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## EDITORIAL

"Market timing, the zero lower bound and QE"

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**ECONOMIC RESEARCH**



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The bank  
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world

## MARKET TIMING, THE ZERO LOWER BOUND AND QE

Successful market timing between equities and cash requires high skill levels. Very low official interest rates, through their impact on market rates, create a disincentive for doing market timing because they increase the break-even skill level. The same applies for quantitative easing. These considerations are important from a financial stability perspective. Growing investor reluctance to do market timing will probably lead to a decline in equity market volatility and an increase in equity valuations. The former provides a false sense of safety whereas the latter increases the sensitivity to negative news and hence increases the riskiness.

Market timing, i.e. the decision to actively<sup>1</sup> switch between risky investments such as equities and cash, is both appealing – considering the return differences between the two asset classes – and scary, in view of the loss or opportunity cost if the wrong choice has been made.

The likely gains of market timing have been analysed in an article published in 1975 by William Sharpe<sup>2</sup>, who in 1990 shared the Nobel Memorial Prize in Economic Science with Harry M. Markowitz and Merton H. Miller "for their pioneering work in the theory of financial economics"<sup>3</sup>. Although certain parameter values, such as the level of interest rates, need to be updated, the methodology and insights are more than ever relevant. Consider an investor who at the start of each year has to decide on his asset allocation for the remainder of the year. Based on historical experience, there is a certain probability of stock markets delivering a positive (negative) return. In a two-asset world, the investor goes either for equities or, if he expects markets to go down, for cash. The realised performance will of course depend on whether the decision at the start of the year was the correct one.

Starting the year with a bullish (bearish) view ends up being painful when the market delivers a negative (positive) performance that causes a(n) loss (opportunity cost). A high-skilled investor has of course a higher chance of making the right call. Sharpe calculated how much skill is required to do better than a naïve strategy of investing each year in the same mix of equities and cash<sup>4</sup>. The result – i.e. the break-even skill level – depends on the average return difference between equities and cash when the former are up or down and the historical frequency of up and down markets in equities. The outcome of Sharpe's calculations was sobering: about 75% of annual decisions need to be right – being in equities (cash) when the market is up (down) – to do equally well as a passive strategy of no market timing at all.

Within this framework, how do a policy rate at the zero lower bound – or even negative, such as in the euro area – and quantitative easing influence the decision of the investor of doing market timing or not? For a given expected return of equities, low interest rates create a disincentive to do market timing because the performance difference increases. If cash yields a zero return, one needs a higher conviction level to go for this asset class rather than for equities, compared to a situation where interest rates are high. This implies that the required skill level increases when interest rates decline (chart 1):

MARKET TIMING, BREAK-EVEN SKILL LEVEL AND INTEREST RATES

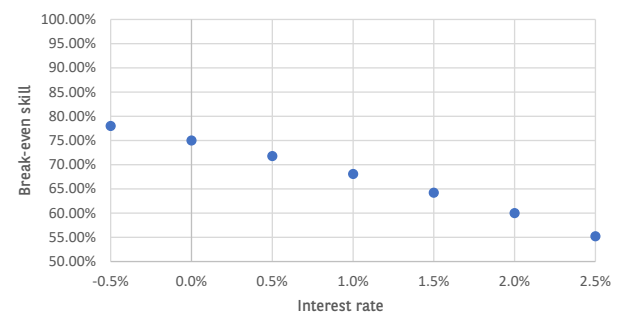


CHART 1

SOURCE: BNP PARIBAS

very accommodative monetary policy make it riskier for investors to do market timing. An investor may also refrain from timing the market because he expects that the central bank's policy stance will foster corporate profit growth. Quantitative easing is another factor. When investors sell their bonds to the central bank, part of the proceeds may be invested in equities, which motivates equity investors to hold on to their positions. The reluctance to time the equity market increases further if investors choose between equities and bonds – rather than cash – because of the correlation between the two. For many years already, equity and bond markets have seen predominantly a negative correlation, which gives rise to the following issue: should the decision to switch from equities to bonds turn out to be the wrong one – because the stock market unexpectedly had a positive year-, the fact of having moved to bonds may be twice painful: because of the opportunity cost of not being in equities and due to the poor or even negative performance of bonds if the traditional negative correlation with equities prevails

These considerations are relevant from a financial stability perspective. The policy rate at the zero lower bound and QE create a reluctance for investors to do market timing. This will probably lead to a decline in equity market volatility and an increase in equity valuations. The former provides a false sense of safety whereas the latter increases the sensitivity to negative news and hence increases the riskiness.

William De Vijlder

1. 'Actively' means a decision based on certain signals, which influence the expected returns. It should be distinguished from re-balancing of the equity and cash weights. A re-balancing strategy corrects for the drift in the asset class weights due to performance differences between the asset classes. It seeks to bring the portfolio allocation back in line with the target risk profile.

2. William Sharpe, *The likely gains of market timing*, Financial Analyst Journal, 1975.

3. <https://www.nobelprize.org/prizes/economic-sciences/1990/summary/>.

4. The weights in Sharpe's simulation were chosen in such a way that the passive asset allocation had the same risk as the market timing strategy.



# MARKETS OVERVIEW

## OVERVIEW

Week 1-10 21 to 8-10-21

➔ CAC 40	6 518	▶ 6 560	+0.6 %
➔ S&P 500	4 357	▶ 4 391	+0.8 %
➔ Volatility (VIX)	21.2	▶ 18.8	-2.4 pb
➔ Euribor 3M (%)	-0.55	▶ -0.55	-0.1 bp
➔ Libor \$ 3M (%)	0.13	▶ 0.12	-1.2 bp
➔ OAT 10y (%)	0.05	▶ 0.11	+6.5 bp
➔ Bund 10y (%)	-0.22	▶ -0.15	+7.1 bp
➔ US Tr. 10y (%)	1.47	▶ 1.60	+13.8 bp
➔ Euro vs dollar	1.16	▶ 1.16	-0.2 %
➔ Gold (ounce, \$)	1 756	▶ 1 759	+0.2 %
➔ Oil (Brent, \$)	79.3	▶ 82.5	+4.0 %

## MONEY & BOND MARKETS

Interest Rates	highest 21	lowest 21	Yield (%)	highest 21	lowest 21
€ ECB	0.00	0.00 at 01/01	€ AVG 5-7y	-0.13	-0.03 at 19/05
Eonia	-0.48	-0.47 at 26/01	Bund 2y	-0.69	-0.64 at 23/06
Euribor 3M	-0.55	-0.53 at 07/05	Bund 10y	-0.15	-0.11 at 20/05
Euribor 12M	-0.48	-0.47 at 20/04	OAT 10y	0.11	0.23 at 17/05
\$ FED	0.25	0.25 at 01/01	Corp. BBB	0.73	0.79 at 20/05
Libor 3M	0.12	0.24 at 13/01	Treas. 2y	0.32	0.32 at 08/10
Libor 12M	0.25	0.34 at 01/01	Treas. 10y	1.60	1.75 at 31/03
£ BoE	0.10	0.10 at 01/01	High Yield	5.00	5.00 at 08/10
Libor 3M	0.09	0.10 at 06/10	£ gilt. 2y	0.38	0.38 at 08/10
Libor 12M	0.45	0.45 at 08/10	£ gilt. 10y	1.16	1.16 at 08/10

At 8-10-21

## EXCHANGE RATES

1€ =	highest 21	lowest 21	2021
USD	1.16	1.23 at 06/01	-5.4%
GBP	0.85	0.91 at 06/01	-5.2%
CHF	1.07	1.11 at 04/03	-0.8%
JPY	129.68	133.97 at 28/05	+2.7%
AUD	1.58	1.64 at 20/08	-0.2%
CNY	7.46	8.00 at 01/01	-6.7%
BRL	6.38	6.95 at 03/03	+0.4%
RUB	83.01	92.47 at 20/04	-8.3%
INR	86.79	90.39 at 23/04	-2.9%

At 8-10-21

## COMMODITIES

Spot price, \$	highest 21	lowest 21	2021	2021(€)
Oil, Brent	82.5	82.6 at 05/10	51.2 at 04/01	+59.0% +68.1%
Gold (ounce)	1 759	1 947 at 05/01	1 682 at 08/03	-7.3% -2.0%
Metals, LMEX	4 366	4 429 at 10/09	3 415 at 01/01	+27.9% +35.2%
Copper (ton)	9 388	10 449 at 11/05	7 749 at 01/01	+21.1% +28.1%
wheat (ton)	238	2.9 at 07/05	223 at 10/09	-3.9% +1.6%
Corn (ton)	197	2.9 at 07/05	188 at 04/01	+0.4% +10.4%

