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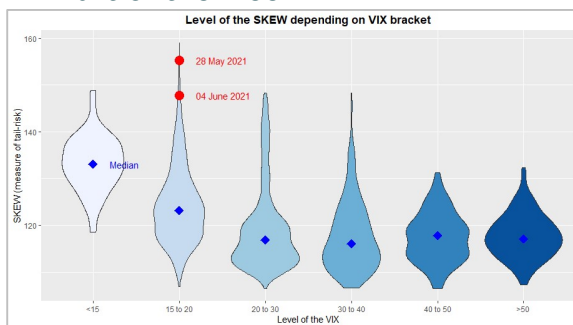
## ● Topic of the week: ECB's QE, an appraisal

- The ECB's QE absorbed a very large amount of paper: post-QE, the net sovereign issuance has been negative since 2015. Despite the large issuances, the volume of paper available to investors has therefore decreased;
- The impact on risk-free rates is estimated at over 100 bp. The reduction of risk premiums on peripherals is also reaching an extreme level, which is difficult to justify without QE;
- The ECB meeting this week should therefore result in few changes, a reduction in QE can lead to a sizeable market reaction. But the debate will continue to rise with the economic recovery.

## ● Market review: The wait

- Job report consistent with tapering scenario this summer
- T-note returns to 1.56%, Nasdaq bounces back
- Massive buyer flows on European equities
- Stability of credit spreads

## Chart of the week



The VIX is a measure of expected risk by financial markets. It is currently still low. However, the SKEW, which provides a measure of tail risks expected by financial markets, is very elevated and reached levels close to historical highs last week.

This is an unusual situation, such a divergence between the two indices is rare.

Markets are confident about their central case scenario but very worried about extreme events.

## ● Figure of the week

# 15%

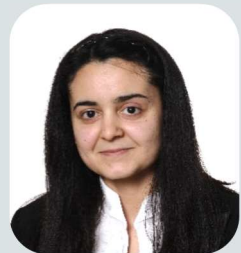
The minimum corporate tax rate agreed by G7. We wrote in details about the large and very diverse consequences of that decision. See "The Biden Tax Revolution" 19<sup>th</sup> April.



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• **Topic of the week**

# ECB's QE, an appraisal

Ahead of this week's ECB meeting we are taking stock of the ECB's QE which should increasingly be challenged by ECB's "hawks". Over the past year, the ECB has absorbed a considerable proportion of net issuances and hence it has had an equally important action on market price distortions: lowering risk-free rates and crushing of risk premiums. If the economy does recover, reducing QE could create an "rubber band effect" and a rapid change in market prices. It is too early to take this risk, we believe that the ECB will remain vague about its intentions and will continue its support to the market.

The ECB's QE was conducted in two phases. If the ECB had intervened in the markets before, for example with the Covered Bond Purchase Programme (CBPP1), it is on January 22, 2015 that it announces the launch of the "Asset Purchase Programme" or APP, which will be extended until 2018. On September 12, 2019 it announced the reopening of QE, which will be implemented from November and still is. Third, the March 18, 2020 announcement of the "Pandemic emergency purchase program" or PEPP, to support the economy affected by the covid crisis.

## QE, where do we stand?

At the time of writing (closing on Friday 4 June) we have the following information on ECB QE:

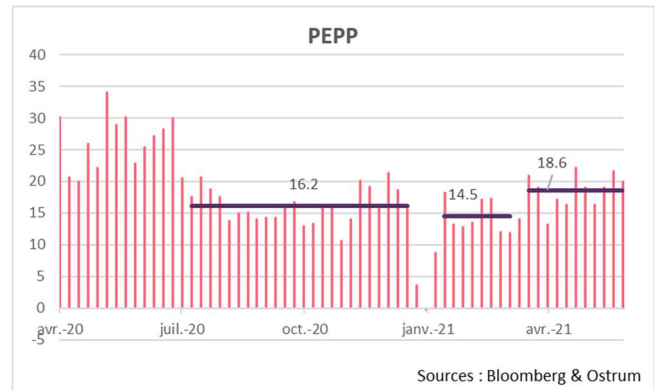
- Weekly purchase data up to the week of May 24th;
- Monthly PPA data to April. May data should be released this week;
- Bi-monthly PPGTP data to February-March. April-May data will also be released this week.

