

2

EDITORIAL

"Central banks: the need and courage to act"

4

MARKETS OVERVIEW

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

6

ECONOMIC PULSE

Analysis of the recent economic data: PMI, United States, Eurozone, vaccination & mobility

14

ECONOMIC SCENARIO

Main economic and financial forecasts.

15

CALENDARS

Last week's main economic data and key releases for the week ahead

19

FURTHER READING

Latest articles, charts, videos and podcasts of Economic Research

ECONOMIC RESEARCH



BNP PARIBAS

The bank
for a changing
world

CENTRAL BANKS: THE NEED AND COURAGE TO ACT

Elevated inflation, if left unaddressed, could cause a de-anchoring of inflation expectations, an increase in risk premia, greater price distortion and hence longer-term costs for the economy. Although at first glance, central banks face a dilemma – hiking interest rates to lower inflation at the risk of causing an increase in unemployment or focusing on the labour market and accepting the risk that inflation stays high for longer –, they can only choose between acting swiftly or face an even bigger challenge later to bring inflation back under control. Recent statements by officials of the Federal Reserve, the ECB and the Bank of England acknowledge the need to act but their decisions and guidance are very different and reflect the differences in the macro environment.

In 2015, former Federal Reserve chair Ben Bernanke published 'The courage to act: a memoir of a crisis and its aftermath'. The title springs to mind when watching the recent press conferences of Fed chair Jerome Powell and Bank of England governor Andrew Bailey¹ as well as reading a recent speech of Banque de France governor François Villeroy de Galhau².

Bernanke's book provides great insight into the global financial crisis of 2008-2009, its causes, consequences and the policy action it necessitated. Today, the crisis is about elevated inflation and the longer-term cost it would entail if left unaddressed. There is clearly a need to act but it takes courage, considering that, firstly, part of the jump in prices is caused by a negative supply shock, which acts as a headwind to demand and, secondly, monetary tightening will slow down growth and may even cause an increase in the unemployment rate.

In this respect, A. Bailey was particularly clear. Although the unemployment rate in the UK is expected to decline further in the near-term, to 3.6% in the second quarter, it is projected to reach 5.5% in three years' time given the sharp slowdown in activity, to which monetary tightening will have contributed. J. Powell acknowledged that *"there may be some pain associated with getting back to that [i.e. bringing inflation back to target]"*³. This looks like a highly uncomfortable dilemma, but, according to the central bankers, the way to react is clear. *"The big pain is in not dealing over time, is in not dealing with inflation, and allowing it to become entrenched."*⁴ A similar point was made by F. Villeroy de Galhau: *"entrenched inflation would mean less confidence, higher risk premia, and greater price distortion, hence less long-term growth."*

Although the three central banks have a shared objective – bringing inflation under control –, markets expect their respective journeys to be very different (chart 1). This is a reflection of differences in terms of guidance and macro environment. Quoting A. Bailey, *"the United States is facing what looks like a demand shock..., the euro area by contrast is facing a supply cost shock... and in the UK we're seeing elements*

of both, like the euro area we're experiencing a sharp terms of trade shock... but our strong labour market is more akin to that in the US."

In the US, global supply shocks, strong demand and a very tight labour market force the Federal Reserve to tighten *'expeditiously'*⁵. After the 50bp rate hike at its May meeting, similar increases should follow at the next couple of meetings. Moreover, the reduction of the size of the balance sheet will start in June, although the economic effect is hard to assess with any precision.

In the euro area, the approach will be far more gradual. Compared to the US, the supply shocks play a bigger role, it is more exposed to geopolitical uncertainty caused by the war in Ukraine, wage growth is slower and the labour market is under less pressure than in the US. Based on recent statements of several ECB governing council members, a July hike of the deposit rate looks increasingly likely and more increases should follow.⁶

ONE-YEAR FORWARD RATE CURVES

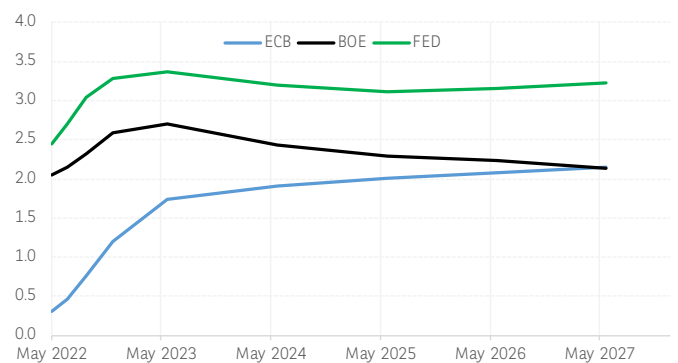


CHART 1

SOURCE: BLOOMBERG, BNP PARIBAS

1. Both press conferences can be watched on YouTube.

2. François Villeroy de Galhau, The Eurosystem and its monetary policy: from an "impossible dilemma" to a possible roadmap for normalization, Paris, 6 May 2022.

3. Federal Reserve, Transcript of Chair Powell's Press Conference, 4 May 2022.

4. The quote is from J. Powell.

5. The quote is from J. Powell.

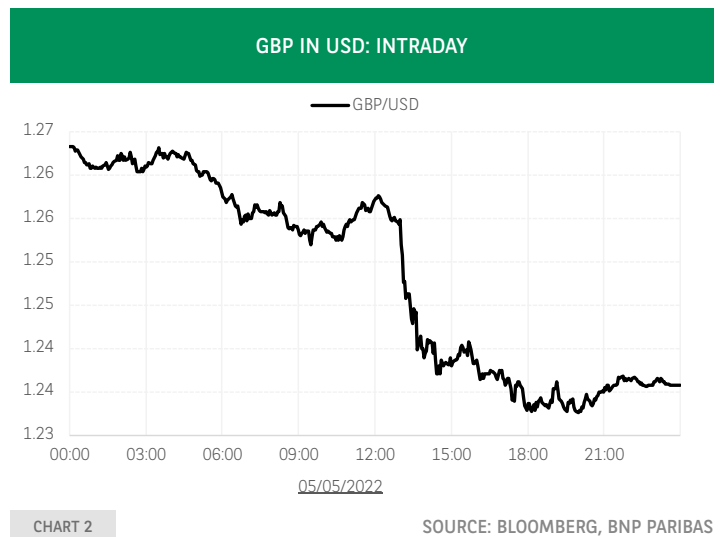
6. In his speech, F. Villeroy de Galhau considered it reasonable, barring unforeseen new shocks, for the deposit rate to have entered positive territory by the end of this year.

The Federal Reserve, the ECB and the Bank of England have a shared objective of bringing inflation under control but also of convincing markets of their decisiveness to act.



Finally, in the UK, more bank rate increases are expected given high and rising inflation – the Bank of England projects average inflation in the fourth quarter this year to peak at 10% –, a very low unemployment rate and accelerating wage growth. Nevertheless, the monetary policy committee members disagree on what this implies in terms of policy, with three of them advocating a 50bp increase rather than the 25bp rate hike decision. Sterling weakened on the news (chart 2), reflecting lingering doubts amongst investors of how much growth risk the Bank of England is willing to take when tightening policy. The ECB's governing council is facing a similar debate. Clearly, the need to convince markets about their decisiveness is another objective that central banks have in common.

William De Vijlder



MARKETS OVERVIEW

OVERVIEW

Week 29-4 22 to 6-5-22

📉 CAC 40	6 534	▶ 6 258	-4.2 %
📉 S&P 500	4 132	▶ 4 123	-0.2 %
📉 Volatility (VIX)	33.4	▶ 30.2	-3.2 pb
📈 Euribor 3M (%)	-0.43	▶ -0.43	+0.3 bp
📈 Libor 3M (%)	1.33	▶ 1.40	+6.7 bp
📈 OAT 10y (%)	1.29	▶ 1.53	+24.2 bp
📈 Bund 10y (%)	0.90	▶ 1.14	+23.7 bp
📈 US Tr. 10y (%)	2.89	▶ 3.13	+23.9 bp
📈 Euro vs dollar	1.05	▶ 1.06	+0.3 %
📉 Gold (ounce, \$)	1 908	▶ 1 886	-1.2 %
📈 Oil (Brent, \$)	107.8	▶ 112.6	+4.4 %

MONEY & BOND MARKETS

Interest Rates

	highest 22	lowest 22
€ ECB	0.00 at 03/01	0.00 at 03/01
Eonia	-0.51 at 03/01	-0.51 at 03/01
Euribor 3M	-0.43 at 25/04	-0.58 at 05/01
Euribor 12M	0.25 at 05/05	-0.50 at 05/01
\$ FED	1.00 at 05/05	0.25 at 03/01
Libor 3M	1.40 at 04/05	0.21 at 03/01
Libor 12M	2.69 at 04/05	0.58 at 03/01
£ BoE	1.00 at 05/05	0.25 at 03/01
Libor 3M	1.23 at 04/05	0.28 at 03/01
Libor 12M	0.81 at 03/01	0.81 at 03/01

At 6-5-22

Yield (%)

	highest 22	lowest 22
€ AVG 5-7y	1.38 at 06/05	-0.04 at 03/01
Bund 2y	0.33 at 06/05	-0.83 at 04/03
Bund 10y	1.14 at 06/05	-0.14 at 24/01
OAT 10y	1.53 at 06/05	0.15 at 04/01
Corp. BBB	2.93 at 06/05	0.90 at 05/01
\$ Treas. 2y	2.66 at 05/05	0.70 at 04/01
Treas. 10y	3.13 at 06/05	1.63 at 03/01
High Yield	7.42 at 06/05	5.07 at 03/01
£ gilt. 2y	1.54 at 21/04	0.69 at 03/01
gilt. 10y	1.98 at 21/04	0.97 at 03/01

At 6-5-22

EXCHANGE RATES

1€ =	highest 22	lowest 22	2022
USD	1.06 at 10/02	1.05 at 28/04	-6.9%
GBP	0.86 at 06/05	0.83 at 14/04	+2.0%
CHF	1.06 at 10/02	1.00 at 04/03	+0.6%
JPY	139.36 at 21/04	125.37 at 04/03	+5.4%
AUD	1.49 at 04/02	1.43 at 05/04	-4.7%
CNY	7.29 at 10/02	6.87 at 14/04	-2.4%
BRL	5.35 at 06/01	5.01 at 21/04	-15.5%
RUB	71.83 at 07/03	68.90 at 05/05	-15.8%
INR	81.42 at 11/02	80.30 at 05/05	-3.7%

At 6-5-22 Change

COMMODITIES

Spot price, \$	highest 22	lowest 22	2022	2022(€)
Oil, Brent	128.2 at 08/03	79.0 at 03/01	+43.6%	+54.3%
Gold (ounce)	1 886 at 08/03	1 785 at 28/01	+3.5%	+11.2%
Metals, LME	4 594 at 07/03	4 489 at 06/01	+2.1%	+9.7%
Copper (ton)	9 411 at 04/03	9 406 at 03/05	-3.4%	+3.8%
wheat (ton)	408 at 07/03	281 at 14/01	+71.6%	+84.4%
Corn (ton)	306 at 29/04	226 at 03/01	+3.4%	+44.1%

