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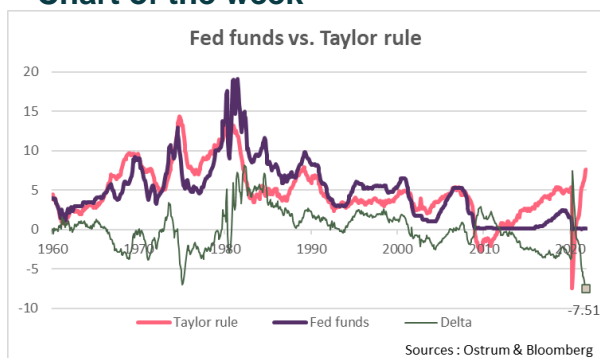
● Topic of the week: ECB securities lending in the context of year-end repo stress.

- ECB QE and tighter banking regulation since the great financial crisis have raised the risk of collateral shortage impacting repo lending;
- Scarcity of euro collateral appears quite acute this year with deeply negative rates around year-end turn;
- The ECB amended the terms of securities lending program in a bid to reduce the collateral shortage with little success so far;
- Euro collateral scarcity have some bearing on USD markets.

● Market review: Decisive moment for Central Banks

- US inflation rises to 1982 high;
- Strong rebound in equities amid high volatility;
- The PBoC puts the brakes on CNY appreciation;
- Undeterred T-note yield falls back below 1.50%.

● Chart of the week



Taylor's rule, which has made the heyday of monetary policy, takes into account the level of inflation and growth to give a normative view of policy rates. This rule has relatively well described the Fed's policy over half a century, from the 1960s to the 2000s, it has remained relatively close to reality.

Over the past few years, on the other hand, the divergence is impressive, at the moment, the rule suggests that the Fed funds should be at 7.59%. Even if this rule is not to be taken for granted, it's a reminder that the Fed's current policy is extremely lax.

● Figure of the week

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Source : Ostrum AM

It is the 20th anniversary of China's accession to the World Trade Organization. It took place on December 11, 2001.



Stéphane Déo
Head of markets strategy
stephane.deo@ostrum.com



Axel Botte
Global strategist
axel.botte@ostrum.com



Zouhoure Bousbih
Emerging countries strategist
zouhoure.bousbih@ostrum.com



Aline Goupil- Raguénès
Developed countries strategist
aline.goupil-raguenes@ostrum.com

- **Topic of the week**

ECB securities lending in the context of year-end repo stress

The year-end turn is always volatile in money markets. Large needs for cash and/or collateral from banks, asset managers or corporate treasurers tend to raise rate volatility in both secured and unsecured lending markets.

The current situation is quite extreme with repo and bill rates going lower well ahead of the end of the year as collateral proves hard to get. Excess cash is chasing too little bonds. The scarcity of collateral is a by-product of quantitative easing and banking regulations including LCR. The ECB securities lending program may help assuage tensions and potential spill over into other markets.

The reasons behind the tensions in repo market

Repo markets and the monetary policy transmission channel

Short-term money market rates often serve as operational targets for central banks and represent the first step in the monetary policy transmission. Money market rates are an important determinant for the level of lending rates faced by firms and households.

Banks, financial institutions including investment funds and money market funds and corporations rely on money markets for their short-term funding and collateral needs. In the euro area, the European Central Bank has capacity to influence short-term rates by changing its refinancing rate (ECB refi rate, set at 0% currently) or the deposit facility rate (currently -0.5%) or by purchasing bonds in the open market.

The repo market is the largest segment of money markets. In a repurchase agreement or repo, one firm sells securities to a second institution and agrees to purchase back those assets for a higher (if repo rates are positive, respectively lower if rates are negative) price by a certain date, typically overnight. A repurchase agreement is thus a short-term collateralized loan. The difference between the original price and the second price, represents "interest" paid on that loan, or the 'repo rate'.

The reasons to participate in the repo market are twofold: the search for funding and/or the search for collateral. There are two main collateral market segments: general collateral (GC) repos and specific collateral (SC) repos. Borrowing and lending of cash is the primary motivation for a GC transaction, the underlying collateral just needs to provide sufficient credit quality. The SC or 'specials' trading is largely driven by collateral needs. Transactions specify the particular security that is exchanged in the two legs. Single collateral transactions account for more than 90% of the total volume reported in the secured segment. For instance, upon expiry of bond futures cheapest-to-deliver bonds (CTD) may be hard to find. Repo rates on CTD securities may be far off the general collateral reference indices.

