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ECONOMIC RESEARCH

BNP PARIBAS

The bank for a changing world

EUROPEAN LABOUR MARKET BOTTLENECKS: STRUCTURAL ASPECTS

Companies in the euro area report record-high levels of labour shortages. These are partly cyclical in nature but structural factors also play a role. Last year's annual investment survey of the European Investment Bank shows that the availability of staff with the right skills is the second most important factor weighing on long-term investment decisions in the EU. Structural labour shortages can weigh on potential GDP growth through its impact on capital formation, innovation and productivity. Economic and, in particular, education policy including vocational training and lifelong learning schemes will have to make sure that, going forward, the available skills, both in quantity and quality, fit the evolving needs.

Companies in the euro area report record-high levels of labour shortages. It is a manifestation of the strong recovery after last year's deep and sudden recession. Sectoral mismatches in the demand and supply of labour also play a role, with people having left, perhaps permanently, sectors such as transport, tourism and leisure that had suffered more than others from the lockdown measures.

Labour shortages can act as a speed limit on growth – it looks like we are in such a phase now – and lead to an acceleration of wage growth.[1] However, labour shortages can also be structural. This can be related to the size of the labour force as well as its quality. Population ageing is a key driver of the former, causing a net reduction in the labour force as older cohorts who retire outnumber the younger ones joining the labour market. Labour shortages can also be quality-related and hence reflect a shortage of the right skills. Companies find it hard to recruit people with the right profile. Providing a compensation package well above the going market rate could solve the issue at the single company level but that just shifts the problem to companies that have seen people leave. They may have no other option than to accept a certain degree of skill mismatch, by hiring people that are over- or underqualified.

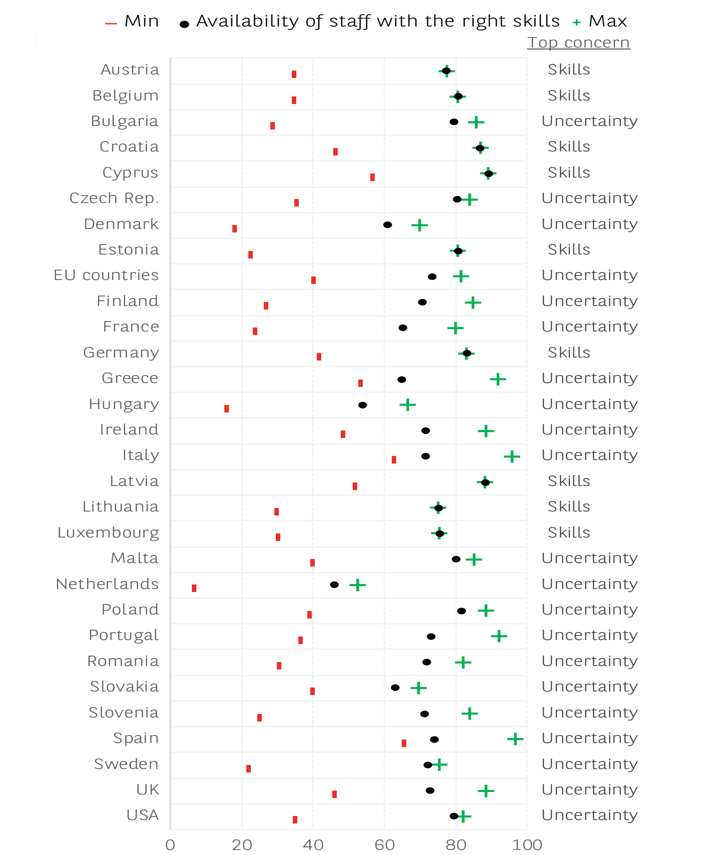
Because of skill gaps, a high number of vacancies can exist alongside high structural unemployment. This comes with a human cost – the psychological burden of being unemployed- as well as an economic cost – the opportunity cost when not being employed, the loss of skills, which makes it harder to find a new job. Structural labour shortages can weigh on potential GDP growth through its impact on capital formation, innovation and productivity. Last year's annual investment survey of the European Investment Bank reported on the factors impacting long-term investment decisions (chart 1). For the EU as a whole, uncertainty has the highest score (83.4%), whereas the availability of staff with the right skills comes next, with a score of 73.5%. For a total sample of 30 observations (29 countries plus the EU), in 76% of cases, staff availability as a factor weighing on investments, comes either in first or second place. To the extent that this effectively reduces the volume of investments, this could end up weighing on potential growth. Demonstrating this empirically is a complex task. Skill shortages as reported in business surveys may predominantly be cyclical in nature, reflecting strong economic growth, which probably comes with stronger productivity growth. Even from a longer-term perspective, these shortages may reflect that countries are doing well structurally, are very efficient and productive. Research from the European Commission concluded that *"we are not able to isolate the potentially negative impact of skills shortages based on our analysis at the aggregate level. Micro-econometric analyses based on firm-level data may be more adequate to measure this impact."*[2] Research for the UK for the period 2008-2014 on the other hand "reveals a negative direct effect of skill shortages on firm productivity."[3] Moreover, it finds negative spillover effects to related industries and proximate regions.

1. See *Euro area labour market bottlenecks: cyclical aspects, Ecoweek*, BNP Paribas, 15 November 2021.

2. Skills Mismatch and Productivity in the EU, Anneleen Vandeplas and Anna Thum-Thysen, European Commission, European Economy Discussion Paper 100, July 2019.

3. Morris, D., Vanino, E. and Corradini, C. (2020) *Effect of regional skill gaps and skill shortages on firm productivity. Environment and Planning A: Economy and Space*, 52 (5). pp. 933-952. https://doi.org/10.1177/0308518X19889634

FACTORS IMPACTING LONG-TERM INVESTMENT DECISIONS



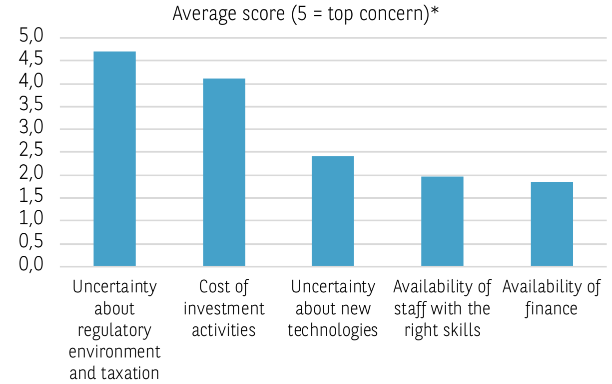
SOURCE: EUROPEAN INVESTMENT BANK INVESTMENT SURVEY 2020, BNP PARIBAS

Skill shortages could also complicate the task of responding to new challenges like the green transition or the digital revolution, given the demand for specific skills that comes with it. However, with respect to the former and based on the EIB survey mentioned above, companies do not (yet) seem to worry that much. Amongst the "*factors impacting investment in activities to tackle the impacts of weather events and emissions reduction*", concern about availability of staff with the right skills, on average, ranks fourth out of five (chart 2).

The retirement of the baby boom generation and the entering of less numerous cohorts should, ceteris paribus, lower the unemployment rate. However, this supposes that the available skills fit the evolving needs. Otherwise, we run the risk of falling in a trap of slow growth and high structural unemployment. This would weigh on public finances and put pressure on society due to rising inequality. Economic and in particular education policy including vocational training have a key role to play in taking up this challenge. Moreover, lifelong learning schemes might retain older workers long in their job, thus reducing pressures in the labour market and on the retirement schemes.

