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ECONOMIC RESEARCH



**BNP PARIBAS**

The bank  
for a changing  
world

## SERENDIPITY LOST? WORKING FROM HOME AND INNOVATION

Working from home is expected to have a positive impact on the level of productivity but will it also influence its growth rate? The answer largely depends on what happens to innovation. Interaction between people is key for idea generation and the exchange of information. Formal interaction can be easily organized using a variety of software applications but informal interaction is a bigger challenge. To make sure that serendipity within and amongst teams – given its importance for a culture of innovation – is maintained, a combination of working from home and onsite seems to be recommended.

Based on recent surveys, companies seem to expect a positive impact of working from home on productivity<sup>1</sup>. If confirmed, it remains to be seen whether it will be an increase in the level of productivity or in its growth rate. One would expect the former as it is not obvious why working from home would cause productivity to increase year after year.

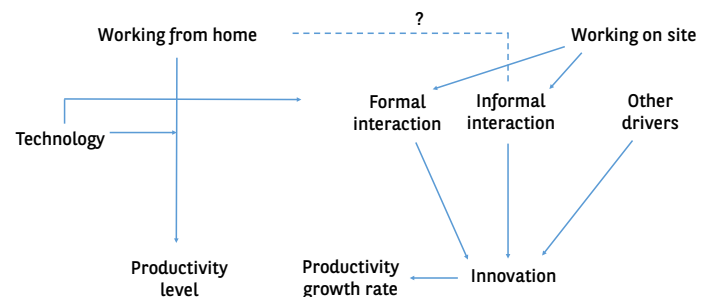
For the growth rate of productivity, innovations play an important role. Innovation can be defined as “a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process).”<sup>2</sup> Recent innovations have been instrumental in facilitating working from home by making the necessary technology available. There is also evidence that “suggests that COVID-19 is re-directing technical change in ways that will improve remote interactivity” whereas other research shows that “the extent of working from home is indeed responsive to innovations that facilitate remote work.” This means there is a fascinating reciprocal influence between technological innovation and working from home, the former being a facilitator and the latter acting as a push factor. Innovation has also changed the way of working in many professions. In certain countries, regulatory innovations have allowed for virtual consultations by healthcare professionals<sup>3</sup>.

Although innovation has facilitated working from home, a key question is whether the capacity to innovate will benefit or suffer from this new way of working. The answer matters at the micro level through its influence on long-term productivity growth and the competitiveness of individual companies as well as the macro level, via economic activity and growth.

Innovation in companies depends on many factors. An extensive survey of the literature has identified up to twenty innovation enablers<sup>4</sup> with three of them being mentioned the most often. Firstly, collaboration, which concerns open communication and free flowing information. Secondly, management of innovation with the right balance between formalization and informal approach, between working in cross-functional groups and individually. Thirdly, knowledge management, which is about using the company’s ‘knowledge assets’ in the best possible way to foster innovation. Against this background, working from home brings challenges but also opportunities. Concerning the latter, the extensive use of videoconferencing facilitates the access to expert information. A variety of software applications also allows

4. *Innovation Enablers for Innovation Teams – A Review*, Mikael Johnsson, Journal of Innovation Management, vol. 5, nr 3, 2017, pp. 75-121. The author analysed 211 academic articles. The twenty enablers were: Climate, culture, economy, management, strategy, time, collaboration, education, human resources, need, processes, awareness, capabilities, dedication, empowerment, entre-/intrapreneurship, incentives, knowledge, knowledge management, mind-set.

### WORKING FROM HOME, PRODUCTIVITY AND INNOVATION



SOURCE: BNP PARIBAS

1. *Working from home and labour productivity*, EcoWeek, BNP Paribas, 3 May 2021.  
 2. OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities*, OECD, Publishing, Paris/Eurostat, Luxembourg. <https://doi.org/10.1787/9789264304604-en>  
 3. Source, including of the quotes: *Why Working From Home Will Stick*, Jose Maria Barrero, Nicholas Bloom and Steven J. Davis, NBER paper 28731, April 2021. The authors mention research showing that new patent applications that advance WFH technologies more than doubles from January to September of 2020

“ A combination of working from home and onsite seems to be recommended to make sure that serendipity within and amongst teams is maintained, so as to foster a culture of innovation. ”

to easily organize the formal interaction between people – which is key for idea generation and the exchange of information – although the effectiveness may depend on the tool that is used. Research shows that communication via chat reduces the creativity of teams whereas there is *“no significant difference between performances of groups that communicate via video conferences as compared to face-to-face.”*<sup>5</sup> Online interactions also *“decrease the effectiveness whereby employees share “peripheral knowledge” – i.e., knowledge that is critical to a small audience but seemingly parenthetical to other receivers.”*<sup>6</sup> A bigger issue is that working from home makes it difficult to have unscheduled, informal contacts and discussions, which are key for idea generation and to stimulate thinking. To make sure that serendipity within and amongst teams – and its importance for a culture of innovation – is maintained, it seems that a hybrid model is to be recommended. People would work from home part of the time – because of the efficiency and productivity that this brings – and onsite for the remainder. The onsite presence would have to be organized in such a way that those people who need to meet and chat for the exchange of ideas are present the same days.<sup>7</sup>

**William De Vijlder**

5. *Innovation and Communication Media in Virtual Teams – An Experimental Study*, Nicola Grözinger, Bernd Irlenbusch, Katharina Laske, Marina Schröder, IZA Institute of Labour Economics, DP No. 13218, May 2020.

6. *Safeguarding Serendipitous Creativity During the COVID-19 Pandemic*, Shiko Ben-Menahem and Zeynep Erden, California Management Review, Volume 63, Issue 2, Winter 2021.

7. This is also the conclusion from a survey of business leaders reported in *Why Working From Home Will Stick*, Jose Maria Barrero, Nicholas Bloom and Steven J. Davis, NBER paper 28731, April 2021.



