ECOWEEK

Issue 23.31 28 August 2023

IT IS LIKELY THAT ONGOING GROWTH RESILIENCE WOULD INITIALLY BE GREETED WITH RELIEF, FUELING HOPES OF A SOFT LANDING. UPON FURTHER REFLECTION, IT MAY VERY WELL BECOME A SOURCE OF CONCERN IN VIEW OF ITS IMPLICATIONS FOR INFLATION.

ECONOMIC RESEARCH



TABLE OF CONTENT

3 EDITORIAL

Global economy: the long wait

5

MARKETS OVERVIEW

Recent market developments (foreign exchange, stock markets, interest rates, commodities, etc.)



ECONOMIC PULSE

Analysis of some recent economic data: credit impulse in the eurozone

B ECONOMIC SCENARIO Main economic and financial

forecasts

9

FURTHER READING

Latest articles, charts, videos and podcasts of Economic Research



EDITORIAL

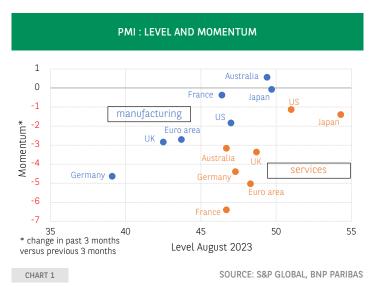
GLOBAL ECONOMY: THE LONG WAIT

In the coming quarters, economic growth in the United States and the Eurozone should slow down and core inflation should move significantly lower. Monetary policy works with long and variable lags, so part of the impact of higher rates still needs to manifest itself. This is taking more time than expected. It has been a long wait thus far. In the US, the economy in general has been particularly resilient although some data have softened as of late. In the Eurozone, the labour market remains strong, yet, many data have weakened, including in services. A factor that will also play a role in coming months are the developments in China where activity indicators published during the summer confirmed the rapid slowdown in growth. Eurozone core inflation has hardly declined from an exceptionally high level and in the US it also remains sticky, albeit to a slightly lesser extent. Quoting Jerome Powell at Jackson Hole, central banks will have to "keep at it until the job is done."

In the coming quarters, economic growth in the US and the Eurozone should slow down and core inflation should move significantly lower. Considering the cumulative monetary tightening seen thus far, it is hard to imagine otherwise. In addition, although we think that the terminal rate in both jurisdictions has been reached, they could move higher still, or the respective central banks might decide to keep rates high for longer.

This would imply a bigger headwind to growth. Monetary policy works with long and variable lags, so part of the impact of higher rates still needs to manifest itself. This is taking more time than expected. It has been a long wait. A key factor behind the resilience of the economy is the dynamism of the labour market and the very low rate of unemployment, which benefit from the elevated order book levels of companies. In addition, pent-up demand has boosted activity in the tourism and recreation sector and energy transition related investments are also supporting growth. The latter point was emphasized by ECB President Christine Lagarde in her Jackson Hole speech¹.

In the US, the economy in general has been particularly resilient faced with the aggressive monetary tightening by the Fed. The positive surprise of second quarter GDP² and recent strong data have led the participants of the Philadelphia Fed's quarterly survey of professional forecasters to revise upwards their forecasts for the next three quarters and downward their forecasts for the unemployment rate³. For the current quarter, the Atlanta Fed's nowcast projects an impressive growth rate of 5.9% (seasonally adjusted annualized rate), underpinned by strong retail sales and housing starts data for the month of July. Although this number can fluctuate a lot depending on the data releases, it does seem to imply that the US is not about to enter a recession soon, at least according to the GDP metric.



Nevertheless, some data have softened as of late. Job openings and the pace of hiring continue to trend down and the number of voluntary departures (quits rate) is also declining. Importantly, the manufacturing ISM, although edging higher in July (from 46.0 to 46.4), remains well in contraction territory. The situation is less bad in services where the ISM index was at 52.7 in July but that represents a decline from 53.9 the month before. The S&P Global flash composite PMI for August dropped to 50.4 (52.0 in July) on the back of weaker data in services and particularly manufacturing.

1 "In the euro area, for instance, investment rose in the first quarter of this year amid stagnant output, in part because of pre-planned investment spending under the Next Generation EU programme." Source: Policymaking in an age of shifts and breaks, Speech by Christine Lagarde, President of the ECB, at the annual Economic Policy Symposium «Structural Shifts in the Global Economy» organised by Federal Reserve Bank of Kansas City in Jackson Hole, Jackson Hole, 25 August 2023. 2 On a seasonally adjusted annual rate, real GDP grew 2.4% in the second quarter (+2.0% in the first quarter), against a Bloomberg consensus forecast of 1.8%. Source: Bloomberg 3 For quarterly real GDP growth (annualized rate), the forecasts are (previous survey data shown between brackets): 1.9% (0.6%) in the find quarter and 1.2% (0.0%) and 1.1% (1.0%) in the two following quarters. The unemployment rate forecasts are respectively 3.6% (3.8%), 3.7% (4.0%), 3.9% (4.2%). Source: Federal Reserve Bank of Philadelphia, Third Quarter 2023 Survey of Professional Forecasters, 11 August 2023.

It is likely that ongoing growth resilience would initially be greeted with relief, fueling hopes of a soft landing. Upon further reflection, it may very well become a source of concern in view of its implications for inflation.



EDITORIAL

In the Eurozone the labour market remains strong and core inflation has hardly declined from an exceptionally high level. Yet, many data have weakened. Admittedly, GDP growth in the second quarter of +0.3% (quarterly rate, non-annualized) was satisfactory but it is masking big differences at the country level. The sizeable gap between the manufacturing and the services PMI has narrowed following the significant decline of the latter and business surveys in Germany and France were weak in August. A factor that will also play a role in coming months and in Germany in particular, are the developments in China where activity indicators published during the summer confirmed the rapid slowdown in growth. Exports continue to decline as a result of slowing world demand and tensions with the United States, and domestic demand remains weak, partly dampened by falling consumer and investor confidence. The housing crisis is getting worse, with new developer payment defaults, and there are growing signs that some financial institutions are becoming more fragile.