William De Vijlder

FACTORS IMPACTING INVESTMENT RELATED TO CLIMATE CHANGE



* **Countries list:** Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Rep., Denmark, Estonia, EU countries, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, UK, USA,

SOURCE: EUROPEAN INVESTMENT BANK INVESTMENT SURVEY 2020, BNP PARIBAS

> Economic and in particular education policy including vocational training and lifelong learning schemes will have to make sure that, going forward, the available skills, both in quantity and quality, fit the evolving needs.

MARKETS OVERVIEW

OVERVIEW

Week 12-11 21 to 19-11-21				
↗ CAC 40	7 091	▸ 7 112	+0.3	%
↗ S&P 500	4 683	▸ 4 698	+0.3	%
↗ Volatility (VIX)	16.3	▸ 17.9	+1.6	pb
↗ Euribor 3M (%)	-0.56	▸ -0.56	+0.3	bp
↗ Libor $ 3M (%)	0.16	▸ 0.16	+0.9	bp
↘ OAT 10y (%)	0.03	▸ -0.07	-9.6	bp
↘ Bund 10y (%)	-0.25	▸ -0.34	-8.5	bp
↘ US Tr. 10y (%)	1.57	▸ 1.53	-4.0	bp
↘ Euro vs dollar	1.14	▸ 1.13	-1.1	%
↘ Gold (ounce, $)	1 862	▸ 1 860	-0.1	%
↘ Oil (Brent, $)	82.4	▸ 81.3	-1.3	%

MONEY & BOND MARKETS

Interest Rates			highest 21			lowest 21		
€	ECB	0.00	0.00	at	01/01	0.00	at	01/01
	Eonia	-0.49	-0.47	at	26/01	-0.50	at	01/01
	Euribor 3M	-0.56	-0.53	at	07/05	-0.57	at	03/11
	Euribor 12M	-0.49	-0.44	at	01/11	-0.52	at	02/02
$	FED	0.25	0.25	at	01/01	0.25	at	01/01
	Libor 3M	0.16	0.24	at	13/01	0.11	at	09/09
	Libor 12M	0.39	0.40	at	16/11	0.22	at	06/09
£	BoE	0.10	0.10	at	01/01	0.10	at	01/01
	Libor 3M	0.12	0.25	at	28/10	0.03	at	01/01
	Libor 12M	0.66	0.85	at	28/10	0.07	at	11/01

At 19-11-21

Yield (%)			highest 21		lowest 21	
€	AVG 5-7y	-0.23	0.03	at 29/10	-0.46	at 04/01
	Bund 2y	-0.82	-0.58	at 29/10	-0.82	at 19/11
	Bund 10y	-0.34	-0.09	at 22/10	-0.60	at 04/01
	OAT 10y	-0.07	0.23	at 17/05	-0.41	at 04/01
	Corp. BBB	0.73	0.86	at 01/11	0.43	at 05/08
$	Treas. 2y	0.48	0.51	at 11/11	0.11	at 05/02
	Treas. 10y	1.53	1.75	at 31/03	0.91	at 01/01
	High Yield	5.14	5.16	at 02/11	4.52	at 29/06
£	gilt. 2y	0.49	0.70	at 03/11	-0.08	at 04/01
	gilt. 10y	0.88	1.20	at 21/10	0.21	at 04/01

At 19-11-21

EXCHANGE RATES

1€ =		highest 21			lowest 21			2021
USD	1.13	1.23	at	06/01	1.13	at	17/11	-7.5%
GBP	0.84	0.91	at	06/01	0.84	at	17/11	-6.1%
CHF	1.05	1.11	at	04/03	1.05	at	19/11	-3.0%
JPY	128.87	133.97	at	28/05	125.22	at	18/01	+2.0%
AUD	1.56	1.64	at	20/08	1.53	at	18/03	-1.6%
CNY	7.22	8.00	at	01/01	7.22	at	17/11	-9.7%
BRL	6.29	6.95	at	03/03	5.88	at	24/06	-1.0%
RUB	83.07	92.47	at	20/04	80.71	at	26/10	-8.2%
INR	84.03	90.39	at	23/04	83.99	at	17/11	-6.0%

At 19-11-21 *Change*

COMMODITIES

Spot price, $		highest 21			lowest 21			2021	2021(€)
Oil, Brent	81.3	86.5	at	26/10	51.2	at	04/01	+56.7%	+69.4%
Gold (ounce)	1 860	1 947	at	05/01	1 682	at	08/03	-2.0%	+5.9%
Metals, LMEX	4 308	4 763	at	15/10	3 415	at	01/01	+26.2%	+36.4%
Copper (ton)	9 753	11 300	at	18/10	7 749	at	01/01	+25.9%	+36.1%
wheat (ton)	238	2.9	at	07/05	223	at	10/09	-3.9%	+3.9%
Corn (ton)	219	2.9	at	07/05	188	at	04/01	+1.6%	+25.7%

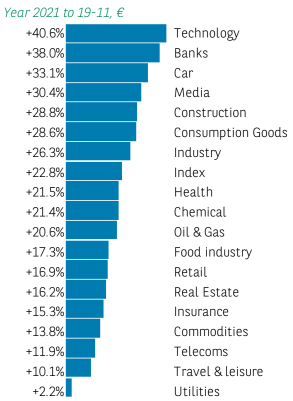
At 19-11-21 *Change*

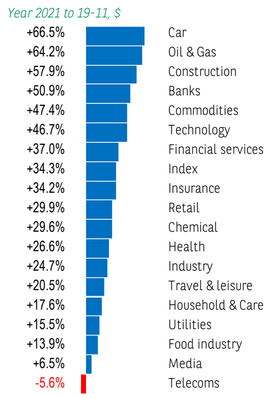
EQUITY INDICES

	Index	highest 21			lowest 21			2021
World								
MSCI World	3 220	3 238	at	08/11	2 662	at	29/01	+19.7%
North America								
S&P500	4 698	4 705	at	18/11	3 701	at	04/01	+25.1%
Europe								
EuroStoxx50	4 356	4 401	at	16/11	3 481	at	29/01	+22.6%
CAC 40	7 112	7 157	at	17/11	5 399	at	29/01	+2.8%
DAX 30	16 160	16 251	at	17/11	13 433	at	29/01	+17.8%
IBEX 35	8 753	9 281	at	14/06	7 758	at	29/01	+0.8%
FTSE100	7 224	7 384	at	11/11	6 407	at	29/01	+1.2%
Asia								
MSCI, loc.	1 169	1 196	at	14/09	1 044	at	06/01	+1.2%
Nikkei	29 746	30 670	at	14/09	27 013	at	20/08	+8.4%
Emerging								
MSCI Emerging ($)	1 269	1 445	at	17/02	1 221	at	20/08	-0.2%
China	91	130	at	17/02	87	at	06/10	-15.9%
India	863	877	at	12/11	659	at	29/01	+29.8%
Brazil	1 429	2 098	at	24/06	1 425	at	18/11	-18.5%
Russia	816	914	at	25/10	647	at	01/02	+21.3%

At 19-11-21 *Change*

PERFORMANCE BY SECTOR (Eurostoxx50 & S&P500)