# MARKETS OVERVIEW

## OVERVIEW

Week 7-5 21 to 14-5-21

▼ CAC 40	6 386	▶ 6 385	-0.0 %
▼ S&P 500	4 233	▶ 4 174	-1.4 %
↗ Volatility (VIX)	16.7	▶ 18.8	+2.1 pb
▼ Euribor 3M (%)	-0.53	▶ -0.55	-2.0 bp
▼ Libor \$ 3M (%)	0.16	▶ 0.16	-0.4 bp
↗ OAT 10y (%)	0.09	▶ 0.21	+11.8 bp
↗ Bund 10y (%)	-0.22	▶ -0.12	+9.6 bp
↗ US Tr. 10y (%)	1.58	▶ 1.63	+5.1 bp
▼ Euro vs dollar	1.21	▶ 1.21	-0.1 %
↗ Gold (ounce, \$)	1 835	▶ 1 837	+0.1 %
▼ Oil (Brent, \$)	68.4	▶ 67.1	-1.8 %

## MONEY & BOND MARKETS

Interest Rates	highest 21	lowest 21	Yield (%)	highest 21	lowest 21
€ ECB	0.00	0.00 at 01/01	0.00 at 01/01	€ AVG 5-7y	-0.07
Eonia	-0.48	-0.47 at 26/01	-0.50 at 01/01	Bund 2y	-0.65
Euribor 3M	-0.55	-0.53 at 07/05	-0.56 at 06/01	Bund 10y	-0.12
Euribor 12M	-0.48	-0.47 at 20/04	-0.52 at 02/02	OAT 10y	0.21
\$ FED	0.25	0.25 at 01/01	0.25 at 01/01	Corp. BBB	0.75
Libor 3M	0.16	0.24 at 13/01	0.15 at 12/05	Treas. 2y	0.15
Libor 12M	0.26	0.34 at 01/01	0.26 at 12/05	Treas. 10y	1.63
€ BoE	0.10	0.10 at 01/01	0.10 at 01/01	High Yield	4.66
Libor 3M	0.08	0.09 at 24/03	0.03 at 01/01	E gilt. 2y	0.08
Libor 12M	0.17	0.17 at 13/05	0.07 at 11/01	E gilt. 10y	0.89

At 14-5-21

## EXCHANGE RATES

1€ =	highest 21	lowest 21	2021
USD	1.21	1.23 at 06/01	1.17 at 30/03 -0.8%
GBP	0.86	0.91 at 06/01	0.85 at 05/04 -3.8%
CHF	1.10	1.11 at 04/03	1.08 at 18/01 +1.3%
JPY	132.78	132.78 at 14/05	125.22 at 18/01 +5.1%
AUD	1.56	1.60 at 04/01	1.53 at 18/03 -1.5%
CNY	7.81	8.00 at 01/01	7.69 at 25/03 -2.4%
BRL	6.39	6.95 at 03/03	6.32 at 07/05 +0.5%
RUB	89.79	92.47 at 20/04	86.53 at 16/03 -0.8%
INR	88.92	90.39 at 23/04	85.30 at 27/03 -0.5%

At 14-5-21

## COMMODITIES

Spot price, \$	highest 21	lowest 21	2021	2021(€)	
Oil, Brent	67.1	69.7 at 11/03	51.2 at 04/01	+29.3%	+30.4%
Gold (ounce)	1 837	1 947 at 05/01	1 682 at 08/03	-3.2%	-2.4%
Metals, LME	4 312	4 402 at 11/05	3 415 at 01/01	+26.3%	+27.4%
Copper (ton)	10 215	10 449 at 11/05	7 749 at 01/01	+31.8%	+32.9%
wheat (ton)	267	2.9 at 07/05	231 at 30/03	+8.0%	+8.9%
Corn (ton)	257	2.9 at 07/05	188 at 04/01	+3.7%	+37.7%

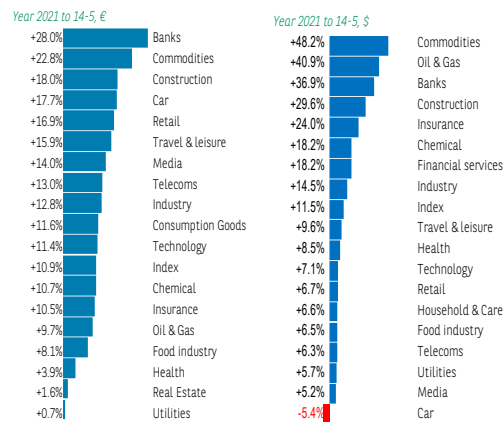
At 14-5-21

## EQUITY INDICES

Index	highest 21	lowest 21	2021
<b>World</b>			
MSCI World	2 939	2 979 at 07/05	2 662 at 29/01 +9.2%
<b>North America</b>			
S&P500	4 174	4 233 at 07/05	3 701 at 04/01 +11.1%
<b>Europe</b>			
EuroStoxx50	4 017	4 034 at 07/05	3 481 at 29/01 +13.1%
CAC 40	6 385	6 386 at 10/05	5 399 at 29/01 +1.5%
DAX 30	15 417	15 460 at 16/04	13 433 at 29/01 +12.4%
IBEX 35	9 146	9 146 at 14/05	7 758 at 29/01 +1.3%
FTSE100	7 044	7 130 at 07/05	6 407 at 29/01 +0.9%
<b>Asia</b>			
MSCI, loc.	1 099	1 137 at 18/03	1 044 at 06/01 +0.5%
Nikkei	28 084	30 468 at 16/02	27 056 at 06/01 +2.3%
<b>Emerging</b>			
MSCI Emerging (\$)	1 308	1 445 at 17/02	1 288 at 25/03 +0.1%
China	104	130 at 17/02	102 at 13/05 -4.5%
India	715	736 at 03/03	659 at 29/01 +6.2%
Brazil	1 864	1 941 at 14/01	1 561 at 09/03 +0.6%
Russia	732	743 at 07/05	647 at 01/02 +9.5%

