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ECONOMIC RESEARCH

BNP PARIBAS

The bank
for a changing
world

WILL THE ENERGY TRANSITION CAUSE AN INCREASE IN INTEREST RATES?

Meeting the European Union's climate-related and digital ambitions will require a huge additional annual investment effort. In the near term, against a background of slowing growth and the prospect of a recession in 2023, this represents a potential source of resilience. In the medium term, this demand impulse may underpin or even increase inflation, in addition to other factors that could lead to greenflation. This would influence the level of official interest rates as well as long-term interest rates. The latter could also be under upward pressure due to the huge additional financing needs compared to the normal financing flows. The financing mix -banks versus capital markets- plays a key role in this respect.

According to the European Commission, meeting the European Union's climate-related and digital ambitions will require an additional annual investment effort until 2030 of EUR 650 billion.[1] Compared to GDP and the normal level of investments, the numbers are huge. In 2021, this sum would have represented 4.5% of GDP.[2] For the period 2000-2021, gross fixed capital formation of households, companies and the public sector represented on average 21.5% of EU GDP, so the additional investments would represent an increase of gross investment of more than 20%. Macroeconomically, the green transition can be considered as the accelerated replacement of old, high carbon-footprint technology with new environmentally friendly technology.[3] Likewise, the digital transition represents an accelerated investment effort, with, amongst others, a key objective of remaining competitive.

Clearly, one should assume that, to some degree, there will be a substitution effect -outdated capital stock would have been replaced anyhow- so the net effect is virtually impossible to determine. However, by simply looking at the investment needs for the production and distribution of alternative energy as well as those for making houses and buildings in general more energy efficient, one should assume a significant increase in capital formation and demand in general over the coming years.

Against a background of slowing growth and the prospect of a recession in 2023, this represents a source of resilience. Companies operating in the sectors that will benefit from the demand for capital goods will look at the future with greater confidence than would otherwise have been the case. This in turn will influence their business strategy, hiring plans, etc., thereby creating positive spillovers effects to other sectors.

This demand impulse may underpin or even increase inflation, in addition to other factors that could lead to greenflation.[4] Under such a scenario, this would influence the level of official interest rates as well as long-term interest rates. The latter could also be under upward pressure due to the huge financing needs. The chart shows the financing that has been available to the resident private sector in the euro area annually since the end of the nineties by means of bank

EUROZONE: NET FINANCING FLOWS TO THE RESIDENT PRIVATE SECTOR

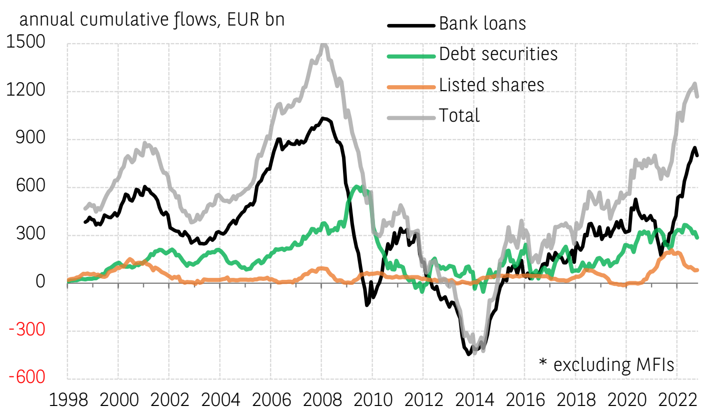


CHART 1

SOURCE: ECB, BNP PARIBAS

1. Source : ECB, Financial Integration and Structure in the Euro Area, April 2022.
2. In 2021 EU GDP amounted to EUR 14.5 trillion (source: Eurostat).
3. 'Technology' has a very broad meaning in this context, in order to simplify things. It covers the size of the capital stock as well as its quality -from a technological and environmental perspective-, the capital stock to produce and distribute alternative energy, the environmental characteristics of buildings, etc.
4. The other factors concern the price of energy: "The combination of insufficient production capacity of renewable energies in the short run, subdued investments in fossil fuels and rising carbon prices means that we risk facing a possibly protracted transition period during which the energy bill will be rising." (Source: Looking through higher energy prices? Monetary policy and the green transition, Remarks by Isabel Schnabel, Member of the Executive Board of the ECB, at a panel on "Climate and the Financial System" at the American Finance Association 2022 Virtual Annual Meeting, 8 January 2022).

> The additional annual investment effort to meet the European Union's climate-related and digital ambitions will, given its size compared to normal financing flows, probably put upward pressure on interest rates. The financing mix -commercial banks versus capital markets- will play a key role in this respect.

lending, debt issuance and raising equity capital. It allows to compare the additional investment need -the call on financing- with what has been available in the past. Assuming that in the euro area the additional investment efforts as a percentage of GDP are the same as in the EU, it would imply an annual amount of EUR 550 bn. Compared to the financing flows of 2008, which was a record year, this would represent 37% of the financing available that year. For any other year, the numbers would be even more impressive. This raises the question on the possible impact on interest rates. In national accounting, the available means of financing correspond to the needs, an identity which is commonly referred to as 'savings equals investments'.[5]

However, the reality is more complex: the fact that savings equal investments is the result of a dynamic process whereby interest rates play a key role in arriving at a balance between the two. Given the size of the additional annual investment effort and what it represents as a percentage of financing flows, it is to be expected that it will lead to upward pressure on real interest rates, in addition to the role played by greenflation on inflation expectations of financial market participants. The financing mix plays a key role in this respect. To the extent that it is predominantly bank-based, the money creation of commercial banks should limit the upward pressure on real interest rates. When financing comes from capital markets, there is no money creation, so higher interest rates will be necessary to entice an increase in savings and possibly attract capital inflows to meet the financing needs.