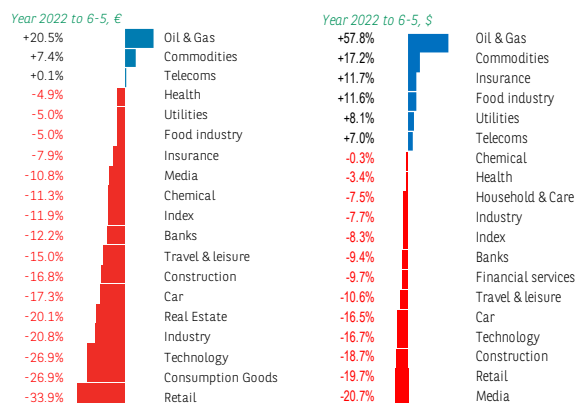
At 6-5-22 Change

EQUITY INDICES

Index	highest 22	lowest 22	2022
World			
MSCI World	2 762 at 04/01	2 762 at 06/05	-14.5%
North America			
S&P500	4 123 at 03/01	4 123 at 06/05	-13.5%
Europe			
EuroStoxx50	3 629 at 05/01	3 505 at 08/03	-15.6%
CAC 40	6 258 at 05/01	5 963 at 08/03	-1.3%
DAX 30	13 674 at 05/01	12 832 at 08/03	-13.9%
IBEX 35	8 322 at 10/02	7 645 at 07/03	-0.4%
FTSE100	7 388 at 10/02	6 959 at 07/03	+0.0%
Asia			
MSCI, loc.	1 092 at 05/01	1 024 at 08/03	-0.4%
Nikkei	27 004 at 05/01	24 718 at 09/03	-6.2%
Emerging			
MSCI Emerging (\$)	1 032 at 12/01	1 027 at 15/03	-1.6%
China	64 at 20/01	59 at 15/03	-22.3%
India	774 at 13/01	742 at 07/03	-5.2%
Brazil	1 568 at 04/04	1 372 at 06/01	-0.8%

At 6-5-22 Change

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

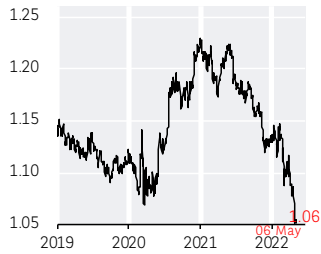


SOURCE: REFINITIV, BNP PARIBAS,



MARKETS OVERVIEW

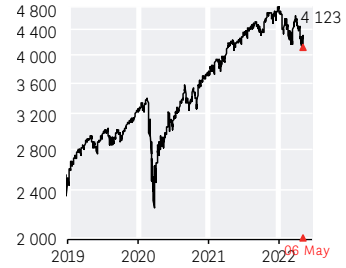
EURO-DOLLAR



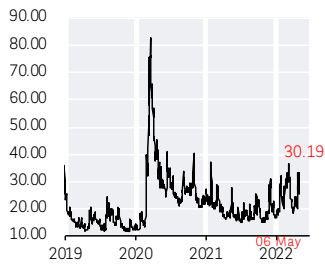
EUROSTOXX50



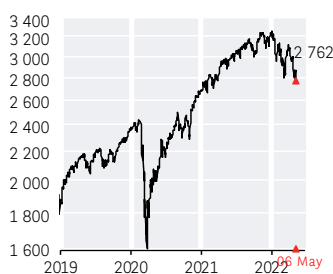
S&P500



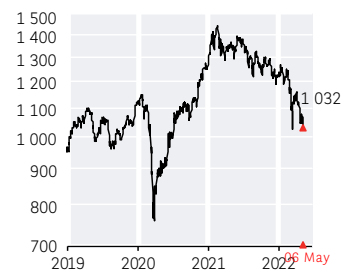
VOLATILITY (VIX, S&P500)



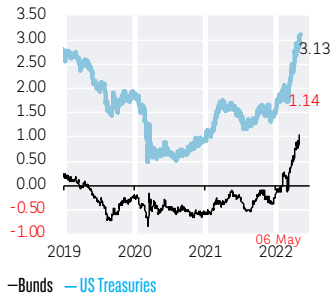
MSCI WORLD (USD)



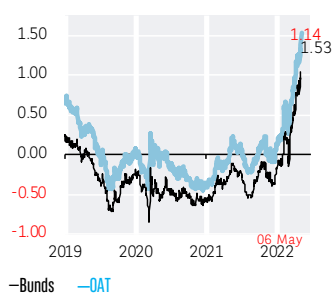
MSCI EMERGING (USD)



10Y BOND YIELD, TREASURIES VS BUND



10Y BOND YIELD



10Y BOND YIELD & SPREADS

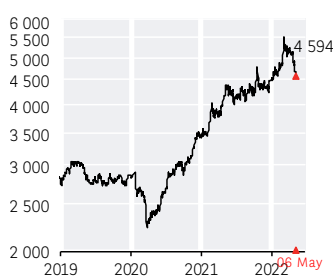
Year 2022 to 6-5

3.49%	Greece	235 bp
3.15%	Italy	201 bp
2.25%	Spain	111 bp
2.17%	Portugal	103 bp
1.72%	Belgium	58 bp
1.53%	France	39 bp
1.48%	Finland	34 bp
1.34%	Austria	20 bp
1.32%	Ireland	18 bp
1.21%	Netherlands	7 bp
1.14%	Germany	

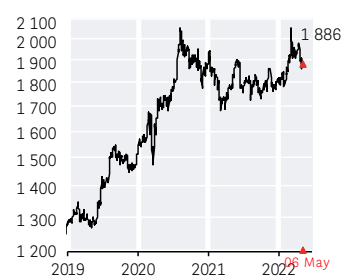
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS



PMI: PRICE PRESSURES INTENSIFY FURTHER IN MANUFACTURING

The global manufacturing PMI edged lower in April. The US and the UK recorded a small increase but there was a big improvement in Australia, Russia and even more so in Hong Kong. The euro area saw a decline but amongst its countries divergences trends were noted with an increase in France and the Netherlands and a decline in Germany and Italy. In China, Covid-19 infections led to a drop in the PMI to 46.0. The services PMI saw a significant decline in the US and a large improvement in the euro area. These developments are the mirror image of what we saw in manufacturing. France and Germany had better data but sentiment jumped in Italy and Spain. Japan had a moderate improvement. Data were significantly better in Brazil. The opposite happened in the UK, whereas the services PMI in China registered a big drop, the consequence of lockdown measures to fight the increase in Covid-19 cases. The index saw a big jump in Hong Kong and India is also doing a lot better.

The employment PMI in manufacturing was a bit weaker in April at the global level. The US saw a decline and the euro area a slight improvement. France, Germany and the Netherlands did better whereas the employment outlook declined in Italy and Spain. The Chinese index declined but there was a considerable improvement in Indonesia and even more so in Vietnam. The assessment of new export orders in manufacturing stabilised at the global level in April at a low level (48.2). There was a further improvement in the US, to a particularly high 56.4 level and a slight weakening in the euro area to 49.0. After the huge drop in March in France, the index rebounded somewhat. The Netherlands and Spain saw bigger improvements. German new exports orders slid further. UK export orders declined in April and Australia recorded a big decline. The downward trend continues in China. India export orders jumped in April after dropping in March. Manufacturing input prices moved higher again at the global level in April, with the US recording a big increase and a more moderate one in the euro area, where price pressures are more elevated (87.8 versus 81.9 in the US). Most euro area countries saw an increase in April, Greece being and in particular Ireland being exceptions. Input prices jumped in the UK. There was moderation in China and Vietnam and an increase in India and Indonesia. Manufacturing output price pressure increased in April and the index is at the highest level of the period under review, which starts in April last year. The US index jumped from 69.7 to 76.3 and in the euro area, a sizeable increase was also recorded. Most euro area countries had higher numbers than in March, with sizeable increases in Austria, Germany, Ireland and Italy. In the UK, the output price index skyrocketed and there was also a big increase in Japan. The index also rose in India. Concerning the delivery times –whereby a decline in the index number points towards longer delivery times- a significant lengthening could be noted at the global level in April. This was also the case in the US, Germany and Ireland. Spain saw a significant shortening of delivery times. Vietnam saw a similar development. In China on the other hand, due to measures address the increase in Covid-19 cases, a dramatic lengthening of delivery times occurred. Finally, services input prices recorded a big increase in the US, Germany, Japan, Brazil, India and, to a lesser degree, the UK. The euro area saw some easing of price pressures, although they remain high.

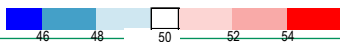
William De Vijlder

MANUFACTURING PMI

	Developed Markets																				Emerging countries															
	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
Aug-21	54.1	57.2	61.1	61.4	61.8	67.2	57.5	62.6	59.3	62.8	60.9	65.8	59.5	67.0	60.3	51.6	40.0	52.7	50.9	53.6	47.1	61.0	56.0	46.5	54.1	49.8	46.6	54.1	56.2	53.8	49.2	53.3	52.3	43.7	40.2	
Sep-21	54.1	57.0	60.7	58.6	62.8	65.2	55.0	58.4	58.4	60.3	59.7	62.0	58.1	67.6	57.1	51.2	51.8	51.5	50.8	54.4	48.6	58.0	53.4	49.8	52.5	48.9	46.9	58.6	54.7	53.3	50.0	51.7	53.7	52.2	40.2	
Oct-21	54.2	57.7	58.4	58.3	60.6	71.4	53.6	57.8	58.9	62.1	61.1	62.5	57.4	65.7	57.8	50.4	54.7	53.2	50.8	51.7	49.3	55.1	53.8	51.6	51.2	48.7	46.6	57.7	53.6	55.7	50.6	50.8	55.9	57.2	52.1	
Nov-21	54.2	57.2	58.3	58.4	58.1	67.4	55.9	57.4	58.8	59.9	62.8	60.7	57.1	63.8	58.1	54.8	51.4	54.5	50.6	49.8	49.4	57.1	54.4	51.7	52.0	48.7	46.1	56.9	57.2	56.9	49.9	52.6	57.6	53.9	52.2	
Dec-21	54.3	56.5	57.7	58.0	58.7	63.5	55.6	57.4	59.0	58.3	62.0	58.7	56.2	64.2	57.9		53.9	54.3	50.7	49.8	49.4	59.1	56.1	51.6	52.1	49.0	46.7	53.9	54.1	56.6	50.9	50.8	55.5	53.5	52.5	
Jan-22	53.2	56.2	55.5	58.7	61.5	60.1	55.5	59.8	57.9	59.4	58.3	60.1	56.2	63.8	57.3	48.4	52.3	55.4	50.6	47.8	46.1	59.0	54.5	51.8	50.5	47.9	47.1	53.2	57.1	54.1	49.1	48.9	54.0	53.7	53.7	
Feb-22	53.7	56.6	57.3	58.2	58.4	50.8	57.2	58.4	57.8	57.8	58.3	60.6	56.9	62.6	58.0	53.2	53.6	52.7	50.2	49.6	48.0	56.5	54.7	48.6	50.4	48.1	47.5	56.2	58.6	54.8	50.4	42.9	54.9	51.2	54.3	
Mar-22	52.9	58.9	58.8	56.5	59.3	61.9	54.7	56.9	54.6	59.4	55.8	58.4	54.2	64.0	55.2	55.7	53.8	54.1	50.1	52.3	49.2	54.7	52.7	44.1	49.4	46.5	47.4	56.8	60.0	54.8	48.1	42.0	54.0	51.3	51.7	
Apr-22	52.2	56.2	59.2	55.5	57.9	63.0	55.7	54.6	54.8	59.1	54.5	59.9	53.3	62.5	55.8	58.5		53.5	50.3	51.8	49.3	54.4	52.4	48.2	49.2			50.7	46.0	51.7	54.7	51.9	51.7			