As mentioned before, given the extent of monetary tightening, growth as well as core inflation are bound to slow down in the coming quarters. The real question is the timing and, above all, the speed. Thus far it has, on the whole, been a long wait, in particular in terms of core inflation, which remains very sticky in the Eurozone and, to a slightly lesser extent, in the US. It is likely that ongoing growth resilience would initially be greeted with relief by households, firms and financial market participants, fueling hopes of a soft landing and immaculate disinflation. Upon further reflection, it may very well become a source of concern, because of its implications for inflation -slower disinflationand monetary policy, i.e. higher rates. Too slow a pace of disinflation could unnerve market participants and central banks alike considering that the latter will, to quote Jerome Powell at Jackson Hole, *"keep at it until the job is done."*

William De Vijlder

4 Source: "Inflation: Progress and the Path Ahead", Remarks by Jerome H. Powell, Chair Board of Governors of the Federal Reserve System at "Structural Shifts in the Global Economy," an economic policy symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, 25 August 2023.



5

MARKETS OVERVIEW

OVERVIEW

MONEY	& BOND MARKETS
-------	----------------

Week 18-8.23 to 25	5-8-23								Yield (%)		highest 23	lowest 23
7 CAC 40	7 164	7 230	+0.9 %	Interest Rates		highest 23	lowest		€ AVG 5-7y	2.64	2.64 at 02/01	2.64 at 02/01
				€ECB		4.25 at 02/08			Bund 2v	3.09	3.36 at 08/03	2.39 at 20/03
7 S&P 500	4 370 🕨	4 406	+0.8 %	Eonia	-0.51	-0.51 at 02/01	-0.51 at	02/01	Bund 10v	2.53	2 75 at 02/03	1.98 at 18/01
🔰 Volatility (VIX)	17.3 🕨	15.7	-1.6 pb	Euribor 3M	3.79	3.83 at 23/08	2.16 at	02/01	OAT 10y	3.06	3.23 at 03/03	2.42 at 18/01
Luribor 3M (%)	3.82 ▶	3.79	-2.8 bp	Euribor 12M	4.05	4.19 at 07/07	3.30 at	19/01	2			
()				\$ FED	5 50	5.50 at 27/07	4.50 at	02/01	Corp. BBB	4.59	4.77 at 10/07	3.95 at 02/02
켜 Libor \$ 3M (%)	5.64 🕨	5.67	+2.1 bp	Libor 3M	5.67				\$ Treas. 2y	5.16	5.16 at 25/08	3.85 at 04/05
🔰 OAT 10y (%)	3.12 🕨	3.06	-6.2 bp	Libor 12M	6.04				Treas. 10y	4.25	4.35 at 21/08	3.30 at 06/04
🔰 Bund 10y (%)	2.60 🕨	2.53	-6.8 bp	£ BoE		5.25 at 03/08			High Yield	8.76	9.16 at 20/03	7.94 at 02/02
🔰 US Tr. 10y (%)	4.26 ▶	4.25	-1.2 bp	Libor 3M	5.58				£ gilt. 2y	4.98	5.51 at 06/07	3.15 at 02/02
🔰 Euro vs dollar	1.09 🕨	1.08	-0.9 %	Libor 12M	0.81	0.81 at 02/01	0.81 at	02/01	gilt. 10y	4.44	4.74 at 17/08	3.00 at 02/02
⊅ Gold (ounce, \$)	1 892 🕨	1 905	+0.7 %	At 25-8-23	_				At 25-8-23	_		
≌ Oil (Brent, \$)	84.8 🕨	84.6	-0.3 %									

+22.5%

+16.3%

+16.2%

+14.6%

+14.1%

+13.8%

+10.9%

+8.9%

+7.8%

+7.4%

+6.2%

+3.9%

+3.5%

+1.0%

-1.0%

-1.6%

-2.2%

-6.9%

-17.7%

EXCHANGE RATES

1€ =		high	est 23	low	est	23	2023
USD	1.08	1.12	at 14/07	1.05	at	05/01	+0.9%
GBP	0.86	0.90	at 03/02	0.85	at	11/07	-3.3%
CHF	0.96	1.00	at 24/01	0.95	at	23/08	-3.2%
JPY	157.87	159.29	at 21/08	138.02	at	03/01	+12.1%
AUD	1.69	1.70	at 21/08	1.53	at	27/01	+7.2%
CNY	7.85	8.08	at 19/07	7.23	at	05/01	+5.8%
BRL	5.27	5.79	at 04/01	5.20	at	23/06	-6.5%
RUB	102.43	110.46	at 14/08	73.32	at	12/01	+31.5%
INR	89.03	92.37	at 14/07	86.58	at	08/03	+0.8%
At 25-6	8-23						Change

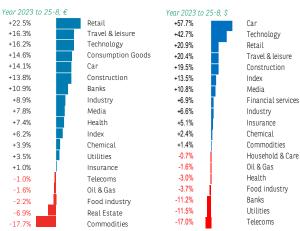
COMMODITIES

Spot price, \$		high	est 23	lowes	t 23	2023	2023(€)
Oil, Brent	84.6	88.2	at 23/01	71.9 at	12/06	-0.4%	-1.3%
Gold (ounce)	1 905	2 047	at 04/05	1 810 at	24/02	+4.9%	+4.0%
Metals, LMEX	3 684	4 404	at 26/01	3 564 at	24/05	-7.5%	-8.4%
Copper (ton)	8 319	9 331	at 23/01	7 852 at	24/05	-0.5%	-1.4%
wheat (ton)	201	2.9	at 13/02	201 at	25/08	-29.6%	-30.2%
Corn (ton)	194	2.7	at 13/02	161 at	21/08	-2.5%	-26.1%
At 25-8-23	•						Change

EQUITY INDICES

	Index	highest 23	lowest 23	2023
World				
MSCI World	2 912	3 064 at 31/07	2 595 at 05/01	+11.9%
North America				
S&P500	4 406	4 589 at 31/07	3808 at 05/01	+14.7%
Europe				
EuroStoxx50	4 236	4 471 at 31/07	3856 at 02/01	+11.7%
CAC 40	7 230	7 577 at 21/04	6 595 at 02/01	+1.2%
DAX 30	15 632	16 470 at 28/07	14 069 at 02/01	+12.3%
IBEX 35	9 339	9 695 at 27/07	8 370 at 02/01	+1.3%
FTSE100	7 339	8 014 at 20/02	7 257 at 07/07	-0.2%
Asia				
MSCI, loc.	1 188	1 246 at 01/08	1065 at 04/01	+1.1%
Nikkei	31 624	33 753 at 03/07	25 717 at 04/01	+21.2%
Emerging				
MSCI Emerging (\$)	971	1 052 at 26/01	941 at 16/03	+0.2%
China	58	75 at 27/01	57 at 21/08	-7.7%
India	810	835 at 20/07	703 at 16/03	+5.0%
Brazil	1 574	1 733 at 26/07	1 296 at 23/03	-0.1%

