

2021 ends with faster withdrawal of monetary stimulus (QE tapering, interest rate increases) due to inflation pressures and heightened pandemic-related uncertainty

- The Federal Reserve decided to double the pace of the reduction in net purchases (QE tapering) of US Treasury securities and agency MBSs as of mid-January 2022, to \$30B instead of \$15B per month. As a result, large-scale asset purchases will cease in March 2022 instead of June 2022, with a balance sheet expansion since March 2020 of circa \$4.5T to \$8.7T (38% of 2021 GDP).
- The median of FOMC members' assumptions for the appropriate path of the Federal Funds Rate ("FFR") points to three increases of 25 bps each from a current range of 0% - 0.25% in 2022, instead of one in September's projections (see graph below).
- Stronger-than-expected inflation outcomes, combined with a greater progress towards full employment in recent months (see Economics) resulted in the hawkish turn. With three more FFR hikes envisaged for 2023 and two in 2024, the end-point for the FFR is 2-2.25% versus 1.8% in September, a tad below the longer-term estimate from FOMC participants (2.5%).
- Regarding the ECB, net purchases under the PEPP will decelerate in Q1:22 compared with Q4:21 (estimated at c. €70B per month) and cease in March 2022, as planned. To avoid though an abrupt tightening of financial conditions, net asset purchases under the APP (currently c. €20B per month) will temporarily increase to €40B per month on average in Q2:22, then reach €30B per month in Q3:22, before returning to "quasi" open-ended purchases of €20B per month thereafter.
- PEPP reinvestments will continue in full until at least the end of 2024 (which represents an one-year extension to the respective guidance). Reinvestments could be adjusted flexibly, including purchases of bonds issued by the Hellenic Republic (non-eligible for participation in the APP programme as long as the Republic remains below Investment Grade) over and above rollovers of redemptions, while net purchases under the PEPP could also be resumed, if necessary.
- On policy rates, the updated ECB staff projections for inflation (see graph page 3), suggests no envisaged hikes up to end of the forecast horizon (end-2024) as average expected inflation in 2024 (1.8% yoy) still falls short of the 2% target. Nevertheless, the aforementioned anticipated level, is close enough to target, suggesting volatility ahead vis-à-vis interest rate expectations.
- The Bank of England (BoE) increased the Bank Rate, from +0.10% to +0.25% in view (i) of strong incoming data regarding inflation (CPI: +5.1% yoy in November, versus +4.5% yoy in BoE's projections in November) and (ii) solid labor market conditions, with BoE members now expecting average unemployment rate of 4% in Q4:21 instead of 4.5% in their November projections.
- Another interest rate increase to +0.50% is fully priced-in by the March meeting. According to the current guidance by the BoE, such an event would open the door to commencing a winding down of the QE portfolio of £895B (39% of 2021 GDP) likely via reinvestments not taking place in full.
- Global equity markets recorded double-digit returns in 2021 as corporate earnings surged, while investment-Grade Aggregate Bond returns were negative, due to higher inflation expectations (see graph below). A re-opening global economy, adverse weather conditions, geopolitical factors and pledges for a faster transition to net zero supported commodity prices.

Ilias Tsirigotakis^{AC}
Head of Global
Markets Research
210-3341517
tsirigotakis.ilias@nbg.gr

Panagiotis Bakalis
210-3341545
mpakalis.pan@nbg.gr

Vasiliki Karagianni
210-3341548
karagianni.vasiliki@nbg.gr

Leonidas Patsios
210-3341553
Patsios.Leonidas@nbg.gr

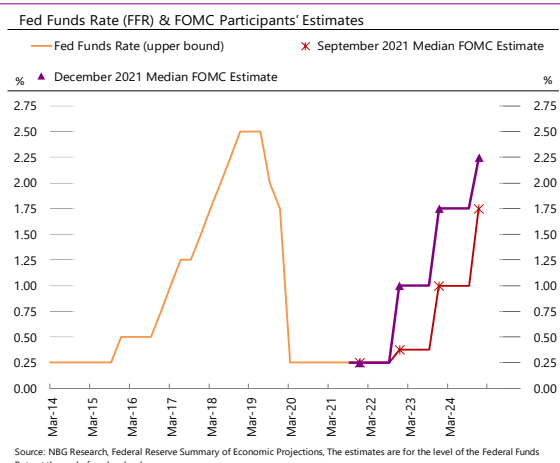
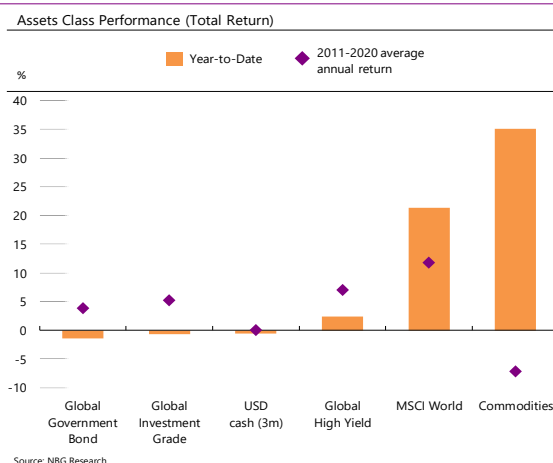
*This is our last GMR
issue of the year.*

*We wish our readers
a joyful holiday
season and a happy
New Year!*

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Charts of the week



The Fed revised significantly its short-term projections for inflation (up) and the unemployment rate (down)

- **The 18 participants in the Federal Open Market Committee (FOMC) made modest revisions compared with three months ago, to their outlook for GDP.** Specifically, the median estimate for 2021 GDP growth (Q4/Q4) was revised down by 0.4 pps to (a still particularly robust) +5.5% yoy. Recall that the aforementioned projection matches the one implied by Atlanta Fed's GDPNowcast model. The latter was revised down to +7.2% qoq saar from +8.7% qoq saar (suggesting +5.9% yoy) previously, following subdued retail sales in November (in value terms, the so-called "control group", as it feeds into the calculation for GDP, i.e., excluding autos, gas, food services and building materials, was down by 0.1% mom, well below consensus estimates for +0.7% mom). However, FOMC participants' projection for Q4:22 was raised by 0.2 pps to +4.0% yoy. Thereafter, the projection for growth in Q4:23 was downgraded by 0.3 pps to +2.2% and for Q4:24 it was unchanged at +2.0% yoy (longer-run projection: stable at +1.8% yoy).
- The estimates for the unemployment rate were substantially revised down in the short-term (-0.5 pps to 4.3%, on average in Q4:21 and -0.3 pps to 3.5% in Q4:22), following lower than previously assumed, actual outcomes in recent months (latest: 4.2% in November). For the subsequent years they were unchanged, at 3.5% in both 2023 (Q4) and 2024 (longer-run: stable at 4.0%).
- **At the same time, the more intense than previously foreseen, inflation spike, prompted the FOMC to substantially revise up its respective projections for Q4:21. A re-evaluation of the potential duration of the current supply chain bottlenecks (in view, *inter alia*, of renewed waves of Covid-19), resulted in a similar development for 2022.** Still, the view that the inflation spike is predominantly linked to the supply/demand dislocations caused by the pandemic and thus will not result in sustained price pressures, is maintained as a baseline scenario, as suggested by the projections in subsequent years. Note also that longer-term inflation expectations (both market and survey based) remain anchored at levels consistent with Fed's 2% longer-run inflation goal. In all, headline PCE inflation is now anticipated at +5.3% yoy in 2021 and at +2.6% yoy in 2022 (Q4 average, up by +1.1 pp and +0.4 pps compared with September's projections, respectively). At the same time, the estimates for 2023 & 2024 were little changed (+0.1 pp to +2.3% yoy and stable at 2.1% yoy, respectively). In a similar note, core PCE growth is anticipated at +4.4% yoy in 2021 (Q4 average) versus +3.7% yoy previously, while the respective estimate for 2022 was revised up by 0.4 pps to +2.7% yoy and by 0.1 pp to +2.3% yoy for 2023 (2024: +2.1% yoy).
- **The aforementioned macroeconomic outlook is conditioned on the Fed bringing forward compared with September, the hikes for the Federal Funds Rate (FFR), versus a current target range of 0% - 0.25%.** In the event, the median of FOMC participants' respective assumptions, points to +0.9% by end-2022 instead of 0.3% (suggesting three increases of 25 bps each, instead of one previously), 1.6% instead of 1.0% for end-2023 and 2.1% instead of 1.8% for end-2024. As a result, the terminal rate is still below, but close to the longer-term FFR estimate from FOMC participants which was unchanged at 2.50%, suggesting an unrestrictive monetary policy throughout the forecast horizon.