William De Vijlder

5. Households typically save more than they invest. Their net savings surplus can finance the net borrowing requirement of the public sector, of companies or of foreign sectors. The current account surplus of a country corresponds to a net savings surplus of the domestic economic sectors (households, companies, public sector), which enables them to finance foreign sectors. A current account deficit corresponds to a net savings shortfall of the domestic economic sectors, which forces them to rely on foreign sectors to cover this deficit.

MARKETS OVERVIEW

OVERVIEW

Week 2-12 22 to 9-12-22				
↘ CAC 40	6 742	▸ 6 678	-1.0	%
↘ S&P 500	4 072	▸ 3 934	-3.4	%
↗ Volatility (VIX)	19.1	▸ 22.8	+3.8	pb
↗ Euribor 3M (%)	1.98	▸ 2.01	+3.0	bp
↗ Libor $ 3M (%)	4.73	▸ 4.73	+0.1	bp
↗ OAT 10y (%)	2.32	▸ 2.39	+7.0	bp
↗ Bund 10y (%)	1.86	▸ 1.93	+7.0	bp
↗ US Tr. 10y (%)	3.50	▸ 3.57	+6.5	bp
↗ Euro vs dollar	1.05	▸ 1.05	+0.6	%
↗ Gold (ounce, $)	1 790	▸ 1 798	+0.5	%
↘ Oil (Brent, $)	85.7	▸ 76.4	-10.9	%

MONEY & BOND MARKETS

Interest Rates		highest 22			lowest 22		
€ ECB	2.00	2.00	at	02/11	0.00	at	03/01
Eonia	-0.51	-0.51	at	03/01	-0.51	at	03/01
Euribor 3M	2.01	2.01	at	09/12	-0.58	at	05/01
Euribor 12M	2.86	2.89	at	28/11	-0.50	at	05/01
$ FED	4.00	4.00	at	03/11	0.25	at	03/01
Libor 3M	4.73	4.78	at	30/11	0.21	at	03/01
Libor 12M	5.50	5.67	at	04/11	0.58	at	03/01
£ BoE	3.00	3.00	at	03/11	0.25	at	03/01
Libor 3M	3.76	3.76	at	09/12	0.26	at	03/01
Libor 12M	0.81	0.81	at	03/01	0.81	at	03/01

At 9-12-22

Yield (%)		highest 22			lowest 22		
€ AVG 5-7y	2.64	2.79	at	28/09	-0.04	at	03/01
Bund 2y	2.11	2.16	at	08/11	-0.83	at	04/03
Bund 10y	1.93	2.44	at	21/10	-0.14	at	24/01
OAT 10y	2.39	3.00	at	21/10	0.15	at	04/01
Corp. BBB	4.14	5.14	at	21/10	0.90	at	05/01
$ Treas. 2y	4.43	4.78	at	07/11	0.70	at	04/01
Treas. 10y	3.57	4.23	at	24/10	1.63	at	03/01
High Yield	8.67	9.97	at	13/10	5.07	at	03/01
£ gilt. 2y	3.49	4.59	at	27/09	0.69	at	03/01
gilt. 10y	3.18	4.50	at	27/09	0.97	at	03/01

At 9-12-22

EXCHANGE RATES

1€ =		highest 22			lowest 22			2022
USD	1.05	1.15	at	10/02	0.96	at	27/09	-7.3%
GBP	0.86	0.90	at	28/09	0.83	at	14/04	+2.1%
CHF	0.98	1.06	at	10/02	0.95	at	28/09	-5.1%
JPY	143.98	147.34	at	26/10	125.37	at	04/03	+9.9%
AUD	1.55	1.62	at	04/02	1.43	at	25/08	-0.8%
CNY	7.32	7.49	at	28/11	6.75	at	14/07	+1.0%
BRL	5.51	6.44	at	06/01	4.98	at	03/11	-13.0%
RUB	66.01	164.76	at	07/03	55.60	at	26/09	-22.6%
INR	86.72	86.92	at	08/12	78.49	at	27/09	+2.6%

At 9-12-22 *Change*

COMMODITIES

Spot price, $		highest 22			lowest 22			2022	2022(€)
Oil, Brent	76.4	128.2	at	08/03	76.3	at	08/12	-2.6%	+5.1%
Gold (ounce)	1 798	2 056	at	08/03	1 628	at	03/11	-1.3%	+6.5%
Metals, LMEX	4 065	5 506	at	07/03	3 453	at	27/09	-9.7%	-2.6%
Copper (ton)	8 507	10 702	at	04/03	7 160	at	14/07	-12.7%	-5.8%
wheat (ton)	256	4.7	at	17/05	254	at	06/12	+7.7%	+16.2%
Corn (ton)	250	3.2	at	28/06	226	at	03/01	+0.9%	+17.9%