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)



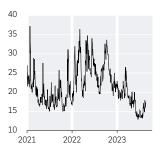
SOURCE: REFINITIV, BNP PARIBAS



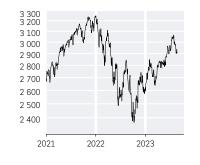
MARKETS OVERVIEW



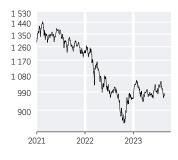
VOLATILITY (VIX, S&P500)



MSCI WORLD (USD)



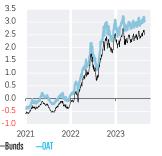
MSCI EMERGING (USD)



10Y BOND YIELD, TREASURIES VS BUND



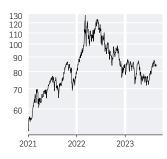
10Y BOND YIELD



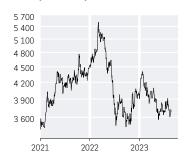
10Y BOND YIELD & SPREADS



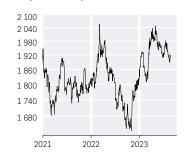
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS



ECONOMIC PULSE

7

THE EFFECTS OF RISING INTEREST RATES WILL CONTINUE TO WEIGH ON BANK LENDING IN THE SECOND HALF OF 2023

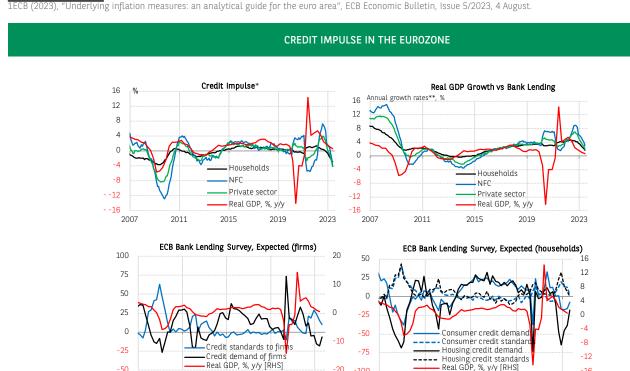
The effects of monetary policy tightening on the distribution of bank credit in the eurozone, which have been obvious since Q4 2022, further intensified during Q2 2023. The private-sector credit impulse has fallen constantly since autumn 2022. It dropped below zero in February 2023 and hit, in June 2023, its lowest level since 2010. The non-financial company credit impulse has experienced its biggest downturn since 2008, falling from its historic summer 2022 highs into negative territory in the space of eight months (April 2023). Despite declining less overall, household-credit impulse went into the red earlier on (November 2022), as it was starting out at a lower level.

At the same time, the year-on-year variation in private-sector loan outstandings fell by more than a third between September 2022 (+7.1%) and June 2023 (+2.0%). Loans to non-financial companies were particularly dynamic in September 2022 (+8.9%) and, in June 2023, continued to enjoy a far higher rate of growth (+3.0%) than loans to households (+1.7% compared to +4.6% in May 2022, the most recent peak). Banks surveyed by the ECB between 19 June and 4 July 2023, as part of its Bank Lending Survey, report that the criteria for granting loans to businesses continued to tighten during Q2 2023, albeit at a slower pace than during Q1. The risks associated with the economic outlook and companies' individual situations were the main factors behind this tightening trend. Banks also indicated that they had been tightening the criteria for granting loans to households during Q2, taking a more stringent approach towards consumer loans than towards home loans overall.

For the time being, falling energy and food prices are the sole factors driving the drop in inflation in the eurozone (+5.3% in July 2023, its lowest level since January 2022). By contrast, underlying inflation has barely budged (+5.5%) from its record level seen in March (+5.7%), even though, according to the ECB's economists, it has likely peaked¹. The pronounced slowdown in bank lending should continue to have an effect over the coming months, which should confirm this view. As a result of these anticipated developments, business activity would stagnate between Q3 2023 and Q1 2024 (+0.5% GDP growth expected for the eurozone in 2023, with +0.6% in 2024). The banks surveyed indicated that they would continue to tighten their criteria for granting loans during Q3, but would do so more moderately than during Q2 (with the notable exception of home loans, where the criteria would remain unchanged). However, the impact of rising bank financing costs on customer rates will continue to weigh on demand, which is already plummeting sharply.

The ECB is aware that the effects of the cumulative 4.25% increase in key rates between July 2022 and July 2023 will continue to spread to financing demand and activity in the coming weeks. It is the reason why it softened its speech when it announced its decision on 27 July, suggesting that it may well not increase its key rates further at the Governing Council meeting on 14 September and at subsequent meetings.

Laurent Quignon



2023 *Credit impulse is measured as the annual change of the annual growth rate of MFI loans ** Adjusted for securitizations

-100

2007

2011

2015

2019

SOURCE: ECB. SURVEY ON THE DISTRIBUTION OF CREDIT, BNP PARIBAS CALCULATION

2023

-16



2007

2011

2015

2019

8

ECONOMIC SCENARIO

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 still limited on activity and employment growth. We still expect a shallow recession but shorter than before considering that growth no longer should be modestly positive in Q3 this year. While the peak in inflation was reached in mid-2022, core disinflation remains gradual and headline inflation should not approach the 2% target before the end of 2024. The slow pace of disinflation argues in favor of keeping monetary policy in restrictive territory, despite the expected start of the easing cycle in spring 2024. This should limit the recovery in 2024.

CHINA

Economic growth, which was sluggish and unbalanced in 2022, started to accelerate in early 2023 following the end of the zero Covid policy. However, the post-Covid recovery has lost momentum very rapidly. Export momentum has stalled due to weak global demand and tensions with the US. Domestic demand remains held back by a significant loss in consumer and investor confidence. The crisis in the property sector is persisting, with the continued fall in sales, new defaults of developers and growing difficulties of certain financial institutions. The government and the central bank implement new policy stimulus measures, which yet remain of moderate magnitude. The weak financial situation of local governments should constrain public investment.