At 14-5-21

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

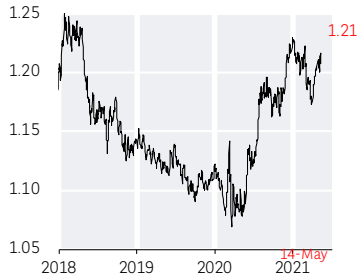


SOURCE: THOMSON REUTERS,

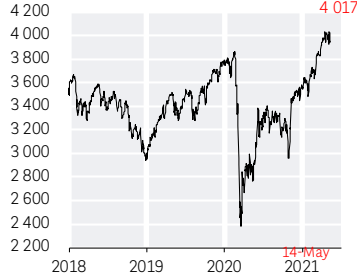


# MARKETS OVERVIEW

**EURO-DOLLAR**



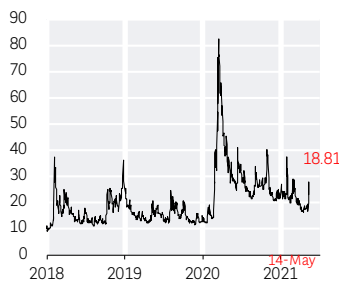
**EUROSTOXX50**



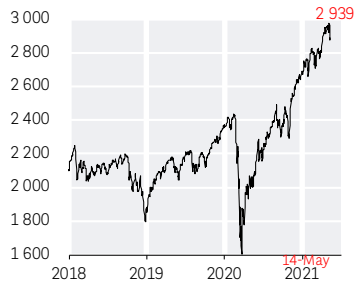
**S&P500**



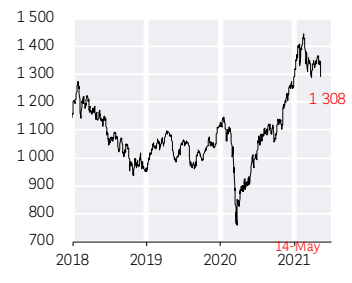
**VOLATILITY (VIX, S&P500)**



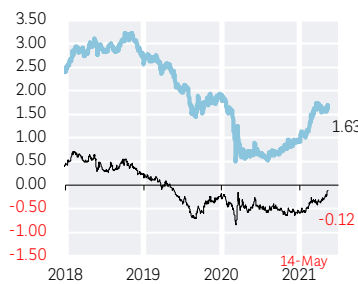
**MSCI WORLD (USD)**



**MSCI EMERGING (USD)**

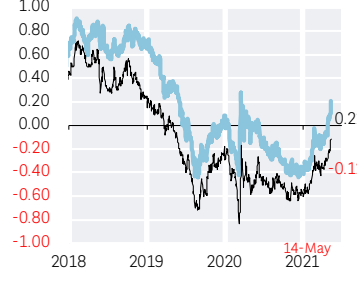


**10Y BOND YIELD, TREASURIES VS BUND**



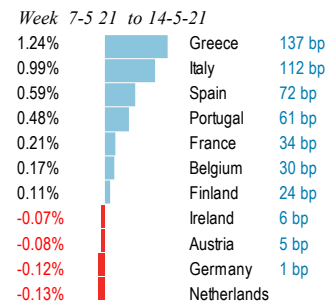
—Bunds —US Treasuries

**10Y BOND YIELD**

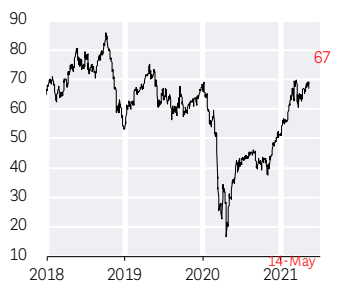


—Bunds —OAT

**10Y BOND YIELD & SPREADS**



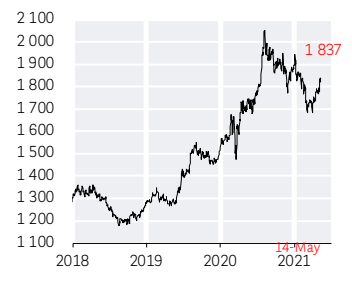
**OIL (BRENT, USD)**



**METALS (LMEX, USD)**



**GOLD (OUNCE, USD)**



SOURCE: THOMSON REUTERS,



# ECONOMIC PULSE

## FRANCE: APRIL'S LOCKDOWN HAD A MILDLY NEGATIVE IMPACT ON OVERALL ECONOMIC ACTIVITY

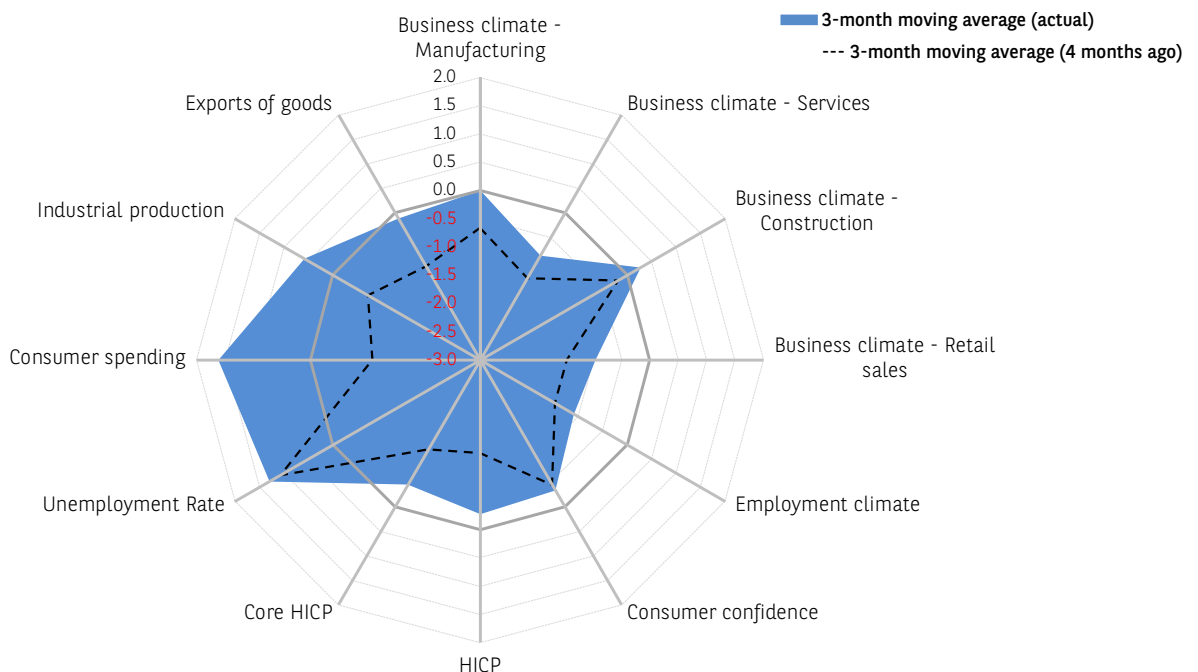
Our barometer shows a marked improvement in France's economic situation in recent months compared to the three previous months. Indeed, the blue area largely surpasses the dotted area in terms of hard data. Yet the improvement is helped by a very favourable base effect. In March 2021, household spending on goods declined 1.1% m/m. Yet the year-on-year figure jumped 18.7% because in March 2020, spending was down 16.7% m/m due to the first lockdown. Similarly, the small monthly increase in production (0.8% m/m) was transformed into a 13.7% surge on a year-on-year basis. Exports were up 2.6% m/m and 12.7% y/y.

In April 2021, the base effect should be favourable again, despite another lockdown. This lockdown was not as stringent as the first one in April 2020, and was comparable to the second lockdown in November. Above all, there was not the suddenness of the shock that hit the economy last spring. Since then, the economy has shown great capacity to adapt and emergency measures buffered the shock. Today, only the activity in sectors more directly affected by health restrictions is halted or continues at a reduced pace, unlike the widespread shutdown of spring 2020. Industry and construction are not hindered as much whereas industry is benefiting from the global recovery. Lastly, with the vaccination rollout, we are beginning to see the light at the end of the tunnel.