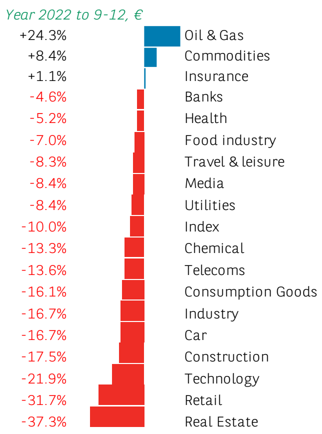
At 9-12-22 *Change*

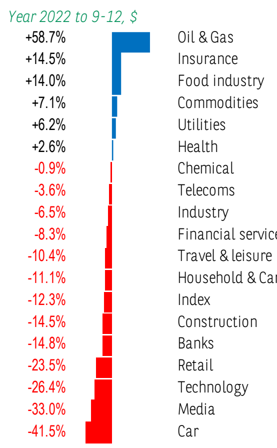
EQUITY INDICES

	Index	highest 22			lowest 22			2022
World								
MSCI World	2 663	3 248	at	04/01	2 368	at	12/10	-17.6%
North America								
S&P500	3 934	4 797	at	03/01	3 577	at	12/10	-17.5%
Europe								
EuroStoxx50	3 943	4 392	at	05/01	3 279	at	29/09	-8.3%
CAC 40	6 678	7 376	at	05/01	5 677	at	29/09	-0.7%
DAX 30	14 371	16 272	at	05/01	11 976	at	29/09	-9.5%
IBEX 35	8 289	8 934	at	27/05	7 261	at	12/10	-0.5%
FTSE100	7 477	7 672	at	10/02	6 826	at	12/10	+0.1%
Asia								
MSCI, loc.	1 104	1 165	at	05/01	1 012	at	30/09	-0.3%
Nikkei	27 901	29 332	at	05/01	24 718	at	09/03	-3.1%
Emerging								
MSCI Emerging ($)	978	1 267	at	12/01	843	at	24/10	-2.1%
China	66	86	at	20/01	47	at	31/10	-20.6%
India	795	891	at	13/01	699	at	17/06	+4.1%
Brazil	1 454	2 003	at	04/04	1 311	at	14/07	-4.9%

At 9-12-22 *Change*

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

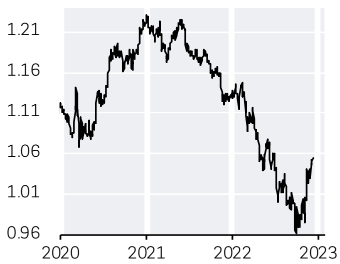




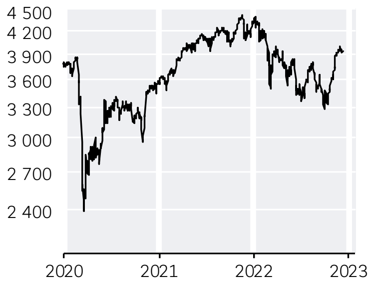
SOURCE: REFINITIV, BNP PARIBAS,

MARKETS OVERVIEW

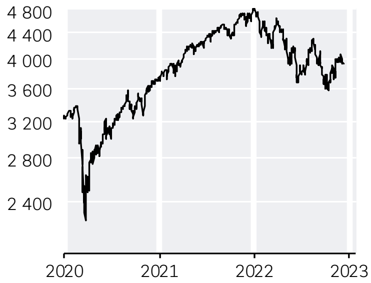
EURO-DOLLAR



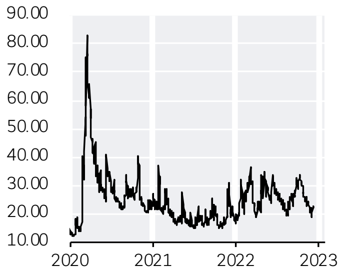
EUROSTOXX50



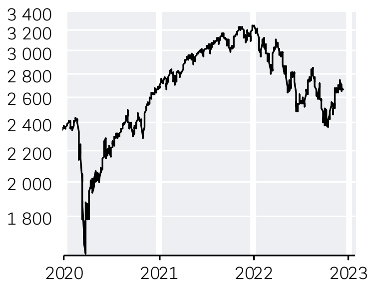
S&P500



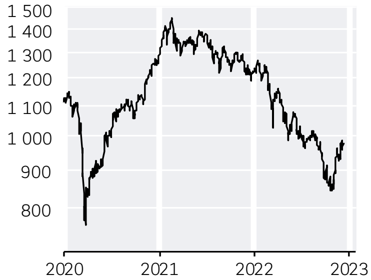
VOLATILITY (VIX, S&P500)



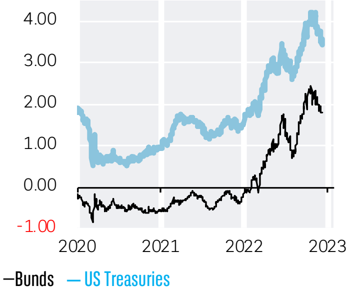
MSCI WORLD (USD)



MSCI EMERGING (USD)



