

2022 starts with central banks more comfortable about lifting their foot from the accelerator

- An exceptional confluence of events could lead to higher macroeconomic and financial market volatility in 2022, compared with the post 2007-2008 (Global Financial Crisis) era.
- Specifically, inflation is running significantly higher than the long-run target of 2%, albeit central banks have remained patient, so far, due to, *inter alia*, their new operational frameworks. Note that advanced economies' headline inflation has accelerated to 5.5% year-over-year in December, compared with an average of 1.4% from June 2009 to February 2020. At the same time, the GDP-weighted policy rate has been -0.1% (see graph below).
- Having said that, the minutes of the Federal Reserve's latest meeting (released early January) suggested an increasing bias toward removing policy accommodation (i.e. balance sheet reduction) sooner and faster relative to the 2014-2017 period, where Treasury and Agency MBSs reduction commenced 22 months after the first interest rate increase in December 2015.
- Recall that the FOMC decided in December to end asset purchases by mid-March 2022 (three months earlier than initially expected), while the median FOMC official expects three interest rate hikes toward 1% by the end of 2022, from near zero currently.
- Moreover, global supply chain disruptions persist and continue to put upward pressures on prices. According to New York Fed (Benigno et al, 2021), the Global Supply Chain Pressure Index suggests that disorders remain at historically high levels (see graph below). On the positive side, movements in some components (containership rates have declined, ISM delivery times slowed in December but at a slower pace compared to November) suggest that capacity constraints are easing.
- In addition, the emergence of new virus strains (Omicron) makes the economic outlook more uncertain, jeopardizing factory closures, particularly in Asia, due to zero-tolerance covid policies and exacerbating supply bottlenecks. Renewed mobility restrictions could delay the desired shift of consumer spending from goods to in-person services.
- An overall positive tone prevailed for risky assets in 2021, albeit with elevated bond-market volatility. Developed equity markets recorded double-digit returns as corporate earnings surged (MSCI: +20% in USD terms), with US overperforming. Emerging Markets declined (MSCI: -5% in USD terms) due to tighter regulation and growth deceleration in China. Speculative Grade corporate bond spreads narrowed by 76 bps (USD) and 24 (EUR), respectively, as, *inter alia*, default risks gradually declined.
- Risk appetite entered 2022 on a negative note, as the surge in US Treasury yields (10-Year: +26 bps w/w to 1.77%) due to hawkish Fed commentary acts as a double-edged sword that reduces the value of multi-asset portfolios, weighing simultaneously on growth-related segments of the equity market. Indeed, the US Russell 1000 Growth index (-4.8% w/w) underperformed its Value peer (+0.75% w/w) by the widest weekly margin (557 bps) since November 2020, as Technology (Nasdaq) recorded its largest weekly decline (-4.5%) since February 2021. On the other hand, Banks and Energy stocks (Value) overperformed.

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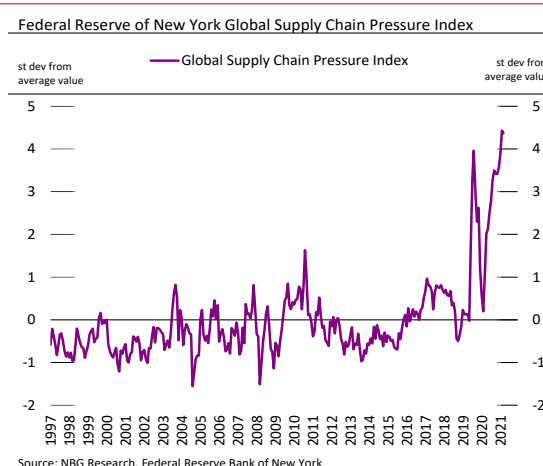
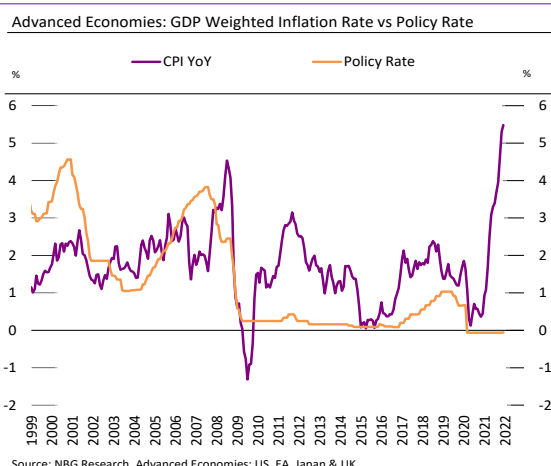
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Charts of the week



The minutes of the Federal Reserve's latest meeting indicate an earlier start of its balance sheet reduction

- **The minutes of the December 14th & 15th Federal Open Market Committee (FOMC) meeting revealed that a detailed discussion regarding the timing of the start of the Federal Reserve's total assets reduction took place, with almost all participants agreeing that it would likely be appropriate to initiate balance sheet runoff at some point after the first hike of the federal funds rate.** Participants discussed how this relative timing might differ from the previous experience, in which the decline of the Bank's total assets started 22 months after the first official rate increase (with the rate at 1.25% at that time), as the current conditions include a stronger economic outlook, higher inflation, and a larger balance sheet that could suggest a potentially faster pace of policy rate normalization.
- Recall that the Federal Reserve at this meeting 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 \$4.7T to \$8.9T (39% of 2021 GDP). The median of FOMC members' assumptions for the appropriate path of the Federal Funds Rate ("FFR") pointed to three increases of 25 bps each from a current range of 0% - 0.25% in 2022, instead of one in September's projections.
- Many participants judged that the appropriate pace of balance sheet reduction would likely be faster than it was in 2017, when the runoff started by \$6 bn US Treasuries and \$4 bn Agency Mortgage-Backed Securities per month, increasing in steps of \$6 bn and \$4 bn, respectively, at three-month intervals until they reached \$30 bn and \$4 bn per month, respectively.

The US labor market tightening continues

- **The unemployment rate fell substantially further in December.** Total household employment (including the self-employed and agricultural workers | sa) posted a significant increase of 651k in December following the sharp +1091k in November. As a result, the unemployment rate decreased by 0.3 pps to 3.9%, versus consensus estimates for 4.1% (pre-pandemic levels of 3.5% in February 2020, a 50-year low). Notably, the U-6 unemployment rate (which includes the unemployed, part-time workers for economic reasons, and those workers marginally attached to the labor force), which is considered a broader measure of slack, also decreased significantly, by 0.4 pps to 7.3% in December. It should also be noted though, that the labor force participation rate remained relatively low (stable at 61.9%, versus a 20-year average of 64.3% and a pre-crisis rate of 63.3%).
- Non-farm payrolls increased by 199k (in seasonally adjusted terms | "sa") in December, compared with +249k in November and well below consensus estimates for +400k. Compared with April 2020, non-farm payrolls are up by 18.8 million, albeit still down by 3.6 million from its pre-pandemic level in February 2020. It should also be noted though, that considerable positive net revisions for the previous two months took place (+141k, cumulatively).
- **Regarding wages, a healthy momentum was evident in December.** In the event, the monthly pace of increase for average hourly earnings accelerated at +0.6% mom, from +0.4% mom in November (consensus: +0.4% mom), while the annual pace came out at +4.7% yoy from +5.1% yoy in the previous month (consensus: +4.1% yoy).

