

Ahead of a slew of central bank meetings this week (FED, BOE, BOJ), government bond interest rates edged significantly higher

- An unexpected increase in August's US core CPI served as a wake-up call to investors to reassess whether the expected tightening will keep inflation in check. Core inflation rose by +0.6% mom (consensus expectations: +0.3% mom) with the three month annualized rate in the neighborhood just north of 7 percent (see Economics).
- Market-based expectations for policy rates were revised upwards following the CPI outcome, assigning roughly a 75% likelihood that USD short term reference rates will be 4.25%-4.5% or greater by end-2022 (see graph below).
- Market expectations of future short term reference rates are the most prominent determinant of long term rates. As a result, 10-Year US Treasury nominal yields have increased by +35 basis points since early September to +3.5% (+197 bps ytd). The real interest rate component, based on TIPS, has risen by +43 basis points for the same period to +1.1%, a four year high (+224 bps ytd).
- Equity valuations have tracked, inversely, the path of real interest rates (see graph page 3). The S&P500 12-month forward P/E ratio declined to 16.5x from 17.4x in the past week, still trading in line with its 30-year average, as the numerator (price) tumbled by -4.8% wow. The multiple's decline explains the price reaction year-to-date (-18%). On the other hand, consensus earnings estimates have been broadly unperturbed (2023 EPS: \$240 from \$248 in June, with 2023/2022 EPS expected growth of +8%), despite intensifying recession concerns.
- The Federal Reserve is now widely anticipated to proceed on September 21st with another 75 bps hike in the federal funds rate to a range of 3.0% - 3.25%. Investors price-in a circa 80% probability for such an event (20% probability for +100 bps). The FOMC is also expected to revise higher its own estimates for the terminal policy rate, probably above 4.25%.
- The Bank of England appears poised for a 50 bps hike to 2.25% for the Bank Rate on September 22nd. Investors' pricing based on sterling overnight index swap rates suggests a terminal rate of 4.5% (versus 4.25% a week ago).
- Attention also turns to the meeting of the Bank of Japan on September 22nd, as the large monetary policy divergence with other major central banks, has led to a sharp depreciation of the Yen, especially against the US Dollar, by -24% year-to-date, to ¥143. Still, latest officials' commentary supports the view that the BoJ will stand pat, albeit risks are on the upside.
- Having said that, recent reports that Japan's Ministry of Finance is considering an intervention in foreign exchange markets to support the Yen, offered some respite (+0.8% compared with September 7th when the Yen hit its lowest since August 1998 against the US Dollar, at ¥144.50).
- Investors also keep an eye on Italy's general elections on September 25th. According to polls, the most likely outcome entails a right-wing coalition government led by the Brothers of Italy party. In such an event, the focus will mainly be on national recovery and resilience execution (NRRP) and fiscal policy plans. So far, the BTP/Bund spread has been on the low side of the 2018 elections' range (240-330 bps).

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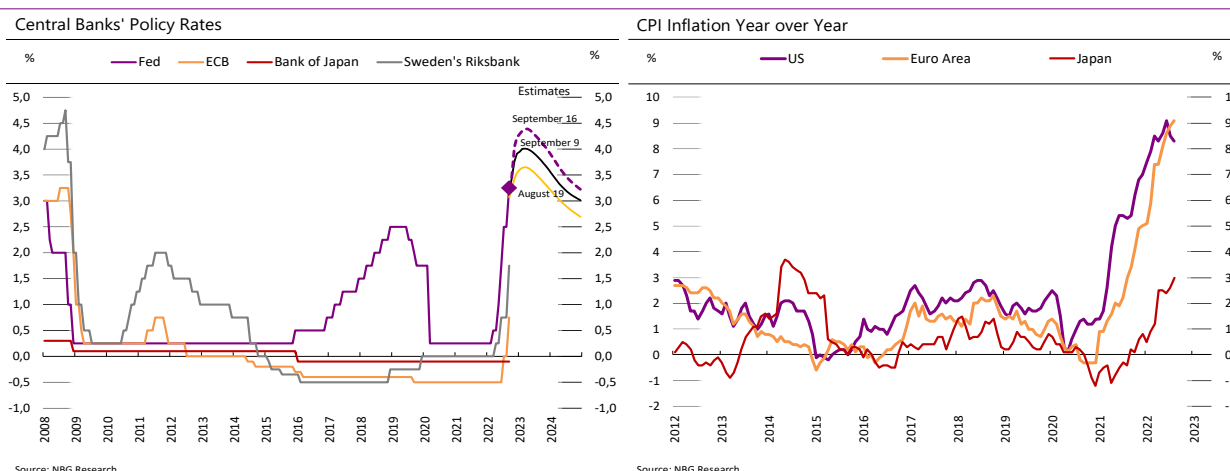
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Charts of the week



