ECOWEEK

Issue 23.38

16 October 2023





The bank for a changing world

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EDITORIAL

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THE RISK-BEARING CAPACITY OF INVESTORS AND BOND MARKETS

In the United-States and several European countries, gross public sector borrowing requirements are expected to remain sizeable and the reduction in the size of central banks' balance sheets -quantitative tightening- complicates matters. The impact on bond yields will depend on the risk-bearing capacity of investors. Their ability and willingness to increase their exposure to duration risk depends on several factors: the existence or absence of strict duration risk limits in portfolios of institutional investors, risk aversion in reaction to recent bond yield volatility, uncertainty about the outlook for official interest rates, the correlation between bonds and equities, the balance sheet capacity of financial intermediaries. Central banks could boost the risk-bearing capacity of investors by lowering uncertainty about the future policy rate path through forward guidance and by making policy less data-dependent. However, this supposes that they are convinced that their inflation target will be reached in a timely way.

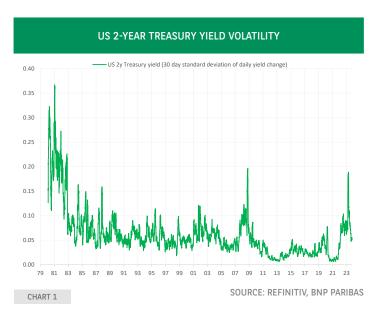
An increase in the supply of goods or services causes -everything else remaining the same- a decline in their prices to entice households and firms to increase their demand so that a new equilibrium can be reached. The change in prices depends on the price elasticity of demand. When the latter is high, a small decline in prices triggers a sizeable increase in demand, which accelerates market clearing. When the price elasticity is small, the price decline will need to be large.

It is useful to keep this in mind when assessing the outlook for bond markets against a background of huge gross borrowing requirements in several advanced economies -of which the US- and the simultaneous reduction of the size of central banks' balance sheets. The latter factor implies that the private sector -domestic or foreign- will have to step in the shoes of the central bank -think of the Federal Reserve, the Bank of England, the ECB- that is no longer reinvesting part of its maturing bond holdings.

Rising gross borrowing requirements -taking into account the role played by quantitative tightening- imply an increase in supply that needs to be met by an increase in demand, which requires a price adjustment: bond prices decline and the yield to maturity rises. As stated by Lorie K. Logan, President of the Federal Reserve Bank of Dallas, in a recent speech, "the expectation of lower Federal Reserve asset holdings over time implies that other investors will need to hold more long-duration securities, which appears to be one factor among the many contributing to higher term premiums."

To put it differently: whereas QE caused a decline in the duration exposure of investors, the opposite happens under QT. Duration extraction is followed by duration 'injection' ².

Whether this runs smoothly depends on the risk-bearing capacity of investors. This is influenced by several factors. Firstly, certain investors may have strict duration risk limits, which stops them from (sufficiently) increasing their bond exposure. Secondly, elevated bond market volatility may make investors reluctant to increase their fixed income investments. As illustrated in chart 1, US Treasury yield volatility has been high as of late.



Thirdly, uncertainty about the outlook for official interest rates due to an insistence by central banks that, going forward, policy will be data-dependent and/or due to an absence of forward guidance, may also lower the price elasticity of the demand for bonds. This means that a larger increase in yields is necessary to entice investors to increase their bond exposure³. Fourthly, a similar phenomenon will occur when the correlation between bond and equity prices is positive⁴. This has been the case recently after a long period of negative correlation. When the correlation is positive, bonds no longer serve as a hedge for equities -the prices of both asset classes move up and down together-, which makes bonds less attractive, which pushes yields upwards.

tions.
4 This empirical relevance of this point is demonstrated in Steve Fei Hou, When is the supply effect large in the government bond market?, Department of Economics, University of Michigan. The paper was quoted in Whispers of a consumer slowdown, Financial Times, 11 October 2023.



