ECOWEEK

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THE EXPERIENCE IN THE US IN THIS TIGHTENING CYCLE SUGGESTS THAT THE FEDERAL FUNDS RATE PROJECTIONS OF THE FOMC MEMBERS HAVE SERVED AS AN ANCHOR FOR PRIVATE SECTOR INTEREST BATE EXPECTATIONS.

CA

ECONOMIC RESEARCH



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EDITORIAL

FEDERAL RESERVE: THE 'DOTS' AS INTEREST RATE ANCHORS

The interest rate projections ('dots') of the FOMC members represent a reference point that can help investors and economic agents in general in forming their own interest rate expectations. This can be particularly welcome when the monetary environment is changing swiftly like has been the case over the past two years. To explore this, a comparison has been made between the federal funds rate projections of the Survey of Market Participants (SMP) and those of the FOMC members. It seems that the dots may play a role in anchoring long-term interest rate expectations. The private sector forecasts closely follow the dots for 2023 and to a lesser extent for 2024, beyond which they are essentially stable. This is important considering that it might influence the pricing of bonds. Moreover, it seems that the early phase of the tightening cycle has seen higher interest rate volatility in the Eurozone than in the US. Both observations raise the question whether the ECB should start publishing the interest rate projections of its Governing Council members.

Transparent communication has become an integral part of central bank policy. Long gone are the days without press conferences or of statements that were very hard to grasp by non-experts. On the latter point, the Federal Reserve and the ECB have stepped up their efforts to communicate in 'plain English', avoiding technical language to make sure that all citizens understand what the central bank is doing.

This is instrumental in anchoring inflation expectations -an important intermediate objective of monetary policy- and enhances the effectiveness of monetary transmission. The publication of economic projections is part of this communication effort, yet there are important differences between central banks. The ECB publishes staff projections about important macroeconomic variables -though not on interest rates- whereas the Federal Reserve only publishes its staff projections with a 5-year delay¹. On the other hand, four times per year it publishes the projections of the FOMC members -a document called Summary of Economic Projections (SEP)- on GDP growth, inflation, the unemployment rate and the federal funds rate. These projections are conditional forecasts because they are based on the assumed path for monetary policy².

The Federal Reserve is part of a small group of central banks that releases interest rate projections. These can be particularly welcome when the environment is changing swiftly. Over the past two years this has been the case with the huge and lasting increase in inflation that has obliged central banks to act forcefully. In such a context, the publication of central bank interest rate projections, by providing a reference point, can help investors and economic agents in general, in forming their own interest rate expectations.

Charts 1-4 show the FOMC members' projections for the federal funds rate at the end of 2023, 2024, 2025 as well as for the longer run. The horizontal axis shows when these projections have been released. To assess to what extent they are correlated with private sector forecasts, the charts also show the results of the Survey of Market Participants (SMP)³. This survey is conducted by the Federal Reserve of New York ahead of each FOMC meeting. The participants -about 26- are institutional investment firms. This means that their expectations for the federal funds rate should influence their investment decisions and hence market dynamics. As policy was being tightened and the projection for the end of 2023 by FOMC members was revised upwards -higher dots-, institutional investors also raised their expectations. The dots for the end of 2024 were also increased by the FOMC members but this had far less of an impact on private sector expectations.

This could reflect doubts about the decisiveness of the Fed in its inflation fight⁴, a more bearish view on the economic outlook or a more upbeat opinion on the pace of disinflation. Despite the aggressive interest rate hikes, the market participants' forecast for the end of 2025 was remarkably stable compared to the projections of the FOMC members that initially increased and declined thereafter. For the longer run, both the official and the private projections were very stable. This suggests that the FOMC dots may play a role in anchoring long-term interest rate expectations

To explore this point, chart 5 compares the US experience to the Eurozone experience, where, as mentioned before, the ECB is not publishing interest rate projections of its Governing Council members. One would expect that in the absence of such a reference point, market pricing would fluctuate more compared to the US.