US price pressures (CPI) were much stronger than expected in August

- **Headline CPI inflation decelerated in August, albeit significantly exceeding consensus estimates.** Specifically, the annual pace of growth came out at 8.3% from 8.5% in July (and 9.1% in June, the highest since November 1981), versus expectations for 8.1%. On a monthly basis, the index grew by 0.1% in August (seasonally adjusted | "sa") after being unchanged in the previous month and versus consensus estimates for -0.1% mom.
- As was also the case in July, the deceleration was predominantly on account of a sole component, specifically the energy index, which declined by 5.0% mom (sa) following a -4.6% mom in July, in turn mainly due to another (partial) downward correction for gasoline prices (-10.6% mom in August from -7.7% mom in July). As a result, the annual growth of the energy index eased to 23.8% (nsa) from 32.9% previously. On the other hand, a solid momentum remained in place for food prices, up by 0.8% mom (sa | 20-year average of +0.2% mom), albeit with a partial easing (+1.1% mom in July | average monthly pace in the past eight months: +1.0% mom). As a result, the annual pace of growth accelerated by 0.5 pps to 11.4% yoy, the highest since May 1979.
- **Core CPI (i.e. CPI excluding food & energy) demonstrated a sharp and much stronger than expected strength in August.** In the event, the core CPI increased by 0.6% mom (sa) from +0.3% mom in July (20-year average of +0.2% mom), well above consensus estimates for +0.3% mom. Importantly, a strong momentum is maintained for the relatively less volatile and predominantly determined by domestic economic developments, shelter prices (+0.7% mom from +0.5% in July | +0.6% mom on average in the past 4 months, almost triple its 20-year average), which constitute c. 1/3 of the headline CPI and c. 40% of the core index, evident in both major components. In the event, the index for the rent of primary residence was up 0.7% mom in August (6.7% yoy, the highest since November 1982) and the owners' equivalent rent of residences (i.e. the implicit rent that owner occupants would have to pay if they were renting their homes), also by 0.7% mom, the highest since June 1990 (6.3% yoy, the highest since April 1986). In all, core CPI's annual pace of growth accelerated by 0.4 pps to 6.3% in August, substantially above expectations for 6.1%.
- Looking forward, the Federal Reserve Bank of Cleveland's Inflation Nowcasting model points to 8.2% yoy for the headline CPI in September and to 6.6% yoy for the core index.

US retail sales overall undershot expectations

- **Nominal retail sales rose by 0.3% mom (seasonally adjusted) in August.** Although the headline outcome slightly overshot consensus estimates for +0.2%, the level of retail sales was actually below expectations, given a significant downward revision for July (-0.4% mom instead of being unchanged on a monthly basis according to previous estimate). The annual pace of growth decelerated to +9.1% from +10.1% in July. At the same time, the so-called "control group", as it feeds into the calculation for GDP (i.e., excluding autos, gas, food services and building materials) was stable on a monthly basis (+6.6 yoy) from a downward revised (by 0.4 pps) +0.4% mom in July (+8.8% yoy), well below expectations for +0.5% mom.

