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FEDERAL RESERVE: HOW MUCH IS ENOUGH?

At which level will the Federal Reserve stop hiking the federal funds rate? The question is hugely important for activity and demand in the US economy as well as for financial markets. During his recent press conference, Fed Chair Jerome Powell remained vague about the reaction function of the FOMC but he did mention that they would be looking at real interest rates. This raises the question which inflation measure to use to move from nominal to real rates. A possible solution is to use the term structure of inflation expectations that is calculated by the Federal Reserve Bank of Cleveland. Despite its significant recent increase, the real one-year Treasury yield is still below that reached during previous tightening cycles, with the exception of 2018. Against the background of elevated inflation, it is clear the tightening cycle is not about to end.

At which level will the Federal Reserve stop hiking the federal funds rate? The question is hugely important for activity and demand in the US economy as well as for financial markets. It also matters for the rest of the world, considering the global spillover effects of US monetary policy

During his recent press conference, which came after another 75 basis points rate increase, Fed Chair Jerome Powell remained vague about the reaction function of the FOMC. *"We'll take into account the full range of analysis and data that bear on that question guided by our assessment of how much financial conditions have tightened, the effects that that tightening is actually having on the real economy and on inflation, taking into consideration lags…"*[1] He also mentioned they would be looking at real rates, all across the yield curve, without specifying how these rates would be calculated.

Using current inflation makes no sense for a multi-year investment. After all, an investor's decision today depends on the expected path of inflation over the maturity of the bond he is considering buying. Comparing the yield of a nominal bond to that of an inflation-protected security of the same maturity suffers from a bias due to the existence of an inflation risk premium. This premium is a compensation for the risk that inflation may be different from what was expected initially.

A possible solution is to use the term structure of inflation expectations that is calculated by the Federal Reserve Bank of Cleveland.[2] It combines data from three different sources: Blue Chip economic forecasts -a consensus forecast of short-term inflation expectations over the next several quarters-, the inflation forecasts over the next 10 years of the Survey of Professional Forecasters (SPF) and inflation swaps, which cover the entire maturity spectrum.[3]

US: TERM STRUCTURE OF INFLATION EXPECTATIONS

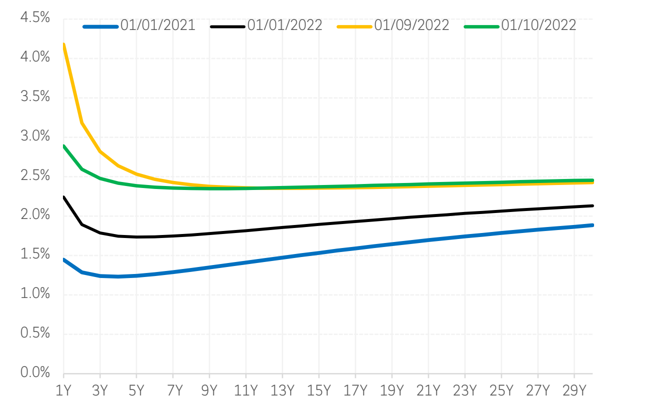


CHART 1 SOURCE: FED CLEVELAND, BNP PARIBAS

Chart 1 shows the evolution of the term structure since the start of 2021. Inflation expectations have increased across the board, but whereas in 2021 there was essentially a parallel upward shift, this year, short-term expectations increased far more than longer-term expectations. Importantly, the policy tightening has already caused a significant decline of short-term expectations after their peak in September. Nevertheless, in a historical perspective, one-year expected inflation is still at the upper end of the range since the early 1990s (*chart 2*). Consequently, despite its significant recent increase, the real one-year Treasury yield is still below that reached during previous tightening cycles, with the exception of 2018 (*chart 3 and table*).

1. Source: Federal Reserve, Transcript of Chair Powell's Press Conference, 2 November 2022.
2. See [Inflation Expectations (clevelandfed.org)](https://www.clevelandfed.org).
3. *The econometric methodology is explained in Inflation Expectations, Real Rates, and Risk Premia: Evidence from Inflation Swaps*, Federal Reserve Bank of Cleveland working paper 11-07, March 2011. For a general presentation, see Joseph G. Haubrich, A New Approach to Gauging Inflation Expectations, Economic Commentary, Federal Reserve Bank of Cleveland, August 2009.

> Despite its significant recent increase, the real one-year Treasury yield is still below that reached during previous tightening cycles. The job of the Federal Reserve is not finished yet.

ONE-YEAR EXPECTED INFLATION AND FEDERAL FUNDS RATE

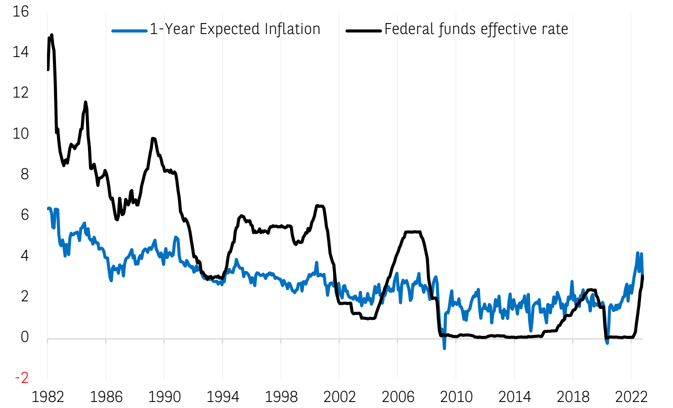


CHART 2 SOURCE: FEDERAL RESERVE BANK OF ST. LOUIS, BNP PARIBAS

REAL ONE-YEAR TREASURY YIELD AND FEDERAL FUNDS RATE

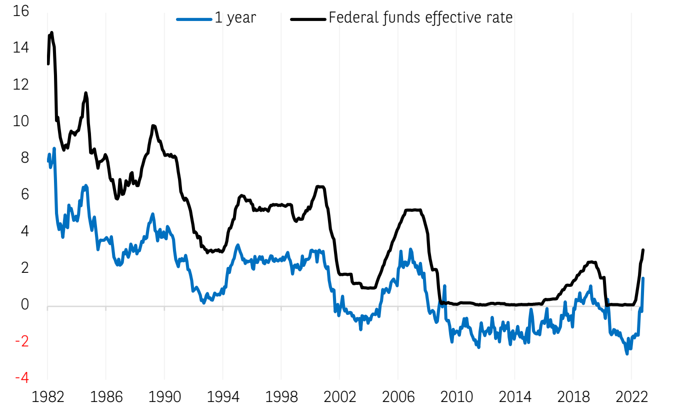


CHART 3 SOURCE: FEDERAL RESERVE BANK OF ST. LOUIS, BNP PARIBAS

With a one-year nominal yield of 4.7% at present, the terminal federal funds rate would need to be higher than current market pricing of about 5.0% to bring the real yield closer to past cyclical highs. Two developments could change this: a rapid decline in inflation expectations -which would raise the real yield- or a more patient approach by the Federal Reserve -which would no longer seek to push real rates higher. For either of these to happen we need good news on inflation or bad news on the economy, in particular the labour market. Both seem not very likely in the near term given the inertia of inflation and the ongoing strong pace of job creations.

William De Vijlder

ONE-YEAR REAL TREASURY YIELD AND PEAK NOMINAL FEDERAL FUNDS RATE (WITH THE EXCEPTION OF THE CURRENT CYCLE)

Current cycle		
Date	**1-year real yield**	**Peak federal funds effective rate**
October 2022	1.54	3.08
Previous cycles		
Date	**1-year real yield**	**Peak federal funds effective rate**
January 2019	0.78	2.40
July 2007	2.35	5.26
February 2007	2.41	5.26
April 1995	2.80	6.05
July 2000	3.00	6.54
October 1987	3.21	7.29
March 1989	5.04	9.85
August 1984	6.60	11.64
February 1982	8.30	14.78

TABLE 1 SOURCE: FEDERAL RESERVE BANK OF ST LOUIS, BNP PARIBAS

MARKETS OVERVIEW

OVERVIEW

Week 28-10 22 to 4-11-22				
↗ CAC 40	6 273	▸ 6 416	+2.3	%
↘ S&P 500	3 901	▸ 3 771	-3.3	%
↘ Volatility (VIX)	25.8	▸ 24.6	-1.2	pb
↗ Euribor 3M (%)	1.64	▸ 1.73	+9.3	bp
↗ Libor $ 3M (%)	4.44	▸ 4.55	+11.1	bp
↗ OAT 10y (%)	2.58	▸ 2.84	+25.2	bp
↗ Bund 10y (%)	2.09	▸ 2.29	+20.1	bp
↗ US Tr. 10y (%)	4.01	▸ 4.16	+14.8	bp
↘ Euro vs dollar	0.99	▸ 0.99	-0.5	%
↗ Gold (ounce, $)	1 641	▸ 1 673	+2.0	%
↗ Oil (Brent, $)	95.8	▸ 98.8	+3.1	%

MONEY & BOND MARKETS

Interest Rates			highest 22			lowest 22		
€	ECB	2.00	2.00	at	02/11	0.00	at	03/01
	Eonia	-0.51	-0.51	at	03/01	-0.51	at	03/01
	Euribor 3M	1.73	1.74	at	01/11	-0.58	at	05/01
	Euribor 12M	2.79	2.79	at	04/11	-0.50	at	05/01
$	FED	4.00	4.00	at	03/11	0.25	at	03/01
	Libor 3M	4.55	4.55	at	04/11	0.21	at	03/01
	Libor 12M	5.67	5.67	at	04/11	0.58	at	03/01
£	BoE	3.00	3.00	at	03/11	0.25	at	03/01
	Libor 3M	3.43	3.75	at	26/09	0.26	at	03/01
	Libor 12M	0.81	0.81	at	03/01	0.81	at	03/01

