharrab

* 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.

DAILY CONFIRMED COVID-19 CASES (7-DAY MOVING AVERAGE)

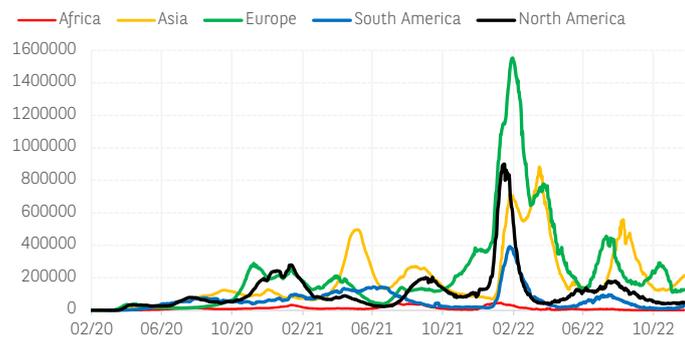


CHART 1

SOURCE: JOHNS-HOPKINS UNIVERSITY (11/25/2022), BNP PARIBAS

SHARE OF PEOPLE WHO RECEIVED AT LEAST ONE DOSE OF VACCINE

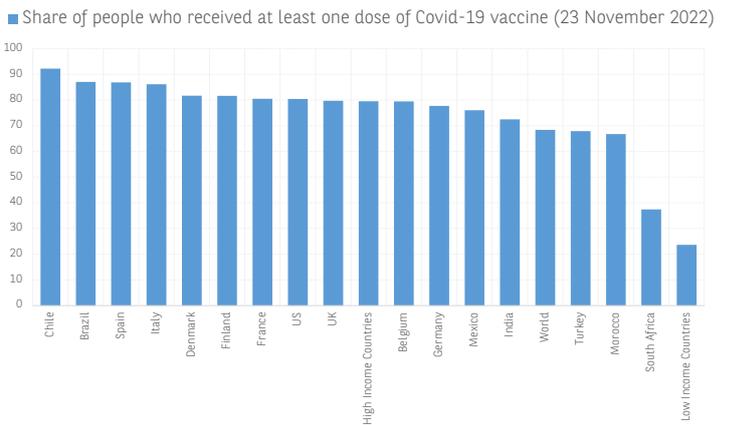
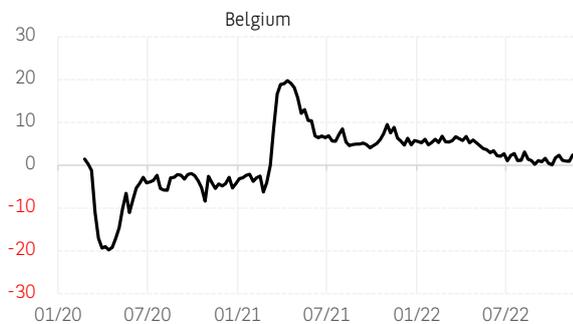
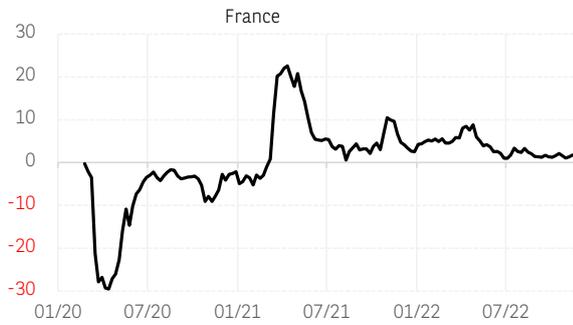
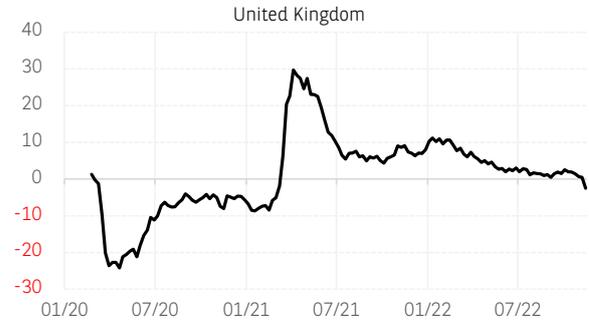
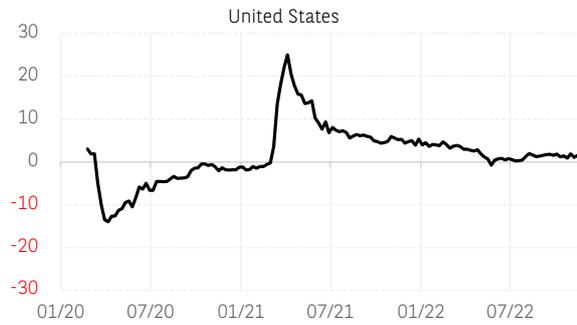