¹ Financial conditions and the monetary policy outlook, Speech by President Lorie K. Logan, 9 October 2023, Federal Reserve Bank of Dallas.
2 When an investor sells his bond holdings to a financial intermediary who in turn sells them to the central bank, the investor's exposure to duration risk moves to the central bank's balance sheet (in return, the central bank reserves of the financial intermediary increase, which corresponds to the increase in the deposits of the investor with the intermediary). This process is called duration extraction. The opposite, which could be called duration injection, happens under quantitative tightening. For an analysis of duration extraction, see: The yield curve and monetary policy, speech by Philip R. Lane, Member of the Executive Board of the ECB, Public Lecture for the Centre for Finance and the Department of Economics at University College London, 25 November 2019.

³ Under this view, absence of forward guidance and a data-dependent policy accelerate the monetary transmission of policy rate hikes through a tightening of financial conditions.

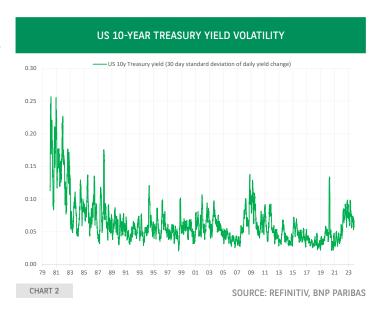
EDITORIAL

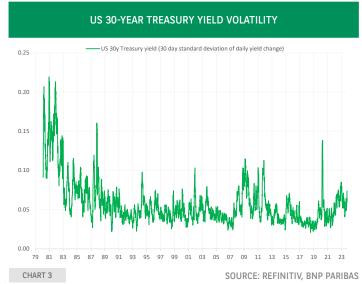
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Finally, financial intermediaries can also play an important role. "Sudden changes in economic conditions can trigger extreme demands by investors to liquidate government securities. The resulting need for dealers to warehouse large positions while finding buyers can potentially overwhelm their balance sheets." Concern about market dysfunction could trigger more selling by investors, particularly those who are leveraged and may face margin calls⁶.

To conclude, for various reasons one cannot take for granted that an increase in the supply of duration risk -through increased gross issuance and/or quantitative tightening- will easily meet a proportional increase in the demand for duration risk. There is a genuine risk that the risk-bearing capacity of investors is low, implying that the price elasticity of bond demand would be low. This would strengthen the monetary transmission of policy rate hikes through a tightening of financial conditions but it also raises the question to what extent rate hikes and the size of the balance sheet are substitutes. The risk-bearing capacity of investors is also an important consideration for the ECB, in particular when it would start to run down its PEPP holdings. Central banks could boost the risk-bearing capacity of investors by lowering uncertainty about the future policy rate path through forward guidance and by making policy less data-dependent. However, this supposes that they are convinced that their inflation target will be reached in a timely way.

William De Vijlder





5 Source: Darrell Duffie and Frank Keane, Market-Function Asset Purchases, Federal Reserve Bank of New York Staff Reports, no. 1054, February 2023. 6 This is what happened in October 2022 during the 'dash for cash' in the UK gilts market. See UK: the 'dash for cash', leverage and the need for economic policy coordination, BNP Paribas, Ecoweek, 3 October 2022.



Central banks could boost the risk-bearing capacity of investors by lowering uncertainty about the future policy rate through forward guidance and by making policy less data-dependent. However, this supposes that they are convinced that their inflation target will be reached in a timely way.