The European Commission proposed the next generation of EU own resources

- **The European Commission on December 22nd published a proposal to establish the next generation of own resources for the EU budget by introducing three new sources of revenue.** The **first source** is based on revenues from the EU Emissions Trading System (ETS), with the proposal suggesting that the 25% of its revenues will go to the EU budget. In order to avoid an excessively regressive impact, the Commission also proposed a temporary solidarity adjustment mechanism to limit the contributions from low-income and carbon-intensive Member States. The revenues from this source are estimated at around €12B per year on average over 2026-2030 (€9B on average between 2023-2030). The **second source** is based on the revenues that will be generated by the proposed EU Carbon Border Adjustment Mechanism (CBAM), which puts a carbon price on imported products according to their CO2 emissions, corresponding to what would have been paid, had the goods been produced in the EU. In case the goods have paid a carbon tax at the origin, the amount will be deducted to avoid double cost. In a first phase, it will only apply to iron and steel, cement, aluminium, fertilisers and electricity. Under the proposal, the 75% of the revenues will be transferred to the EU budget. The mechanism will start to have revenues after a transitional period (2023-2025) and are estimated at around €1B per year on average over 2026-2030. The **third source** is based on the share of residual profits from the biggest and most profitable Multination Enterprises that will be re-allocated to EU Member States under the recent OECD/G20 agreement on a re-allocation of taxing rights ("Pillar One"), which was signed by 136 countries that represent more than 90% of the global GDP. According to the proposal, the 15% of the share of the taxable profits of in-scope companies that are reallocated to the Member States, will go to the EU budget. The revenues from this source are estimated between €2.5B and €4B per year.
- Overall, in the years 2026-2030, these new sources of revenue are expected to contribute to the EU budget a total amount of up to €17 billion annually on average that will help the EU to repay the funds raised to finance the grant component of NextGenerationEU and provide essential support to the "Fit for 55" package by financing the Social Climate Fund.
- Looking forward, the Commission will propose a second package of new own resources by the end of 2023 that will be based on the 'Business in Europe: Framework for Income Taxation (BEFIT)' proposal foreseen for 2023.

Euro area CPI inflation accelerated further in December, above expectations, reaching record highs

- **According to the "flash" estimate, headline inflation accelerated for a 6th consecutive month to a record (since 1997) high of +5% yoy in December, from +4.9% yoy in November and versus consensus estimates for +4.7%.** The latest acceleration was broad based. In the event, energy prices increased by 26% yoy (+0.5% mom), versus +27.5% yoy (+2.9% mom) in November. As a result, the Energy sub-index contributed 2.5 pps to headline's increase. In addition, the annual pace of growth for food, alcohol & tobacco came out at +3.2% yoy, from +2.2% yoy. More importantly, core inflation (which excludes the effects of energy and food components) was +2.6% yoy in December (+0.4% mom), the same as in November, also a record high, slightly above consensus estimates for +2.5% yoy.

Equities

• **In 2021 Developed Equity Markets (US, Eurozone, Japan) reported strong gains of c. 20%.** A key support factor was the significant increase in the profitability of companies due to strong sales (top-line), while margins increased offsetting the pressures on sales and administrative costs. Indeed, corporate earnings are expected to have increased by 51% in the US (2021 S&P500 EPS at \$208) and 76% in the euro area (2021 Eurostoxx EPS at €28). Valuations, on the other hand, moved sideways, although they remain at a very high level, with the 12-month forward Price/Earnings Ratio (P/E) at 20.7x (S&P500) and 16.2x (Eurostoxx). Regarding sectors, the rise in 2021 was led by Technology (SX8E: +37%), Banks (SX7E: +36%) and Energy (SXEE: +14%) on both sides of the Atlantic. The Emerging Markets ended the year in the red (China: -23%, Brazil -12%) as the slowdown of China's economy in the second half of 2021, real estate concerns and tighter regulations contributed negatively.

Meanwhile, equities recorded losses in the past week (S&P500: -1.9% wow), due to market expectations of faster-than-anticipated US interest-rate increases. The Technology sector declined by 4.7% wow, while Banks rose by +9.4% wow on the back of higher government bond yields. US Earnings will attract investor attention over the coming weeks, as Banks start to release Q4:2021 earnings results on January 14th (JPMorgan, Wells Fargo, Citi). Consensus expects that Q4:2021 EPS will grow by 21% yoy (Q3:2021 +40%).

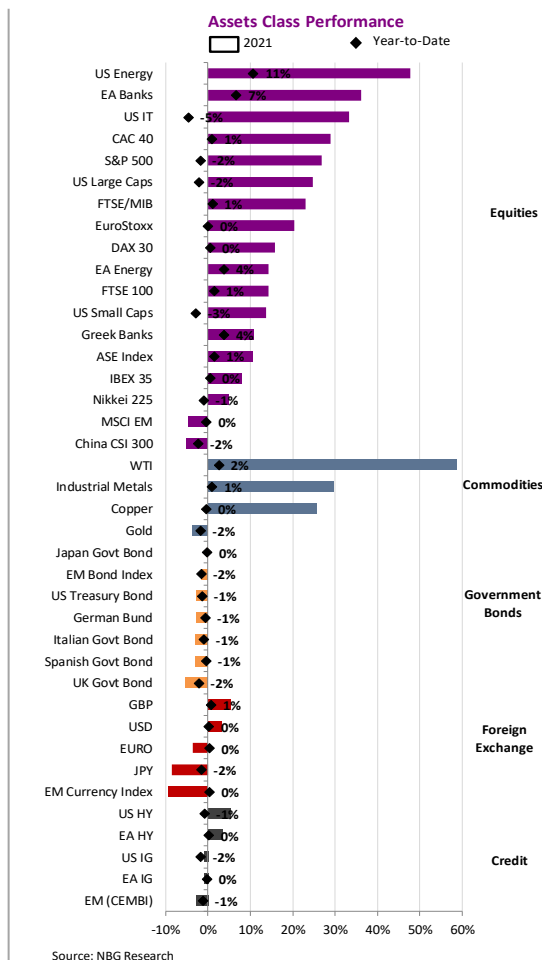
For 2022, the path of the global economy in response to the pandemic, the deceleration of high inflation and the rate of withdrawal of liquidity from monetary authorities (that highly depends on the first two) are the key factors that will determine the course of equity indices, from a macro-investment point of view.

Fixed Income

• **Government bond yields fluctuated significantly in 2021, as the significant increase in the first quarter of the year, due to strong fiscal support and expectations for high growth rates, was alleviated by the continuing downward global growth revisions due to the Omicron variant.** The front-loaded expectations for interest rate hikes by the Central Banks during 2021 had a more upward effect on short-term bonds, resulting in a declining spread between long (10-year) and short-term maturities, especially in the second half of the year. As a result, US 10-year government bond yield increased by 60 bps to 1.51% in 2021 and the 2-year government bond yield rose by 61 bps to 0.73%. Note that US government bonds (prices) were under pressure in the first week of 2022 (UST: +26 bps to 1.77%, one-year high) as investors expect a more hawkish Federal Reserve (interest rate hike in March, QE termination), due to persistent inflationary pressures.