SERVICES PMI

	World	USA	EURO ZONE	FRANCE	GERMANY	IRELAND	ITALY	SPAIN	UK	AUSTRALIA	JAPAN	BRAZIL	RUSSIA	LEBANON	CHINA	HONG KONG	INDIA
Aug-21	52.8	55.1	59.0	56.3	60.8	63.7	58.0	60.1	55.0	45.6	42.9	55.1	49.3	46.6	46.7	53.3	56.7
Sep-21	53.8	54.9	56.4	56.2	56.2	63.7	55.5	56.9	55.4	45.7	47.8	54.6	50.5	46.9	53.4	51.7	55.2
Oct-21	55.6	58.7	54.6	56.6	52.4	63.4	52.4	56.6	59.1	47.6	50.7	54.9	48.8	46.6	53.8	50.8	58.4
Nov-21	55.6	58.0	55.9	57.4	52.7	59.3	55.9	59.8	58.5	49.6	53.0	53.6	47.1	46.1	52.1	52.6	58.1
Dec-21	54.7	57.6	53.1	57.0	48.7	55.4	53.0	55.8	53.6		52.1	53.6	49.5	46.7	53.1	50.8	55.5
Jan-22	51.0	51.2	51.1	53.1	52.2	56.2	48.5	46.6	54.1	56.2	47.6	52.8	49.8	47.1	51.4	48.9	51.5
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		55.6	57.7	58.9	57.6	61.7	55.7	57.1	58.9		50.5	60.6			36.2	51.7	57.9

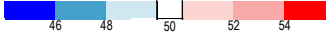


SOURCE: MARKIT, BNP PARIBAS



MANUFACTURING PMI – EMPLOYMENT

WD	Developed Markets																			Emerging countries												
	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
Aug-21	52.0	53.2	52.8	57.3	62.6	57.6	54.0	58.2	54.7	58.0	55.9	61.6	55.7	61.8	57.8	52.8	53.8	51.7	53.5	47.8	55.4	51.1	47.0	54.8	50.2	50.3	48.5	51.6	49.8	49.9	45.5	41.1
Sep-21	51.4	52.8	53.1	55.4	62.2	57.9	50.1	56.5	54.4	55.6	56.3	57.1	53.4	61.5	51.5	54.5	53.8	52.1	54.8	46.9	56.2	50.3	48.5	53.6	50.3	50.5	47.2	50.6	48.9	49.4	45.8	37.8
Oct-21	51.8	53.2	52.7	55.4	63.1	57.2	51.2	55.7	56.0	55.7	56.4	59.5	52.2	60.6	54.5	53.4	51.8	52.6	54.1	47.3	52.4	50.5	50.4	52.9	50.5	50.3	47.0	50.8	49.7	49.5	50.1	42.7
Nov-21	51.4	53.0	52.0	54.9	62.0	57.0	53.1	53.8	56.4	55.0	58.3	57.2	51.8	60.2	56.1	52.9	48.6	52.7	51.0	47.0	53.6	49.6	51.9	52.7	48.5	50.9	50.6	50.1	48.9	50.2	50.3	45.6
Dec-21	51.7	52.9	52.8	55.3	59.8	63.3	52.6	56.0	57.0	54.3	57.3	55.7	51.6	60.9	55.7	53.0	52.3	53.1	50.6	46.6	57.9	52.5	51.0	53.7	49.5	50.3	42.4	50.6	48.7	49.3	50.0	50.7
Jan-22	51.0	53.2	50.3	57.1	61.1	57.8	54.0	58.9	58.1	54.9	57.3	57.7	52.7	62.4	59.0	52.1	49.8	53.3	48.2	40.8	56.6	53.5	52.6	51.6	49.1	50.1	49.2	50.4	47.9	48.4	50.2	51.7
Feb-22	51.6	54.6	52.2	57.1	62.1	55.7	55.8	58.0	56.5	53.7	57.1	59.3	54.2	63.1	57.9	54.6	52.0	52.8	49.8	46.2	53.3	53.2	47.5	53.0	49.2	50.3	50.7	50.1	48.5	49.8	50.6	51.2
Mar-22	52.1	53.2	54.0	54.2	60.2	63.3	51.8	54.4	55.0	56.6	53.2	57.5	51.4	62.4	56.7	53.7	52.4	52.6	51.2	49.2	52.8	51.0	44.7	50.7	48.8	49.7	48.5	50.6	50.4	50.1	50.8	48.3
Apr-22	51.5	54.5	52.7	54.7	57.8	63.7	53.1	55.3	54.9	58.6	52.4	58.5	50.6	60.7	56.7	54.4		51.4	51.4	51.1	52.7	51.4	45.5	51.5			51.5	49.2	50.5	52.1	52.1	



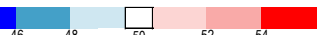
MANUFACTURING PMI – NEW EXPORT ORDERS

WD	Developed Markets																			Emerging countries																
	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	ISRAEL	LEBANON	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA	INDONESIA	VIETNAM
Aug-21	51.0	54.3	52.8	59.1	55.3		53.9	61.0	56.4	59.3	60.3	64.7	55.1		54.5	45.1		49.3	51.3	49.7	46.5	57.3	53.3	40.2	56.1	50.4	48.7	48.2	52.3	49.8	49.2	48.0	49.5	50.6	34.6	37.2
Sep-21	51.0	53.8	54.9	55.8	57.8		50.5	56.3	56.7	55.1	58.6	59.6	54.7		49.7	51.9		50.5	51.2	48.9	45.2	54.4	49.1	45.2	54.9	46.3	52.2	48.1	52.8	49.0	52.6	47.7	49.1	51.5	44.5	27.4
Oct-21	50.6	55.6	50.4	55.4	54.3		50.3	56.2	56.2	51.7	60.9	57.0	52.3		49.5	46.1		50.3	51.0	48.1	45.0	49.8	49.2	44.4	53.9	44.4	48.9	48.3	54.8	44.9	51.2	48.1	48.9	52.7	49.6	51.5
Nov-21	51.3	53.7	51.0	54.9	51.3		52.2	54.2	56.0	51.6	60.7	56.1	54.1		49.0	54.6		52.8	50.9	50.5	44.5	52.1	48.5	50.1	51.6	50.7	44.5	45.7	56.2	48.5	51.6	49.9	47.9	51.7	48.6	51.9
Dec-21	51.3	53.9	51.0	54.1	52.9		52.7	53.0	54.9	51.5	60.0	55.0	52.1		49.2			51.1	51.0	53.3	49.5	54.4	50.8	49.1	51.7	54.9	46.3	47.2	51.7	45.8	50.6	49.9	50.3	51.3	53.1	54.0
Jan-22	49.7	52.7	49.8	54.2	59.4		52.6	54.0	53.5	54.3	54.4	57.6	53.3		50.4	45.1		52.1	51.0	46.5	45.9	53.3	51.4	51.9	49.0	51.2	38.9	48.5	49.1	48.0	50.5	46.5	45.3	51.1	54.2	56.2
Feb-22	51.0	48.5	53.4	55.0	55.7		52.4	56.4	52.8	54.2	54.1	58.6	53.3		49.1	42.6		50.6	50.6	50.7	46.6	52.0	53.3	47.5	51.2	48.3	44.0	48.6	48.9	48.6	51.6	48.3	37.5	51.6	52.9	55.7
Mar-22	48.1	51.9	54.9	49.7	55.5		45.8	49.1	49.1	53.4	51.5	53.7	46.4		49.4	58.3		46.5	50.7	49.0	46.9	46.5	43.0	31.1	50.4	46.4	44.7	48.3	52.0	48.9	51.4	44.5	38.9	48.4	52.3	53.1
Apr-22	48.2	51.8	56.4	49.0	52.7		46.5	47.1	50.9	52.7	50.1	56.3	49.9		47.7	47.7		47.1	50.9	47.7	51.9	48.3	45.3	36.1	49.3				50.0		43.2	44.7	54.2	52.9	52.3	



PMI MANUFACTURING - INPUT PRICES

WD	Developed Markets																			Emerging countries															
	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
Aug-21	60.1	65.1	73.2	68.6	69.0	60.3	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	57.2	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
Oct-21	63.7	67.1	76.4	72.6	73.3	78.8	66.1	75.6	77.2	70.2	71.5	78.4	68.8		74.2			56.6		67.2	51.0	71.8	75.2	58.5	67.2	54.6	51.3	53.7		49.0		53.1	52.3	54.0	54.7
Nov-21	61.3	65.8	73.6	73.7	71.1	64.0	68.2	76.3	76.5	71.7	73.4	79.5	70.7		74.0			56.1		66.2	48.8	72.3	71.4	58.4	78.3	54.3	51.9	52.6		48.5		52.6	52.1	54.0	59.3
Dec-21	59.8	63.7	70.5	70.2	70.4	60.1	62.7	70.9	72.8	69.9	73.2	76.6	69.6		74.3			55.9		65.9	52.6	70.9	72.2	59.8	79.9	53.5	53.4	52.6		49.0		54.8	51.0	53.7	55.3
Jan-22	60.9	62.3	68.9	72.7	68.0	59.9	71.7	74.7	74.9	66.3	73.5	73.5	71.1		70.9			59.1		62.1	52.9	78.1	73.7	60.4	71.7	51.7	53.7	52.1		49.2		53.0	51.7	53.8	52.5
Feb-22	61.3	62.4	70.9	71.8	67.5	60.5	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	66.3	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	63.7	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					49.8		54.0	54.1	56.6	58.4

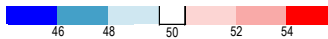


SOURCE: MARKIT, BNP PARIBAS



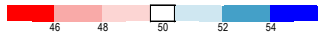
PMI MANUFACTURING - OUTPUT PRICES

	Developed Markets																	Emerging countries																
	WD	NA		Europe							Asia-Oceania				LATAM		Eurasia			Middle East & Africa			Asia											
	World	CANADA	USA	EUROZONE	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
Aug-21	60.1	65.1	73.2	68.6	69.0	60.3	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	57.2	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
Oct-21	63.7	67.1	76.4	72.6	73.3	78.8	66.1	75.6	77.2	70.2	71.5	78.4	68.8	74.2			56.6		67.2	51.0	71.8	75.2	58.5	67.2	54.6	51.3	53.7		49.0		53.1	52.3	54.0	54.7
Nov-21	61.3	65.8	73.6	73.7	71.1	64.0	68.2	76.3	76.5	71.7	73.4	79.5	70.7	74.0			56.1		66.2	48.8	72.3	71.4	58.4	78.3	54.3	51.9	52.6		48.5		52.6	52.1	54.0	59.3
Dec-21	59.8	63.7	70.5	70.2	70.4	60.1	62.7	70.9	72.8	69.9	73.2	76.6	69.6	74.3			55.9		65.9	52.6	70.9	72.2	59.8	79.9	53.5	53.4	52.6		49.0		54.8	51.0	53.7	55.3
Jan-22	60.9	62.3	68.9	72.7	68.0	59.9	71.7	74.7	74.9	66.3	73.5	73.5	71.1	70.9			59.1		62.1	52.9	78.1	73.7	60.4	71.7	51.7	53.7	52.1		49.2		53.0	51.7	53.8	52.5
Feb-22	61.3	62.4	70.9	71.8	67.5	60.5	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	66.3	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	63.7	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					49.8		54.0	54.1	56.6	58.4