CHART 2

SOURCE: OUR WORLD IN DATA (11/25/2022), BNP PARIBAS



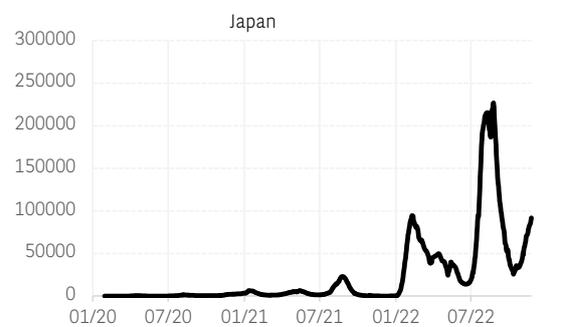
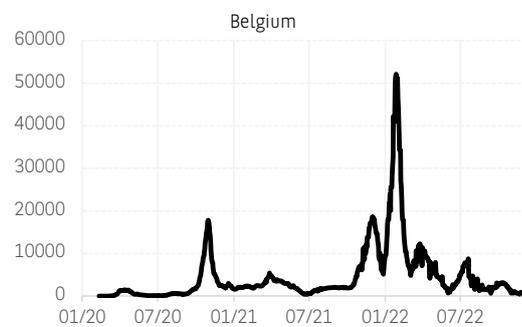
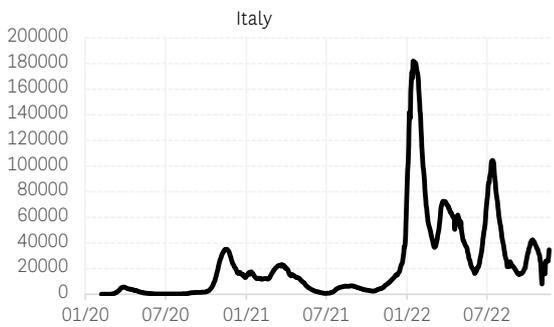
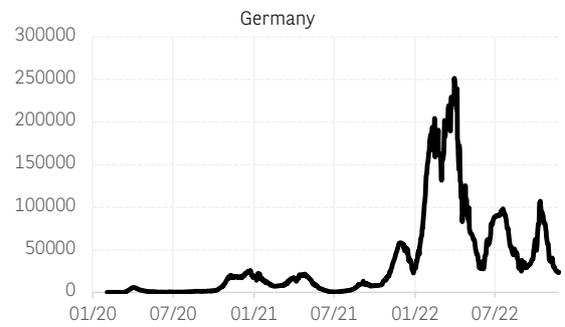
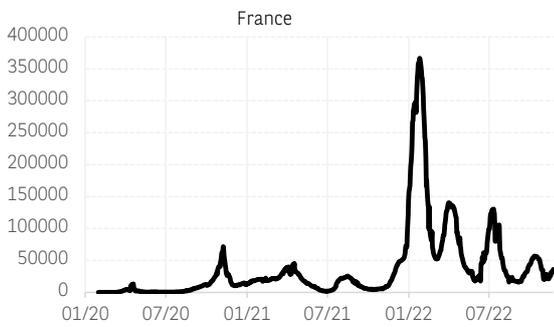
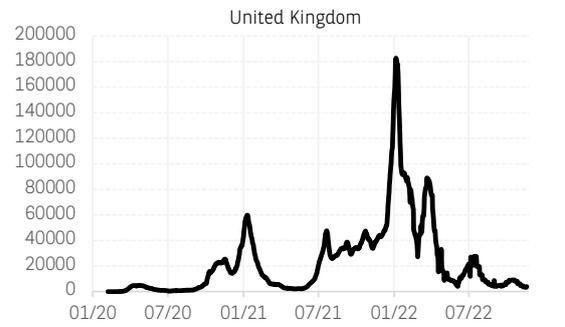
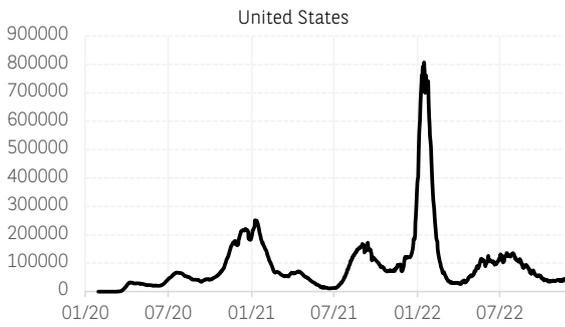
OECD WEEKLY TRACKER Y/Y GDP GROWTH