Instead of using bond yields, which can be influenced by fluctuations in the term premium, chart 5 uses the instantaneous forward rate within 7 years. This rate can economically be interpreted as representing the market-based expectation of the overnight rate within 7 years⁵ Chart 5 shows the rolling standard deviation of this rate in the US and the Eurozone. Between March and November last year -a period that corresponds to a fundamental shift in monetary policy in both jurisdictions- the instantaneous forward rate was more volatile in the Eurozone than in the US, although the cumulative policy rate hikes were larger in the latter. This might reflect the role of the FOMC members' dots in anchoring interest rate expectations in the US. In a second stage, both standard deviations had a similar behaviour, in terms of level and direction -a downward trend-, which may reflect a market view that the bulk of the tightening had already occurred.

To conclude, the experience in the US -private sector forecasts that closely follow the dots for 2023, that only do so partly for 2024, beyond which they are essentially stable- are important considering that they should influence the pricing of bonds⁶. This matters for the financing costs of the private and public sector and may have implications in terms of financial stability (bond market volatility). Moreover, it seems that the early phase of the tightening cycle has seen higher interest rate volatility in the Eurozone than in the US. Both observations raise the question whether the ECB should start publishing the interest rate projections of its governing council members.

William De Vijlder

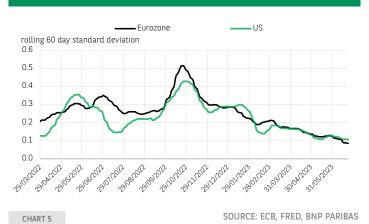
They are published in the Tealbook (previously called the Greenbook) by the Federal Reserve of Philadelphia. 2Fed watchers refer to the federal funds rate projections as 'the dots'. They reflect the rate that the FOMC members consider appropriate considering the economic environment and outlook and the Federal Reserve's mandate. 3 The dates for the SEP correspond to the FOMC meeting dates. Those for the SMP correspond to the date at which the Federal Reserve received the answers of the survey partihis argument probably has limited validity considering that market-based inflation expectations -based on the break-even inflation embedded in inflation-linked Treasuries PS)- has been trending lower since the spring of 2022. (TIPS)- has been trending lower since the spring of 2022. 5 The yield curve enables to calculate forward rates, e.g. the yield (rate) on a one year bond (loan) within 7 years. Longer or shorter maturities for this bond (loan) can be considered. *"In the limit, as the period of the loan considered tends to zero, we arrive at the instantaneous forward rate."* Source: based on Bank of England, Yield curve terminology and concepts. According to the expectations theory of interest rates, the yield on a long-dated bond of a given maturity reflects the short-term interest rate expectations over the same maturity.



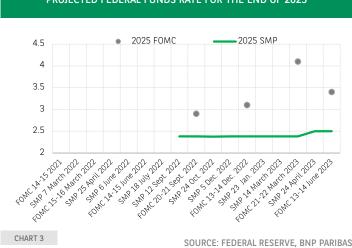
The bank for a changing world

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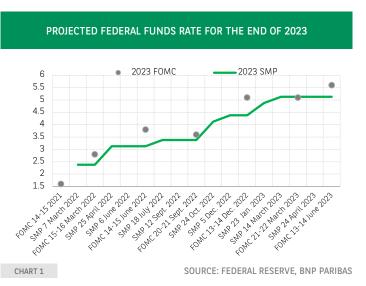
The bank for a changing world



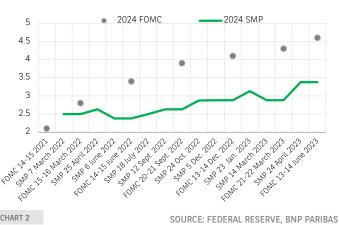
INSTANTANEOUS FORWARD RATE (WITHIN 7 YEARS)



PROJECTED FEDERAL FUNDS RATE FOR THE END OF 2025



PROJECTED FEDERAL FUNDS RATE FOR THE END OF 2024



PROJECTED FEDERAL FUNDS RATE FOR THE LONGER RUN

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Longer run SMP

Shuk the Child BOS.