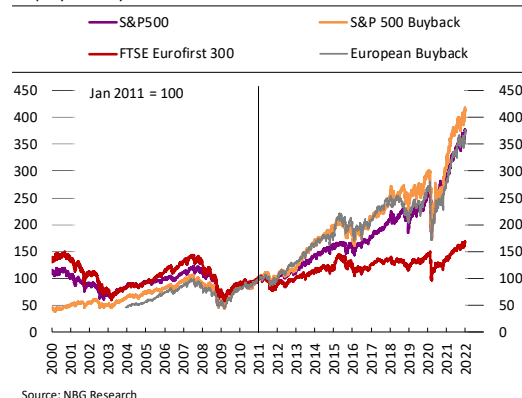
FX and Commodities

• **The US dollar appreciated by 7.1% against the euro to \$1.137 in 2021, as stronger growth and wider inflationary pressures, led to expectations of a faster normalization of the monetary policy by the Federal Reserve** (3 interest rate hikes are expected in 2022 to 1%). The euro recorded losses against the British pound in 2021 (-6.2% to € / 0.84) following the Bank of England's decision to raise its official Bank rate to 0.25% (from 0.10%) on the December meeting, with markets expecting the hiking cycle to continue in 2022 by about 100 basis points. **In 2021, strong demand (reopening of economies, greater green energy commitments from the US and the European Union, see Fit for 55), congestion in supply chains caused by closed factories in SE Asia due to Covid-19 and renewed geopolitical concerns (Russia-Ukraine) pushed the Bloomberg Commodity Index (BCOM) higher by 27% in 2021, with the exception of precious metals (-6%).** Energy recorded the highest gains (+52%) with oil and gas prices moving significantly upwards (WTI: +55% to \$75.2/barrel | Natural Gas TTF: +267% to €70/MWh), followed by Industrial Metals (+30%). Note that, the Commodity sector is often used as a hedge in times of high inflationary pressures, with inflows being significantly higher in 2021.



Graph 1.

Equity and Buybacks Indices



Graph 2.

Quote of the week: "The FOMC could begin increasing the policy rate as early as the March meeting in order to be in a better position to control inflation... Subsequent rate increases during 2022 could be pulled forward or pushed back depending on inflation developments.", **President of the Federal Reserve Bank of St. Louis (and a Fed voting member), James Bullard, January 6th 2022.**

Interest Rates & Foreign Exchange Forecasts

10-Yr Gov. Bond Yield (%)	January 7th	3-month	6-month	12-month	Official Rate (%)	January 7th	3-month	6-month	12-month
Germany	-0,06	0,00	0,10	0,20	Euro area	0,00	0,00	0,00	0,00
US	1,77	1,70	1,80	2,00	US	0,25	0,25	0,50	1,00
UK	1,15	1,10	1,18	1,30	UK	0,25	0,40	0,55	0,70
Japan	0,12	0,10	0,13	0,17	Japan	-0,10	-0,10	-0,10	-0,10

Currency	January 7th	3-month	6-month	12-month	January 7th	3-month	6-month	12-month	
EUR/USD	1,13	1,13	1,13	1,14	USD/JPY	116	114	114	113
EUR/GBP	0,84	0,85	0,86	0,87	GBP/USD	1,36	1,32	1,31	1,31
EUR/JPY	131	129	129	129					

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	4.7	2.6

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>

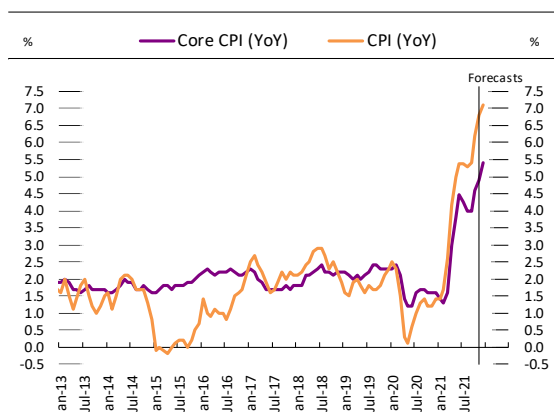
Economic Calendar

In the US, attention turns to inflation data for December, due to release on Wednesday. CPI is expected at 7.1% yoy from 6.8% yoy in November, while the core figure is expected at 5.4% yoy from 4.9% yoy. On Friday, economic activity indicators for December will be closely monitored. Specifically, retail sales will offer insight regarding private consumption, whereas industrial production regarding business spending.

In the Euro Area, industrial production for November is released on Wednesday (consensus for +0.5% mom vs +1.1% mom in October).

Finally, in China, attention turns to high frequency activity indicators for December as well as GDP data for Q4:21. According to analysts' estimates, the annual growth of GDP is expected at 3.3% yoy in Q4:21, versus 4.9% yoy in Q3:21.

US Inflation



Source: NBG Research

Economic News Calendar for the period: January 4 - January 17, 2022

Tuesday 4				Wednesday 5				Thursday 6					
US	ISM Manufacturing	December	60.3 - 58.7 61.1	US	ADP Employment Change (k)	December	400 + 807 505	US	Initial Jobless Claims (k)	January 1	200 - 207 200		
GERMANY	Retail sales (MoM)	November	-0.5% + 0.6% 0.5%						Continuing Claims (k)	December 25	.. 1754 1718		
	Retail sales (YoY)	November	.. -2.9% -2.9%						ISM Services Index	December	66.8 - 62.0 69.1		
CHINA	Caixin PMI Manufacturing	December	49.9 + 50.9 49.9						Factory Goods Orders (MoM)	November	1.6% 1.6% 1.2%		
									Trade balance (\$bn)	November	-72.0 - -80.2 -67.2		
Friday 7				Monday 10				Monday 10					
US	Change in Nonfarm Payrolls (k)	December	400 - 199 249	EURO AREA	Retail sales (MoM)	November	-0.5% + 1.0% 0.3%	US	Wholesale trade (MoM)	November	.. 1.3% 2.5%		
	Change in Private Payrolls (k)	December	390 - 211 270		Retail sales (YoY)	November	5.6% + 7.8% 1.7%						
	Unemployment rate	December	4.1% + 3.9% 4.2%		CPI estimate (YoY)	December	4.7% + 5.0% 4.9%	EURO AREA	Unemployment Rate	November	7.2% 7.2% 7.3%		
	Average weekly hours (hrs)	December	34.8 - 34.7 34.7		Core CPI (YoY)	December	2.5% + 2.6% 2.6%						
	Average Hourly Earnings MoM	December	0.4% + 0.6% 0.4%		Business Climate Indicator	December	1.8 1.8 1.8						
	Average Hourly Earnings YoY	December	4.1% + 4.7% 5.1%		Economic confidence indicator	December	116.2 - 115.3 117.6						
	Labor Force Participation Rate	December	.. 61.9% 61.9%	GERMANY	Industrial Production (sa, MoM)	November	1.0% - -0.2% 2.4%						
	Underemployment Rate	December	.. 7.3% 7.7%		Industrial Production (wda, YoY)	November	-1.5% - -2.4% -0.9%						
UK	Markit/CIPS UK Construction	December	54.0 + 54.3 55.5										
Tuesday 11				Wednesday 12				Thursday 13					
JAPAN	Leading Index	November 101.5	US	CPI (YoY)	December	7.1% .. 6.8%	US	Initial Jobless Claims (k)	January 8	205 .. 207		
	Coincident Index	November 89.8		Core CPI (YoY)	December	5.4% .. 4.9%		Continuing Claims (k)	January 1	1760 .. 1754		
				EURO AREA	Industrial Production (sa, MoM)	November	0.5% .. 1.1%	CHINA	Money Supply M0 (YoY)	December 7.2%		
					Industrial Production (wda, YoY)	November	1.4% .. 3.3%		Money Supply M1 (YoY)	December	3.2% .. 3.0%		
				JAPAN	Eco Watchers Current Survey	December 56.3		Money Supply M2 (YoY)	December	8.6% .. 8.5%		
					Eco Watchers Outlook Survey	December 53.4		New Yuan Loans (RMB bn)	December 1270		
				CHINA	CPI (YoY)	December	1.8% .. 2.3%		Aggregate Financing (RMB bn)	December 2610		
Friday 14				Monday 17									
US	Retail Sales Advance MoM	December	0.0% .. 0.3%	CHINA	GDP (sa, QoQ)	Q4:21 0.2%						
	Retail sales ex-autos (MoM)	December	0.2% .. 0.3%		GDP (YoY)	Q4:21	3.3% .. 4.9%						
	Industrial Production (MoM)	December	0.3% .. 0.5%		Retail sales (YoY)	December	3.8% .. 3.9%						
	University of Michigan consumer confidence	January	70.0 .. 70.6		Industrial production (YoY)	December	3.3% .. 3.8%						
EURO AREA	Trade Balance SA (€ bn)	November 2.4										
UK	GDP (MoM)	November	0.4% .. 0.1%										
	Industrial Production (MoM)	November	0.3% .. -0.6%										
	Industrial Production (YoY)	November	1.5% .. 1.4%										