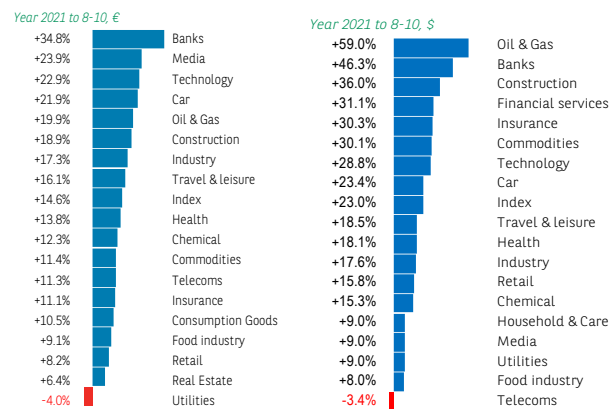
At 8-10-21

## EQUITY INDICES

Index	highest 21	lowest 21	2021
<b>World</b>			
MSCI World	3 044	3 170 at 06/09	2 662 at 29/01 +13.1%
<b>North America</b>			
S&P500	4 391	4 537 at 02/09	3 701 at 04/01 +16.9%
<b>Europe</b>			
EuroStoxx50	4 073	4 246 at 06/09	3 481 at 29/01 +14.7%
CAC 40	6 560	6 896 at 13/08	5 399 at 29/01 +1.8%
DAX 30	15 206	15 977 at 13/08	13 433 at 29/01 +10.8%
IBEX 35	8 955	9 281 at 14/06	7 758 at 29/01 +1.1%
FTSE100	7 096	7 220 at 11/08	6 407 at 29/01 +1.0%
<b>Asia</b>			
MSCI, loc.	1 127	1 196 at 14/09	1 044 at 06/01 +0.8%
Nikkei	28 049	30 670 at 14/09	27 013 at 20/08 +2.2%
<b>Emerging</b>			
MSCI Emerging (\$)	1 257	1 445 at 17/02	1 221 at 20/08 -0.3%
China	91	130 at 17/02	87 at 06/10 -16.1%
India	856	869 at 23/09	659 at 29/01 +30.1%
Brazil	1 579	2 098 at 24/06	1 550 at 07/10 -10.6%
Russia	887	887 at 08/10	647 at 01/02 +29.1%

At 8-10-21

## PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

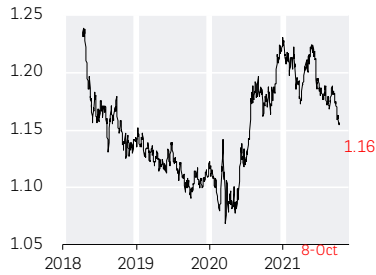


SOURCE: REFINITIV, BNP PARIBAS,

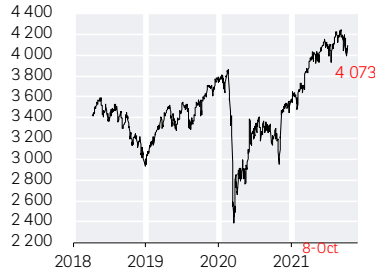


# MARKETS OVERVIEW

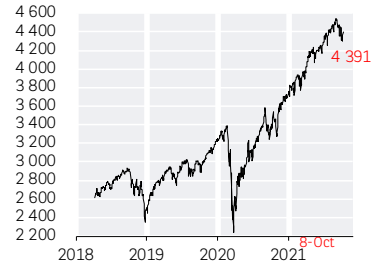
**EURO-DOLLAR**



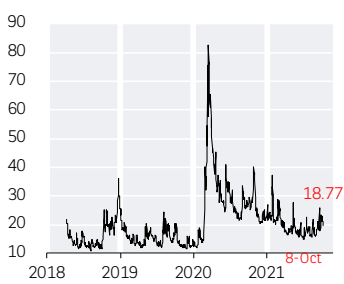
**EUROSTOXX50**



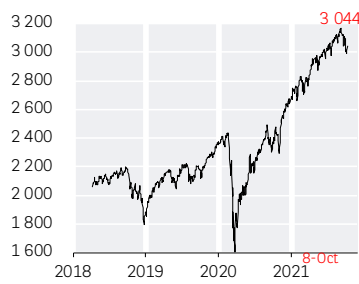
**S&P500**



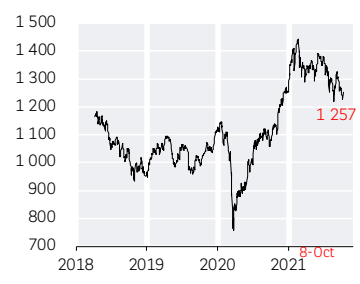
**VOLATILITY (VIX, S&P500)**



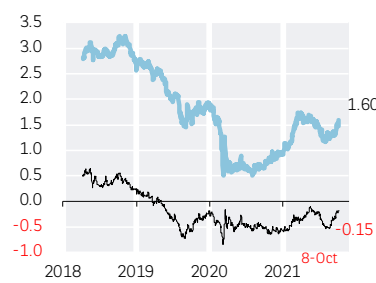
**MSCI WORLD (USD)**



**MSCI EMERGING (USD)**

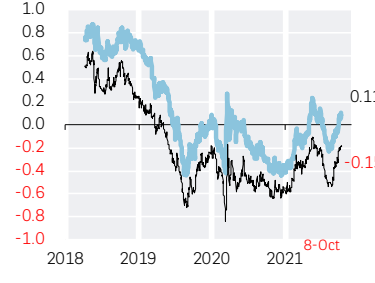


**10Y BOND YIELD, TREASURIES VS BUND**



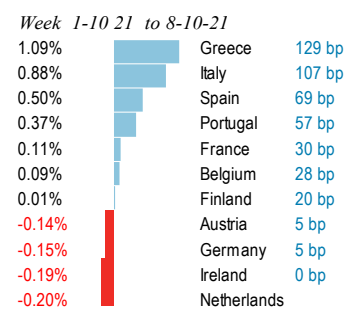
—Bunds —US Treasuries

**10Y BOND YIELD**

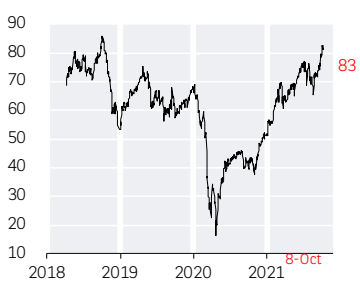


—Bunds —OAT

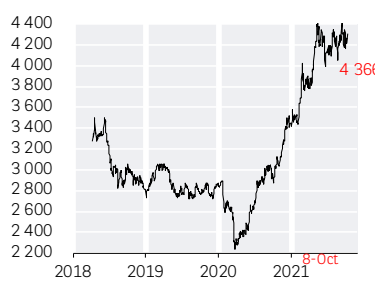
**10Y BOND YIELD & SPREADS**



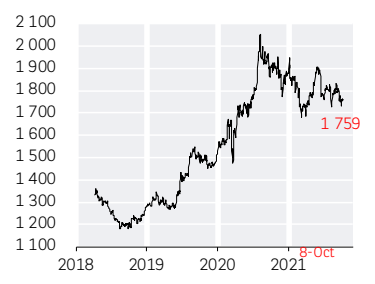
**OIL (BRENT, USD)**



**METALS (LME, USD)**



**GOLD (OUNCE, USD)**



SOURCE: REFINITIV, BNP PARIBAS



## PMI: ACTIVITY STABILISES BUT PRICE PRESSURES REMAIN INTENSE

The world composite PMI hardly changed in September, despite a rather significant decline in the Eurozone, driven by Germany, Italy and Spain. Japan and Russia edged higher.