### Purchase volumes

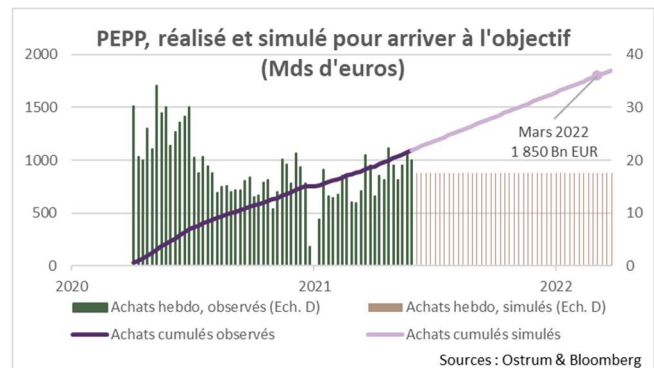
The first point to note is that the ECB made a commitment at its press conference on 11 March to increase its purchasing pace over the coming quarter. The result is anything but spectacular as shown in the graph below. The weekly rate of purchase has certainly accelerated from 14.5 billion to 18.6 billion, but nothing extraordinary.

It can also be noted that several weeks were truncated (holidays around Easter) and that the redemptions have

progressed a lot which makes gross purchases higher. These technical details taken into account do not really change the conclusion of a timid increase in purchases.



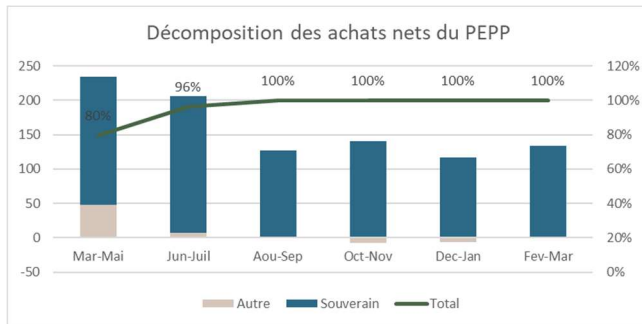
Consequently, the consumption of the envelope allocated to the PEPP (1,850 Mrds with a programme set to last until March 2021) progresses at a moderate pace. The graph below shows a simulation for the ECB to use this envelope: it can afford to buy 17.6 billion a week.



The need to reduce the volume of purchases is therefore marginal, especially if one takes into account the summer months, traditionally less demanding in terms of intervention, as well as the end-of-year period. **In fact, the ECB could remain very close to its current pace until maturity.**

### Purchases by asset class

We therefore have data on weekly purchases for the different programs of the APP: sovereign debt (PSPP), credit (PSPP) and covered bonds (CBPP3). On the other hand, we do not have data on the breakdown of purchases by asset classes for the PEPP over the last two months. However, for the previous periods, the following graph shows the breakdown provided by the ECB.



Over the past 8 months, the PEPP has become almost exclusively a sovereign purchase program. In the following simulations, we will therefore use the weekly purchase figures of the PEPP and assume that these purchases were all in sovereign debt.

### Geographic distribution

Until the announcement of the PEPP, ECB's QE on the sovereign followed the self-imposed rule of capital keys. The shareholders of the ECB are the national central banks of the Eurozone, each of which has a share of capital which depends on the size of the country. The table below gives these current keys. These capital shares are called capital keys and QE purchases must follow these proportions.<sup>1</sup>

National central bank	Paid-up capital (€)	Capital keys (en %)	Effective capital keys
Deutsche Bundesbank (Germany)	1999160134.91	21.44	27.03
Banque de France (France)	1548907579.93	16.61	20.94
Banca d'Italia (Italy)	1288347435.28	13.82	17.42
Banco de España (Spain)	904318913.05	9.70	12.23
De Nederlandsche Bank (The Netherlands)	444433941.02	4.77	6.01
Nationale Bank van België/Banque Nationale	276290916.71	2.96	3.74
Oesterreichische Nationalbank (Austria)	221965203.55	2.38	3.00
Bank of Greece (Greece)	187585027.73	2.01	
Banco de Portugal (Portugal)	177495700.29	1.90	2.40
Suomen Pankki – Finlands Bank (Finland)	139301721.39	1.49	1.88
Central Bank of Ireland (Ireland)	128419794.29	1.38	1.74
Národná banka Slovenska (Slovakia)	86850273.32	0.93	1.17
Lietuvos bankas (Lithuania)	43891371.75	0.47	0.59
Banka Slovenije (Slovenia)	36515532.56	0.39	0.49
Latvijas Banka (Latvia)	29549980.26	0.32	0.40
Banque centrale du Luxembourg (Luxembourg)	24980876.34	0.27	0.34
Eesti Pank (Estonia)	21362892.01	0.23	0.29
Central Bank of Cyprus (Cyprus)	16318228.29	0.18	0.22
Central Bank of Malta (Malta)	7953970.70	0.09	0.11
<b>Total</b>	<b>7 583 649 493,38</b>	<b>81.33</b>	<b>100.00</b>