EUROZONE

The euro zone came close to technical recession at the turn of 2022-2023. After a slight contraction in GDP in Q4 2022, growth is now estimated to be zero (rather than slightly negative) in Q1 2023. There was a technical rebound in Q2 (+0,3% q/q) that masked a disparate performance between Member States, which tends to weaken 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 causing 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

French growth surprised on the upside in Q2 2023, with activity accelerating more than expected (+0.5% q/q, after two quarters at +0.1%). 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 keeps falling but slowly so (5.1% y/y according to the harmonized measure in July, down 2.2 points from its February peak). Because of rising interest rates, household demand should remain subdued in 2023, weighing on our GDP growth forecast (0.8% 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 would be the last in our view, but uncertainty remains given the still elevated core inflation and the resilience of the labour market to date. In any case, these factors argue against a rate cut before the beginning of 2024. The residual uncertainty on the policy rate peak is reflected in long-term rates, which remained on an upward trend at the end of August. 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 (deposit rate at 3.75%, refinancing rate at 4.25%). We are of the view that this increase would mark 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 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 move in line with US rates, but in a more muted way: their slight rise in late August should not last long and be followed by a gradual decline, fueled by the expected fall in core inflation which should step by step become more visible.

On 27 July, the Bank of Japan (Bol) 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 Bol 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 and next year the Federal Reserve should ease earlier and 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*			Inflat	ion**	
%	2021	2022	2023 e	2024 e	2021	2022	2023 e	2024
United-States	5,9	2,1	1,9	0,3	4,7	8,0	4,1	2,5
Japan	2,2	1,0	2,0	0,9	-0,2	2,5	3,2	2,3
United-Kingdom	7,6	4,1	0,5	0,1	2,6	9,0	7,5	2,9
Euro Area	5,3	3,4	0,5	0,6	2,6	8,4	5,7	3,0
Germany	2,6	1,9	-0,2	0,4	3,2	8,6	6,2	2,9
France	6,8	2,6	0,8	0,6	2,1	5,9	5,7	2,7
Italy	7,0	3,8	0,9	0,8	1,9	8,7	6,2	2,3
Spain	5,5	5,5	2,4	1,5	3,0	8,3	3,6	3,1
China	8,4	3,0	5,3	4,8	0,9	2,0	0,5	2,0
India***	8,7	7,2	6,1	6,5	5,5	6,7	5,5	4,5
Brazil	5,0	2,9	2,5	1,8	8,3	9,3	4,7	4,0

Source : BNP Paribas (e: Estimates & forecasts)

Last update: 25 August 2023 *** Fiscal year from 1st April of year n to March 31st of year n+1

INTEREST AND EXCHANGE RATES

Interest rates, %				
End of period		Q3 2023	Q4 2023	Q4 2024
US	Fed Funds (upper limit)*	5.50	5.50	3.75
	T-Note 10y **	3.90	3.85	3.55
Eurozone	deposit rate*	3.75	3.75	3.00
	Bund 10y **	2.45	2.20	2.00
	OAT 10y	3.00	2.72	2.50
	BTP 10y	4.70	4.45	3.80
	BONO 10y	3.55	3.30	2.90
UK	Base rate*	5.50	5.50	4.00
	Gilts 10y **	4.40	4.25	3.80
Japan	BoJ Rate	-0.10	-0.10	0.25
	JGB 10y**	0.50	0.65	0.80
Exchange Rates				
End of period		Q3 2023	Q4 2023	Q4 2024

Liiu oj periou		Q3 2023	Q7 2023	4 2024
USD	EUR / USD	1.10	1.12	1.18
	USD / JPY	133	130	123
	GBP / USD	1.25	1.27	1.34
EUR	EUR / GBP	0.88	0.88	0.88
	EUR / JPY	146	146	145

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

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

* Deposit rate: Last update at 11 August 2023, Fed Funds : 2 June 2023, BoE rate: 11 August 2023

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

FURTHER READING

Greenflation: how inflationary is the energy transition?	EcoFlash	28 August 2023
Spain: strong job creations to support growth	EcoBrief	27 July 2023
Central America: How climate variability impacts human mobility?	Chart of the Week	27 July 2023
Eurozone: Inflation through the lens of business surveys. The case of services.	EcoWeek	24 July 2023
OECD: Economic pulse of June 2023	EcoPulse	24 July 2023
The Caribbean: Trouble in Paradise	EcoTVWeek	21 July 2023
United States: Money market funds reallocate their assets outside the ON RRP facility	Chart of the Week	19 July 2023
Eurozone: Inflation through the lens of business surveys - The case of industry	EcoWeek	18 July 2023
Is Chili a leader in energy transition?	EcoTVWeek	13 July 2023
Transport, France's main source of greenhouse gases emissions	Chart of the Week	12 July 2023
Eurozone: "have money, will travel"	EcoWeek	10 July 2023
Japan: After Price Inflation, Time for Wages?	EcoBrief	7 July 2023
<u>Central banks: sobering Sintra</u>	EcoTVWeek	7 July 2023
Inflation tracker July 2023	EcoCharts	6 July 2023
OECD: A limited economic turnaround, on both the downside and the upside	EcoPerspectives	5 July 2023
Spain: Significant decline in unemployment	Chart of the Week	5 July 2023
Federal Reserve: the 'dots' as interest rate anchors	EcoWeek	3 July 2023
Comparative recession prospects in the US and the euro area	EcoTVWeek	30 June 2023
<u>Sri Lanka, Pakistan and Bangladesh: weakened economies highly vulnerable to shocks</u>	EcoEconjoncture	29 June 2023
Mexico: the Central Bank takes a break	Chart of the Week	28 June 2023
Central banks: how much is too much?	EcoWeek	26 June 2023