Post-GFC changes in money markets and the greater reliance on secured lending

In the euro area, money markets went through profound changes in the past 15 years. During the financial and sovereign debt crises, volatility increased affecting both unsecured money market rates and even secured rates on deals collateralized by stressed sovereign bonds. There was also a broad-based shift away from unsecured lending towards secured transactions. This is because, in a financial crisis, counterparty risk rises as banks' confidence in one another collapses. Hence additional needs for a guarantee or collateral.

In addition, as private markets shut down, banks had no choice but to turn to the central bank for liquidity. The role of the central bank thus evolved in a such a manner that the ECB has become both the main counterparty providing liquidity to stressed euro area banks and the only venue to park excess cash for cash-rich banks.

Lastly, Basel III regulations, in particular the Liquidity Coverage Ratio (LCR) and the leverage ratio (LR), have been phased in since 2015. These regulations may interact with money market functioning in a variety of ways. The LCR requires banks to hold HQLA (or high-quality liquid assets, including central bank reserves or government debt) hence reducing the pool available for trading in money markets. For LCR purposes, euro area banks hold nearly €3.5Tn worth of HQLA thus competing with the ECB QE for default risk-free collateral. The LR is calculated based on the size of banks' balance sheets and money market borrowing has a bearing

on bank balance sheet size.

Regulators believe that repo collateral squeezes could become less likely at year-end thanks to changes in reporting requirements. From 2022, European banks will no longer report a quarter-end snapshot of their leverage-ratios, but only an average over the period. ECB researchers suggested in a recent working paper¹ this should mitigate the incentive to window-dress at the end of the quarter. The “window-dressing” effects tend to reduce money market volumes and thus higher dispersion of rates across money markets and higher rate volatility.

Fixing scarcity

The terms of the ECB’s security lending facility

Since the start of quantitative easing in 2015, scarcity effects in some money market segments have been observed. The flipside of excess liquidity in the financial sector is therefore the risk of bond scarcity, all the more so since repo usage increased following the financial crisis. In this context, securities lending by the ECB should be helpful to mitigate bond scarcity and foster secondary market liquidity. The QE pendulum may have swung too far.

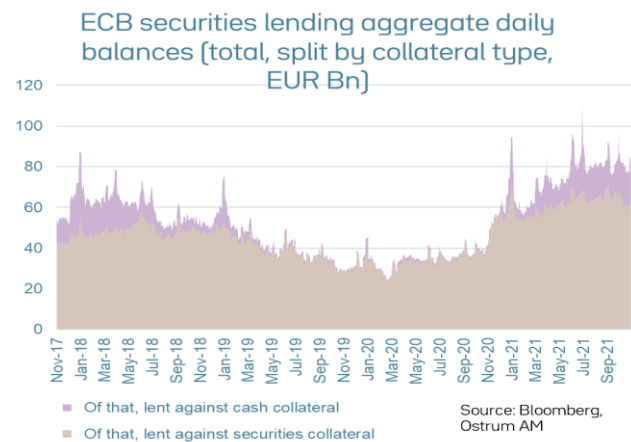
ECB holdings of securities purchased under various programs (PSPP, SMP, PEPP, CBPP) are available for lending. In December 2016, the ECB made PSPP holdings available for securities lending against cash as collateral, subject to certain conditions. The implementation of this activity has been delegated to its lending agent Deutsche Bank AG.

Eligible counterparties include primary dealers of euro area sovereign bonds and other institutions with market-making commitments to money markets. Counterparties may borrow securities from the ECB against securities as collateral at a fixed minimum fee of 5bp, or a fee based on prevailing market rates, whichever is higher. The fee is the difference between the repo and reverse repo rates. Against cash collateral, the fee amounts to the deposit facility rate minus 20bp (-0.70% at current levels) or the prevailing market repo rate, whichever is lower. While transactions have a term of up to 14 days, loans that are outstanding for more than 30 days will be monitored and may be recalled by the ECB. In any event, transactions will be recalled at the latest 90 days following the start of the loan.

The transactions can either take place against other

securities or cash as collateral. Under both options, a haircut of 4% applies. Subject to availability, an individual counterparty may borrow up to 2.5% of the amount outstanding of a single issue, with a maximum of €200 million for any such issue. In addition, the ECB will set limits for each individual counterparty with regard i) to the overall borrowing volume and ii) to the borrowing volume against cash collateral.