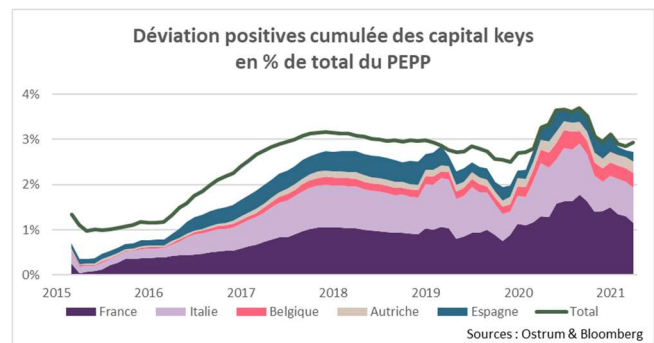
The chart below shows month by month the deviation of PSPP purchases from these distribution keys. It has remained minimal over the life of the program, and

<sup>1</sup> The total capital key is 81.3286% because part of the ECB's capital has not yet been subscribed. This is the case of capital reserved for EU Member States but not yet a member of the Euro, for instance Poland. These countries therefore account for the 18.6714% missing. To know the effective distribution key of Germany it is therefore necessary to take the total of 81.3286%, to remove the 2.0117% of Greece which does not participate in the

especially it has changed very little recently. France and Italy account for the bulk of the divergence.

It should also be noted that some countries have a very low debt and therefore an illiquid market which does not allow the ECB to buy the amount of paper desired. The programme is therefore far behind for those countries, as are Slovakia, Estonia and Portugal. First consequence, exceedances in other countries are inevitable. Second consequence, a perfect convergence on the distribution keys is almost impossible. And so, the debate on the deviation of the distribution keys is very overrated, the difference being negligible.

The PEPP figures are similar, if purchases deviated from the capital key initially, the ECB never really used the flexibility it had given itself on the allocation keys.



In the following simulations, we will therefore use the allocation keys to allocate PSPP and PEPP purchases by country.

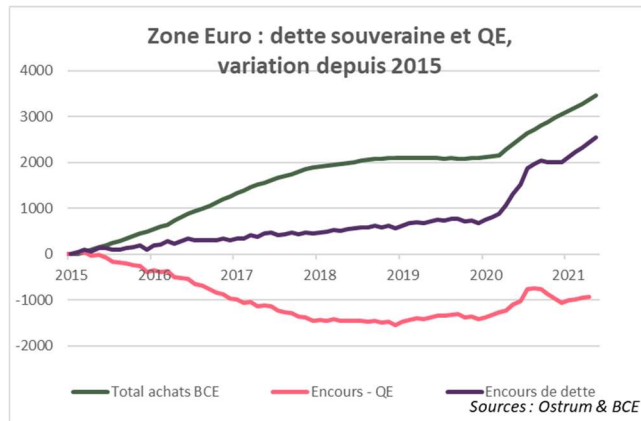
## Considerable support for the markets

We compare the ECB's purchases (official data, as well as our calculations for April and May) with the evolution of market debt. Since the start of QE in 2015 and until the end of May, cumulated sovereign paper purchases, PSPP and PEPP, amounts to 3,464 Mrds. Over the same period, the increase in public debt of all the countries of the Eurozone is of the order of 2,500 billion.