US industrial output was somewhat more subdued than anticipated in August

- **US industrial production fell by 0.2% mom in August, versus consensus estimates for +0.1% mom.** The undershot of expectations was slightly more profound for the level of output, given a moderate downward revision for July's outcome, by 0.1 pp to +0.5% mom. The annual pace of growth decelerated to +3.7% yoy, from +3.8% yoy in July. Importantly, manufacturing production (78% of total) increased by 0.1% mom in August (+3.3% yoy) from a downward revised (by 0.1 pp) +0.6% mom (+2.9% yoy) in July, largely in line with consensus estimates.
- In all, the Atlanta Fed's GDPNowcast model points to +0.5% qoq saar (+1.3% yoy) for GDP in Q3:2022, from -0.6% qoq saar (+1.7% yoy) in Q2:2022

Euro area industrial production entered Q3 on a weak note

- **Euro area industrial production fell by 2.3% mom in July, from +1.1% mom in June.** Although distorted to the downside from the highly volatile data for Ireland (-18.9% mom from +11.2% mom), the latest outcome was still well below consensus estimates for -1.0%. The annual pace of growth came out at -2.4% from +2.2% in June.
- Notably, signs continue to emerge that skyrocketing energy prices are taking a toll. In the event, recall that industrial output in Germany decreased by 0.7% mom (-1.0% yoy) from +1.2% mom (+0.5% yoy) in June, with the energy-intensive segments (e.g. manufacture of chemicals, basic metals, coke and refined petroleum products) continuing to significantly under-perform (-1.9% mom | -6.9% since February 2022 versus -2.4% for overall industrial output), according to the German Federal Statistical Office (Destatis).

China: The momentum for economic activity stabilized in August

- **Economic activity exceeded consensus estimates in August.** In the event, the annual growth of retail sales (in nominal terms) accelerated to +5.4% from +2.7% in July, well above expectations for +3.5%. Sales of automobiles (+15.9% yoy from +9.7% yoy), boosted the headline outcome. In addition, industrial production growth was +4.2% from +3.8% yoy in July, versus consensus estimates for a stable reading. Manufacturing of automobiles (+30.5% yoy from +22.5% yoy) and production of electricity & heating power (+15.3% yoy from +10.4% yoy), led the improvement.
- Having said that, it should also be noted that the improvement in the annual growth of both retail sales and industrial production, was mainly due to favorable base effects (depressed readings in August 2021), rather than on the back of a sequential increase. Finally, fixed assets investment growth came out at +5.8% yoy in August, from +5.7% yoy in the previous month (consensus for +5.5%), benefiting from policy support as indicated by strong readings for investment in infrastructure (+0.9 pps to +8.3% yoy). The latest readings came alongside overall credit's annual growth, as measured by Total Social Financing (TSF), decelerating by 0.2 pps to +10.5% in August.

Equities

- Global equity markets declined in the past week.** Overall, the MSCI ACWI ended the week down by 4.1% (-21% ytd), with Developed markets (-4.2% wow | -21% ytd) underperforming their Emerging Markets peers (-2.7% wow | -23% ytd). The S&P500 fell by 4.8% wow (-19% ytd), posting its 4th week with losses out of the past 5. Regarding sectors, Industrials decreased by -6.4% wow, with FedEx Corp. underperforming (-23% wow), after the company preannounced weaker-than-expected quarterly earnings while withdrawing its FY2023 earnings forecast due to weakening global demand and volatile business conditions. Its stock declined by 21.4% on Friday, surpassing its previous largest daily drop of 16.4% on Black Monday in 1987.

The IT sector fell by 6.1%, with Adobe Inc. declining by 24.1% wow, following the announcement of the agreement for the acquisition of Figma for \$20 bn, with investors being concerned about the high price tag (50 times the company's annual recurring revenue). On the other side of the Atlantic, the Eurostoxx fell by 2.4% (-19.4% ytd), with Real Estate sector leading the decline (-5.6% wow), while Banks overperformed (+9.2% wow). In China, CSI 300 fell by 3.9% wow to a 4-month low, declining by 2.3% on Friday, as the State Council asked securities firms to lower their service fees. On Monday, the index was broadly stable with investors weighing the PBOC decision to cut its 14-day reverse repo rate by 10 bps to 2.15% and the end of the lockdown measures in Chengdu against the rising geopolitical tensions with the US President Biden saying that the US armed forces would defend Taiwan in the event of an attack.