Source: NBG Research
S: Consensus Analysts Survey, A: Actual Outcome, P: Previous Outcome

Equity Markets (in local currency)

Developed Markets		Current Level	1-week change (%)	2021 change (%)	1-Year change (%)	2-year change (%)	Emerging Markets		Current Level	1-week change (%)	2021 change (%)	1-Year change (%)
US	S&P 500	4677	-1.9	26.9	23.0	43.8	MSCI Emerging Markets		69857	-0.3	-2.3	-5.1
Japan	NIKKEI 225	28479	-1.1	4.9	3.6	22.7	MSCI Asia		1066	-0.4	-4.9	-7.7
UK	FTSE 100	7485	1.4	14.3	9.2	-1.2	China		82	-1.6	-22.7	-25.1
Canada	S&P/TSX	21084	-0.7	21.7	17.0	22.8	Korea		904	-0.8	-1.6	-7.1
Hong Kong	Hang Seng	23493	0.4	-14.1	-14.7	-16.4	MSCI Latin America		91819	-0.5	-7.6	-11.9
Euro area	EuroStoxx	479	-0.1	20.4	17.8	17.6	Brazil		303570	-0.9	-18.0	-21.8
Germany	DAX 40	15948	0.4	15.8	14.2	19.7	Mexico		49772	-0.3	22.8	16.7
France	CAC 40	7219	0.9	28.9	27.3	19.7	MSCI Europe		6957	0.3	15.5	12.2
Italy	FTSE/MIB	27618	1.0	23.0	21.4	15.9	Russia		1502	-0.9	14.8	10.4
Spain	IBEX-35	8752	0.4	7.9	4.4	-8.8	Turkey		2300932	10.7	22.8	32.5

World Market Sectors (MSCI Indices)

in US Dollar terms		Current Level	1-week change (%)	2021 change (%)	1-Year change (%)	2-year change (%)	in local currency		Current Level	1-week change (%)	2021 change (%)	1-Year change (%)
Energy		189.2	8.5	35.1	34.2	-4.1	Energy		192.2	8.6	36.9	36.1
Materials		359.4	-0.2	12.9	5.9	35.1	Materials		341.3	0.0	16.3	9.3
Industrials		349.0	-0.4	15.1	12.2	25.3	Industrials		346.1	-0.2	19.0	16.1
Consumer Discretionary		432.8	-1.9	17.1	13.3	54.4	Consumer Discretionary		419.4	-1.8	20.0	16.2
Consumer Staples		292.3	-0.3	10.8	11.3	17.4	Consumer Staples		290.8	-0.2	13.3	13.8
Healthcare		352.7	-4.6	18.3	10.7	26.2	Healthcare		347.1	-4.4	20.4	12.7
Financials		155.6	4.2	25.1	24.9	24.1	Financials		155.1	4.3	27.6	27.6
IT		543.3	-5.1	29.1	22.5	71.6	IT		526.8	-5.1	30.4	23.8
Telecoms		103.9	-2.7	13.4	10.2	31.7	Telecoms		108.6	-2.7	14.9	11.6
Utilities		161.2	-1.9	7.1	4.2	8.7	Utilities		164.5	-1.8	9.5	6.6

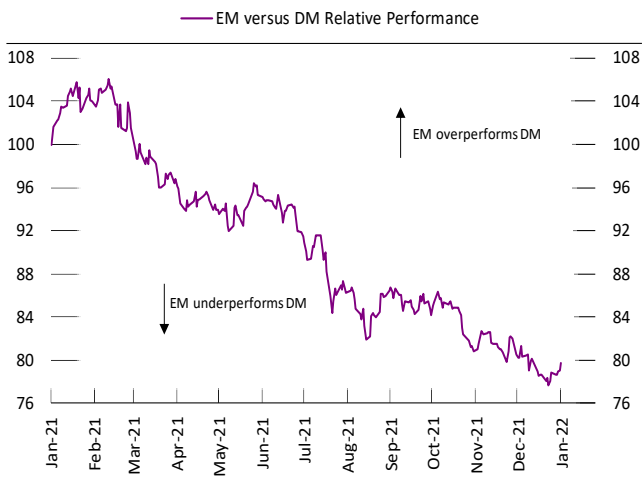
Bond Markets (%)

10-Year Government Bond Yields		Current	Last week	2021 Start	One Year Back	10-year average	Government Bond Yield Spreads (in bps)		Current	Last week	2021 Start	One Year Back
US		1.77	1.51	0.92	1.07	2.03	US Treasuries 10Y/2Y		89	78	80	93
Germany		-0.06	-0.16	-0.56	-0.53	0.49	US Treasuries 10Y/5Y		27	26	53	60
Japan		0.12	0.07	0.02	0.04	0.25	Bunds 10Y/2Y		54	48	16	18
UK		1.15	0.97	0.20	0.28	1.43	Bunds 10Y/5Y		32	29	18	20
Greece		1.50	1.32	0.63	0.61	7.38	Corporate Bond Spreads (in bps)					
Ireland		0.35	0.25	-0.31	-0.32	1.91						
Italy		1.31	1.17	0.45	0.44	2.42						
Spain		0.63	0.57	0.04	0.05	2.06						
Portugal		0.57	0.46	0.03	0.01	3.24						
US Mortgage Market (1. Fixed-rate Mortgage)		Current	Last week	2021 Start	One Year Back	10-year average	EM Inv. Grade (IG)		Current	Last week	2021 Start	One Year Back
30-Year FRM¹ (%)		3.33	3.31	2.90	2.86	4.00	EM High yield		617	618	524	527
vs 30Yr Treasury (bps)		118.9	138.9	126.2	102.4	125.9	US IG		95	98	103	103
							US High yield		320	310	386	378
							Euro area IG		96	98	93	89
							Euro area High Yield		320	331	355	339