The ECB revised substantially up its inflation projections

- **The quarterly ECB staff's estimates for GDP were revised down in the short term due to the renewed pandemic-related restrictions and higher uncertainty regarding the path of the pandemic (related to the omicron variant). More intense and longer than-previously-assumed supply bottlenecks are also expected to delay somewhat the GDP recovery.** In all, the estimate for real GDP growth in 2021 was little changed, at +5.1% yoy, while the respective projection for 2022 was revised down by 0.4 pps to 4.2% yoy. However, with the aforementioned headwinds being assumed to start gradually dissipating in mid-2022 and fully unwinding by 2023, the GDP growth estimate for 2023 was revised up substantially, by 0.8 pps to +2.9% yoy. Finally, the newly introduced estimate for 2024, was +1.6% yoy.
- **Sharp upward revisions for the short-term inflation projections took place, on the back, *inter alia*, of the actual outcomes in recent months being substantially stronger than previously expected due to greater direct and indirect effects from elevated energy prices and the longer endurance of the current international supply chain disruptions.** Specifically, the projection for inflation in 2021 was revised up by 0.4 pps to +2.6% yoy (on average) and for 2022 by 1.5 pps to +3.2% yoy.
- In the medium-term, inflation is expected to decelerate, albeit upward revisions compared with the previous forecasts took place on the back of robust wage growth alongside higher inflation expectations. In all, inflation is expected to ease to 1.8% yoy in 2023 (versus 1.5% yoy in September's projections) and to remain at 1.8% yoy in 2024 (newly introduced estimate), still below the target for 2% and thus, supporting the view for maintaining an accommodative monetary policy stance in the next years, at least for ECB Governing council "dove" members. Core CPI inflation estimates were also revised up, by 0.1 pp in 2021 to +1.4% yoy, by 0.5 pps in 2022 to +1.9% yoy and by 0.2 pps in 2023 to +1.7% yoy, while the estimate for 2024 was +1.8% yoy.

China: Mixed economic activity data for November

- **The latest data largely support the view for a stabilization of momentum.** The annual growth of industrial production improved to +3.8% yoy in November, from +3.5% yoy in October (and +3.1% yoy in September), above consensus estimates for +3.6% yoy, likely supported by fewer electric power shortages and a robust external demand (exports: +22.0% yoy in November). Manufacturing of automobiles continued to lag, a development indicative, *inter alia*, of the limited availability of semiconductors, albeit posting a considerable improvement (-4.7% yoy from -7.9% yoy in October). Note that Authorities took another (modest) step in their pledge to ease policies. Indeed, the People's Bank of China reduced the 1-year Loan Prime Rate (LPR), a benchmark for rate setting in a variety of loans provided by commercial banks, by 5 bps to +3.80%, the first such move since April 2020.
- On the other hand, retail sales (in value terms), disappointed, coming out at 3.9% yoy in November from +4.9% yoy in October (+4.4% yoy in September), below expectations for +4.6% yoy. Local Covid-19 outbreaks could have contributed to the latest deceleration, alongside a negative payback from sales of communication equipment (+0.3% yoy in November from +34.8% yoy in the previous month), a development probably linked to the launch of Apple's latest phone model in October. Finally, fixed asset investment growth decelerated to +5.2% yoy from +6.1% yoy previously, largely in line with expectations.

Equities

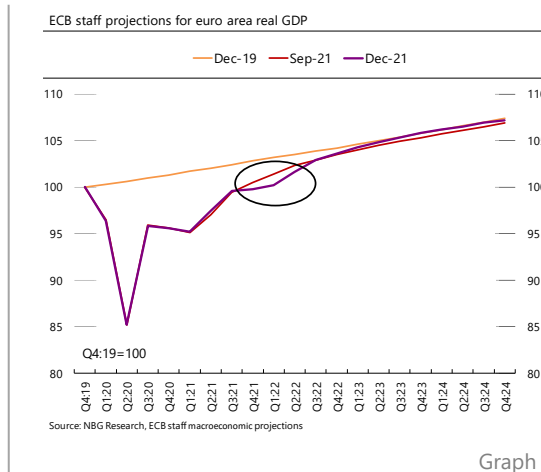
- Global equity markets declined in the past week, due to renewed concerns regarding the possible impact of the fast-spreading Omicron variant on global growth, as several countries reinstate (or considering to do so) restrictive measures, following the surge in Covid-19 cases.** The MSCI ACWI ended the past week down by 1.6% wow (+14% ytd), with both Developed (-1.5% wow | +17% ytd) and Emerging (-1.8% wow | -6% ytd) Markets recording losses. In the US, the S&P500 fell by 1.9% wow (+23% ytd), posting its 3rd weekly decline out of the past 4 weeks, following the increase in new Covid-19 daily cases that reached 189k on Friday, compared with 126k on average in December and 87k on average in 2021. Furthermore, the S&P500 entered the current week on a negative note (-1.1% on Monday), with dampening fiscal support expectations contributing to the downside, following the Democratic Senator J. Manchin's comments that he would not vote in favor of the Build Back Better (BBB) legislation in its current form, with his vote being critical in the split US Senate (50 Democrats – 50 Republicans). Sector-wise, Automobiles (-8.5% wow) led the decline, with General Motors underperforming (-12.8% wow), following the departure of the CEO of its autonomous vehicle startup company, Cruise. Tesla also significantly fell (-8.3% wow), with its cumulative decline since its early-November high (\$1230) reaching 24%. On the other side of the Atlantic, the EuroStoxx index fell by 0.9% in the past week (+17% ytd), and by a further 1.2% on Monday, as the rising Covid-19 cases led the Netherlands to apply a strict lockdown, while France and Germany imposed travel restrictions on travelers from the UK.