Fixed Income

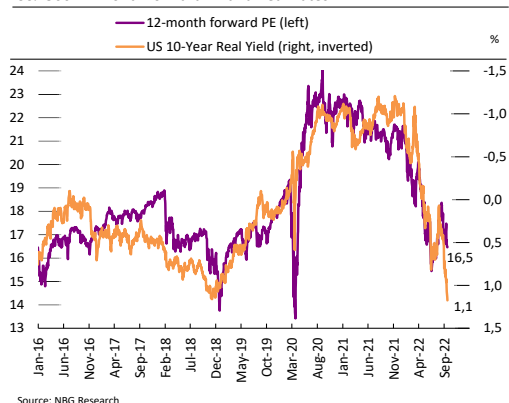
- Government bond yields rose in the past week, reaching fresh multi-year highs (especially in the short-term tenors), amid expectations for further large interest-rate increases by major central banks.** Specifically, the US Treasury 10-year yield ended the week up by 13 bps and by further 3 bps on Monday to 3.48% (an 11-year high), while the 2-year yield increased by 31 bps wow and by 8 bps on Monday to 4.05% (a 15-year high). In Germany, the 10-Year yield rose by 7 bps wow and by further 5 bps on Monday to 1.79% (an 8-year high) and the 2-Year yield increased by 26 bps wow and by 5 bps on Monday to 1.59% (an 11-year high). In Italy, the 10-year yield increased by 4 bps to 4.04%, while the 2-year yield rose by 19 bps to 2.60% (a 9-year high), with investors' attention turning to the Italian general elections on September 25th.
- Corporate bond spreads widened in the US High Yield (HY) spectrum, in account of risk aversion.** In the event, US HY spreads rose by 43 bps to 500 bps, while their euro area counterparts increased by 5 bps to 548 bps. In the Investment Grade spectrum, spreads were broadly stable at 148 bps (USD) and 195 bps (EUR).

FX and Commodities

- In foreign exchange markets, the US dollar appreciated in the past week by 0.7% wow against a basket of trade-weighted currencies.** The USD rose by 0.3% wow against the Japanese Yen to ¥142.94, supported, *inter alia*, by the widening of interest rate differentials. The comments by the Japanese Finance Minister, S. Suzuki, that currency intervention is among the government's options provided some support to the yen intra-week. Meanwhile, the USD was little changed against the euro (+0.1% wow to \$1.003) as investors have adjusted higher their expectations for policy interest rates for both the ECB and the Fed.

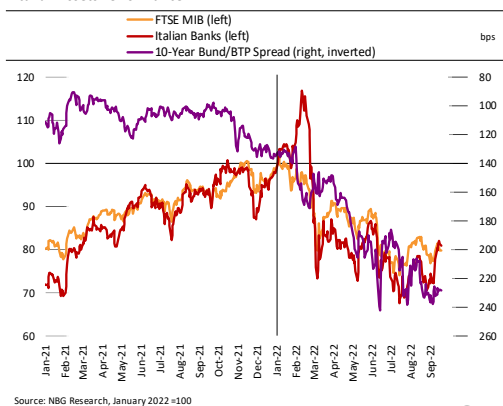
In commodities, oil prices declined, with WTI down by 1.9% wow at \$85.1/barrel (+13% ytd), while the Brent fell by -1.6% wow to \$91.4/barrel (+17% ytd) due to increased demand concerns. Specifically, the International Energy Agency (IEA) downwardly revised its estimates for oil demand growth in 2022 to 2 million barrels/day from 2.11 million barrels/day previously, with demand level at 99.7 million barrels/day. Gold price fell by 2.6% wow to \$1673/oz, its lowest level since April 2020, weighed by, *inter alia*, the surge of real interest rates in the US (US 10Yr TIPS yield: +17 bps to 1.07%, the highest level since 2018).