MARKETS OVERVIEW

OVERVIEW

MONEY & BOND MARKETS

Week 6-10 23 to 13-	10-23			Interest Rates		highest 23	lowest 23	Yield (%)		highest 23	lowest 23
≥ CAC 40	7 060 ▶	7 004	-0.8 %	€ECB	4.50	4.50 at 20/09	2.50 at 02/01	€ AVG 5-7y	2.64	2.64 at 02/01	2.64 at 02/01
7 S&P 500	4 309 ▶	4 328	+0.4 %	Eonia	-0.51	-0.51 at 02/01	-0.51 at 02/01	Bund 2y	3.24	3.38 at 28/09	2.39 at 20/03
				Euribor 3M	3.99	3.99 at 10/10	2.16 at 02/01	Bund 10y	2.70	2.94 at 28/09	1.98 at 18/01
→ Volatility (VIX)	17.5 ▶	19.3	+1.9 pb	EUITUUT 12IVI	4.17	4.23 at 29/09	3.30 at 19/01	OAT 10y	3.29	3.50 at 28/09	2.42 at 18/01
⊅ Euribor 3M (%)	3.98 ▶	3.99	+0.2 bp	\$ FED	5.50	5.50 at 27/07	4.50 at 02/01	Corp. BBB	4.79	4.94 at 04/10	3.95 at 02/02
Libor \$ 3M (%)	5.67 ▶	5.66	-0.4 bp	Libor 3M	5.66	5.69 at 10/10	4.77 at 02/01	\$ Treas. 2y	5.12	5.22 at 03/10	3.85 at 04/05
■ OAT 10y (%)	3.46 ▶	3.29	-17.6 bp	Libor 12M	6.04	6.04 at 30/06	4.70 at 20/03	Treas. 10y	4.62	4.80 at 03/10	3.30 at 06/04
■ Bund 10y (%)	2.85 ▶	2.70	-15.4 bp	£ BoE	5.25	5.25 at 03/08	3.50 at 02/01	High Yield	9.18	9.31 at 09/10	7.94 at 02/02
■ US Tr. 10y (%)	4.80 ▶	4.62	-17.6 bp	Libor 3M	5.41	5.60 at 30/08	3.87 at 02/01	£ gilt. 2y	4.85	5.51 at 06/07	3.15 at 02/02
≥ Euro vs dollar	1.05 ▶	1.05	-0.3 %		0.81	0.81 at 02/01	0.81 at 02/01	gilt. 10y	4.39	4.74 at 17/08	3.00 at 02/02
对 Gold (ounce, \$)	1830 ▶	1 919	+4.9 %	At 13-10-23				At 13-10-23			
→ Oil (Brent, \$)	84.7 ▶	91.0	+7.5 %								

EXCHANGE RATES

1€ =		high	est 23	low	2023		
USD	1.05	1.12	at 14/07	1.05	at	03/10	-1.6%
GBP	0.87	0.90	at 03/02	0.85	at	11/07	-2.5%
CHF	0.95	1.00	at 24/01	0.95	at	13/10	-3.8%
JPY	157.21	159.39	at 30/08	138.02	at	03/01	+11.6%
AUD	1.67	1.70	at 21/08	1.53	at	27/01	+6.0%
CNY	7.67	8.08	at 19/07	7.23	at	05/01	+3.4%
BRL	5.32	5.79	at 04/01	5.18	at	18/09	-5.6%
RUB	102.46	110.46	at 14/08	73.32	at	12/01	+31.5%
INR	87.46	92.37	at 14/07	86.58	at	08/03	-0.9%
At 13-	10-23						Change

COMMODITIES

Spot price, \$		highest 23		lowest 23			2023 2023(€)		
Oil, Brent	91.0	96.6	at	27/09	71.9	at	12/06	+7.1%	+8.9%
Gold (ounce)	1 919	2 047	at	04/05	1 810	at	24/02	+5.7%	+7.4%
Metals, LMEX	3 561	4 404	at	26/01	3 551	at	05/10	-10.6%	-9.2%
Copper (ton)	7 876	9 331	at	23/01	7 824	at	05/10	-5.8%	-4.3%
wheat (ton)	211	2.9	at	13/02	168	at	29/09	-26.0%	-24.8%
Corn (ton)	181	2.7	at	13/02	161	at	21/08	-3.0%	-29.3%
At 13-10-23						-			Change