Fixed Income

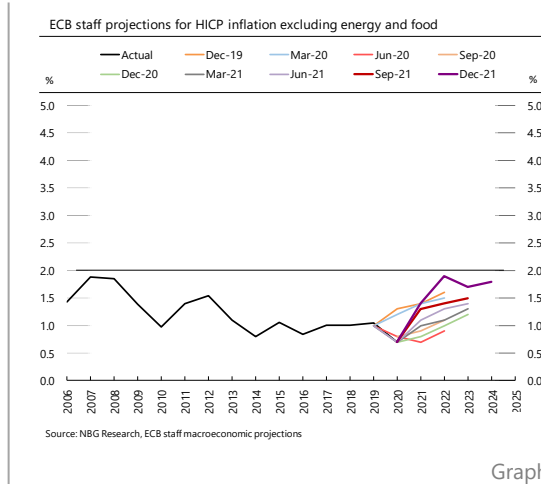
- Government bond nominal yields declined in the past week.** In the US, the 10-year yield ended the week down by 8 bps wow to 1.40%, due to the investors' increased risk aversion and rising concerns regarding the spread of the Omicron variant, with the Fed's (expected) decision to accelerate its QE tapering pace leading only to a short-lived rebound on Wednesday. In Germany, the 10-year Bund yield fell by 3 bps wow to -0.36%, due to the investors' flight to safety, following new restrictions by European countries. Meanwhile, periphery government bond yields declined. Specifically, in Italy the 10-year yield declined by 3 bps wow to 0.92%, in Portugal, it fell by 5 bps wow to 0.26%, while in Greece it decreased by 16 bps wow to 1.19%, following the explicit reference at the ECB statement that after the end of the PEPP programme in March 2022, its reinvestments could be adjusted flexibly, including purchases of bonds issued by the Hellenic Republic (non-eligible for participation in the APP programme) over and above rollovers of redemptions, while net purchases under the PEPP could also be resumed, if necessary. **Corporate bond spreads were broadly stable in the past week, with the exception of US high yield.** Specifically, US high yield spreads widened by 7 bps to 336 bps, while their EUR counterparts ended the week broadly stable at 342 bps. In the investment grade spectrum, both US and EUR corporate bond spreads were broadly unchanged, at 101 bps and 98 bps, respectively.

FX and Commodities

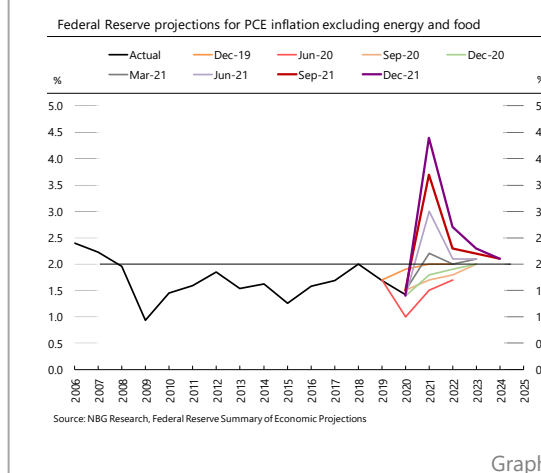
- In foreign exchange markets, the British Pound rose in the past week,** following the Bank of England's decision to raise its official Bank rate to 0.25%, while markets forecasted that the Bank would maintain the rate at 0.10% up until its February meeting. Overall, the Sterling ended the week up by 0.5% against the euro to €/0.85 and by 0.3% wow against the US Dollar to \$1.326. **Finally, in commodities, oil prices declined in the past week,** posting their 7th week with losses out of the past 8, on account of pandemic-induced demand concerns. Specifically, the Brent ended the week down by 2.2% to \$73.5/barrel and the WTI by 1.1% to \$70.9/barrel. Meanwhile, European gas prices surged in the past week (+29.4% wow to €136.9/MWh) and by a further +7.3% on Monday, recording a new all-time high (€147/MWh), due to a significant decline during the weekend in the Russian natural gas deliveries to Germany through the Yamal-Europe pipeline to an hourly volume of around 370,000 kWh/h from an average of between 9,000,000 to 12,000,000 kWh/h in December.



Graph 1.



Graph 2.



Graph 3.

Quote of the week: "In dealing with balance sheet issues, we've learned that it's best to take a careful sort of methodical approach to make adjustments. Markets can be sensitive to it ... We're basically two meetings away now from finishing the taper. And we thought that was the appropriate way to go.", **Fed Chair, Jerome Powell, December 15th 2021.**

Interest Rates & Foreign Exchange Forecasts

10-Yr Gov. Bond Yield (%)	December 17th	3-month	6-month	12-month	Official Rate (%)	December 17th	3-month	6-month	12-month
Germany	-0.36	0.00	0.10	0.20	Euro area	0.00	0.00	0.00	0.00
US	1.40	1.70	1.80	2.00	US	0.25	0.25	0.50	1.00
UK	0.76	1.10	1.18	1.30	UK	0.25	0.30	0.50	0.60
Japan	0.04	0.10	0.13	0.17	Japan	-0.10	-0.10	-0.10	-0.10

Currency	December 17th	3-month	6-month	12-month	December 17th	3-month	6-month	12-month	
EUR/USD	1.13	1.13	1.13	1.14	USD/JPY	114	114	114	112
EUR/GBP	0.85	0.85	0.86	0.87	GBP/USD	1.33	1.32	1.31	1.32
EUR/JPY	128	129	128	128					

Forecasts at end of period

Economic Forecasts

United States	2019a	Q1:20a	Q2:20a	Q3:20a	Q4:20a	2020a	Q1:21a	Q2:21a	Q3:21a	Q4:21f	2021f
Real GDP Growth (YoY) (1)	2.3	0.6	-9.1	-2.9	-2.3	-3.4	0.5	12.2	4.9	5.6	5.7
Real GDP Growth (QoQ saar) (2)	-	-5.1	-31.2	33.8	4.5	-	6.3	6.7	2.0	7.6	-
Private Consumption	2.2	-6.9	-33.4	41.4	3.4	-3.8	11.4	12.0	1.6	7.3	8.1
Government Consumption	2.2	3.7	3.9	-2.1	-0.5	2.5	4.2	-2.0	0.8	3.7	0.9
Investment	3.2	-2.3	-30.4	27.5	17.7	-2.7	13.0	3.3	-0.8	3.9	7.9
Residential	-0.9	20.4	-30.7	59.9	34.4	6.8	13.3	-11.7	-7.7	-2.9	8.9
Non-residential	4.3	-8.1	-30.3	18.7	12.5	-5.3	12.9	9.2	1.8	6.5	7.6
Inventories Contribution	0.1	-1.0	-4.6	6.6	1.4	-0.6	-3.7	-1.7	1.9	1.4	-0.2
Net Exports Contribution	-0.2	0.1	1.4	-5.6	-2.4	-0.2	-2.0	-0.4	-1.4	-0.5	-1.8
Exports	-0.1	-16.3	-59.9	54.5	22.5	-13.6	-2.9	7.6	-2.5	5.4	3.9
Imports	1.2	-13.1	-53.1	89.2	31.3	-8.9	9.3	7.1	6.0	6.0	13.4
Inflation (3)	1.8	2.1	0.3	1.2	1.3	1.2	1.9	4.9	5.4	5.6	4.5

Euro Area	2019a	Q1:20a	Q2:20a	Q3:20a	Q4:20a	2020a	Q1:21a	Q2:21a	Q3:21a	Q4:21f	2021f
Real GDP Growth (YoY)	1.6	-3.0	-14.5	-4.0	-4.4	-6.5	-1.2	14.2	3.7	5.0	5.1
Real GDP Growth (QoQ saar)	-	-13.2	-39.1	60.9	-1.7	-	-1.2	8.7	9.3	3.7	-
Private Consumption	1.4	-16.0	-42.4	71.6	-11.8	-8.0	-8.8	14.5	13.9	7.1	3.2
Government Consumption	1.8	-0.4	-10.5	24.3	2.8	1.4	-1.9	5.0	2.5	2.0	3.5
Investment	6.4	-16.9	-58.4	68.4	11.5	-7.5	-0.2	4.5	9.7	6.0	5.2
Inventories Contribution	-0.1	1.4	-0.9	-6.4	2.5	-0.5	3.7	-0.9	-0.3	-0.3	0.4
Net Exports Contribution	-0.8	-1.9	1.9	10.2	-0.5	-0.4	0.4	0.2	-0.2	-1.3	1.2
Exports	2.5	-13.8	-56.0	84.6	17.4	-9.3	4.5	11.1	5.6	6.0	9.8
Imports	4.6	-10.7	-59.5	56.2	20.6	-9.2	4.2	11.8	6.6	9.6	7.9
Inflation	1.2	1.1	0.2	0.0	-0.3	0.3	1.0	1.8	2.9	3.7	2.4

a: Actual, f: Forecasts, 1. Seasonally adjusted YoY growth rate, 2. Seasonally adjusted annualized QoQ growth rate, 3. Year-to-year average % change