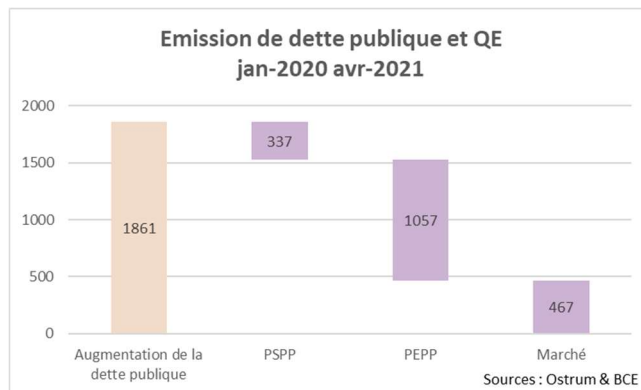
The ECB therefore purchased one third more than the net issuance over the period, or in other words, the amount of

PSPP which gives  $81.3286\% - 2.0117\% = 79.3169\%$ . Then use this figure to rebase the German gross key by 21.4394%. This gives  $21.4394\% / 79.3169\% = 27.03\%$  Bund in the PSPP. This is the "effective key" in the table. Bund's cumulative purchases accounted for 26.51% of the PSPP excluding supras. So we are very close to the capital keys.

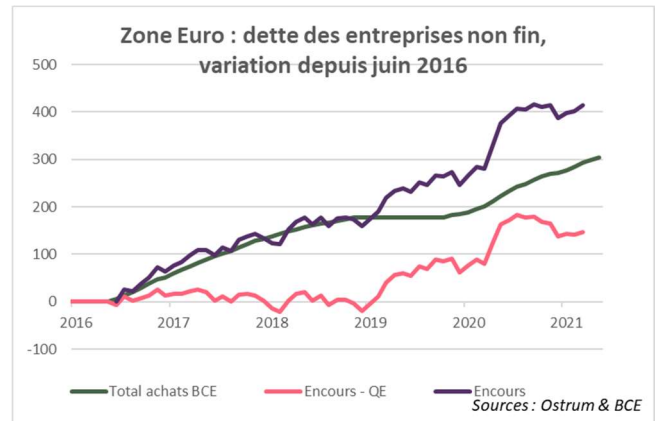
sovereign debt available to investors decreased over the period.



To be precise, however, it should be noted that since the beginning of 2020 the ECB has absorbed only a part of the net debt issuance: 1,393 billion from QE against a 1,860 billion variation in the stock of issuances, this still represents 75% of the issuances that were absorbed by the ECB.



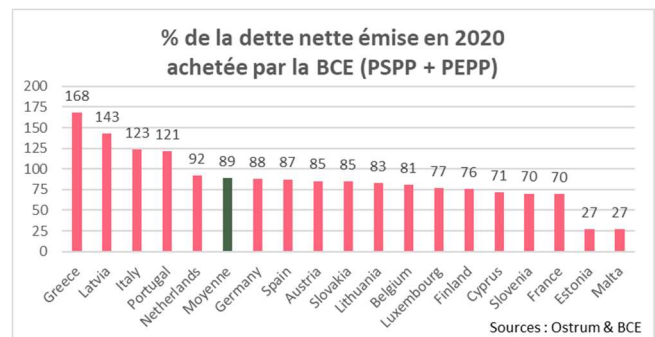
The figures are less dramatic for the credit market. The ECB follow the net credit issuances in the first phase of QE between 2016 and 2018. In the recent phase it has absorbed only part of the issuances, almost half, with 118 billion since the beginning of 2020 against a variation in outstanding debt of 247 billion.