The ECB securities lending activities are significant. As of October-end 2021, the aggregate balance of PSPP, SMP and PEPP public-sector bond lent by the ECB amounted to €80.8 billion at market value. Of the total on-loan balance of securities lent by the Eurosystem, €62.4 billion was lent against securities collateral. Cash collateral adds up to a mere €18.4 billion. Hence, more than three quarters of total securities lending is against other QE-eligible securities.



Too much cash is currently chasing too few government bonds.

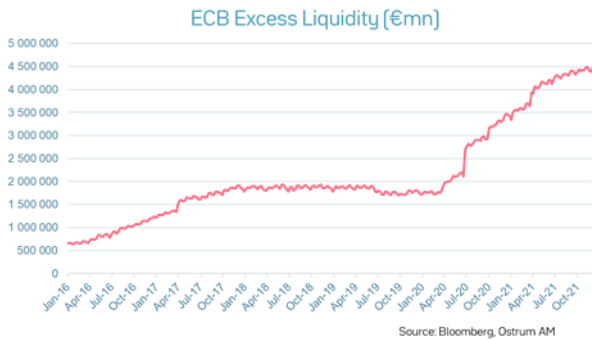
Too much cash is currently chasing too few government bonds. To assuage the euro collateral shortage, the ECB decided to double the limit on total cash collateral to €150 billion posted at its securities lending facility in November. It remains to be seen whether the higher cash collateral limit will be enough to get collateral flowing again. The ECB’s quantitative easing programs have far outpaced net bond issuance in recent years, particularly in sovereign space. There is considerable scope for the ECB to lend out a greater proportion of its bond portfolio... but policymakers could be reluctant to pursue sort of an ‘anti-QE’ policy.

TLTRO (for Targeted Long-term Refinancing Operations) also added to excess liquidity in the financial system. The

¹ Stefano Corradin, Jens Eisenschmidt, Marie Hoerova, Tobias Linzert, Glenn Schepens, Jean-David Sigaux; *Money markets, central bank balance sheet and regulation, revised June 2021*,

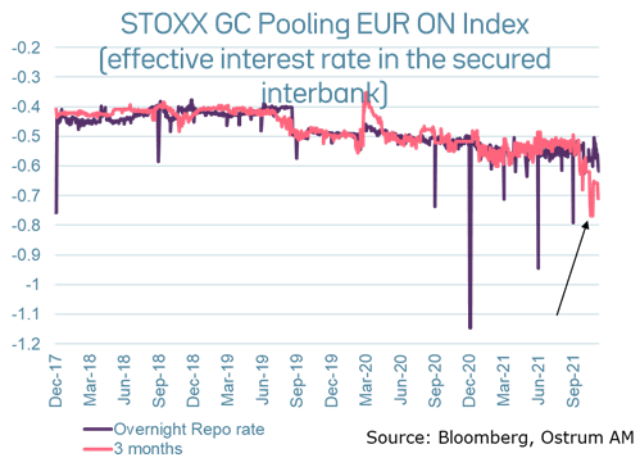
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unlimited 3-year ECB loans allowed banks to earn carry on government bonds and other securities. However, its impact on bond scarcity is likely to have been muted. Of the €2.8T collateral posted for these loans, “only” € 432 billion was in the form of government bonds. Non-marketable assets, covered bonds and asset-backed securities add up to 71% of the total. That said, the ECB does not lend back the collateral received.

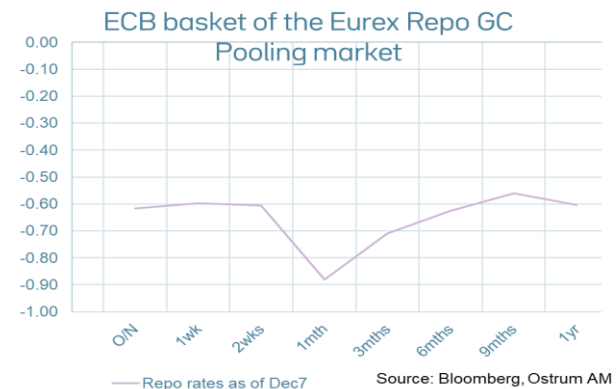


There are other reasons for temporary scarcity of bonds. There are special needs for liquidity or collateral around quarter-end or year-end turns in both the financial sector and the corporate sector. In the chart below, sharply negative overnight repo rates correspond to quarter-end collateral squeezes. If excess demand for cash prevails, repo would spike higher. The ECB could also lend out a greater share of bonds identified as “special” by repo market participants. The 2.5% limit on the amount outstanding of each bond (defined by ISIN) available for lending could be lifted. Furthermore, there is no reason why the same limit should apply to all bonds (given ‘special’ status).

