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Each quarter, the European Commission asks companies about the factors limiting their production. The survey can help in getting a better understanding of the inflation drivers.

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ECONOMIC RESEARCH



BNP PARIBAS

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EUROZONE: INFLATION THROUGH THE LENS OF BUSINESS SURVEYS - THE CASE OF INDUSTRY

Each quarter, the European Commission asks companies about the factors limiting their production: insufficient demand, supply constraints (labour market, shortage of material and/or equipment) and a financial factor. The survey can help in getting a better understanding of the inflation drivers. A quantitative model of producer price inflation suggests that the pace of disinflation will be slow considering that, contrary to the demand factor, which is close to its long-term average, supply factors in industry continue to act a constraint on production far more than is the case normally. Although the analysis was conducted in terms of producer price inflation, given its close relation with consumer price inflation (HICP) in the Eurozone, the conclusions are also relevant for the latter.

Each quarter, the European Commission asks companies about the factors limiting their production. It thereby distinguishes between demand, supply (labour market bottlenecks, shortage of material and/or equipment) and financial factors¹. Chart 1 shows the z-score of the survey results, based on data going back to 1985, except for the financial factor, where data are only available as of the first quarter of 2002². Historically, and up until 2019, demand as a factor limiting production has fluctuated more than labour or shortage of material and/or equipment. This suggests that over this period, swings in demand have played a dominant role in Eurozone business cycles, especially during the two successive crises of 2008 and 2011. The chart also illustrates the unique nature of the Covid-19 shock and its aftermath. In a first stage, weak demand due to lockdowns was weighing on production, but soon supply factors (labour, material and equipment) became the binding constraint whereas demand picked up again on the back of income support measures and the lifting of restrictions on mobility. This implied that the Eurozone economy, as well as many other countries, were facing the combination of a positive demand and a negative supply shock, with the well-known consequences in terms of inflation. It is clear from chart 2 that 2021 and 2022 were a 'perfect storm' for producer price inflation with elevated demand³, labour market bottlenecks, a shortage of material and equipment – supply disruption related to the pandemic and, in 2022, the war in Ukraine – as well as an accommodating financial environment. Focusing on the latest Eurostat inflation data and the European Commission's survey results, one notices a big decline in producer price inflation⁴ and a softening of the demand situation: the percentage of companies reporting that demand is constraining their production is on the rise, albeit from a very low level. After having increased significantly, in line with the rise in interest rates, the financial factor is weighing less on production than previously, although more than average over the long term. Finally, supply constraints (labour, material and equipment) have eased as well whilst remaining well above the historical average.

EUROZONE INDUSTRY: FACTORS LIMITING THE PRODUCTION

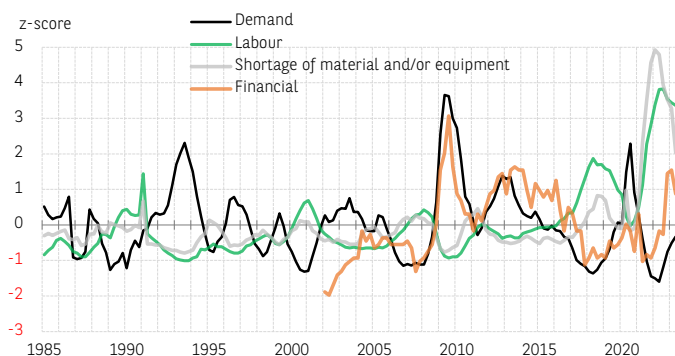


CHART 1

SOURCE: EUROPEAN COMMISSION, BNP PARIBAS CALCULATIONS

Table 1 presents the results of a univariate regression analysis with annual producer price inflation as the dependent variable and the four factors that may limit production as explanatory variables. The first part shows the results for the full data set whereas the second part is limited to the pre-Covid era. All variables are significant, except for the financial factor in the full data set, and all coefficients have the expected signs. When using the full data set – the first part of the table – labour as well as material and equipment are hugely significant and the respective R^2 s are a lot higher. It shows the role of supply factors in the evolution of inflation since the pandemic.