SOURCE: OECD (11/25/2022), BNP PARIBAS



DAILY NEW CONFIRMED CASES OF COVID-19 (7-DAY MOVING AVERAGE)



SOURCE: JOHNS-HOPKINS UNIVERSITY (11/25/2022)



ECONOMIC SCENARIO

11

UNITED STATES

The US economy rebounded strongly during Q3, following two quarters of negative growth, thanks to healthy performances in corporate investment, household spending and, in particular, exports. The labour market is showing very early signs of a slowdown, but job creation remains high, the unemployment rate is still low and wages are still buoyant. Inflation seems to have peaked in the middle of the year and should continue to fall while remaining significantly above the target of 2% by late 2023. Following the mid-term elections, the Democrats retained a narrow majority in the Senate and the Republicans won a very tiny majority in the House of Representatives. This should limit what President Joe Biden can do over the remainder of his term, but, at the same time, compromises could also be reached.

CHINA

The recovery of the Chinese economy since its Q2 2022 contraction has been sluggish and unbalanced. Industrial production has been the main growth driver, but it is expected to lose steam in the short term, largely due to the weakening in external demand and slower export growth. Meanwhile, activity driven by the domestic market and the services sector still struggle to strengthen. The authorities are enhancing fiscal and monetary easing measures. However, the drags on domestic demand remain powerful: the correction in the property sector continues, and the deterioration in the labour market, the still tight Covid policy in spite of small adjustments, and weak household confidence weigh on private consumption. Consumer price inflation is very moderate.

EUROZONE

Growth in the euro zone in the third quarter was weak, but at least it remained positive, while the survey data (business and consumer confidence) seemed to be clearly pointing to a decline. Although a contraction was avoided in the third quarter, the euro zone is unlikely to avoid recession. The combination of the inflationary shock, the energy crisis and the enforced monetary tightening and their increasingly negative effects are likely to overcome the resistance seen to date. However, the recession should remain shallow (a cumulative fall in GDP of 1.1% between Q4 2022 and Q2 2023) thanks to the fiscal policy cushion and the current tightness of the labour market. In annual average terms, real GDP growth in the euro zone is expected to reach 3.2% in 2022 but then turn negative in 2023 (-0.5%). The subsequent recovery is likely to be weak. Although it should start to decline towards the end of this year or the beginning of next year, inflation is likely to remain elevated, well above the 2% target at the end of next year and only falling back to it at the end of 2024, which will keep monetary policy in restrictive territory.

FRANCE

Real GDP growth has continued during the 3rd quarter (0.2% q/q, after +0.5% during the 2nd quarter), driven by a growth of manufacturing production partly explained by a recovery of sectors exposed to supply-side problems (particularly the car sector) and partly related to growing inventories in order to avoid potential stronger constraints on production during the winter. This element should weigh on Q4 GDP growth, which should also suffer from the ongoing inflation acceleration (6.2% y/y in October) towards a new peak above 7% in February (before a gradual disinflation). These shocks should weigh on GDP growth in 2023 (0% according to our forecasts, after 2.5% in 2022).

RATES AND EXCHANGE RATES

In the US, the Federal Reserve will continue its tightening policy, bringing the federal funds rate to its terminal rate for this cycle at 5.25% (upper end of the target range) in the first quarter of next year. Given the expected slow decline in inflation and despite the economy entering recession, this level should be maintained through 2023 and only be followed by rate cuts in 2024. US Treasuries are largely pricing in the upcoming rate hikes. In the near term there is still some upward potential, but subsequently yields should move lower as the inflation outlook improves and the market starts anticipating policy easing in 2024.

The ECB Governing Council will continue to raise its policy rates at its next meetings. We expect the terminal rate -i.e. the peak rate in this cycle- to be reached by the end of the first quarter of next year. We expect a peak for the deposit rate at 3.00%. We expect quantitative tightening to start in the second quarter of 2023. Early on in 2023, we expect higher government bond yields on the back of important supply but thereafter yields should move lower, driven by a gradual decline in inflation. Lower US yields should also play a role in the decline of eurozone yields.

The Bank of Japan is expected to maintain its current policy stance and we do not envisage a rate hike.

We expect the dollar to weaken somewhat versus the euro. The dollar's valuation is expensive, positioning in the market is very long and the long-term interest rate differential should narrow.