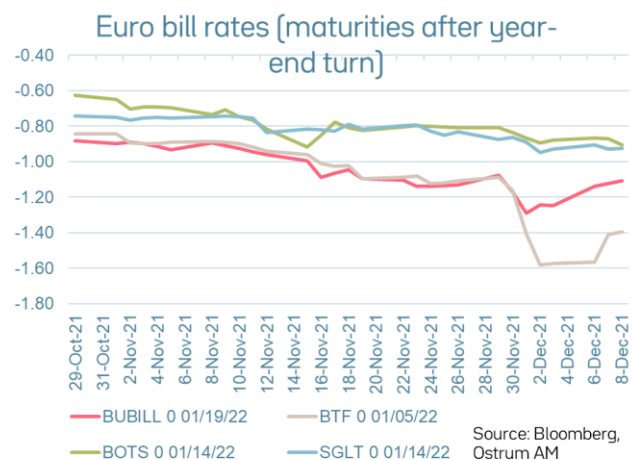
In the current situation, term repo rates appear unusually low. In addition, it is no coincidence that current 3-month repo rates trade near the implied repo rate offered by the ECB lending facility (-0.70%) since the ECB loan will be called in 90 days at the latest.

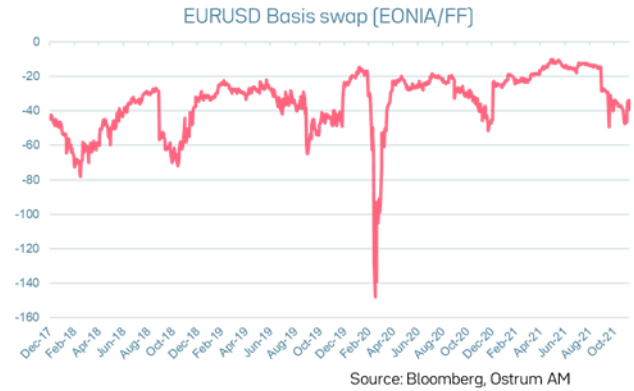
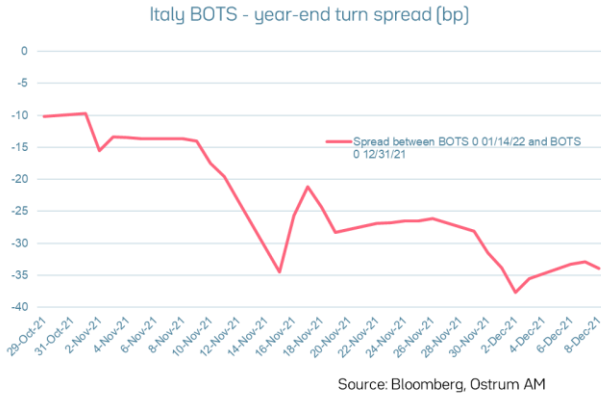


Since mid-November, term repo rates have fallen. Year-end stress hit money markets much earlier than usual. The much-anticipated policy meetings of the Fed on December 15th, and the ECB and the BoE on December 16th may have led investors to secure collateral needs earlier than usual. Current pricing still indicates extreme negative rates for terms beyond the year-end turn. As can be seen in the chart below, general collateral repo rates are -0.88% on a 1-month horizon, compared with -0.60% for a 2-week term. Market quotes suggest that forward year-end overnight repo rate on special securities have traded as low as -7% recently.



Stress around year-end turn has been building of late. The spread between the Italian Treasury bill maturing on January 14th, 2022 vs. the December 31st, 2021 BOT has gone even more negative. Furthermore, German Bubill, French BTF or Spanish Letras with maturities in early 2022 have richened considerably. The BTF maturing on January 5th traded near -1.58% in early December, more than 100bp lower than the ECB deposit facility rate for instance.





Connection with USD markets?