¹The question is formulated as follows: "What main factors are currently limiting your production? None; insufficient demand; shortage of labour force; shortage of material and/or equipment; financial constraints; other factors." Source: European Commission, The Joint Harmonised EU Programme of Business and Consumer Surveys User Guide, January 2023.

²The volatility of the survey data differs, so to facilitate the comparison, data have been transformed into a z-score.

³In chart 2 the demand series from the European Commission has been transformed by subtracting the survey results from 100. A high number corresponds to elevated demand, which does not act as a constraint on production. This introduces a positive correlation between demand and inflation, which facilitates the interpretation of the chart.

⁴On a quarterly basis, producer prices were virtually stable in the fourth quarter of 2022 and declined 3.6% in the first quarter of this year.

A quantitative model of producer price inflation suggests that the pace of disinflation will be slow considering that supply factors in industry continue to act a constraint on production far more than is the case normally.



However, the mostly low R^2 s, particularly in the pre-Covid-19 period, remind us that only using one explanatory variable leaves a lot of the variation in producer price inflation unexplained. A multivariate regression yields a better result with an R^2 of 0.79 for the full sample and 0.50 for the pre-Covid-19 period⁵.

These results can help in assessing the future evolution of producer price inflation. Based on the multivariate model, one would expect annual producer price inflation of 2.7% if the three explanatory variables are at their long-term average. In the second quarter of this year, the demand factor was very close to its long-term average (respectively 27 and 30) whereas the gap was still considerable for labour and material/equipment as constraints weighing on production (respectively 25 versus 7 and 28 versus 9). This would suggest that supply factors will continue to underpin producer price inflation for some time to come. There is an important caveat however: the R^2 s show that a significant part of inflation is not explained by the model, so perhaps other factors could act as a disinflationary force. Clearly, this begs the question of what these other factors might be. This all means that in the current environment inflation forecasts are surrounded by a high degree of uncertainty with a clear risk of disinflation being slower than hoped for. Although the analysis for the Eurozone was conducted in terms of producer price inflation, given its close relation with consumer price inflation (HICP)⁶, the conclusions are also relevant for the latter.

William De Vijlder

EUROZONE INDUSTRY: FACTORS LIMITING THE PRODUCTION AND PRODUCER PRICE INFLATION

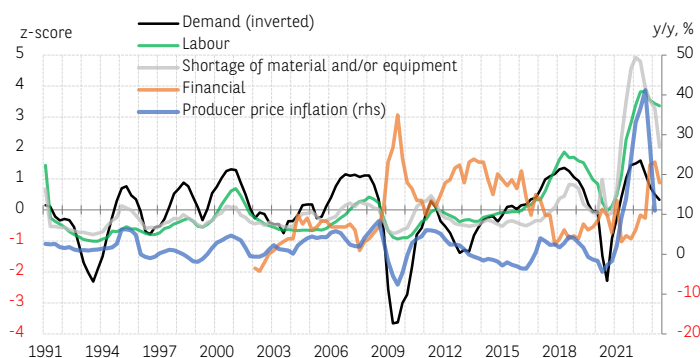


CHART 2

SOURCE: EUROPEAN COMMISSION, EUROSTAT, BNP PARIBAS CALCULATIONS

PRODUCER PRICE INFLATION: UNIVARIATE REGRESSIONS

Data range	1991Q1-2023Q1				1991Q1-2019Q4			
Dependent variable: producer price inflation (y/y)	Factor limiting production							
	demand	labour	material and equipment	financial	demand	labour	material and equipment	financial
R Square	0.21	0.52	0.76	0.04	0.24	0.04	0.34	0.25
coefficient	0.00	0.01	0.01	-0.02	0.00	0.00	0.01	-0.01
t statistic	5.78	11.74	20.20	-1.80	6.04	2.25	7.65	-4.83

TABLE 1

SOURCE : EUROSTAT, EUROPEAN COMMISSION, BNP PARIBAS CALCULATIONS

⁵ In the multivariate regression the financial factor was left out because it was not significant.