As a consequence, the negative impact of April's lockdown was milder than expected. According to the latest estimates of the Banque de France, the shortfall in GDP was only 6% below pre-crisis levels in April (compared to initial estimates of -7%, the same impact as in November) and the gap should narrow to -4% in May. Similarly, business sentiment in the April surveys did not drop off as feared. The INSEE surveys only saw a very mild decline. In addition to these encouraging results, payroll employment was surprisingly strong in Q1, up 0.3% q/q. Last month our barometer delivered a mixed message, with economic growth following a yoyo-type profile, but this has now given way to a more positive feeling, bolstered by signs of greater economic resilience. This supports our Q2 forecast of slightly positive growth, in line with the INSEE's outlook, and the risk of a negative print seems to be fading.

**Hélène Baudchon**

### FRANCE: QUARTERLY CHANGES



SOURCE: THOMSON REUTERS, 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 -3 and +2. 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

## SPAIN: CLEARER SKIES AHEAD

After disappointing Q1 GDP figures – which showed the economy contracting again, by 0.5% q/q – the second quarter should bring the start of the much-anticipated recovery in Spain.

On the pandemic front, the vaccination campaign is accelerating, with Spain delivering 500,000 daily injections for the first time on 30 April, while the number of new Covid-19 cases has slipped back below 200 per 100,000 people (7-day average). Spain’s pandemic-related state of emergency officially ended on 9 May. From now on, Spain’s autonomous regions will decide which level of restrictions to adopt, which should provide greater flexibility and should boost the economic recovery.

The improvement in the Covid-19 situation is continuing to have a knock-on effect on business and consumer confidence, which brightened again in April, as shown by our pulse. For example, the PMI composite index jumped by 5.1 points to 55.2 in April, driven by much greater optimism in services (up 6.5 points to 54.6). However, the improvement in opinion surveys is yet to show up in the jobs data: according to the Spanish employment office (SEPE), the number of workers registered

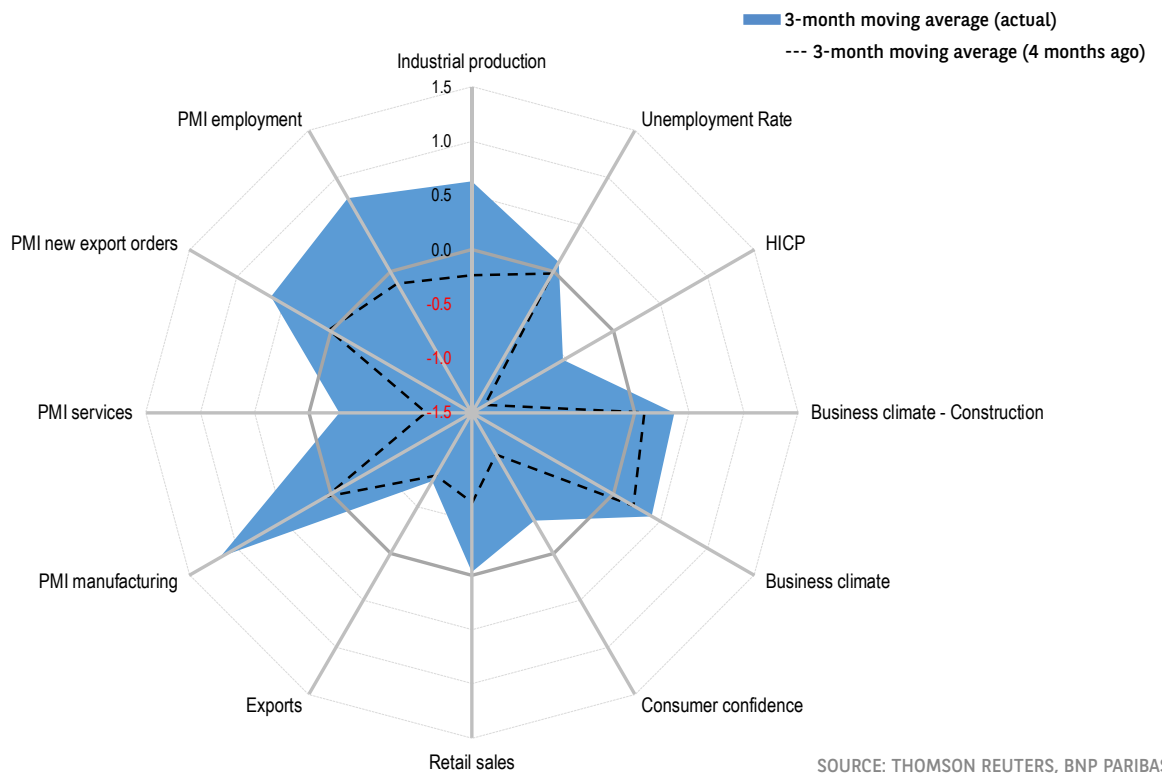
to the social security system fell slightly in April (-9,800 or 0.1%)<sup>1</sup>, down for the third consecutive month. The unemployment rate (15.3% in March) has fallen slowly but steadily from its August 2020 peak (16.7%).

The drop in activity this winter led the government to cut its growth forecast and raise its public deficit forecast. In its Stability Programme submitted to the European Commission on 7 May, the Spanish Government is now projecting real GDP to grow by 6.5% in 2021, and it expects GDP level to climb back to its pre-Covid level by the end of 2022 at the earliest. The Government has also raised its projected 2021 public deficit/GDP ratio to 8.4%. These forecasts remain heavily dependent on the upcoming tourist season: given the acceleration in the vaccination campaign in Europe and the imminent introduction of a European Covid passport, tourism may recover more strongly than what could have been expected just a few weeks ago.

**Guillaume Derrien**

1. Seasonally adjusted data.

### SPAIN: 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 -1.5 and +1.5. 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: FALL IN NUMBER OF NEW CASES WORLDWIDE

According to the latest figures from Johns Hopkins University, 5.5 million new Covid-19 cases were recorded around the world in the week of 4-10 May, a 12.5% drop from the previous week. This fall was seen in Europe (-16.5%), Asia (excluding India, -14.5%) and the Americas (-6.3%). However, India saw a small increase of 2.4% over the same period, followed by a slight decline (chart 1). Meanwhile, vaccination campaigns continue to gain ground around the world. The acceleration was particularly notable in the European Union (where 29% of the population has now received at least one vaccine dose). (chart 2).