The yen has already weakened significantly versus the dollar, reflecting the increased policy divergence between the Fed and the Bank of Japan. We expect the exchange rate to remain around current levels in the near term. In 2023, the yen should strengthen versus the dollar considering that the federal funds rate should have reached its terminal rate.

GDP GROWTH & INFLATION

%	GDP Growth				Inflation			
	2021	2022 e	2023 e	2024 e	2021	2022 e	2023 e	2024 e
United-States	5.7	1.9	-0.1	-0.2	4.7	8.1	4.4	2.4
Japan	1.7	1.5	0.9	0.3	-0.2	2.4	1.9	1.3
United-Kingdom	7.4	4.4	-0.9	0.8	2.6	9.0	7.4	2.1
Euro Area	5.3	3.2	-0.5	1.3	2.6	8.5	5.7	2.3
Germany	2.6	1.8	-1.0	1.1	3.2	8.8	5.4	2.0
France	6.8	2.5	0.0	1.0	2.1	6.0	6.2	2.7
Italy	6.6	3.8	-0.4	1.1	1.9	8.5	6.5	2.1
Spain	5.1	4.6	0.0	1.3	3.0	8.5	2.8	1.5
China	8.1	3.2	4.5	4.8	0.9	2.1	2.7	2.5
India*	9.3	8.3	6.2	6.5	5.4	7.9	5.9	5.5
Brazil	4.6	3.0	0.5	1.3	8.3	9.4	5.4	4.9
Russia	4.5	-7.0	0.8	0.3	7.1	14.0	10.5	7.6

SOURCE: BNP PARIBAS GROUP ECONOMIC RESEARCH (E: ESTIMATES & FORECASTS)
*FISCAL YEAR FROM 1ST APRIL OF YEAR N TO MARCH 31ST OF YEAR N+1

INTEREST & EXCHANGE RATES

Interest rates, %		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024	
End of period							
US	Fed Funds (upper limit)	5.25	5.25	5.25	5.25	3.25	
	T-Note 10y	4.30	4.00	3.75	3.50	3.25	
	Eurozone	Deposit rate	3.00	3.00	3.00	3.00	2.00
		Bund 10y	2.75	2.65	2.50	2.30	2.00
UK	OAT 10y	3.45	3.30	3.10	2.90	2.50	
	BTP 10y	5.25	5.05	4.80	4.60	3.80	
	BONO 10y	4.05	3.90	3.75	3.55	2.90	
	Base rate	4.25	4.25	4.25	4.25	3.50	
Japan	Gilts 10y	4.00	3.75	3.60	3.35	3.15	
	BoJ Rate	-0.10	-0.10	-0.10	-0.10	-0.10	
	JGB 10y	0.25	0.25	0.25	0.25	0.25	

Exchange Rates		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
End of period						
USD	EUR / USD	1.01	1.00	1.03	1.06	1.10
	USD / JPY	140	138	133	128	120
	GBP / USD	1.09	1.08	1.11	1.14	1.18
EUR	EUR / GBP	0.93	0.93	0.95	0.95	0.95
	EUR / JPY	141	138	137	136	132
Brent						
End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
Brent	USD/bbl	95	93	95	92	95

SOURCES: BNP PARIBAS (E: ESTIMATES & FORECASTS) (MARKET ECONOMICS, INTEREST RATE STRATEGY, FX STRATEGY, COMMODITIES DESK STRATEGY)