At 4-11-22

Yield (%)			highest 22			lowest 22		
€	AVG 5-7y	2.64	2.79	at	28/09	-0.04	at	03/01
	Bund 2y	2.09	2.09	at	04/11	-0.83	at	04/03
	Bund 10y	2.29	2.44	at	21/10	-0.14	at	24/01
	OAT 10y	2.84	3.00	at	21/10	0.15	at	04/01
	Corp. BBB	4.91	5.14	at	21/10	0.90	at	05/01
$	Treas. 2y	4.70	4.75	at	03/11	0.70	at	04/01
	Treas. 10y	4.16	4.23	at	24/10	1.63	at	03/01
	High Yield	9.60	9.97	at	13/10	5.07	at	03/01
£	gilt. 2y	3.14	4.59	at	27/09	0.69	at	03/01
	gilt. 10y	3.55	4.50	at	27/09	0.97	at	03/01

At 4-11-22

EXCHANGE RATES

1€ =		highest 22			lowest 22			2022
USD	0.99	1.15	at	10/02	0.96	at	27/09	-13.0%
GBP	0.88	0.90	at	28/09	0.83	at	14/04	+4.5%
CHF	0.99	1.06	at	10/02	0.95	at	28/09	-4.7%
JPY	145.71	147.34	at	26/10	125.37	at	04/03	+11.3%
AUD	1.54	1.62	at	04/02	1.43	at	25/08	-1.7%
CNY	7.19	7.29	at	10/02	6.75	at	14/07	-0.8%
BRL	4.99	6.44	at	06/01	4.98	at	03/11	-21.2%
RUB	61.40	164.76	at	07/03	55.60	at	26/09	-28.0%
INR	81.58	85.96	at	11/02	78.49	at	27/09	-3.5%

At 4-11-22 *Change*

COMMODITIES

Spot price, $		highest 22			lowest 22			2022	2022(€)
Oil, Brent	98.8	128.2	at	08/03	79.0	at	03/01	+26.0%	+44.8%
Gold (ounce)	1 673	2 056	at	08/03	1 628	at	03/11	-8.2%	+5.5%
Metals, LMEX	3 748	5 506	at	07/03	3 453	at	27/09	-16.8%	-4.3%
Copper (ton)	8 136	10 702	at	04/03	7 160	at	14/07	-16.5%	-4.0%
wheat (ton)	279	4.7	at	17/05	273	at	28/10	+17.5%	+35.0%
Corn (ton)	258	3.2	at	28/06	226	at	03/01	+1.3%	+30.0%

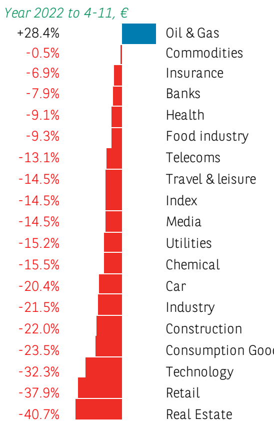
At 4-11-22 *Change*

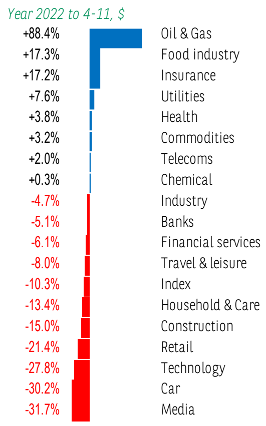
EQUITY INDICES

	Index	highest 22			lowest 22			2022
World								
MSCI World	2 507	3 248	at	04/01	2 368	at	12/10	-22.4%
North America								
S&P500	3 771	4 797	at	03/01	3 577	at	12/10	-20.9%
Europe								
EuroStoxx50	3 688	4 392	at	05/01	3 279	at	29/09	-14.2%
CAC 40	6 416	7 376	at	05/01	5 677	at	29/09	-1.0%
DAX 30	13 460	16 272	at	05/01	11 976	at	29/09	-15.3%
IBEX 35	7 943	8 934	at	27/05	7 261	at	12/10	-0.9%
FTSE100	7 335	7 672	at	10/02	6 826	at	12/10	-0.1%
Asia								
MSCI, loc.	1 054	1 165	at	05/01	1 012	at	30/09	-0.8%
Nikkei	27 200	29 332	at	05/01	24 718	at	09/03	-5.5%
Emerging								
MSCI Emerging ($)	885	1 267	at	12/01	843	at	24/10	-2.8%
China	53	86	at	20/01	47	at	31/10	-35.2%
India	784	891	at	13/01	699	at	17/06	+3.0%
Brazil	1 675	2 003	at	04/04	1 311	at	14/07	+5.7%

At 4-11-22 *Change*

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

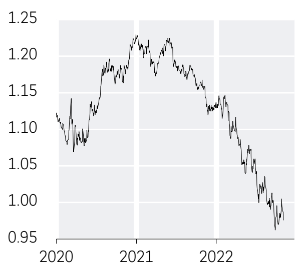




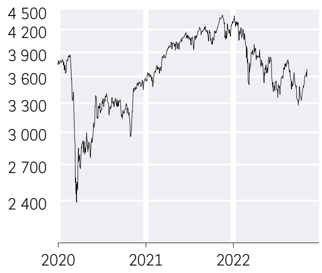
SOURCE: REFINITIV, BNP PARIBAS,

MARKETS OVERVIEW

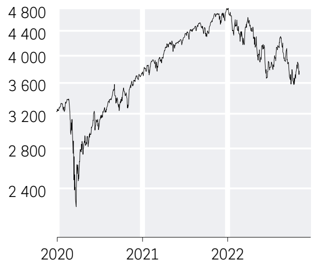
EURO-DOLLAR



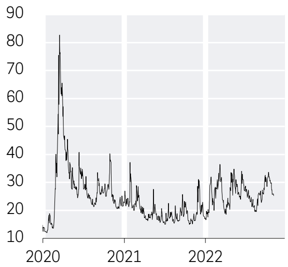
EUROSTOXX50



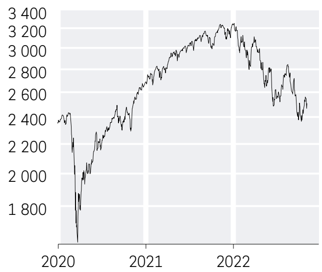
S&P500



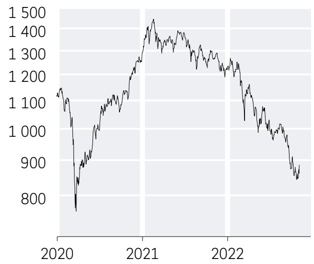
VOLATILITY (VIX, S&P500)



MSCI WORLD (USD)

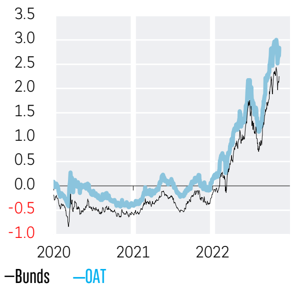


MSCI EMERGING (USD)

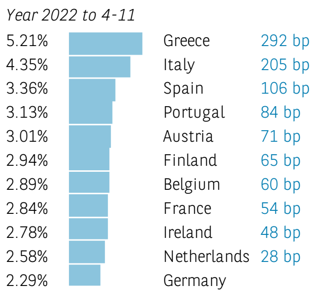


10Y BOND YIELD, TREASURIES VS BUND

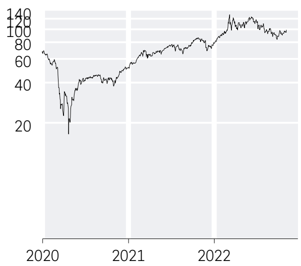
10Y BOND YIELD



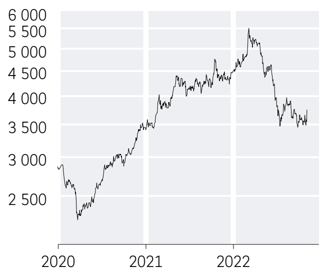
10Y BOND YIELD & SPREADS



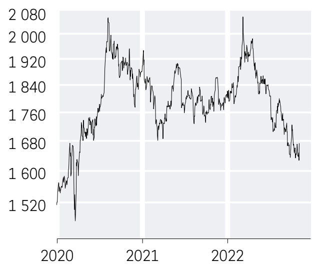
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS

ECONOMIC PULSE

PMI: THE STRONG DOWNTREND IN ORDERS CONTINUES

The global manufacturing PMI was down again in October, with significant drops in the United States, the euro area, Austria, Germany, Greece, Italy, Spain, Switzerland and the United Kingdom. China saw an improvement but the index stayed below 50.

The steep downtrend of new orders continued in the euro area and its member countries, with the exception of France, where the decline in October was more limited after the big drop the previous month. Orders were also down strongly in the US -where the rebound in September clearly did not last- as well as in the UK. China recorded some improvement. India continues to benefit from strong order inflow.

Despite the gloomy readings for the manufacturing PMI and the incoming orders, the employment data continue to be surprisingly resilient. In October this is hiding opposing dynamics; down in the US to 49 but up in the euro area to 52.6. Even in Germany, where the other data are poor, the data improved. The UK on the other hand recorded a big drop. The number were better in China, moving to 48.7, and very strong in India, jumping from 50.7 to 53.6.

After the disappointing jump in input prices in the euro area in September, October brought good news with a drop in the PMI to a level close to that of August. Nevertheless, the level remains elevated. The numbers were down in the US and the UK. China saw a jump from 47.6 to 50.7.

The developments in terms of output prices tend to be positively correlated with those in input prices. The US benefited from a big drop whereas in the euro area and the UK the decline was smaller. Output prices moved higher in Japan.

Delivery times again brought welcome news, with higher numbers, which means shorter delivery times. This points towards an easing of supply side tensions. Finally, the services PMI declined in the US after a huge rebound in September. In the euro area the index hardly moved but Germany saw a surprising improvement. Data were weaker in the UK and in China.