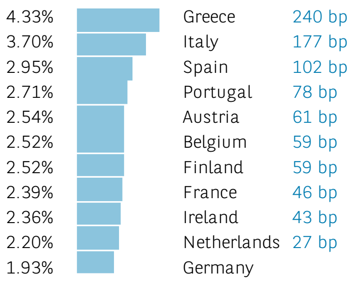
10Y BOND YIELD, TREASURIES VS BUND



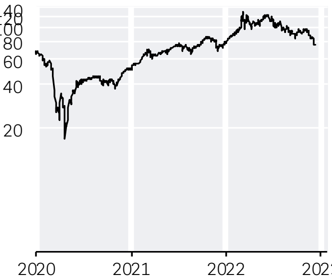
10Y BOND YIELD

10Y BOND YIELD & SPREADS

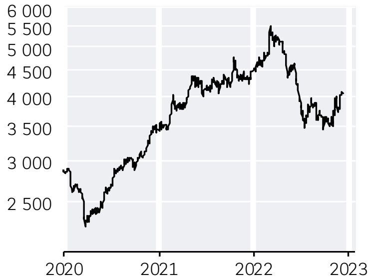
Year 2022 to 9-12



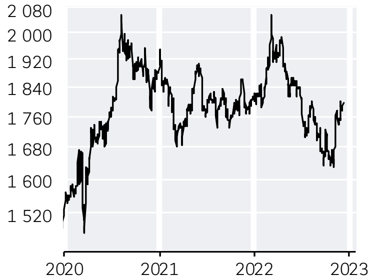
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS

ECONOMIC PULSE

GERMANY: DIFFICULT TIMES AHEAD

The economic landscape is not improving much in Germany. November's economic surveys confirm that the German economy is not just facing a slower pace of growth, but is indeed getting bogged down. Although the country's composite PMI was up slightly (46.3 from 45.1), it remained at a very low level, well below the theoretical threshold for expansion. On the other hand, activity in services, which had been a key driver for growth in the third quarter, fell significantly with a PMI published at 46.1 in November, down for the fifth consecutive month.

The deterioration of the economy has been accompanied by the first signs of a slowdown in consumer prices. Inflation fell slightly between October and November (from +10.4% y/y to +10% y/y). Moreover, the indicators which are upstream of consumer prices, such as production prices in industry, slowed significantly from +45.9% y/y in September to +34.6% y/y in October. The same applies to import prices, which are falling (+23.5% y/y in October, from +29.8% y/y).

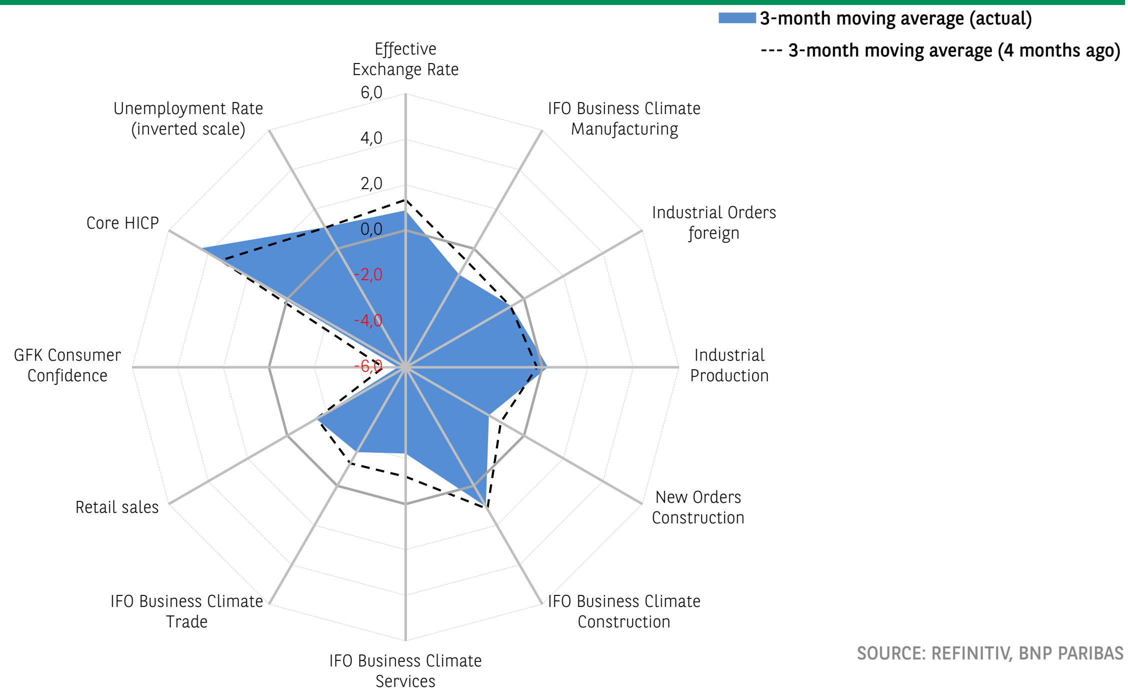
German trade surprised in October with an unexpected improvement in the trade balance (EUR 6.9 billion, up from EUR 2.8 billion), but for bad reasons. It can be explained by a drop in imports (-3.7% m/m) suggesting a higher than expected weakness in domestic demand. At the same time, exports fell by 0.6% m/m.