SOURCE: FEDERAL RESERVE, BNP PARIBAS

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Longer run FOMC

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CHART 4

2

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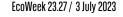
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EDITORIAL

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MARKETS OVERVIEW

OVERVIEW

Week 2	3-6 23 to 30-	6-23				
7 CAC 4	0	7 163	•	7 400	+3.3	%
켜 S&P 5	00	4 348	•	4 450	+2.3	%
⊅ Volati	lity (VIX)	13.4	•	13.6	+0.2	pb
Euribe	or 3M (%)	3.61	•	3.58	-3.3	bp
⊅ Libor	\$ 3M (%)	5.54	۲	5.55	+0.1	bp
7 OAT 1	.0y (%)	2.85	•	2.92	+6.2	bp
⊅ Bund	10y (%)	2.35	۲	2.39	+3.6	bp
🛪 US Tr	10y (%)	3.74	•	3.81	+6.7	bp
י Euro	vs dollar	1.09	•	1.09	+0.3	%
Sold 🖌	(ounce, \$)	1 924	•	1916	-0.4	%
⊿ Oil (B	rent, \$)	73.9	•	74.5	+0.8	%

	hig	hest	: 23	lov	vest	: 23
4.00	4.00	at	21/06	2.50	at	02/01
-0.51	-0.51	at	02/01	-0.51	at	02/01
3.58	3.61	at	23/06	2.16	at	02/01
4.13	4.15	at	23/06	3.30	at	19/01
5.25	5.25	at	04/05	4.50	at	02/01
5.55	5.56	at	12/06	4.77	at	02/01
6.04	6.04	at	30/06	4.70	at	20/03
5.00	5.00	at	22/06	3.50	at	02/01
5.39	5.39	at	30/06	3.87	at	02/01
0.81	0.81	at	02/01	0.81	at	02/01
	-0.51 3.58 4.13 5.25 5.55 6.04 5.00 5.39	4.00 4.00 -0.51 -0.51 3.58 3.61 4.13 4.15 5.25 5.25 5.55 5.56 6.04 6.04 5.00 5.39	4.00 4.00 at -0.51 -0.51 at 3.58 3.61 at 4.13 4.15 at 5.25 5.25 at 5.55 5.56 at 6.04 6.04 at 5.00 5.00 at 5.39 5.39 at	-0.51 -0.51 at 02/01 3.58 3.61 at 23/06 4.13 4.15 at 23/06 5.25 5.25 at 04/05 5.55 5.56 at 12/06 6.04 6.04 at 30/06 5.00 5.00 at 22/06 5.39 5.39 at 30/06	4.00 4.00 at 21/06 2.50 -0.51 -0.51 at 02/01 -0.51 3.58 3.61 at 23/06 2.16 4.13 4.15 at 23/06 3.30 5.25 5.26 at 04/05 4.50 5.55 5.56 at 12/06 4.77 6.04 at 30/06 4.70 5.00 5.00 at 22/06 3.50 5.39 5.39 at 30/06 3.87	4.00 4.00 at 21/06 2.50 at -0.51 -0.51 at 02/01 -0.51 at 3.58 3.61 at 23/06 2.16 at 4.13 4.15 at 23/06 3.00 at 5.25 5.25 at 04/05 4.50 at 5.55 5.56 at 12/06 4.77 at 6.04 6.04 at 30/06 4.70 at 5.00 5.00 at 22/06 3.50 at 5.39 5.39 at 30/06 3.87 at

MONEY & BOND MARKETS

Yield (%)		highest 23	lowest 23
€ AVG 5-7y	2.64	2.64 at 02/01	2.64 at 02/01
Bund 2y	3.34	3.36 at 08/03	2.39 at 20/03
Bund 10y	2.39	2.75 at 02/03	1.98 at 18/01
OAT 10y	2.92	3.23 at 03/03	2.42 at 18/01
Corp. BBB	4.64	4.75 at 03/03	3.95 at 02/02
\$ Treas. 2y	4.94	5.12 at 08/03	3.85 at 04/05
Treas. 10y	3.81	4.06 at 02/03	3.30 at 06/04
High Yield	8.75	9.16 at 20/03	7.94 at 02/02
£ gilt. 2y	5.25	5.25 at 30/06	3.15 at 02/02
gilt. 10y	4.39	4.49 at 19/06	3.00 at 02/02
At 30-6-23			

