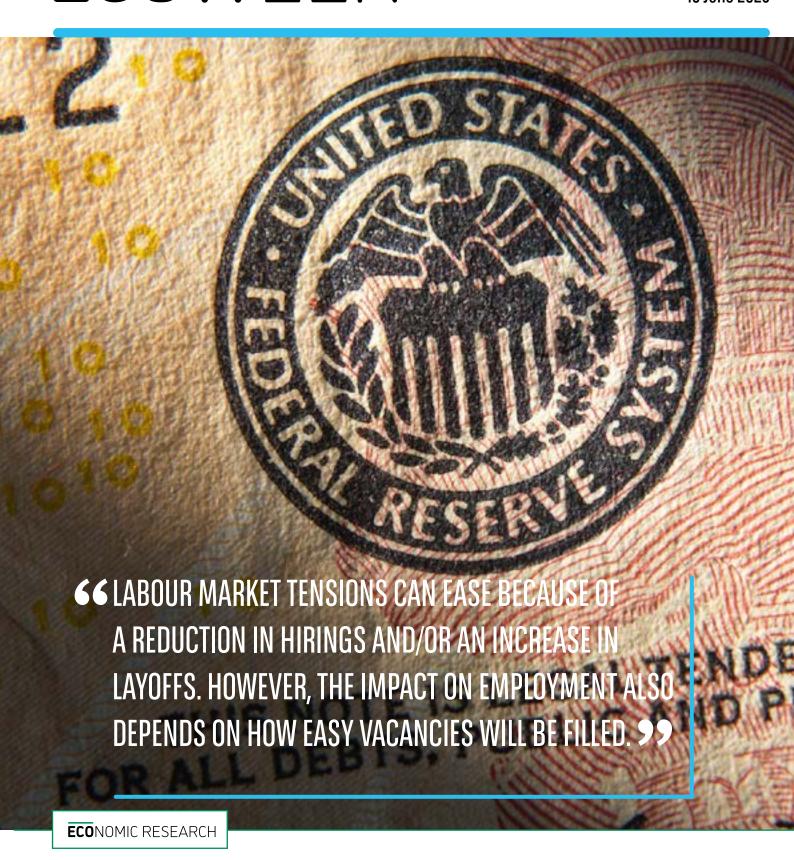
ECOWEEK

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The bank for a changing world

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EDITORIAL

US: THE COST OF DISINFLATION

With the return of elevated inflation, the debate on the output cost of bringing down inflation that was very lively in the early 80s has made a comeback. This debate is centered around the sacrifice ratio -the loss in output compared to its trend level for a given decline in inflation- and whether the landing of the economy will be hard or soft. Recently, the semantics have evolved and commentators now speak of the possibility of immaculate disinflation, whereby inflation is brought back to target by the Fed through a restrictive monetary policy but with a very small cost in terms of unemployment. For this to happen, labour tensions should ease and lead to a drop in wage growth. This will take time. In addition, the US economy should do a better job in filling vacancies. Clearly, the jury is still out on what will happen to the unemployment rate in this cycle.

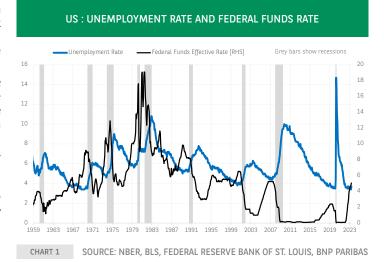
Back in the early 80s, when central banks were trying to get a grip on elevated inflation, academics spent a lot of time discussing the output cost of bringing down inflation. The thinking was that aggressive monetary tightening would cause a drop in economic activity, an increase in the unemployment rate, a decline in wage growth and inflation.

A temporary increase in the unemployment rate above its natural rate and a loss in output compared to its trend level were considered as the price to be paid for lowering inflation to an acceptable level. This price is represented by the sacrifice ratio. In the numerator we find the sum of output losses -the deviations between actual output and its full employment or trend level- and in the denominator the change in trend inflation over a given period, between its peak and its trough1.