William De Vijlder

MANUFACTURING PMI

Developed Markets (WD; NA; Europe; Asia-Oceania)

	World	CANADA	USA	EURO ZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	SWITZERLAND	UK	AUSTRALIA	NEW ZEALAND	JAPAN	SINGAPORE
Feb-22	53.7	56.6	57.3	58.2	58.4	52.7	57.2	58.4	57.8	57.8	58.3	60.6	56.9	62.6	58.0	53.2	53.3	52.7	50.2
Mar-22	52.9	58.9	58.8	56.5	59.3	64.2	54.7	56.9	54.6	59.4	55.8	58.4	54.2	64.0	55.2	55.7	53.1	54.1	50.1
Apr-22	52.3	56.2	59.2	55.5	57.9	64.1	55.7	54.6	54.8	59.1	54.5	59.9	53.3	62.5	55.8	58.5	50.9	53.5	50.3
May-22	52.3	56.8	57.0	54.6	56.6	61.6	54.6	54.8	53.8	56.4	51.9	57.8	53.8	60.0	54.6	52.4	52.7	53.3	50.4
Jun-22	52.2	54.6	52.7	52.1	51.2	70.2	51.4	52.0	51.1	53.1	50.9	55.9	52.6	59.1	52.8	54.0	50.2	52.7	50.3
Jul-22	51.1	52.5	52.2	49.8	51.7	38.0	49.5	49.3	49.1	51.8	48.5	54.5	48.7	58.0	52.1	52.5	53.5	52.1	50.1
Aug-22	50.3	48.7	51.5	49.6	48.8	47.8	50.6	49.1	48.8	51.1	48.0	52.6	49.9	56.4	47.3	49.3	54.8	51.5	50.0
Sep-22	49.8	49.8	52.0	48.4	48.8	49.6	47.7	47.8	49.7	51.5	48.3	49.0	49.0	57.1	48.4	50.2	52.0	50.8	49.9
Oct-22	49.4	48.8	50.4	46.4	46.6	52.1	47.2	45.1	48.1	51.4	46.5	47.9	44.7	54.9	46.2	49.6		50.7	49.7

Emerging countries (LATAM; Eurasia; Middle East & Africa; Asia)

	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	LEBANON	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA	INDONESIA	VIETNAM
Feb-22	49.6	48.0	56.5	54.7	48.6	50.4	48.1	47.5	56.2	58.2	54.8	50.4	42.9	54.9	51.2	54.3
Mar-22	52.3	49.2	54.7	52.7	44.1	49.4	46.5	47.4	56.8	58.6	54.8	48.1	42.0	54.0	51.3	51.7
Apr-22	51.8	49.3	54.4	52.4	48.2	49.2	46.9	47.9	55.7	52.3	54.6	46.0	51.7	54.7	51.9	51.7
May-22	54.2	50.6	52.3	48.5	50.8	49.2	47.0	48.6	55.7	54.5	55.6	48.1	54.9	54.6	50.8	54.7
Jun-22	54.1	52.2	49.0	44.4	50.9	48.1	45.2	49.1	57.0	52.0	54.8	51.7	52.4	53.9	50.2	54.0
Jul-22	54.0	48.5	46.8	42.1	50.3	46.9	46.4	49.9	56.3	49.4	55.4	50.4	52.3	56.4	51.3	51.2
Aug-22	51.9	48.5	46.8	40.9	51.7	47.4	47.6	50.1	57.7	51.1	56.7	49.5	51.2	56.2	51.7	52.7
Sep-22	51.1	50.3	44.7	43.0	52.0	46.9	47.6	48.8	56.6	48.2	56.1	48.1	48.0	55.1	53.7	52.5
Oct-22	50.8	50.3	41.7	42.0	50.7	46.4	47.7	49.1	57.2	50.0	56.6	49.2	49.3	55.3	51.8	50.6

MANUFACTURING PMI - NEW ORDERS

Developed Markets (WD; NA; Europe; Asia-Oceania)

	World	CANADA	USA	EURO ZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	SWITZERLAND	UK	AUSTRALIA	NEW ZEALAND	JAPAN	SINGAPORE
Feb-22	53.7	54.2	57.0	57.0	54.2		53.8	58.5	53.8	58.7	57.2	58.0	54.1		54.6	59.8		50.5	50.4
Mar-22	51.4	57.5	59.1	53.7	53.2		51.1	54.0	50.3	60.9	54.6	53.7	47.5		51.8	65.0		52.0	50.3
Apr-22	50.5	54.4	59.0	51.6	53.0		53.0	48.8	50.7	58.7	52.6	56.3	49.6		51.7	64.8		51.5	50.4
May-22	50.9	54.7	56.1	48.7	48.1		50.6	47.0	50.2	52.0	47.4	52.6	50.0		51.1	55.0		50.4	50.5
Jun-22	50.1	52.8	48.7	45.2	41.2		46.1	43.3	45.7	47.9	43.9	52.5	49.7		48.3	55.7		50.2	50.7
Jul-22	48.9	48.9	48.6	42.6	43.6		43.0	40.1	43.5	47.0	42.5	51.1	43.5		46.9	59.9		49.2	50.2
Aug-22	48.2	44.5	48.8	43.3	39.8		44.8	40.9	45.6	47.3	42.6	48.7	47.3		43.9	55.8		48.2	50.1
Sep-22	47.7	46.9	51.1	41.3	38.6		40.4	39.1	45.8	46.1	43.2	43.0	44.4		44.8	57.8		46.3	49.9
Oct-22		46.0	47.6	37.9	32.9		39.4	34.5	43.1	46.5	39.2	39.7	40.3		39.9	53.8		47.9	

Emerging countries (LATAM; Eurasia; Middle East & Africa; Asia)

	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	ISRAEL	LEBANON	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA	INDONESIA	VIETNAM
Feb-22	47.0	46.3	55.3	53.5	47.0	46.8	47.3	56.6	48.6	61.4	50.7	58.2	51.6	36.6	57.6	52.6	55.3
Mar-22	52.1	47.4	49.4	48.5	40.2	45.9	45.1	49.9	48.3	61.9	50.6	58.3	45.4	33.3	56.1	51.1	52.8
Apr-22	51.7	46.7	48.5	48.0	45.9	46.2	45.3	50.7	49.6	59.5	49.3	57.2	42.8	52.2	56.8	52.1	51.9
May-22	53.3	49.6	45.4	43.2	49.3	46.8	44.6	52.1	49.8	59.9	50.2	58.7	47.5	56.5	56.4	51.6	55.3
Jun-22	52.9	50.7	43.9	39.1	51.0	44.9	41.9	58.5	49.3	63.3	52.5	56.5	51.2	52.1	55.7	50.9	54.8
Jul-22	52.4	46.2	42.6	35.6	51.8	43.6	43.1	58.1	49.6	62.0	53.3	57.2	50.3	53.3	60.0	51.6	52.0
Aug-22	51.4	45.1	42.2	33.4	52.9	42.8	45.1	52.7	49.8	64.1	52.2	59.8	48.9	51.3	60.5	52.4	54.1
Sep-22	50.3	48.0	38.5	35.4	52.4	43.0	45.9		48.8	62.3	47.1	59.4	47.1	46.1	58.6	56.3	52.3
Oct-22	48.3	49.8	34.1	37.7	51.1	43.5				62.9			48.7		57.5	52.8	50.8

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SOURCE: S&P GLOBAL, BNP PARIBAS

ECONOMIC PULSE

MANUFACTURING PMI – EMPLOYMENT

	Developed Markets																		Emerging countries													
	WD	NA		Europe												Asia-Oceania			LATAM		Eurasia				Middle East & Africa				Asia			
	World	CANADA	USA	EURO ZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	SWITZERLAND	UK	AUSTRALIA	NEW ZEALAND	JAPAN	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	INDIA	INDONESIA	VIETNAM
Feb-22	51.7	54.6	52.2	57.1	62.1	61.4	55.8	58.0	56.5	53.7	57.1	59.3	54.2	63.1	57.9	54.6	51.9	52.8	49.8	46.2	53.3	53.2	47.5	53.0	49.2	50.3	49.5	50.1	48.5	49.8	50.6	51.2
Mar-22	52.1	53.2	54.0	54.2	60.2	69.1	51.8	54.4	55.0	56.6	53.2	57.5	51.4	62.4	56.7	53.7	52.2	52.6	51.2	49.2	52.8	51.0	44.7	50.7	48.8	49.7	50.0	50.6	50.4	50.1	50.8	48.3
Apr-22	51.5	54.5	52.7	54.7	57.8	64.7	53.1	55.3	54.9	58.6	52.4	58.5	50.6	60.7	56.7	54.4	49.8	51.4	51.4	51.1	52.7	51.4	45.5	51.5	47.9	51.0	51.4	49.9	49.2	50.5	52.1	52.1
May-22	51.6	55.3	53.1	56.1	57.7	69.1	54.0	58.0	53.4	59.3	52.7	59.9	50.3	62.8	55.4	51.9	52.9	51.9	53.3	51.7	52.5	51.2	47.1	51.7	48.2	50.9	50.4	50.7	48.6	51.0	50.3	53.0
Jun-22	51.3	52.9	52.9	54.5	56.4	69.9	52.5	55.4	53.0	55.7	53.0	58.9	51.0	62.0	53.0	52.5	51.4	51.8	53.4	51.2	48.7	47.6	51.2	51.0	48.5	50.7	51.3	51.2	48.8	50.8	48.9	54.0
Jul-22	50.4	51.9	51.5	53.3	55.7	39.9	50.6	55.2	50.4	52.9	52.0	56.0	48.6	58.4	55.9	53.4	52.8	51.6	55.5	49.6	46.3	47.8	48.4	50.2	50.1	51.3	48.4	51.0	47.8	50.6	52.3	52.3
Aug-22	50.3	48.8	51.1	52.8	53.9	60.2	52.2	54.5	49.1	52.4	50.5	55.2	48.6	58.3	50.4	54.1	53.6	50.8	53.1	49.8	47.7	45.6	49.2	51.2	50.7	51.2	48.4	51.5	48.3	50.1	51.4	53.4
Sep-22	50.8	49.5	53.8	52.4	55.7	46.3	51.0	53.4	49.3	53.8	51.0	52.3	49.8	58.5	51.0	53.5	51.9	52.8	52.2	51.6	50.6	45.2	52.2	49.2	50.4	50.5	46.7	51.4	47.7	50.7	51.9	53.3
Oct-22	50.3	49.0	51.4	52.6	56.2	45.9	51.7	54.5	49.7	52.9	50.8	53.3	45.5	58.2	48.3	53.1		51.3	52.3	50.3	47.0	43.7	47.0	47.7	49.6	50.2	41.5	52.0	48.7	53.6	50.5	52.3