MANUFACTURING PMI - DELIVERY TIMES

	Developed Markets																	Emerging countries															
	WD	NA		Europe							Asia-Oceania				LATAM		Eurasia			Middle East & Africa			Asia										
	World	CANADA	USA	EUROZONE	AUSTRIA	DENMARK	FRANCE	GERMANY	GREECE	IRELAND	ITALY	NETHERLANDS	SPAIN	UK	AUSTRALIA	NEW ZEALAND	JAPAN	SINGAPORE	BRAZIL	MEXICO	CZECH REPUBLIC	POLAND	RUSSIA	TURKEY	EGYPT	SAUDI ARABIA	SOUTH AFRICA	UAE	CHINA	HONG KONG	INDIA	INDONESIA	VIETNAM
Aug-21	36.1	28.6	16.8	22.8	20.3	11.0	22.5	19.1	31.3	24.4	28.8	16.1	32.0	17.4	41.3	32.8	39.5	50.0	42.8	41.0	21.9	32.3	46.9	42.5	52.0	48.6	70.1	50.7	46.6	46.6	48.5	45.1	30.5
Sep-21	36.5	25.4	16.6	22.5	18.1	7.8	19.7	22.3	28.7	26.4	24.7	15.3	27.2	19.3	49.2	47.7	38.3	50.1	44.4	41.1	22.9	32.1	46.9	45.5	52.8	51.0	73.7	49.8	48.3	49.3	48.5	46.4	28.7
Oct-21	34.8	23.1	16.8	19.4	16.9	9.9	17.7	17.8	24.1	18.0	24.1	15.8	24.3	18.3	41.2	60.1	37.0	50.3	42.4	39.7	21.6	32.9	43.3	42.6	50.8	51.8	72.6	50.8	45.1	48.4	48.6	46.3	39.3
Nov-21	36.4	24.4	18.9	21.7	19.3	5.7	19.8	21.3	24.5	25.9	24.5	18.5	21.8	21.4	53.4	44.4	37.7	50.5	41.3	38.6	22.8	33.4	45.3	36.1	49.1	52.4	70.4	51.5	48.4	48.5	49.1	49.3	43.0
Dec-21	37.8	28.7	24.4	25.3	24.5	15.0	24.7	25.9	24.9	31.1	24.0	22.0	25.3	23.8		51.4	37.1	50.4	42.2	34.7	25.6	35.2	44.1	33.8	49.5	52.3	69.6	51.8	48.7	49.8	47.9	48.6	46.2
Jan-22	38.0	27.8	23.2	26.6	24.6	27.9	24.2	27.1	26.4	27.4	27.4	23.4	30.0	30.4	37.8	53.8	37.8	50.1	40.7	38.8	31.1	34.9	45.3	41.7	49.7	50.0	65.5	52.4	47.5	46.6	48.5	50.1	45.2
Feb-22	39.4	26.8	25.0	31.0	29.2	38.1	25.2	34.0	25.3	30.8	31.5	25.1	31.5	31.7	49.0	53.1	38.1	50.5	45.0	43.3	32.0	38.3	44.1	42.1	49.4	53.1	65.8	52.7	48.1	44.2	48.8	50.7	44.8
Mar-22	38.7	24.8	28.5	25.9	20.2	32.9	24.7	24.9	24.3	32.8	29.9	24.5	22.4	33.4	45.7	51.9	37.5	50.3	44.1	41.1	25.8	32.2	30.5	41.2	48.3	54.1	67.3	52.7	47.1	37.6	49.5	48.2	41.3
Apr-22	35.8	34.0	26.9	26.3	22.5	30.8	25.4	23.9	24.8	31.5	29.7	24.6	31.2	32.8	60.4		37.8	50.1	45.2	43.7	26.2	37.2	33.6	43.7		63.5		37.8	38.7	48.9	48.8	46.5	



PMI SERVICES - INPUT PRICES

	World	USA	EUROZONE	FRANCE	GERMANY	IRELAND	ITALY	SPAIN	UK	AUSTRALIA	JAPAN	BRAZIL	RUSSIA	CHINA	INDIA
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	64.5	54.0	73.2	63.1	53.0	55.7
Oct-21	65.4	71.7	67.5	66.5	70.0	73.1	62.7	68.3	78.7	73.6	54.7	72.6	64.7	53.6	57.5
Nov-21	68.5	75.7	71.4	67.5	73.9	72.6	69.5	75.4	82.0	65.3	57.7	74.4	64.9	55.6	57.6
Dec-21	68.1	77.4	69.6	67.2	70.4	71.5	68.7	73.0	77.0		58.2	65.9	65.8	54.3	57.0
Jan-22	66.3	71.9	70.9	69.6	72.0	70.1	69.9	72.1	79.7	66.1	57.1	69.3	65.6	54.5	58.1
Feb-22	67.3	74.8	72.2	67.9	73.7	74.2	73.1	75.2	81.5	66.0	57.8	66.7	64.9	52.5	57.3
Mar-22	70.2	76.7	79.6	78.3	78.5	83.6	80.3	83.2	81.6	77.5	57.7	70.9	81.3	54.2	59.7
Apr-22		79.6	78.7	76.0	81.9	82.2	75.7	79.3	82.4		60.9	73.7		53.7	62.1



SOURCE: MARKIT, BNP PARIBAS



BNP PARIBAS

The bank for a changing world

ECONOMIC PULSE

UNITED STATES: STRONGER THAN THE CONTRACTION OF GDP SUGGESTS

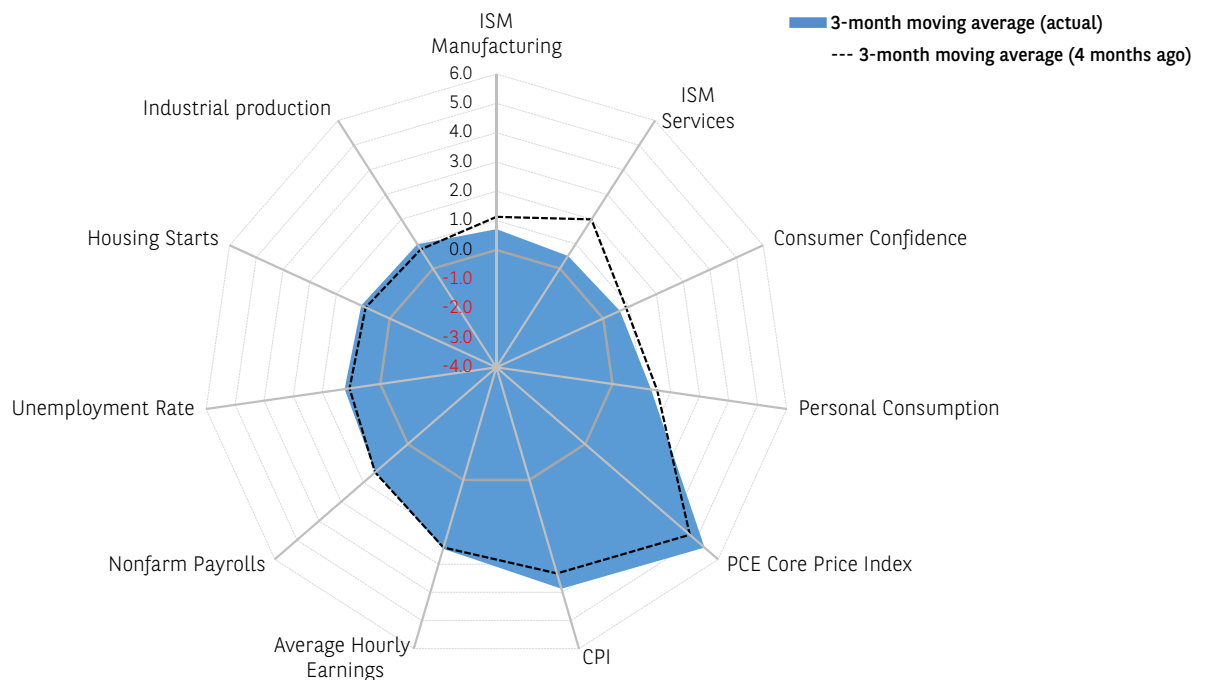
Contrary to expectations (annualised quarterly growth of 1%) US GDP contracted by an annualised quarterly rate of 1.4% in Q1 2022. This surprise fall hides a more nuanced and less negative reality. The economic engines of household consumption and business investment are robust and contributed 1.8 points and 1.3 points of growth respectively. However, reduced inventories at companies (contribution from changes in inventory of -0.8 of a point) and a reduction in public spending (contribution of -0.5 of a point), due to the ending of several support programmes, had a negative effect on growth. But the biggest negative contribution came from international trade (-3.2 points), which was the main reason for the drop in quarterly GDP. On the one hand, imports decreased in goods, especially non-food and non-automotive consumer goods. On the other hand, exports in goods fell, due to the war in Ukraine and the resurgence of the Omicron variant of Covid-19, but it was partly offset by an increase of exports in services.

In the labour market, the news remained good: 428,000 non-farm jobs were created in April; the unemployment rate was 3.6% in April, its lowest for 50 years; and there are clear signs of labour shortages, with an historically low ratio job seekers per job opening (0.6 in March). This robust labour market is dragging wages upwards in its wake (with a year-on-year rise of 5.6% in April), which will help mitigate somewhat the impact of the inflationary shock on households' real disposable income.

The issue of persistently high inflation (8.5% year-on-year in March) is more relevant than ever and explains the Fed's recent decisions. The FOMC raised its policy rate by 50 basis points at its meeting of 3 and 4 May, taking it to 1% (upper end of the target range). In its forward guidance, the FOMC points towards further, similar increases at its next meetings. Meanwhile, the Fed has announced a gradual reduction in its balance sheet at a monthly rate of USD47.5 billion from June to August, and then USD95 billion from September.

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

EUROZONE: HOW WORRIED SHOULD WE BE ABOUT RECESSION?