This poor performance of exports occurred when Germany was showing its ambition to reduce its dependence from, which has been its first trading partner since 2016, with bilateral trade representing almost EUR 250 billion in 2021. In a strategic paper which was made public, the Minister for Economic Affairs Robert Habeck clearly expresses his wish to see Germany's dependence on China shrink. He argues that German companies must focus on alternative markets. But this desire for emancipation is not a consensus in Germany. And the reason is simple: the large German groups continue to invest heavily in China, while small and medium-sized companies (including those in the Mittelstand) have changed gear.

While mid-sized companies are no longer investing in China, based on recent work by Rhodium Group, the three major German carmakers Volkswagen, BMW and Mercedes, as well as the chemicals giant BASF, have alone generated a third of investments from Europe to China over the past four years, also according to Rhodium. And this momentum is not fading, since German investments to China reached a record high of around EUR 10 billion over the first six months of 2022, according to a study by the German IW institute. This difference in appreciation of the Chinese market is creating a dichotomy between German giants and the rest of the production fabric. This makes the government's positioning even more difficult.

Anthony Morlet-Lavidalie

GERMANY: QUARTERLY CHANGES



SOURCE: REFINITIV, BNP PARIBAS

The indicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -6 and +6. In the radar chart, the blue area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

FRANCE: DECLINE IN ACTIVITY INDICATORS IN OCTOBER

The first indicators available for October, both for household consumption and for industrial production, suggest that GDP growth would have entered into negative territory at the start of the fourth quarter. Our scenario is based on -0.3% q/q.

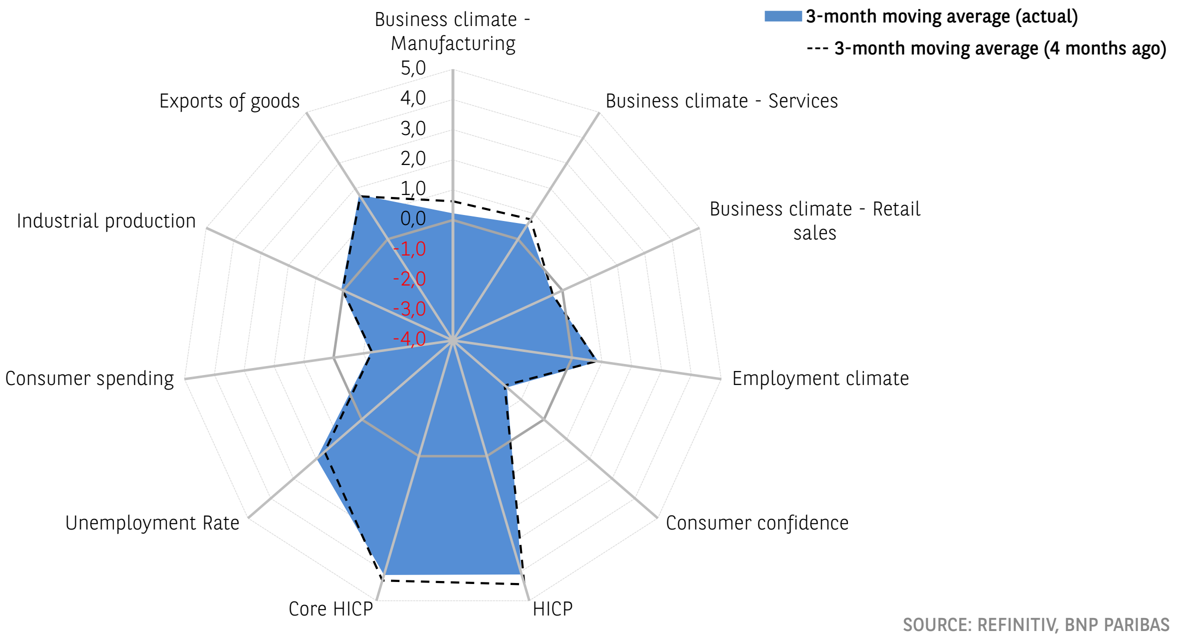
Household consumption fell 2.8% m/m in October, penalised by the acceleration of inflation, particularly in food. This negative effect was compounded by the impact of fuel shortages, which reduced the presence of consumers in shopping centres in the middle of the month. Finally, two-thirds of the very sharp drop in energy consumption (energy, water and waste items) of 10.2% m/m could be explained by real savings efforts [according to French electricity transmission network (RTE) estimates] and almost a third of it by the very mild climate in October. These efforts seem to have continued in November according to RTE data. The INSEE survey on the business climate in retail trade in November indicates a rebound in sales following the end of fuel shortages: a rebound which should nevertheless remain relative given the dynamics of inflation, which is expected to accelerate to almost 7% at the beginning of 2023 (compared to 6.2% y/y in November).