Global funding markets are interconnected. The collateral shortage in euro markets may have implications elsewhere. On current market conditions, the USD trades a year-end premium which is available via foreign exchange swaps. Some financial institutions may be unable to capture it as their financial resources are used up to source collateral and reinvest in euros. The ability of some institutions (namely asset managers and corporate treasurers) to bypass the collateral shortage is limited. Only banks can park cash with the ECB's deposit facility at a fixed rate and avoid the pitfalls of collateral scarcity. However, this reduces the ability to lend and reduce excess premiums on the deep USD dollar market. This is important as the year-end premium on the US dollar seems to have risen in parallel with the increased collateral shortage in the euro area.

Conclusion

Year-end effects have been priced much sooner than usual this year in euro money markets. Cumulative QE buying and banks' holdings of HQLA for regulatory purposes combined to make collateral more expensive. Bills maturing in early 2022 trade at deeply negative rates and repo rates for special securities have traded near -7%. The terms of the ECB securities lending facility could be eased further to promote a smoother functioning of money markets in the euro area.

Axel Botte

• **Market review**

Decisive moment for central banks

Inflation is here, can the central banks' reaction function change?

Realized market volatility shows no sign of abating. However, as investor sentiment improved, implied volatility indices corrected lower (21% on the VIX down from a peak of 35%). The S&P rebounds by 4.4% in two days after a reassuring study on the effectiveness of vaccines against the Omicron variant. S&P futures in Asia then extended the bullish run on Tuesday's US cash equity session. The fifth Covid wave nevertheless forced restrictions in Europe and in the United Kingdom. The stock market then stabilized ahead of the US CPI release, whilst investors refocused on the all-important central bank meetings on December 15-16 (Fed then BoE, ECB). The 10-year T-note yield hovers around 1.50% in line with the ceiling on short-term rates projected by markets over the upcoming monetary cycle. The Bund yield traded down through -0.30% albeit without impacting sovereign spreads. Italian politics and the future of Mario Draghi, however, are back on investors' radar screens. The spread on 10-year BTP rose above the 130bp threshold. Credit and even more so speculative-grade bonds benefit from the rally in risk assets. Although volatile and subject to changes in investor risk aversion, the US dollar remains strong as short rate expectations adjust upwards. Contrary to the tightening bias in developed markets, the PBoC took additional steps to ease policy on both the domestic side (lower reserve requirement ratio) and 'abroad' (higher dollar reserves to trade CNH) to stem upward pressure on the yuan.

The current US economic situation calls for monetary tightening. Inflation accelerated again in November to 6.8%. Core inflation stands at 4.9%, and it is hard not to see widespread price pressure. The consumer price inflation is the highest since 1982. In addition, 70% of the basket shows annual increases of more than 3%. Looking beyond the CPI figure, the perception of inflation is what matters for consumer behavior, not to mention voters as the midterm elections look next November. The labor market has returned to equilibrium with an unemployment rate of 4.2%. Weekly jobless claims have plunged below 200k and mass layoff plans are at an all-time low at barely a third of the average between 2017 and 2019. So the Fed has every reason to end easing quantitative and start hiking rates. The date of such policy change remains uncertain and likely subject to epidemic risks despite ongoing robust economic growth. The reduction in asset purchases will quicken, and will be followed by rate hikes and possibly some form of balance sheet run-off. In the euro zone, the Covid situation will have a negative effect on activity as new restrictions are

put in place. The ECB will make a decision on the end of PEPP on Thursday, whilst keeping all options open to be able to increase the APP on either a temporary or more lasting basis. The TLTRO decision is less urgent, but the outstanding amount of refinancing operations (€ 2.2 trillion) can never be refinanced on the markets, in particular for the most fragile southern European banks. The BoE appears to be willing to delay what looks like an inevitable rate hike. The UK government has finally introduced restrictive measures in response to the Covid wave and that could provide the MPC with a timely argument to postpone the first 15bp rate move (0.10-0.25%) until February. The APP has almost reached its ceiling of £ 875bn. A key risk for the BoE is the sensitivity of aggregate demand to rising interest rates. As the share of fixed-rate mortgages has increased, the effect of the increase may have diminished.