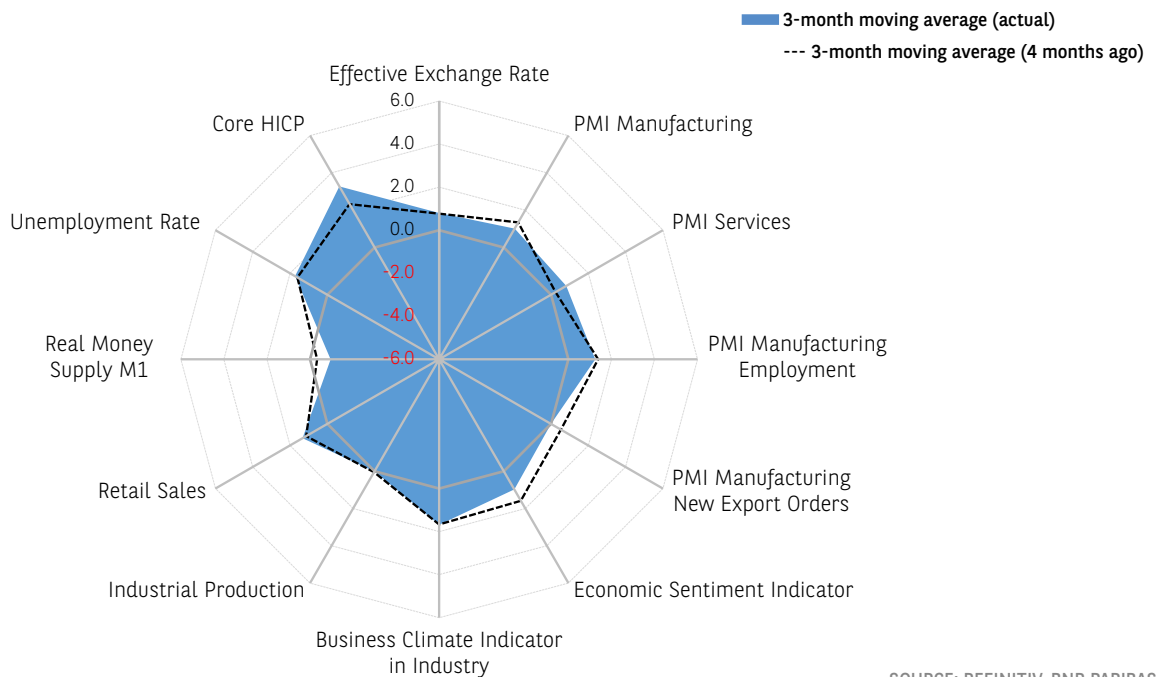
In the space of just a few months, growth prospects in the eurozone have deteriorated markedly. So much so that the risk of a recession is looming this year. Between our growth forecast from early 2021 – when it peaked at 5.5% – and our current scenario, drawn up in mid-March 2022, expected growth has been about halved; we now expect a figure of 2.8%. As recently as November 2021, we were still forecasting 4.2%. This figure of 2.8% still looks very high, as it is well above the long-term trend rate of 1.6% per year on average between 1996 and 2019. However, it relies on an exceptionally high growth carry-over of 2.1% in Q1 2022 and, for the subsequent quarters, on projected weak but positive growth. However, since mid-March, downside risks have increased, particularly due to the amplification of the inflationary shock, and the probability of a recession has increased. According to Eurostat’s first estimate, eurozone growth was slightly positive in Q1 2022, at 0.2% q/q. This figure is only marginally below our expectations (0.3% q/q) but is made to look weaker by the contrasting situation of the area’s four biggest economies: a 0.2% q/q contraction in Italian GDP, stagnation in France, and very modest GDP growth in Germany and Spain (0.2% and 0.3% q/q respectively). Moreover, behind the headline number, the marked decline in household consumption in France (-1/3% q/q) and Spain (-3.7% q/q) does not augur well.

Turning to the early part of Q2, survey data looks mixed: the blue area of our Pulse only falls within the dotted lines on a small number of indicators and even then to a relatively limited scale at this stage. The composite PMI has improved slightly (0.9 of a point, to 55.8), with a marked improvement in the services component (up 2.1 points, to 57.7) winning out over a fresh drop in the manufacturing component (down 2.4 points, to 50.7). The European Commission’s Economic Sentiment Indicator (ESI), however, recorded a further fall (-1.7 points), although this was a much smaller drop than the -7.8 points seen in March. The ESI was dragged down by the confidence figures for consumers and retail businesses, behind which we must see the fears due to the inflationary shock. The surge in inflation has continued to gain scale: headline inflation increased further in April, admittedly by only 0.1 of a point (to 7.5% y/y according to Eurostat’s flash estimate), but this obscures a sharp rise in core inflation (up 0.6 of a point, to 3.5% y/y).

In the labour market, however, signals remain reassuring. And there are chances that the situation will not worsen too far, despite the shocks, given the support to growth coming from the cyclical dynamic that pre-dated the war in Ukraine (the post-Covid recovery), the fiscal measures designed to mitigate inflation’s impact on purchasing power, the surplus savings that remain available and the need to invest. Thanks to these various factors, any recession that does occur could prove to be no more than ‘technical’, that is to say limited in both scale and duration.

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 -6 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

MOBILITY: BACK TO PRE-PANDEMIC LEVELS IN THE USA AND BELGIUM

For the first time since December 2021, the number of new global Covid-19 cases for the week has fallen below the symbolic level of 5 million (average for a moving seven-day period). Some 4.3 million new cases were recorded between 26 April and 3 May, a fall of 15% on the previous week (chart 1). The fall in infections continued in Asia (-24%) and Europe (-17%), but other regions indicated an increase in case numbers: North America (+11%), South America (+8%) and Africa (+4%). To date, 12 billion vaccine doses have been given around the world, taking the share of the global population to have received at least one jab to 65.4%. Despite this, in some parts of the world overall vaccine coverage remains low, with just 15.8% of people in low income countries having received at least their first dose (chart 2).

With new case numbers falling, visits to retail and recreation facilities rose over the course of April in most countries in our sample. There were increases of 8.4% in Italy, 8% in France, 7% in Spain and Germany, and 5% in the UK. Visits were stable in Japan. Visit numbers also rose in the USA and Belgium over the same period – by 16% and 8% respectively – returning to pre-pandemic levels during the first week of April (chart 3).

Lastly, the trend in the weekly proxy indicator of GDP remained positive in Japan. In France, Spain and Belgium, the slight fall seen this week followed a rising trend, whilst the downturn was slightly more marked in Germany, Italy, the USA and the UK (chart 3, black line). The OECD Tracker is based on Google Trends resulting from queries on consumption, the labour market, housing, industrial activity as well as uncertainty. The OECD calculates the tracker over a 2-year period (y/2y) to avoid the base effect of 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)

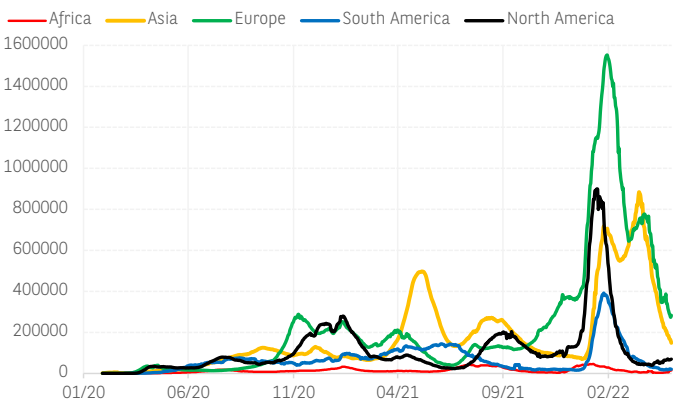


CHART 1

SOURCE: JOHNS-HOPKINS UNIVERSITY (05/04/2022), BNP PARIBAS

SHARE OF PEOPLE WHO RECEIVED AT LEAST ONE DOSE OF VACCINE

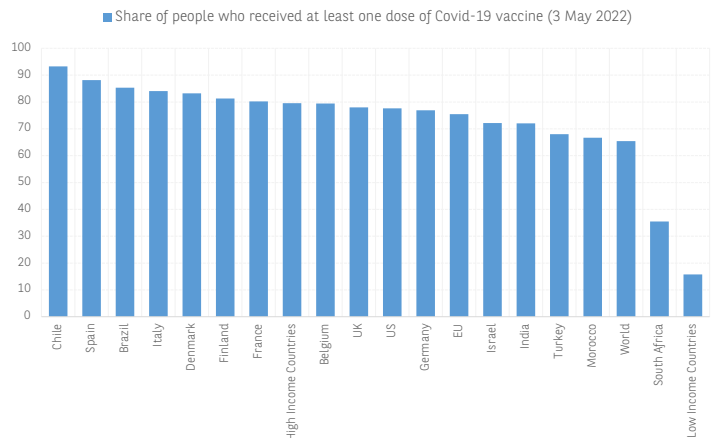


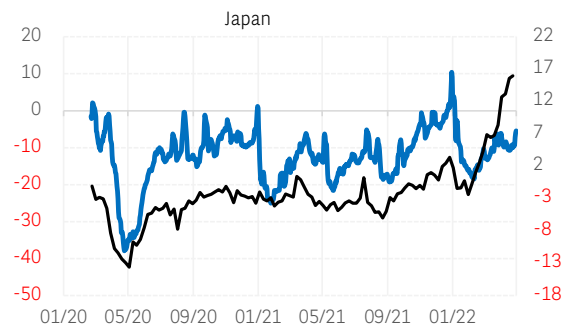
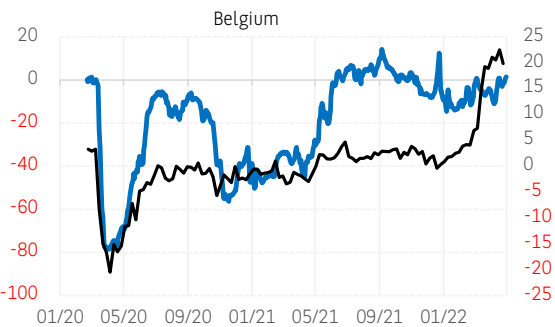
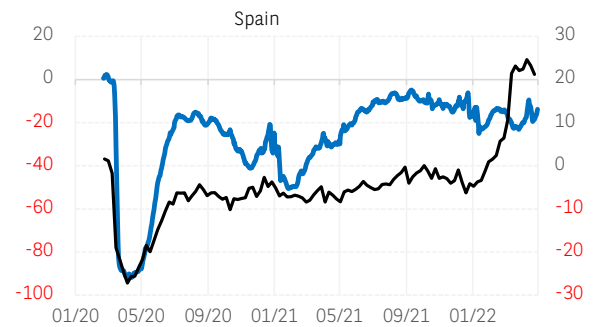
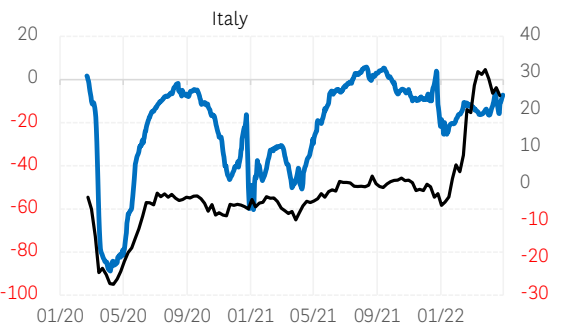
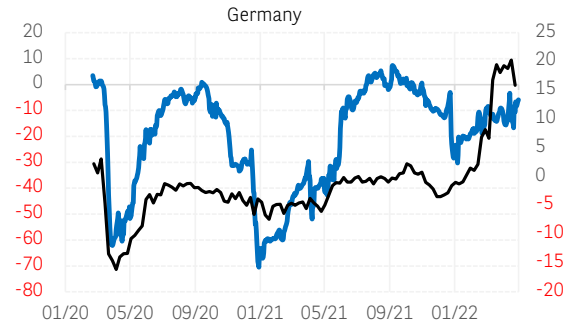
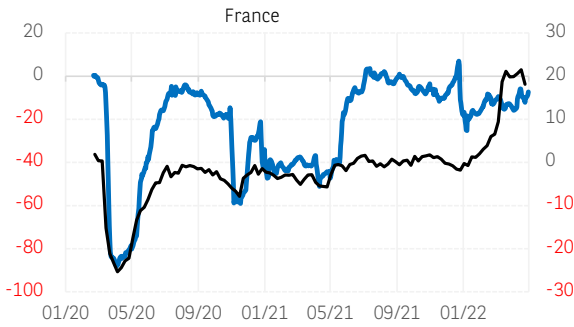
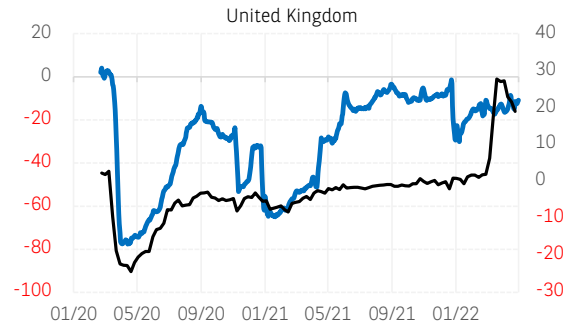
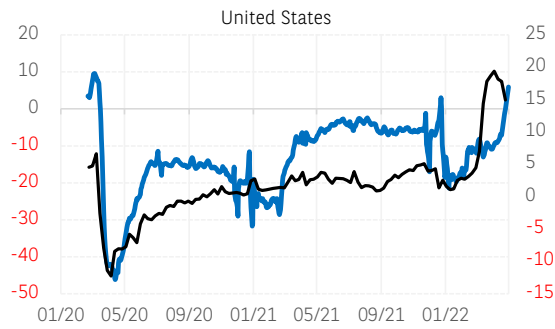
CHART 2