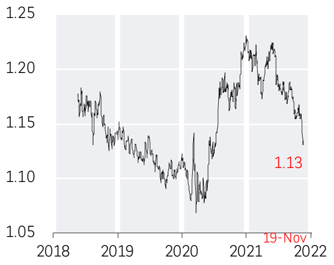




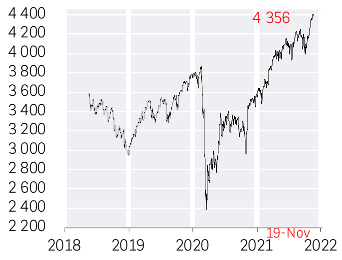
SOURCE: REFINITIV, BNP PARIBAS,

MARKETS OVERVIEW

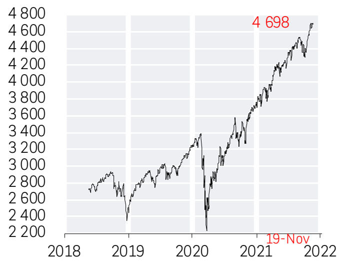
EURO-DOLLAR



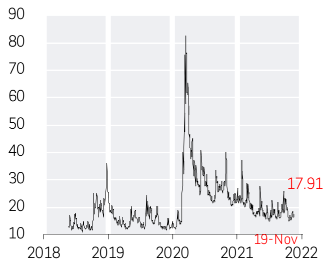
EUROSTOXX50



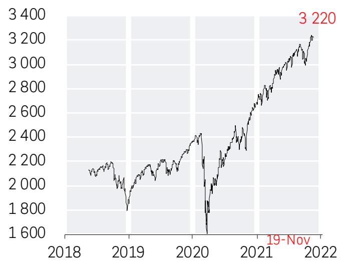
S&P500



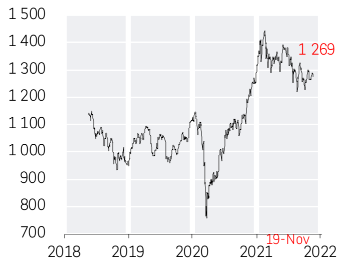
VOLATILITY (VIX, S&P500)



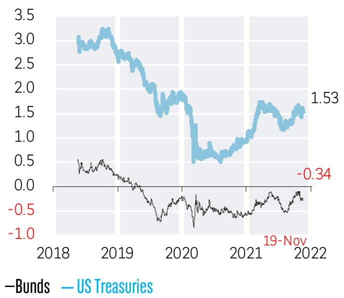
MSCI WORLD (USD)



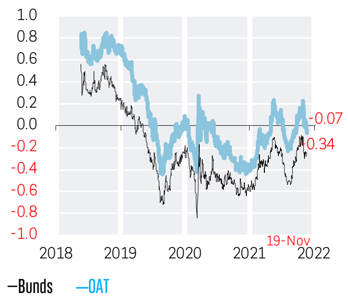
MSCI EMERGING (USD)



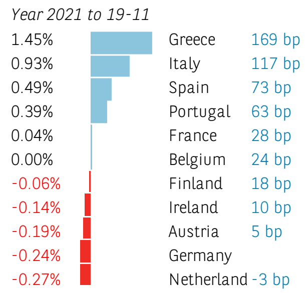
10Y BOND YIELD, TREASURIES VS BUND



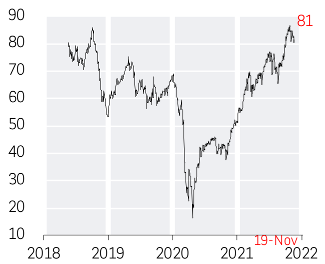
10Y BOND YIELD



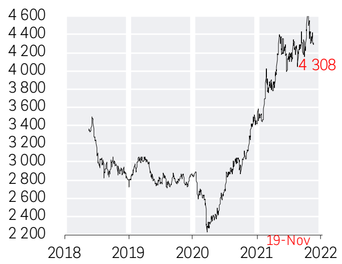
10Y BOND YIELD & SPREADS



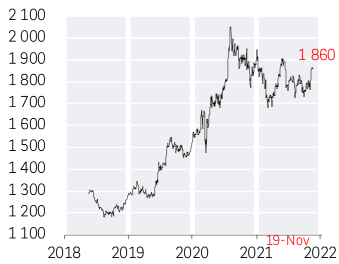
OIL (BRENT, USD)



METALS (LMEX, USD)



GOLD (OUNCE, USD)



SOURCE: REFINITIV, BNP PARIBAS

ECONOMIC PULSE

CHINA : THE REAL ESTATE CRISIS SPILLS OVER TO THE ECONOMY

Our monthly Pulse highlights the cyclical deterioration of the Chinese economy in August-October 2021 compared to the previous 3-month period. While the situation in the industrial sector improved in October after a sharp slowdown in September, the correction in the real estate sector has continued.

Industrial production growth picked up slightly in October (+3.5% y/y in real terms, compared to 3.1% in September and 5.3% in August). In fact, the measures introduced by the authorities rapidly eased energy constraints last month. Coal and electrical power production was stepped up as a result and manufacturing output growth accelerated again. Very solid export performance continued to support manufacturing activity. Export growth in volume has moderated since August, but export prices have rebounded, thus stabilising export growth in value (which has averaged +26% y/y since May).

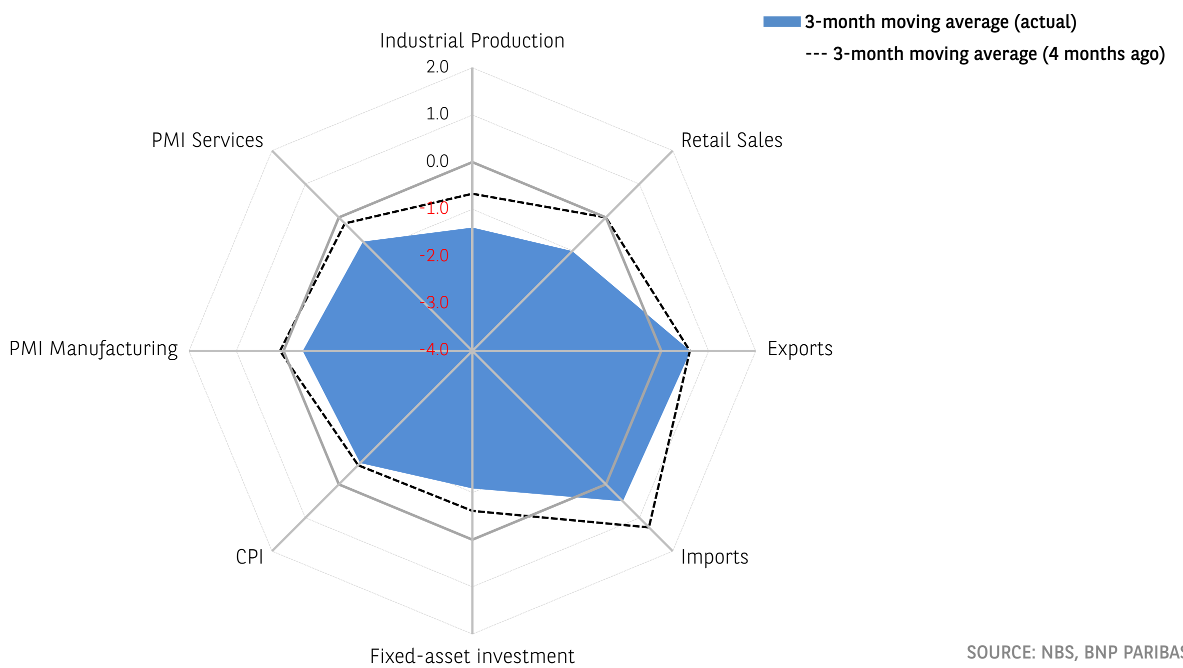
Manufacturing investment continues to be the driving force behind domestic investment. In contrast, infrastructure investment has only shown timid signs of turning around, restrained by local governments' insufficient financing (including debt and land sales). Local governments have increased their bond issues in recent weeks, and public investment should therefore gather steam in the very short term.