EXCHANGE RATES

1€ =		high	est 23	low	est	23	2023
USD	1.09	1.11	at 03/05	1.05	at	05/01	+2.2%
GBP	0.86	0.90	at 03/02	0.85	at	16/06	-3.3%
CHF	0.98	1.00	at 24/01	0.97	at	29/05	-1.2%
JPY	157.69	157.72	at 27/06	138.02	at	03/01	+12.0%
AUD	1.64	1.67	at 26/04	1.53	at	27/01	+4.1%
CNY	7.93	7.93	at 30/06	7.23	at	05/01	+6.8%
BRL	5.26	5.79	at 04/01	5.20	at	23/06	-6.6%
RUB	97.64	97.64	at 30/06	73.32	at	12/01	+25.3%
INR	89.50	90.45	at 03/05	86.58	at	08/03	+1.4%
At 30-6-23						Change	

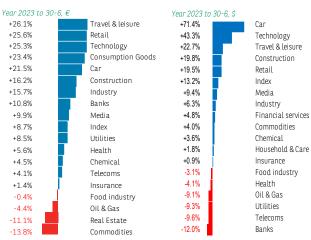
COMMODITIES

Spot price, \$		high	est	23	lov	vest	: 23	2023	2023(€)
Oil, Brent	74.5	88.2	at	23/01	71.9	at	12/06	-12.3%	-14.2%
Gold (ounce)	1 916	2 047	at	04/05	1 810	at	24/02	+5.5%	+3.2%
Metals, LMEX	3 681	4 404	at	26/01	3 564	at	24/05	-7.6%	-9.6%
Copper (ton)	8 322	9 331	at	23/01	7 852	at	24/05	-0.5%	-2.7%
wheat (ton)	233	2.9	at	13/02	216	at	30/05	-18.3%	-20.1%
Corn (ton)	209	2.7	at	13/02	209	at	30/06	-2.0%	-21.4%
At 30-6-23	-								Change

EQUITY INDICES

	Index	highest 2	3	low	est	23	2023
World							
MSCI World	2 967	2 967 at 3	0/06	2 595	at	05/01	+14.0%
North America							
S&P500	4 450	4 450 at 3	0/06	3 808	at	05/01	+15.9%
Europe							
EuroStoxx50	4 399	4 409 at 2	1/04	3 856	at	02/01	+16.0%
CAC 40	7 400	7 577 at 2	1/04	6 595	at	02/01	+1.4%
DAX 30	16 148	16 358 at 1	6/06	14 069	at	02/01	+16.0%
IBEX 35	9 593	9 593 at 3	0/06	8 370	at	02/01	+1.7%
FTSE100	7 532	8 014 at 2	0/02	7 335	at	17/03	+0.1%
Asla							
MSCI, loc.	1 216	1 228 at 1	6/06	1 065	at	04/01	+1.4%
Nikkei	33 189	33 706 at 1	6/06	25 717	at	04/01	+27.2%
Emerging							
MSCI Emerging (\$)	989	1 052 at 2	6/01	941	at	16/03	+0.3%
China	60	75 at 2	7/01	58	at	31/05	-5.4%
India	806	806 at 3	0/06	703	at	16/03	+3.6%
Brazil	1 636	1 691 at 2	1/06	1 296	at	23/03	+2.4%
At 30-6-23	_					-	Change

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)



SOURCE: REFINITIV, BNP PARIBAS

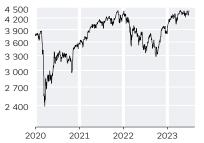
The bank for a changing world

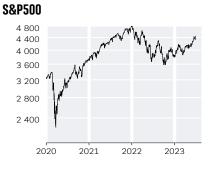


MARKETS OVERVIEW

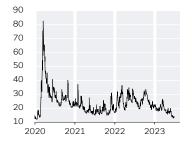


EUROSTOXX50

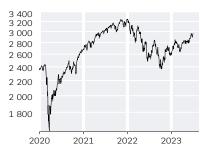




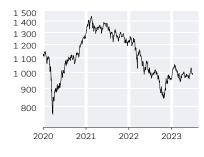
VOLATILITY (VIX, S&P500)