As health protection measures have been relaxed, footfall to retail and leisure facilities continued to rise in the main developed economies between 30 April and 7 May. Only Germany saw a decline, with a 6.8 points drop from 36.1% below the benchmark\* to 42.9% below (seven-day moving average). During the week under review, visit numbers in Belgium, Spain, Italy and the United Kingdom were the highest since the beginning of 2021 (chart 3). Moreover, the OECD

Weekly Tracker of annual GDP growth in the main advanced countries continued to slide, although it picked up in Japan and Italy after a brief decline (chart 3). The OECD Tracker, which is based on Google Trends resulting from queries on consumption, the labour market, housing, industrial activity and uncertainty, should be interpreted cautiously since it reflects a base effect due to the comparison with poor data when the pandemic started to spread last year

Tarik Rharrab

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

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

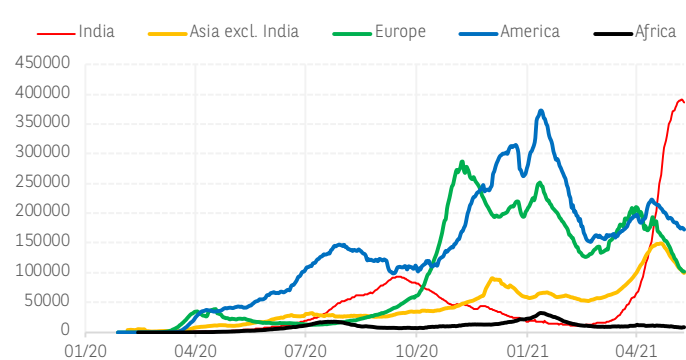


CHART 1 SOURCE: JOHNS-HOPKINS UNIVERSITY (05/12/2021), BNP PARIBAS

**SHARE OF PEOPLE WHO RECEIVED AT LEAST ONE DOSE OF VACCINE**

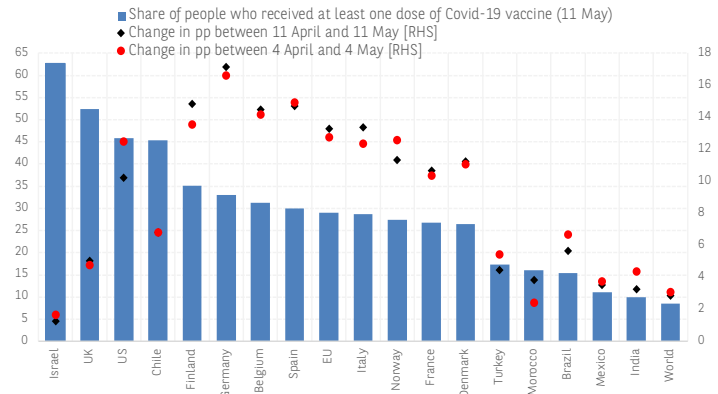


CHART 2 SOURCE: OUR WORLD IN DATA (05/12/2021), BNP PARIBAS

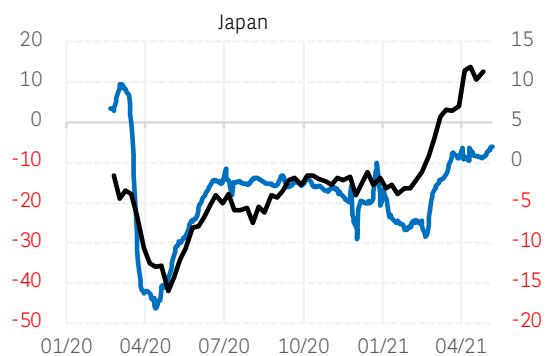
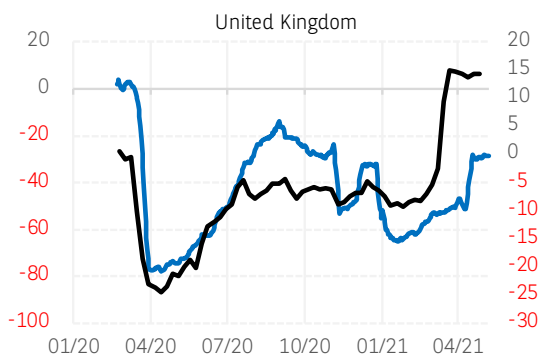
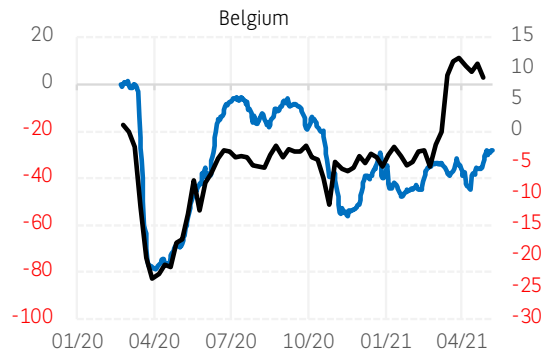
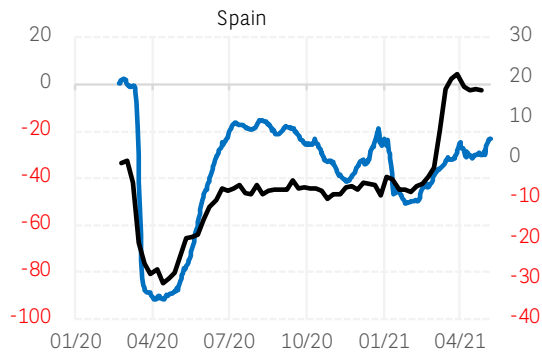
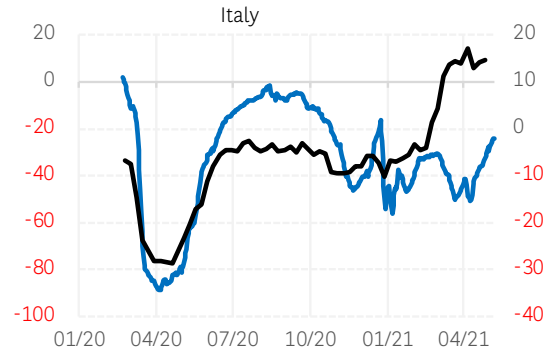
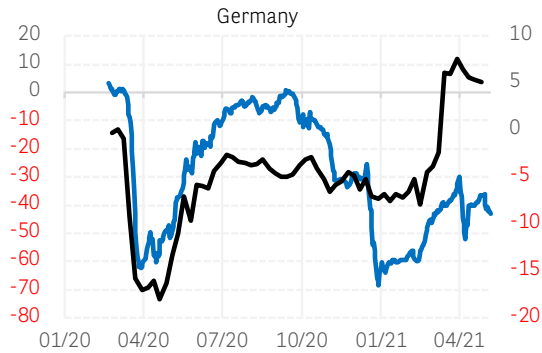
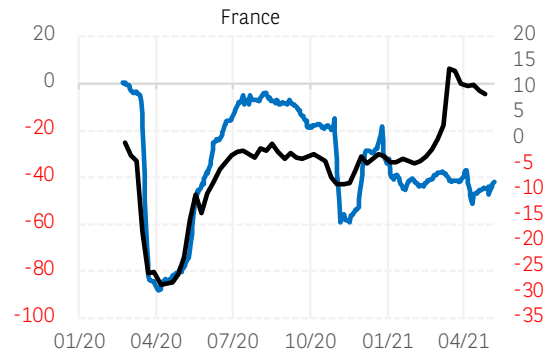
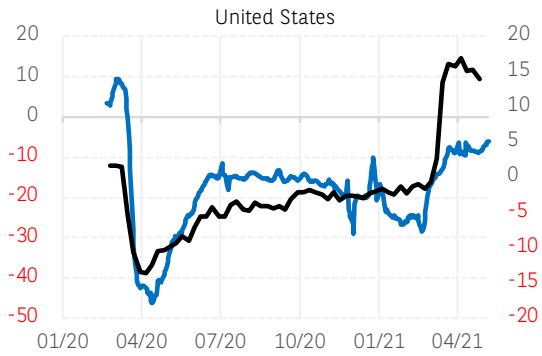