Foreign Exchange & Commodities

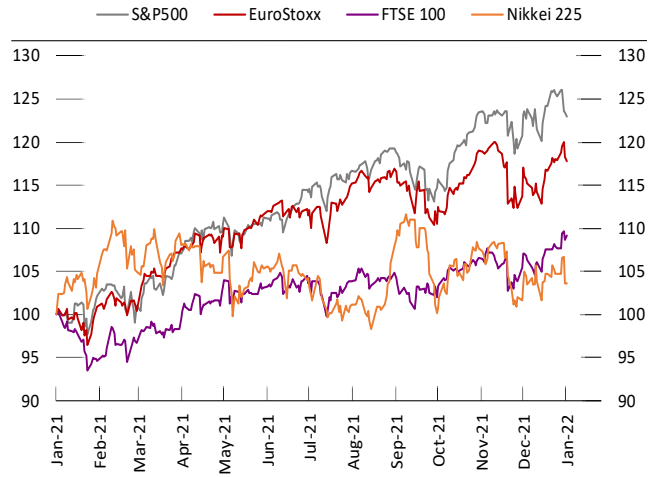
Foreign Exchange		Current	1-week change (%)	1-month change (%)	1-Year change (%)	2021 change (%)	Commodities		Current	1-week change (%)	1-month change (%)	1-Year change (%)
Euro-based cross rates							Agricultural		451	1.3	1.5	21.0
EUR/USD		1.13	-0.2	0.1	-7.4	-7.1	Energy		265	4.9	8.2	53.7
EUR/CHF		1.04	0.7	-0.2	-3.8	-4.2	West Texas Oil (\$/bbl)		79	4.9	9.0	55.2
EUR/GBP		0.84	-0.4	-2.5	-7.6	-6.2	Crude Brent Oil (\$/bbl)		82	5.1	7.8	50.3
EUR/JPY		131.22	0.2	1.7	3.0	3.7	HH Natural Gas (\$/mmbtu)		3.9	2.5	3.3	39.4
EUR/NOK		10.06	0.3	-0.2	-2.9	-4.3	TTF Natural Gas (EUR/mwh)		88	25.3	-13.1	356.8
EUR/SEK		10.30	0.1	0.4	2.4	2.5	Industrial Metals		504	0.9	4.5	26.1
EUR/AUD		1.58	1.3	0.1	0.1	-1.4	Precious Metals		2346	-1.9	0.6	-7.3
EUR/CAD		1.44	0.1	0.2	-7.8	-7.8	Gold (\$)		1796	-1.4	0.7	-6.1
USD-based cross rates							Silver (\$)		22	-3.5	-0.3	-17.6
USD/CAD		1.27	0.3	0.1	-0.4	-0.9	Baltic Dry Index		2289	3.2	-33.1	58.1
USD/AUD		1.40	1.5	0.0	8.1	6.1	Baltic Dirty Tanker Index		705	-10.3	-8.6	34.5
USD/JPY		115.63	0.4	1.5	11.3	11.5						