EQUITY INDICES

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

	Index	highest 23	lowest 23	2023	Year 2023 to 13-10, €		Year 2023 to 13-10, \$	
World					+17.0%	Retail	+66.2%	Car
MSCI World	2 862	3 064 at 31/07	2 595 at 05/01	+10.0%	+16.0%	Media	+48.4%	Technology
North America					+14.3%	Car	+18.9%	Retail
S&P500	4 328	4 589 at 31/07	3 808 at 05/01	+12.7%	+14.1%	Banks	+14.9%	Construction
Europe					+13.4%	Technology	+14.2%	Index
EuroStoxx50	4 136	4 471 at 31/07	3 856 at 02/01	+9.0%	+12.8%	Construction	+13.5%	Travel & leisure
CAC 40	7 004	7 577 at 21/04	6 595 at 02/01	+0.8%	+8.4%	Travel & leisure	+11.8%	Insurance
DAX 30	15 187	16 470 at 28/07	14 069 at 02/01	+9.1%	+8.3%	Health	+11.8%	Media
IBEX 35	9 233	9 695 at 27/07	8 370 at 02/01	+1.2%	+7.5%	Oil & Gas	+6.2%	Financial services
FTSE100	7 600	8 014 at 20/02	7 257 at 07/07	+0.2%			+4.7%	
Asia					+6.8%	Industry	**	Industry
MSCI, loc.	1 206	1 256 at 15/09	1 065 at 04/01	+1.3%	+5.7%	Index	+4.0%	Oil & Gas
Nikkei	32 316	33 753 at 03/07	25 717 at 04/01	+23.8%	+3.3%	Insurance	+0.9%	Chemical
Emerging					+2.9%	Consumption Goods	-1.3%	Commodities
MSCI Emerging (\$)	951	1 052 at 26/01	928 at 04/10	-0.1%	+2.1%	Telecoms	-2.8%	Household & Care
China	58	75 at 27/01	56 at 04/10	-8.8%	+0.9%	Chemical	-3.2%	Health
India	828	843 at 15/09	703 at 16/03	+8.1%	-1.9%	Utilities	-11.2%	Banks
Brazil	1 531	1 733 at 26/07	1 296 at 23/03	+0.7%	-7.4%	Real Estate	-13.4%	Food industry
At 13-10-23	_		_	Change	-7.5%	Food industry	-14.9%	Utilities
					-12.6%	Commodities	-16.2%	Telecoms

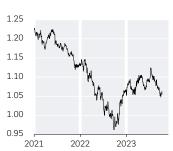
SOURCE: REFINITIV, BNP PARIBAS



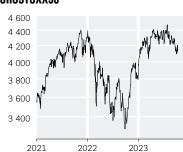
MARKETS OVERVIEW

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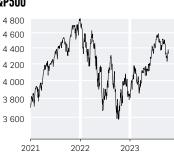
EURO-DOLLAR



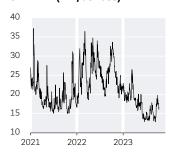
EUROSTOXX50



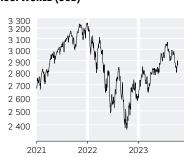
S&P500



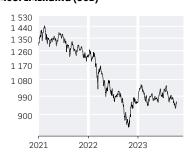
VOLATILITY (VIX, S&P500)



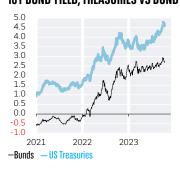
MSCI WORLD (USD)



MSCI EMERGING (USD)



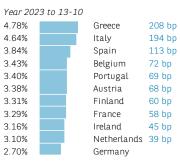
10Y BOND YIELD, TREASURIES VS BUND



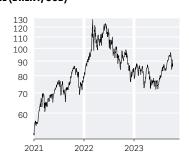
10Y BOND YIELD



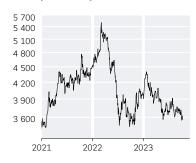
10Y BOND YIELD & SPREADS



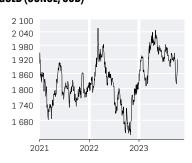
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



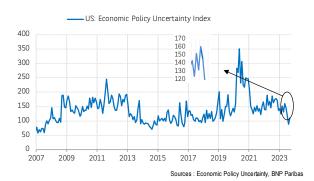
SOURCE: REFINITIV, BNP PARIBAS



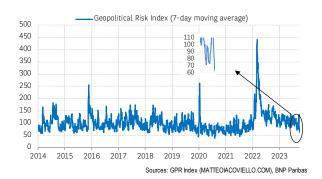
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ECONOMIC PULSE

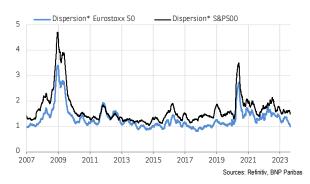
MOST INDICATORS SHOW A SMALL RISE IN UNCERTAINTY IN SEPTEMBER



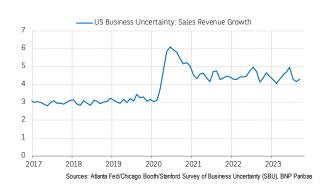
In the United-States, economic policy uncertainty, , based on media coverage, increased slightly in September, after four months of decline. This slight rise is probably related to the risk of a US government shutdown and the somewhat puzzling increase in long-term bond yields



The geopolitical risk index, also based on media coverage, similarly rose in September, probably as a result of the recent coups d'état in Africa. This index suffers from fairly high volatility.