S&P500 12-month forward PE and Real Rates



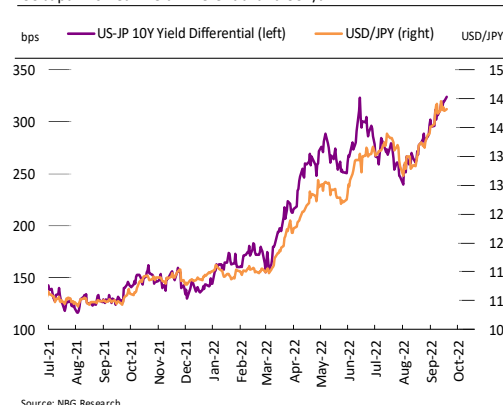
Graph 1.

Italian Assets Performance



Graph 2.

US-Japan 10-Year Yield Differential and USD/JPY



Graph 3.

Quote of the week: "Will that (the European Central Bank's action) weigh on growth? It's possible, but it's a risk we have to take because price stability is a fundamental and principal dimension", ECB President, C. Lagarde, September 16th 2022.

Interest Rates & Foreign Exchange Forecasts

10-Yr Gov. Bond Yield (%)	September 16th	3-month	6-month	12-month	Official Rate (%)	September 16th	3-month	6-month	12-month
Germany	1,74	1,40	1,60	1,90	Euro area	0,75	2,00	2,25	2,25
US	3,45	3,20	3,30	3,40	US	2,50	4,50	4,50	4,50
UK	3,12	2,61	2,65	2,58	UK	1,75	3,30	3,85	3,90
Japan	0,25	0,22	0,23	0,31	Japan	-0,10	-0,10	-0,10	-0,10

Currency	September 16th	3-month	6-month	12-month	September 16th	3-month	6-month	12-month	
EUR/USD	1,00	1,02	1,05	1,10	USD/JPY	143	143	139	135
EUR/GBP	0,88	0,86	0,86	0,87	GBP/USD	1,14	1,19	1,23	1,27
EUR/JPY	143	146	145	148					

Forecasts at end of period

Economic Forecasts

United States	2020a	Q1:21a	Q2:21a	Q3:21a	Q4:21a	2021a	Q1:22a	Q2:22a	Q3:22f	Q4:22f	2022f
Real GDP Growth (YoY) (1)	-3.4	0.5	12.2	4.9	5.5	5.7	3.5	1.7	1.3	0.3	1.7
Real GDP Growth (QoQ saar) (2)	-	6.3	6.7	2.3	6.9	-	-1.6	-0.6	1.2	2.6	-
Private Consumption	-3.8	11.4	12.0	2.0	2.5	7.9	1.8	1.5	1.0	2.2	2.3
Government Consumption	2.5	4.2	-2.0	0.9	-2.6	0.5	-2.9	-1.8	0.9	0.9	-0.9
Investment	-2.7	13.0	3.3	-0.9	2.7	7.8	7.4	-4.5	2.5	3.1	2.6
Residential	6.8	13.3	-11.7	-7.7	2.2	9.2	0.4	-16.2	-1.4	1.1	-3.4
Non-residential	-5.3	12.9	9.2	1.7	2.9	7.4	10.0	0.0	3.4	3.5	4.5
Inventories Contribution	-0.6	-3.7	-1.7	2.1	5.4	0.1	-0.1	-2.1	-1.5	-0.3	0.6
Net Exports Contribution	-0.2	-2.0	-0.4	-1.5	-0.7	-1.9	-3.9	1.4	1.3	0.6	-1.1
Exports	-13.6	-2.9	7.6	-5.3	22.4	4.5	-4.8	17.6	7.6	2.4	5.0
Imports	-8.9	9.3	7.1	4.7	17.9	14.0	18.9	2.8	-2.1	-1.7	9.1
Inflation (3)	1.2	1.9	4.9	5.4	6.7	4.7	8.0	8.7	9.0	8.1	8.3