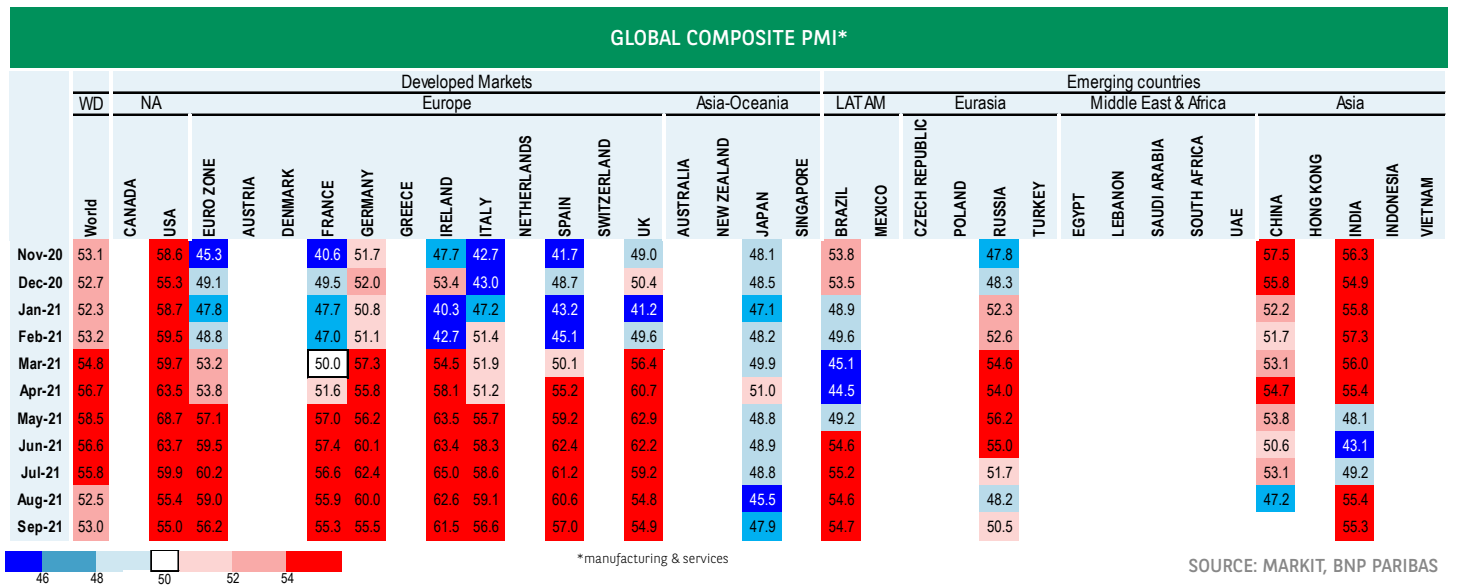
The world manufacturing PMI was unchanged in September. Supply chain disruptions and supply bottlenecks continue to weigh on activity levels. There was a broad-based weakening in the Eurozone and in the UK. China is doing a bit better and the index has reached 50.0. Brazil has recorded an improvement but the index is down in the Czech Republic, Poland and Turkey, whilst staying above the 50 line. In Asia, India witnesses better data and Indonesia shows a spectacular rebound.

Globally speaking, new export orders were stable in September with a rebound in the US and a rather significant weakening in the Eurozone. This development is broad-based, with the exception of Austria and Greece, and more outspoken in France, Germany, Ireland and the Netherlands. The UK data saw a big drop with the index crossing the 50 line. The export order assessment in China hardly changed but is stuck well below 50. India is doing better; Indonesia recorded an impressive improvement from a low base whereas Vietnam saw a huge drop. The global services PMI was up slightly in September. The US reading hardly changed but Eurozone data dropped, driven by Germany, Italy and Spain. Japan recorded a big improvement but the index is still below 50.

The manufacturing employment index declined slightly in September at the global level, on the back of a slight pick-up in the US and a rather significant decline in the Eurozone. Italy did better than in August but France witnessed a big decline to 50.1. Ireland and Spain were also down a lot. The UK was confronted with a huge drop. Australia is doing better and Japan edged higher. Data were better in Brazil whereas the downward trend continues in Mexico. This also applies to China and, in a more outspoken way, Vietnam, which has dropped to a very low level.

Global manufacturing input prices have rebounded and are back to their July level. Almost all countries are confronted with intense pressure coming from input prices. The US hardly changed and that also applies to the Eurozone, although at the country level, big changes can be noted: a jump in France and even bigger jumps in Greece and Ireland. Germany and Italy were down on the other hand. Japan also saw a sizeable increase. China moved higher. The weaker activity data in Vietnam did not stop input prices from rising slightly. Services input prices moved higher at the world level with several countries recording (rather) sizeable increases: US, Eurozone, France in particular, Spain. Germany saw some easing. The recent upward trend continues in Japan. Brazil recorded a huge increase. Price pressures are high across all countries in the sample. Global manufacturing output prices again moved higher in September. The upward trend continues in the US and the Eurozone was up as well. France and Greece saw big jumps and Ireland, the Netherlands and Spain were also up strongly. Elsewhere, the changes were more limited. It is worth noting that pressure on output prices is less intense in Asia.

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**PMI MANUFACTURING - INPUT PRICES**

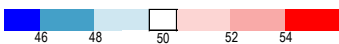
	WD	Developed Markets																	Emerging countries														
		NA		Europe										Asia-Oceania					LATAM	Eurasia				Middle East & Africa			Asia						
		CANADA	USA	EURO ZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	SWITZERLAND	UK	AUSTRALIA	NEW ZEALAND	JAPAN	SINGAPORE	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	LEBANON	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA
Nov-20	57.6	60.7	61.6	55.9	53.0	62.7	55.5	54.1	58.8	57.4	59.2	59.8	56.5	61.3	64.6		51.3	50.7	90.8	51.2	58.4	62.8	77.1	75.1	52.6		53.8	49.9	54.7	50.8	54.2	55.7	57.6
Dec-20	61.0	65.2	65.3	61.4	57.5	62.2	59.0	62.0	64.8	56.8	62.2	65.5	62.8	68.0			52.1	50.6	82.7	50.8	65.8	69.5	78.5	78.2	53.0	50.1	50.1	69.2	52.3	56.2	58.5	61.8	
Jan-21	62.5	62.7	65.1	68.3	66.0	60.9	64.6	71.3	67.8	60.9	69.7	69.9	63.5	76.8	64.4		53.9	50.5	82.3	53.4	67.5	69.7	72.9	70.2	52.5	50.4	49.4	59.0	51.0	56.8	61.3	62.1	
Feb-21	65.1	65.0	73.2	73.9	76.5	68.9	69.3	78.3	73.8	64.7	70.8	78.1	69.0	80.1	74.1		55.6	50.6	83.5	56.0	73.0	75.8	76.8	66.5	52.4	50.7	50.4	58.1	51.6	58.2	62.1	57.9	
Mar-21	68.4	69.5	74.8	79.7	82.3	82.8	75.8	83.7	78.4	75.2	75.9	83.8	74.8	80.6	71.3		59.9	50.8	87.3	57.0	81.9	81.2	72.6	74.2	51.7	51.5	52.9	61.5	51.8	57.3	63.4	64.6	
Apr-21	69.7	71.7	77.2	82.2	85.7	84.6	79.0	84.3	81.8	76.3	81.6	86.3	78.3	80.4	74.1		60.4	50.9	86.8	60.3	85.8	84.5	76.3	70.3	55.1	52.7	51.1	62.0	53.8	59.4	62.9	64.3	
May-21	71.7	72.5	78.1	87.1	91.3	86.7	79.8	93.1	81.9	78.9	83.7	90.1	80.1	87.6	82.1		62.4	51.0	81.1	57.0	93.0	85.0	74.4	71.4	55.2	53.2	50.6	64.4	56.0	57.0	62.8	65.4	
Jun-21	70.7	72.5	82.8	88.5	91.5	81.4	80.3	92.5	83.0	80.5	89.2	93.9	83.6	89.2	78.8		63.2	51.1	84.0	59.6	93.5	88.2	76.0	75.7	55.9	53.0	51.8	56.7	55.2	57.0	63.5	57.8	
Jul-21	71.2	72.0	86.7	89.2	93.0	75.5	84.1	93.7	81.7	79.5	88.6	96.7	79.6	87.5	84.6		66.7	51.3	81.0	62.6	96.7	84.9	71.8	77.1	53.9	51.5	52.3	55.6	55.4	56.7	65.5	66.6	
Aug-21	70.3	77.2	87.5	87.0	88.1	84.6	80.3	93.0	78.8	74.6	84.1	93.5	80.7	86.4	81.3		64.5	51.4	79.1	59.4	89.1	79.4	65.8	70.0	57.9	51.4	52.0	56.2	55.3	56.3	66.2	65.7	
Sep-21	71.2	77.4	87.0	86.9	90.2	80.1	85.5	90.3	89.6	82.9	82.3	87.8	82.7	84.4	78.1		68.0	51.7	78.1	55.3	86.5	78.1	65.0	70.2	59.3	52.5	51.4	58.6	57.3	57.5	65.7	66.0	