MANUFACTURING PMI - INPUT PRICES

	Developed Markets																			Emerging countries															
	WD	NA		Europe												Asia-Oceania				LATAM		Eurasia				Middle East & Africa					Asia				
	World	CANADA	USA	EURO ZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	SWITZERLAND	UK	AUSTRALIA	NEW ZEALAND	JAPAN	SINGAPORE	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	LEBANON	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA	INDONESIA	VIETNAM
Feb-22	68.5	70.1	79.3	82.1	81.3	73.6	80.6	83.9	85.8	83.6	79.9	80.0	79.2		82.4	75.6		74.0	51.7	68.1	65.5	81.3	77.8	72.2	78.8	54.5		51.5		52.2	54.6	56.4	57.3	67.6	60.3
Mar-22	71.5	78.6	79.5	87.0	89.2	75.3	84.6	87.2	87.3	92.7	85.1	87.7	86.8		85.3	82.4		75.2	51.9	75.0	69.8	90.1	83.1	90.0	78.5	58.6		54.4		53.5	57.8	57.6	57.5	67.9	71.1
Apr-22	71.6	75.4	81.9	87.8	90.5	78.1	88.9	88.0	86.7	85.3	87.1	89.2	86.2		89.5	84.4		75.6	52.1	71.4	69.7	86.0	82.6	76.3	73.1	58.3		52.8		53.4	56.9	55.7	59.2	68.8	70.7
May-22	70.3	73.0	84.2	84.2	87.0	76.1	84.1	84.8	85.8	88.0	81.4	84.5	80.3		86.4	86.5		76.0	52.3	72.4	71.9	84.8	77.4	62.5	69.9	62.1		53.3		53.9	55.0	54.2	58.9	67.4	65.7
Jun-22	68.7	74.2	79.5	80.0	81.6	76.2	77.7	83.3	81.8	82.6	74.2	77.6	76.3		84.6	89.3		74.6	52.7	71.7	71.7	77.8	68.9	54.9	71.7	72.0		55.3		58.5	55.2	52.2	58.1	67.5	66.8
Jul-22	65.4	71.4	76.4	74.9	77.2	88.7	71.9	79.1	72.6	82.6	64.4	73.8	70.5		77.5	79.7		75.8	52.6	67.5	70.3	71.1	68.0	55.4	68.9	64.1		55.0		56.5	51.0	53.7	57.2	65.0	56.4
Aug-22	61.1	64.9	68.1	71.7	74.3	72.4	70.1	77.3	61.7	75.7	58.9	73.2	66.1		67.9	81.7		71.9	52.3	59.1	70.3	67.0	67.2	54.1	59.4	58.8		53.5		48.8	47.8	52.9	56.4	63.6	50.7
Sep-22	61.3	62.0	65.2	76.5	79.2	61.7	75.0	79.5	71.6	74.4	73.3	74.4	73.0		74.5	84.8		75.6	51.8	53.0	67.5	67.8	68.4	55.3	64.8	64.6		54.0		51.4	47.6	53.1	53.9	61.6	51.5
Oct-22	61.2	61.7	64.7	72.0	75.3	53.4	72.3	74.0	72.1	72.8	68.4	71.2	66.8		73.7	78.0		74.7	51.5	46.6	69.6	68.8	68.1	58.2	60.6	63.5		52.0		51.4	50.7	54.8	54.0	61.1	52.7

MANUFACTURING PMI- OUTPUT PRICES

	Developed Markets																			Emerging countries															
	WD	NA		Europe												Asia-Oceania				LATAM		Eurasia				Middle East & Africa					Asia				
	World	CANADA	USA	EURO ZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	SWITZERLAND	UK	AUSTRALIA	NEW ZEALAND	JAPAN	SINGAPORE	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	LEBANON	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA	INDONESIA	VIETNAM
Feb-22	61.3	62.4	70.9	71.8	67.5	63.7	68.0	74.3	73.6	70.3	70.0	73.6	71.4		69.9			58.2		60.7	52.8	70.3	68.8	62.8	66.3	51.2	51.7	50.1		49.5		49.8	51.0	53.5	54.3
Mar-22	62.3	70.8	69.7	74.2	72.5	67.1	71.3	75.6	77.8	72.8	73.5	80.0	71.4		71.3			58.8		68.5	53.1	73.3	78.5	77.8	68.7	51.5	52.5	53.8		49.8		51.5	52.2	56.5	58.2
Apr-22	63.8	69.8	76.3	77.3	79.2	62.3	71.8	79.3	75.8	77.5	77.0	82.5	73.6		78.8			62.5		65.0	54.6	74.9	80.1	72.5	66.8	51.0	53.1	53.4		50.5		54.0	54.1	56.6	58.4
May-22	61.5	68.0	73.9	76.2	76.6	56.4	70.2	79.1	76.2	78.6	72.7	81.4	72.8		76.1			61.4		66.2	54.2	73.7	71.7	51.7	62.6	52.4	54.3	52.8		48.8		51.5	54.4	55.3	56.3
Jun-22	60.4	65.9	71.1	70.9	71.1	76.8	66.9	73.7	68.4	68.4	69.2	73.2	68.6		72.1			62.7		66.7	53.8	69.5	65.6	48.9	62.1	61.8	54.9	53.3		48.2		53.0	53.2	54.7	55.9
Jul-22	58.3	64.1	66.7	67.9	66.3	32.6	67.7	69.1	66.2	71.0	63.9	68.6	66.6		69.6			61.9		61.9	54.5	67.7	62.2	46.4	58.5	56.1	54.2	53.4		49.6		51.3	52.6	53.2	51.6
Aug-22	56.7	60.5	62.9	65.9	65.4	44.6	61.8	69.4	61.3	66.5	60.3	71.3	63.2		64.8			59.5		56.3	54.4	65.6	61.1	50.6	54.8	53.0	57.2	50.8		47.4		52.2	52.7	53.0	50.5
Sep-22	56.6	55.4	64.1	67.4	67.6	60.5	63.3	69.1	62.9	66.9	67.3	71.5	65.3		66.4			61.6		52.6	53.0	65.9	60.7	49.4	59.9	54.8	56.8	51.8		48.5		51.2	51.8	52.9	51.4
Oct-22	56.5	60.8	61.1	66.1	67.0	64.3	61.7	68.5	64.6	68.3	64.1	68.7	61.9		65.0			62.5		47.4	52.0	63.2	61.5	49.8	57.3	53.5	55.9	51.5		49.4		52.0	51.7	52.6	51.1

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SOURCE: S&P GLOBAL, BNP PARIBAS

ECONOMIC PULSE

MANUFACTURING PMI - DELIVERY TIMES

Developed Markets

	WD	NA		Europe											Asia-Oceania			
	World	CANADA	USA	EURO ZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	UK	AUSTRALIA	NEW ZEALAND	JAPAN	SINGAPORE
Feb-22	39.4	26.8	25.0	31.0	29.2	41.6	25.2	34.0	25.3	30.8	31.5	25.1	31.5	31.7	49.0	52.8	38.1	50.5
Mar-22	38.7	24.8	28.5	25.9	20.2	38.7	24.7	24.9	24.3	32.8	29.9	24.5	22.4	33.4	45.7	51.3	37.5	50.3
Apr-22	35.8	34.0	26.9	26.3	22.5	34.2	25.4	23.9	24.8	31.5	29.7	24.6	31.2	32.8	60.4	49.5	37.8	50.1
May-22	38.8	33.3	31.1	29.9	24.2	45.2	30.0	28.2	27.0	33.3	32.6	28.4	33.7	34.1	48.0	55.1	37.1	49.8
Jun-22	42.2	31.0	33.6	34.2	34.6	43.6	31.2	33.0	30.7	32.4	38.0	36.6	39.8	34.5	51.5	51.8	38.0	50.1
Jul-22	42.8	33.1	33.7	37.9	38.7	49.1	32.0	38.7	33.4	36.6	40.8	38.5	40.8	37.9	47.4	50.3	39.2	50.3
Aug-22	44.8	37.6	38.9	40.2	41.4	46.9	33.1	40.9	36.1	37.7	44.5	39.8	44.9	44.5	47.1	54.0	40.0	50.4
Sep-22	45.7	41.2	43.1	41.8	39.5	53.8	37.8	44.6	35.4	39.5	40.8	42.6	41.1	42.1	52.8	54.5	41.6	50.5
Oct-22	46.5	44.1	44.3	43.4	41.7	57.5	38.5	47.1	36.7	38.9	42.2	42.2	43.9	43.6	48.3		43.7	50.6

Emerging countries

	LATAM		Eurasia				Middle East & Africa				Asia				
	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA	INDONESIA	VIETNAM
Feb-22	45.0	43.3	32.0	38.3	44.1	42.1	49.4	53.1	66.5	52.7	48.1	44.2	48.8	50.7	44.8
Mar-22	44.1	41.1	25.8	32.2	30.5	41.2	48.3	54.1	64.9	52.7	47.1	37.6	49.5	48.2	41.3
Apr-22	45.2	43.7	26.2	37.2	33.6	43.7	48.9	55.6	63.5	53.5	37.8	38.7	48.9	48.8	46.5
May-22	44.1	41.9	32.9	41.5	34.3	47.0	48.5	52.2	58.0	52.3	43.3	44.1	49.4	48.3	42.2
Jun-22	42.1	38.5	37.9	43.2	40.7	46.8	46.1	54.5	63.9	51.4	50.2	44.5	50.3	50.0	45.1
Jul-22	41.5	41.9	42.4	45.7	39.0	46.2	48.7	55.0	60.2	51.0	49.1	46.9	50.2	48.9	48.5
Aug-22	46.6	42.5	46.5	47.3	43.8	46.7	49.5	54.6	59.9	52.8	49.4	49.2	50.8	50.0	50.5
Sep-22	49.1	42.0	47.0	47.7	45.3	46.1	49.4	50.9	61.7	51.7	48.7	49.1	49.4	49.8	50.1
Oct-22	49.7	43.8	46.4	49.3	43.5	51.2	50.2	51.4	61.9	52.1	48.8	49.0	49.6	49.1	50.4