EM vs DM Performance in \$



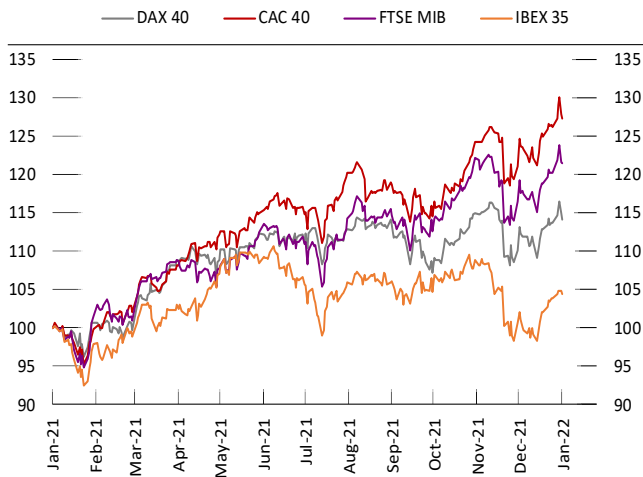
Data as of January 7th – Rebased @ 100

Equity Market Performance - G4



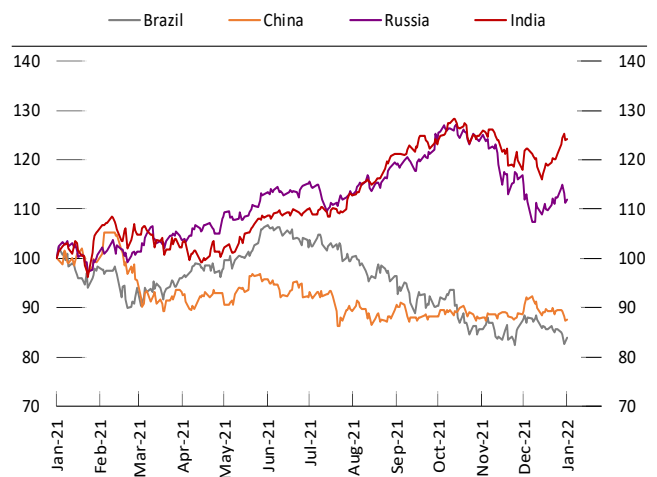
Data as of January 7th – Rebased @ 100

Equity Market Performance – Euro Area G4



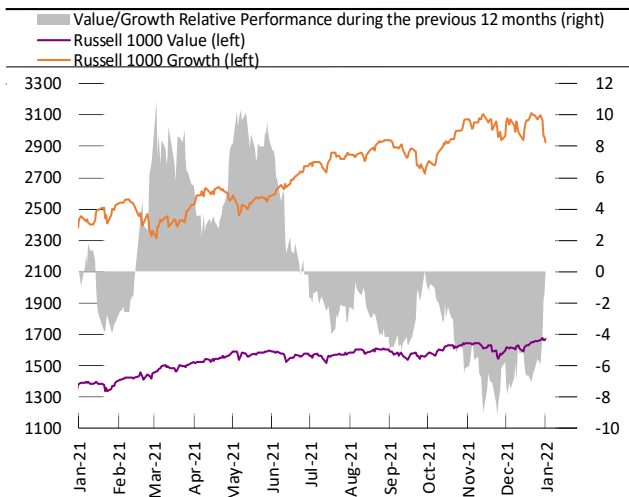
Data as of January 7th – Rebased @ 100

Equity Market Performance - BRICs



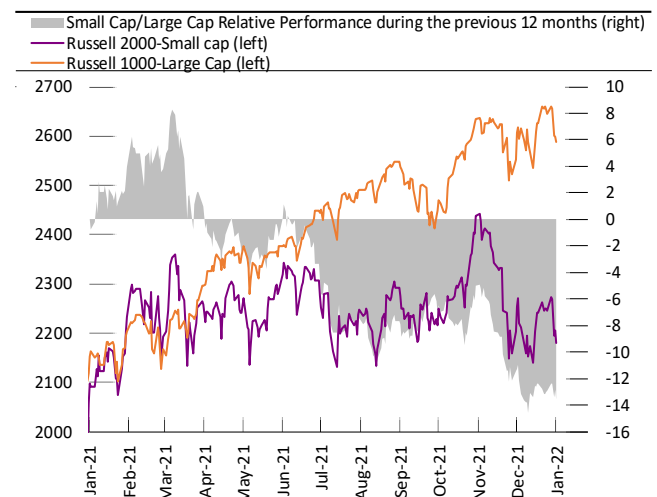
Data as of January 7th – Rebased @ 100

Russell 1000 Value & Growth Index



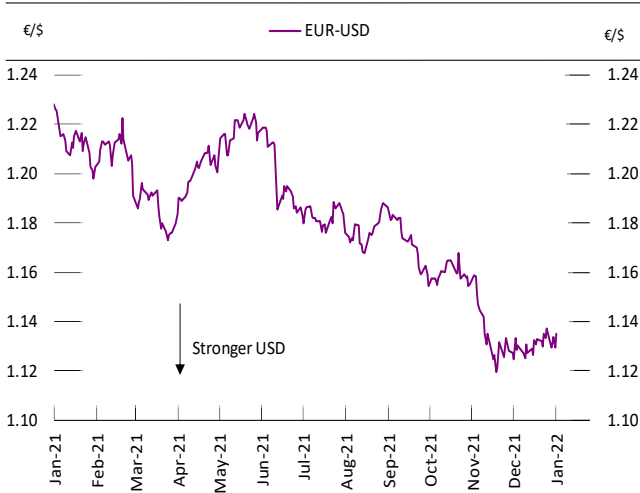
Data as of January 7th

Russell 2000 & Russell 1000 Index



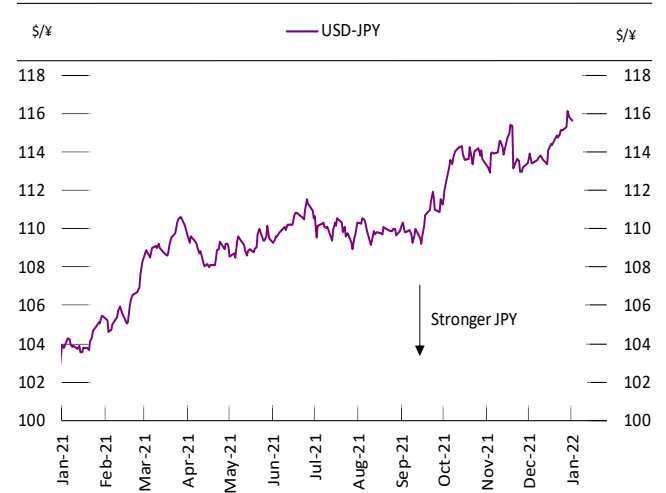
Data as of January 7th

EUR/USD



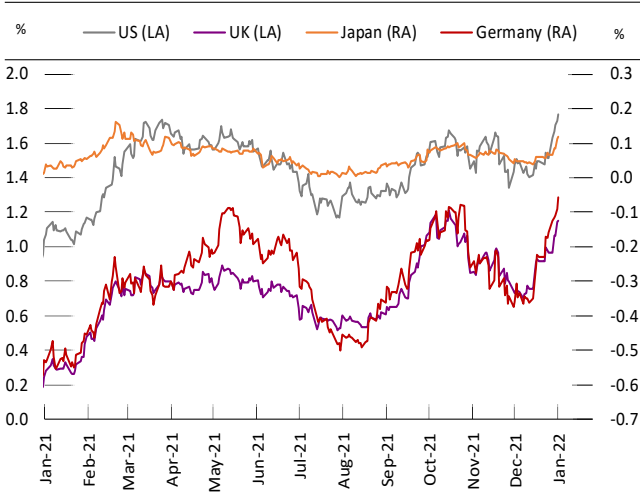
Data as of January 7th

JPY/USD



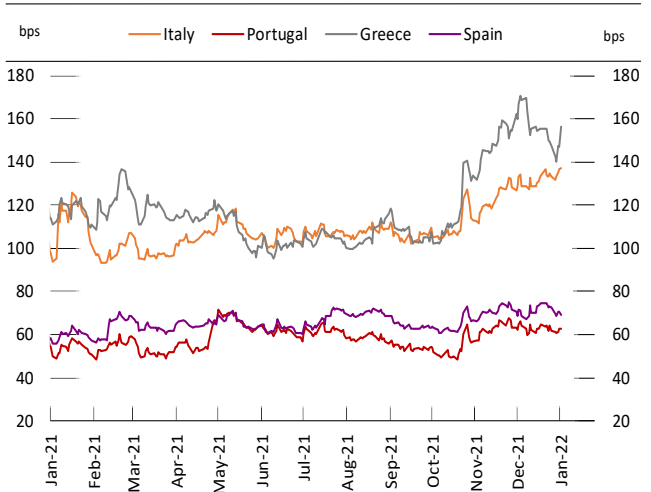
Data as of January 7th

10- Year Government Bond Yields



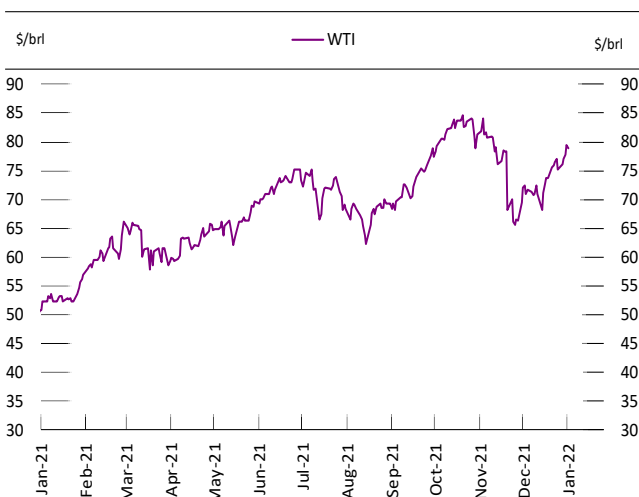
Data as of January 7th
LA:Left Axis RA:Right Axis

10- Year Government Bond Spreads



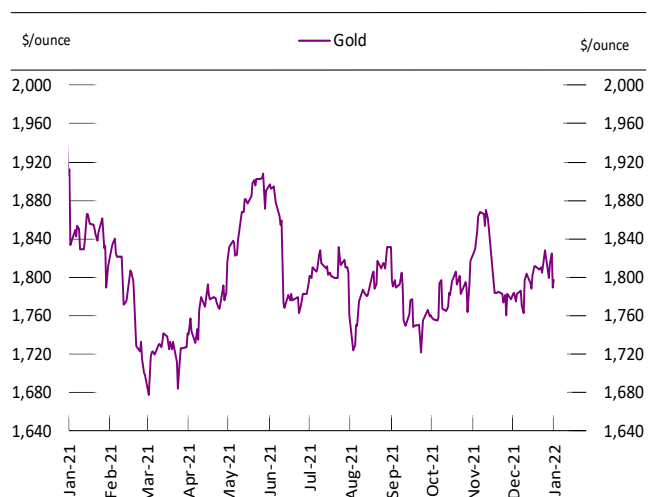
Data as of January 7th

West Texas Intermediate (\$/bbl)