⁶ Based on monthly data since 1991, a regression of annual consumer price inflation as a function of annual producer price inflation has an R^2 of 0.75. Based on this equation, when producer price inflation is at its long-term average of 3.0%, consumer price inflation should be a 2.0%.



MARKETS OVERVIEW

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OVERVIEW

Week 7-7-23 to 14-7-23

↗ CAC 40	7 112	▶ 7 375	+3.7 %	
↗ S&P 500	4 399	▶ 4 505	+2.4 %	
↘ Volatility (VIX)	14.8	▶ 13.3	-1.5 pb	
↗ Euribor 3M (%)	3.64	▶ 3.66	+2.0 bp	
↗ Libor \$ 3M (%)	5.56	▶ 5.57	+1.1 bp	
↘ OAT 10y (%)	3.14	▶ 2.99	-14.7 bp	
↘ Bund 10y (%)	2.63	▶ 2.48	-15.6 bp	
↘ US Tr. 10y (%)	4.06	▶ 3.82	-23.7 bp	
↗ Euro vs dollar	1.09	▶ 1.12	+2.7 %	
↗ Gold (ounce, \$)	1 930	▶ 1 959	+1.5 %	
↗ Oil (Brent, \$)	78.6	▶ 79.9	+1.7 %	

MONEY & BOND MARKETS

Interest Rates

		highest 23	lowest 23	
€ ECB	4.00	4.00 at 21/06	2.50 at 02/01	
Eonia	-0.51	-0.51 at 02/01	-0.51 at 02/01	
Euribor 3M	3.66	3.67 at 11/07	2.16 at 02/01	
Euribor 12M	4.13	4.19 at 07/07	3.30 at 19/01	
\$ FED	5.25	5.25 at 04/05	4.50 at 02/01	
Libor 3M	5.57	5.57 at 12/07	4.77 at 02/01	
Libor 12M	6.04	6.04 at 30/06	4.70 at 20/03	
£ BoE	5.00	5.00 at 22/06	3.50 at 02/01	
Libor 3M	5.52	5.52 at 14/07	3.87 at 02/01	
Libor 12M	0.81	0.81 at 02/01	0.81 at 02/01	

Yield (%)

		highest 23	lowest 23	
€ AVG 5-7y	2.64	2.64 at 02/01	2.64 at 02/01	
Bund 2y	3.19	3.36 at 08/03	2.39 at 20/03	
Bund 10y	2.48	2.75 at 02/03	1.98 at 18/01	
OAT 10y	2.99	3.23 at 03/03	2.42 at 18/01	
Corp. BBB	4.56	4.77 at 10/07	3.95 at 02/02	
\$ Treas. 2y	4.83	5.12 at 08/03	3.85 at 04/05	
Treas. 10y	3.82	4.06 at 02/03	3.30 at 06/04	
High Yield	8.55	9.16 at 20/03	7.94 at 02/02	
£ gilt. 2y	5.19	5.51 at 06/07	3.15 at 02/02	
gilt. 10y	4.45	4.66 at 11/07	3.00 at 02/02	

EXCHANGE RATES

1€ =		highest 23	lowest 23	2023
USD	1.12	1.12 at 14/07	1.05 at 05/01	+5.3%
GBP	0.86	0.90 at 03/02	0.85 at 11/07	-3.4%
CHF	0.97	1.00 at 24/01	0.96 at 13/07	-2.1%
JPY	155.70	157.72 at 27/06	138.02 at 03/01	+10.6%
AUD	1.64	1.67 at 26/04	1.53 at 27/01	+4.2%
CNY	8.02	8.02 at 14/07	7.23 at 05/01	+8.1%
BRL	5.40	5.79 at 04/01	5.20 at 23/06	-4.2%
RUB	101.66	101.66 at 14/07	73.32 at 12/01	+30.5%
INR	92.37	92.37 at 14/07	86.58 at 08/03	+4.6%