12-Month View & Key Factors for Global Markets

	US	Euro Area	Japan	UK
Equity Markets	<ul style="list-style-type: none"> + Massive Fiscal loosening will support the economy + 2021 EPS growth expectations have further room to increase + Share buybacks could resume - Peaking profit margins - High market cap concentration - P/Es (Valuations) approaching dot-com levels <p>● Neutral/Positive</p>	<ul style="list-style-type: none"> + Still high equity risk premium relative to other regions + Modest fiscal loosening in 2021 + 2021 EPS estimates remain pessimistic - Political uncertainty (Italy, German Elections) could intensify - Logistic disruptions (vaccine) and renewed lockdowns delay the recovery <p>● Neutral</p>	<ul style="list-style-type: none"> + Still aggressive QE and "yield-curve" targeting by the BoJ - Signs of policy fatigue regarding structural reforms and fiscal discipline - Strong appetite for foreign assets - JPY appreciation in a risk-off scenario could hurt exporters <p>● Neutral</p>	<ul style="list-style-type: none"> + 65% of FTSE100 revenues from abroad + Undemanding valuations in relative terms - Elevated Policy uncertainty to remain <p>● Neutral/Negative</p>
Government Bonds	<ul style="list-style-type: none"> + Valuations appear rich with term-premium below 0% + Sizeable fiscal deficit + Underlying inflation pressures under Average Inflation Targeting - Global search for yield by non-US investors continues - Safe haven demand - Fed to remain at ZLB in 2021 - Fed: Unlimited QE purchases <p>▲ Slightly higher yields expected</p>	<ul style="list-style-type: none"> + Valuations appear excessive compared with long-term fundamentals - Political Risks - Fragile growth outlook - Medium-term inflation expectations remain low - ECB QE net purchases - ECB QE "stock" effect <p>▲ Slightly higher yields expected</p>	<ul style="list-style-type: none"> + Sizeable fiscal deficits + Restructuring efforts to be financed by fiscal policy measures - Safe haven demand - Extremely dovish central bank - Yield-targeting of 10-Year JGB at around 0% <p>● Stable yields expected</p>	<ul style="list-style-type: none"> + Elevated Policy uncertainty to remain + Inflation expectations could drift higher due to supply disruptions post Brexit - The BoE is expected to remain on hold with risks towards rate cuts - Slowing economic growth post-Brexit <p>▲ Slightly higher yields expected</p>
Foreign Exchange	<ul style="list-style-type: none"> + Safe-haven demand - Fed's interest rate differential disappeared following cuts to 0%-0.25% - Global political uncertainty to decline <p>● Broadly Flat EUR against the USD</p>	<ul style="list-style-type: none"> + Reduced short-term tail risks + Current account surplus - Sluggish growth - Deflation concerns - The ECB's monetary policy to remain extra loose (Targeted-LTROs, Quantitative Easing) <p>● Broadly Flat EUR against the USD</p>	<ul style="list-style-type: none"> + Safe haven demand + More balanced economic growth recovery (long-term) + Inflation is bottoming out - Additional Quantitative Easing by the Bank of Japan if inflation does not approach 2% <p>▲ Slightly higher JPY</p>	<ul style="list-style-type: none"> + Valuations appear undemanding with REER below its 15-year average - Sizeable Current account deficit <p>▲ Higher GBP expected</p>

Equity Markets (in local currency)

Developed Markets		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)	Emerging Markets		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)
US	S&P 500	4621	-1.9	23.0	24.1	44.8	MSCI Emerging Markets	69434	-1.6	-3.2	-1.8	
Japan	NIKKEI 225	28546	0.4	4.0	6.5	19.3	MSCI Asia	1058	-2.3	-5.9	-4.2	
UK	FTSE 100	7270	-0.3	12.5	11.0	-3.6	China	82	-4.6	-23.5	-22.7	
Canada	S&P/TSX	20739	-0.7	19.0	17.5	21.8	Korea	921	0.3	-0.5	4.3	
Hong Kong	Hang Seng	23193	-3.3	-14.8	-13.1	-16.8	MSCI Latin America	93536	0.7	-6.4	-6.3	
Euro area	EuroStoxx	464	-0.9	16.7	17.0	15.0	Brazil	315284	-0.1	-15.6	-15.4	
Germany	DAX 40	15532	-0.6	13.2	13.6	17.5	Mexico	49130	2.5	20.9	20.2	
France	CAC 40	6927	-0.9	24.8	24.8	16.2	MSCI Europe	6834	-0.8	13.8	14.2	
Italy	FTSE/MIB	26611	-0.4	19.7	20.9	12.6	Russia	1486	-1.1	12.5	12.2	
Spain	IBEX-35	8312	-0.6	2.9	1.9	-13.6	Turkey	2368148	4.3	40.0	46.1	

World Market Sectors (MSCI Indices)

in US Dollar terms		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)	in local currency		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)
Energy		168.9	-3.9	30.8	25.8	-12.9	Energy		172.6	-3.8	33.4	28.1
Materials		349.1	0.1	9.5	9.8	30.1	Materials		332.7	0.2	13.4	13.6
Industrials		339.3	-1.9	11.5	12.0	23.3	Industrials		336.5	-1.8	15.5	15.9
Consumer Discretionary		425.7	-3.5	13.0	13.7	54.5	Consumer Discretionary		412.4	-3.5	15.9	16.7
Consumer Staples		286.3	0.9	8.2	8.7	15.4	Consumer Staples		285.7	0.9	11.1	11.5
Healthcare		361.1	1.9	15.6	16.3	30.9	Healthcare		355.7	2.0	17.9	18.5
Financials		146.0	-1.0	22.3	23.9	16.4	Financials		146.0	-0.9	25.3	26.9
IT		553.0	-3.6	24.7	25.9	81.3	IT		536.2	-3.6	26.0	27.3
Telecoms		105.1	-1.3	11.6	11.8	36.7	Telecoms		109.9	-1.2	13.1	13.3
Utilities		159.5	1.1	4.0	5.2	7.1	Utilities		163.3	1.2	6.8	7.9

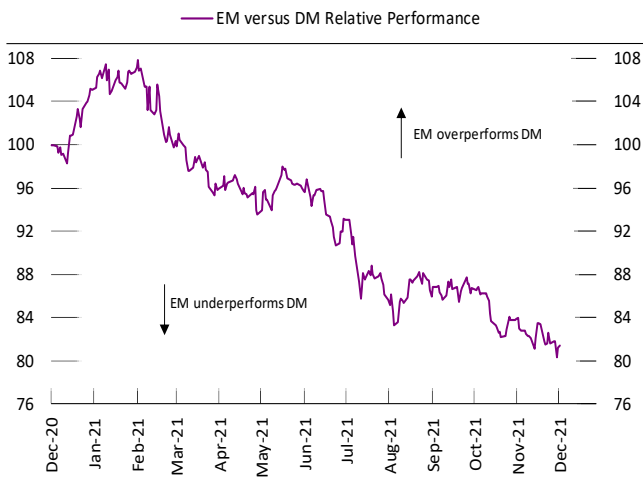
Bond Markets (%)