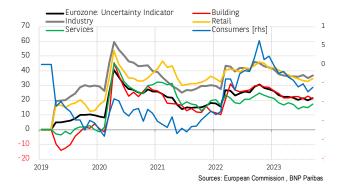
However, the stock market based* uncertainty index continued to fall in the euro zone. Its counterpart in the USA also moved down after a period of stability.



In September, US companies reported a slight increase in uncertainty regarding their sales revenue growth. For the time being, this uptick does not appear significant, given the lack of a trend since early 2021. It should nevertheless be monitored if it really proves to signal a deterioration of economic conditions, as the expected consequence of the monetary policy tightening.



When it comes to employment prospects, uncertainty rose too in September, breaking a downward trend.



In the Eurozone, the European Commission's economic uncertainty index also moved upwards in September. Its downward trend, visible since the autumn of 2022, now appears to be running out of steam. Uncertainty was up in nearly all economic sectors, with a small fall in the construction industry being the exception.



^{*} dispersion of the daily returns of stock market index components

UNITED STATES

After a strong second half of 2022 (+0.7% q/q on average per quarter), US activity decelerated only slightly in the first half of 2023 (+0.5% q/q on average per quarter), thanks to the resilience of household consumption and the strength of nonresidential investment. The impact of the tighter monetary policy on lending standards is strong but it still limited on activity and employment growth. Q3 GDP growth is expected to be very positive again before a sharp slowdown in Q4 and to slide into recession in the first half of 2024. The peak in inflation was reached in mid-2022 but core disinflation remains gradual. Headline inflation should approach the 2% target in 2024. However, the slow pace of disinflation argues in favor of keeping monetary policy in restrictive territory, despite the expected start of the easing cycle in Q2 2024. This should limit the recovery in 2024.

CHINA

Economic growth started to accelerate in early 2023 following the end of the zero Covid policy, but the recovery has weakened very rapidly. Export momentum has stalled due to depressed global demand and tensions with the US. Domestic demand has remained held back by a significant loss in consumer and investor confidence. The crisis in the property sector has persisted, with the continued fall in sales, new defaults of developers and growing difficulties of certain financial institutions. The government and the central bank have implemented new policy stimulus measures over the summer, aimed at supporting domestic demand and activity in the property sector. A slight improvement in real GDP growth is thus expected in the short term. However, policy makers remain prudent, notably constrained by the debt excess of the economy and the weak financial situation of local governments.

EUROZONE

After a slight contraction in GDP in Q4 2022, the euro area returned to slightly positive growth in the first half of 2023. According to the latest figures available, Q1 growth was again revised up (from -0.1% to 0.0% and now to +0.1% q/q), while Q2 growth was downwardly revised to +0.1% q/q, erasing the initially reported technical rebound of +0.3% q/q. The disparate performance between Member States weakens the overall result. France and Spain have been doing well, but Germany, Italy and the Netherlands are struggling. The negative effects of monetary tightening should intensify and further slow economic activity, which would stagnate in the second half of 2023, before starting a sluggish recovery. Although it is expected to decline throughout 2023, inflation would remain elevated, slightly exceeding 3% y/y at the end of this year. Illustrating the slowness of the disinflation process, it would still be significantly above the 2% target at the end of 2024 (2.5% y/y), forcing monetary policy to remain in restrictive territory.