Real estate investment contracted in October. House sales, construction projects and construction starts all plunged by more than 20% y/y in October, the fourth consecutive month of decline. Average house prices have begun to ease. This correction is expected to continue in the short term, and the cash flow problems of the most heavily-indebted promoters are bound to persist. While making a few adjustments to limit the impact of the crisis on the rest of the economy and on households, Beijing is expected to continue to focus on rebalancing the real estate market and reducing financial risks. As a result, credit conditions in the property sector are likely to remain restrictive.

The real estate crisis contributed to another slowdown in activity in the services sector in October (+3.8% y/y, down from 5.2% in September and 4.8% in August). Services were also handicapped by the regulatory tightening in recent months. Lastly, household consumption has remained sluggish. Retail sales rose by 4.9% y/y in October, vs.4.4% in September, but this growth was due solely to accelerating inflation – which is still very mild at 1.5% y/y in October vs. 0.8% in Q3 2021. Meanwhile, retail sales growth in volume slowed again, to 1.9% y/y in October from 2.9% in September (and 0.9% in August after lockdown measures were reintroduced). In the short term, the spill-over effects of the slowdown in property transactions and the new increase in Covid-19 cases are likely to continue to constrain private consumption.

Christine Peltier

CHINA: QUARTERLY CHANGES



SOURCE: NBS, 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 +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.

EUROZONE: SECTOR AND REGIONAL HETEROGENEITY HELPS LIMIT THE DETERIORATION IN THE CYCLICAL ENVIRONMENT

According to our Pulse, the Eurozone's cyclical situation has deteriorated over the past three months (the blue area is smaller than the area within the dotted lines). Hard data have dropped sharply but the decline in business climate surveys has been much milder. This difference is due to statistical distortions. For retail sales and production, the sharp decline in growth rates in year-on-year terms since May reflects a normalisation after the previous 3-month average was inflated by very favourable base effects in March and April.

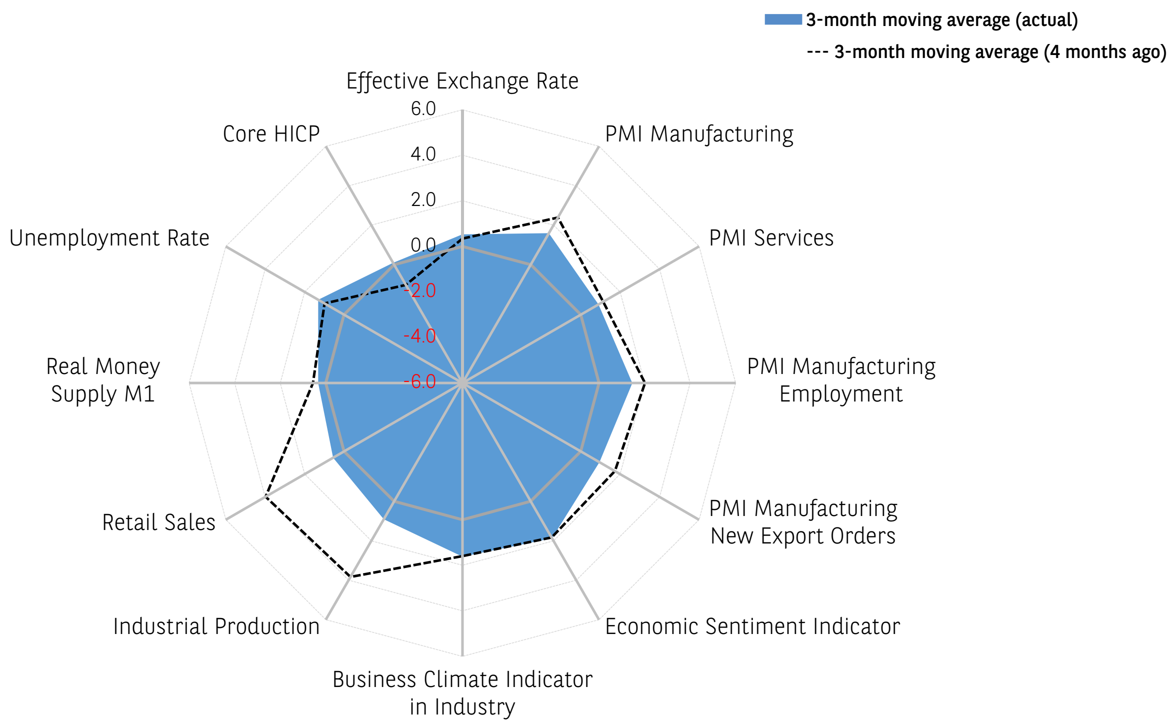
The growth rates remain rather high in September 2021, with retail sales up 2.2% and manufacturing output up 5.8% y/y. Yet current headwinds are also having an impact. Retail sales growth would surely be much stronger without the inflation surge (4.1% y/y in October, the highest level since July 2008). Fortunately, a buoyant labour market has helped buffer the shock so far. The unemployment rate keeps falling, dropping to 7.4% of the labour force in September, just a 10th of a percentage point short of the all-time low of 7.3% in February-March 2008 [1]. Supply problems are more clearly hampering production. They have hit the automobile industry and Germany especially hard, given the auto industry's heavy weighting in the country. Industrial production (excluding construction) declined slightly at the Eurozone aggregate level in September 2021 (-0.2% m/m), but this masks sharper declines in Germany (-1.4% m/m, after a decline of 3.4% m/m in August) and France (-1.3% m/m, after an increase of 1.1% m/m). In Spain and Italy, production increased very slightly (+0.2% m/m and +0.1% m/m, respectively). Above all, of the Eurozone's four biggest economies, Germany is the only one where production is registering a decline on a year-on-year basis (-1.1%).

Looking at the results of business climate surveys, Markit's PMI indexes declined again in October, albeit less than in September: the composite index was down 2 points (after a 2.8-point decline), services PMI was down 1.8 points (after a 2.6-point decline) and manufacturing PMI was down 2.4 points (after a 3.3-point decline). Of the four biggest Eurozone countries, Germany once again reported the biggest decline in composite PMI, although it was also smaller than in September (-3.5 points and -4.5 points, respectively). In Italy, composite PMI declined 2.4 points (after 2.5 points). The decline was smaller in France (-0.6 points, the same as in September) and in Spain (-0.8 points, after -3.6). As to the European Commission's economic sentiment indicator, the results were actually positive: the indicator picked up slightly to 119, buoyed by the services sector. This good news should help alleviate fears about the extent of the expected slowdown in Q4 GDP after the vigorous growth reported in Q3 (+2.2% q/q).

Hélène Baudchon

1. In March 2020, the unemployment rate dropped even lower to 7.1%, but we set aside this result because it coincides with the beginning of the Covid-19 pandemic and might be biased by the first lockdown measures.

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.

ITALY: TOWARDS SLOWER GROWTH IN Q4 2021?

After two solid quarters, Italian GDP growth is expected to slow in Q4 2021. Real GDP rose 2.7% q/q in Q2 2021 and 2.6% q/q in Q3[1]. Yet there was an encouraging catching-up movement through the fall, which led the European Commission to revise strongly upwards its 2021 growth forecast, to 6.2%, from its previous outlook of 4.2% last spring. While a new epidemic wave could weigh on activity in the coming weeks, Italy is currently facing a level of contamination lower than most other European countries.