In 1994, Laurence Ball, a professor of economics at Johns Hopkins University, stated that "disinflations are a major cause of recessions in modern economies - perhaps the dominant cause."2 This explains why rate hiking cycles give rise to heated discussions between market commentators whether the landing of the economy will be hard or soft. Historically, the latter has been the exception.

Since the Federal Reserve started raising the federal funds rate in this cycle, the debate has been ongoing but recently a new twist has appeared, that of 'immaculate disinflation' whereby inflation is brought back to target by the central bank through a restrictive monetary policy but with a very small cost in terms of unemployment.3

Historically, tightening cycles have seen a significant increase in the rate of unemployment, with the major exception of the 1994 episode during which the unemployment rate continued to decline (chart 1). The latest Summary of Economic Projections shows that the members of the FOMC expect real GDP growth below trend this year and next, but this should only cause a limited increase in the unemployment rate, to 4.5% (from 3.7% in May), which is only slightly higher than its projected level in the longer run (4.0%).



This triggered a comment from a journalist during Jerome Powell's press conference that "it seems like it's getting more immaculate rather than a little messy."4 It echoes the debate of last year whether a soft landing was a realistic assumption⁵. According to J. Powell, for goods price disinflation we need to see further improvement in supply conditions. This process is underway.

Another important source of inflation is coming from housing services, but new rents and new leases are coming in at low levels, which should contribute to lower inflation going forward. Finally and importantly, there is services sector inflation where "we see only the earliest signs of disinflation." Given its labour intensity, wage costs play a key role.



Labour market tensions can ease because of a reduction in hirings and/or an increase in layoffs. However, the impact on employment also depends on how easy vacancies will be filled.



Source: Laurence Ball. What determines the sacrifice ratio, in Monetary Policy, edited by N. Gregory Mankiw, NBER, The University of Chicago Press, 1994.
Source: see footnote 1.
See: Tracy Alloway, So where does 'immaculate disinflation' come from anyway?, Bloomberg, 9 February 2023 and Paul Krugman, Wonking out: from stagflation to immaculate isinflation, New York Times, 10 February 2023.
Source: Transcript of Chair Powell's Press conference, Federal Reserve, 14 June 2023. The journalist who made the comment was Howard Schneider of Reuters.
See Félix Berte, Slowdown in the labour market and recession, EcoFlash, BNP Paribas, 10 February 2023.

EDITORIAL

4

According to the Fed Chair, to have inflation back to target, we need economic growth meaningfully below trend and a further loosening of the labour market. "The things are in place that we need to see, but the process of that actually working on inflation is going to take some time." Wage growth has declined, albeit at a very gradual pace. Powell refers in this respect to the recent paper of Bernanke and Blanchard -"which is very consistent with what I would think"- in which the authors conclude that "although tight labor markets have thus far not been the primary driver of inflation, we find that the effects of overheated labour markets on nominal wage growth and inflation are more persistent".

Bringing inflation under control will require a reduction in labour market tightness, meaning a better balance between labour demand and supply. That is why the Fed has been raising its policy rate so swiftly and significantly. Labour market tensions can ease because of a reduction in hirings and/or an increase in layoffs. However, the impact on employment also depends on how easy vacancies will be filled. Clearly, the jury is still out on what will happen to the unemployment rate in this cycle.

William De Vijlder

6 Ben Bernanke and Olivier Blanchard, What Caused the U.S. Pandemic-Era Inflation?, Hutchins Center working paper 86, June 2023.