The bond market remains volatile ahead of central bank meetings. Could the Fed's reaction function have changed in the face of what would have been unthinkable inflation figures a few years back? The market disagrees and foresees a short-lived monetary tightening cycle. The signal for a change in the policy approach will have to come from the Fed. The memory of the Fed's implicit put (activated in 2018 and 2019) still fans the trend for flatter yield curves and reduced risk/term premiums. The yield on T-notes dropped below 1.50% after the CPI release. However, recent auctions of 10- and 30-year bonds did not show solid final demand. The Bund yield rose by around 5bp last week. Bund valuations versus swaps had richened significantly. Thus, 10-year swap spread tightened to around 46bp (-5bp) as investor sentiment improved. Sovereign spreads weathered risk-free yield volatility; even as Italian spreads shot up above 130bp. Draghi's next role creates uncertainty which sparked significant selling via BTP futures. The end of the year and a lighter issuance calendar nevertheless limit upside risk on sovereign spreads.

Credit markets eased slightly in the wake of the rally in equities after a significant widening of spreads. CDS indices, including the iTraxx crossover (262bp), appear to have stabilized. Uncertainty regarding ECB credit bond purchases next year via the APP and expensive valuations remains a drag on outperformance. High yield (-18bp in the euro zone in five trading sessions) also outperformed. As concerns equity market returns, it is striking to observe the homogeneity of the market rebound. The growth style did fare better, but most sectors, factors and styles posted positive returns last week.

The dollar stayed firm. The euro is trading around \$ 1.13. The surprise came from the PBOC sending a clear signal that too strong an appreciation of the yuan is no longer desirable.

Axel Botte
Global strategist

● Main market indicators

G4 Government Bonds	13-Dec-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR Bunds 2y	-0.71 %	+2	+4	-1
EUR Bunds 10y	-0.38%	+1	-12	+19
EUR Bunds 2s10s	33 bp	-1	-16	+20
USD Treasuries 2y	0.65 %	+2	+14	+53
USD Treasuries 10y	1.43 %	0	-13	+52
USD Treasuries 2s10s	78 bp	-2	-27	-1
GBP Gilt 10y	0.71 %	-3	-21	+51
JPY JGB 10y	0.05 %	+1	-2	+3
€ Sovereign Spreads (10y)	13-Dec-21	-1wk (bp)	-1m (bp)	YTD (bp)
France	35 bp	-1	-1	+12
Italy	130 bp	+3	+8	+18
Spain	69 bp	-3	-3	+8
Inflation Break-evens (10y)	13-Dec-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR OATi (9y)	164 bp	+5	+13	-
USD TIPS	245 bp	+0	-27	+47
GBP Gilt Index-Linked	414 bp	-3	+8	+114
EUR Credit Indices	13-Dec-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR Corporate Credit OAS	97 bp	-6	+9	+5
EUR Agencies OAS	48 bp	-4	+2	+7
EUR Securitized - Covered OAS	45 bp	-4	-2	+13
EUR Pan-European High Yield OAS	328 bp	-15	+16	-30
EUR/USD CDS Indices 5y	13-Dec-21	-1wk (bp)	-1m (bp)	YTD (bp)
iTraxx IG	52 bp	-5	+3	+4
iTraxx Crossover	257 bp	-24	+9	+16
CDX IG	53 bp	-3	+3	+3
CDX High Yield	307 bp	-14	+12	+14
Emerging Markets	13-Dec-21	-1wk (bp)	-1m (bp)	YTD (bp)
JPM EMBI Global Div. Spread	366 bp	-20	+17	+14
Currencies	13-Dec-21	-1wk (%)	-1m (%)	YTD (%)
EUR/USD	\$1.128	-0.04	-0.77	-7.66
GBP/USD	\$1.323	-0.26	-1.39	-3.23
USD/JPY	¥113.52	-0.04	+0.53	-9.05
Commodity Futures	13-Dec-21	-1wk (\$)	-1m (\$)	YTD (\$)
Crude Brent	\$75.0	\$1.9	-\$6.1	\$24.5
Gold	\$1 786.4	\$7.7	-\$76.5	-\$112.0
Equity Market Indices	13-Dec-21	-1wk (%)	-1m (%)	YTD (%)
S&P 500	4 688	2.11	0.12	24.82
EuroStoxx 50	4 188	1.24	-4.16	17.90
CAC 40	6 945	1.16	-2.06	25.11
Nikkei 225	28 640	2.55	-3.27	4.36
Shanghai Composite	3 681	2.56	4.01	5.99
VIX - Implied Volatility Index	20.39	-24.98	25.17	-10.37

Source: Bloomberg, Ostrum Asset Management

Additional notes

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