At 14-7-23 Change

COMMODITIES

Spot price, \$		highest 23	lowest 23	2023	2023(€)
Oil, Brent	79.9	88.2 at 23/01	71.9 at 12/06	-5.9%	-10.7%
Gold (ounce)	1 959	2 047 at 04/05	1 810 at 24/02	+7.9%	+2.4%
Metals, LME	3 847	4 404 at 26/01	3 564 at 24/05	-3.4%	-8.3%
Copper (ton)	8 662	9 331 at 23/01	7 852 at 24/05	+3.6%	-1.7%
wheat (ton)	234	2.9 at 13/02	216 at 30/05	-17.9%	-22.1%
Corn (ton)	211	2.7 at 13/02	200 at 12/07	-1.9%	-22.9%

At 14-7-23 Change

EQUITY INDICES

	Index	highest 23	lowest 23	2023
World				
MSCI World	3 018	3 020 at 13/07	2 595 at 05/01	+16.0%
North America				
S&P500	4 505	4 510 at 13/07	3 808 at 05/01	+17.3%
Europe				
EuroStoxx50	4 400	4 409 at 21/04	3 856 at 02/01	+16.0%
CAC 40	7 375	7 577 at 21/04	6 595 at 02/01	+1.4%
DAX 30	16 105	16 358 at 16/06	14 069 at 02/01	+15.7%
IBEX 35	9 438	9 645 at 03/07	8 370 at 02/01	+1.5%
FTSE100	7 435	8 014 at 20/02	7 257 at 07/07	-0.0%
Asia				
MSCI, loc.	1 203	1 231 at 03/07	1 065 at 04/01	+1.3%
Nikkei	32 391	33 753 at 03/07	25 717 at 04/01	+24.1%
Emerging				
MSCI Emerging (\$)	1 028	1 052 at 26/01	941 at 16/03	+0.8%
China	63	75 at 27/01	58 at 31/05	-1.6%
India	822	822 at 14/07	703 at 16/03	+5.9%
Brazil	1 638	1 691 at 21/06	1 296 at 23/03	+2.1%

At 14-7-23 Change

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

	Year 2023 to 14-7, €	Year 2023 to 14-7, \$
Technology	+27.8%	+77.7%
Retail	+26.7%	+42.0%
Travel & leisure	+25.6%	+21.1%
Consumption Goods	+24.9%	+18.2%
Car	+20.9%	+18.0%
Construction	+16.7%	+11.5%
Industry	+16.7%	+8.0%
Banks	+15.2%	+4.7%
Media	+12.4%	+4.7%
Index	+9.5%	+3.5%
Utilities	+8.5%	+0.7%
Chemical	+6.5%	-0.3%
Health	+5.1%	-3.0%
Telecoms	+2.7%	-5.4%
Insurance	+2.7%	-7.7%
Food industry	-0.4%	-10.3%
Oil & Gas	-0.9%	-11.8%
Real Estate	-5.8%	-12.1%
Commodities	-9.6%	-18.2%