The fall in energy consumption is reflected in the decline in energy production (-6.9% m/m in October). This evolution is seasonally adjusted: it underlines the fact that nuclear-based production has remained well below its usual increase in early autumn. RTE data suggests that the gap with non-seasonally adjusted numbers rather increased in November. The decrease in this production contributed to the 2.6% m/m decline in industrial production in October, which is also explained by the significant drop in manufacturing production (-2%). This deterioration comes after the high levels of production observed in August and September. A production effort seems to have been made before the winter in order to release a surplus intended to be partly stored (inventories contributed 0.3pp to the growth of GDP in the 3rd quarter). High inventory levels would allow for a subsequent slowdown in the production. The weakening of the indicator concerning recent production in the INSEE business climate survey (whether in industry, construction or even services) in November supports this. Overall, industrial production may have fallen by 3% in the fourth quarter q/q according to our estimates.

All these elements show a French economy that is preparing for winter, and to face both the risk of potential energy shortages and subsequent price shocks. Companies are already experiencing this price increase and households will be exposed to it with the rise of regulated gas and electricity prices by 15% respectively in January and February. This anticipation involves lower spending that should further increase household savings rates. The latter could reach almost 18% in the fourth quarter, according to our forecasts. This rate should be among the highest since the French economy erased the Covid-19-related GDP loss in Q3 2021. The data published for October support our scenario of negative growth (-0.3%) in the fourth quarter. In its estimate published on 8 December, the Banque de France anticipates a growth of +0.1% while in its economic outlook update of 6 October, the INSEE expected stagnation.

Stéphane Colliac

FRANCE: QUARTERLY CHANGES



SOURCE: REFINITIV, BNP PARIBAS

The indicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -4 and +5. In the radar chart, the blue area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

ECONOMIC PULSE

ITALY: NO RESPITE FOR INFLATION

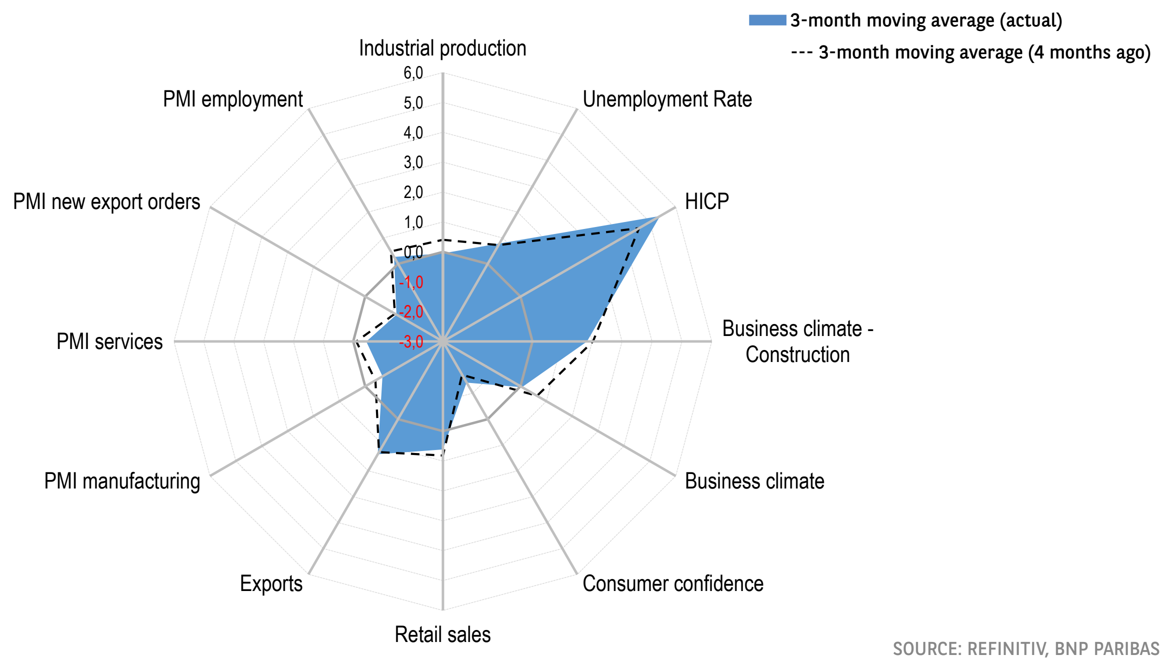
The latest European Commission surveys indicated an encouraging upturn in Italian households' confidence, which nevertheless remains very low. The confidence index improved by 8 points in November, the strongest monthly increase recorded by the survey since its inception in 1985. Consumers' anticipations on inflation were less negative (the second biggest monthly drop since 1985) and clearly supported this renewed optimism. However, the rise in consumer prices (CPI) shows no concrete signs of a slowdown. The signals even give cause for concern. Inflation (year-on-year) barely fell in November (from 12.6% to 12.5%), while the 3m/3m measurement jumped from 13.8% to 16.7%. The dynamic is also worrying on the underlying index (excluding energy and perishable foods), with the annual rate and the 3m/3m measurement both reaching a new record (5.7% and 7.1% respectively).

Real GDP growth in Italy surprised on the upside in Q3 2022, at +0.5% q/q, led by significant growth in private consumption (+1.8% q/q) and investment (+0.8% q/q). Business spending on machinery and equipment in particular has increased very significantly since lockdowns ended (+24% over the past 18 months). Investments in transport equipment are recovering much less vigorously, held back in particular by global logistics problems affecting the sector. These disruptions also hinder industrial production as a whole, which fell 0.4% q/q in the third quarter, and mainly the production of intermediate goods, which had the largest decline (-1.9% q/q).