The main concerns are concentrated in the labour market, which continues to struggle to recover from the impact of the Covid-19 pandemic. Although the unemployment rate has fallen below pre-pandemic levels (9.2% in September 2021, compared to a 2019 average of 10%), the labour force is still far below the 2019 level. Employment has contracted by nearly 600,000 (-2.6%) compared to the level of summer 2019. As to inflation, it accelerated rapidly in October (up 3% y/y), but this is not as high as in Spain or Germany. Moreover, three quarters of the annual increase in the consumer price index is due to higher energy prices.

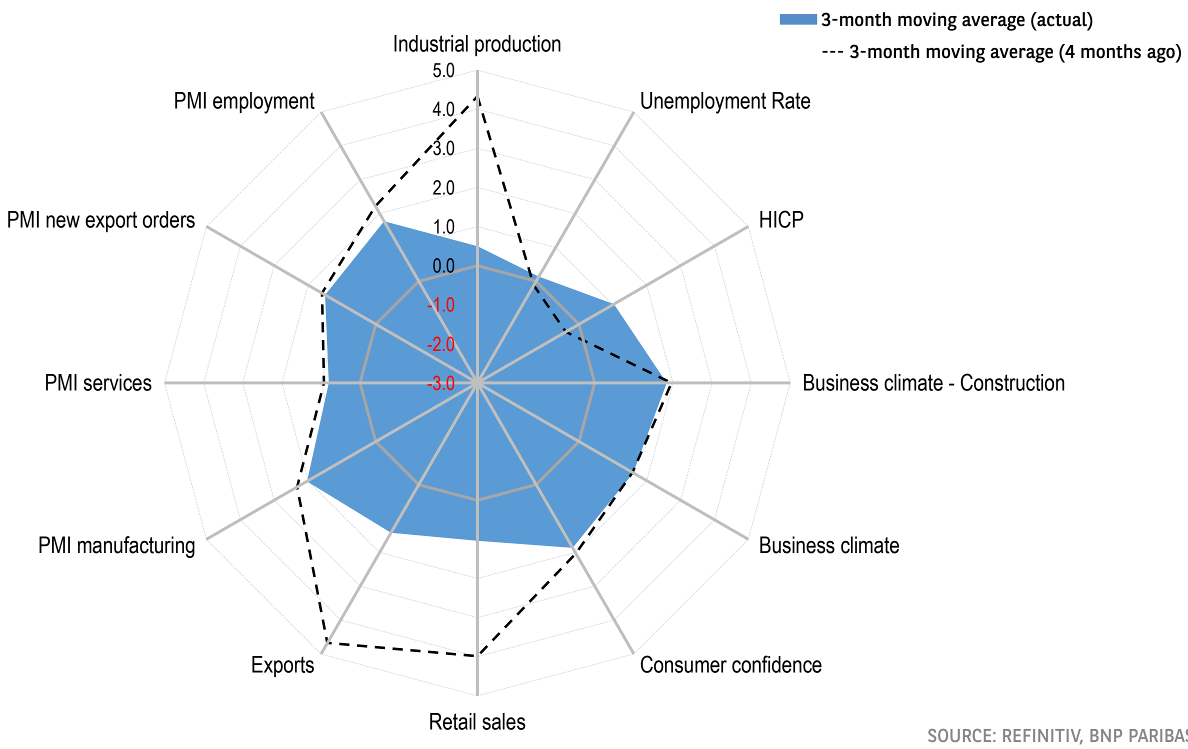
As to consumption, the situation is mixed. In September, retail sales in volume (i.e. deflated for the upward impact of surging inflation) returned to levels comparable with winter 2020, but automobile sales continue to trend lower, in part due to supply chain problems and the extension of delivery times in the sector.

For the moment, however, none of these obstacles have had a concrete impact on household confidence: the European Commission's index declined slightly in October, but is still holding at the second highest level since the statistical series began in 1985. Business confidence has deteriorated more rapidly since August (the composite PMI dropped 4.9 points between August and October), mainly in the services sector. Business optimism in the manufacturing sector remains solid: the manufacturing PMI has stabilised at about 60 since the beginning of 2021.

Guillaume Derrien

1. The second estimate of Q3 GDP will reveal the components of demand and should be released on 30 November.

ITALY: 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 -3 and +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

SPAIN: HEADWINDS TO GROWTH ARE BUILDING

Like other economies, Spain is currently facing several headwinds, including labour shortages, supply-chain problems and inflation. The country is now also facing the risk of another upsurge in the pandemic. On 20th November, the number of Covid-19 cases was still holding at a very moderate level, but it now seems to be ticking upward, a movement that is bound to accelerate with the approach of winter. Even so, Spain benefits from a high vaccine coverage ratio (more than 80% of the population is fully covered by the vaccine), meaning that the country can look forward to a less perilous winter than last year.

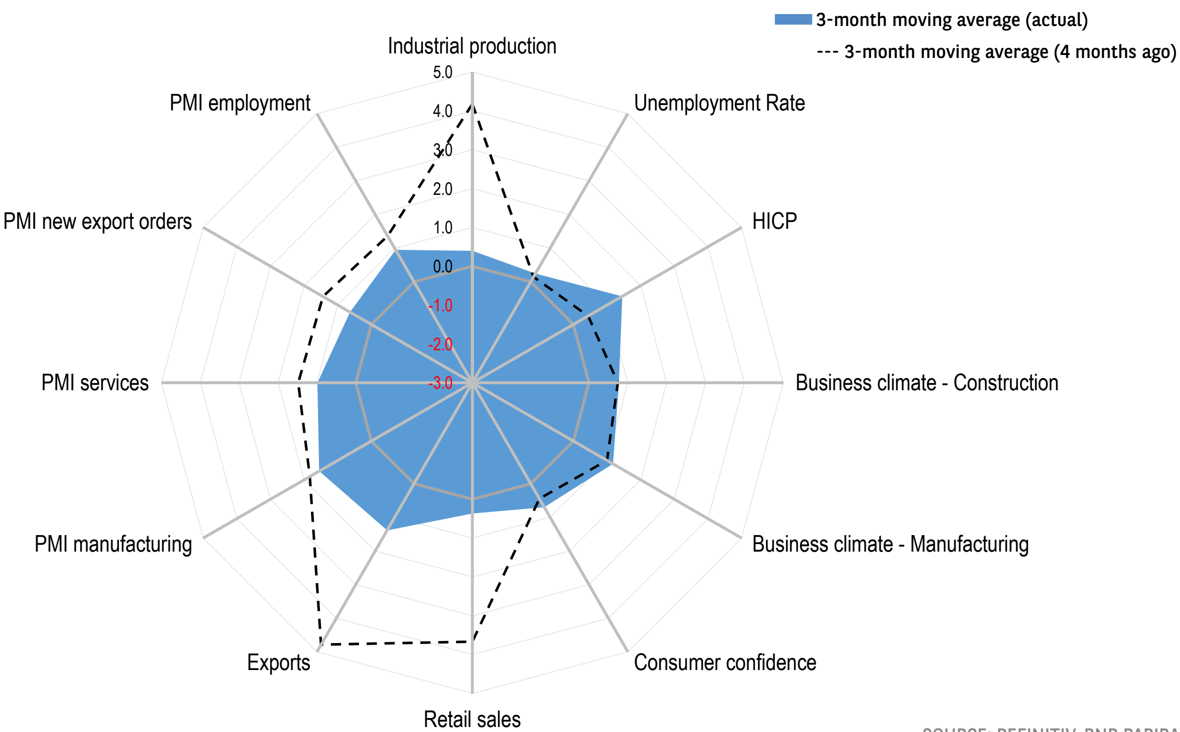
Inflation is a bigger obstacle for the moment. The Pulse signals a sharp upturn in the consumer price index (CPI), which continued through the fall as the rise in the CPI reached a record high of 5.4% year-on-year in October. Yet these price increases are mainly localised within energy items (electricity, natural gas, fuel), which together contributed to more than four-fifths of the annual increase in the CPI in October. The manufacturing sector has slowed, hampered by supply bottlenecks in certain sectors, especially automobiles. According to the Spanish statistical office (INE), the automobile sector accounts for 8% of the country's total industrial production. Production in this industry declined again in September to the lowest level since the end of the first lockdown in 2020. Although our Pulse has deteriorated significantly, exports have levelled off but not contracted, and they are still holding at historically high levels.