SOURCE: OUR WORLD IN DATA (05/04/2022), 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]

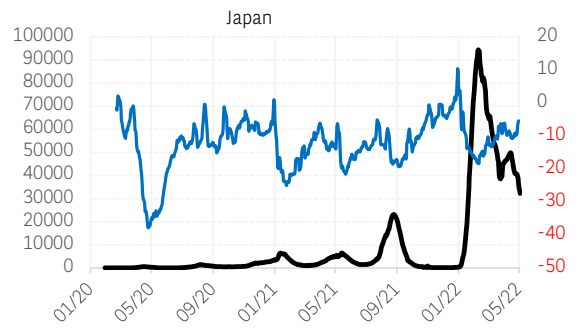
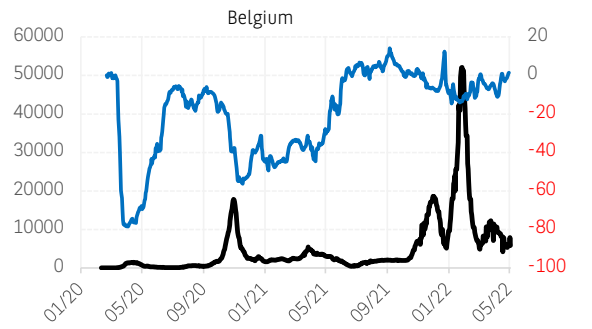
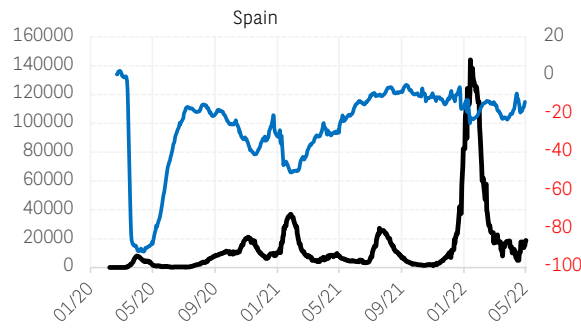
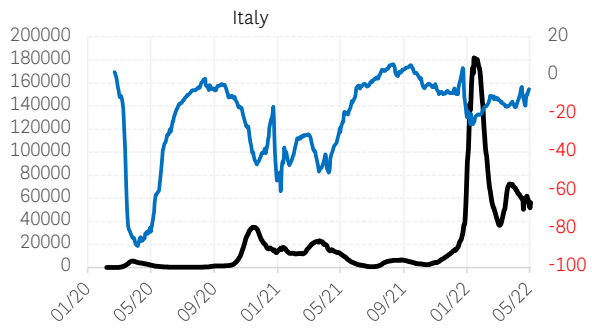
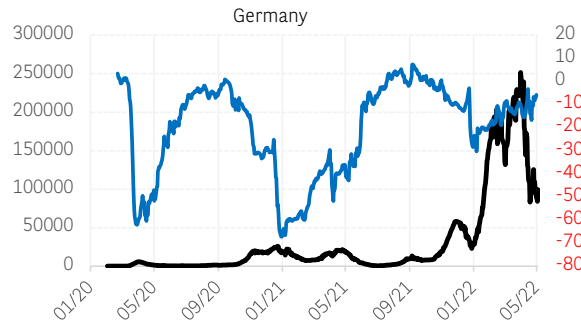
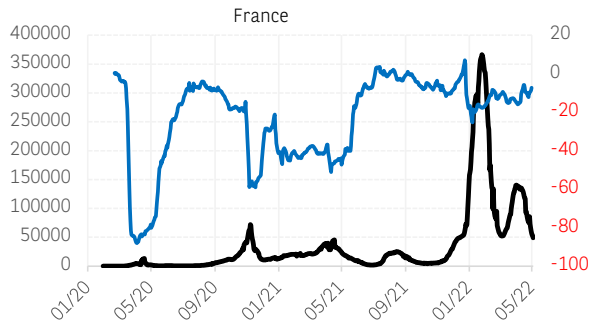
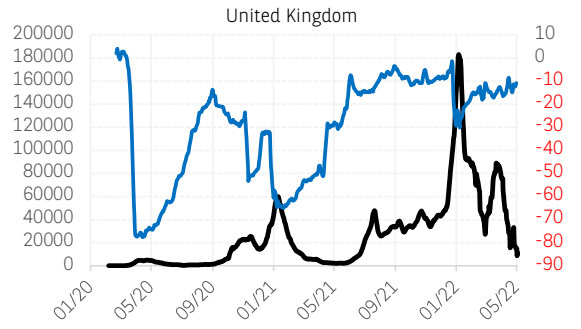
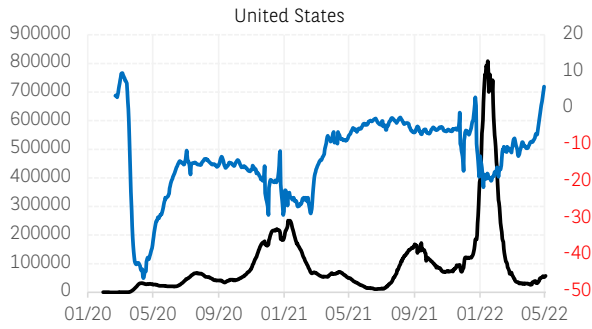


SOURCE: OECD (05/04/2022), GOOGLE (05/04/2022), BNP PARIBAS



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 (05/04/2022), GOOGLE (05/04/2022), BNP PARIBAS



ECONOMIC SCENARIO

14

UNITED STATES

Despite a surprising contraction in Q1 2022, the US economy remains dynamic and well supported by household consumption and business investment. The robustness of the labour market, which is at full employment, bolsters wages and household consumption. However, inflation, at its highest for four decades, weighs on purchasing power. As inflation is far beyond the Federal Reserve's objective and also more persistent than anticipated, monetary policy is being tightened sharply. The scaling back of the government's fiscal ambitions, especially its social welfare and environmental plans, may also contribute to moderate growth. Against this background, whilst avoiding a recession, the U.S. economy is expected to slow down clearly.

CHINA

Economic growth has slowed again markedly since March, after two months of improvement. Lockdown measures imposed in many regions in order to contain the Covid-19 epidemic, the continued correction in the real estate sector, the persisting weakness of private consumption and the effects of the war in Ukraine on commodity prices and world demand are major negative factors that will continue to constrain economic growth in the short-term. Consequently, the government increases fiscal policy support and the central bank enhances monetary easing measures..

EUROZONE

Following on from Q4 2021, the eurozone again saw positive but weak growth in Q1 2022. The surge in inflation that began in early 2021 has morphed into an inflationary shock. Inflation continues to be driven primarily by energy prices, but has climbed to new record levels nonetheless. In addition, it is now becoming more widespread and thus more persistent. Although the deterioration of business climate surveys remained limited up until April, consumer confidence has worsened more noticeably. The risk of a recession in the short term is increasing but, should there be one, it would only be technical (limited in duration and extent). The labour market remains robust and the economy still benefits from the cyclical momentum that existed prior to the war in Ukraine, fiscal measures that seek to cushion the impact of inflation on purchasing power, excess savings which are still available and the need to invest. In our scenario (no recession), we expect eurozone growth to reach 2.8% on average over 2022 and something similar (2.7%) in 2023. This scenario is in line with the April consensus for 2022 but is more optimistic for 2023. The risks are on the downside.

FRANCE

GDP growth has slowed markedly in the 1st quarter of 2022 (0% q/q after +0.8% in the 4th quarter of 2021), as a result of a decrease in household consumption (-1.3% q/q). Higher inflation has pressured households' purchasing power and should also weigh on Q2 expectations. In parallel, corporate investment maintained its growth (+0.7% q/q), as corporates have to cope with output capacity constraints. Overall, in 2022, GDP growth should ease to 3.2% (7% in 2021), against a background of higher inflation (4.8% expected in 2022 after 1.6% in 2021).

RATES AND EXCHANGE RATES

In the US, the Federal Reserve will continue its tightening policy at a swift pace. We expect 50bp hikes at the June, July and September meetings, followed by an increase of 25bp in November and December. The terminal rate of 3.00-3.25% to be reached in 2023 Q1. In addition, the reduction of the size of the balance sheet (quantitative tightening) will influence the level of interest rates. The Fed's hawkish stance is motivated by particularly elevated inflation, a strong economy and very low policy rates. These policy changes should only put limited upward pressure on long-term Treasury yields considering that the market has anticipated to a large degree the policy tightening. In addition, as the rate hike cycle continues, bond investors will start to price the prospect of slower growth and the decline of inflation.