The bank for a changing world

9

GROUP ECONOMIC RESEARCH

DECD ECONOMIES AND STATISTICS Helene Baudchom Depuiy find economist, Head - United States -33 1 59 16 0 3 63 helene baudchom@phpparibas.com Sephane Collac -33 1 42 98 43 68 stephane collac@phpparibas.com Guitsume Derrien	William De Vijlder Chief Economist	+33 1 55 77 47 31	william.devijlder@bnpparibas.com
Deputy chief economist, Head - United States -43 L54 16 03 03 Detene Baudenoneenppanhaas.com Stephane Colliac -33 14 298 43 86 stephane.colliac@bnpparibas.com Guillaume Derrien -33 155 77 71 89 guillaume a derrien@bnpparibas.com Eurozone, Souhern Europe, Japan, United Kingdom - Global trade -33 155 77 71 89 guillaume a derrien@bnpparibas.com ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENCH NETWORK	OECD ECONOMIES AND STATISTICS		
France, GermanyFrance, GermanyFrance, GermanyFrance, GermanyStephane.colluacgerinperihas.comGuillaume Derrien Eurorone, Suithere Furope, Japan, United Kingdom - Global trade+33 1 55 77 71 89guillaume a.derrien@bnpparibas.comVeary Bou, Tarik Rharrab Statisticsean-lue.proutat@bnpparibas.comguillaume a.derrien@bnpparibas.comECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENCH NETWORKJean-Lue Droutat+33 1 58 16 73 32Jean-lue.proutat@bnpparibas.comBANKING ECONOMICSLaurent Quignon Head+33 1 42 98 56 54Laurent.quignon@bnpparibas.comCéline Choulet+33 1 43 18 95 54celine.choulet@bnpparibas.comThomas Humblat+33 1 40 14 30 77thomas.humblat@bnpparibas.comThomas Humblat+33 1 42 98 79 82francois.faure@bnpparibas.comENERGING ECONOMIES AND COUNTRY RISKFrancois Faure 		+33 1 58 16 03 63	helene.baudchon@bnpparibas.com
Eurozone, Southern Europe, Japan, United Kingdom - Global trade +33 1 55 // 71 69 gottaume.addemengioippandas.com Veary Boy, Tarik Rharab s33 1 58 16 73 32 jean-luc.proutat@bnpparibas.com Jean-Luc Proutat +33 1 58 16 73 32 jean-luc.proutat@bnpparibas.com BAKKING ECONOMICS Laurent.Quignon@bnpparibas.com edine.choulet@bnpparibas.com Céline Choulet +33 1 42 98 56 54 laurent.quignon@bnpparibas.com Thomas Humblot +33 1 42 98 79 82 francois faure@bnpparibas.com Marianne Mueller +33 1 42 98 79 82 francois faure@bnpparibas.com EMERGING ECONOMIES AND COUNTRY RISK		+33 1 42 98 43 86	stephane.colliac@bnpparibas.com
Statistics ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENCH NETWORK Iean-Luc Proutat Head +33 1 58 16 73 32 jean-Luc proutat@bnpparibas.com EANKING ECONOMICS Laurent Quignon Head +33 1 42 98 56 54 laurent.quignon@bnpparibas.com C@Line Choulet +33 1 42 98 56 54 celine.choulet@bnpparibas.com Thomas Humblot +33 1 40 14 30 77 thomas.humblot@bnpparibas.com Marianne Mueller +33 1 40 14 30 77 thomas.humblot@bnpparibas.com EMERCING ECONOMIES AND COUNTRY RISK François Faure Head +33 1 42 98 79 82 francois faure@bnpparibas.com Extension E		+33 1 55 77 71 89	guillaume.a.derrien@bnpparibas.com
Pan-Luc Proutat Head+33 1 58 16 73 32jean-Luc proutat@bnpparibas.comBANKING ECONOMICSLaurent Quignon Head+33 1 42 98 56 54laurent.quignon@bnpparibas.comCéline Choulet+33 1 43 16 95 54celine.choulet@bnpparibas.comCéline Choulet+33 1 40 14 30 77thomas humblot marianne.mueller@bnpparibas.comMarianne Mueller+33 1 40 14 40 177thomas humblot@bnpparibas.comEMERGING ECONOMIES AND COUNTRY RISK#33 1 42 98 79 82francois.faure@bnpparibas.comFrançois Faure Head - Argentina, Turkey - Methodology, Modelling Christine Peltier Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 79 82francois.faure@bnpparibas.comStephane Alby Africa (French-speaking countries)+33 1 42 98 79 82francois.faure@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 79 82francois.faure@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 79 82francois.faure@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 79 82francois.faure@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 79 82stephane.alby@bnpparibas.comViraine, Central European countries+33 1 42 98 79 82francois.faure@bnpparibas.comViraine, Central European countries+33 1 42 98 79 82stephane.alby@bnpparibas.comViraine, Central European countries+33 1 42 98 79 82stephane.alby@bnpparibas.comViraine, Central European countries+33 1 42 98 79 82stephane.alby@bnpparibas.com <t< td=""><td></td><td></td><td></td></t<>			
Head+33 1 SB 16 73 32jean-tuc.proutat@bnpparibas.comBANKING ECONOMICSLaurent Quignon+33 1 42 98 56 54Laurent.quignon@bnpparibas.comCéline Choulet+33 1 43 16 95 54celine.choulet@bnpparibas.comCéline Choulet+33 1 40 14 30 77thomas.humblot@bnpparibas.comMarianne Mueller+33 1 40 14 48 11marianne.mueller@bnpparibas.comEMERGING ECONOMIES AND COUNTRY RISKFrancois Faure+33 1 42 98 79 82francois.faure@bnpparibas.comChristine Petier+33 1 42 98 79 82francois.faure@bnpparibas.comDeputy Head - Greater China, Vietnam - Methodology+33 1 42 98 56 27christine.petier@bnparibas.comStéphane Alby+33 1 43 16 95 51pascal devaux@bnpparibas.comPascal Devax+33 1 43 16 95 51pascal devaux@bnpparibas.comMiddle East, Balkan countries+33 1 42 98 74 26salim.hammad@bnpparibas.comSalim Hammad+33 1 42 98 74 26salim.hammad@bnpparibas.comSalim Hammad+33 1 59 32cynthia.kalasopatan.antoine@bnpparibas.comUrhala Kalasopatan Antoine+33 1 59 31 59 32cynthia.kalasopatan.antoine@bnpparibas.comUrhana Metka+33 1 59 16 05 84johanna.metka@bnpparibas.comIndia, South Asia, Russia, Kazakhstan+33 1 40 14 50 18lucas.pl@bnpparibas.comUrhakalasopatan Antoine+33 1 40 14 50 18lucas.pl@bnpparibas.comUrhakalasopatan Antoine+33 1 40 14 50 18lucas.pl@bnpparibas.comUrhakalasopatan Antoine+33 1 40 14 50 18lucas.pl@bnpparibas.comUrhakalasopatan Antoine<	ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENCH	I NETWORK	