RETAIL AND RECREATION MOBILITY & OECD WEEKLY TRACKER

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

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



SOURCE: OECD (05/12/2021), GOOGLE (05/12/2021), BNP PARIBAS

# ECONOMIC SCENARIO

10

## UNITED STATES

Having limited the damage in 2020, the US economy is now recovering fast, driven by a vaccination campaign that is steaming ahead and raising hopes of collective immunity to Covid-19 being achieved at some point in the summer. The economy has also benefited from the exceptional fiscal stimulus package, which is twice the size of that put in place after the financial crisis of 2008. As a result, US GDP growth will be close to 7% in 2021, opening the way to a rapid return to pre-crisis levels. The employment deficit remains significant as a result of the pandemic, but this should steadily be absorbed, opening the way to a rapid fall in the unemployment rate, which is expected to drop below the 5% mark in the second half. Expected inflation has risen sharply and is unlikely to fall back, particularly as reported inflation is picking up. Over the coming months the latter is likely to run well above the 2% target set by the Federal Reserve, but this will not cause the central bank to deviate from its accommodating stance.

## CHINA

After plummeting in Q1 2020, economic activity has experienced a V-shaped rebound since Q2. Economic growth will stay strong in 2021, still supported by industrial production and exports. Manufacturing investment growth should accelerate in the short term while investment growth in infrastructure and real estate projects is expected to slow. The growth recovery in the services sector and in private consumption has started later and been slower, but it should gain momentum in 2021. The authorities are expected to reduce very gradually their fiscal policy support measures and continue the cautious credit policy tightening, which was initiated in Q4 2020 in order to stabilize domestic debt-to-GDP ratios and contain risks in the financial system.

## EUROZONE

After an historic recession in 2020 (-6.8%, annual average), the Eurozone economy should firmly rebound this year (+4.2%), especially from the H2. In 2022, the economic recovery would be still on track with an economic growth of +5%. Globally, Eurozone GDP could reach its pre-crisis level faster than we expected before, around the middle of 2022. The current resurgence in the pandemic across many Member states and new health restrictions keep weighing on the dynamics of the recovery and uncertainties remain at a significant level. Nevertheless, the expected acceleration of vaccines rollout is the brightest spot for the economy in the months ahead. Also, in this still tricky situation, the policy-mix will remain accommodative to support the recovery. The European central bank has already announced a higher pace of assets purchases, helping to maintain very favorable financing conditions in the Eurozone. Over the coming months, one of the most important issues to focus on will be to restore consumers' confidence. This constitutes an essential vector of a prompt and sustained recovery.

## FRANCE

Contrary to what the discovery of vaccines at the end of 2020 suggested, i.e. the end of the stop-and-go activity, at the beginning of 2021, due to the appearance of variants and the slowness of vaccination, we are still on a trajectory of crisis exit in fits and starts. The capacity of the economy to rebound and the possibility of a vigorous rebound are not, as such, called into question; it is the timing of the rebound that has been postponed. It is now expected in H2 2021, bolstered by the acceleration of the immunization and the support of the policy-mix. For 2021 as a whole, growth would average 6.1%. This is a rather optimistic forecast, half a point above the March 2021 consensus. In 2022, growth would remain strong (4.4%). According to our scenario, French GDP would exceed its pre-crisis level in Q1 2022. Inflation is also expected to pick up, driven by temporary factors (commodity prices) but also by the more lasting influence of supply (constrained) and demand (rising) and the reflationary efforts of monetary policy.

## RATES AND EXCHANGE RATES

In the US, policy will remain on hold for quite some time, considering that the FOMC wants inflation to move beyond 2% to make up for past below-target inflation. Its outcome-dependent guidance is very clear: the current pace of asset purchases will

be maintained 'until substantial further progress has been made' toward reaching its goals in terms of maximum employment and inflation and the FOMC will signal well in advance when the economy is on a path warranting a change in policy. Although it expects an increase in inflation later this year, it considers it will be transient and limited. Treasury yields should continue to move higher on the back of fiscal stimulus and the prospect of a strong acceleration of economic growth.

In the eurozone, the ECB will maintain its very accommodative stance centered around its asset purchases and forward guidance, with the objective to generate a pick-up in inflation. The pandemic emergency purchase programme (PEPP) is to last at least until the end of March 2022. Nevertheless, bond yields are expected to move higher based on the acceleration of euro area growth, the reduction in uncertainty and the spillover effect of higher US Treasury yields. This should also lead to a slight increase in sovereign spreads in the euro area. The Bank of Japan is expected to maintain its current policy stance including its yield curve control strategy although the range of the latter has recently been widened to +/- 25 bp around 0%. Within this range, JGB yields are expecting to move higher, following the global trend. We expect the dollar to weaken slightly versus the euro. This is the result of conflicting forces: faster growth in the US than in the eurozone but narrow interest rate differentials at the short end of the curve and a dollar which at current levels is expensive compared to fair value. Concerning the yen, little change is expected versus the dollar whereas it is expected to weaken against the euro.