Data as of January 7th

Gold (\$/ounce)



Data as of January 7th

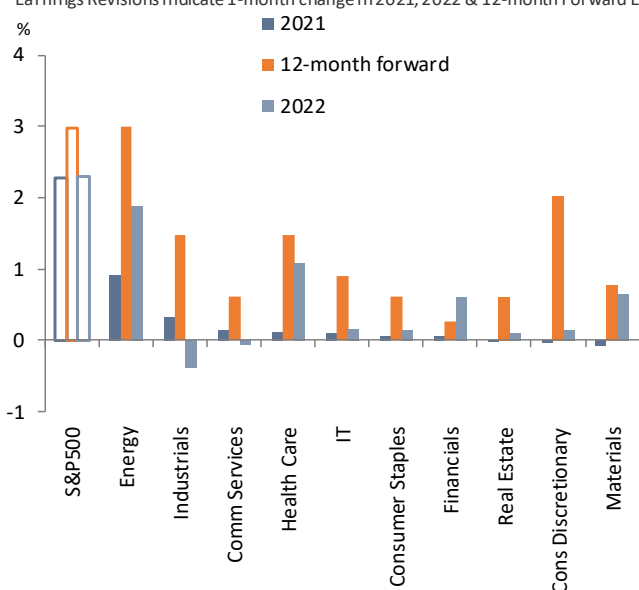
US Sectors Valuation

	Price (\$)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	7/1/22	% Weekly Change	%2021	2021	2022	2021	2022	2021	2022	12m fwd	10Yr Avg	2021	2022	Current	10Yr Avg
S&P500	4677	-1.9	26.9	51.4	9.0	1.3	1.4	22.5	20.7	20.6	16.9	4.8	4.4	4.4	2.9
Energy	468	10.6	47.7	N/A	27.4	3.8	3.7	N/A	12.1	12.1	15.3	2.0	1.9	1.9	1.7
Materials	561	-1.5	25.0	86.1	4.1	1.7	1.8	17.3	16.6	16.7	16.0	3.3	3.1	3.1	2.6
Financials															
Diversified Financials	1130	3.2	34.3	59.6	-5.9	1.2	1.3	16.5	17.5	17.5	14.7	2.3	2.2	2.2	1.6
Banks	457	9.4	32.3	87.9	-14.3	2.0	2.3	12.0	14.0	14.0	11.4	1.5	1.4	1.4	1.1
Insurance	564	2.4	28.8	31.5	2.2	1.9	2.1	14.5	14.2	14.2	11.5	1.7	1.6	1.6	1.2
Real Estate	309	-4.9	42.5	15.1	7.0	2.3	2.6	24.9	23.2	23.2	18.7	4.0	4.2	4.2	3.3
Industrials															
Capital Goods	905	1.6	17.2	55.2	20.6	1.4	1.5	24.7	20.5	20.4	17.0	5.4	5.0	5.0	3.9
Transportation	1139	1.0	21.2	N/A	132.9	1.2	1.4	N/A	19.8	N/A	13.7	7.3	6.5	6.5	4.0
Commercial Services	513	-5.7	29.1	19.0	11.0	1.0	1.1	31.2	28.1	28.1	21.2	6.5	5.9	5.9	3.7
Consumer Discretionary															
Retailing	4095	-3.1	18.6	26.2	13.7	0.5	0.6	37.9	33.3	33.2	26.3	14.9	12.3	12.3	8.6
Consumer Services	1476	-2.3	14.5	N/A	1961.9	0.9	1.0	N/A	32.3	N/A	28.3	26.1	21.7	21.7	9.7
Consumer Durables	502	-5.7	20.9	58.5	15.8	1.1	1.2	17.9	15.4	15.4	17.7	4.5	3.8	3.8	3.4
Automobiles and parts	199	-0.2	51.8	102.1	15.6	0.0	0.2	50.6	43.8	N/A	14.2	9.4	7.8	7.8	2.5
IT															
Technology	3304	-3.2	35.4	46.3	6.0	0.7	0.8	27.2	25.7	25.6	14.9	17.9	16.0	16.0	6.0
Software & Services	3678	-5.5	26.4	21.8	14.0	0.7	0.8	34.5	30.3	30.2	20.7	10.8	9.5	9.5	6.1
Semiconductors	2500	-5.0	48.7	37.8	8.1	1.0	1.1	24.4	22.6	22.6	15.4	7.8	6.8	6.8	3.7
Communication Services	260	-2.7	20.5	38.9	7.1	0.8	0.8	21.7	20.3	20.2	18.9	4.2	3.7	3.7	3.2
Media	1045	-3.6	26.7	54.8	9.8	0.2	0.2	25.5	23.3	23.2	22.2	5.4	4.7	4.7	3.6
Consumer Staples															
Food & Staples Retailing	689	-1.7	23.2	20.2	8.2	1.4	1.4	24.8	22.9	22.9	17.9	5.5	4.9	4.9	3.5
Food Beverage & Tobacco	833	2.0	12.4	11.8	4.7	3.0	3.1	20.2	19.3	19.3	18.2	5.8	5.5	5.5	5.1
Household Goods	969	-0.8	15.3	3.8	6.7	1.9	2.1	29.3	27.5	27.5	21.0	11.8	11.2	11.2	6.4
Health Care															
Pharmaceuticals	1245	-4.2	21.4	26.5	8.8	1.8	1.9	15.8	14.5	14.5	15.2	6.3	5.3	5.2	4.2
Healthcare Equipment	1897	-5.3	27.0	20.5	5.6	1.0	1.1	21.2	20.1	20.1	16.6	4.3	3.8	3.8	2.9
Utilities	358	-1.6	14.0	86.9	1.2	3.0	3.0	N/A	N/A	N/A	16.9	2.3	2.2	2.2	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

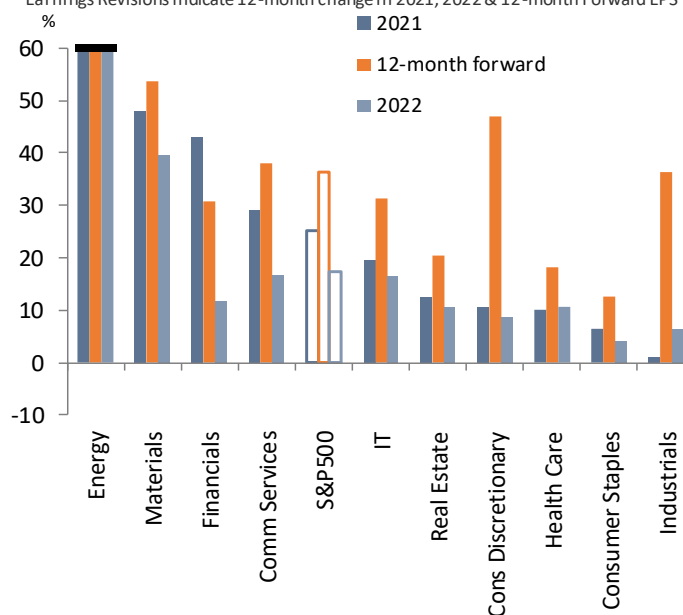
Earnings Revisions indicate 1-month change in 2021, 2022 & 12-month Forward EPS