The dynamic in the labour market is much better[1]. According to the Spanish Employment Office (SEPE), the number of workers affiliated to the social security system rose again strongly in October (+102,474 after adjusting for seasonal variations), which brings the total number of members to an all-time high. At 14.6%, the unemployment rate is still higher than the pre-pandemic level of 13.7% in February 2020. Yet this progressive drop in the jobless rate is occurring in a context of an upturn in the participation rate, which is a good thing. One last point to be made: the current divergence of confidence indicators of late: while the PMI indicators have generally been on a downward trend since June, the European Commission's economic sentiment index reached the highest level in nearly twenty years in October.

Guillaume Derrien

1. See BNP Paribas Ecoflash *Spain: Upturn in the labour market*, 16 November 2021.

SPAIN: 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 -3 and +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

MOBILITY: RETAIL AND LEISURE FOOTFALL HOLDS AT HIGH LEVELS AS THE PANDEMIC RESURGES

The curve of new Covid-19 cases is holding to an upward trajectory in most regions of the world. In the week of 10-16 November, the number of new cases surpassed 3 million, an 8% increase over the previous week. With 1.95 million Covid-19 cases, Europe reported the biggest increase (+14%), followed by South America (11%) and North America (8%). In the rest of the world, the number of cases continued to decline, notably in Asia (-6%) and Africa (-8%) (chart 1). To date, more than 7.6 billion doses of the vaccine have been administered, the majority in the wealthy countries (chart 2).

As to retail and leisure footfall, it is still trending downwards in Germany and Italy, at a much faster pace than in France, Spain or the UK. Belgium stands apart because its retail and leisure footfall has been relatively stable during the recent period. This is also the case for the United States, while in Japan, the trend has begun to decline again after several months of positive momentum. It is worth noting, however, that footfall is holding at high levels despite the resurgence of the pandemic in most of the main advanced countries (chart 4).

Lastly, the OECD Weekly Tracker of GDP growth compared to the level two years earlier (y/2y) continues to improve in the United States, Italy and Japan. In France, Belgium, Spain and the UK, the slight decline observed recently still fits within a general upward trend; while in Germany it is a fairly clear drop that stand out (chart 3, black line), which is probably due to the deterioration in the country's health situation (chart 4, 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 change over a two-year period (y/2y) is calculated to avoid the base effect that would arise from a comparison with 2020 data.

Tarik Rharrab

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

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

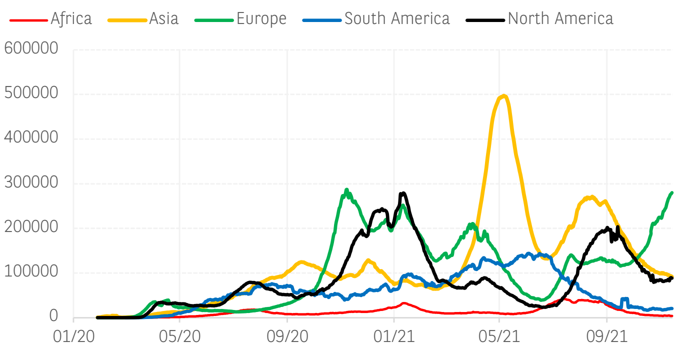


CHART 1 SOURCE: JOHNS-HOPKINS UNIVERSITY (11/17/2021), BNP PARIBAS

SHARE OF PEOPLE WHO RECEIVED AT LEAST ONE DOSE OF VACCINE

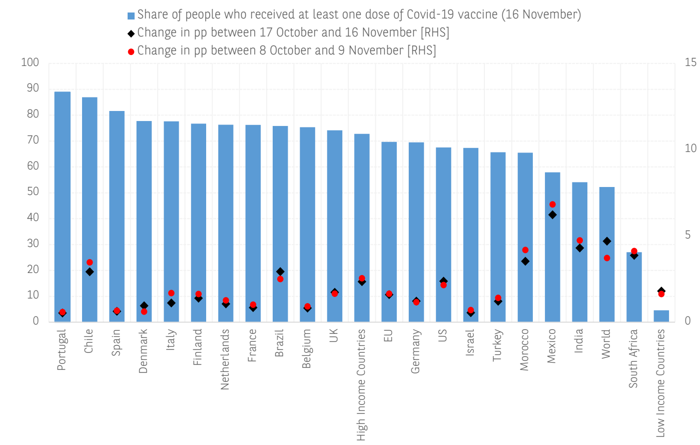


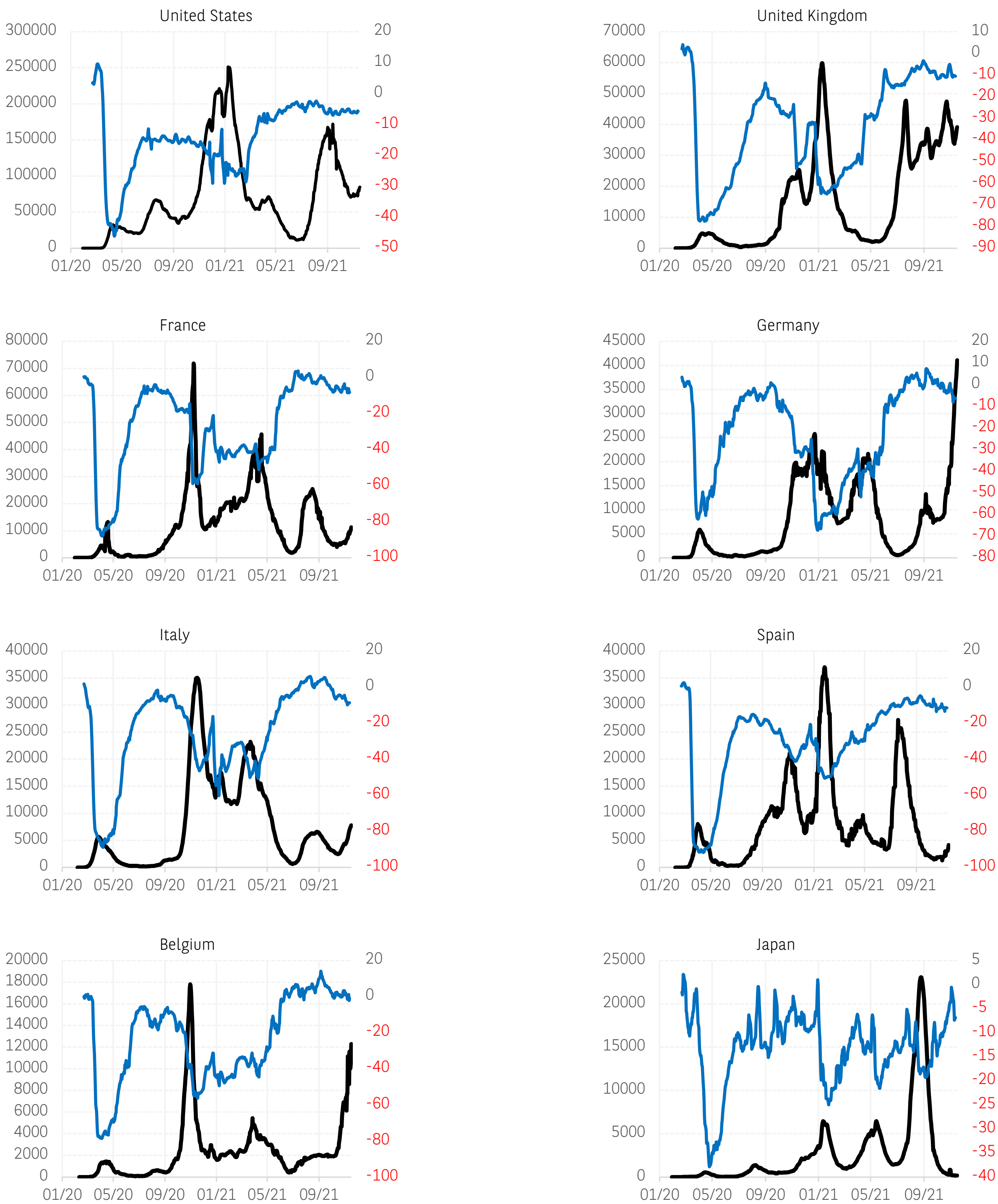
CHART 2 SOURCE: OUR WORLD IN DATA (11/17/2021), BNP PARIBAS