**PMI SERVICES - INPUT PRICES**

	World	USA	EURO ZONE	FRANCE	GERMANY	IRELAND	ITALY	SPAIN	UK	AUSTRALIA	JAPAN	BRAZIL	RUSSIA	CHINA	INDIA
Nov-20	57.6	63.7	51.5	49.8	52.3	57.6	50.9	52.6	52.8	51.8	49.5	64.1	64.5	57.5	54.7
Dec-20	58.3	64.7	53.1	51.9	55.8	54.8	50.9	51.8	57.1	51.4	66.5	60.4			55.2
Jan-21	58.9	66.9	53.2	52.2	53.7	54.2	52.5	54.9	54.5	62.6	50.6	65.2	57.9	56.4	54.9
Feb-21	60.4	70.1	53.2	49.7	53.2	56.5	55.6	56.2	58.6	64.4	50.2	63.8	63.8	55.6	57.1
Mar-21	62.5	72.7	55.6	52.4	59.0	60.6	54.4	54.6	64.0	64.7	54.3	69.6	65.1	53.7	56.8
Apr-21	63.2	73.3	57.6	55.6	60.5	59.9	52.6	60.2	64.9	69.7	54.0	69.3	62.2	54.5	57.8
May-21	65.3	77.1	59.6	54.8	63.0	65.3	58.2	61.3	67.3	68.1	52.9	66.5	68.3	56.6	56.7
Jun-21	64.1	74.2	63.2	56.0	70.0	66.5	60.0	64.4	71.8	65.4	52.5	67.5	62.4	50.9	56.5
Jul-21	64.1	72.3	63.1	58.0	67.7	68.5	61.3	63.2	74.2	74.1	53.8	64.2	61.8	54.8	56.7
Aug-21	63.8	72.5	63.3	58.5	68.7	70.3	59.9	62.5	72.3	71.5	53.7	68.5	61.2	52.1	57.1
Sep-21	65.2	74.1	65.2	63.9	67.9	70.8	60.9	65.2	73.5		54.0	73.2	63.1		55.7

**PMI MANUFACTURING - OUTPUT PRICES**

	WD	Developed Markets																	Emerging countries														
		NA		Europe										Asia-Oceania					LATAM	Eurasia				Middle East & Africa			Asia						
		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
Nov-20	53.2	54.7	56.2	51.6	50.3	49.3	51.7	51.5	48.7	53.4	51.7	54.7	49.9	53.7			49.3	79.9	46.1	50.0	51.1	58.3	64.3	51.7	51.6	52.3	48.3	48.3	49.5	51.4	50.3	51.5	
Dec-20	54.5	59.0	58.6	52.6	50.8	40.7	51.8	52.2	49.7	51.9	52.0	60.1	53.5	55.2			50.1	69.5	46.1	51.8	51.5	60.6	63.0	50.8	51.3	50.5	49.2	47.4	51.1	52.4	52.4		
Jan-21	55.0	55.8	60.4	52.2	51.4	44.8	52.1	51.3	50.3	54.5	52.4	55.9	53.5	57.9			51.1	68.5	45.9	51.5	57.2	59.3	60.6	50.5	52.6	50.3	49.4	47.1	53.1	51.7	51.8		
Feb-21	55.7	56.3	60.6	56.5	55.7	40.7	52.8	57.4	55.1	56.9	58.1	59.2	54.5	61.2			51.0	73.0	45.9	52.1	61.9	66.3	54.2	50.3	52.1	50.9	49.2	47.7	52.2	53.7	51.6		
Mar-21	59.3	61.6	69.1	60.9	60.8	67.1	58.3	62.8	61.2	58.1	59.9	63.3	58.5	63.7			51.9	73.3	46.7	58.7	66.0	65.3	62.1	50.4	58.3	49.0	49.5	49.7	52.0	53.1	54.6		
Apr-21	59.8	63.3	68.0	64.3	62.4	67.2	63.8	64.4	64.6	62.8	65.5	66.7	62.6	65.3			51.4	77.2	48.6	61.6	69.0	67.1	61.8	51.8	56.2	50.7	51.1	49.3	54.2	52.9	56.9		
May-21	62.6	65.9	70.9	69.1	67.9	68.6	65.8	70.6	66.3	64.6	72.0	70.4	65.1	68.3			51.5	76.5	47.5	65.5	73.8	66.9	62.3	51.3	50.8	51.0	49.8	52.7	53.3	51.5	58.0		
Jun-21	60.8	64.9	70.9	71.1	68.4	64.2	66.4	73.7	69.5	66.3	71.6	77.1	67.1	73.2			51.6	72.5	49.3	68.7	76.2	66.2	66.4	51.0	54.6	51.1	50.1	52.5	52.1	52.9	50.8		
Jul-21	60.3	65.2	72.8	71.9	73.2	69.1	66.8	75.1	64.9	68.9	72.6	77.1	63.9	73.1			53.3	69.5	50.0	72.6	72.6	61.1	64.7	50.7	55.1	51.9	50.4	52.1	51.7	53.2	53.6		
Aug-21	60.1	65.1	73.2	68.6	69.0	60.0	61.6	72.6	61.0	66.0	68.1	72.4	62.7	71.6			54.4	69.3	49.5	72.6	72.0	62.3	61.1	54.4	52.0	53.1	49.6	54.8	52.3	53.5	53.9		
Sep-21	60.9	67.7	73.9	70.4	73.0	56.7	66.7	73.3	67.7	69.3	68.4	74.9	64.8	71.9			54.9	66.3	48.6	70.6	71.4	57.2	61.6	52.2	50.9	51.1	48.7	53.7	52.0	54.3	51.3		



SOURCE: MARKIT, BNP PARIBAS



# ECONOMIC PULSE

## EUROZONE: CONFIDENCE SURVEYS SHOW SOME RESILIENCE IN SEPTEMBER

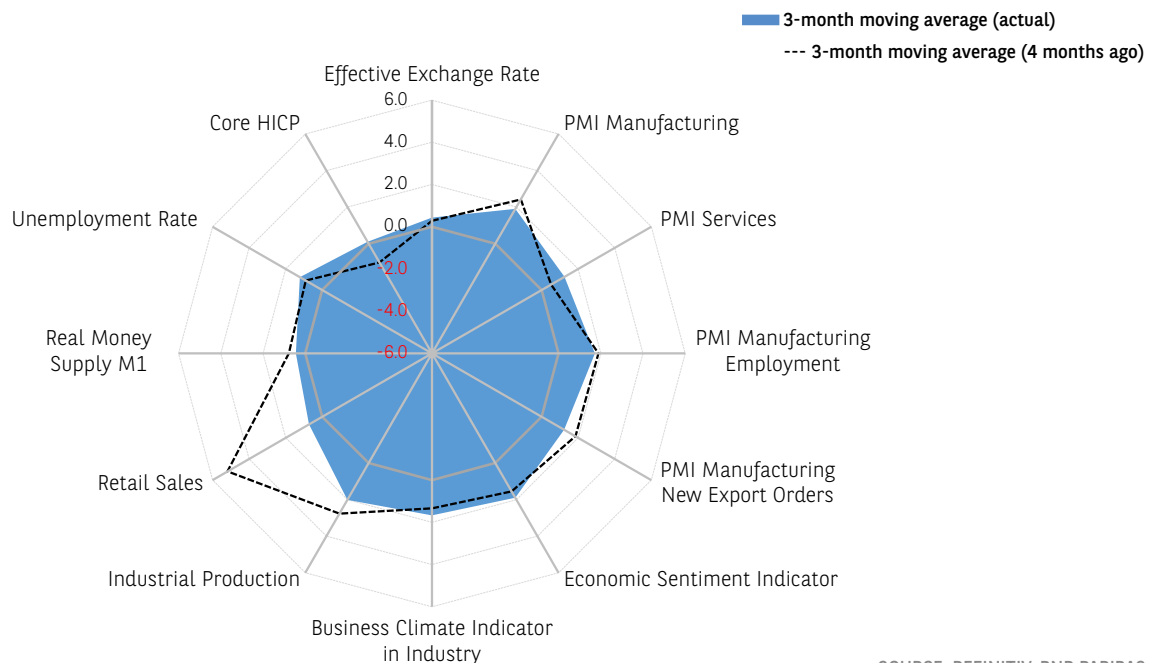
According to our Pulse, the economic situation in the euro zone remains good (the blue area exceeds the grey hendecagon indicating the long-term average of the various indicators) and is relatively stable relative to the previous three months (the blue area is close to that delimited by the dotted line), with the notable exception of retail sales. This exception is not a cause of concern: the fall in year-on-year growth rates (since May) reflects a normalisation after the average for the previous three months was skewed upwards by the highly favourable base effect in March and April. Even so, we will pay close attention to this indicator over the next few months as it will show us to what extent the current surge in inflation is eating into household consumption. The good news, in the meantime, comes from the dampening effect of a well-oriented labour market (the unemployment rate fell to 7.5% in August, the same level as in December 2019, before the crisis). It is also worth keeping in mind that in August 2021 retail sales (excluding cars) were more than 4% above their pre-Covid levels, a performance driven by Germany and France (where retail sales were 7% and 5% respectively above their pre-crisis levels). In Italy, the indicator has only just returned to its pre-Covid level and in Spain it is still 3% lower. It is interesting to note that the league table is reversed when it comes to industrial production (excluding construction), except for Spain where production is also still below its pre-crisis level (by 1%). In Italy, production exceeded pre-Covid levels by 3% in July (the latest figure available), whilst in Germany and France it was 7% and 2% lower respectively, affected by the difficulties in the automotive sector. At the aggregate euro zone level, production in July (latest figure available) was nevertheless 2% above its pre-crisis level.