FOMC SU	MMARY OF ECONOM	IC PROJECTIONS		
June projections		Med	lian	
Tone projections	2023	2024	2025	Longer run
Change in real GDP	1.0	1.1	1.8	1.8
Unemployment rate	4.1	4.5	4.5	4.0
PCE inflation	3.2	2.5	2.1	2.0
Core PCE inflation	3.9	2.6	2.2	
Federal funds rate (projected appropriate policy path)	5.6	4.6	3.4	2.5
TABLE 1	0011	DOE: FEDERAL DECERVE OF	INAMARY OF FOOMORAIO	PROJECTIONS 44 HINE SO

SOURCE: FEDERAL RESERVE, SUMMARY OF ECONOMIC PROJECTIONS, 14 JUNE 2023



MARKETS OVERVIEW

OVERVIEW

Week 9-6 23 to 16-6	-23				
⊅ CAC 40	7 213	•	7 389	+2.4	%
⊅ S&P 500	4 299	٠	4 410	+2.6	%
■ Volatility (VIX)	13.8	•	13.5	-0.3	pb
7 Euribor 3M (%)	3.47	•	3.57	+10.3	bp
∠ Libor \$ 3M (%)	5.54	٠	5.51	-3.4	bp
7 OAT 10y (%)	2.88	•	2.93	+5.5	bp
> Bund 10y (%)	2.38	•	2.46	+8.4	bp
7 US Tr. 10y (%)	3.75	•	3.77	+1.7	bp
⊅ Euro vs dollar	1.08	•	1.09	+1.6	%
■ Gold (ounce, \$)	1 963	•	1 959	-0.2	%
7 Oil (Brent. \$)	74.8	•	76.7	+2.5	%

MONEY & BOND MARKETS

Interest Rates		hig	hest	23	lov	west	23
€ECB	3.75	3.75	at	10/05	2.50	at	02/01
Eonia	-0.51	-0.51	at	02/01	-0.51	at	02/01
Euribor 3M	3.57	3.57	at	16/06	2.16	at	02/01
Euribor 12M	4.02	4.02	at	16/06	3.30	at	19/01
\$ FED	5.25	5.25	at	04/05	4.50	at	02/01
Libor 3M	5.51	5.56	at	12/06	4.77	at	02/01
Libor 12M	5.88	5.88	at	08/03	4.70	at	20/03
£ BoE	4.50	4.50	at	11/05	3.50	at	02/01
Libor 3M	5.00	5.01	at	13/06	3.87	at	02/01
Libor 12M	0.81	0.81	at	02/01	0.81	at	02/01
At 16-6-23	_						

Yield (%)		highest 23	lowest 23
€ AVG 5-7y	2.64	2.64 at 02/01	2.64 at 02/01
Bund 2y	3.22	3.36 at 08/03	2.39 at 20/03
Bund 10y	2.46	2.75 at 02/03	1.98 at 18/01
0AT 10y	2.93	3.23 at 03/03	2.42 at 18/01
Corp. BBB	4.61	4.75 at 03/03	3.95 at 02/02
\$ Treas. 2y	4.71	5.12 at 08/03	3.85 at 04/05
Treas. 10y	3.77	4.06 at 02/03	3.30 at 06/04
High Yield	8.66	9.16 at 20/03	7.94 at 02/02
£ gilt. 2y	4.92	4.92 at 16/06	3.15 at 02/02
gilt. 10y	4.41	4.43 at 13/06	3.00 at 02/02
At 16-6-23			

EXCHANGE RATES

1€ =		high	est 23	low	est/	23	2023
USD	1.09	1.11	at 03/05	1.05	at	05/01	+2.4%
GBP	0.85	0.90	at 03/02	0.85	at	16/06	-3.9%
CHF	0.98	1.00	at 24/01	0.97	at	29/05	-1.1%
JPY	154.59	154.59	at 16/06	138.02	at	03/01	+9.8%
AUD	1.59	1.67	at 26/04	1.53	at	27/01	+1.0%
CNY	7.78	7.81	at 15/06	7.23	at	05/01	+4.8%
BRL	5.27	5.79	at 04/01	5.24	at	13/06	-6.4%
RUB	91.75	91.75	at 16/06	73.32	at	12/01	+17.8%
INR	89.52	90.45	at 03/05	86.58	at	08/03	+1.4%
At 16-	6-23						Change