SOURCE: REFINITIV, BNP PARIBAS

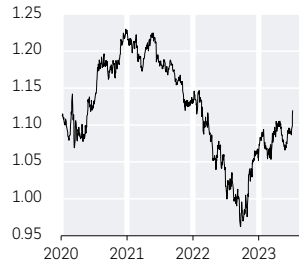


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MARKETS OVERVIEW

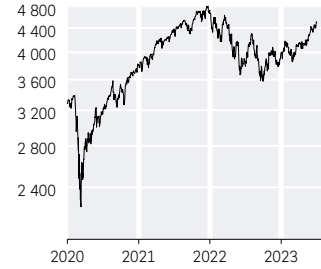
EURO-DOLLAR



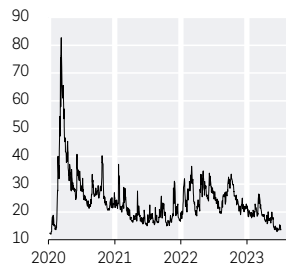
EUROSTOXX50



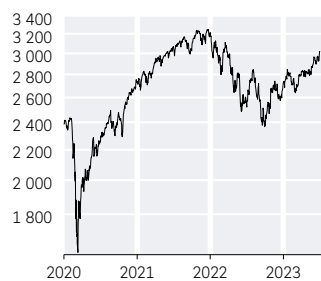
S&P500



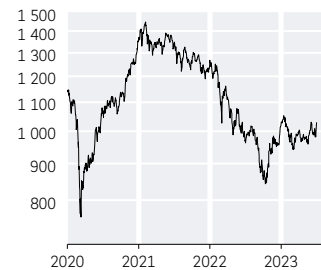
VOLATILITY (VIX, S&P500)



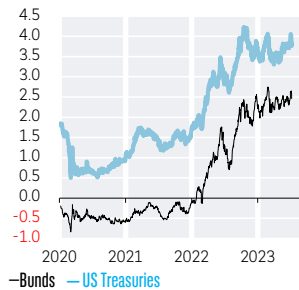
MSCI WORLD (USD)



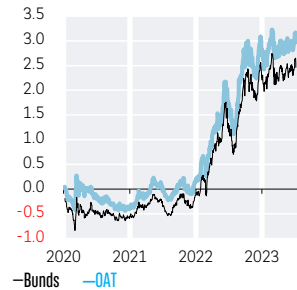
MSCI EMERGING (USD)



10Y BOND YIELD, TREASURIES VS BUND



10Y BOND YIELD

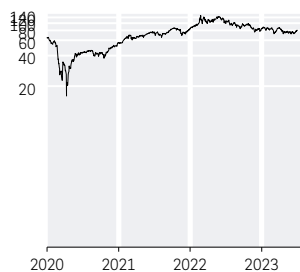


10Y BOND YIELD & SPREADS

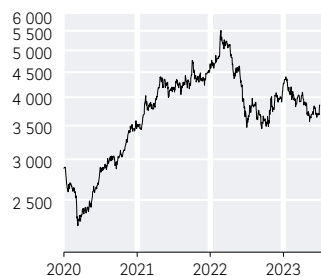
Year 2023 to 14-7

5.00%	Greece	251 bp
4.05%	Italy	157 bp
3.47%	Spain	99 bp
3.15%	Belgium	67 bp
3.14%	Portugal	66 bp
3.13%	Austria	65 bp
3.04%	Finland	56 bp
2.99%	France	51 bp
2.89%	Ireland	40 bp
2.83%	Netherlands	35 bp
2.48%	Germany	

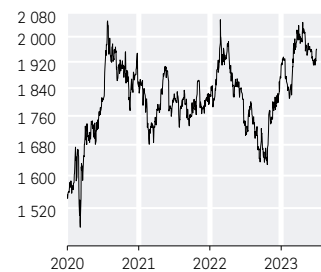
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS



ECONOMIC PULSE

7

CHINA: LACKLUSTRE PERFORMANCE

In Q2 2023, Chinese economic growth fell to +0.8% quarter-on-quarter, down from +2.2% in the previous quarter. It stood at +6.3% year-on-year (up from +4.5% in Q1 2023), but this figure is inflated by favourable base effects resulting from the very strict lockdowns imposed in the Shanghai region in spring 2022.

In March, the authorities had set a 2023 growth target of "around 5%": this objective seemed easily achievable, thanks, in particular, to the boost provided by the post-Covid catch-up effects in the services sector. However, the rebound in activity since the zero-Covid policy was abandoned has fizzled out very quickly, while the export manufacturing sector has been suffering from the effects of weakening global demand. Further monetary and fiscal support measures now seem needed in order to achieve the real GDP growth target for this year. These measures will also be vital for reassuring consumers and investors.

The economic indicators for June and the second quarter of 2023 illustrate widespread sluggish economic activity. Chinese households are cautious and limit their spending. They are worried because of the lasting crisis in the real estate sector and the uncertainties surrounding employment opportunities.