BNP PARIBAS

The bank
for a changing
world

CALENDAR

12

LATEST INDICATORS

In the Eurozone, consumer confidence has rebounded more than expected. This also applies to the manufacturing flash PMI, whereas the services PMI has remained stable, which was better than anticipated. The French manufacturing PMI increased, beating expectations by a wide margin (49.1 versus 47.0) but the services PMI recorded a disappointing and significant drop to 49.4. Business confidence on the other hand was stable and consumer confidence edged higher. In Germany, the manufacturing flash PMI rebounded and the services index was virtually stable. The IFO expectations index increased more than expected. Consumer confidence on the other hand declined. In Japan, the PMI surveys were considerably weaker in manufacturing as well as services. The UK PMI data were stable. In the US, both the manufacturing and services PMI recorded a big decline, reaching respectively 47.6 and 46.1. University of Michigan sentiment improved however, in particular the expectations component. One-year inflation expectations declined to 4.9%. Finally, new home sales rebounded strongly.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
11/22/2022	Eurozone	OECD Publishes Economic Outlook		--	--	--
11/22/2022	Eurozone	Consumer Confidence	Nov	-26.0	-23.9	-27.5
11/23/2022	France	S&P Global France Manufacturing PMI	Nov	47.0	49.1	47.2
11/23/2022	France	S&P Global France Services PMI	Nov	50.6	49.4	51.7
11/23/2022	France	S&P Global France Composite PMI	Nov	49.4	48.8	50.2
11/23/2022	Germany	S&P Global/BME Germany Manufacturing PMI	Nov	45.0	46.7	45.1
11/23/2022	Germany	S&P Global Germany Services PMI	Nov	46.2	46.4	46.5
11/23/2022	Germany	S&P Global Germany Composite PMI	Nov	44.9	46.4	45.1
11/23/2022	Eurozone	S&P Global Eurozone Manufacturing PMI	Nov	46.0	47.3	46.4
11/23/2022	Eurozone	S&P Global Eurozone Services PMI	Nov	48.0	48.6	48.6
11/23/2022	Eurozone	S&P Global Eurozone Composite PMI	Nov	47.0	47.8	47.3
11/23/2022	United Kingdom	S&P Global/CIPS UK Manufacturing PMI	Nov	45.8	46.2	46.2
11/23/2022	United Kingdom	S&P Global/CIPS UK Services PMI	Nov	48.0	48.8	48.8
11/23/2022	United Kingdom	S&P Global/CIPS UK Composite PMI	Nov	47.5	48.3	48.2
11/23/2022	United States	MBA Mortgage Applications	Nov	--	2.2%	2.7%
11/23/2022	United States	Cap Goods Orders Nondef Ex Air	Oct	0.0%	0.7%	-0.8%
11/23/2022	United States	Initial Jobless Claims	Nov	225k	240k	223k
11/23/2022	United States	S&P Global US Manufacturing PMI	Nov	50.0	47.6	50.4
11/23/2022	United States	S&P Global US Services PMI	Nov	48.0	46.1	47.8
11/23/2022	United States	S&P Global US Composite PMI	Nov	48.0	46.3	48.2
11/23/2022	United States	U. of Mich. Sentiment	Nov	55.0	56.8	54.7
11/23/2022	United States	U. of Mich. Current Conditions	Nov	57.8	58.8	57.8
11/23/2022	United States	U. of Mich. Expectations	Nov	52.5	55.6	52.7



DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
11/23/2022	United States	U. of Mich. 1 Yr Inflation	Nov	5.1%	4.9%	5.1%
11/23/2022	United States	U. of Mich. 5-10 Yr Inflation	Nov	3.0%	3.0%	3.0%
11/23/2022	United States	New Home Sales MoM	Oct	-5.5%	7.5%	-11.0%
11/23/2022	United States	FOMC Meeting Minutes	Nov	--	--	--
11/24/2022	Japan	Jibun Bank Japan PMI Services	Nov	--	50.0	53.2
11/24/2022	Japan	Jibun Bank Japan PMI Composite	Nov	--	48.9	51.8
11/24/2022	Japan	Jibun Bank Japan PMI Mfg	Nov	--	49.4	50.7
11/24/2022	France	Business Confidence	Nov	101.0	102.0	102.0
11/24/2022	Germany	IFO Business Climate	Nov	85.0	86.3	84.5
11/24/2022	Germany	IFO Current Assessment	Nov	93.9	93.1	94.2
11/24/2022	Germany	IFO Expectations	Nov	77.0	80.0	75.9
11/25/2022	Germany	GfK Consumer Confidence	Dec	-39.6	-40.2	-41.9
11/25/2022	France	Consumer Confidence	Nov	83.0	83.0	82.0