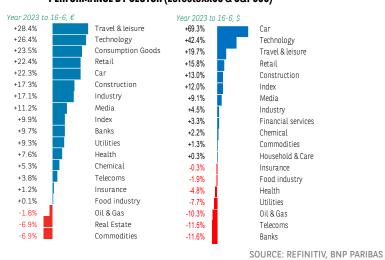
COMMODITIES

Spot price, \$		high	est	23	lov	vest	23	2023	2023(€)
Oil, Brent	76.7	88.2	at	23/01	71.9	at	12/06	-9.7%	-11.8%
Gold (ounce)	1 959	2 047	at	04/05	1 810	at	24/02	+7.9%	+5.4%
Metals, LMEX	3 837	4 404	at	26/01	3 564	at	24/05	-3.7%	-5.9%
Copper (ton)	8 555	9 331	at	23/01	7 852	at	24/05	+2.3%	-0.1%
wheat (ton)	255	2.9	at	13/02	216	at	30/05	-10.8%	-12.9%
Corn (ton)	252	2.7	at	13/02	225	at	19/05	-0.3%	-5.3%
At 16-6-23						•			Change

EQUITY INDICES

	Index	highest 23	lowest 23	2023
World		•		
MSCI World	2 962	2 966 at 15/06	2 595 at 05/01	+13.8%
North America				
S&P500	4 410	4 426 at 15/06	3 808 at 05/01	+14.8%
Europe				
EuroStoxx50	4 395	4 409 at 21/04	3 856 at 02/01	+15.8%
CAC 40	7 389	7 577 at 21/04	6 595 at 02/01	+1.4%
DAX 30	16 358	16 358 at 16/06	14 069 at 02/01	+17.5%
IBEX 35	9 495	9 511 at 06/03	8 370 at 02/01	+1.5%
FTSE100	7 643	8 014 at 20/02	7 335 at 17/03	+0.3%
Asia				
MSCI, loc.	1 228	1 228 at 16/06	1 065 at 04/01	+1.5%
Nikkei	33 706	33 706 at 16/06	25 717 at 04/01	+29.2%
Emerging				
MSCI Emerging (\$)	1 030	1 052 at 26/01	941 at 16/03	+0.8%
China	64	75 at 27/01	58 at 31/05	+1.3%
India	796	796 at 16/06	703 at 16/03	+2.3%
Brazil	1 648	1 657 at 15/06	1 296 at 23/03	+3.3%
At 16-6-23			•	Change

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

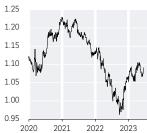




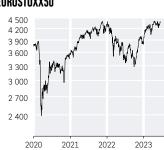


MARKETS OVERVIEW

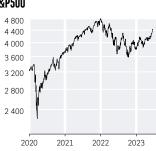




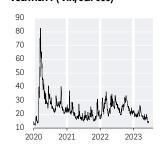
EUROSTOXX50



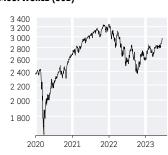
S&P500



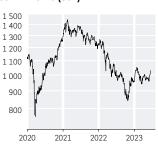
VOLATILITY (VIX, S&P500)



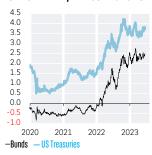
MSCI WORLD (USD)



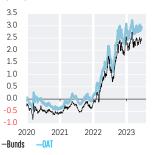
MSCI EMERGING (USD)



10Y BOND YIELD, TREASURIES VS BUND



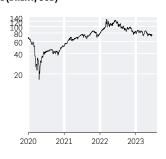
10Y BOND YIELD



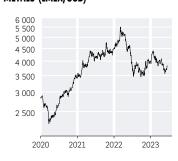
10Y BOND YIELD & SPREADS



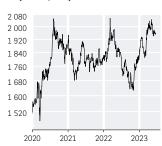
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS



ECONOMIC PULSE

7

CHINA: THE LOSS OF MOMENTUM IS CONFIRMED

China's post-Covid economic rebound is running out of steam with surprising speed. Indicators for May 2023 show a slowdown in all demand components. The authorities announced slight cuts in policy rates on 13 and 15 June and are expected to introduce further support measures in the coming weeks. There is indeed an urgent need to strengthen consumer and investor confidence in China. However, stimulus policy measures should remain cautious.