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SERVICES PMI

	World	USA	EURO ZONE	FRANCE	GERMANY	IRELAND	ITALY	SPAIN	UK	AUSTRALIA	JAPAN	BRAZIL	RUSSIA	LEBANON	CHINA	HONG KONG	INDIA
Feb-22	54.0	56.5	55.5	55.5	55.8	61.8	52.8	56.6	60.5	60.0	44.2	54.7	52.1	47.5	50.2	42.9	51.8
Mar-22	53.4	58.0	55.6	57.4	56.1	63.4	52.1	53.4	62.6	56.2	49.4	58.1	38.1	47.4	42.0	42.0	53.6
Apr-22	52.2	55.6	57.7	58.9	57.6	61.7	55.7	57.1	58.9	57.8	50.7	60.6	44.5	47.9	36.2	51.7	57.9
May-22	51.9	53.4	56.1	58.3	55.0	60.2	53.7	56.5	53.4	49.2	52.6	58.6	48.5	48.6	41.4	54.9	58.9
Jun-22	53.9	52.7	53.0	53.9	52.4	55.6	51.6	54.0	54.3	48.8	54.0	60.8	51.7	49.1	54.5	52.4	59.2
Jul-22	51.1	47.3	51.2	53.2	49.7	56.3	48.4	53.8	52.6	51.7	50.3	55.8	54.7	49.9	55.5	52.3	55.5
Aug-22	49.3	43.7	49.8	51.2	47.7	54.7	50.5	50.6	50.9	53.3	49.5	53.9	49.9	50.1	55.0	51.2	57.2
Sep-22	50.0	49.3	48.8	52.9	45.0	54.1	48.8	48.5	50.0	48.0	52.2	51.9	51.1	48.8	49.3	48.0	54.3
Oct-22		47.8	48.6	51.7	46.5	53.2	46.4	49.7	48.8		53.2		43.7	49.1	48.4	49.3	55.1

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SOURCE: S&P GLOBAL, BNP PARIBAS

UNITED STATES: EMPLOYMENT SHOWS RESILIENCE

According to the preliminary estimate by the Bureau of Economic Analysis (BEA), annualised quarterly growth in US GDP rebounded sharply in Q3 to 2.6%, following two quarters of negative growth (respectively -1.6% in Q1 and -0.6% in Q2). The upturn in growth was driven mainly by the significant contribution from foreign trade (2.8 percentage points), which was based on the very strong increase in exports of goods and services (+14.4%), while imports fell sharply (-6.9%). Consumer spending (contribution of one percentage point) is holding up quite well given the extent of the inflationary shock. On the other hand, residential fixed investment continued to fall (for the sixth consecutive quarter) and the downward trend was accentuated (negative contribution of -1.4 percentage points). As for non-residential fixed investment, after a slump in Q2 it showed quite a strong recovery in Q3 (+3.7%). After consumer spending it was the component of GDP that recovered best compared to its pre-pandemic level (+7% higher for consumer spending thanks to durable goods, +4% higher for non-residential fixed investment).

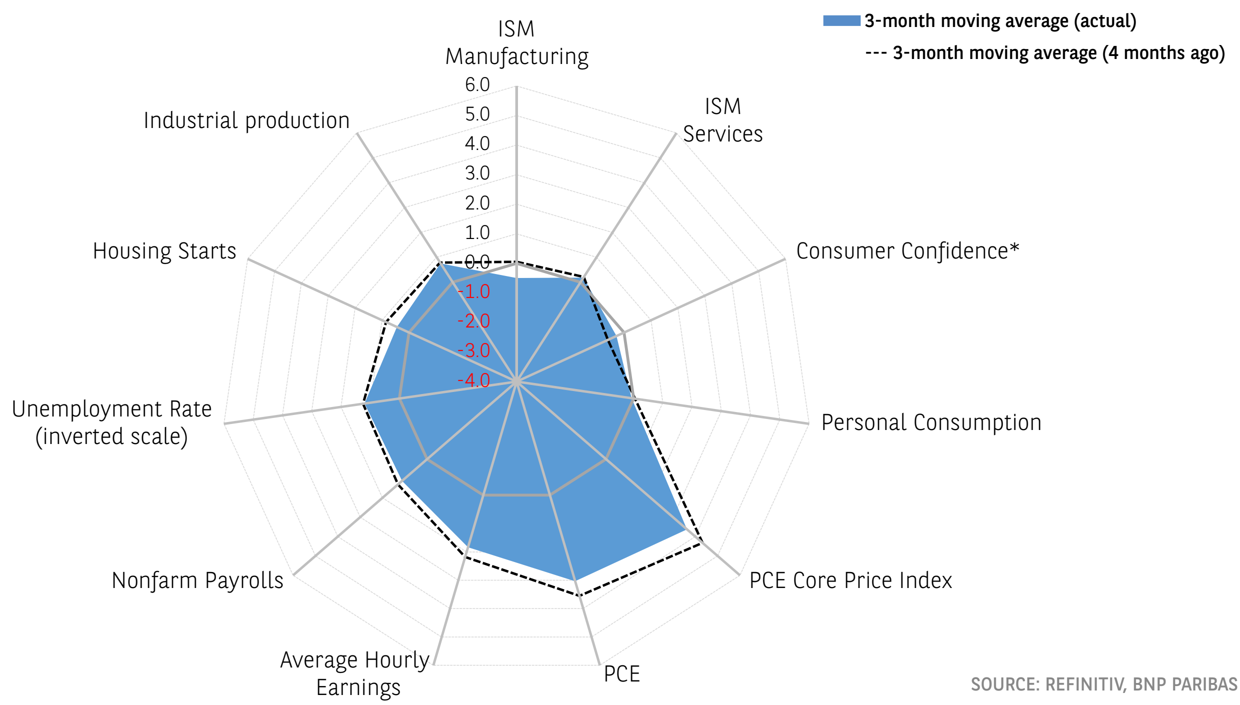
Although the upturn in growth in Q3 proves that the American economy is not yet in recession, the latest monthly indicators nonetheless indicate that consumption is slowing. Year-on-year, real spending only increased by 1.9% in September compared with +5.6% at the beginning of the year. And this increase came at the cost of a sharp drop in savings, with household purchasing power falling by around 3% year-on-year in September, squeezed by inflation of 6.2% year-on-year, the highest level for 40 years. The household savings rate fell to 3.1%, close to its historic low of 2.1% seen in July 2005. This dynamic is not sustainable, and we should expect a fall in consumer spending in the not too distant future.

For the time being, the good performance of the labour market continues to support purchasing power (or at least limit its decline). It is true that the unemployment rate rose slightly in October (+0.2 points to 3.7%). But the creation of nonfarm payrolls remained significant (+261,000 m/m), albeit at a slower pace than in September (315,000 after upward revision) and August (292,000), as did the increase in the nominal average hourly earnings (+4.7% year-on-year in October after +5% in September and +5.2% in August).

The continued low unemployment rate and the very high level of inflation mean that the Federal Reserve (Fed) is compelled to continue with the enforced tightening of its monetary policy. At its November meeting, the Fed raised the Fed Funds rate by a further 75 basis points (the fourth increase of its kind), bringing it to 3.75%-4%, while pointing out that at some point the extent of future rises would slow down.

Félix Berte

UNITED STATES: QUARTERLY CHANGES



SOURCE: REFINITIV, 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 +6. 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 PULSE

CREDIT PULSE IN THE EUROZONE: NEW PEAK IN SEPTEMBER 2022, DEMAND SLOWDOWN AND TIGHTENING OF LENDING CONDITIONS EXPECTED IN Q4

After posting negative figures for most of 2021, the credit impulse returned to positive territory in early 2022 and rose to unprecedented levels (+3.8 points in August 2022 and +3.7 points in September 2022). This growth contrasts starkly with the sharp slowdown in the eurozone's GDP in Q3 2022 (+0.2% quarter-on-quarter, compared to +0.8% during Q2 2022), which it undoubtedly helped to limit.

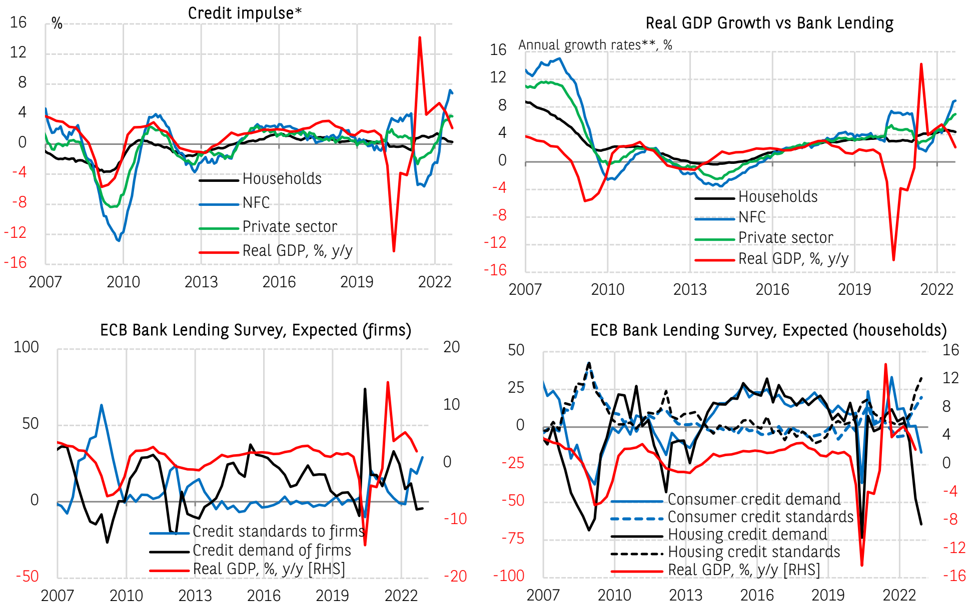
After accelerating hugely since spring, in September 2022, outstanding loans to the private sector showed their strongest increase since December 2008 (+6.9% year-on-year), with outstanding loans to non-financial corporations (NFCs) showing their largest increase since January 2009 (+8.9%). Even though outstanding loans to NFCs have increased across the board, outstanding loans with maturities of less than one year (+19.8% year-on-year) are growing far more healthily than loans with maturities of more than five years (+4.1%), in accordance with the purpose of the loan (such as cash needs or inventories). At the same time, outstanding loans to household dipped slightly (+4.4% year-on-year in September 2022, compared to +4.6% in May), but still registered record growth rates. Outstanding consumer loans registered a small rise between June 2022 and September 2022 (+3.4% and +3.7%, respectively) while outstanding housing loans were slightly down (+5.4% and +5.1%, respectively).