10-Year Government Bond Yields		Current	Last week	Year Start	One Year Back	10-year average	Government Bond Yield Spreads (in bps)		Current	Last week	Year Start	One Year Back
US		1.40	1.49	0.92	0.93	2.03	US Treasuries 10Y/2Y		73	79	80	77
Germany		-0.36	-0.34	-0.56	-0.58	0.51	US Treasuries 10Y/5Y		22	23	53	40
Japan		0.04	0.05	0.02	0.02	0.26	Bunds 10Y/2Y		36	36	16	17
UK		0.76	0.74	0.20	0.25	1.44	Bunds 10Y/5Y		24	24	18	19
Greece		1.19	1.35	0.62	0.58	7.57	Corporate Bond Spreads (in bps)		Current	Last week	Year Start	One Year Back
Ireland		0.03	0.05	-0.31	-0.29	1.96	EM Inv. Grade (IG)		146	143	163	162
Italy		0.92	0.95	0.45	0.44	2.45	EM High yield		685	674	524	529
Spain		0.34	0.35	0.04	0.01	2.09	US IG		101	100	103	107
Portugal		0.26	0.30	0.03	0.00	3.31	US High yield		336	329	386	405
US Mortgage Market (1. Fixed-rate Mortgage)		Current	Last week	Year Start	One Year Back	10-year average	Euro area IG		98	99	93	92
30-Year FRM¹ (%)		3.30	3.30	2.90	2.85	4.00	Euro area High Yield		342	342	355	348
vs 30Yr Treasury (bps)		144.6	138.4	126.2	117.6	125.7						

Foreign Exchange & Commodities

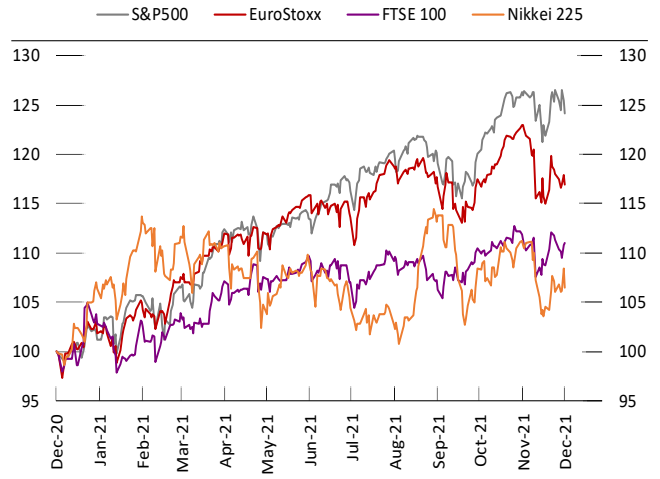
Foreign Exchange		Current	1-week change (%)	1-month change (%)	1-Year change (%)	Year-to-Date change (%)	Commodities		Current	1-week change (%)	1-month change (%)	1-Year change (%)
Euro-based cross rates							Agricultural		443	0.1	-2.1	29.4
EUR/USD		1.13	-0.3	-0.3	-7.9	-7.9	Energy		239	-1.6	-9.0	45.3
EUR/CHF		1.04	-0.2	-1.1	-4.0	-3.9	West Texas Oil (\$/bbl)		71	-1.1	-9.6	46.5
EUR/GBP		0.85	-0.5	1.2	-5.6	-5.0	Crude Brent Oil (\$/bbl)		74	-2.2	-8.4	42.8
EUR/JPY		128.12	-0.1	-1.1	1.5	1.4	HH Natural Gas (\$/mmbtu)		3.7	1.1	-23.4	36.7
EUR/NOK		10.15	0.3	2.8	-3.4	-3.1	TTF Natural Gas (EUR/mwh)		137	29.4	44.1	758.9
EUR/SEK		10.25	0.1	2.2	1.3	2.0	Industrial Metals		484	1.6	2.4	23.0
EUR/AUD		1.58	0.0	1.4	-1.9	-0.6	Precious Metals		2356	1.2	-4.4	-5.5
EUR/CAD		1.45	0.6	1.5	-7.2	-7.2	Gold (\$)		1798	0.8	-3.7	-4.7
USD-based cross rates							Silver (\$)		22	0.6	-10.9	-14.2
USD/CAD		1.28	0.9	1.8	0.8	0.7	Baltic Dry Index		2379	-27.3	-2.1	82.9
USD/AUD		1.40	0.3	1.7	6.5	7.9	Baltic Dirty Tanker Index		803	2.3	1.0	77.3
USD/JPY		113.64	0.2	-0.8	10.3	10.1						

EM vs DM Performance in \$



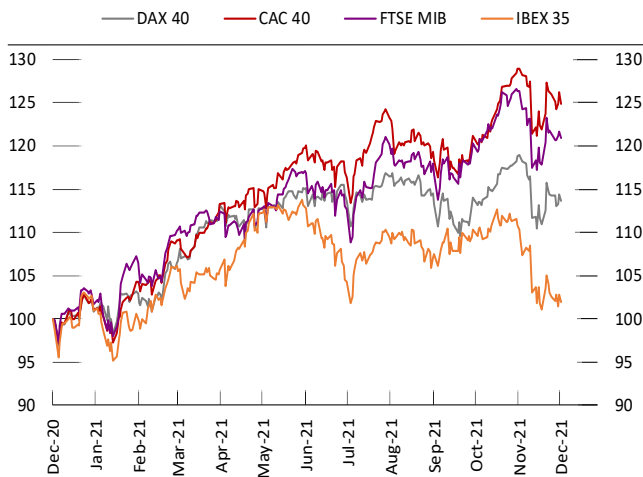
Data as of December 17th – Rebased @ 100

Equity Market Performance - G4



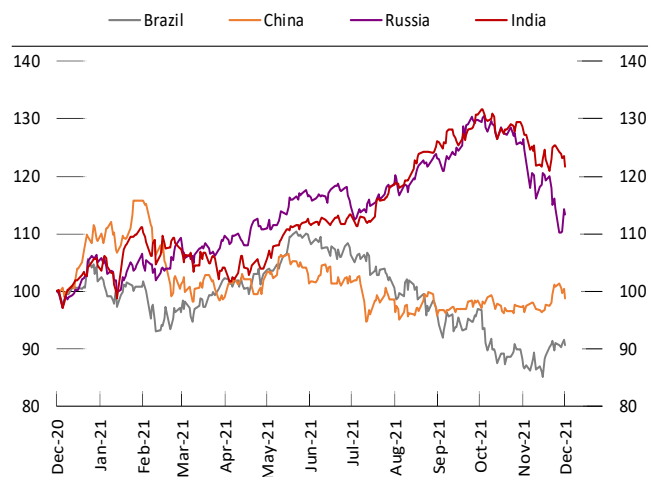
Data as of December 17th – Rebased @ 100

Equity Market Performance – Euro Area G4



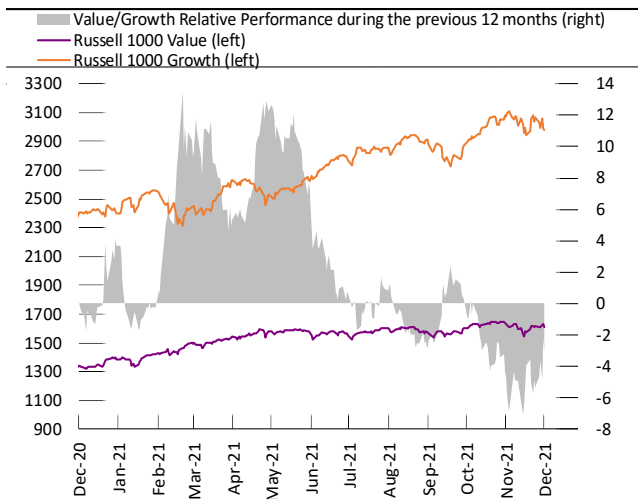
Data as of December 17th – Rebased @ 100