Lavrent Quignon Head+33 1 42 98 56 54laurent.quignon@bnpparibas.comCéline Choulet+33 1 43 16 95 54celine.choulet@bnpparibas.comThomas Humblot+33 1 40 14 30 77thomas.humblot@bnpparibas.comMarianne Mueller+33 1 40 14 48 11marianne.muelle@bnpparibas.comEMERGING ECONOMIES AND COUNTRY RISKFrançois Faure Head - Argentina, Turkey - Methodology, Modelling+33 1 42 98 79 82francois faure@bnpparibas.comChristine Petter Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 56 27christine.pettier@bnpparibas.comStéphane Alby Africa (French-speaking countries)+33 1 42 98 56 51pascal.devaux@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 300helene.drouot@bnparibas.comSalim Hammad Latin America+33 1 42 98 74 26salim.hammad@bnpparibas.comCyntha Kalasopatan Antoine Ukraine, Central European countries+33 1 53 31 59 32cynthia kalasopatan antoine@bnparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan Lucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.comContact MEDIA+33 1 40 14 50 18lucas.ple@bnpparibas.com		+33 1 58 16 73 32	jean-luc.proutat@bnpparibas.com
Head1-3.3 1.42 98 58 34Latient-quignonigon/paribas.comCéline Choulet+33 1.43 16 95 54celine.choulet@bnpparibas.comThomas Humblot+33 1.40 14 30 77thomas.humblot@bnpparibas.comMarianne Mueller+33 1.40 14 48 11marianne.mueller@bnpparibas.comEMERGING ECONOMIES AND COUNTRY RISKFrançois Faure+33 1.42 98 79 82francois faure@bnpparibas.comHead - Argentina, Turkey - Methodology, Modelling+33 1.42 98 56 27christine.peltier@bnpparibas.comDeputy Head - Greater China, Vietnam - Methodology+33 1.42 98 56 27christine.peltier@bnpparibas.comPascal Devaux+33 1.42 98 02 04stephane.alby@bnpparibas.comMiddle East, Balkan countries+33 1.43 16 95 51pascal devaux@bnpparibas.comSalim Hammad1.43 16 95 51pascal devaux@bnpparibas.comSalim Hammad+33 1.42 98 73 1.42 98 73 02helene.drouot@bnpparibas.comSubt Korea, Philippines, Thailand, Andean countries+33 1.42 98 73 02salim.hammad@bnpparibas.comSalim Hammad+33 1.42 98 73 1.42 98 74 26salim.hammad@bnpparibas.comUrraine, Central European countries+33 1.53 31 59 32cynthia kalasopatan antoine@bnpparibas.comUraine, Central European countries+33 1.40 14 50 18lucas.ple@bnpparibas.comUraina, Nelka+33 1.40 14 50 18lucas.ple@bnpparibas.comUras Plé Africa (Portuguese & English-speaking countries)+33 1.40 14 50 18lucas.ple@bnpparibas.com	BANKING ECONOMICS		
Thomas Humblot Marianne Mueller+33 1 40 14 30 77 +33 1 40 14 48 11thomas.humblot@bnpparibas.comEMERCING ECONOMIES AND COUNTRY RISKEmercing Faure Head - Argentina, Turkey - Methodology, Modelling+33 1 42 98 79 82francois.faure@bnpparibas.comChristine Pettier Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 79 82francois.faure@bnpparibas.comStéphane Alby Africa (French-speaking countries)+33 1 42 98 79 82francois.faure@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 79 82stephane.alby@bnpparibas.comStéphane Alby Middle East, Balkan countries+33 1 42 98 73 00helene.drouot@bnpparibas.comSalim Hammad Latin America+33 1 42 98 74 26salim.hammad@bnpparibas.comSouth Korea, Philippines, Thailand, Andean countries+33 1 53 31 59 32cynthia kalasopatan antoine@bnpparibas.comSouth Korea, Philippines, Thailand, Andean countries+33 1 40 14 50 18lucas.ple@bnpparibas.comSouth Korea, Philippines, Thailand, Andean countries+33 1 53 31 59 32cynthia kalasopatan antoine@bnpparibas.comSouth Korea, Philippines, Thailand, Andean countries+33 1 40 14 50 18lucas.ple@bnpparibas.comSouth Korea, Philippines, Thailand, Andean countries+33 1 53 31 59 32cynthia kalasopatan.antoine@bnparibas.comChristine Central European countries+33 1 40 14 50 18lucas.ple@bnpparibas.comSouth Asia, Russia, Kazakhstan+33 1 58 16 05 84johanna.melka@bnpparibas.comChristine Central European countries+33 1 40 14 50 18lucas.ple@bnpparibas.com <th< td=""><td></td><td>+33 1 42 98 56 54</td><td>laurent.quignon@bnpparibas.com</td></th<>		+33 1 42 98 56 54	laurent.quignon@bnpparibas.com
Marianne Mueller+33 1 40 14 48 11marianne.mueller@bnpparibas.comEMERGING ECONOMIES AND COUNTRY RISKFrançois Faure Head - Argentina, Turkey - Methodology, Modelling+33 1 42 98 79 82francois.faure@bnpparibas.comChristine Peltier Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 56 27christine.peltier@bnpparibas.comStéphane Alby Africa (French-speaking countries)+33 1 42 98 02 04stephane.alby@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 43 16 95 51pascal.devaux@bnpparibas.comHélène Drouot South Korea, Philippines, Thailand, Andean countries+33 1 42 98 74 26salim.hammad@bnpparibas.comSalim Hammad Latin America+33 1 53 31 59 32cynthia.kalasopatan antoine@bnpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan Lucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.comCONTACT MEDIACONTACT MEDIAKarakanaKarakanaKarakana	Céline Choulet	+33 1 43 16 95 54	celine.choulet@bnpparibas.com
EMERGING ECONOMIES AND COUNTRY RISKFrançois Faure Head - Argentina, Turkey - Methodology, Modelling+33 1 42 98 79 82francois.faure@bnpparibas.comChristine Peltier Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 56 27christine.peltier@bnpparibas.comStéphane Alby Africa (French-speaking countries)+33 1 42 98 02 04stephane.alby@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 43 16 95 51pascal devaux@bnpparibas.comHélène Drouot South Korea, Philippines, Thailand, Andean countries+33 1 42 98 33 00helene.drouot@bnpparibas.comSalim Hammad Latin America+33 1 53 31 59 32cynthia kalasopatan.antoine@bnpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan+33 1 40 14 50 18johanna.melka@bnpparibas.comLucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.com	Thomas Humblot	+33 1 40 14 30 77	thomas.humblot@bnpparibas.com