MSCI WORLD (USD)



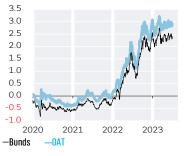
MSCI EMERGING (USD)



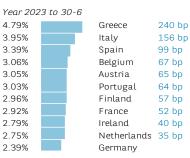
10Y BOND YIELD, TREASURIES VS BUND



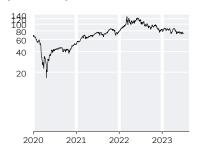
10Y BOND YIELD



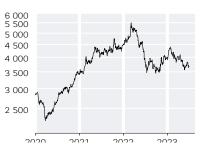
10Y BOND YIELD & SPREADS



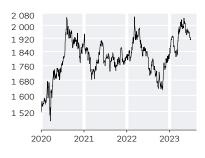
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS



ECONOMIC PULSE

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DIVERGING TREND IN ECONOMIC UNCERTAINTY IN THE UNITED STATES (UPWARDS) AND THE EURO AREA (DOWNWARDS)

Our various uncertainty indicators are complementary in terms of scope and methodology.

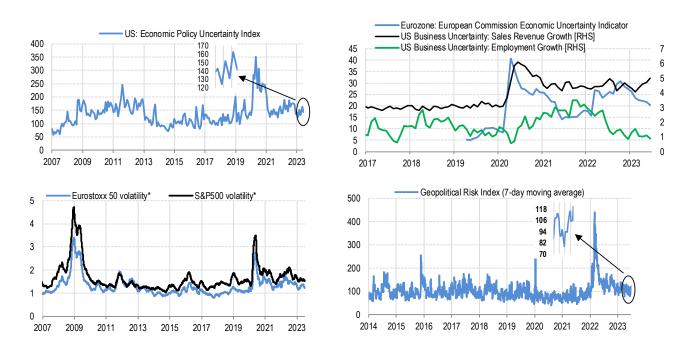
At the top left of the chart, uncertainty about US economic policy, based on media coverage, fell in June after a rebound in May. This decline is due, in part, to the status quo on Federal Reserve (Fed) policy rates following its 13-14 June meeting, thus marking a pause in its tightening cycle that began in March 2022.

Continuing in the clockwise direction, the uncertainty felt by US companies about their revenue growth continues to increase and remains high compared to the pre-Covid-19 pandemic. Such an increase is to be carefully monitored as it could be linked to the risk of recession hanging over the US economy. On the other hand, uncertainty about the employment outlook declined after two stable months.

The European Commission's economic uncertainty index fell in June, continuing its decline since October 2022, as uncertainty in the various sectors of activity decreased, except in industry, where the index remained stable.

The geopolitical risk index (bottom right), which is also based on media coverage, recently increased after a drop in the first two weeks of June but it remains very volatile. Finally, our stock market-based uncertainty indicator (dispersion of the daily returns of stock market index components) resumed declining in June in the euro area, halting its rise since February 2023, while it tends to stabilise in the United States, after the turmoil in the US banking sector last March.

Tarik Rharrab



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 (MATTEOIACOVIELLO.COM), BNP Paribas



ECONOMIC SCENARIO

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.

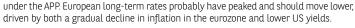
FRANCE

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).

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



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*	
%	2021	2022	2023 e	2024 e
United-States	5.9	2.1	1.5	-0.1
Japan	2.2	1.0	1.5	1.0
United-Kingdom	7.6	4.1	0.4	0.0
Euro Area	5.3	3.5	0.4	0.6
Germany	2.6	1.9	-0.4	0.5
France	6.8	2.6	0.5	0.6
Italy	7.0	3.8	1.3	1.0
Spain	5.5	5.5	2.4	1.5
China	8.4	3.0	5.6	4.5
India***	8.7	7.0	5.7	6.0
Brazil	5.0	2.9	2.5	0.5

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 Euozone, 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, %					
End of period		Q2 2023	Q3 2023	Q4 2023	Q4 2024
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					
End of period		Q2 2023	Q3 2023	Q4 2023	Q4 2024
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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					
End of period		Q2 2023	Q3 2023	Q4 2023	Q4 2024
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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