Turning to business climate surveys, the picture that emerges from September's data is one of resilience. Granted, Markit's PMI figures dropped more sharply than in August (with the composite index losing 3 points, after a 1-point fall the month before) but they remained very high (56.2 for the composite, 58.6 for the manufacturing index and 56.4 for services). And the European Commission's sentiment indicator remained unchanged at 118.

Inflation is continuing to surge ahead. Eurostat's preliminary estimate for September 2021 is 3.4% y/y (0.4 of a point higher than in August and nearly 4 points higher than in September 2020), the highest level since September 2008. This increase in inflation continues to be driven mainly by its energy component (which has contributed 1.7 points, or half of the total). There is also a base effect behind the rise in core inflation (at 1.9% this has also been at its highest since the autumn of 2008).

Hélène Baudchon

### EUROZONE: 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

## UNITED STATES: DAMAGING TARDINESS

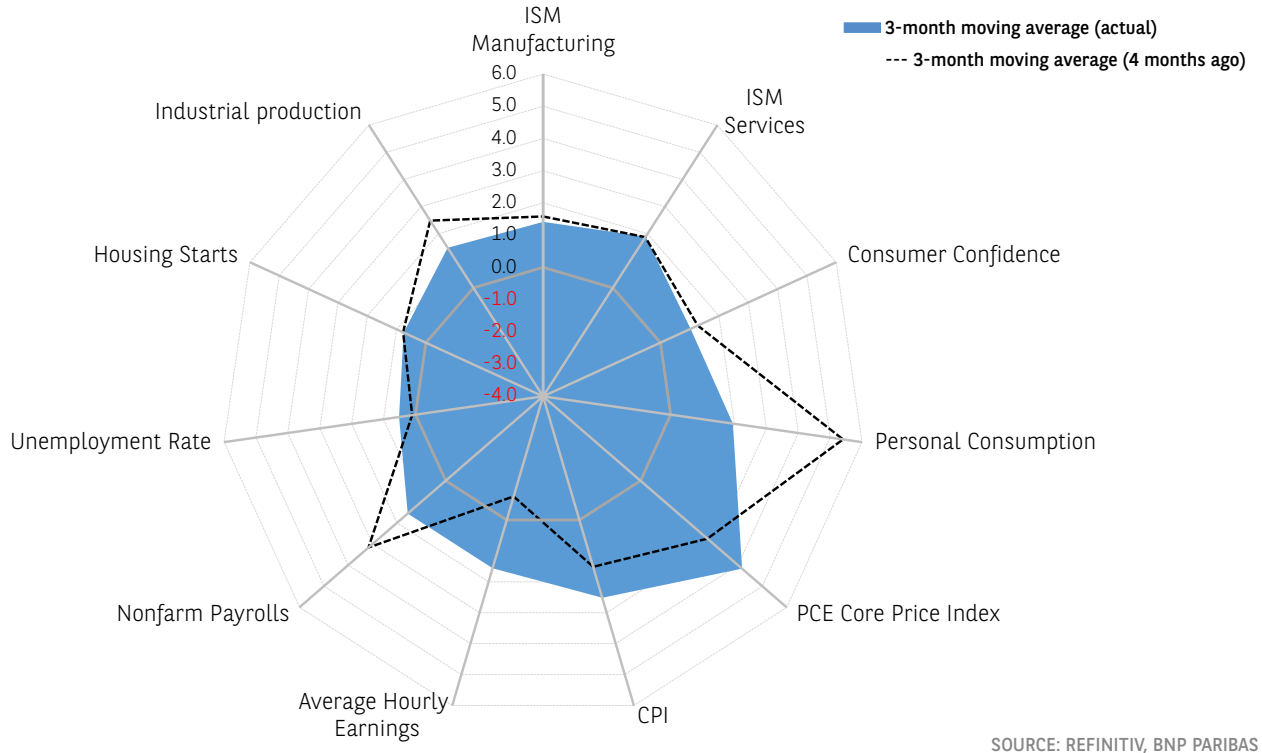
One of the shocking paradoxes of America, cradle of the miracle of vaccines against Covid-19, is that the country is still seeing daily death numbers in the thousands. At the beginning of October, the country passed the sombre milestone of 700,000 deaths, and has the lowest level of vaccination coverage in the G7 (64 people over 100 covered by at least one dose against, for example, 75 people in Italy and France). The spread of the Delta variant over the summer months alone probably accounted for nearly 100,000 deaths. Noting that virtually none of the victims was vaccinated<sup>1</sup>, the White House decided to step things up: on 9 September, President Biden signed a decree obliging anybody operating in the federal area (civil servants, subcontractors, public sector teachers, etc.) to be vaccinated. Major private sectors were enjoined, on pain of penalties, to do the same or, failing that, to test their employees on a weekly basis. At the time of writing, the tightening of federal policy was bearing fruit, with the number of injections rising to around one million per day.

The still-too-deadly wave of the epidemic over the summer may have contributed to the slowing of the recovery in employment. In September, the US economy created only 194,000 nonfarm jobs (against an expected figure of 500,000), which took the total to 1.7 million for the third quarter, slightly less than the second. Unsurprisingly, recruitment focused on sectors exposed to an upturn in travel and gatherings of people—hotels, restaurants, recreation, entertainment—and remained strong in online commerce. At 4.8% the unemployment rate is closing on the figure expected by the Federal Reserve for the year end. It is nevertheless far from a normal situation, with activity rates, in particular, well below their pre-pandemic level. The mismatch between supply and demand in the labour market, as reflected in the high number of vacancies, is still a problem.

Jean-Luc Proutat

1. In a CNBC interview in July, leading immunologist indicated that more than 99% of recent Covid-19 fatalities (those who died in June) were not vaccinated.

### UNITED STATES: QUARTERLY CHANGES



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

## COVID-19: THE DECLINE OF NEW CASES CONTINUES

The number of daily new Covid-19 cases reported worldwide continues to decline. Some 3.1 million new cases were recorded between 29 September and 5 October, a fall of 8% on the previous week (chart 1). The number of deaths also decreased by 10%, reaching its lowest level since the autumn of 2020. However, in Europe there is an rising trend in pandemic-related indicators, with cases up by 11% and deaths by 9%, with the increases mainly concentrated in the east of the continent. To date, 6.41 billion vaccine doses have been given around the world, taking the share of the global population having received at least one jab to 46.1%. However, in certain parts of the world, vaccine coverage remains low: only 2.4% of people in low-income countries have received at least their first dose (chart 2).

Meanwhile, there has been a recent drop in visits to retail and recreation facilities in France, Italy, Belgium, Japan and the UK, but continued increases in Germany, Spain and the USA. It is worth noting that in Belgium such visits are still at their pre-pandemic levels, despite recent falls (chart 3).

Lastly, the weekly proxy indicator for GDP relative to its level two years ago continued to recover in the USA and UK, but weakened in Germany, France, Spain, Italy and Japan after a short-lived rebound. In Belgium, this indicator has risen slightly after a brief dip (chart 3). The OECD Tracker is based on Google Trends resulting from queries on consumption, the labour market, housing, industrial activity as well as uncertainty. The change over a two-year period (y/2y) is calculated to avoid the base effect that would arise from a comparison with 2020 data.

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)