These trends are in line with the results of the Bank Lending Survey published by the ECB on 25 October 2022. The banks surveyed noted that the demand for corporate finance has increased, driven by rising materials and energy costs, and by stock replenishment. Against the backdrop of monetary policy normalisation, eurozone banks are, however, starting to notice the negative effects of the widespread rise in interest rates on the demand for financing. This is particularly true for the households' demand, which, in addition to the increased bank lending costs, has suffered as a result of confidence indicators being close to their lowest record levels since the summer and a decreasing appetite for durable goods.

The pronounced slowdown in economic activity and heightened fears of a recession have worsened the outlook for corporate balance sheets. As a result, banks have reduced their risk tolerance and tightened their lending conditions for NFC to an even greater extent than they had already done in Q2. For retail customers, banks even tightened housing loan terms to an extent not seen since Q4 2008. While this tightening was mainly triggered by a rise in the perceived risk, the rise in the costs of banking resources and balance sheet constraints also played a role. In Q4 2022, the banks surveyed are expecting a slight drop in the demand for corporate lending and a much greater tightening of lending conditions than in previous quarters. They are once again anticipating a sharp drop in demand for housing loans, and a less pronounced but still significant decline in demand for consumer loans. Finally, banks are also considering a widespread tightening of financing conditions for all household.

Laurent Quignon

CREDIT PULSE IN THE EUROZONE



**L'impulsion du crédit est mesurée comme la variation annuelle du taux de croissance annuel des prêts des IFM ** corrigés des titrisations*

SOURCE: ECB, ECB SURVEY ON DISTRIBUTION OF CRÉDIT, BLS, BNP PARIBAS CALCULATION

ECONOMIC PULSE

COVID-19: NUMBER OF NEW WEEKLY CASES BELOW 3 MILLION

The number of new Covid-19 cases continues to decline in most parts of the world. For the first time since 20 October 2021, the number of infections has fallen below 3 million per week (seven-day moving average). Thus, 2.45 million new cases were recorded between 27 October and 3 November 2022, a 15% drop compared to the previous week (*Chart 1*). More generally, the number of new cases continued to fall sharply in Europe (-34%) and, to a lesser extent, Africa (-8%), while it stabilised in North and South America. In Asia, the number of cases is on the rise again (+11%), particularly in Japan (333,980, +25%), South Korea (293,934, +35%) and Taiwan (270,077, -3%). To date, 13 billion doses of vaccine have been administered worldwide. Thus, 68.4% of the world's population has received at least one dose of a Covid-19 vaccine (*Chart 2*).

The weekly GDP proxy indicator appears to be on a downward slope, slightly in Italy and Spain, and somewhat more markedly in the UK. By contrast, the indicator is relatively stable in France, Germany, Japan and the United States. In Belgium, the indicator differs with an increase in the last points of the curve (*Chart 3, black curve*). This tracker is produced by the OECD using Google Trends data from searches relating to consumption, the labour market, real estate, industrial activity and uncertainty. The tracker shown here is calculated on a rolling basis over one year.

Tarik Rharrab

** Google Mobility Reports show how visits and length of stay at different places change compared to a baseline. The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020. A figure of negative 30% indicates that traffic was down 30% compared to a baseline. The reports show trends over several weeks with the most recent data representing approximately 2-3 days ago—this is how long it takes to produce the reports. In order to smooth the series, we use a seven-day moving average of the raw data in the Google Mobility Reports. Source: Google.*

DAILY CONFIRMED COVID-19 CASES (7-DAY MOVING AVERAGE)

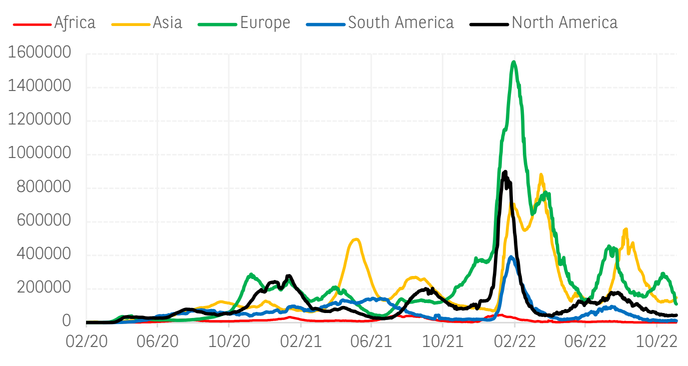


CHART 1 SOURCE: JOHNS-HOPKINS UNIVERSITY (04/11/2022), BNP PARIBAS

SHARE OF PEOPLE WHO RECEIVED AT LEAST ONE DOSE OF VACCINE

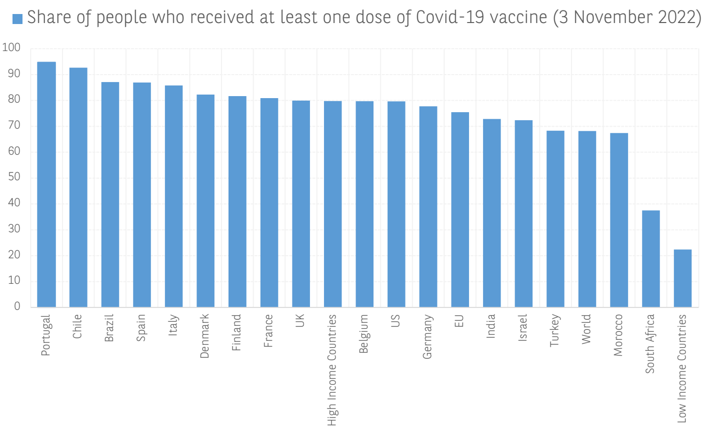
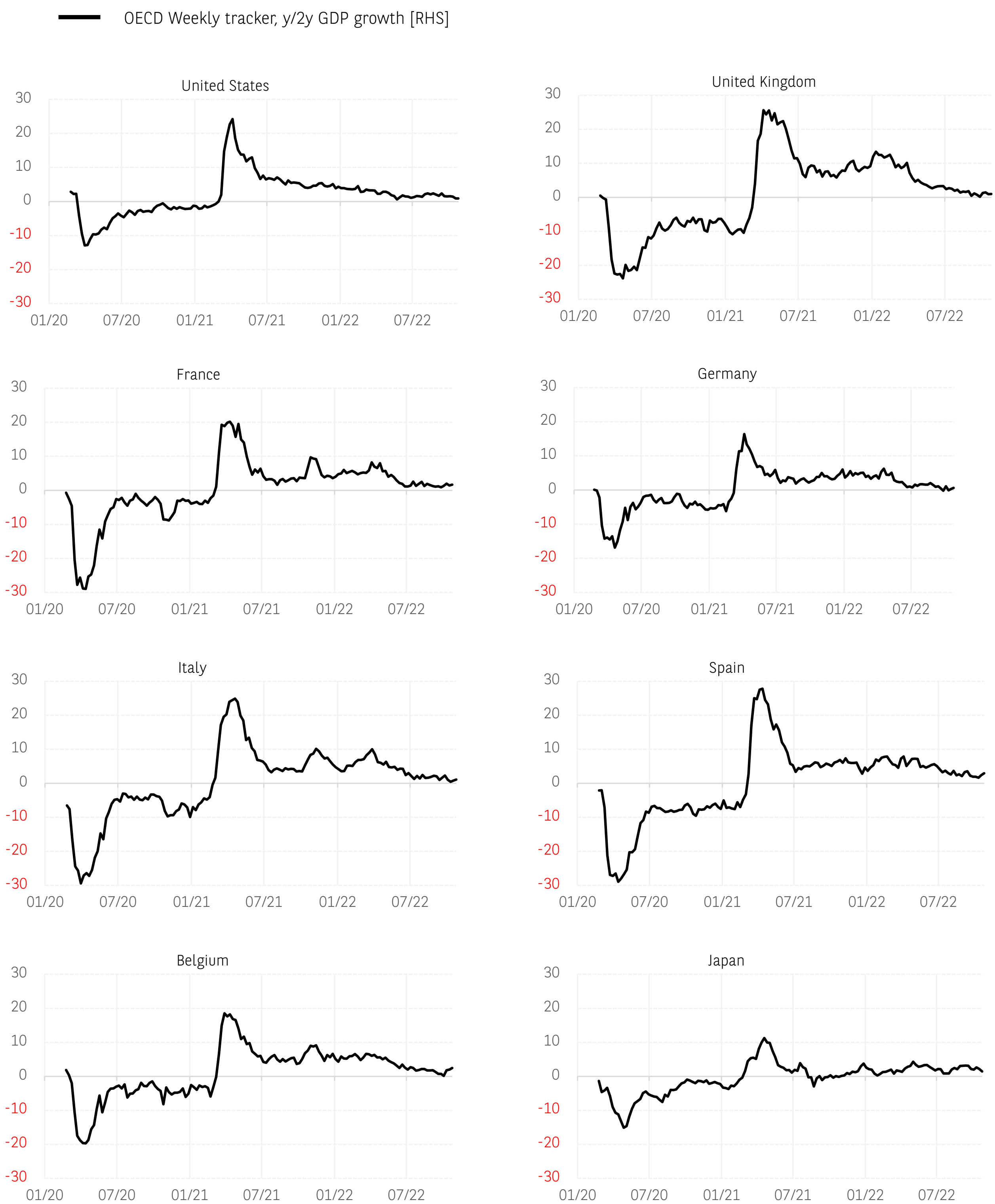