As a matter of fact, the labour market has not returned to how it was pre-pandemic. While the unemployment rate in urban areas fell to 5.2% in Q2 2023 and is approaching its pre-Covid levels, unemployment among young people aged 16-24 has increased since the beginning of the year. It reached a record high of 21.3% in June (compared to 12% in 2019). This trend is notably due to the mismatch of, on the one hand, rising numbers of young graduates entering the labour market and, on the other hand, falling employment in the services sector. In 2022, job losses were mainly concentrated in services affected by health restrictions, the real estate sector and high-end services (tech, education, etc.). These high-end sectors, which recruit the most qualified workers, have been hit hard by the regulatory tightening implemented since 2021.

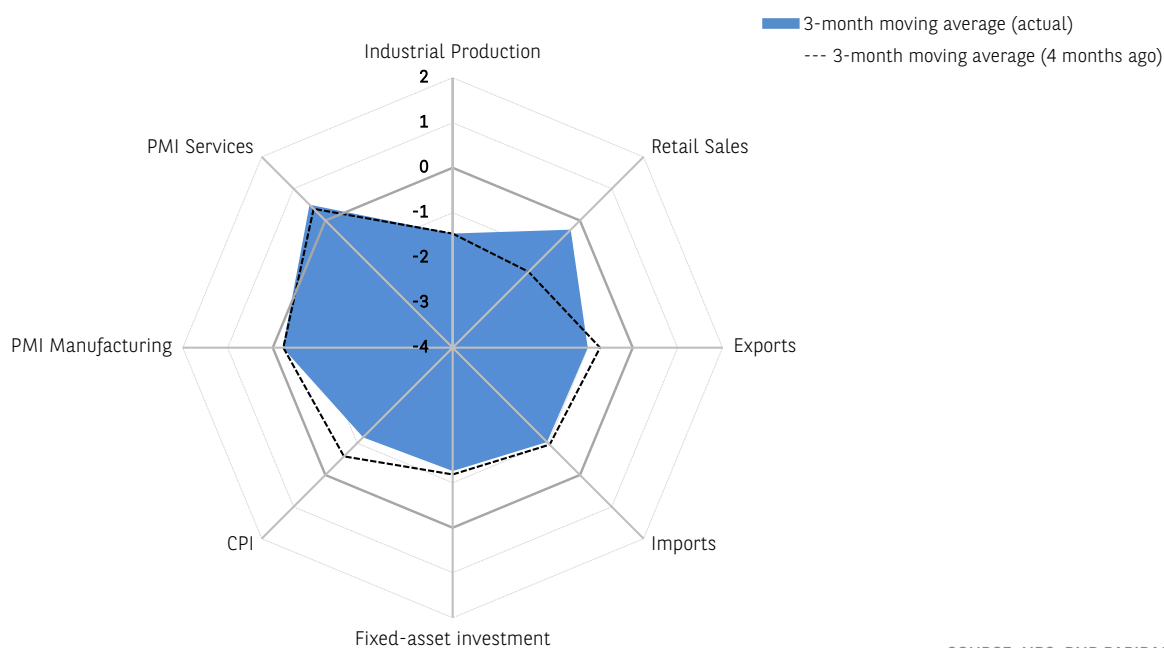
At least households were able to benefit from the slowdown in inflation. Consumer price inflation fell from +1.8% y/y in December 2022 to 0% in June 2023, due to the drop in fuel prices and rents, the slower increase in food prices and weak core inflation (0.4% y/y in June) – which, itself, reflects weak domestic demand. Retail sales volumes increased by around 8% y/y in H1 2023, after dropping slightly in 2022, but their growth has slowed down since May.

The real estate sector plunged further into crisis during Q2 2023. The number of completed construction projects recovered (+26% y/y) thanks to the support measures provided by the authorities, but housing sales continued to fall (-20% y/y in Q2 2023) and the number of construction project start-ups continued to collapse (-29%). The decline in real estate investment persisted, contributing to the slowdown in total investment growth (+3.8% y/y in value terms in H1 2023).