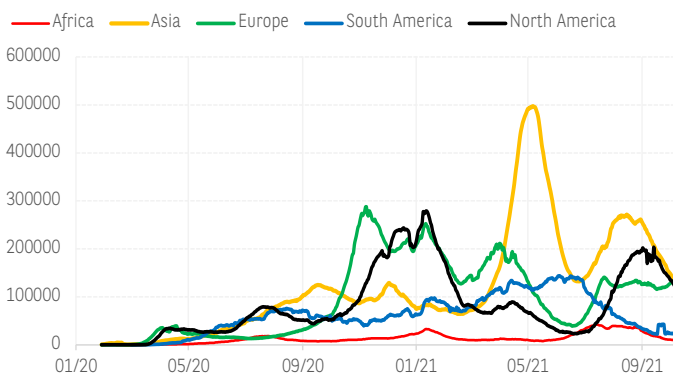


CHART 1

SOURCE: JOHNS-HOPKINS UNIVERSITY (10/07/2021), BNP PARIBAS

SHARE OF PEOPLE WHO RECEIVED AT LEAST ONE DOSE OF VACCINE

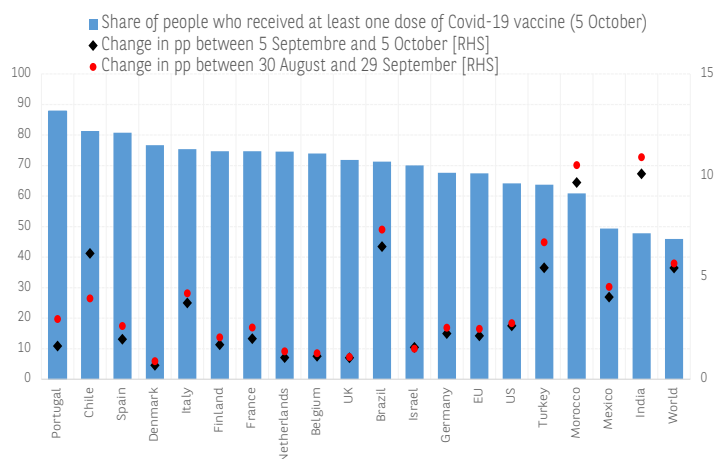


CHART 2

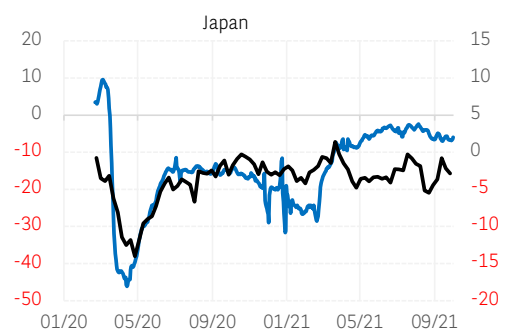
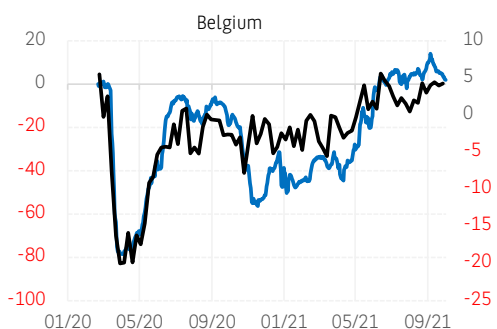
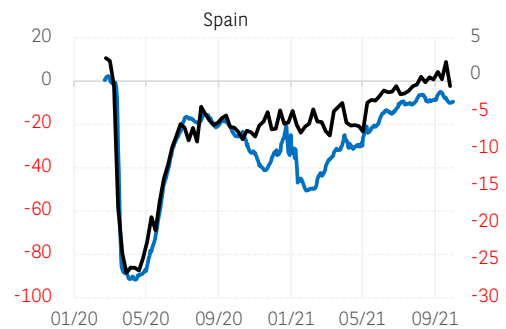
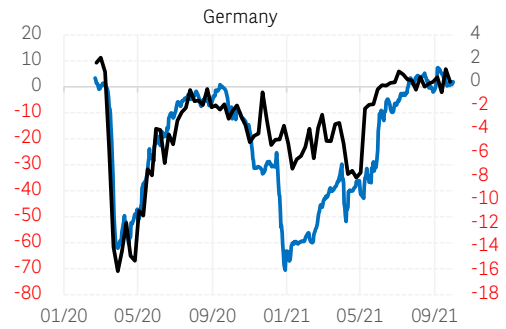
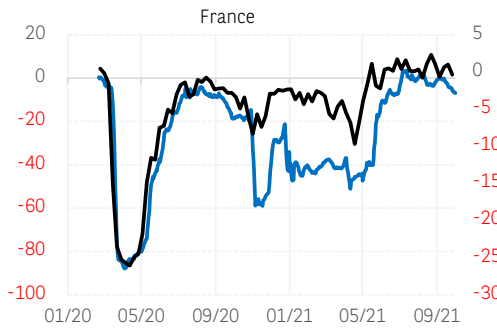
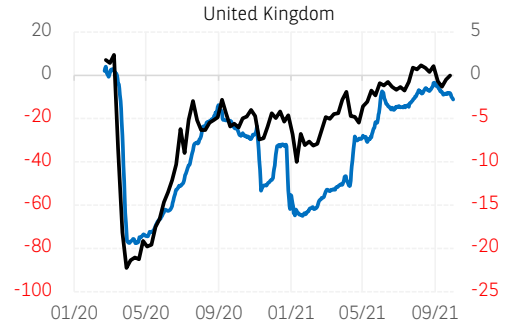
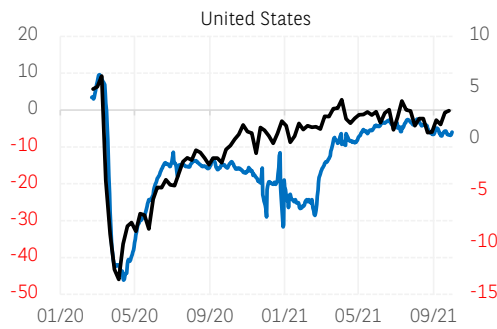
SOURCE: OUR WORLD IN DATA (10/07/2021), BNP PARIBAS



RETAIL AND RECREATION MOBILITY & OECD WEEKLY TRACKER

— Retail and recreation mobility (7-day moving average, % from baseline\*)

— OECD Weekly tracker, y/2y GDP growth [RHS]

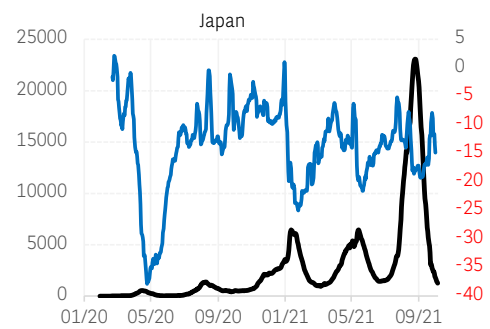
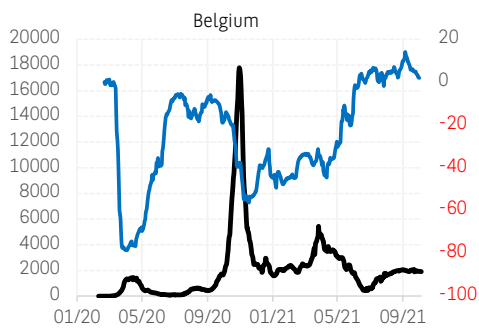
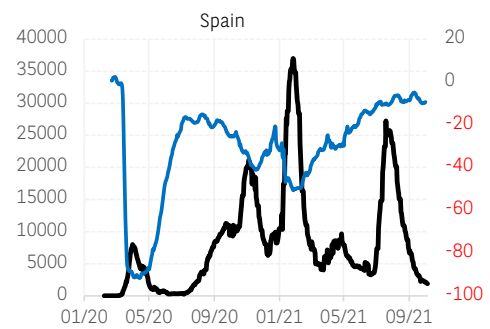
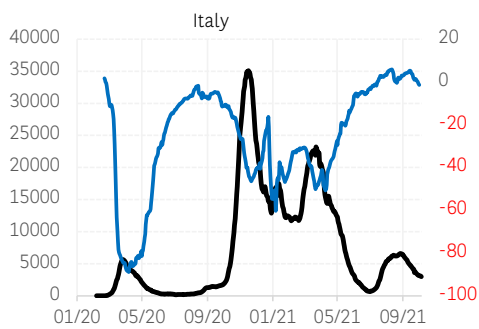
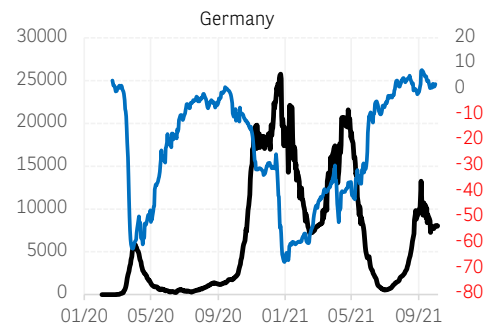
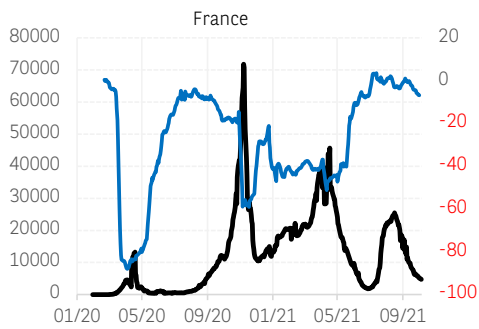
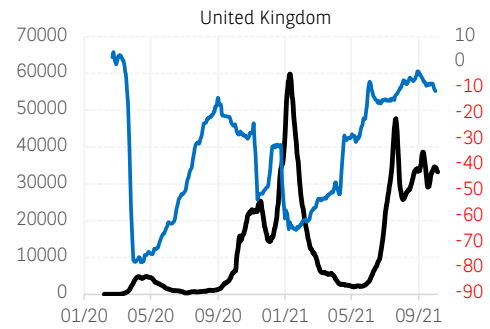
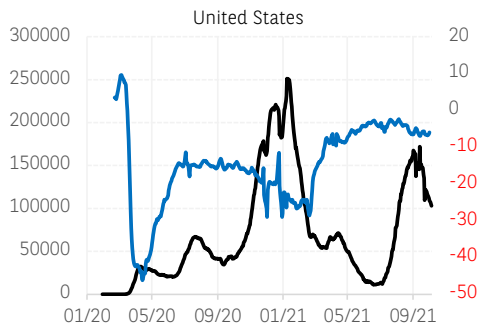