RETAIL AND RECREATION MOBILITY & OECD WEEKLY TRACKER

SOURCE: OECD (11/18/2021), GOOGLE (11/17/2021), BNP PARIBAS

DAILY NEW CASES & RETAIL AND RECREATION MOBILITY

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



SOURCE: JOHNS-HOPKINS UNIVERSITY (11/17/2021), GOOGLE (11/17/2021), BNP PARIBAS

ECONOMIC SCENARIO

UNITED STATES

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

CHINA

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

EUROZONE

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

FRANCE

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

RATES AND EXCHANGE RATES

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

In the eurozone, the ECB will maintain its very accommodative policy centered around its asset purchases and forward guidance, in order to generate a lasting pick-up in inflation towards its target. The outcome of the strategy review has clearly confirmed this. We expect net purchases under the PEPP to stop at the end of March 2022, based on the view that, by then, the pandemic emergency phase will be considered to be behind us. On that occasion, the monthly volume under the traditional asset purchase program should be increased to avoid market disruption. 10-year Bund yields are expected to rise until the first half of 2022 based on the growth and inflation environment. Higher US yields will also play a role. Subsequently, we expect Bunds to stay in a trading range.

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

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

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

GROWTH & INFLATION

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

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

INTEREST & EXCHANGE RATES

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

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

Brent End of period		Q4 2021 e	Q2 2022 e	Q4 2022 e	Q4 2023 e
Brent	USD/bbl	87	80	80	85

SOURCE: BNP PARIBAS GLOBAL MARKETS (E: ESTIMATES)

CALENDAR

LATEST INDICATORS

In Japan, GDP contracted more in the third quarter than expected with business spending being particularly negative. Annual growth of exports and imports slowed down, although they remain robust thanks to a favourable comparison with last year's data that were dominated by the consequences of the pandemic. However, their growth was slower than anticipated. Capital goods orders were stable, which was also a disappointment. Chinese data for October show a mixed picture. Growth of retail sales and industrial production picked up, beating expectations, whereas fixed assets investments and property investment slowed down. In the euro area, employment growth accelerated in the third quarter. New car registrations -hampered by supply problems- shrunk even more in October than the previous month. In the UK, consumer confidence improved and growth of retail sales excluding cars and fuel accelerated. Job creation picked up as well and created a positive surprise. Finally, in the US, data improved. The NAHB index of the housing market showed an improvement and retail sales growth accelerated thereby beating expectations. The Philadelphia Fed business outlook improved strongly.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
11/15/2021	Japan	GDP Private Consumption QoQ	3Q	-0.5%	-1.1%	0.9%
11/15/2021	Japan	GDP SA QoQ	3Q	-0.2%	-0.8%	0.4%
11/15/2021	Japan	GDP Business Spending QoQ	3Q	-0.6%	-3.8%	2.2%
11/15/2021	Japan	Inventory Contribution % GDP	3Q	0.1%	0.3%	-0.3%
11/15/2021	Japan	Net Exports Contribution % GDP	3Q	0.0%	0.1%	-0.3%
11/15/2021	China	New Home Prices MoM	Oct	--	-0.3%	-0.1%
11/15/2021	China	Retail Sales YoY	Oct	3.7%	4.9%	4.4%
11/15/2021	China	Industrial Production YoY	Oct	3.0%	3.5%	3.1%
11/15/2021	China	Fixed Assets Ex Rural YTD YoY	Oct	6.2%	6.1%	7.3%
11/15/2021	China	Property Investment YTD YoY	Oct	7.8%	7.2%	8.8%
11/15/2021	China	Surveyed Jobless Rate	Oct	4.9%	4.9%	4.9%
11/15/2021	United States	Empire Manufacturing	Nov	22.0	30.9	19.8
11/16/2021	United Kingdom	ILO Unemployment Rate 3Mths	Sep	4.4%	4.3%	4.5%
11/16/2021	United Kingdom	Employment Change 3M/3M	Sep	190k	247k	235k
11/16/2021	France	CPI EU Harmonized MoM	Oct	0.5%	0.4%	0.5%
11/16/2021	France	CPI EU Harmonized YoY	Oct	3.2%	3.2%	3.2%
11/16/2021	Eurozone	Employment QoQ	3Q	--	0.9%	0.7%
11/16/2021	Eurozone	Employment YoY	3Q	--	2.0%	1.9%
11/16/2021	Eurozone	GDP SA QoQ	3Q	2.2%	2.2%	2.2%
11/16/2021	United States	Retail Sales Advance MoM	Oct	1.4%	1.7%	0.8%

SOURCE: BLOOMBERG

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	ACTUAL	PREVIOUS
11/16/2021	United States	Retail Sales Control Group	Oct	0.9%	1.6%	0.5%
11/16/2021	United States	Capacity Utilization	Oct	75.9%	76.4%	75.2%
11/16/2021	United States	NAHB Housing Market Index	Nov	80.0	83.0	80.0
11/17/2021	Japan	Exports YoY	Oct	10.3%	9.4%	13.0%
11/17/2021	Japan	Imports YoY	Oct	31.8%	26.7%	38.2%
11/17/2021	Japan	Core Machine Orders MoM	Sep	1.5%	0.0%	-2.4%
11/17/2021	United Kingdom	CPI YoY	Oct	3.9%	4.2%	3.1%
11/17/2021	United Kingdom	CPI Core YoY	Oct	3.1%	3.4%	2.9%
11/17/2021	United Kingdom	Retail Price Index	Oct	311.2	312.0	308.6
11/17/2021	United Kingdom	PPI Output NSA YoY	Oct	7.3%	8.0%	7.0%
11/17/2021	United Kingdom	PPI Input NSA YoY	Oct	12.1%	13.0%	11.9%
11/17/2021	United Kingdom	House Price Index YoY	Sep	--	11.8%	10.2%
11/17/2021	Eurozone	CPI YoY	Oct	4.1%	4.1%	4.1%
11/17/2021	Eurozone	CPI MoM	Oct	0.8%	0.8%	0.8%
11/17/2021	Eurozone	CPI Core YoY	Oct	2.1%	2.0%	2.1%
11/17/2021	United States	Building Permits MoM	Oct	2.8%	4.0%	-7.8%
11/17/2021	United States	Housing Starts MoM	Oct	1.5%	-0.7%	-2.7%
11/18/2021	Eurozone	EU27 New Car Registrations	Oct	--	-30.3%	-23.1%
11/18/2021	United States	Initial Jobless Claims	Nov	260k	268k	269k
11/18/2021	United States	Philadelphia Fed Business Outlook	Nov	24.0	39.0	23.8
11/18/2021	United States	Kansas City Fed Manf. Activity	Nov	28.0	--	31.0
11/19/2021	Japan	Natl CPI YoY	Oct	0.2%	0.1%	0.2%
11/19/2021	Japan	Natl CPI Ex Fresh Food YoY	Oct	0.1%	0.1%	0.1%
11/19/2021	United Kingdom	GfK Consumer Confidence	Nov	-18	-14	-17
11/19/2021	France	ILO Unemployment Rate	3Q	7.8%	8.1%	8.0%
11/19/2021	United Kingdom	Retail Sales Ex Auto Fuel MoM	Oct	0.6%	1.6%	-0.4%