François Faure Head - Argentina, Turkey - Methodology, Modelling+33 1 42 98 79 82francois faure@bnpparibas.comChristine Peltier Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 56 27christine.peltier@bnpparibas.comStéphane Alby Africa (French-speaking countries)+33 1 42 98 02 04stephane.alby@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 30 0helene.drouot@bnpparibas.comHélène Drouot South Korea, Philippines, Thailand, Andean countries+33 1 42 98 74 26salim.hammad@bnpparibas.comSalim Hammad Latin America+33 1 53 31 59 32cynthia.kalasopatan.antoine@bnpparibas.comOrnha Melka India, South Asia, Russia, Kazakhstan Lucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.comCONTACT MEDIACONTACT MEDIA	Marianne Mueller	+33 1 40 14 48 11	marianne.mueller@bnpparibas.com
Head- Argentina, Turkey - Methodology, Modelling+33 1 42 98 79 82francois faure@onpparibas.comChristine Peltier Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 56 27christine.peltier@onpparibas.comStéphane Alby Africa (French-speaking countries)+33 1 42 98 02 04stephane.alby@onpparibas.comPascal Devaux Middle East, Balkan countries+33 1 42 98 300helene.alby@onpparibas.comHélène Drouot South Korea, Philippines, Thailand, Andean countries+33 1 42 98 74 26salim.hammad@onpparibas.comSalim Hammad Latin America+33 1 53 31 59 32cynthia.kalasopatan.antoine@onpparibas.comCynthia Kalasopatan Antoine Ukraine, Central European countries+33 1 53 1 53 31 59 32cynthia.kalasopatan.antoine@onpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan Lucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@onpparibas.com	EMERGING ECONOMIES AND COUNTRY RISK		
Deputy Head - Greater China, Vietnam - Methodology+33 1 42 98 56 27christine.peltier@bnpparibas.comStéphane Alby Africa (French-speaking countries)+33 1 42 98 02 04stephane.alby@bnpparibas.comPascal Devaux Middle East, Balkan countries+33 1 43 16 95 51pascal.devaux@bnpparibas.comHélène Drouot South Korea, Philippines, Thailand, Andean countries+33 1 42 98 33 00helene.drouot@bnpparibas.comSalim Hammad Latin America+33 1 42 98 74 26salim.hammad@bnpparibas.comCynthia Kalasopatan Antoine Ukraine, Central European countries+33 1 53 31 59 32cynthia.kalasopatan.antoine@bnpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan+33 1 40 14 50 18johanna.melka@bnpparibas.comLucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.com		+33 1 42 98 79 82	francois.faure@bnpparibas.com
Africa (French-speaking countries)+33 1 42 98 02 04stephane.atby@ohpparibas.comPascal Devaux Middle East, Balkan countries+33 1 43 16 95 51pascal.devaux@bnpparibas.comHélène Drouot South Korea, Philippines, Thailand, Andean countries+33 1 42 98 33 00helene.drouot@bnpparibas.comSalim Hammad Latin America+33 1 42 98 74 26salim.hammad@bnpparibas.comCynthia Kalasopatan Antoine Ukraine, Central European countries+33 1 53 31 59 32cynthia.kalasopatan.antoine@bnpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan+33 1 58 16 05 84johanna.melka@bnpparibas.comLucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.com		+33 1 42 98 56 27	christine.peltier@bnpparibas.com
Middle East, Balkan countries+33 1 43 16 95 51pascal.devaux@bnpparibas.comHélène Drouot South Korea, Philippines, Thailand, Andean countries+33 1 42 98 33 00helene.drouot@bnpparibas.comSalim Hammad Latin America+33 1 42 98 74 26salim.hammad@bnpparibas.comCynthia Kalasopatan Antoine Ukraine, Central European countries+33 1 53 31 59 32cynthia.kalasopatan.antoine@bnpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan+33 1 58 16 05 84johanna.melka@bnpparibas.comLucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.com		+33 1 42 98 02 04	stephane.alby@bnpparibas.com
South Korea, Philippines, Thailand, Andean countries+33 1 42 98 33 00helene.drouot@bnpparibas.comSalim Hammad Latin America+33 1 42 98 74 26salim.hammad@bnpparibas.comCynthia Kalasopatan Antoine Ukraine, Central European countries+33 1 53 31 59 32cynthia.kalasopatan.antoine@bnpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan+33 1 58 16 05 84johanna.melka@bnpparibas.comLucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.com		+33 1 43 16 95 51	pascal.devaux@bnpparibas.com
Latin America+33 1 42 98 74 26salim.hammad@bnpparibas.comCynthia Kalasopatan Antoine Ukraine, Central European countries+33 1 53 31 59 32cynthia.kalasopatan.antoine@bnpparibas.comJohanna Melka India, South Asia, Russia, Kazakhstan+33 1 58 16 05 84johanna.melka@bnpparibas.comLucas Plé Africa (Portuguese & English-speaking countries)+33 1 40 14 50 18lucas.ple@bnpparibas.com		+33 1 42 98 33 00	helene.drouot@bnpparibas.com
Ukraine, Central European countries +33 1 53 31 59 32 Cynthia.katasopatan.antone@onppanbas.com Johanna Melka +33 1 58 16 05 84 johanna.melka@bnpparibas.com Lucas Plé +33 1 40 14 50 18 lucas.ple@bnpparibas.com Africa (Portuguese & English-speaking countries) +33 1 40 14 50 18 lucas.ple@bnpparibas.com		+33 1 42 98 74 26	salim.hammad@bnpparibas.com
India, South Asia, Russia, Kazakhstan +33 1 58 16 05 84 Johanna.metka@onpparibas.com Lucas Plé +33 1 40 14 50 18 lucas.ple@bnpparibas.com Africa (Portuguese & English-speaking countries) +33 1 40 14 50 18 lucas.ple@bnpparibas.com		+33 1 53 31 59 32	cynthia.kalasopatan.antoine@bnpparibas.com
Africa (Portuguese & English-speaking countries) +33 1 40 14 50 18 lucas.ple@bnpparibas.com CONTACT MEDIA		+33 1 58 16 05 84	johanna.melka@bnpparibas.com
		+33 1 40 14 50 18	lucas.ple@bnpparibas.com
Mickaelle Fils Marie-Luce +33 1 42 98 48 59 mickaelle.filsmarie-luce@bnpparibas.com	CONTACT MEDIA		
	Mickaelle Fils Marie-Luce	+33 1 42 98 48 59	mickaelle.filsmarie-luce@bnpparibas.com