Euro Area	2020a	Q1:21a	Q2:21a	Q3:21a	Q4:21a	2021a	Q1:22a	Q2:22a	Q3:22f	Q4:22f	2022f
Real GDP Growth (YoY)	-6.2	-0.8	14.4	3.7	4.6	5.2	5.4	4.1	0.9	0.9	2.6
Real GDP Growth (QoQ saar)	-	-0.4	8.2	9.0	2.0	-	2.7	3.1	-0.5	0.9	-
Private Consumption	-7.8	-8.2	15.6	18.6	-0.2	3.7	-0.2	5.1	0.8	0.2	2.7
Government Consumption	1.0	-0.6	8.0	0.4	2.7	4.2	0.9	2.5	0.7	0.4	1.1
Investment	-6.6	-7.8	6.7	-2.4	15.7	4.1	-3.3	3.7	0.3	0.2	2.5
Inventories Contribution	-0.3	2.8	-2.3	-0.7	2.2	0.1	0.4	-0.2	-1.4	-1.0	0.1
Net Exports Contribution	-0.5	3.1	-0.4	0.8	-3.7	1.4	2.9	-0.7	0.3	1.7	0.3
Exports	-9.3	2.5	10.5	9.6	10.1	10.3	4.8	5.4	2.6	2.9	5.2
Imports	-8.8	-4.0	12.5	8.5	20.4	8.0	-0.9	7.4	2.1	-0.4	5.2
Inflation	0.3	1.0	1.8	2.9	4.7	2.6	6.1	8.0	8.8	8.0	7.7

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"> + Households' balance sheets are healthy + Service-oriented sectors are re-opening + Sentiment (e.g. AAI) and positioning indicators are hitting extreme lows - Peaking profit margins - Recession risks are increasing - P/Es (Valuations) still remain above l-t means, despite the recent correction <p>● Neutral/Negative</p>	<ul style="list-style-type: none"> + Still high equity risk premium relative to other regions + Still loose fiscal policy in 2022 (plus RRF) - Geopolitical uncertainty (Ukraine-Russia, natural gas) could intensify - Logistic disruptions (vaccine) and renewed lockdowns in China delay the export-led recovery <p>● Neutral</p>	<ul style="list-style-type: none"> + Still aggressive QE and "yield-curve" targeting by the BoJ + JPY depreciation @ 20Y highs (¥130) support exporters - Signs of policy fatigue regarding structural reforms and fiscal discipline - Chinese growth deceleration <p>● Neutral</p>	<ul style="list-style-type: none"> + Significant exposure to commodities + Undemanding valuations in relative terms relative to other regions - Elevated domestic policy uncertainty <p>● Neutral/Positive</p>
Government Bonds	<ul style="list-style-type: none"> + Valuations appear rich despite the 200bps increase, with term-premium @ 0% (1% for 2000-2015) + Sizeable fiscal deficit + Underlying inflation pressures under Average Inflation Targeting + Fed: End of asset purchases - Global search for yield by non-US investors (e.g. Japan, repatriation from EM Economies) continues - Safe haven demand <p>▲ Slightly higher yields expected</p>	<ul style="list-style-type: none"> + Valuations still appear excessive compared with long-term fundamentals + ECB: End of APP purchases in June 2022, interest rate hikes in H2 - Political Risks - Fragile growth outlook - 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"> + Inflation expectations could drift higher due to supply disruptions (persistent post Brexit, temporary due to China) + The BoE is expected to raise rates towards 2% - Slowing economic growth post-Brexit <p>▲ Slightly higher yields expected</p>
Foreign Exchange	<ul style="list-style-type: none"> + Weak global growth / Safe-haven demand status + USD interest rate differential vs peers remain significant + Aggressive Fed tightening - Global political uncertainty to decline <p>● Broadly Flat USD against G10 FX</p>	<ul style="list-style-type: none"> + Current account surplus - Still negative interest rates - Global growth risks remain to the downside <p>● Broadly Flat/Stronger 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>● Broadly stable GBP expected</p>