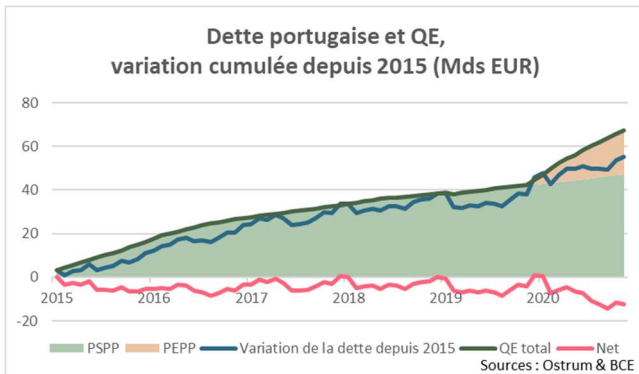
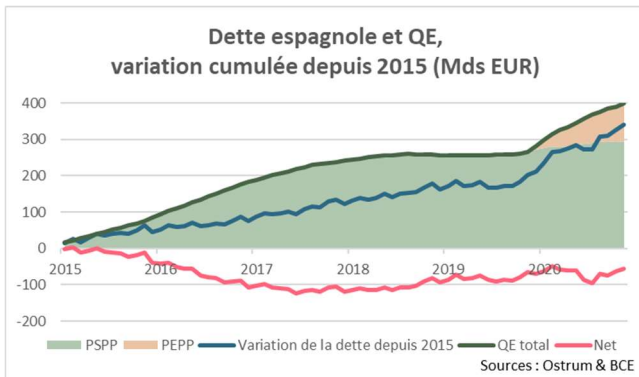
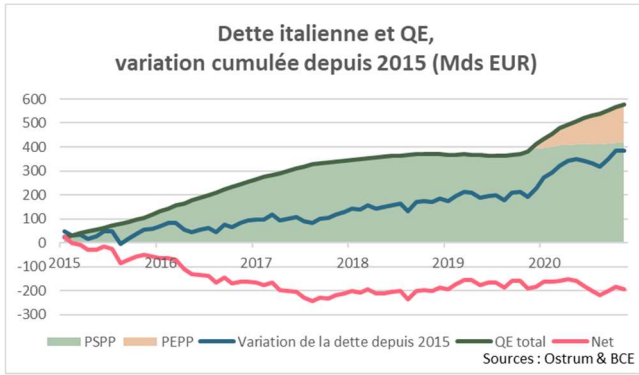
## The country view

The ECB's share of purchases may seem more than substantial. This is particularly true since the share of net issuances absorbed by the ECB varies considerably from one country to another. This is certainly the case over the past year. On average, out of the 18 countries for which we have data, the ECB has absorbed 89% of the net debt issued.

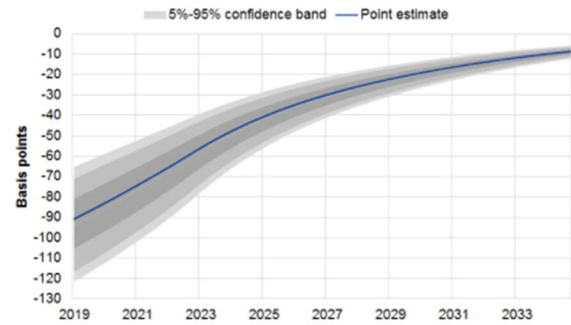
In particular, we find that for some peripheral countries, Italy and Portugal, the proportion exceeds 100%. In other words, the supply of sovereign paper for these countries, despite the significant emissions, has been reduced for investors if we take into account the share absorbed by the ECB.



The three graphs below show in detail the cumulative evolution of debt since the beginning of 2015 as well as the cumulative purchases of the ECB for the three main peripherals. The net supply is not only negative, but also much more stable.



**Estimated impact of the APP on euro area sovereign yields: 10-year term premium impact over time**

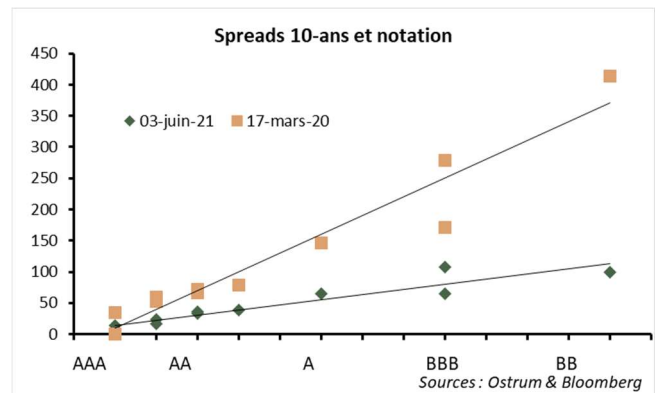


Source: Based on Eser, Lemke, Nyholm, Radde and Vladu (2019).  
Notes: The chart shows point estimates of the ten-year yield term premia compression over time. The confidence band reflects parameter uncertainty around these point estimates, constructed using bootstrap/Monte Carlo resampling techniques. Euro area yields are proxied by the GDP-weighted zero-coupon yields of the four largest euro area countries. Projected holdings are conditional on information in April 2019 and, based on the Bloomberg survey from 5 April 2019, on a reinvestment horizon of four years.