SOURCE: BLOOMBERG



CALENDAR: THE WEEK AHEAD

14

COMING INDICATORS

An important week with the publication of the European Commission's business surveys, euro area inflation for November and the manufacturing PMI in many countries. In the US, we will have the Conference Board consumer confidence index, the ISM index, data on personal spending and income, job openings and, as highlight of the week, the labour market report.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
11/29/2022	Eurozone	Economic Confidence	Nov	--	92.5
11/29/2022	Eurozone	Industrial Confidence	Nov	--	-1.2
11/29/2022	Eurozone	Services Confidence	Nov	--	1.8
11/29/2022	Eurozone	Consumer Confidence	Nov F	--	-23.9
11/29/2022	United States	Conf. Board Consumer Confidence	Nov	100.0	102.5
11/29/2022	United States	Conf. Board Present Situation	Nov	--	138.9
11/29/2022	United States	Conf. Board Expectations	Nov	--	78.1
11/30/2022	China	Manufacturing PMI	Nov	49.2	49.2
11/30/2022	China	Non-manufacturing PMI	Nov	48.0	48.7
11/30/2022	France	CPI EU Harmonized MoM	Nov P	--	1.2%
11/30/2022	France	Consumer Spending MoM	Oct	--	1.2%
11/30/2022	France	GDP QoQ	3Q F	--	0.2%
11/30/2022	Germany	Unemployment Change (000's)	Nov	--	8.0k
11/30/2022	Eurozone	CPI Estimate YoY	Nov	10.7%	10.7%
11/30/2022	Eurozone	CPI MoM	Nov P	0.3%	1.5%
11/30/2022	Eurozone	CPI Core YoY	Nov P	5.0%	5.0%
11/30/2022	United States	MBA Mortgage Applications	nov-25	--	2.2%
11/30/2022	United States	GDP Annualized QoQ	3Q S	2.7%	2.6%
11/30/2022	United States	JOLTS Job Openings	Oct	10325k	10717k
11/30/2022	United States	U.S. Federal Reserve Releases Beige Book			
12/01/2022	Japan	Jibun Bank Japan PMI Mfg	Nov F	--	49.4
12/01/2022	China	Caixin China PMI Mfg	Nov	48.9	49.2
12/01/2022	France	S&P Global France Manufacturing PMI	Nov F	49.1	49.1
12/01/2022	Germany	S&P Global/BME Germany Manufacturing PMI	Nov F	46.7	46.7

SOURCE: BLOOMBERG



DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
12/01/2022	Eurozone	S&P Global Eurozone Manufacturing PMI	Nov F	47.3	47.3
12/01/2022	United Kingdom	S&P Global/CIPS UK Manufacturing PMI	Nov F	46.2	46.2
12/01/2022	Eurozone	Unemployment Rate	Oct	6.6%	6.6%
12/01/2022	United States	Personal Income	Oct	0.4%	0.4%
12/01/2022	United States	Personal Spending	Oct	0.8%	0.6%
12/01/2022	United States	PCE Core Deflator MoM	Oct	0.3%	0.5%
12/01/2022	United States	Initial Jobless Claims	nov-26	--	240k
12/01/2022	United States	S&P Global US Manufacturing PMI	Nov F	--	47.6
12/01/2022	United States	ISM Manufacturing	Nov	49.8	50.2
12/02/2022	Eurozone	PPI MoM	Oct	--	1.6%
12/02/2022	United States	Change in Nonfarm Payrolls	Nov	200k	261k
12/02/2022	United States	Unemployment Rate	Nov	3.7%	3.7%
12/02/2022	United States	Labor Force Participation Rate	Nov	62.3%	62.2%

SOURCE: BLOOMBERG



FURTHER READING

16

Can Germany escape the recession?	EcoTVWeek	25 November 2022
US: The end of wage bargaining power?	Chart of the Week	23 November 2022
Eurozone: the surprising resilience of the labour market, will it last?	EcoWeek	21 November 2022
Gone with the wind: the erosion of real household wealth	EcoTVWeek	18 November 2022
Romania: a widening current account deficit in 2022	Chart of the Week	16 November 2022
US: Disinflation has started	EcoWeek	14 November 2022
Spain: national recovery plan, contrasted progresses	EcoTVWeek	10 November 2022
Italy: The increase in fixed rates for house purchase loans is favouring floating rates	Chart of the Week	9 November 2022
US : Federal Reserve: how much is enough?	EcoWeek	7 November 2022
France: Inflation spike? Not yet	EcoTVWeek	4 November 2022
Japan: An increasingly large proportion of Japanese subsidiaries based abroad	Chart of the Week	2 November 2022
Eurozone: The disinflation of 2023, between hope and uncertainty	EcoWeek	31 October 2022
Hungarian Forint: under selling pressure	EcoTVWeek	28 October 2022
China: consumer spending still depressed	Chart of the Week	26 October 2022
Global: Synchronous rate hikes: a sum-of-the-parts analysis	EcoWeek	24 October 2022
Hungarian Forint: under selling pressure	EcoTVWeek	21 October 2022
Germany: Revising the PMI to better understand shocks affecting industry	EcoFlash	19 October 2022
US : Foreign investors in US Treasuries: official and private sectors now neck and neck	Chart of the Week	19 October 2022
Global growth at risk	EcoWeek	17 October 2022
Qatar: favorable prospects thanks to the gas rent	EcoTVWeek	14 October 2022