FRANCE

French growth significantly surprised on the upside in Q2 2023, with activity accelerating more than expected (+0.5% q/q, after stagnation in Q1 and a modestly positive Q4 2022). While household consumption and investment remain depressed, this rebound has been supported by business investment and, above all, exports. A negative correction is likely in Q3. Inflation rebounded in August (5.7% y/y according to the harmonized measure), driven by energy prices, but this rebound does not call into question the slow disinflation process. Because of rising interest rates, household demand should remain subdued in 2023, weighing on our GDP growth forecast (0.7% in 2023, compared to 2.5% in 2022).

RATES AND EXCHANGE RATES

In the US, after having skipped the June meeting, the Federal Reserve proceeded, as expected, to a further 25bp rate hike in July. This increase should be the last in our view, but uncertainty remains given the still elevated core inflation and the $\,$ resilience of activity and the labour market to date. In any case, these factors argue against a rate cut before mid-2024. The residual uncertainty on the policy rate peak is reflected in long-term rates, which remained on an upward trend during the first half of September. However, as inflation falls further and the prospect of monetary easing in 2024 rises, long-term rates should resume their decline soon.

Unlike the Fed, the ECB did not pause in June but, like the Fed, it increased its key rates by 25bp in July. It did not stop there and hiked again by 25 bp in September (deposit rate at 4.00%, refinancing rate at 4.50%). We are of the view that this increase should mark, this time, the end of the ECB's tightening cycle, considering the

effects of the monetary tightening already underway. But it is not yet certain that it will really be the last, given the absence of a tangible fall at this stage of core inflation. 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 remain on a uptrend, moving in line with US rates, but in a more muted way. They are expected to ease gradually as the fall in core inflation should become more visible, dissipating uncertainty over the continuation of monetary tightening.

On 27 July, the Bank of Japan (BoJ) adjusted its yield curve control policy (YCC) by allowing a wider fluctuation in 10-year sovereign interest rates around the target of 0.5%Further adjustments to the YCC 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 remain structurally bearish regarding the US dollar versus the euro. The dollar's valuation is expensive and next year the Federal Reserve should ease more than the ECB. We expect the yen to remain around current levels in the near term before strengthening versus the dollar based on the expected monetary divergence between the Fed and the BoJ in 2024.

	GDP GROWTH AND INFLATION									
		GDP Growth					Inflation			
%	2021	2022	2023 e	2024 e		2021	2022	2023 e	2024 e	
United-States	5.9	1.9	2.2	0.4		4.7	8.0	4.2	2.4	
Japan	2.3	1.0	2.0	1.0		-0.2	2.5	3.2	2.6	
United-Kingdom	8.7	4.3	0.6	0.0		2.6	9.1	7.4	2.9	
Euro Area	5.6	3.4	0.5	0.9		2.6	8.4	5.6	2.8	
Germany	3.1	1.9	-0.3	0.3		3.2	8.6	6.2	3.0	
France	6.4	2.5	0.7	0.5		2.1	5.9	5.8	2.7	
Italy	7.0	3.8	8.0	1.0		1.9	8.7	6.2	2.2	
Spain	5.5	5.5	2.2	1.5		3.0	8.3	3.5	2.8	
China	8.4	3.0	5.1	4.5		0.9	2.0	0.5	2.0	
India*	9.1	7.2	6.1	6.0		5.5	6.7	5.9	5.0	
Brazil	5.0	2.9	3.1	1.8		8.3	9.3	4.7	4.2	

Source: BNP Paribas (e: Estimates & forecasts) Last update: 13 October 2023

INTEREST AND EXCHANGE RATES

End of period		Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
US	Fed Funds (upper limit)	5.50	5.50	5.25	4.75	4.25
	T-Note 10y	4.20	4.05	3.95	3.90	3.90
Eurozone	deposit rate	4.00	4.00	3.75	3.50	3.25
	Bund 10y	2.60	2.45	2.40	2.30	2.35
	OAT 10y	3.17	2.99	2.93	2.85	2.92
	BTP 10y	4.50	4.25	4.10	4.10	4.25
	BONO 10y	3.70	3.45	3.35	3.30	3.40
UK	Base rate	5.25	5.25	5.00	4.50	4.00
	Gilts 10y	4.00	3.80	3.60	3.65	3.70
Japan	BoJ Rate	-0.10	-0.10	0.10	0.10	0.25
	JGB 10y	0.75	0.85	0.90	0.90	1.00