### Spreads

The action of the ECB obviously had a very marked effect also on the risk premium of sovereigns in the eurozone. See the chart below, which shows the 10-year spreads to Germany based on the country ratings. The slope of the curve was divided by three between the mid-March stress peak last year and current pricing.

The risk premium by rating notch was therefore also divided by three.



We can also monitor the evolution of this risk premium over time.

First remark with this approach, the period leading up to 2008 is probably over, with ridiculously low risk premiums in the order of 5 to 10 bps per rating notch. The market was assuming that a sovereign crisis was virtually impossible in the Eurozone. We know the what followed...

Second, last year's peak stress remains incomparably lower than what we saw during the sovereign crisis of the previous

## Market impact

### Risk-free rate

Let's give credit where credit is due, the chart below is taken from a speech by Benoît Cœuré on June 12, 2019 and provides an estimate of the impact of QE on the yield curve<sup>2</sup>. Of course, this estimate predates the second wave of QE we are currently experiencing. But if the impact of QE is proportional to its size, the impact on risk-free rates would be in the range of 120-125 bps.

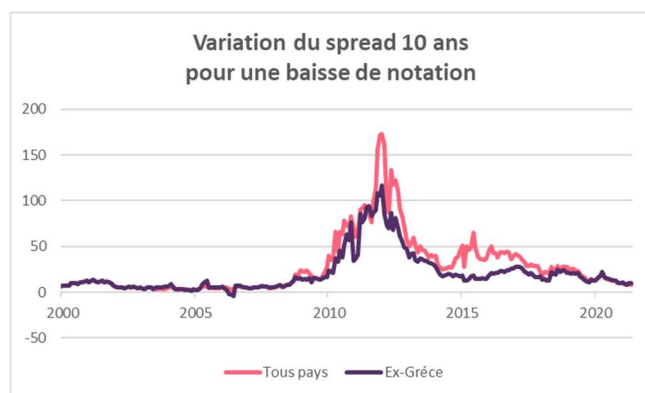
<sup>2</sup> Disponible sur <https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp19061>

[2\\_1~1a3bede969.en.html](https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp19061)

decade. At the time the premium per rating notch was 10 times higher!

Third point, the risk premium measured that way is below 10 bps currently. Since 2010, in 137 months, this has happened only 3 times. The risk premium is therefore exceptionally low. That shows how effective the ECB has been. The European stimulus package has certainly helped as well.

This is a double-edged sword. Such a compressed risk premium is probably not sustainable by the markets. And so, when the ECB reduces its support, we could go back to more “normal” levels even if the withdrawal of the ECB is conditioned to a healthier economy and therefore more positive fundamentals.



## Conclusion

The effect of QE on asset prices has been massive. Given the size of the emissions absorbed, this is anything but a surprise. We are therefore in a situation where rate levels are artificially maintained (for good reasons) at levels that seem difficult to justify without a marked and especially continuous interventionism of the ECB.

In this context, a reduction in QE interventionism could have a relatively large impact on rates and spreads that could potentially return to a much higher level.

Why then reduce QE? Especially after so much effort to keep the economy and public finances under control? Vaccination is progressing and by this summer Europe will certainly have reached collective immunity. GDP is rebounding very strongly and should return to its pre-crisis level next year. Moreover, the ECB will present its new forecasts at its next meeting, and it is almost certain that they will be revised upwards. Finally, these same forecasts are expected to show a long-term inflation level of 1.6%, which was the level of expectations before Covid.

The ECB hawks (let's be clear that we do not agree with these arguments) will therefore tell us that it is “mission accomplished” for the ECB and that the exceptional program (aka the PEPP) is no longer necessary. If the argument is still difficult to support, even for a hawk of the ECB, at the June meeting, it is clear that the dissensions at the ECB will grow and that this line of argument will gain importance.

QE exit could then take the form of a reduction in PEPP, or non-reconstruction after March 2022. The PEPP is more flexible than the PSPP, it allows deviations from the distribution keys, an extension to short-term securities and purchases of Greek securities. This flexibility of the PSPP will be an issue once the program is completed.

The June 10 meeting should therefore not lead to a marked change in policy. On the other hand, cacophony is expected to increase and market concerns about a reduction in QE can only grow.