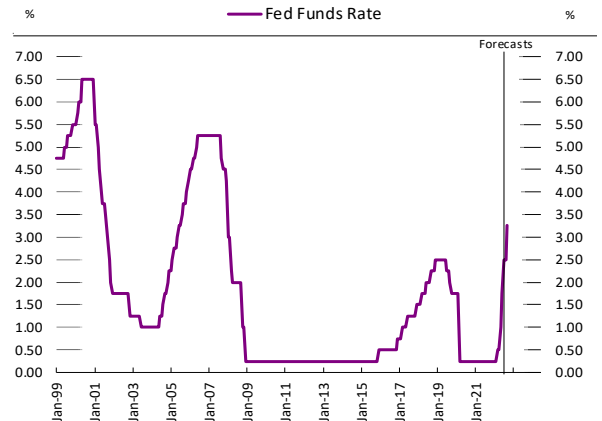
Economic Calendar

In the US, the Federal Reserve meets on September 21st and is expected to increase its Federal Funds Rate (FFR) by 75 basis points to the 3.00%-3.25% range. Meanwhile, August’s housing data (existing home sales, housing starts & building permits) will gather investors’ attention.

In the UK, the BoE meets on September 22nd and is expected to increase its Bank Rate for a 7th consecutive meeting, to 2.25%. On Friday, the PMI manufacturing survey for September is released.

In the Euro area, attention turns to PMI (23/9) and consumer confidence (22/9) surveys for September, as they will provide valuable insight regarding the current economic momentum.

US Federal Funds Rate



Source: NBG Research

Economic News Calendar for the period: September 13 - September 26, 2022

Tuesday 13					Wednesday 14					Thursday 15				
US					UK					US				
CPI (YoY)	August	8.1%	8.3%	8.5%	CPI (YoY)	August	10.2%	9.9%	10.1%	Initial Jobless Claims (k)	September 10	225	+ 213	218
Core CPI (YoY)	August	6.1%	6.3%	5.9%	Core CPI (YoY)	August	6.3%	6.3%	6.2%	Continuing Claims (k)	September 3	1480	+ 1403	1401
UK					EURO AREA					EURO AREA				
ILO Unemployment Rate	July	3.8%	+ 3.6%	3.8%	Industrial Production (sa, MoM)	July	-0.8%	- 2.3%	1.1%	Retail Sales Advance MoM	August	0.0%	+ 0.3%	-0.4%
GERMANY														
ZEW survey current situation	September	-51.6	- 60.5	-47.6	Industrial Production (wda, YoY)	July	0.7%	- 2.4%	2.2%	Retail sales ex-autos (MoM)	August	0.1%	- 0.3%	0.0%
ZEW survey expectations	September	-59.0	- 61.9	-55.3										
										Industrial Production (MoM)				
										August				
										0.2%				
										September				
										-15.0				
										+ -1.5				
										-31.3				
										Outlook				
										JAPAN				
										Exports YoY				
										August				
										23.9%				
										- 22.1%				
										19.0%				
										Imports YoY				
										August				
										47.0%				
										+ 49.9%				
										47.2%				
										EURO AREA				
										Trade Balance SA (€ bn)				
										July				
										..				
										-40.3				
										-32.2				
Friday 16					Monday 19									
US					US									
University of Michigan consumer confidence	September	59.3	+ 59.5	58.2	NAHB housing market confidence index	September	48	- 46	49					
Net Long-term TIC Flows (\$ bn)	July	..	21.4	121.8										
UK														
Retail sales Ex Auto MoM	August	-0.9%	- 1.6%	0.4%										
CHINA														
Retail sales (YoY)	August	3.4%	+ 5.4%	2.7%										
Industrial production (YoY)	August	3.9%	+ 4.2%	3.8%										
Tuesday 20					Wednesday 21					Thursday 22				
US					US					US				
Building permits (k)	August	1626	..	1685	Fed announces its intervention rate	September 21	3.25%	..	2.50%	Initial Jobless Claims (k)	September 17	220	..	213
Housing starts (k)	August	1450	..	1446	Existing home sales (mn)	August	4.71	..	4.81	Continuing Claims (k)	September 10	..	..	1403
JAPAN										UK				
CPI (YoY)	August	2.9%	..	2.6%						BoE announces its intervention rate				
Core CPI (YoY) - ex. Fresh Food	August	2.7%	..	2.4%						September 22				
Core CPI (YoY) - ex. Fresh Food and Energy	August	..	..	1.2%						2.25%				
										..				
										1.75%				
										JAPAN				
										Bank of Japan announces its intervention rate				
										September 22				
										-0.10%				
										..				
										-0.10%				
										EURO AREA				
										Consumer Confidence Indicator				
										September				
										-25.3				
										..				
										-24.9				
Friday 23					Monday 26									
US					JAPAN									
S&P Global US Manufacturing PMI	September	51.2	..	51.5	PMI manufacturing	September	..	..	51.5					
UK					GERMANY									
S&P Global / CIPS UK PMI Manufacturing SA	September	46.8	..	47.3	IFO- Business Climate Indicator	September	..	..	88.5					
S&P Global / CIPS UK Services PMI	September	49.8	..	50.9	IFO-Expectations	September	..	..	80.3					
EURO AREA														
S&P Global Eurozone Manufacturing PMI	September	48.8	..	49.6	IFO- Current Assessment	September	..	..	97.5					
S&P Global Eurozone Services PMI	September	49.0	..	49.8										
S&P Global Eurozone Composite PMI	September	48.2	..	48.9										