In the euro area, the jump in uncertainty and commodity prices are weighing on the sentiment of companies and households. Confronted with high and widespread inflation, the ECB has changed its tone. We expect a first hike of the deposit rate in September although an earlier move, on the occasion of the July meeting, is becoming

increasingly likely. A further rate hike will follow bringing the deposit rate to 0.00% at the end of this year. 2023 should see several rate increase, with a deposit rate at 1.25% at the end of the year. This should push bond yields higher but also lead to a widening of certain sovereign spreads.

The Bank of Japan is expected to maintain its current policy stance in the near term but raise its short-term policy rate from -0.10% to the 0-0.10% range in the latter part of 2023, whilst allowing the 10-year JGB yield to drift higher. These decisions would be based on an increased emphasis on the side effects of the negative interest rate policy and concern about the risk of further yen weakening and its impact on households via higher import prices.

We expect the dollar to weaken versus the euro, considering that both the Federal Reserve and the ECB will tighten policy, that the long-term interest rate differential should narrow and that the euro is undervalued versus the dollar. The increased policy divergence between the Fed and the Bank of Japan should cause an appreciation of the dollar versus the yen but in the latter part of 2023, we expect the yen to appreciate following the change in monetary policy of the Bank of Japan.

GDP GROWTH

%	GDP Growth			Inflation*		
	2021	2022 e	2023 e	2021	2022 e	2023 e
United-States*	5.7	3.7	2.5	4.7	6.5	2.8
Japan	1.7	1.6	2.0	-0.2	1.5	1.1
United-Kingdom*	7.5	3.6	1.7	2.5	7.4	3.3
Euro Area*	5.3	2.8	2.7	2.6	7.3	4.0
Germany	2.9	2.1	3.4	3.2	6.6	3.6
France	7.0	3.2	2.5	2.1	5.3	2.5
Italy	6.6	2.8	2.2	2.0	6.4	2.6
Spain	5.0	4.8	2.7	3.0	8.1	3.5
China	7.7	4.8	5.1	0.9	2.4	2.7
India**	8.1	9.5	7.3	5.1	6.3	5.2
Brazil	5.0	-0.5	0.0	8.3	9.0	5.7
Russia	4.5	-8.5	3.1	7.0	18.2	5.0

SOURCE: BNP PARIBAS GROUP ECONOMIC RESEARCH (E: ESTIMATES & FORECASTS)
*FISCAL YEAR FROM 1ST APRIL OF YEAR N TO MARCH 31ST OF YEAR N+1
** LAST UPDATE 05/06/2022

INTEREST & EXCHANGE RATES

Interest rates, %		Q1 2022	Q2 2022 e	Q3 2022 e	Q4 2022 e	Q4 2023 e
End of period						
US	Fed Funds (upper limit)**	0.50	1.50	2.50	3.00	3.25
	T-Note 10y	2.33	2.50	2.60	2.70	2.60
	Deposit rate**	-0.50	-0.50	-0.25	0.00	1.25
	Bund 10y	0.51	0.75	0.90	1.00	1.20
Ezone	OAT 10y	0.84	1.20	1.40	1.50	1.70
	BTP 10y	1.97	2.45	2.75	3.00	3.20
	BONO 10y	1.37	1.75	2.00	2.15	2.35
	UK	Base rate	0.75	1.00	1.25	1.25
UK	Gilts 10y	1.59	1.75	1.90	2.00	2.00
	Japan	BoJ Rate	-0.02	-0.10	-0.10	-0.10
Japan	JGB 10y	0.21	0.25	0.25	0.25	0.45
Exchange Rates		Q1 2022	Q2 2022 e	Q3 2022 e	Q4 2022 e	Q4 2023 e
End of period						
USD	EUR / USD	1.11	1.11	1.13	1.14	1.20
	USD / JPY	121	125	124	123	115
	GBP / USD	1.32	1.29	1.31	1.33	1.40
EUR	EUR / GBP	0.85	0.86	0.86	0.86	0.86
	EUR / JPY	135	139	140	140	138
Brent		Q1 2022	Q2 2022 e	Q3 2022 e	Q4 2022 e	Q4 2023 e
End of period						
Brent*	USD/bbl	107	113	115	110	105

FORECASTS PRODUCED ON 2 MAY 2022. SOURCE: BNP PARIBAS (E: ESTIMATES & FORECASTS)
(MARKET ECONOMICS, INTEREST RATE STRATEGY, FX STRATEGY, COMMODITIES DESK STRATEGY)
* BASE CASE ** LAST UPDATE 06/05/2022



BNP PARIBAS

The bank
for a changing
world

CALENDAR

15

LATEST INDICATORS

In China, the sanitary measures to address the increase in Covid-19 cases have led to a significant decline in the PMI indices, in particular in services. For the euro area, the PMIs were in line with the flash estimates. The European Commission's surveys came in below expectations with confidence in industry and consumer confidence recording considerable declines. Producer price inflation increased further, to an exceptionally high 36.8% on an annual basis, but this was in line with the consensus. The unemployment rate was stable and monthly retail sales declined, more or less as expected. In France, the PMIs were marginally better than the flash estimates. Private sector job growth in the first quarter slowed down but less than anticipated. In Germany, the manufacturing PMI was better than the flash estimate and the opposite holds for services. The decline in the unemployment numbers slowed down, more than expected. Japanese consumer confidence hardly changed in April. In the UK, the PMIs were slightly better than the flash estimates. The Bank of England hiked the bank rate with 25 basis points but several members had advocated a 50 bp increase. This disagreement contributed to a significant weakening of sterling versus the dollar. In the US, the ISM index for manufacturing showed a significant decline -the consensus had expected a slight improvement- and the services index also recorded, unexpectedly, a decline, although less big than in manufacturing. The employment index of the manufacturing ISM saw a big drop, against expectations. Nevertheless, the labour market report was strong with above-consensus job creation. The unemployment rate was stable despite a slight decline in the participation rate. The FOMC has, as expected, hiked the federal funds rate with 50 bp and has indicated that several similar moves should follow so as to bring inflation back under control.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
04/30/2022	China	Composite PMI	Apr	--	42.7	48.8
04/30/2022	China	Manufacturing PMI	Apr	47.3	47.4	49.5
04/30/2022	China	Non-manufacturing PMI	Apr	46.0	41.9	48.4
04/30/2022	China	Caixin China PMI Mfg	Apr	47.0	46.0	48.1
05/02/2022	Japan	Jibun Bank Japan PMI Mfg	Apr	--	53.5	53.4
05/02/2022	Japan	Consumer Confidence Index	Apr	34.2	33.0	32.8
05/02/2022	France	S&P Global France Manufacturing PMI	Apr	55.4	55.7	55.4
05/02/2022	Germany	S&P Global/BME Germany Manufacturing PMI	Apr	54.1	54.6	54.1
05/02/2022	Eurozone	S&P Global Eurozone Manufacturing PMI	Apr	55.3	55.5	55.3
05/02/2022	Eurozone	Economic Confidence	Apr	108.0	105.0	106.7
05/02/2022	Eurozone	Industrial Confidence	Apr	9.5	7.9	9.0
05/02/2022	Eurozone	Services Confidence	Apr	13.8	13.5	13.6
05/02/2022	Eurozone	Consumer Confidence	Apr	--	-22.0	-16.9
05/02/2022	United States	S&P Global US Manufacturing PMI	Apr	59.7	59.2	59.7
05/02/2022	United States	ISM Manufacturing	Apr	57.6	55.4	57.1
05/02/2022	United States	ISM Prices Paid	Apr	87.4	84.6	87.1
05/02/2022	United States	ISM New Orders	Apr	54.1	53.5	53.8
05/02/2022	United States	ISM Employment	Apr	55.0	50.9	56.3
05/03/2022	Germany	Unemployment Change (000's)	Apr	-15.0k	-13.0k	-18.0k
05/03/2022	United Kingdom	S&P Global/CIPS UK Manufacturing PMI	Apr	55.3	55.8	55.3
05/03/2022	Eurozone	PPI MoM	Mar	5.0%	5.3%	1.1%
05/03/2022	Eurozone	PPI YoY	Mar	36.3%	36.8%	31.5%
05/03/2022	Eurozone	Unemployment Rate	Mar	6.8%	6.8%	6.9%
05/03/2022	United States	JOLTS Job Openings	Mar	11,200k	11,549k	11,344k
05/03/2022	United States	Cap Goods Orders Nondef Ex Air	Mar	1.0%	1.3%	1.0%



DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
05/04/2022	France	S&P Global France Services PMI	Apr	58.8	58.9	58.8
05/04/2022	France	S&P Global France Composite PMI	Apr	57.5	57.6	57.5
05/04/2022	Germany	S&P Global Germany Services PMI	Apr	57.9	57.6	57.9
05/04/2022	Germany	S&P Global Germany Composite PMI	Apr	54.5	54.3	54.5
05/04/2022	Eurozone	S&P Global Eurozone Services PMI	Apr	57.7	57.7	57.7
05/04/2022	Eurozone	S&P Global Eurozone Composite PMI	Apr	55.8	55.8	55.8
05/04/2022	Eurozone	Retail Sales MoM	Mar	-0.3%	-0.4%	0.4%
05/04/2022	Eurozone	Retail Sales YoY	Mar	1.8%	0.8%	5.2%
05/04/2022	United States	S&P Global US Services PMI	Apr	54.7	55.6	54.7
05/04/2022	United States	S&P Global US Composite PMI	Apr	55.1	56.0	55.1
05/04/2022	United States	ISM Services Index	Apr	58.5	57.1	58.3
05/04/2022	United States	FOMC Rate Decision (Lower Bound)	May	0.8%	0.8%	0.3%
05/04/2022	United States	FOMC Rate Decision (Upper Bound)	May	1.0%	1.0%	0.5%
05/05/2022	China	Caixin China PMI Composite	Apr	--	37.2	43.9
05/05/2022	China	Caixin China PMI Services	Apr	40.0	36.2	42.0
05/05/2022	United Kingdom	S&P Global/CIPS UK Services PMI	Apr	58.3	58.9	58.3
05/05/2022	United Kingdom	S&P Global/CIPS UK Composite PMI	Apr	57.6	58.2	57.6
05/05/2022	United Kingdom	Bank of England Bank Rate	May	1.0%	1.0%	0.8%
05/05/2022	United States	Nonfarm Productivity	1Q	-5.3%	-7.5%	6.3%
05/05/2022	United States	Unit Labor Costs	1Q	10.0%	11.6%	1.0%
05/05/2022	United States	Initial Jobless Claims	Apr	180k	200k	181k
05/06/2022	France	Private Sector Payrolls QoQ	1Q	0.2%	0.3%	0.6%
05/06/2022	United States	Change in Nonfarm Payrolls	Apr	380k	428k	428k
05/06/2022	United States	Unemployment Rate	Apr	3.5%	3.6%	3.6%
05/06/2022	United States	Average Hourly Earnings MoM	Apr	0.4%	0.3%	0.5%
05/06/2022	United States	Average Hourly Earnings YoY	Apr	5.5%	5.5%	5.6%
05/06/2022	United States	Average Weekly Hours All Employees	Apr	34.7	34.6	34.6
05/06/2022	United States	Labor Force Participation Rate	Apr	62.5%	62.2%	62.4%

SOURCE: BLOOMBERG



CALENDAR: THE WEEK AHEAD

17

COMING INDICATORS

The highlight of the week will be the US inflation data (consumer as well as producer prices). Also in the US, we will have mortgage applications, which will be scrutinized for an impact of rising mortgage rates, and University of Michigan sentiment. The United Kingdom will publish first quarter GDP numbers. In Japan we will have the services and composite PMIs as well as the Eco Watchers survey, and in China export and import data. For Germany, inflation data and the ZEW survey will be released and in France, inflation numbers, wage growth and Banque de France industrial sentiment. Finally, for the euro area, the ZEW survey will be published.