Labour market data are mixed. The trend remains encouraging in terms of employment, with 82,000 additional recruitments in October. This brings the total volume to 23,230,000, the highest level since current statistics began in 2004. The employment rate for 15 to 64-year-olds is also at the highest level for almost two decades, up to 60.5%. A less encouraging development is that the working population remains strongly depressed compared to the levels observed before the Covid-19 crisis, at almost 1.5% below. These two dynamics (increase in employment, drop in the working population) brought the unemployment rate down to 7.8% in October.

Guillaume Derrien

ITALY: QUARTERLY CHANGES



SOURCE: REFINITIV, BNP PARIBAS

The indicators in the radar are all transformed into 'z-scores' (deviations from the long-term average, as standard deviations). These z-scores have mean zero and their values are between -3 and +6. In the radar chart, the blue area shows the actual conditions of economic activity. It is compared with the situation four months earlier (dotted-line). An expansion of the blue area compared to the dotted area signals an increase in the variable.

ECONOMIC SCENARIO

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	2,1	1,3
United-Kingdom	7,4	4,4	-0,9	0,8	2,6	9,1	6,9	2,1
Euro Area	5,3	3,2	-0,5	1,3	2,6	8,4	5,6	2,3
Germany	2,6	1,8	-1,0	1,1	3,2	8,8	5,7	2,0
France	6,8	2,5	0,0	1,0	2,1	6,0	6,4	2,7
Italy	6,6	3,8	-0,4	1,1	1,9	8,7	7,2	2,0
Spain	5,1	4,6	0,0	1,3	3,0	8,3	2,3	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, %

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
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
	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
UK	Base rate	4.25	4.25	4.25	4.25	3.50
	Gilts 10y	4.00	3.75	3.60	3.35	3.15
Japan	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

End of period		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q4 2024
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)

CALENDAR

LATEST INDICATORS

In China, the Caixin services PMI disappointed by declining far more than expected. At 46.7, it is now well below 50. Consumer price inflation dropped to 1.6% and the decline of producer prices was the same as the previous month (-1.3%). In the Eurozone, the services PMI was in line with expectations. Retail sales contracted in October, as anticipated, but there was a slight upward revision of third quarter GDP growth to 0.3%. The French services PMI was virtually unchanged from the previous release. In Germany, the construction PMI declined further and is now at a very low 41.5. In Japan, the Eco Watchers survey declined and was lower than the consensus estimates. The US had some positive surprises: the ISM services index as well as University of Michigan sentiment improved. Moreover, short-term inflation expectations declined but at 4.6% they remain well above the Federal Reserve's inflation target.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
12/05/2022	Japan	Jibun Bank Japan PMI Services	Nov	--	50.3	50.0
12/05/2022	China	Caixin China PMI Services	Nov	48.0	46.7	48.4
12/05/2022	France	S&P Global France Services PMI	Nov	49.4	49.3	49.4
12/05/2022	Germany	S&P Global Germany Services PMI	Nov	46.4	46.1	46.4
12/05/2022	Eurozone	S&P Global Eurozone Services PMI	Nov	48.6	48.5	48.6
12/05/2022	United Kingdom	S&P Global/CIPS UK Services PMI	Nov	48.8	48.8	48.8
12/05/2022	Eurozone	Retail Sales MoM	Oct	-1.7%	-1.8%	0.8%
12/05/2022	United States	S&P Global US Services PMI	Nov	46.1	46.2	46.1
12/05/2022	United States	Cap Goods Orders Nondef Ex Air	Oct	--	0.6%	0.7%
12/05/2022	United States	ISM Services Index	Nov	53.5	56.5	54.4
12/06/2022	Germany	S&P Global Germany Construction PMI	Nov	--	41.5	43.8
12/07/2022	Eurozone	GDP SA QoQ	T3	0.2%	0.3%	0.2%
12/07/2022	United States	MBA Mortgage Applications	Dec	--	-1.9%	-0.8%
12/08/2022	Japan	Eco Watchers Survey Current SA	Nov	50.6	48.1	49.9
12/08/2022	Japan	Eco Watchers Survey Outlook SA	Nov	46.8	45.1	46.4
12/08/2022	United States	Initial Jobless Claims	Dec	230k	230k	226k
12/09/2022	China	PPI YoY	Nov	-1.5%	-1.3%	-1.3%
12/09/2022	China	CPI YoY	Nov	1.6%	1.6%	2.1%
12/09/2022	France	Wages QoQ	T3	--	1.0%	0.9%
12/09/2022	United States	PPI Ex Food and Energy MoM	Nov	0.2%	0.4%	0.1%
12/09/2022	United States	U. of Mich. Sentiment	Dec	57.0	59.1	56.8
12/09/2022	United States	U. of Mich. Current Conditions	Dec	58.8	60.2	58.8
12/09/2022	United States	U. of Mich. Expectations	Dec	54.5	58.4	55.6
12/09/2022	United States	U. of Mich. 1 Yr Inflation	Dec	4.9%	4.6%	4.9%
12/09/2022	United States	U. of Mich. 5-10 Yr Inflation	Dec	3.0%	3.0%	3.0%