Equity Market Performance - BRICs



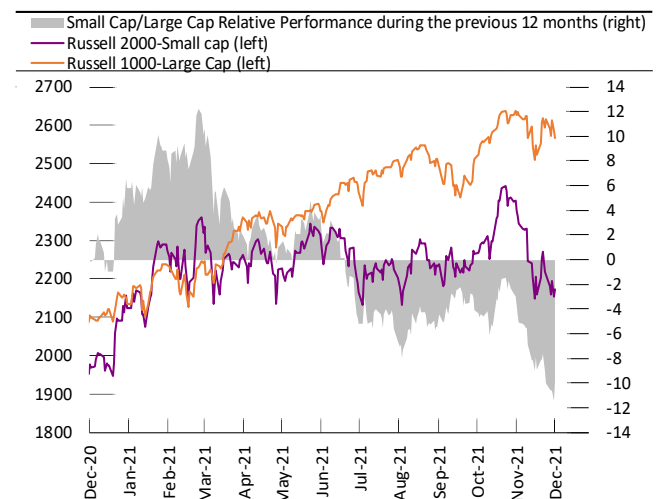
Data as of December 17th – Rebased @ 100

Russell 1000 Value & Growth Index



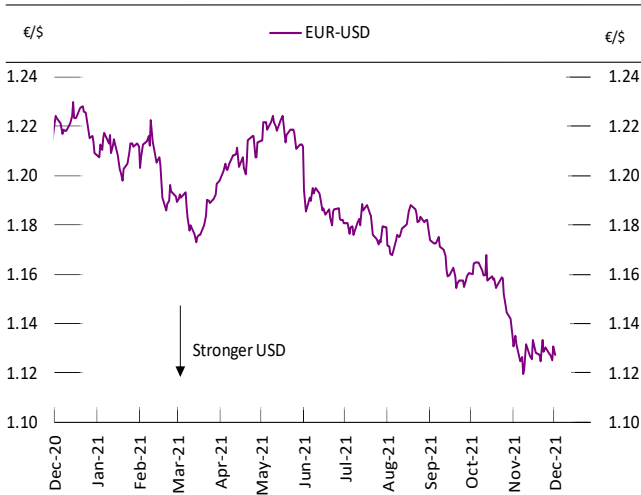
Data as of December 17th

Russell 2000 & Russell 1000 Index



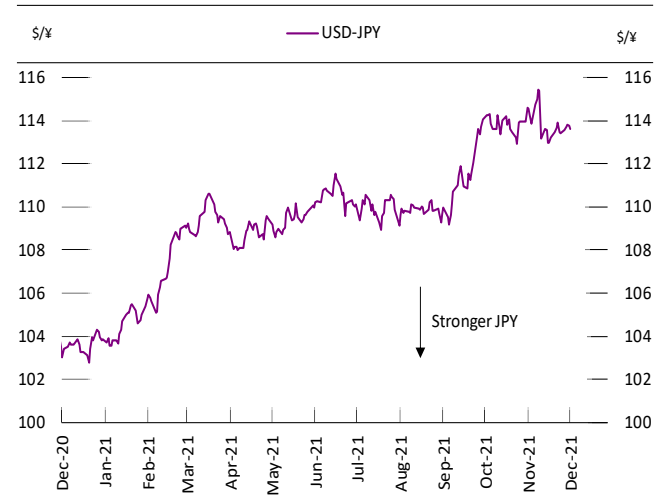
Data as of December 17th

EUR/USD



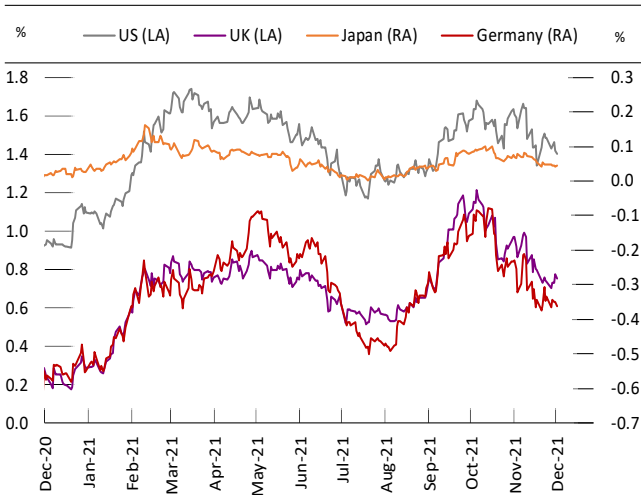
Data as of December 17th

JPY/USD



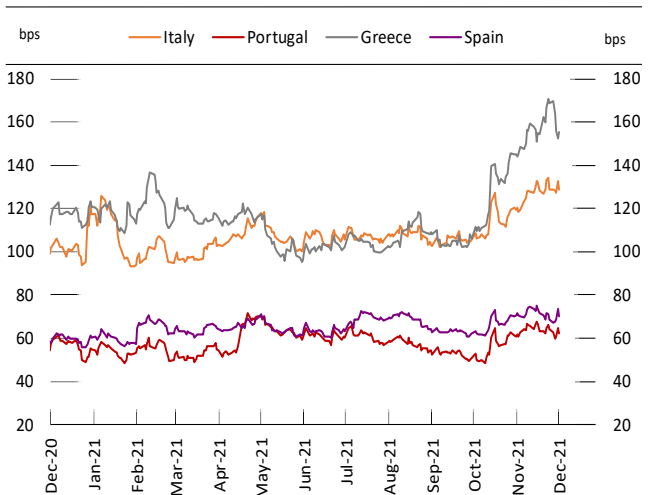
Data as of December 17th

10- Year Government Bond Yields



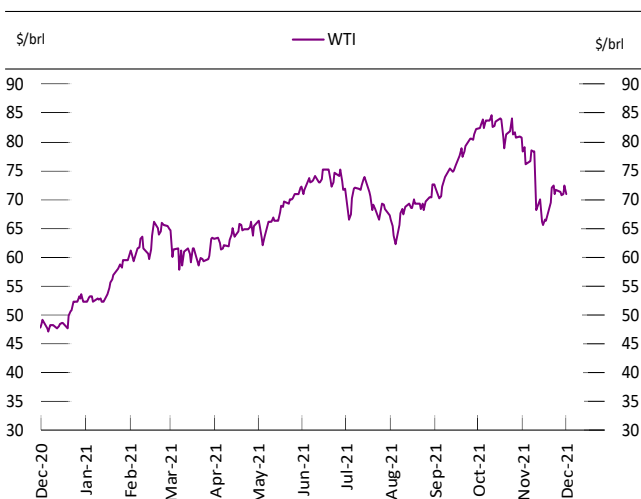
Data as of December 17th
LA:Left Axis RA:Right Axis