SOURCE: OECD (10/07/2021), GOOGLE (10/07/2021), BNP PARIBAS



DAILY NEW CASES & RETAIL AND RECREATION MOBILITY

— Daily new confirmed cases of Covid-19 (7-day moving average)  
 — Retail and recreation mobility (7-day moving average, % from baseline\*)[RHS]



SOURCE: JOHNS-HOPKINS UNIVERSITY (10/07/2021), GOOGLE (10/07/2021), BNP PARIBAS



# ECONOMIC SCENARIO

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## UNITED STATES

The US economy, which roared back through to the spring, has now regained its pre-pandemic level and is set to achieve a growth rate of around 6% in 2021. The outlook for the second part of the year looks less sparkling, however. With the vaccination drive running out of steam, the spread of the delta variant is driving up the number of cases and deaths. Business surveys are not as dazzlingly optimistic. The growth rates anticipated remain above potential, however, and would be sufficient to gradually absorb the job shortage caused by the pandemic, with the unemployment rate expected to move towards the 5% mark by the end of the second half of the year. Given the pressures on supply chains and commodity prices, inflation, currently close to 5%, is unlikely to pull back in the immediate term. Indeed, it is not expected to subside until late 2021 or early 2022.

## CHINA

China's post-Covid rebound in industrial production and exports peaked at the start of the year and growth rates have been returning to normal. However, the slowdown has been faster than expected during the summer, and has spread to all sectors. This has resulted from various factors, including: the prudent tightening in fiscal policy and domestic credit conditions, the toughening of regulations in sectors such as real estate and tech, supply-chain constraints in the industry, slower export growth as well as new restrictions imposed to deal with the resurgence of the pandemic. In the short term, the vaccine roll-out should continue to accelerate and the authorities are likely to give greater support to domestic demand through monetary and fiscal measures, while continuing regulatory tightening moves.

## EUROZONE

After its strong rebound in Q2 2021, growth is expected to maintain the pace in Q3 (+2.2% QoQ). The various supply constraints mean that growth in the third and fourth quarters is a few tenths below the June forecast, a loss that would be gradually recovered in 2022. The quarterly growth profile should go slightly decrescendo next year. Above all, it would remain well above-trend, supported by the significant monetary and fiscal stimulus, the release of accumulated forced savings and investment needs, to the point where, on an annual average basis, growth would be slightly higher than in 2021 (5.2% after 5%), which distinguishes the Eurozone from the United States and the United Kingdom. The health situation remains a key downside risk. Signs of deteriorating business confidence and mark-ups will also be watched. As for inflation, most of its recent rise is temporary. We expect it to peak in Q4 2021 (nearing 4% in year-on-year terms), before ebbing in 2022. However, it would be at a higher level than before the crisis, as growth strengthens and the reflationary efforts of monetary policy also bear fruit. Our inflation forecasts are above those of the ECB.

## FRANCE

With a Q2 2021 growth carry-over of almost 5%, the forecast of 6% growth in 2021 in annual average terms has a solid chance of being met. It is even likely to be exceeded. The Q3 and Q4 prospects, however, look somewhat less positive than they did heading into the summer. Procurement problems, hiring difficulties and rising input prices are holding back the recovery a bit more significantly than expected. The return to normal activity in the tourism, accommodation and catering, culture, entertainment, trade and transports sectors continues to be hampered by the health situation too. In 2022, these various obstacles should disappear, but the support from the mechanical catching-up effect will also fade. Growth should normalize but remain strong, supported by the fiscal impulse.

## RATES AND EXCHANGE RATES

In the US, the latest signals from the FOMC show that tapering is coming although this should not be considered as signaling a change in guidance on the policy rate. Nevertheless, we expect that in the second half of next year, the FOMC will hike the federal funds rate given the expected decline in the unemployment rate. Against this background, 10-year Treasury yields should move higher in the remainder of the year and in the first half of 2022, before entering a trading range. The peak in yields should be significantly lower than in previous cycles.

In the eurozone, the ECB will maintain its very accommodative policy centered around its asset purchases and forward guidance, in order to generate a lasting pick-up in inflation towards its target. The outcome of the strategy review has clearly confirmed this. We expect net purchases under the PEPP to stop at the end of March 2022,

based on the view that, by then, the pandemic emergency phase will be considered to be behind us. On that occasion, the monthly volume under the traditional asset purchase program should be increased to avoid market disruption. 10-year Bund yields are expected to rise until the first half of 2022 based on the growth and inflation environment. Higher US yields will also play a role. Subsequently, we expect Bunds to stay in a trading range.

Sovereign spreads could widen somewhat in the fourth quarter of this year and early next year on the back of election-related uncertainty. The extent of the widening should be limited, considering ongoing asset purchases by the ECB and the prospect that the ending of net purchases under the PEPP would be accompanied by an increase of the APP.

The Bank of Japan is expected to maintain its current policy stance over the forecast horizon, whilst allowing the 10-year JGB yield to drift higher under the influence of globally rising yields, towards the upper bound of its target range of 0 to 25bp.

We expect the dollar to strengthen versus the euro, driven by widening yield differentials and the growing monetary policy divergence between the Federal Reserve and the ECB. The divergence will also increase between the Fed and the BoJ, which explains our forecast of an appreciation of the dollar versus the yen.

### GROWTH & INFLATION

%	GDP Growth			Inflation		
	2021 e	2022 e	2023 e	2021 e	2022 e	2023 e
United-States	6.0	5.3	3.3	4.2	2.8	2.4
Japan	2.1	2.4	1.6	-0.2	0.3	0.5
United-Kingdom	7.0	6.3	2.1	2.3	3.3	2.0
Euro Area	5.0	5.2	2.3	2.4	2.1	1.7
Germany	2.8	5.3	2.4	3.0	2.4	1.9
France	6.3	4.3	2.1	2.0	1.9	1.6
Italy	6.3	5.1	2.8	1.9	2.2	1.4
Spain	6.1	6.4	3.4	2.6	2.2	1.4
China	7.8	5.6	5.4	1.2	2.8	2.5
India*	7.0	11.2	6.2	5.4	4.5	4.3
Brazil	5.0	1.5	2.0	7.8	6.3	3.6
Russia	4.5	3.3	2.6	6.0	5.0	4.1

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

### INTEREST & EXCHANGE RATES

#### Interest rates, %

End of period		Q4 2021 e	Q2 2022 e	Q4 2022 e	Q4 2023 e
US	Fed Funds (upper limit)	0.25	0.25	0.50	1.25
	T-Notes 10y	1.70	1.90	2.00	1.90
	Ezone	-0.50	-0.50	-0.50	-0.50
Ezone	Deposit rate	-0.10	0.00	-0.10	0.10
	Bund 10y	0.40	0.40	0.20	0.40
	OAT 10y	1.10	1.10	1.00	1.20
	BTP 10y	0.70	0.70	0.70	0.90
UK	Base rate	0.10	0.30	0.50	0.80
	Gilts 10y	0.90	1.10	1.10	1.20
Japan	BoJ Rate	-0.10	-0.10	-0.10	-0.10
	JGB 10y	0.10	0.20	0.20	0.20

#### Exchange Rates

End of period		Q4 2021 e	Q2 2022 e	Q4 2022 e	Q4 2023 e
USD	EUR / USD	1.15	1.13	1.12	1.10
	USD / JPY	111	112	114	116
	GBP / USD	1.37	1.36	1.37	1.38
EUR	EUR / GBP	0.84	0.83	0.82	0.80
	EUR / JPY	128	127	128	128

#### Brent

End of period		Q4 2021 e	Q2 2022 e	Q4 2022 e	Q4 2023 e
Brent	USD/bbl	74	72	73	80

SOURCE: BNP PARIBAS GLOBAL MARKETS (E: ESTIMATES)