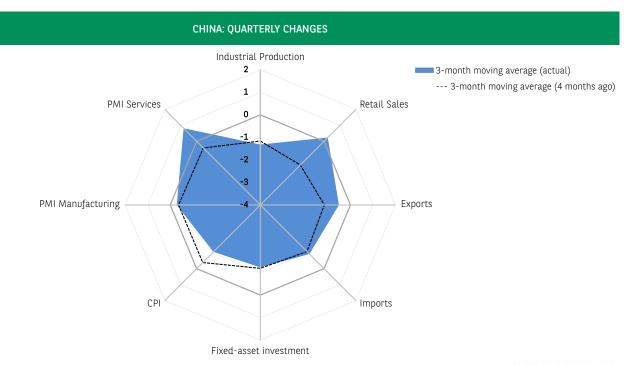
The recovery in services and household consumption growth, which followed the abandonment of the zero-Covid policy last December, is already losing momentum. For example, retail sales volumes increased 12.5% year-on-year in May, down from 18.3% in April and about 5% in Q1 2023. However, year-on-year growth figures are still inflated by favourable base effects stemming from the very strict lockdown imposed in the Shanghai region in spring 2022. This explains the apparent improvement, visible on our Pulse, in economic conditions in the three months between March and May 2023 compared to the previous three months.

In fact, Chinese households contain their spending and prefer to deleverage. They remain cautious given uncertainty about their income prospects and the ongoing crisis in the real estate sector. The unemployment rate in urban areas remained stable at 5.2% in May, after two months of slight decline, and is close to its pre-Covid level. However, the unemployment rate among young people aged 16-24 continued to rise, reaching a record high of 20.8% (vs. 12% in 2019). Consumer price inflation remains very low (+0.2% in May in g.a. after +0.1% in April and +1.3% in Q1 2023).

The property market crisis is persisting. Admittedly, the number of construction sites completed has recovered since the beginning of the year, thanks in particular to support measures of the authorities, which have targeted real estate developers able to finalize ongoing projects and deliver pre-paid housing in order to strengthen confidence in the housing market. Nevertheless, potential buyers sentiment still appears depressed and many developers continue to face significant financial difficulties. Housing sales fell by 16% in g.a. in May, and the contraction in real estate investment worsened (reaching -7.2% in g.a. the first five months of 2023). This contributed significantly to the slowdown in total investment growth (+4% in value terms only in the first five months of 2023).

Finally, industrial production growth slowed down to +3.5% in May from +5.6% in April and +3% in Q1 2023. It is heavily penalized by the slowdown in world demand and tensions with the US. In May, China's exports of goods fell again (-8% in g.a. in current USD) after the rebound posted in March-April, and the decline in imports continued (-5.1% in g.a. May after -7.8% in April).

Christine Peltier



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.



ECONOMIC SCENARIO

UNITED STATES

After a strong second half of 2022 (+0.7% q/q on average per quarter), US growth slowed sharply in Q1 2023 (+0.3% q/q). The growth breakdown allows us to put the weakness of the figure into perspective (this is mainly due to the very negative contribution of changes in inventories). Signs of the expected recession are still limited and even absent in the labour market, leading us to upwardly revise our near-term growth forecasts (Q2 growth a little more positive, Q3 a bit less negative). 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 ongoing monetary tightening is expected to drive the US economy into recession in the second half of 2023 and 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. Consumer price inflation, which averaged 2% in 2022, should accelerate only mildly in 2023.

EUROZONE

After a small GDP contraction in Q4 2022, economic activity in the eurozone surprised favorably in the early months of 2023 judging by the improvement in survey data (business confidence and, to a lesser extent, consumer confidence). However, the first estimate for Q1 2023 growth has been less positive than expected, up by only 0.1% q/q. The figure could even turn negative in the wake of the large downward revision to German growth: the eurozone would then fall into technical recession. 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. 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 core inflation shows encouraging signs of easing in April and May, it is not yet sufficient to end the tightening cycle. We expect a terminal rate for the deposit rate at 4.00%. 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.