GROUP ECONOMIC RESEARCH

William De Vijlder
Chief Economist

+33 1 55 77 47 31

william.devijlder@bnpparibas.com

OECD ECONOMIES AND STATISTICS

Hélène Baudchon
Head - Eurozone - Climate

+33 1 58 16 03 63

helene.baudchon@bnpparibas.com

Felix Berte
United States, United Kingdom

+33 1 40 14 01 42

felix.berte@bnpparibas.com

Stéphane Colliac
France

+33 1 42 98 43 86

stephane.colliac@bnpparibas.com

Guillaume Derrien
Southern Europe, Japan - International trade

+33 1 55 77 71 89

guillaume.a.derrien@bnpparibas.com

Anthony Morlet-Lavidalie
Germany, Northern Europe

+33 1 53 31 59 14

anthony.morletlavidalie@bnpparibas.com

Veary Bou, Tarik Rharrab
Statistics

ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENCH NETWORK

Jean-Luc Proutat
Head

+33 1 58 16 73 32

jean-luc.proutat@bnpparibas.com

BANKING ECONOMICS

Laurent Quignon
Head

+33 1 42 98 56 54

laurent.quignon@bnpparibas.com

Céline Choulet

+33 1 43 16 95 54

celine.choulet@bnpparibas.com

Thomas Humblot

+33 1 40 14 30 77

thomas.humblot@bnpparibas.com

Marianne Mueller

+33 1 40 14 48 11

marianne.mueller@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

François Faure
Head - Argentina, Turkey - Methodology, Modelling

+33 1 42 98 79 82

francois.faure@bnpparibas.com

Christine Peltier
Deputy Head - Greater China, Vietnam - Methodology

+33 1 42 98 56 27

christine.peltier@bnpparibas.com

Stéphane Alby
Africa (French-speaking countries)

+33 1 42 98 02 04

stephane.alby@bnpparibas.com

Pascal Devaux
Middle East, Balkan countries

+33 1 43 16 95 51

pascal.devaux@bnpparibas.com

Hélène Drouot
South Korea, Philippines, Thailand, Andean countries

+33 1 42 98 33 00

helene.drouot@bnpparibas.com

Perrine Guérin
South Africa & English/Portuguese-speaking African countries

+33 1 42 98 43 86

perrine.guerin@bnpparibas.com

Salim Hammad
Latin America

+33 1 42 98 74 26

salim.hammad@bnpparibas.com

Cynthia Kalasopatan Antoine
Ukraine, Central European countries

+33 1 53 31 59 32

cynthia.kalasopatan.antoine@bnpparibas.com

Johanna Melka
India, South Asia, Russia, Kazakhstan

+33 1 58 16 05 84

johanna.melka@bnpparibas.com

CONTACT MEDIA

Mickaëlle Fils Marie-Luce

+33 1 42 98 48 59

mickaëlle.filsmarie-luce@bnpparibas.com



BNP PARIBAS

**The bank
for a changing
world**

GROUP ECONOMIC RESEARCH



CONJONCTURE

Structural or thematic topics.



EMERGING

Analyses and forecasts for a selection of emerging economies.



PERSPECTIVES

Analyses and forecasts with a focus on developed countries.



ECOFASH

Data releases, major economic events.



ECOWEEK

Recent economic and policy developments, data comments, economic calendar, forecasts.



ECOTV

A monthly video with interviews of our economists.



ECOTV WEEK

A weekly video discussing the main event of the week.



MACROWAVES

Our economic podcast.

HOW TO RECEIVE OUR PUBLICATIONS

SUBSCRIBE ON OUR WEBSITE
[see the Economic Research website](#)

&

FOLLOW US ON LINKEDIN
[see the Economic Research linkedin page](#)

OR TWITTER
[see the Economic Research Twitter page](#)



Published by BNP PARIBAS Economic Research

Head office: 16 boulevard des Italiens - 75009 Paris France / Phone : +33 (0) 1.42.98.12.34