**Stéphane Déo**

• **Market review**

## The wait

### American job report validates tapering scenario announced this summer

The economic recovery is strengthening in most parts of the world, except Japan. The reopening of the sectors penalized by the pandemic sparks the upswing. But the question of growth may have become secondary at this juncture. The rampant speculation on small US stocks (AMC Entertainment recently), fueled by individual investors, may be a reminder that the central question for financial markets remains the strategy of central banks to curb excess liquidity. Several central banks have already taken steps in this direction, in Canada, in New Zealand or in emerging countries. China provides a framework for the appreciation of the Renminbi. However, on the dollar, bank reserve issuance and public transfers push short-term bill rates ever lower. The current use of the Fed's reverse repo facility, to the tune of \$ 600 billion, suggests that many money market participants aim at protecting their portfolios from negative-yielding T-bills. The ECB faces the same dilemma as inflation reverted to 2% in May and debate rages within the Governing Council over the calibration of emergency measures. Aside from the casino-like episodes mentioned earlier, stock market volatility remains limited on risky assets. The asymmetry of implied volatility on the S&P 500, however, indicates strong demand for downside hedging. Reckless communication from a central bank official would indeed be have the potential to unleash profit taking. In contrast, corporate credit spreads remain stable, including that on speculative-grade bonds.

As stated above, the economic situation is improving. The pressures continue to build along the global supply chains and anecdotes abound about hiring difficulties. The ISM purchasing managers' surveys, over 60 in both sectors, are unambiguous about the level of current growth in the United States. US economic growth will thus be between 8 and 10% in the second quarter of 2021. Job creation was 559k in May, up from 278k in April. The unemployment rate dropped by 0.3pp to 5.8% of the active population in May.

In the euro zone, surveys predict an acceleration in activity after the relapse observed last winter. The deployment of the European stimulus package, now expected in July, is another cause for optimism. In China, the PBoC aims to ease upward pressure on the Renminbi by imposing a 2% increase in dollar reserve requirements. Foreign flows into Chinese stocks and bonds continue to accumulate.

The T-note yields continue to hover around 1.60%. However, the bond market was upbeat at the end of the week with a weekly close at 1.56%. The 559k jobs created in May indeed appear consistent with the announcement of a gradual reduction in asset purchases over the summer.

This scenario seems to be quite consensus at present. Some members of the Fed (Kaplan, a non-voting FOMC participant this year) are already citing a decrease in support for the mortgage market as a first gesture. There is no need to stimulate demand for residential investment at present but the most likely policy decision remains a simultaneous reduction in open market operations on US Treasuries (\$ 80 billion per month) and MBS (\$ 40 billion). It is interesting to note that the increased use of the Fed's reverse repo facility already implies greater circulation of Treasury securities in the marketplace. The Fed will also take all necessary language precautions to avoid a repeat of the 2013 Crash. The surprise effect of tapering will hence be greatly diminished.

In the euro area, the ECB meeting on June 10 is much anticipated. A back-of-the-envelope calculation indicates that weekly purchases of up to € 17 billion make it possible to use the entire PEPP program by the scheduled end date of March 2022. Given the seasonal drops in QE in August and December, this level allows to maintain the current pace of purchases for some time. This is one of the reasons why sovereign spreads have tended to tighten even as the Bund yields traded down in the wake of T-notes after the employment data release (-4bp on the day at -0.21%). The Italian 10-year BTP industry is now trading around 108bp. In the same vein, the € 47 billion increase in the French public deficit has no impact on the AFT issuance program (unchanged at € 260 billion in 2021), hence the absence of tensions on OAT spreads. Long-term bond issues have been well received by the market (2044, 2055, 2072). In addition, the European Union is about to unveil its funding program. The first installments of the recovery plan will be made in July, which will require the issuance of T-bills and bonds as early as the second half of June.

The euro credit market remains stable. CDS indices put a positive tone with a modest narrowing on the ITraxx IG whilst cash corporate bonds were essentially unchanged. Primary market activity slowed with just around € 8 billion issued, of which a third were green bonds. In the United States, the announced sale of the Fed's credit holdings (SMCCF \$ 13 billion) has had no impact on spreads. The high yield market remains buoyant despite the deluge of bond issues expected over the next two weeks. Institutional investors' reach for yield and the low probability of default are keeping spreads below 300bp.