The Bank of Japan has increased the upper end of its target range for the 10-year JGB yield to 0.5% and further adjustments to the yield curve control policy cannot be excluded. Nevertheless, we do not expect the BoJ to proceed with 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. 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*				Inflat	ion**	
%	2021	2022	2023 e	2024 e		2021	2022	2023 e	2024 e
United-States	5.9	2.1	1.3	-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	1.7
United-Kingdom	7.6	4.1	0.4	0.7		2.6	9.1	7.3	2.2
Euro Area	5.3	3.5	0.4	0.6		2.6	8.4	5.3	2.7
Germany	2.6	1.9	-0.4	0.5		3.2	8.7	5.7	2.4
France	6.8	2.6	0.5	0.6		2.1	5.9	5.6	2.6
Italy	7.0	3.8	1.1	0.7		1.9	8.7	6.0	2.3
Spain	5.5	5.5	1.8	0.8		3.0	8.3	2.8	2.2
China	8.4	3.0	5.6	5.3	_	0.9	2.0	2.7	2.5
India***	8.7	7.0	5.7	6.0		5.5	6.7	5.4	4.5
Brazil	5.0	2.9	2.5	0.5		8.3	9.3	4.7	4.0

* GDP LAST UPDATE: 8 JUNE 2023: JAPAN, 2 JUNE 2023: US AND BRAZIL, 17 MAY 2023: UK AND JAPAN, 21 MAY 2023:

GERMANY

** INFLATION LAST UPDATE: 16 JUNE 2023: US, UK AND BRAZIL, 2 JUNE 2023: EUROZONE, GERMANY, FRANCE, ITALY,
SPAIN IS AND RBAZII

SPAIN, US AND BRAZIL
*** FISCAL YEAR FROM 1ST APRIL OF YEAR N TO MARCH 31ST OF YEAR N+1
SOURCE: BNP PARIBAS (F: ESTIMATES & FORECASTS)

INTEREST AND EXCHANGE RATES

Interest rates, %	6				
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*	4.75	5.25	5.50	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	0.60	0.65	0.80

Exchange Rates

Ena of perioa		Q2 2023	Ų3 2023	Q4 2023	Q4 2024
USD	EUR / USD	1.10	1.12	1.14	1.18
	USD / JPY	133	130	127	121
	GBP / USD	1.24	1.26	1.28	1.33
EUR	EUR / GBP	0.89	0.89	0.89	0.89
	EUR / JPY	146	146	145	143
Brent					
End of period		02 2023	03 2023	04 2023	04 2024

·

USD/bbl

* DEPOSIT RATE: LAST UPDATE AT 15 JUNE 2023, FED FUNDS : 2 JUNE 2023, BOE RATE: 13 JUNE 2023 *** BUND 10Y: LAST UPDATE AT 3 MAY 2023, GILTS 10Y: 15 JUNE 2023, IGB 10Y: 28 MARCH, US 10Y: 5 JUNE 2023

SOURCES: BNP PARIBAS (MARKET ECONOMICS, INTEREST RATE STRATEGY, FX STRATEGY, COMMODITIES DESK STRATEGY)



FURTHER READING

9

Germany: Towards a double dip?	EcoTVWeek	16 June 2023
United Kingdom: Has Brexit truly made the UK less attractive economically?	EcoFlash	15 June 2023
Ecological transition: what it costs	Chart of the Week	14 June 2023
Eurozone: the importance of levels and changes in levels	EcoWeek	13 June 2023
UK considers review of deposit guarantee scheme	EcoTVWeek	9 June 2023
Inflation tracker June 2023	EcoCharts	8 June 2023
Dutch growth between cyclical headwinds and the energy transition	Chart of the Week	7 June 2023
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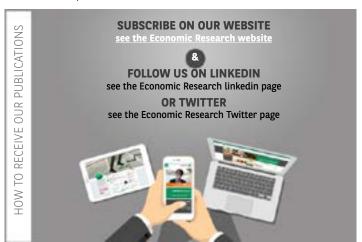
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