Finally, the manufacturing sector is bearing the brunt of the slowdown in global demand and tensions with the United States. In H1 2023, exports of goods fell (down 3.3% y/y in current USD terms over the half-year as a whole, and down 13.9% in June), and industrial growth stood at just +3.8% y/y.

Christine Peltier

CHINA: QUARTERLY CHANGES



SOURCE: NBS, 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 +2. 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.


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ECONOMIC SCENARIO

8

UNITED STATES

After a strong second half of 2022 (+0.7% q/q on average per quarter), US growth slowed slightly in Q1 2023 (+0.5% q/q), mainly because of the very negative contribution of changes in inventories. The impact of the tighter monetary policy on activity and employment growth was still contained in Q2, leading us to upwardly revise our near-term growth forecasts (Q2 growth a little more positive, Q3 a bit less negative), without abandoning our expectation of a slip into recession in Q3, as a result of the sharp monetary tightening. While the peak in inflation was reached in mid-2022, core disinflation remains gradual in such a way that headline inflation should stay significantly above the target of 2% by the end of 2023. The slow pace of disinflation argues in favor of keeping monetary policy in restrictive territory, despite the start of the easing cycle in spring 2024. This will limit the expected recovery in 2024.

CHINA

Economic growth, which was sluggish and unbalanced in 2022, is accelerating in 2023. The end of the zero Covid policy has led to a rebound in private demand and activity in the services sector since late January, with household consumption benefiting from catch-up effects. However, the post-Covid is losing momentum surprisingly rapidly. Households remain prudent, as they are notably worried by the uncertain recovery in the labor market. The crisis in the property sector is persisting. Moreover, export and industrial production prospects are darkened by global demand weakness and tensions with the US. The government and the central bank should implement new policy stimulus measures, but they are likely to remain careful. In particular, the worrying financial situation of local governments should constrain public investment.

EUROZONE

The euro zone slipped into technical recession in the first quarter of 2023. Initially estimated at +0.1% q/q, growth has been revised to -0.1% (after a decline of same magnitude in Q4 2022). This downward revision to growth was driven by Germany. A technical rebound is expected in Q2 but, after that, the build-up of the negative effects of monetary tightening would cause growth to fall back. After three quarters of stagnation, a limited recovery would follow. Although it is expected to decline throughout 2023, inflation would remain elevated and well above the 2% target at the end of this year and still a bit above at the end of 2024, forcing monetary policy to remain in restrictive territory.

FRANCE

Real GDP growth increased in Q1 2023 (0.2% q/q in Q1, after 0% in Q4 2022) driven by transport equipment's exports. However, household demand has played on the downside: household consumption stabilized (+0.1% q/q) in Q1 after -1% q/q in Q4 2022 whereas their investment decreased by 2.3% q/q in Q1 (after -1.2% in Q4). As inflation is still high (with a peak of 7.3% y/y in February 2023 according to the harmonized measure) and because of rising interest rates, household demand should remain subdued in 2023, weighing on our GDP growth forecast (0.5% in 2023, compared to 2.5% in 2022).

RATES AND EXCHANGE RATES

In the US, the Federal Reserve skipped the June meeting but we expect one last hike at the July meeting given continued high core inflation and a resilient labour market so far. The slow pace of disinflation argues against a rate cut before the beginning of 2024, despite the US economy entering recession in the second half of 2023. The peak in long-term yields is likely to have been reached. Bond yields should subsequently move lower as the inflation outlook improves and the market starts anticipating monetary policy easing in 2024.

The ECB hiked again at its June meeting and more is to come. While inflation shows encouraging signs of easing, it is not yet sufficient to end the tightening cycle. We expect a terminal rate for the deposit rate at 4.00% in Q3. As part of its monetary tightening, the ECB also announced a complete halt, starting in July 2023, of its reinvestments

under the APP. European long-term rates probably have peaked and should move lower, driven by both a gradual decline in inflation in the eurozone and lower US yields.