10- Year Government Bond Spreads



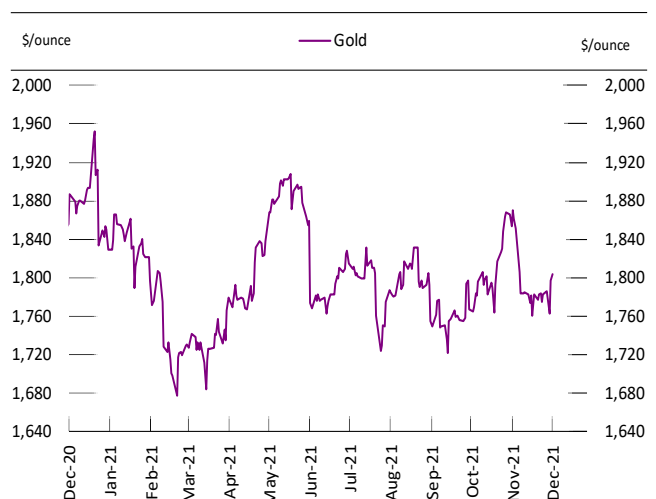
Data as of December 17th

West Texas Intermediate (\$/bbl)



Data as of December 17th

Gold (\$/ounce)



Data as of December 17th

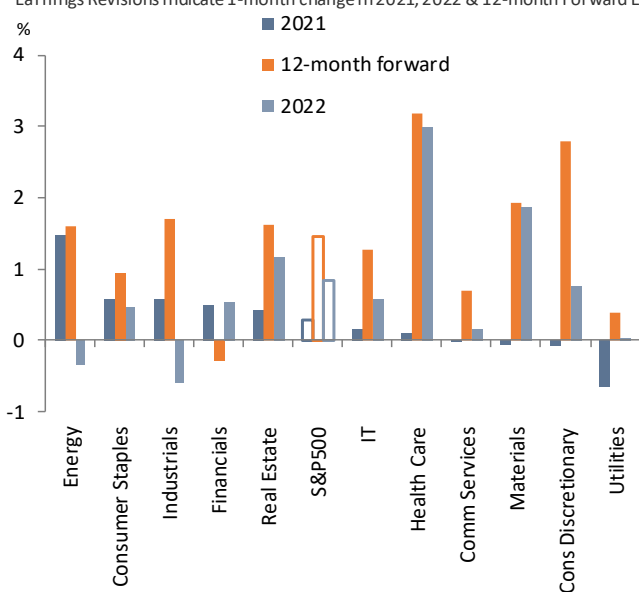
US Sectors Valuation

	Price (\$)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	17/12/21	% Weekly Change	%YTD	2021	2022	2021	2022	2021	2022	12m fwd	10Yr Avg	2021	2022	Current	10Yr Avg
S&P500	4621	-1.9	23.0	48.2	9.0	1.3	1.4	22.7	20.9	20.9	16.8	4.8	4.3	4.4	2.9
Energy	409	-5.1	42.8	N/A	26.5	4.3	4.2	N/A	10.7	10.8	15.2	1.8	1.7	1.7	1.7
Materials	549	-0.8	20.4	86.5	3.6	1.7	1.9	16.9	16.3	16.3	15.9	3.2	3.0	3.0	2.6
Financials															
Diversified Financials	1079	-0.6	32.4	59.5	-6.5	1.3	1.4	15.7	16.8	16.8	14.7	2.2	2.1	2.1	1.6
Banks	412	-2.6	30.3	89.4	-15.2	2.3	2.6	10.7	12.6	12.5	11.4	1.4	1.3	1.3	1.0
Insurance	537	-0.2	25.5	31.7	2.5	2.1	2.2	13.8	13.4	13.5	11.5	1.7	1.5	1.5	1.2
Real Estate	312	1.6	36.7	15.1	6.9	2.3	2.5	25.1	23.5	23.5	18.7	4.1	4.3	4.3	3.3
Industrials															
Capital Goods	862	-3.0	13.4	55.4	20.4	1.5	1.6	23.5	19.5	19.7	16.9	5.2	4.8	4.8	3.8
Transportation	1079	-2.2	15.9	N/A	136.1	1.3	1.5	N/A	18.6	N/A	13.6	7.0	6.2	6.2	4.0
Commercial Services	527	-2.7	25.1	19.1	11.0	1.0	1.0	32.0	28.9	29.0	21.1	6.7	6.1	6.1	3.7
Consumer Discretionary															
Retailing	4179	-2.9	17.3	25.9	14.0	0.5	0.5	38.8	34.0	34.2	26.2	15.2	12.6	12.7	8.6
Consumer Services	1421	-3.3	7.7	N/A	1504.5	0.9	1.1	N/A	30.5	N/A	28.2	24.2	20.1	20.3	9.5
Consumer Durables	513	-5.1	16.3	57.3	15.3	1.2	1.3	18.0	15.6	15.7	17.4	4.6	3.9	3.9	3.4
Automobiles and parts	178	-8.5	36.0	99.4	14.2	0.0	0.2	46.1	40.3	N/A	14.0	8.4	7.1	7.1	2.5
IT															
Technology	3282	-3.7	30.2	46.2	6.0	0.7	0.8	27.1	25.5	25.6	14.8	17.8	15.9	16.0	5.9
Software & Services	3776	-4.0	22.6	21.7	14.2	0.7	0.8	35.3	31.0	31.1	20.5	11.1	9.8	9.8	6.1
Semiconductors	2508	-4.5	41.8	37.4	7.6	1.0	1.1	24.4	22.7	22.8	15.3	7.8	6.8	6.9	3.7
Communication Services	263	-1.3	18.5	38.6	7.2	0.8	0.8	22.0	20.5	20.6	18.8	4.3	3.8	3.8	3.1
Media	1062	-2.0	24.2	54.6	9.8	0.2	0.2	26.0	23.7	23.7	22.1	5.5	4.8	4.8	3.6
Consumer Staples															
Food & Staples Retailing	672	-1.7	18.1	20.7	7.6	1.4	1.5	24.1	22.3	22.4	17.9	5.4	4.9	4.9	3.5
Food Beverage & Tobacco	800	2.7	10.1	11.8	4.8	3.1	3.3	19.4	18.5	18.6	18.2	5.5	5.2	5.2	5.1
Household Goods	939	1.0	10.8	3.9	6.8	2.0	2.1	28.4	26.6	26.7	20.9	11.4	10.9	10.9	6.4
Health Care															
Pharmaceuticals	1276	4.0	19.2	26.2	7.4	1.7	1.9	16.2	15.1	15.1	15.2	6.5	5.3	5.4	4.2
Healthcare Equipment	1936	0.4	22.8	20.6	5.4	1.0	1.0	21.6	20.5	20.6	16.5	4.3	3.9	3.9	2.9
Utilities	354	1.2	10.8	1.9	5.4	3.0	3.1	21.3	20.2	20.2	16.9	2.2	2.1	2.1	1.7

Blue box indicates a value more than +2standard deviation from average, light blue a value more than +1standard deviation from average. Orange box indicates a value less than -2standard deviation from average, light orange a value less than -1standard deviation from average

1-month revisions to 2021, 2022 & 12-month Forward EPS

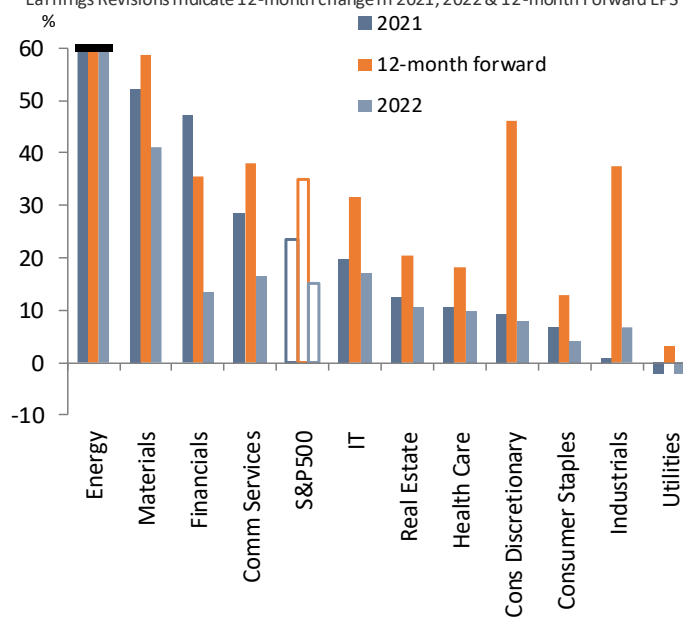
Earnings Revisions indicate 1-month change in 2021, 2022 & 12-month Forward EPS