Exchange Rates						
End of period		Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
USD	EUR / USD	1.10	1.11	1.12	1.13	1.15
	USD / JPY	145	145	140	138	135
	GBP / USD	1.29	1.29	1.29	1.30	1.32
EUR	EUR / GBP	0.85	0.86	0.87	0.87	0.87
	EUR / JPY	160	161	157	156	155
Brent						
End of period		Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
Brent	USD/bbl	81	82	86	88	86

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

Strategy, Commodities Desk Strategy)

Last update: 25 September 2023



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

FURTHER READING

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Spain: The deterioration in borrowers' creditworthiness remains contained	EcoTVWeek	13 October 2023
OECD: The likely end of interest rate hikes but not of monetary restraint	EcoPerspectives	13 October 2023
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Federal Reserve: high(er) for longer	EcoWeek	25 September 2023
September issue	EcoPulse	22 September 2023
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<u>Inflation is hard to tame in Eastern and Southern Africa</u>	Chart of the Week	20 September 2023
ECB: at the peak	EcoWeek	18 September 2023
Africa seeks funding for its energy transition	EcoTVWeek	15 September 2023
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GROUP ECONOMIC RESEARCH

William De Vijlder Chief Economist	+33 1 55 77 47 31	william.devijlder@bnpparibas.com
DECD ECONOMIES AND STATISTICS		
Hélène Baudchon Deputy chief economist, Head - United States	+33 1 58 16 03 63	helene.baudchon@bnpparibas.com
Stéphane Colliac France, Germany	+33 1 42 98 43 86	stephane.colliac@bnpparibas.com
Guillaume Derrien Eurozone, Southern Europe, Japan, United Kingdom - Global trade	+33 1 55 77 71 89	guillaume.a.derrien@bnpparibas.com
Veary Bou, Tarik Rharrab Statistics		
ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENC	H NETWORK	
Jean-Luc Proutat Head	+33 1 58 16 73 32	jean-luc.proutat@bnpparibas.com
BANKING ECONOMICS		
Laurent Quignon Head	+33 1 42 98 56 54	laurent.quignon@bnpparibas.com
Céline Choulet	+33 1 43 16 95 54	celine.choulet@bnpparibas.com
Thomas Humblot	+33 1 40 14 30 77	thomas.humblot@bnpparibas.com
Marianne Mueller	+33 1 40 14 48 11	marianne.mueller@bnpparibas.com
EMERGING ECONOMIES AND COUNTRY RISK		
François Faure Head – Argentina, Turkey – Methodology, Modelling	+33 1 42 98 79 82	francois.faure@bnpparibas.com
Christine Peltier Deputy Head – Greater China, Vietnam – Methodology	+33 1 42 98 56 27	christine.peltier@bnpparibas.com
Stéphane Alby Africa (French-speaking countries)	+33 1 42 98 02 04	stephane.alby@bnpparibas.com
Pascal Devaux Middle East, Balkan countries	+33 1 43 16 95 51	pascal.devaux@bnpparibas.com
Hélène Drouot South Korea, Philippines, Thailand, Andean countries	+33 1 42 98 33 00	helene.drouot@bnpparibas.com
Salim Hammad Latin America	+33 1 42 98 74 26	salim.hammad@bnpparibas.com
Cynthia Kalasopatan Antoine Jkraine, Central European countries	+33 1 53 31 59 32	cynthia.kalasopatan.antoine@bnpparibas.com
ohanna Melka ndia, South Asia, Russia, Kazakhstan	+33 1 58 16 05 84	johanna.melka@bnpparibas.com
Lucas Plé Africa (Portuguese & English-speaking countries)	+33 1 40 14 50 18	lucas.ple@bnpparibas.com
CONTACT MEDIA		
Mickaelle Fils Marie-Luce	+33 1 42 98 48 59	mickaelle.filsmarie-luce@bnpparibas.com



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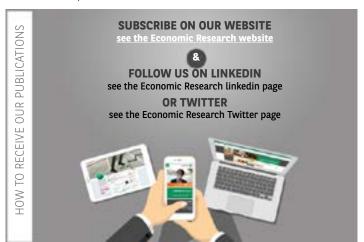
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