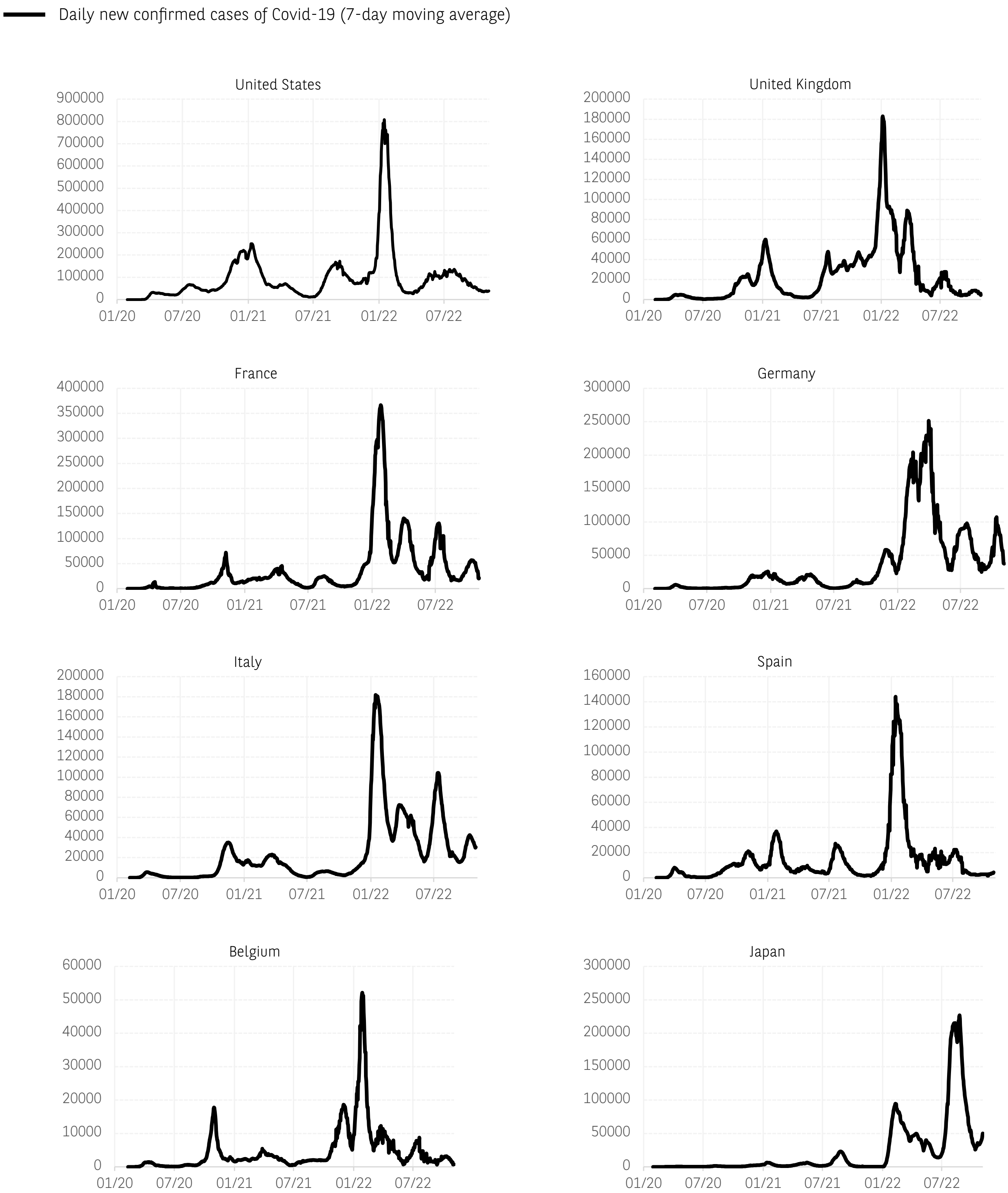
CHART 2 SOURCE: OUR WORLD IN DATA (04/11/2022), BNP PARIBAS

OECD WEEKLY TRACKER



SOURCE: OECD (06/10/2022), GOOGLE (06/10/2022), BNP PARIBAS

DAILY NEW CASES



SOURCE: JOHNS-HOPKINS UNIVERSITY (06/10/2022), GOOGLE (06/10/2022), BNP PARIBAS

ECONOMIC SCENARIO

UNITED STATES

In the US, the Federal Reserve will continue its tightening policy at a swift pace. After the 75bp hike in September, further increases will follow in November, December and January, bringing the federal funds rate to its terminal rate for this cycle at 5.25% (upper end of the target range). This level should be maintained through 2023 and be followed by rate cuts in 2024. The Fed's hawkish stance is motivated by the particularly elevated inflation and a strong labour market. Once the economy has slowed down and inflation is on a downward path, the Federal Reserve should adapt its guidance to achieve a soft landing. US Treasury are largely pricing in the upcoming rate hikes. In the course of next year, we expect somewhat lower yields as growth slows, inflation declines, and the market starts anticipating policy easing in 2024.

CHINA

Economic activity contracted in Q2 2022 due to the lockdowns imposed in large industrial regions such as Shanghai. The economic growth rebound since late spring has proved difficult. The authorities are enhancing fiscal and monetary easing measures. However, factors constraining growth remain significant: the correction in the property sector continues, and the deterioration in the labour market, the still tight zero Covid strategy and weak household confidence weigh on private consumption. Moreover, exports are expected to suffer from the slowdown in global demand. Consumer price inflation is accelerating only moderately..

EUROZONE

The look in the rear-view mirror is fairly favorable. The first half of 2022 was better than expected, leading to a comfortable growth carry-over a bit above 3%. However, the outlook for the coming quarters is negative: according to our forecasts, the Eurozone will not escape a contraction of its GDP. The current unprecedented combination of shocks (inflation, health, geopolitical, energy, climate, monetary) should overcome the resilience observed so far. We already have signs of this in the deterioration in confidence surveys, which has intensified over the summer. However, the recession should remain limited in scope thanks to the support of fiscal measures and as long as the labor market continues to perform well as it is now. In annual average terms, we expect Eurozone growth to reach 2.8% in 2022 but only 0.3% in 2023 (2 points lower than in our previous scenario in June). Regarding inflation, we forecast it will soon reach its peak, nearing 10% y/y, before engaging in a rather slow disinflation process in 2023.

FRANCE

Real GDP growth has surprised on the upside in the 2nd quarter of 2022 (+0.5% q/q after -0.2% in the 1st quarter), mainly as a result of tourism (positive contribution of net exports) and accommodation & catering following the unwinding of the bulk of Covid related restrictions. However, inflation has continued to accelerate (reaching a peak of 6.1% y/y in July) and household purchasing power has reduced for a second quarter in a row (-1.1% q/q during the 2nd quarter). Backlog of orders in the manufacturing have continued to decrease, and GDP growth should follow (we expect 0.5% in 2023 after 2.3% in 2022).

RATES AND EXCHANGE RATES

In the US, the Federal Reserve will continue its tightening policy at a swift pace. After the 75bp hike in September, further increases will follow in November, December and January, bringing the federal funds rate to its terminal rate for this cycle at 5.25% (upper end of the target range). This level should be maintained through 2023 and be followed by rate cuts in 2024. The Fed's hawkish stance is motivated by the particularly elevated inflation and a strong labour market. US Treasuries are largely pricing in the upcoming rate hikes. In the course of next year, we expect somewhat lower yields as growth slows, inflation declines, and the market starts anticipating policy easing in 2024.

After the 50bp rate hike in July and the 75bp increase in September, the ECB Governing Council will continue to raise its policy rates at its next meetings. Policy tightening is frontloaded, which means that the terminal rate -i.e. the peak rate in this cycle- should be reached by the end of the first quarter of next year. We expect a peak for the deposit rate at 3.00%. This should cause an increase in Bund yields.

The Bank of Japan is expected to maintain its current policy stance, at least until Governor Kuroda's term ends in the spring of 2023. Thereafter, we expect a less dovish policy and a one-off rate hike in the fourth quarter of 2023.

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. The yen has already weakened significantly versus the dollar, reflecting the prospect of increased policy divergence between the Fed and the Bank of Japan. We expect the exchange rate to remain around current levels for the remainder of the year. In 2023, the yen should strengthen versus the dollar considering that the federal funds rate should have reached its terminal rate and that the Bank of Japan is expected to tighten policy.

GDP GROWTH & INFLATION

	GDP Growth				Inflation			
%	2021	2022 e	2023 e	2024 e	2021	2022 e	2023 e	2024 e
United-States	5,7	1,9	-0,1	-0,2	4,7	8,1	4,4	2,4
Japan	1,7	1,5	0,9	0,6	-0,2	2,3	2,3	0,6
United-Kingdom	7,4	3,4	-0,1	1,4	2,6	9,0	6,5	3,0
Euro Area	5,3	2,8	0,3	1,5	2,6	8,3	5,9	2,5
Germany	2,6	1,4	0,4	1,7	3,2	8,6	5,8	2,4
France	6,8	2,3	0,5	1,5	2,1	5,7	4,8	2,0
Italy	6,6	3,4	0,4	1,6	1,9	8,3	6,4	2,2
Spain	5,1	4,3	0,5	1,7	3,0	8,8	4,1	1,6
China	8,1	3,0	5,3	5,0	0,9	2,3	3,1	2,5
India*	9,3	8,3	6,2	6,5	5,4	7,9	5,9	5,5
Brazil	4,6	3,0	0,5	1,3	8,3	9,4	5,4	4,9
Russia	4,5	-7,0	0,8	0,3	7,1	14,0	10,5	7,6

SOURCE: BNP PARIBAS GROUP ECONOMIC RESEARCH (E: ESTIMATES & FORECASTS)
*FISCAL YEAR FROM 1ST APRIL OF YEAR N TO MARCH 31ST OF YEAR N+1

INTEREST & EXCHANGE RATES

Interest rates, % End of period		Q2 2022	Q4 2022 e	Q1 2023 e	Q2 2023 e	Q4 2023 e
US	Fed Funds (upper limit)	1.75	4.75	5.25	5.25	5.25
Eurozone	Deposit rate	-0.50	2.00	3.00	3.00	3.00
UK	Base rate	1.25	3.50	4.50	4.50	4.50
	Gilts 10y	2.21	4.75	4.85	4.50	4.40
Japan	BoJ Rate	-0.04	-0.10	-0.10	-0.10	0.00
	JGB 10y	0.23	0.25	0.25	0.25	0.45