In December 2022, the Bank of Japan increased the upper end of its target range for the 10-year JGB yield to 0.5%. Further adjustments to the yield curve control policy cannot be excluded, given that the country currently faces the fastest rate of inflation since the early 1990s. Nevertheless, the BoJ is unlikely to increase its policy rates this year, but a rise is expected in 2024.

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. We expect the yen to remain around current levels in the near term before strengthening versus the dollar considering that the federal funds rate should have reached its terminal rate.

GDP GROWTH AND INFLATION

%	GDP Growth*				Inflation**			
	2021	2022	2023 e	2024 e	2021	2022	2023 e	2024 e
United-States	5,9	2,1	1,5	-0,1	4,7	8,0	4,2	2,4
Japan	2,2	1,0	1,5	1,0	-0,2	2,5	3,1	1,8
United-Kingdom	7,6	4,1	0,4	0,0	2,6	9,1	7,5	2,9
Euro Area	5,3	3,5	0,4	0,6	2,6	8,4	5,4	2,9
Germany	2,6	1,9	-0,4	0,5	3,2	8,7	6,0	2,7
France	6,8	2,6	0,5	0,6	2,1	5,9	5,6	2,4
Italy	7,0	3,8	1,3	1,0	1,9	8,7	5,9	2,2
Spain	5,5	5,5	2,4	1,5	3,0	8,3	3,1	2,4
China	8,4	3,0	5,6	4,5	0,9	2,0	1,1	2,5
India***	8,7	7,2	6,1	6,5	5,5	6,7	5,5	4,5
Brazil	5,0	2,9	2,5	0,5	8,3	9,3	4,7	4,0

Source : BNP Paribas (e: Estimates & forecasts)

* Last update 30 June 2023: GDP Italy and Spain, Last update 8 June 2023: GDP Japan, Last update 2 June 2023: GDP US and Brazil, Last update 27 June 2023: GDP UK, Last update 21 May 2023: GDP Germany

** Last update 27 June 2023: inflation UK, Last update 16 June 2023: inflation US and Brazil, Last update 2 June 2023: inflation Eurozone, Germany, France, Italy, Spain, US and Brazil

*** Fiscal year from 1st April of year n to March 31st of year n+1

INTEREST AND EXCHANGE RATES

Interest rates, %		Q2 2023	Q3 2023	Q4 2023	Q4 2024
End of period					
US	Fed Funds (upper limit)*	5.25	5.50	5.50	3.75
	T-Note 10y **	3.90	3.90	3.85	3.55
Eurozone	deposit rate*	3.50	4.00	4.00	3.00
	Bund 10y **	2.60	2.45	2.20	2.00
	OAT 10y	3.15	3.00	2.72	2.50
	BTP 10y	4.60	4.70	4.45	3.80
	BONO 10y	3.60	3.55	3.30	2.90
UK	Base rate*	5.00	5.75	5.75	4.00
	Gilts 10y **	4.50	4.40	4.25	3.80
Japan	BoJ Rate	-0.10	-0.10	-0.10	0.10
	JGB 10y**	0.45	0.50	0.65	0.80

Exchange Rates		Q2 2023	Q3 2023	Q4 2023	Q4 2024
End of period					
USD	EUR / USD	1.10	1.10	1.12	1.18
	USD / JPY	133	133	130	123
	GBP / USD	1.24	1.25	1.27	1.34
EUR	EUR / GBP	0.89	0.88	0.88	0.88
	EUR / JPY	146	146	146	145

Brent		Q2 2023	Q3 2023	Q4 2023	Q4 2024
End of period					
Brent	USD/bbl	85	83	90	95

Sources: BNP Paribas (Market Economics, Interest Rate Strategy, FX Strategy, Commodities Desk Strategy)

* Deposit rate: Last update at 27 April 2023, Fed Funds : 2 June 2023, BoE rate: 22 June 2023

** Bund 10y: last update at 3 May 2023, Gilts 10y: 15 June 2023, JGB 10y: 22 June, US 10y: 5 June 2023



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