Data as of December 17th
12-month forward EPS are 4% of 2021 EPS and 96% of 2022 EPS

12-month revisions to 2021, 2022 & 12-month Forward EPS

Earnings Revisions indicate 12-month change in 2021, 2022 & 12-month Forward EPS



Data as of December 17th
12-month forward EPS are 4% of 2021 EPS and 96% of 2022 EPS
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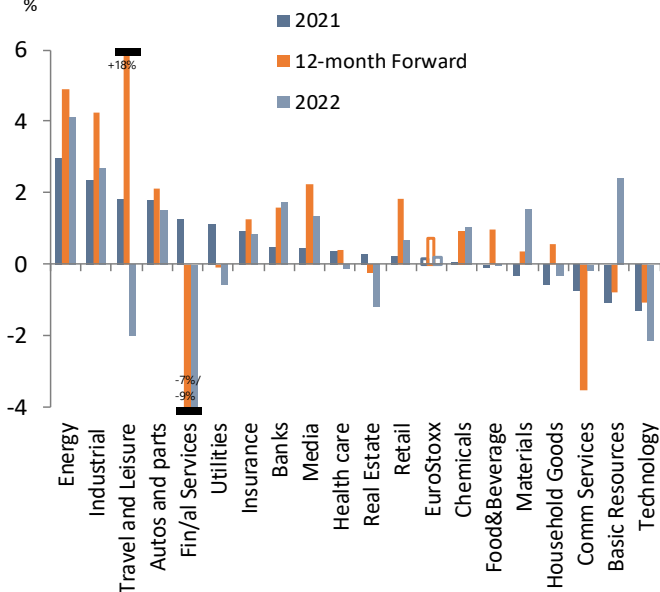
Euro Area Sectors Valuation

	Price (€)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	17/12/21	% Weekly Change	%YTD	2021	2022	2021	2022	2021	2022	12m fwd	10Yr Avg	2021	2022	Current	10Yr Avg
EuroStoxx	464	-0.9	16.7	76.2	6.8	2.6	2.8	16.8	15.8	15.8	14.4	1.9	1.8	1.8	1.5
Energy	283	-0.9	12.2	468.8	11.4	5.0	5.2	10.6	9.5	9.6	13.1	1.3	1.2	1.2	1.2
Materials	1022	0.3	18.2	154.5	-9.9	2.4	2.5	13.1	14.6	14.5	15.7	2.2	2.0	2.0	1.7
Basic Resources	245	3.4	17.7	N/A	N/A	2.5	2.6	N/A	5.7	5.7	11.9	1.0	0.8	0.8	0.7
Chemicals	1487	-0.1	18.1	57.2	0.2	2.4	2.5	19.1	19.0	19.0	16.6	2.7	2.6	2.6	2.3
Financials															
Fin/al Services	562	1.2	14.6	36.0	8.2	2.4	2.5	15.8	14.7	14.7	14.4	1.4	1.3	1.3	1.2
Banks	96	-0.8	30.1	98.5	-0.2	5.7	6.0	8.3	8.3	8.3	9.9	0.6	0.6	0.6	0.7
Insurance	300	1.1	14.9	45.6	4.9	5.2	5.5	10.0	9.6	9.6	9.5	0.9	0.9	0.9	0.9
Real Estate	221	-0.8	0.3	3.5	10.5	3.5	3.8	18.6	16.8	16.9	16.9	0.9	0.9	0.9	1.0
Industrial	1120	-1.6	14.4	31.7	22.7	1.7	2.1	23.8	19.4	19.6	17.0	3.5	3.1	3.1	2.6
Consumer Discretionary															
Media	278	-1.6	26.9	1.9	13.4	1.8	2.1	25.4	22.4	22.5	16.8	6.0	5.4	5.4	2.1
Retail	678	-2.7	2.2	65.7	16.8	2.3	2.7	28.6	24.5	24.6	23.3	5.6	5.2	5.2	4.4
Automobiles and parts	625	-3.3	23.9	729.9	7.1	4.2	4.5	7.4	6.9	6.9	8.9	1.1	1.0	1.0	1.0
Travel and Leisure	184	-0.5	-13.9	N/A	N/A	0.7	1.5	N/A	N/A	N/A	N/A	2.5	2.4	2.4	2.1
Technology	937	-1.8	30.8	39.9	13.0	0.7	0.8	31.8	28.2	28.3	20.9	4.9	4.4	4.5	3.6
Communication Services	283	0.3	14.5	27.4	-29.4	3.9	4.1	10.5	14.9	14.7	14.2	1.5	1.4	1.4	1.7
Consumer Staples															
Food&Beverage	570	1.7	9.5	35.4	14.1	1.5	1.8	24.8	21.8	21.9	19.8	2.6	2.4	2.4	2.6
Household Goods	1509	-2.0	23.9	62.2	12.2	1.0	1.1	38.9	34.7	34.8	24.5	7.5	6.6	6.6	3.9
Health care	905	-0.2	11.3	11.8	6.0	1.9	2.0	20.2	19.0	19.1	16.6	2.6	2.5	2.5	2.3
Utilities	381	0.5	0.2	32.8	3.7	4.3	4.5	15.0	14.5	14.5	13.5	1.7	1.7	1.7	1.2

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1-month revisions to 2021, 2022 & 12-month Forward EPS

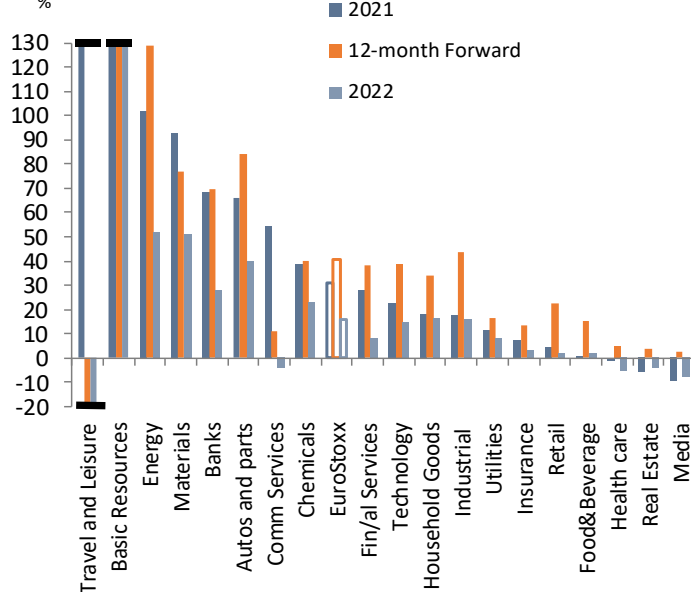
Earnings Revisions indicate 1-month change in 2021, 2022 & 12-month Forward EPS %



Data as of December 17th
12-month forward EPS are 4% of 2021 EPS and 96% of 2022 EPS

12-month revisions to 2021, 2022 & 12-month Forward EPS

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Data as of December 17th
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