### GROWTH & INFLATION

%	GDP Growth				Inflation			
	2019	2020	2021 e	2022 e	2019	2020	2021 e	2022 e
United-States	2.2	-3.5	6.9	4.7	1.8	1.2	2.5	2.2
Japan	0.3	-4.8	3.0	2.3	0.5	0.0	-0.3	0.0
United-Kingdom	1.5	-10.2	6.1	6.0	1.8	0.9	1.4	2.1
Euro Area	1.3	-6.8	4.2	5.0	1.2	0.3	1.7	1.4
Germany	0.6	-5.3	3.0	4.8	1.4	0.4	2.1	1.5
France	1.5	-8.2	6.1	4.4	1.3	0.5	1.4	1.0
Italy	0.3	-8.9	5.0	3.9	0.6	-0.1	1.5	1.4
Spain	2.0	-10.8	5.9	5.6	0.8	-0.3	1.3	1.2
China	6.1	2.3	9.2	5.3	2.9	2.5	1.8	2.8
India*	4.2	-7.2	12.5	4.1	4.8	6.2	4.9	4.6
Brazil	1.1	-4.1	2.5	3.0	3.7	3.2	6.5	4.0
Russia	1.3	-4.5	4.0	3.0	4.3	3.4	5.1	4.0

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, %		2021				2022e	
End of period		Q1	Q2e	Q3e	Q4e	2021e	2022e
US	Fed Funds (upper limit)	0.25	0.25	0.25	0.25	0.25	0.25
	T-Notes 10y	1.75	2.00	2.10	2.20	2.20	2.50
Ezone	Deposit rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
	Bund 10y	-0.33	-0.20	-0.10	0.20	0.20	0.20
	OAT 10y	-0.11	0.00	0.15	0.50	0.50	0.50
	BTP 10y	0.63	0.70	0.90	1.35	1.35	1.30
UK	BONO 10y	0.34	0.45	0.60	0.95	0.95	1.00
	Base rate	0.10	0.10	0.10	0.10	0.10	0.10
Japan	Gilts 10y	0.88	1.00	1.10	1.20	1.20	1.30
	Bol Rate	-0.04	-0.10	-0.10	-0.10	-0.10	-0.10
JGB 10y		0.09	0.12	0.18	0.23	0.23	0.28

Exchange Rates		2021				2022e	
End of period		Q1	Q2e	Q3e	Q4e	2021e	2022e
USD	EUR / USD	1.18	1.18	1.20	1.23	1.23	1.18
	USD / JPY	111	111	111	111	111	114
	GBP / USD	1.38	1.39	1.43	1.46	1.46	1.42
EUR	EUR / GBP	0.85	0.85	0.84	0.84	0.84	0.83
	EUR / JPY	130	131	133	137	137	135

SOURCE: BNP PARIBAS GLOBAL MARKETS (E: ESTIMATES)



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## CALENDAR

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## LATEST INDICATORS

The Banque de France industrial sentiment index in April improved more than expected. The ZEW expectations survey recorded a considerable increase in Germany and the eurozone. In the United Kingdom, in March, the monthly estimate of real GDP growth increased more than anticipated. The European Commission upgraded its growth forecasts for the EU. In Japan, the Eco Watchers survey in April weakened far more than expected. Most data in the United States were weaker than the previous reading. Retail sales disappointed strongly and, unexpectedly, University of Michigan household expectations were down. Core inflation and one-year inflation expectations were up strongly.

DATE	COUNTRY	INDICATOR	PERIOD	SURVEY	ACTUAL	PREVIOUS
05/10/2021	France	Bank of France Ind. Sentiment	Apr	106	107	105
05/11/2021	China	CPI YoY	Apr	1.00%	0.90%	0.40%
05/11/2021	Germany	ZEW Survey Expectations	May	72	84.4	70.7
05/11/2021	Germany	ZEW Survey Current Situation	May	-41.6	-40.1	-48.8
05/11/2021	Eurozone	ZEW Survey Expectations	May	--	84	66.3
05/11/2021	United States	NFIB Small Business Optimism	Apr	100.8	99.8	98.2
05/11/2021	United States	JOLTS Job Openings	Mar	7500k	8123k	7367k
05/12/2021	Japan	Leading Index CI	Mar	102.9	103.2	98.7
05/12/2021	United Kingdom	GDP QoQ	1Q	-1.60%	-1.50%	1.30%
05/12/2021	United Kingdom	Monthly GDP (MoM)	Mar	0.015	0.021	0.004
05/12/2021	Eurozone	EU Commission Economic Forecasts				
05/12/2021	Eurozone	Industrial Production SA MoM	Mar	0.80%	0.10%	-1.00%
05/12/2021	United States	CPI Ex Food and Energy MoM	Apr	0.30%	0.90%	0.30%
05/13/2021	Japan	Eco Watchers Survey Current SA	Apr	47	39.1	49
05/13/2021	Japan	Eco Watchers Survey Outlook SA	Apr	43.5	41.7	49.8
05/13/2021	United States	PPI Ex Food and Energy MoM	Apr	0.40%	0.70%	0.70%
05/13/2021	United States	Initial Jobless Claims	May	490k	473k	498k
05/14/2021	United States	Retail Sales Control Group	Apr	-0.20%	-1.50%	6.90%
05/14/2021	United States	Industrial Production MoM	Apr	0.90%	0.70%	1.40%
05/14/2021	United States	Capacity Utilization	Apr	75.00%	74.90%	74.40%
05/14/2021	United States	U. of Mich. Sentiment	May	90	82.8	88.3
05/14/2021	United States	U. of Mich. Current Conditions	May	99.8	90.8	97.2
05/14/2021	United States	U. of Mich. Expectations	May	84.5	77.6	82.7
05/14/2021	United States	U. of Mich. 1 Yr Inflation	May	3.50%	4.60%	3.40%
05/14/2021	United States	U. of Mich. 5-10 Yr Inflation	May	--	3.10%	2.70%

SOURCE : BLOOMBERG



# CALENDAR: THE WEEK AHEAD

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## COMING INDICATORS

A very busy week ahead of us with, as usual around this time of the month, many Chinese data as well as the flash PMIs in several countries. Japan will publish the details of first quarter GDP as well as export volume, machinery orders and inflation data. In the eurozone, employment numbers will be published as well as inflation data, consumer confidence and an update of the estimate for Q1 GDP growth. Several statistics are released in the UK (labour market, inflation, order books). In the US we will have numbers on the activity in the housing market and construction sector as well as the Philadelphia Fed business survey and the weekly initial unemployment claims. Analysts will read with great interest the FOMC minutes which will also be published.