As for equities, European indices rose 1% last week. The rotations observed remain closely linked to bond yield gyrations rates so that the rate move following payrolls benefited growth stocks, including technology and quality. Conversely, cyclicals and banking underperformed. It should be noted that flows remain favorable to European equities. In addition, received dividends will be invested cushioning against downside risks.

**Axel Botte**  
Global strategist

● Main market indicators

<b>G4 Government Bonds</b>	<b>07-Jun-21</b>	<b>-1 wk (bp)</b>	<b>-1m (bp)</b>	<b>YTD (bp)</b>
EUR Bunds 2y	-0.66 %	0	+2	+4
EUR Bunds 10y	-0.20%	-1	+2	+37
EUR Bunds 2s10s	47 bp	-1	-1	+34
USD Treasuries 2y	0.15 %	+1	+1	+3
USD Treasuries 10y	1.57 %	-3	-1	+66
USD Treasuries 2s10s	142 bp	-4	-1	+63
GBP Gilt 10y	0.81 %	+1	+3	+61
JPY JGB 10y	0.08 %	0	-1	+6
<b>€ Sovereign Spreads (10y)</b>	<b>07-Jun-21</b>	<b>-1 wk (bp)</b>	<b>-1m (bp)</b>	<b>YTD (bp)</b>
France	37 bp	+1	-1	+14
Italy	111 bp	+2	-7	0
Spain	67 bp	+2	-3	+6
<b>Inflation Break-evens (10y)</b>	<b>07-Jun-21</b>	<b>-1 wk (bp)</b>	<b>-1m (bp)</b>	<b>YTD (bp)</b>
EUR OATi (9y)	139 bp	+2	-2	-
USD TIPS	241 bp	-4	-10	+42
GBP Gilt Index-Linked	361 bp	+4	+7	+61
<b>EUR Credit Indices</b>	<b>07-Jun-21</b>	<b>-1 wk (bp)</b>	<b>-1m (bp)</b>	<b>YTD (bp)</b>
EUR Corporate Credit OAS	85 bp	+0	+1	-7
EUR Agencies OAS	40 bp	+1	+1	-1
EUR Securitized - Covered OAS	32 bp	+2	+1	0
EUR Pan-European High Yield OAS	294 bp	-5	-5	-64
<b>EUR/USD CDS Indices 5y</b>	<b>07-Jun-21</b>	<b>-1 wk (bp)</b>	<b>-1m (bp)</b>	<b>YTD (bp)</b>
iTraxx IG	49 bp	-1	-1	+1
iTraxx Crossover	244 bp	-4	-8	+3
CDX IG	50 bp	0	0	0
CDX High Yield	284 bp	-4	-3	-10
<b>Emerging Markets</b>	<b>07-Jun-21</b>	<b>-1 wk (bp)</b>	<b>-1m (bp)</b>	<b>YTD (bp)</b>
JPM EMBI Global Div. Spread	333 bp	+1	-10	-18
<b>Currencies</b>	<b>07-Jun-21</b>	<b>-1wk (%)</b>	<b>-1m (%)</b>	<b>YTD (%)</b>
EUR/USD	\$1.219	-0.28	+0.23	-0.25
GBP/USD	\$1.418	-0.19	+1.39	+3.87
USD/JPY	¥109.29	+0.17	-0.63	-5.48
<b>Commodity Futures</b>	<b>07-Jun-21</b>	<b>-1wk (\$)</b>	<b>-1m (\$)</b>	<b>YTD (\$)</b>
Crude Brent	\$71.7	\$2.4	\$3.7	\$20.4
Gold	\$1 895.0	-\$11.8	\$63.8	\$0.6
<b>Equity Market Indices</b>	<b>07-Jun-21</b>	<b>-1wk (%)</b>	<b>-1m (%)</b>	<b>YTD (%)</b>
S&P 500	4 220	0.37	-0.31	12.34
EuroStoxx 50	4 098	1.44	1.57	15.34
CAC 40	6 544	1.50	2.48	17.87
Nikkei 225	29 019	0.55	-1.15	5.74
Shanghai Composite	3 600	-0.44	5.28	3.64
VIX - Implied Volatility Index	16.76	0.00	0.42	-26.33

Source: Bloomberg, Ostrum Asset Management



## Additional notes

### Ostrum Asset Management

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