GROUP ECONOMIC RESEARCH

ECOCONJONCTURE

Structural or thematic topics

ECOEMERGING

Analyses and forecasts for a selection of emerging economies.

ECOPERSPECTIVES

Analyses and forecasts with a focus on developed countries.

ECOFLASH

Data releases, major economic events.

ECOWFFK

Recent economic and policy developments, data comments, economic calendar, forecasts.

ECOCHARTS

Easy-to-read monthly overview of inflation dynamics in the main developed economies.

ECOPULSE

Monthly barometer of key economic indicators of the main OECD countries

ECOTV WFFK

MACROWAVES

Our economic podcast



Head office: 16 boulevard des Italiens – 75009 Paris France / Phone : +33 (0) 1.42.98.12.34 Internet: www.group.bnpparibas.com - www.economic-research.bnpparibas.com Head of publication : Jean Lemierre / Chief editor: William De Vijlder Copyright

The information and opinions contained in this report have been obtained from, or are based on, public sources believed to be reliable, but no representation or warranty, express or implied, is made that such information is accurate, complete or up to date and it should not be relied upon as such. This report does not constitute an offer or solicitation to buy or sell any securities or other investment. It does not constitute investment advice, nor financial research or analysis Information and opinions contained in the report are not to be relied upon as authoritative or Information and opinions contained in the report are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient; they are subject to change without notice and not intended to provide the sole basis of any evaluation of the instruments discussed herein. Any reference to past performance should not be taken as an indication of future performance. To the fullest extent permitted by law, no BNP Paribas group company ac-cepts any liability whatsoever (including in negligence) for any direct or consequential loss ari-sing from any use of or reliance on material contained in this report. All estimates and opinions included in this report are made as of the date of this report. Unless otherwise indicated in this report there is no intention to update this report. BNP Paribas SA and its affiliates (collectively "BNP Paribas") may wake a market in or may as principal or agent huy or sell securities of any "BNP Paribas") may make a market in, or may as principal or agent, buy or sell securities of any issuer or person mentioned in this report or derivatives thereon. BNP Paribas may have a financial interest in any issuer or person mentioned in this report, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon. Prices, yields and other similar information included in this report are included for information puryields and other similar information included in this report are included for information pur-poses. Numerous factors will affect market pricing and there is no certainty that transactions could be executed at these prices. BNP Paribas, including its officers and employees may serve or have served as an officer, director or in an advisory capacity for any person mentioned in this report. BNP Paribas may, from time to time, solicit, perform or have performed investment banking, underwriting or other services (including acting as adviser, manager, underwriter or lender) within the last 12 months for any person referred to in this report. BNP Paribas may be a party to an agreement with any person relating to the production of this report. BNP Pa-ribas, may to the extent permitted by law, have acted upon or used the information contained bergin or the research or analysis on which it was haved before its publication. BNP Paribas herein, or the research or analysis on which it was based, before its publication. BNP Paribas may receive or intend to seek compensation for investment banking services in the next three months from or in relation to any person mentioned in this report. Any person mentioned in this report may have been provided with sections of this report to its publication in order to verify its factual accuracy.

BNP Paribas is incorporated in France with limited liability. Registered Office 16 Boulevard des Italiens, 75009 Paris. This report was produced by a BNP Paribas group company. This report is for the use of intended recipients and may not be reproduced (in whole or in part) or delivered or transmitted to any other person without the prior written consent of BNP Paribas. By accep-ting this document you agree to be bound by the foregoing limitations.

Certain countries within the European Economic Area: This report has been approved for publication in the United Kingdom by BNP Paribas London Branch. BNP Paribas London Branch is authorised and supervised by the Autorité de Contrôle Prudentiel and authorised and subject to limited regulation by the Financial Services Authority. Details of the extent of our authorisation and regulation by the Financial Services Authority are available from us on request.

This report has been approved for publication in France by BNP Paribas SA BNP Paribas SA is incorporated in France with Limited Liability and is authorised by the Autorité de Contrôle Prudentiel (ACP) and regulated by the Autorité des Marchés Financiers (AMF). Its head office is 16, boulevard des Italiens 75009 Paris, France.

This report is being distributed in Germany either by BNP Paribas London Branch or by BNP Pa-ribas Niederlassung Frankfurt am Main, a branch of BNP Paribas S.A. whose head office is in Pa-ris, France. BNP Paribas S.A. – Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frank-furt is authorised and supervised by the Autorité de Contrôle Prudentiel and it is authorised and

Jurt is authorised and supervised by the Autorite de Controle Prudentiel and it is authorised and subject to limited regulation by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). United States: This report is being distributed to US persons by BNP Paribas Securities Corp., or by a subsidiary or affiliate of BNP Paribas that is not registered as a US broker-dealer. BNP Paribas Securities Corp., a subsidiary of BNP Paribas, is a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Author-rity and other principal exchanges. BNP Paribas Securities Corp. accepts responsibility for the content of a report prepared by another non-U.S. affiliate only when distributed to U.S. persons w. PNP Deribas Securities Corp. by BNP Paribas Securities Corp

by BNP Paribas Securities Corp. Japan: This report is being distributed in Japan by BNP Paribas Securities (Japan) Limited or by a subsidiary or affiliate of BNP Paribas not registered as a financial instruments firm in Japan, to certain financial institutions defined by article 17-3, item 1 of the Financial Instruments and Exchange Law Enforcement Order. BNP Paribas Securities (Japan) Limited is a financial instru-ments firm registered according to the Financial Instruments and Exchange Law of Japan and a member of the Japan Securities Dealers Association and the Financial Futures Association of Japan. BNP Paribas Securities (Japan) Limited accepts responsibility for the content of a report prepared by another non-Japan affliate only when distributed to Japanese based firms by BNP Paribas Securities (Japan) Limited. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan. Hong Kong: This report is being distributed in Hong Kong by BNP Paribas Hong Kong Branch

Hong Kong: This report is being distributed in Hong Kong by BNP Paribas Hong Kong Branch, a branch of BNP Paribas whose head office is in Paris, France. BNP Paribas Hong Kong Branch is registered as a Licensed Bank under the Banking Ordinance and regulated by the Hong Kong Monetary Authority. BNP Paribas Hong Kong Branch is also a Registered Institution regulated by the Securities and Futures Commission for the conduct of Regulated Activity Types 1, 4 and 6 under the Securities and Futures Ordinance.

Some or all the information reported in this document may already have been published on https://globalmarkets.bnpparibas.com

© BNP Paribas (2015). All rights reserved.



BNP PARIBAS