DATE	COUNTRY	INDICATOR	PERIOD	SURVEY	PREVIOUS
05/17/2021	China	New Home Prices MoM	Apr	--	0.41%
05/17/2021	China	Industrial Production YTD YoY	Apr	21.10%	24.50%
05/17/2021	China	Fixed Assets Ex Rural YTD YoY	Apr	20.00%	25.60%
05/17/2021	China	Property Investment YTD YoY	Apr	20.00%	25.60%
05/17/2021	China	Surveyed Jobless Rate	Apr	5.20%	5.30%
05/17/2021	China	Retail Sales YTD YoY	Apr	31.70%	33.90%
05/17/2021	United States	NAHB Housing Market Index	May	83	83
05/18/2021	Japan	GDP SA QoQ	1Q	-1.10%	2.80%
05/18/2021	Japan	GDP Annualized SA QoQ	1Q	-4.60%	11.70%
05/18/2021	Japan	GDP Private Consumption QoQ	1Q	-1.90%	2.20%
05/18/2021	Japan	GDP Business Spending QoQ	1Q	0.80%	4.30%
05/18/2021	Japan	Inventory Contribution % GDP	1Q	0.20%	-0.60%
05/18/2021	Japan	Net Exports Contribution % GDP	1Q	-0.20%	1.10%
05/18/2021	United Kingdom	ILO Unemployment Rate 3Mths	Mar	--	4.90%
05/18/2021	United Kingdom	Employment Change 3M/3M	Mar	--	-73k
05/18/2021	Eurozone	Employment QoQ	1Q	--	0.30%
05/18/2021	Eurozone	GDP SA QoQ	1Q	--	-0.60%
05/18/2021	United States	Building Permits MoM	Apr	0.60%	2.70%
05/18/2021	United States	Housing Starts MoM	Apr	-1.70%	19.40%
05/18/21-05/24/21	United Kingdom	CBI Trends Total Orders	May	--	-8
05/18/21-05/24/21	United Kingdom	CBI Trends Selling Prices	May	--	27
05/19/2021	United Kingdom	CPI Core YoY	Apr	--	1.10%
05/19/2021	United Kingdom	PPI Output NSA MoM	Apr	--	0.50%
05/19/2021	United Kingdom	PPI Input NSA MoM	Apr	--	1.30%

SOURCE : BLOOMBERG



DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
05/19/2021	Eurozone	EU27 New Car Registrations	Apr	--	87.30%
05/19/2021	Eurozone	CPI YoY	Apr	--	1.30%
05/19/2021	Eurozone	CPI MoM	Apr	--	0.60%
05/19/2021	Eurozone	CPI Core YoY	Apr	--	0.80%
05/19/2021	United States	MBA Mortgage Applications	14-May	--	2.10%
05/19/2021	United States	FOMC Meeting Minutes	28-Apr	--	--
05/20/2021	Japan	Exports YoY	Apr	--	16.10%
05/20/2021	Japan	Core Machine Orders MoM	Mar	--	-8.50%
05/20/2021	United States	Philadelphia Fed Business Outlook	May	43.2	50.2
05/20/2021	United States	Initial Jobless Claims	15-May	--	--
05/21/2021	United Kingdom	GfK Consumer Confidence	May	--	-15
05/21/2021	Japan	Natl CPI Ex Fresh Food, Energy YoY	Apr	--	0.30%
05/21/2021	Japan	Jibun Bank Japan PMI Mfg	May	--	53.6
05/21/2021	Japan	Jibun Bank Japan PMI Services	May	--	49.5
05/21/2021	Japan	Jibun Bank Japan PMI Composite	May	--	51
05/21/2021	United Kingdom	Retail Sales Ex Auto Fuel MoM	Apr	--	4.90%
05/21/2021	France	Markit France Manufacturing PMI	May	--	58.9
05/21/2021	France	Markit France Services PMI	May	--	50.3
05/21/2021	France	Markit France Composite PMI	May	--	51.6
05/21/2021	Germany	Markit/BME Germany Manufacturing PMI	May	--	66.2
05/21/2021	Germany	Markit Germany Services PMI	May	--	49.9
05/21/2021	Germany	Markit/BME Germany Composite PMI	May	--	55.8
05/21/2021	Eurozone	Markit Eurozone Manufacturing PMI	May	--	62.9
05/21/2021	Eurozone	Markit Eurozone Services PMI	May	--	50.5
05/21/2021	Eurozone	Markit Eurozone Composite PMI	May	--	53.8
05/21/2021	United Kingdom	Markit UK PMI Manufacturing SA	May	--	60.9
05/21/2021	United Kingdom	Markit/CIPS UK Services PMI	May	--	61
05/21/2021	United Kingdom	Markit/CIPS UK Composite PMI	May	--	60.7
05/21/2021	United States	Markit US Manufacturing PMI	May	62	60.5
05/21/2021	United States	Markit US Services PMI	May	65	64.7
05/21/2021	United States	Markit US Composite PMI	May	--	63.5
05/21/2021	Eurozone	Consumer Confidence	May	--	-8.1

SOURCE : BLOOMBERG



# FURTHER READING

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<a href="#">EcoTV - May 2021 issue</a>	EcoTV	12 May 2021
<a href="#">Recovery in France: slowed before it started?</a>	Chart of the Week	12 May 2021
<a href="#">US: Which insights from the 'great inflation' of the 1970s?</a>	EcoWeek	10 May 2021
<a href="#">The French labour market: outlook for 2021</a>	EcoFlash	10 May 2021
<a href="#">Italy: Why the country is once again attracting attention</a>	EcoTVWeek	7 May 2021
<a href="#">Central Europe: Return to pre-Covid GDP levels likely in 2021</a>	Chart of the Week	5 May 2021
<a href="#">US: the Biden infrastructure plan</a>	EcoFlash	4 May 2021
<a href="#">EcoWeek - May 3 issue</a>	EcoWeek	3 May 2021
<a href="#">Eurozone: Ongoing fiscal support</a>	EcoTVWeek	30 April 2021
<a href="#">French companies went into the pandemic in a strengthened financial position</a>	Chart of the Week	28 April 2021
<a href="#">EcoWeek - April 26 issue</a>	EcoWeek	26 April 2021
<a href="#">Israel: A mixed economic situation, but positive prospects</a>	EcoTVWeek	23 April 2021
<a href="#">Exports rebounded strongly in march 2021, supported by the global economic recovery</a>	Chart of the Week	21 April 2021
<a href="#">Eurozone : The upturn in inflation could be short-lived</a>	EcoFlash	19 April 2021
<a href="#">EcoWeek - April 19 issue</a>	EcoWeek	19 April 2021
<a href="#">EcoEmerging - April 2021 issue</a>	EcoEmerging	16 April 2021
<a href="#">Emerging countries: speed races</a>	EcoTVWeek	16 April 2021
<a href="#">Exchange rate regime under pressure</a>	Chart of the Week	14 April 2021
<a href="#">EcoWeek - April 12 issue</a>	EcoWeek	12 April 2021
<a href="#">EcoPerspectives April 2021 issue</a>	EcoPerspectives	9 April 2021



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