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## CALENDAR

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## LATEST INDICATORS

There was little change in the PMI data compared to the flash estimates published for several countries one week earlier. The services and composite PMIs remain at a high level -their recent evolution is discussed in the Pulse devoted to the PMIs- with the exception of Japan, where they are still below 50. Importantly, data were better in China. In the US, the ISM services index moved unexpectedly slightly higher. German factory orders growth slowed down much more than anticipated by the consensus. Eurozone monthly retail sales growth turned positive in August but the increase came in below expectations. In Japan, the EcoWatchers survey saw a big jump as far as the outlook is concerned, beating expectations by a wide margin. The US labour market report disappointed compared to expectations in terms of new jobs being created although this partly reflects a decline in non-teacher education employment. In addition, there was an upward revision for the payroll gains in the previous two months. The decline in the unemployment rate reflects a lower participation rate.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
10/04/2021	United States	Cap Goods Orders Nondef Ex Air	Aug.	0.5%	0.6%	0.5%
10/04/2021	United States	Cap Goods Ship Nondef Ex Air	Aug.	--	0.8%	0.7%
10/05/2021	Japan	Jibun Bank Japan PMI Services	Sep.	--	47.8	47.4
10/05/2021	Japan	Jibun Bank Japan PMI Composite	Sep.	--	47.9	47.7
10/05/2021	France	Industrial Production MoM	Aug.	0.4%	1.0%	0.5%
10/05/2021	France	Markit France Services PMI	Sep.	56.0	56.2	56.0
10/05/2021	France	Markit France Composite PMI	Sep.	55.1	55.3	55.1
10/05/2021	Germany	Markit Germany Services PMI	Sep.	56.0	56.2	56.0
10/05/2021	Germany	Markit/BME Germany Composite PMI	Sep.	55.3	55.5	55.3
10/05/2021	Eurozone	Markit Eurozone Services PMI	Sep.	56.3	56.4	56.3
10/05/2021	Eurozone	Markit Eurozone Composite PMI	Sep.	56.1	56.2	56.1
10/05/2021	United Kingdom	Markit/CIPS UK Services PMI	Sep.	54.6	55.4	54.6
10/05/2021	United Kingdom	Markit/CIPS UK Composite PMI	Sep.	54.1	54.9	54.1
10/05/2021	Eurozone	PPI MoM	Aug.	1.3%	1.1%	2.5%
10/05/2021	Eurozone	PPI YoY	Aug.	13.5%	13.4%	12.4%
10/05/2021	United States	Markit US Services PMI	Sep.	54.4	54.9	54.4
10/05/2021	United States	Markit US Composite PMI	Sep.	--	55.0	54.5
10/05/2021	United States	ISM Services Index	Sep.	59.9	61.9	61.7
10/06/2021	Germany	Factory Orders WDA YoY	Aug.	16.4%	11.7%	26.1%
10/06/2021	Germany	Markit Germany Construction PMI	Sep.	--	47.1	44.6
10/06/2021	United Kingdom	Markit/CIPS UK Construction PMI	Sep.	54.0	52.6	55.2
10/06/2021	Eurozone	Retail Sales MoM	Aug.	0.8%	0.3%	-2.6%
10/07/2021	United States	Initial Jobless Claims	Oct. 2	348k	326k	364k
10/08/2021	China	Caixin China PMI Composite	Sep.	--	51.4	47.2
10/08/2021	China	Caixin China PMI Services	Sep.	49.2	53.4	46.7
10/08/2021	United States	Change in Nonfarm Payrolls	Sep.	500k	194k	366k
10/08/2021	United States	Unemployment Rate	Sep.	5.1%	4.8%	5.2%
10/08/2021	United States	Average Hourly Earnings MoM	Sep.	0.4%	0.6%	0.4%
10/08/2021	United States	Average Weekly Hours All Employees	Sep.	34.7	34.8	34.6
10/08/2021	United States	Labor Force Participation Rate	Sep.	61.8%	61.6%	61.7%
10/08/2021	United States	Underemployment Rate	Sep.	--	8.5%	8.8%
10/08/2021	Japan	Eco Watchers Survey Current SA	Sep.	43.0	42.1	34.7
10/08/2021	Japan	Eco Watchers Survey Outlook SA	Sep.	48.5	56.6	43.7

SOURCE: BLOOMBERG



## CALENDAR: THE WEEK AHEAD

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## COMING INDICATORS

A rather light week ahead of us in terms of data. Inflation numbers will be published in Germany, France, the US and China. The Banque de France will release its industrial sentiment index and the ZEW survey will become available for Germany and the Eurozone. China will publish data on exports and imports. In the US, attention will go to the FOMC minutes and what they say about scaling back the pace of asset purchases, but we will also have retail sales, small business sentiment, initial unemployment claims and University of Michigan sentiment.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
10/11/2021	United Kingdom	Monthly GDP (3M/3M)	Aug	--	3.60%
10/11/2021	United Kingdom	Monthly GDP (MoM)	Aug	--	0.10%
10/11/2021	France	Bank of France Ind. Sentiment	Sep	--	104
10/12/2021	United Kingdom	Employment Change 3M/3M	Aug	--	183k
10/12/2021	Germany	ZEW Survey Expectations	Oct	--	26.5
10/12/2021	Germany	ZEW Survey Current Situation	Oct	--	31.9
10/12/2021	Eurozone	ZEW Survey Expectations	Oct	--	31.1
10/12/2021	United States	NFIB Small Business Optimism	Sep	--	100.1
10/13/2021	Japan	Core Machine Orders MoM	Aug	--	0.90%
10/13/2021	Germany	CPI EU Harmonized YoY	Sep	--	4.10%
10/13/2021	Eurozone	Industrial Production SA MoM	Aug	--	1.50%
10/13/2021	United States	CPI MoM	Sep	0.30%	0.30%
10/13/2021	United States	CPI Ex Food and Energy MoM	Sep	0.20%	0.10%
10/13/2021	United States	CPI YoY	Sep	5.30%	5.30%
10/13/2021	United States	CPI Ex Food and Energy YoY	Sep	4.00%	4.00%
10/13/2021	United States	FOMC Meeting Minutes	Sep	--	--
10/13/2021	China	Exports YoY CNY	Sep	--	15.70%
10/13/2021	China	Imports YoY CNY	Sep	--	23.10%
10/14/2021	China	CPI YoY	Sep	0.90%	0.80%
10/14/2021	China	PPI YoY	Sep	10.50%	9.50%
10/14/2021	United States	Initial Jobless Claims	Oct	--	--
10/14/2021	United States	PPI Ex Food and Energy YoY	Sep	--	6.70%
10/15/2021	Eurozone	EU27 New Car Registrations	Sep	--	-19.10%
10/15/2021	France	CPI EU Harmonized MoM	Sep	--	-0.20%
10/15/2021	France	CPI EU Harmonized YoY	Sep	--	2.70%
10/15/2021	United States	Retail Sales Advance MoM	Sep	-0.20%	0.70%
10/15/2021	United States	Retail Sales Control Group	Sep	0.50%	2.50%
10/15/2021	United States	U. of Mich. Sentiment	Oct	--	72.8
10/15/2021	United States	U. of Mich. Current Conditions	Oct	--	80.1
10/15/2021	United States	U. of Mich. Expectations	Oct	--	68.1
10/15/2021	United States	U. of Mich. 1 Yr Inflation	Oct	--	4.60%
10/15/2021	United States	U. of Mich. 5-10 Yr Inflation	Oct	--	3.00%

SOURCE: BLOOMBERG



## FURTHER READING

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<a href="#">India: consolidation in progress</a>	EcoTVWeek	8 October 2021
<a href="#">4<sup>th</sup> quarter 2021 issue</a>	EcoPerspectives	7 October 2021
<a href="#">Eurozone: headline inflation at its highest since 2008</a>	Chart of the Week	6 October 2021
<a href="#">Global : Bad inflation clouds outlook</a>	EcoWeek	4 October 2021
<a href="#">Deterioration of public finances in Colombia: why and should we be concerned?</a>	EcoTVWeek	1 October 2021
<a href="#">India: a small fiscal consolidation</a>	Chart of the Week	29 September 2021
<a href="#">Spain: the tortuous path to reindustrialisation</a>	EcoConjoncture	28 September 2021
<a href="#">China's public finances, a tangled web</a>	EcoConjoncture	28 September 2021
<a href="#">China : China's public finances, a tangled web</a>	EcoWeek	27 September 2021
<a href="#">Global : The extra deposits created will not evaporate</a>	EcoTVWeek	24 September 2021
<a href="#">Eurozone : State-guaranteed loans account for 6.9% of all loans to NFCs</a>	Chart of the Week	22 September 2021
<a href="#">United Kingdom : Taxes are coming: Fall 2021 update on the UK economy</a>	EcoFlash	22 September 2021
<a href="#">Eurozone : Upside risks to inflation</a>	EcoWeek	20 September 2021
<a href="#">France: second phase of the crisis exit strategy</a>	EcoTVWeek	17 September 2021
<a href="#">Greece: A quicker-than-expected recovery</a>	Chart of the Week	15 September 2021
<a href="#">Eurozone : ECB: accommodation with no end in sight</a>	EcoWeek	13 September 2021
<a href="#">Growth in Turkey: Too much of a good thing?</a>	EcoTVWeek	10 September 2021
<a href="#">September issue</a>	French Economy Pocket Atlas	9 September 2021
<a href="#">Zambia: a relief for an over-indebted economy</a>	Chart of the Week	8 September 2021
<a href="#">Global : Fed adapts forward guidance, will ECB do the same?</a>	EcoWeek	6 September 2021





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