SOURCE: BLOOMBERG

CALENDAR: THE WEEK AHEAD

COMING INDICATORS

The hightlight of the week is the release of the flash PMIs for November in several countries. Several other surveys will be published, providing a good picture of the cyclical environment this month: consumer confidence (euro area, France, US, Germany), business confidence in France, the IFO indicator in Germany. New estimates for third quarter GDP growth will become available for the US and Germany. Finally, analysts will read with interest the FOMC minutes, trying to gauge the reaction of the central bank to the elevated inflation level.

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
11/22/2021	Eurozone	Consumer Confidence	Nov	--	-4.8
11/23/2021	Japan	Jibun Bank Japan PMI Mfg	Nov	--	53.2
11/23/2021	Japan	Jibun Bank Japan PMI Services	Nov	--	50.7
11/23/2021	Japan	Jibun Bank Japan PMI Composite	Nov	--	50.7
11/23/2021	France	Markit France Manufacturing PMI	Nov	--	53.6
11/23/2021	France	Markit France Services PMI	Nov	--	56.6
11/23/2021	France	Markit France Composite PMI	Nov	--	54.7
11/23/2021	Germany	Markit/BME Germany Manufacturing PMI	Nov	--	57.8
11/23/2021	Germany	Markit Germany Services PMI	Nov	--	52.4
11/23/2021	Germany	Markit/BME Germany Composite PMI	Nov	--	52
11/23/2021	Eurozone	Markit Eurozone Manufacturing PMI	Nov	--	58.3
11/23/2021	Eurozone	Markit Eurozone Services PMI	Nov	--	54.6
11/23/2021	Eurozone	Markit Eurozone Composite PMI	Nov	--	54.2
11/23/2021	United Kingdom	Markit UK PMI Manufacturing SA	Nov	--	57.8
11/23/2021	United Kingdom	Markit/CIPS UK Services PMI	Nov	--	59.1
11/23/2021	United Kingdom	Markit/CIPS UK Composite PMI	Nov	--	57.8
11/23/2021	United States	Markit US Manufacturing PMI	Nov	--	58.4
11/23/2021	United States	Markit US Services PMI	Nov	--	58.7
11/23/2021	United States	Markit US Composite PMI	Nov	--	57.6
11/24/2021	France	Business Confidence	Nov	--	113
11/24/2021	Germany	IFO Expectations	Nov	--	95.4
11/24/2021	Germany	IFO Current Assessment	Nov	--	100.1
11/24/2021	Germany	IFO Business Climate	Nov	--	97.7
11/24/2021	United Kingdom	CBI Trends Total Orders	Nov	--	9
11/24/2021	United Kingdom	CBI Trends Selling Prices	Nov	--	59

DATE	COUNTRY	INDICATOR	PERIOD	CONSENSUS	PREVIOUS
11/24/2021	United States	Initial Jobless Claims	Nov	--	--
11/24/2021	United States	GDP Annualized QoQ	3Q	2.20%	2.00%
11/24/2021	United States	Cap Goods Orders Nondef Ex Air	Oct	--	0.80%
11/24/2021	United States	PCE Core Deflator YoY	Oct	4.00%	3.60%
11/24/2021	United States	PCE Deflator MoM	Oct	0.70%	0.30%
11/24/2021	United States	PCE Deflator YoY	Oct	--	4.40%
11/24/2021	United States	U. of Mich. Sentiment	Nov	66.8	66.8
11/24/2021	United States	U. of Mich. Current Conditions	Nov	--	73.2
11/24/2021	United States	U. of Mich. Expectations	Nov	--	62.8
11/24/2021	United States	U. of Mich. 1 Yr Inflation	Nov	--	4.90%
11/24/2021	United States	U. of Mich. 5-10 Yr Inflation	Nov	--	2.90%
11/24/2021	United States	New Home Sales MoM	Oct	1.30%	14.00%
11/24/2021	United States	FOMC Meeting Minutes	Nov	--	--
11/25/2021	Japan	Nationwide Dept Sales YoY	Oct	--	-4.30%
11/25/2021	Germany	GDP SA QoQ	3Q	--	1.80%
11/25/2021	Germany	GfK Consumer Confidence	Dec	--	0.9
11/26/2021	France	Consumer Confidence	Nov	--	99

SOURCE: BLOOMBERG

FURTHER READING

Services support French growth: towards a (big) comeback?	EcoTVWeek	19 November 2021
COP26: Investment in energy system should double to reach zero carbon by 2050	Chart of the Week	17 November 2021
Spain : Upturn in the labour market	EcoFlash	16 November 2021
Eurozone : Euro area labour market bottlenecks: cyclical aspects	EcoWeek	15 November 2021
China's economic engine is stopped	EcoTVWeek	12 November 2021
Poland: industrial shortages trigger a slump in exports	Chart of the Week	10 November 2021
Eurozone : Deposit rate lift-off, markets and the ECB	EcoWeek	8 November 2021
Monetary tightening in emerging countries	EcoTVWeek	5 November 2021
Eurozone : Stabilisation of state-guaranteed loans (SGLs) outstanding amounts	Chart of the Week	3 November 2021
US : Weaker US household confidence, a source of concern?	EcoWeek	29 October 2021
International trade: disruptions remain high	EcoTVWeek	29 October 2021
France's 2022 budget: automatic deficit reduction	EcoFlash	27 October 2021
Energy costs: how much of European household spending do they account for?	Chart of the Week	27 October 2021
Reforming EU economic governance: the start of a marathon	EcoWeek	25 October 2021
About the surge in energy prices	EcoTVWeek	22 October 2021
Inflation pressures in emerging economies	Chart of the Week	20 October 2021
Global : The risks associated with transitory but high inflation	EcoWeek	18 October 2021
Unease about the distribution of risks	EcoTVWeek	15 October 2021
4th quarter 2021 issue	EcoEmerging	13 October 2021
United States: PPP government-guaranteed loans are largely converted into public subsidies	Chart of the Week	13 October 2021

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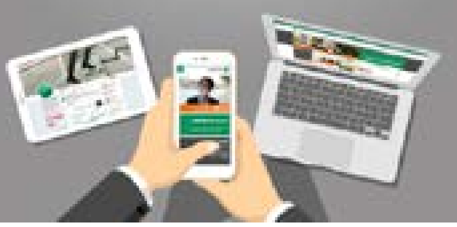

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