SOURCE: BLOOMBERG

CALENDAR: THE WEEK AHEAD

COMING INDICATORS

It's central bank week with policy meetings of the Federal Reserve, the ECB and the Bank of England. Markets will focus in particular on what the decisions and communication implies for the future rate hike path. Another highlight of the week is the publication of the flash PMIs in various countries. In addition, we will have in France and the UK employment data, in Germany and for the Eurozone, the ZEW survey, the Tankan survey in Japan and several data releases in China. We will also have business confidence in France and, in the US, inflation data and retail sales.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
12/13/2022	France	Total Payrolls	3Q	--	0.4%
12/13/2022	United Kingdom	Employment Change 3M/3M	Oct	--	-52k
12/13/2022	Germany	ZEW Survey Expectations	Dec	--	-36.7
12/13/2022	Germany	ZEW Survey Current Situation	Dec	--	-64.5
12/13/2022	Eurozone	ZEW Survey Expectations	Dec	--	-38.7
12/13/2022	United States	CPI MoM	Nov	0.3%	0.4%
12/13/2022	United States	CPI Ex Food and Energy MoM	Nov	0.3%	0.3%
12/14/2022	Japan	Tankan Large Mfg Index	4Q	7	8
12/14/2022	Japan	Tankan Large Non-Mfg Index	4Q	16	14
12/14/2022	Japan	Tankan Small Mfg Index	4Q	-5	-4
12/14/2022	Japan	Tankan Small Non-Mfg Index	4Q	5	2
12/14/2022	United Kingdom	CPI YoY	Nov	10.8%	11.1%
12/14/2022	United Kingdom	CPI Core YoY	Nov	--	6.5%
12/14/2022	United States	FOMC Rate Decision (Upper Bound)	Dec	4.50%	4.00%
12/15/2022	China	New Home Prices MoM	Nov	--	-0.37%
12/15/2022	China	Industrial Production YoY	Nov	3.6%	5.0%
12/15/2022	China	Retail Sales YoY	Nov	-4.0%	-0.5%
12/15/2022	China	Fixed Assets Ex Rural YTD YoY	Nov	5.6%	5.8%
12/15/2022	China	Property Investment YTD YoY	Nov	-9.2%	-8.8%
12/15/2022	China	Residential Property Sales YTD YoY	Nov	--	-28.2%
12/15/2022	China	Surveyed Jobless Rate	Nov	5.6%	5.5%
12/15/2022	France	Business Confidence	Dec	--	102
12/15/2022	United Kingdom	Bank of England Bank Rate	Dec	3.500%	3.000%
12/15/2022	Eurozone	ECB Deposit Facility Rate	Dec	--	1.500%

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
12/15/2022	United States	Retail Sales Advance MoM	Nov	0.0%	1.3%
12/15/2022	United States	Initial Jobless Claims	Dec	--	--
12/16/2022	United Kingdom	GfK Consumer Confidence	Dec	--	-44
12/16/2022	Japan	Jibun Bank Japan PMI Mfg	Dec	--	49.0
12/16/2022	Japan	Jibun Bank Japan PMI Services	Dec	--	50.3
12/16/2022	United Kingdom	Retail Sales Ex Auto Fuel MoM	Nov	--	0.3%
12/16/2022	United Kingdom	Retail Sales Ex Auto Fuel YoY	Nov	--	-6.7%
12/16/2022	France	S&P Global France Composite PMI	Dec	--	48.7
12/16/2022	France	S&P Global France Manufacturing PMI	Dec	--	48.3
12/16/2022	France	S&P Global France Services PMI	Dec	--	49.3
12/16/2022	Germany	S&P Global/BME Germany Manufacturing PMI	Dec	--	46.2
12/16/2022	Germany	S&P Global Germany Services PMI	Dec	--	46.1
12/16/2022	Eurozone	S&P Global Eurozone Manufacturing PMI	Dec	--	47.1
12/16/2022	Eurozone	S&P Global Eurozone Services PMI	Dec	--	48.5
12/16/2022	United Kingdom	S&P Global/CIPS UK Manufacturing PMI	Dec	--	46.5
12/16/2022	United Kingdom	S&P Global/CIPS UK Services PMI	Dec	--	48.8
12/16/2022	Eurozone	CPI YoY	Nov	--	10.0%
12/16/2022	Eurozone	CPI Core YoY	Nov	--	5.0%
12/16/2022	United States	S&P Global US Manufacturing PMI	Dec	48.0	47.7
12/16/2022	United States	S&P Global US Services PMI	Dec	--	46.2

SOURCE: BLOOMBERG

FURTHER READING

Malaysia: A new prime minister but still high political instability	EcoTVWeek	9 December 2022
Turkey: consumption on credit	Chart of the Week	7 December 2022
Labour hoarding: a source of resilience during a recession	EcoWeek	5 December 2022
A 2023 budget facing moderate uncertainties	EcoFlash	2 December 2022
United States: Expanding US federal debt will require raising more foreign capital	EcoTVWeek	2 December 2022
UK: Foreign trade declines due to Brexit	EcoFlash	30 November 2022
The end of wage bargaining power?	Chart of the Week	30 November 2022
The sobering record of real gdp forecasts during recessions	EcoWeek	28 November 2022
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

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