Internet: www.group.bnpparibas.com - www.economic-research.bnpparibas.com

Head of publication : Jean Lemierre / Chief editor: William De Vijlder

The information and opinions contained in this report have been obtained from, or are based on, public sources believed to be reliable, but no representation or warranty, express or implied, is made that such information is accurate, complete or up to date and it should not be relied upon as such. This report does not constitute an offer or solicitation to buy or sell any securities or other investment. It does not constitute investment advice, nor financial research or analysis. Information and opinions contained in the report are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient; they are subject to change without notice and not intended to provide the sole basis of any evaluation of the instruments discussed herein. Any reference to past performance should not be taken as an indication of future performance. To the fullest extent permitted by law, no BNP Paribas group company accepts any liability whatsoever (including in negligence) for any direct or consequential loss arising from any use of or reliance on material contained in this report. All estimates and opinions included in this report are made as of the date of this report. Unless otherwise indicated in this report there is no intention to update this report. BNP Paribas SA and its affiliates (collectively "BNP Paribas") may make a market in, or may, as principal or agent, buy or sell securities of any issuer or person mentioned in this report or derivatives thereon. BNP Paribas may have a financial interest in any issuer or person mentioned in this report, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon. Prices, yields and other similar information included in this report are included for information purposes. Numerous factors will affect market pricing and there is no certainty that transactions could be executed at these prices. BNP Paribas, including its officers and employees may serve or have served as an officer, director or in an advisory capacity for any person mentioned in this report. BNP Paribas may, from time to time, solicit, perform or have performed investment banking, underwriting or other services (including acting as adviser, manager, underwriter or lender) within the last 12 months for any person referred to in this report. BNP Paribas may be a party to an agreement with any person relating to the production of this report. BNP Paribas, may to the extent permitted by law, have acted upon or used the information contained herein, or the research or analysis on which it was based, before its publication. BNP Paribas may receive or intend to seek compensation for investment banking services in the next three months from or in relation to any person mentioned in this report. Any person mentioned in this report may have been provided with sections of this report prior to its publication in order to verify its factual accuracy.

BNP Paribas is incorporated in France with limited liability. Registered Office 16 Boulevard des Italiens, 75009 Paris. This report was produced by a BNP Paribas group company. This report is for the use of intended recipients and may not be reproduced (in whole or in part) or delivered or transmitted to any other person without the prior written consent of BNP Paribas. By accepting this document you agree to be bound by the foregoing limitations.

Certain countries within the European Economic Area:

This report has been approved for publication in the United Kingdom by BNP Paribas London Branch. BNP Paribas London Branch is authorised and supervised by the Autorité de Contrôle Prudentiel and authorised and subject to limited regulation by the Financial Services Authority. Details of the extent of our authorisation and regulation by the Financial Services Authority are available from us on request.

This report has been approved for publication in France by BNP Paribas SA. BNP Paribas SA is incorporated in France with Limited Liability and is authorised by the Autorité de Contrôle Prudentiel (ACP) and regulated by the Autorité des Marchés Financiers (AMF). Its head office is 16, boulevard des Italiens 75009 Paris, France.

This report is being distributed in Germany either by BNP Paribas London Branch or by BNP Paribas Niederlassung Frankfurt am Main, a branch of BNP Paribas S.A. whose head office is in Paris, France. BNP Paribas S.A. - Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frankfurt is authorised and supervised by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

United States: This report is being distributed to US persons by BNP Paribas Securities Corp., or by a subsidiary or affiliate of BNP Paribas that is not registered as a US broker-dealer. BNP Paribas Securities Corp., a subsidiary of BNP Paribas, is a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority and other principal exchanges. BNP Paribas Securities Corp. accepts responsibility for the content of a report prepared by another non-U.S. affiliate only when distributed to U.S. persons by BNP Paribas Securities Corp.

Japan: This report is being distributed in Japan by BNP Paribas Securities (Japan) Limited or by a subsidiary or affiliate of BNP Paribas not registered as a financial instruments firm in Japan, to certain financial institutions defined by article 17-3, item 1 of the Financial Instruments and Exchange Law Enforcement Order. BNP Paribas Securities (Japan) Limited is a financial instruments firm registered according to the Financial Instruments and Exchange Law of Japan and a member of the Japan Securities Dealers Association and the Financial Futures Association of Japan. BNP Paribas Securities (Japan) Limited accepts responsibility for the content of a report prepared by another non-Japan affiliate only when distributed to Japanese based firms by BNP Paribas Securities (Japan) Limited. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan.

Hong Kong: This report is being distributed in Hong Kong by BNP Paribas Hong Kong Branch, a branch of BNP Paribas whose head office is in Paris, France. BNP Paribas Hong Kong Branch is registered as a Licensed Bank under the Banking Ordinance and regulated by the Hong Kong Monetary Authority. BNP Paribas Hong Kong Branch is also a Registered Institution regulated by the Securities and Futures Commission for the conduct of Regulated Activity Types 1, 4 and 6 under the Securities and Futures Ordinance.

Some or all the information reported in this document may already have been published on <https://globalmarkets.bnpparibas.com>

© BNP Paribas (2015). All rights reserved.



BNP PARIBAS

**The bank
for a changing
world**