DATE	COUNTRY	INDICATOR	PERIOD	SURVEY	PREVIOUS
05/09/2022	Japan	Jibun Bank Japan PMI Services	April	--	50.5
05/09/2022	Japan	Jibun Bank Japan PMI Composite	April	--	50.9
05/09/2022	France	Trade Balance	March	--	-10,273m
05/09/2022	China	Exports YoY	April	3.00%	14.70%
05/09/2022	China	Imports YoY	April	-3.00%	-0.10%
05/09/2022	China	Exports YoY CNY	April	--	12.90%
05/09/2022	China	Imports YoY CNY	April	--	-1.70%
05/10/2022	Germany	ZEW Survey Expectations	May	--	-41
05/10/2022	Germany	ZEW Survey Current Situation	May	--	-30.8
05/10/2022	Eurozone	ZEW Survey Expectations	May	--	-43
05/10/2022	United States	NFIB Small Business Optimism	April	--	93.2
05/10/2022	France	Bank of France Ind. Sentiment	April	--	103
05/11/2022	China	PPI YoY	April	7.50%	8.30%
05/11/2022	China	CPI YoY	April	1.90%	1.50%
05/11/2022	Germany	CPI EU Harmonized MoM	April	--	0.70%
05/11/2022	Germany	CPI EU Harmonized YoY	April	--	7.80%
05/11/2022	United Kingdom	Unit Labor Costs YoY	4Q	--	3.10%
05/11/2022	United States	MBA Mortgage Applications	May 6	--	2.50%
05/11/2022	United States	CPI MoM	April	0.20%	1.20%
05/11/2022	United States	CPI Ex Food and Energy MoM	April	0.40%	0.30%
05/11/2022	United States	CPI YoY	April	--	8.50%
05/11/2022	United States	CPI Ex Food and Energy YoY	April	--	6.50%
05/12/2022	Japan	Eco Watchers Survey Current SA	April	51	47.8
05/12/2022	Japan	Eco Watchers Survey Outlook SA	April	--	50.1



DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
05/12/2022	United Kingdom	GDP QoQ	1Q	--	1.30%
05/12/2022	United Kingdom	GDP YoY	1Q	--	6.60%
05/12/2022	United Kingdom	Private Consumption QoQ	1Q	--	0.50%
05/12/2022	United Kingdom	Government Spending QoQ	1Q	--	1.50%
05/12/2022	United Kingdom	Gross Fixed Capital Formation QoQ	1Q	--	1.10%
05/12/2022	United Kingdom	Exports QoQ	1Q	--	6.90%
05/12/2022	United Kingdom	Imports QoQ	1Q	--	0.30%
05/12/2022	United Kingdom	Construction Output MoM	March	--	-0.10%
05/12/2022	United Kingdom	Construction Output YoY	March	--	6.10%
05/12/2022	United Kingdom	Total Business Investment QoQ	1Q	--	1.00%
05/12/2022	United Kingdom	Total Business Investment YoY	1Q	--	1.00%
05/12/2022	United States	PPI Ex Food and Energy YoY	April	--	9.20%
05/12/2022	United States	PPI Final Demand MoM	April	0.50%	1.40%
05/12/2022	United States	PPI Ex Food and Energy MoM	April	0.70%	1.00%
05/12/2022	United States	PPI Final Demand YoY	April	--	11.20%
05/12/2022	United States	Initial Jobless Claims	May 7	--	--
05/13/2022	France	CPI EU Harmonized MoM	April	--	0.50%
05/13/2022	France	CPI EU Harmonized YoY	April	--	5.40%
05/13/2022	France	Wages QoQ	1Q	--	0.50%
05/13/2022	United States	U. of Mich. Sentiment	May	63.8	65.2
05/13/2022	United States	U. of Mich. Current Conditions	May	68	69.4
05/13/2022	United States	U. of Mich. Expectations	May	64.1	62.5
05/13/2022	United States	U. of Mich. 1 Yr Inflation	May	5.40%	5.40%
05/13/2022	United States	U. of Mich. 5-10 Yr Inflation	May	--	3.00%

SOURCE: BLOOMBERG



FURTHER READING

19

The complex relationship between financial conditions, nominal and real interest rates	EcoTVWeek	06 May 2022
ECB: the weaker euro, a blessing or a headache?	EcoWeek	02 May 2022
Chinese exports: a major growth slowdown is expected	Chart of the Week	29 April 2022
France: Supply-side constraints and inflation are weighing on growth	EcoTVWeek	29 April 2022
Spanish housing market: cautious optimism	EcoFlash	29 April 2022
France: Supply-side constraints and inflation are weighing on growth	EcoTVWeek	29 April 2022
United Kingdom : Higher inflation causes decline in real wages	Chart of the Week	27 April 2022
Global : Inflation persistence and why it matters	EcoWeek	25 April 2022
From one crisis to another, how does Europe respond?	EcoTVWeek	22 April 2022
Emerging countries will bend but not break	EcoEmerging	22 April 2022
Eurozone : The lifting of moratoria has not significantly affected the quality of bank loan books	Chart of the Week	20 April 2022
US : Should we worry about the flattening of the yield curve? Not yet	EcoWeek	19 April 2022
OECD countries economic outlook - 2nd Quarter	EcoPerspectives	15 April 2022
Decoupling, deglobalisation and the inflation outlook	EcoTVWeek	15 April 2022
Morocco : The central bank holds the course despite inflationary pressures	Chart of the Week	13 April 2022
Eurozone : What drives companies' elevated selling price expectations?	EcoWeek	11 April 2022
India's economy faces new headwinds	EcoTVWeek	8 April 2022
Spain: A dynamic housing market	Chart of the Week	6 April 2022
European Union : A heatmap of the dependence of European countries on Russian and Ukrainian imports	EcoFlash	4 April 2022
Eurozone : Household spending under pressure from inflation	EcoWeek	4 April 2022



GROUP ECONOMIC RESEARCH

William De Vijlder
Chief Economist

+33 1 55 77 47 31

william.devijlder@bnpparibas.com

OECD ECONOMIES AND STATISTICS

Hélène Baudchon
Head - Eurozone - Climate

+33 1 58 16 03 63

helene.baudchon@bnpparibas.com

Felix Berte
United States, United Kingdom

+33 1 40 14 01 42

felix.berte@bnpparibas.com

Stéphane Colliac
France

+33 1 42 98 43 86

stephane.colliac@bnpparibas.com

Guillaume Derrien
Southern Europe, Japan - International trade

+33 1 55 77 71 89

guillaume.a.derrien@bnpparibas.com

Anthony Morlet-Lavidalie
Germany, Northern Europe

anthony.morletlavidalie@bnpparibas.com

Veary Bou, Patrick Capeillère, Tarik Rharrab
Statistics

ECONOMIC PROJECTIONS, RELATIONSHIP WITH THE FRENCH NETWORK

Jean-Luc Proutat
Head

+33 1 58 16 73 32

jean-luc.proutat@bnpparibas.com

BANKING ECONOMICS

Laurent Quignon
Head

+33 1 42 98 56 54

laurent.quignon@bnpparibas.com

Céline Choulet

+33 1 43 16 95 54

celine.choulet@bnpparibas.com

Thomas Humblot

+33 1 40 14 30 77

thomas.humblot@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

François Faure
Head - Argentina, Turkey - Methodology, Modelling

+33 1 42 98 79 82

francois.faure@bnpparibas.com

Christine Peltier
Deputy Head - Greater China, Vietnam - Methodology

+33 1 42 98 56 27

christine.peltier@bnpparibas.com

Stéphane Alby
Africa (French-speaking countries)

+33 1 42 98 02 04

stephane.alby@bnpparibas.com

Pascal Devaux
Middle East, Balkan countries

+33 1 43 16 95 51

pascal.devaux@bnpparibas.com

Hélène Drouot
South Korea, Philippines, Thailand, Andean countries

+33 1 42 98 33 00

helene.drouot@bnpparibas.com

Perrine Guérin
South Africa & English/Portuguese-speaking African countries

+33 1 42 98 43 86

perrine.guerin@bnpparibas.com

Salim Hammad
Latin America

+33 1 42 98 74 26

salim.hammad@bnpparibas.com

Cynthia Kalasopatan Antoine
Ukraine, Central European countries

+33 1 53 31 59 32

cynthia.kalasopatan@bnpparibas.com

Johanna Melka
India, South Asia, Russia, Kazakhstan

+33 1 58 16 05 84

johanna.melka@bnpparibas.com

CONTACT MEDIA

Mickaëlle Fils Marie-Luce

+33 1 42 98 48 59

mickaëlle.filsmarie-luce@bnpparibas.com



BNP PARIBAS

**The bank
for a changing
world**

GROUP ECONOMIC RESEARCH



CONJONCTURE

Structural or thematic topics.



EMERGING

Analyses and forecasts for a selection of emerging economies.



PERSPECTIVES

Analyses and forecasts with a focus on developed countries.



ECOFLASH

Data releases, major economic events.



ECOWEEK

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



ECOTV

A monthly video with interviews of our economists.



ECOTV WEEK

A weekly video discussing the main event of the week.



MACROWAVES

Our economic podcast.

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

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

Certain countries within the European Economic Area:

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

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

This report is being distributed in Germany either by BNP Paribas London Branch or by BNP Paribas Niederlassung Frankfurt am Main, a branch of BNP Paribas S.A. whose head office is in Paris, France. BNP Paribas S.A. - Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frankfurt is authorised and supervised by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

United States: This report is being distributed to US persons by BNP Paribas Securities Corp., or by a subsidiary or affiliate of BNP Paribas that is not registered as a US broker-dealer. BNP Paribas Securities Corp., a subsidiary of BNP Paribas, is a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority and other principal exchanges. BNP Paribas Securities Corp. accepts responsibility for the content of a report prepared by another non-U.S. affiliate only when distributed to U.S. persons by BNP Paribas Securities Corp.

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

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

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

© BNP Paribas (2015). All rights reserved.

HOW TO RECEIVE OUR PUBLICATIONS

SUBSCRIBE ON OUR WEBSITE
[see the Economic Research website](#)



FOLLOW US ON LINKEDIN
[see the Economic Research linkedin page](#)

OR TWITTER

[see the Economic Research Twitter page](#)



Published by BNP PARIBAS Economic Research

Head office: 16 boulevard des Italiens - 75009 Paris France / Phone : +33 (0) 1.42.98.12.34

Internet: www.group.bnpparibas.com - www.economic-research.bnpparibas.com

Head of publication : Jean Lemierre / Chief editor: William De Vijlder



BNP PARIBAS

The bank
for a changing
world