Exchange Rates End of period		Q2 2022	Q4 2022 e	Q1 2023 e	Q2 2023 e	Q4 2023 e
USD	EUR / USD	1.05	1.00	1.01	1.02	1.06
	USD / JPY	136	137	135	133	127
	GBP / USD	1.21	1.05	1.12	1.12	1.12
EUR	EUR / GBP	0.86	0.95	0.95	0.95	0.95
	EUR / JPY	142	137	136	136	135

Brent End of period		Q2 2022	Q4 2022 e	Q1 2023 e	Q2 2023 e	Q4 2023 e
Brent	USD/bbl	115	100	102	107	115

Forecasts as of 6 September unless mentioned otherwise. Fed Funds Rate and US 10-Year : forecast as of 19 October. BoE Rate: forecast as of 17 October. Gilt 10-Year, GBP/USD and EUR/GBP : forecast as of 28 September. Eurozone Deposit Rate: forecast as of 27 October

SOURCES: BNP PARIBAS (E: ESTIMATES & FORECASTS) (MARKET ECONOMICS, INTEREST RATE STRATEGY, FX STRATEGY, COMMODITIES DESK STRATEGY)

CALENDAR

LATEST INDICATORS

In China, three out of the four PMI releases for October were below the September as well as the consensus forecast, the exception being the Caixin manufacturing PMI, which increased more than expected. All four are however below the 50 mark. In the euro area, both headline and core inflation moved higher reaching respectively 10.7% and 5.0%. Third quarter GDP growth came in at 0.2%, marginally better than expected but well below the second quarter number of +0.8%. The unemployment rate was stable in September at 6.6%. The final PMI data were more or less in line with the flash estimates. In France, the services PMI declined but less than expected. In Germany the manufacturing PMI decline but, surprisingly, the services PMI rebounded strongly. The Japanese services PMI also improved and this was also the case in the UK, for the manufacturing, the services and the construction sector surveys. The Bank of England increased its policy rate. In the US, where the FOMC increased the federal funds rate with another 75 bp, accompanied by a hawkish message of its Chair during the press conference, the manufacturing ISM declined. The prices paid series dropped whereas the new orders and employment series recorded an improvement. The labour market report was strong in terms of new jobs but the unemployment rate moved higher despite a decline in the labour force participation rate.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
10/31/2022	China	Manufacturing PMI	Oct	49.8	49.2	50.1
10/31/2022	China	Non-manufacturing PMI	Oct	50.1	48.7	50.6
10/31/2022	Japan	Consumer Confidence Index	Oct	30.5	29.9	30.8
10/31/2022	Eurozone	CPI Estimate YoY	Oct	10.3%	10.7%	10.0%
10/31/2022	Eurozone	CPI Core YoY	Oct	5.0%	5.0%	4.8%
10/31/2022	Eurozone	GDP SA QoQ	3Q	0.1%	0.2%	0.8%
11/01/2022	Japan	Jibun Bank Japan PMI Mfg	Oct	--	50.7	50.7
11/01/2022	China	Caixin China PMI Mfg	Oct	48.5	49.2	48.1
11/01/2022	United Kingdom	S&P Global/CIPS UK Manufacturing PMI	Oct	45.8	46.2	45.8
11/01/2022	United States	S&P Global US Manufacturing PMI	Oct	49.9	50.4	49.9
11/01/2022	United States	ISM Manufacturing	Oct	50.0	50.2	50.9
11/01/2022	United States	ISM Prices Paid	Oct	53.0	46.6	51.7
11/01/2022	United States	ISM New Orders	Oct	--	49.2	47.1
11/01/2022	United States	ISM Employment	Oct	--	50.0	48.7
11/02/2022	France	S&P Global France Manufacturing PMI	Oct	47.4	47.2	47.4
11/02/2022	Germany	S&P Global/BME Germany Manufacturing PMI	Oct	45.7	45.1	45.7
11/02/2022	Eurozone	S&P Global Eurozone Manufacturing PMI	Oct	46.6	46.4	46.6
11/02/2022	United States	FOMC Rate Decision (Upper Bound)	Nov	4.00%	4.00%	3.25%
11/03/2022	China	Caixin China PMI Services	Oct	49.0	48.4	49.3
11/03/2022	United Kingdom	S&P Global/CIPS UK Services PMI	Oct	47.5	48.8	47.5
11/03/2022	Eurozone	Unemployment Rate	Sep	6.6%	6.6%	6.7%
11/03/2022	United Kingdom	Bank of England Bank Rate	Nov	3.00%	3.00%	2.25%
11/03/2022	United States	S&P Global US Services PMI	Oct	46.6	47.8	46.6
11/03/2022	United States	ISM Services Index	Oct	55.3	54.4	56.7
11/04/2022	Japan	Jibun Bank Japan PMI Services	Oct	--	53.2	52.2
11/04/2022	France	Private Sector Payrolls QoQ	3Q	--	--	0.5%
11/04/2022	France	S&P Global France Services PMI	Oct	51.3	51.7	52.9
11/04/2022	Germany	S&P Global Germany Services PMI	Oct	44.9	46.5	45.0
11/04/2022	Eurozone	S&P Global Eurozone Services PMI	Oct	48.2	48.6	48.8
11/04/2022	United Kingdom	S&P Global/CIPS UK Construction PMI	Oct	50.3	53.2	52.3
11/04/2022	Eurozone	PPI MoM	Sep	1.7%	1.6%	5.0%
11/04/2022	United States	Change in Nonfarm Payrolls	Oct	198k	261k	315k
11/04/2022	United States	Unemployment Rate	Oct	3.6%	3.7	3.5%
11/04/2022	United States	Labor Force Participation Rate	Oct	62.3%	62.2	62.3%

SOURCE: BLOOMBERG

CALENDAR: THE WEEK AHEAD

COMING INDICATORS

A rather light week in terms of data. China will release data on foreign trade and inflation. In Germany we will have the construction sector PMI. In the eurozone attention will go to the retail sales data, the ECB's economic bulletin and, in particular, the economic forecasts of the European Commission. In Japan the EcoWatchers' survey will be published. Finally in the US, we will have small business sentiment and University of Michigan sentiment but the focus will be on the inflation numbers.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
11/07/2022	Germany	S&P Global Germany Construction PMI	Oct	--	41.8
11/07/2022	China	Trade Balance CNY	Oct	702.90b	573.57b
11/07/22-11/14/22	Eurozone	EU Commission Economic Forecasts			
11/08/2022	Eurozone	Retail Sales MoM	Sep	--	-0.3%
11/08/2022	Eurozone	Retail Sales YoY	Sep	--	-2.0%
11/08/2022	United States	NFIB Small Business Optimism	Oct	92.1	92.1
11/09/2022	China	PPI YoY	Oct	-1.6%	0.9%
11/09/2022	China	CPI YoY	Oct	2.4%	2.8%
11/09/2022	Japan	Eco Watchers Survey Current SA	Oct	--	48.4
11/09/2022	Japan	Eco Watchers Survey Outlook SA	Oct	--	49.2
11/09/2022	United States	MBA Mortgage Applications	Nov	--	-0.5%
11/10/2022	France	Wages QoQ	3Q	--	1.1%
11/10/2022	Eurozone	ECB Publishes Economic Bulletin			
11/10/2022	United States	CPI MoM	Oct	0.7%	0.4%
11/10/2022	United States	CPI Ex Food and Energy MoM	Oct	0.5%	0.6%
11/10/2022	United States	Initial Jobless Claims	Nov	--	--
11/11/2022	United Kingdom	GDP QoQ	3Q	--	0.2%
11/11/2022	United States	U. of Mich. Sentiment	Nov	60.0	59.9
11/11/2022	United States	U. of Mich. Current Conditions	Nov	--	65.6
11/11/2022	United States	U. of Mich. Expectations	Nov	--	56.2
11/11/2022	United States	U. of Mich. 1 Yr Inflation	Nov	--	5.0%
11/11/2022	United States	U. of Mich. 5-10 Yr Inflation	Nov	--	2.9%

SOURCE: BLOOMBERG

FURTHER READING

France: Inflation spike? Not yet	EcoTVWeek	4 November 2022
Japan: An increasingly large proportion of Japanese subsidiaries based abroad	Chart of the Week	2 November 2022
Eurozone: The disinflation of 2023, between hope and uncertainty	EcoWeek	31 October 2022
Hungarian Forint: under selling pressure	EcoTVWeek	28 October 2022
China: consumer spending still depressed	Chart of the Week	26 October 2022
Global: Synchronous rate hikes: a sum-of-the-parts analysis	EcoWeek	24 October 2022
Hungarian Forint: under selling pressure	EcoTVWeek	21 October 2022
Germany: Revising the PMI to better understand shocks affecting industry	EcoFlash	19 October 2022
US : Foreign investors in US Treasuries: official and private sectors now neck and neck	Chart of the Week	19 October 2022
Global growth at risk	EcoWeek	17 October 2022
Qatar: favorable prospects thanks to the gas rent	EcoTVWeek	14 October 2022
Emerging Countries: Double whammy	EcoEmerging	12 October 2022
Eurozone: the contribution of supply-side issues to food price inflation	Chart of the Week	12 October 2022
Eurozone: Rising interest rates and public debt sustainability	EcoWeek	10 October 2022
United Kingdom: "God save the Gilt"	EcoTVWeek	7 October 2022
Kenya: Focus on fiscal consolidation	Chart of the Week	5 October 2022
United Kingdom: The 'dash for cash', leverage and the need for economic policy coordination	EcoWeek	3 October 2022
Key figures of the French economy	Pocket Atlas	3 October 2022
EcoPerspectives: The recession narrative	EcoPerspectives	30 September 2022
Spain: Complete reversal of real estate financing model in 12 years	Chart of the Week	28 September 2022
United States: vacancies, job turnover and disinflation	EcoWeek	26 September 2022

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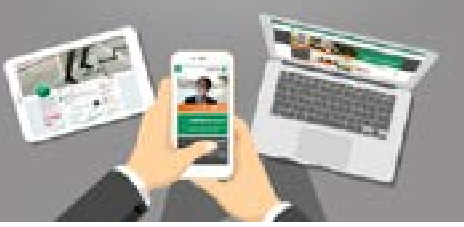

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