Data as of January 7th
12-month forward EPS are 98% of 2022 EPS and 2% of 2023 EPS

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

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



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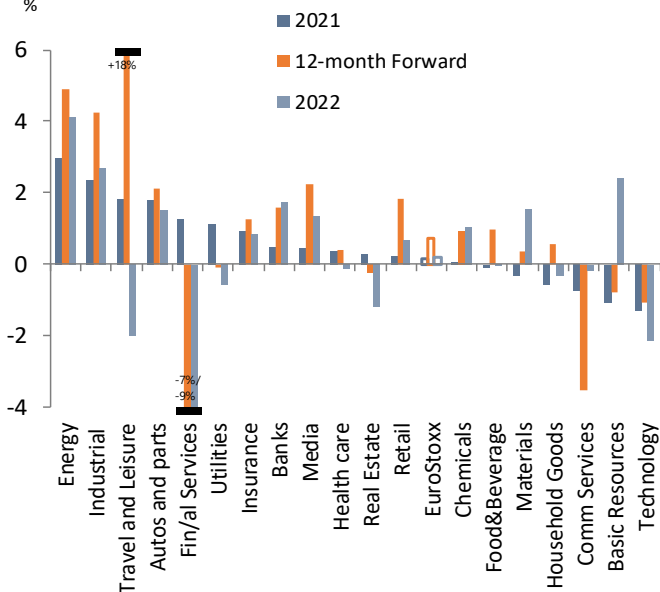
Euro Area Sectors Valuation

	Price (€)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	7/1/22	% Weekly Change	%2021	2021	2022	2021	2022	2021	2022	12m fwd	10Yr Avg	2021	2022	Current	10Yr Avg
EuroStoxx	479	-0.1	20.4	76.4	6.5	2.5	2.7	17.2	16.2	16.1	14.4	2.0	1.9	1.9	1.5
Energy	299	3.7	14.3	472.6	11.8	4.7	4.9	11.2	10.0	10.0	13.1	1.4	1.3	1.3	1.2
Materials	1049	0.6	20.6	154.5	-9.5	2.3	2.4	13.5	14.9	14.9	15.7	2.3	2.1	2.1	1.7
Basic Resources	262	5.4	19.5	N/A	N/A	2.3	2.4	N/A	6.1	6.1	11.9	1.0	0.9	0.9	0.7
Chemicals	1519	0.0	20.7	57.7	0.5	2.3	2.4	19.4	19.3	19.3	16.6	2.8	2.7	2.7	2.3
Financials															
Fin/Al Services	570	-1.5	18.0	32.4	9.2	2.4	2.5	16.5	15.1	15.1	14.4	1.4	1.3	1.3	1.2
Banks	107	6.6	36.2	99.4	0.1	5.1	5.4	9.2	9.2	9.2	9.9	0.7	0.7	0.7	0.7
Insurance	321	4.9	17.1	43.4	4.1	4.9	5.1	10.6	10.2	10.2	9.5	1.0	1.0	1.0	0.9
Real Estate	221	-1.0	1.3	3.0	10.5	3.5	3.8	18.7	16.9	16.9	17.0	0.9	0.9	0.9	1.0
Industrial	1168	-0.3	19.7	30.2	23.0	1.6	2.0	25.2	20.5	20.4	17.0	3.7	3.3	3.3	2.6
Consumer Discretionary															
Media	279	-2.4	30.4	3.2	13.8	1.9	2.1	25.2	22.1	22.1	16.9	5.9	5.3	5.3	2.1
Retail	668	-3.5	4.4	99.3	16.2	3.0	3.4	28.7	24.7	24.7	26.4	5.1	4.8	4.8	5.7
Automobiles and parts	671	6.5	25.1	727.5	7.7	4.0	4.3	8.0	7.4	7.4	8.9	1.1	1.0	1.0	1.0
Travel and Leisure	198	2.4	-9.3	N/A	N/A	0.7	1.4	N/A	N/A	N/A	N/A	2.8	2.6	2.6	2.1
Technology	939	-4.5	37.1	39.2	12.6	0.7	0.8	31.9	28.3	28.2	21.0	4.9	4.3	4.3	3.6
Communication Services	282	-2.3	16.6	29.9	-31.1	3.9	4.2	10.2	14.8	14.8	14.2	1.5	1.4	1.4	1.7
Consumer Staples															
Food, Beverage & Tobacco	192	-0.1	10.4	34.5	14.2	1.5	1.8	25.1	22.0	22.0	19.8	2.6	2.5	2.5	2.6
Personal Care, Drug & Grocery	201	0.2	18.0	3.9	4.0	2.1	2.3	18.8	18.1	18.1	17.4	2.8	2.6	2.6	2.3
Consumer Products & Services	516	-2.3	24.6	61.4	14.4	1.0	1.2	40.5	35.4	35.3	24.2	7.7	6.8	6.8	3.9
Health care	902	-3.4	14.8	11.8	5.8	1.9	2.0	19.7	18.6	18.6	16.4	2.6	2.4	2.4	2.3
Utilities	385	-2.2	3.6	33.7	0.8	4.3	4.5	15.1	15.0	15.0	13.6	1.8	1.7	1.7	1.2

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

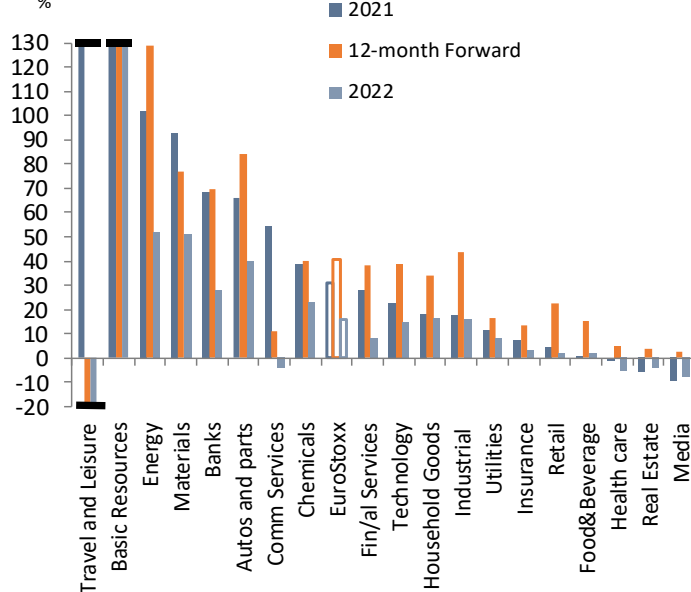
Earnings Revisions indicate 1-month change in 2021, 2022 & 12-month Forward EPS %



Data as of January 7th
12-month forward EPS are 98% of 2022 EPS and 2% of 2023 EPS

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

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National Bank of Greece | Economic Research Division | Global Markets Analysis

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