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

Equity Markets (in local currency)

Developed Markets						Emerging Markets						
		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)
US	S&P 500	3873	-4.8	-18.7	-13.4	14.4	MSCI Emerging Markets	57631	-2.0	-17.7	-19.7	-9.4
Japan	NIKKEI 225	27568	-2.3	-4.3	-9.1	17.4	MSCI Asia	874	-2.3	-18.3	-20.5	-12.2
UK	FTSE 100	7237	-1.6	-2.0	3.0	19.1	China	62	-4.2	-25.0	-30.2	-36.8
Canada	S&P/TSX	19386	-2.0	-8.7	-5.9	19.0	Korea	711	-0.2	-22.0	-24.6	-6.1
Hong Kong	Hang Seng	18762	-3.1	-19.8	-23.9	-24.1	MSCI Latin America	89061	-2.0	-3.5	-9.5	6.3
Euro area	EuroStoxx	386	-2.4	-19.4	-17.3	5.0	Brazil	300268	-2.6	-2.0	-12.4	-4.1
Germany	DAX 40	12741	-2.7	-19.8	-18.6	-3.9	Mexico	43784	-0.6	-12.3	-9.5	28.5
France	CAC 40	6077	-2.2	-15.0	-8.2	19.8	MSCI Europe	2304	-2.3	-66.8	-68.0	-56.8
Italy	FTSE/MIB	22111	0.1	-19.1	-14.8	10.8	Russia*	2435	0.4	-35.7	-39.8	-18.1
Spain	IBEX-35	7985	-0.6	-8.4	-8.6	12.3	Turkey	3566784	-5.9	71.6	121.8	173.9

World Market Sectors (MSCI Indices)

in US Dollar terms						in local currency						
		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)
Energy		223.9	-2.3	28.3	40.6	96.2	Energy	237.8	-1.8	34.3	48.2	104.0
Materials		281.2	-5.5	-21.9	-19.0	-3.2	Materials	285.0	-4.9	-16.4	-12.4	4.3
Industrials		273.5	-5.2	-21.9	-21.0	0.7	Industrials	289.1	-5.0	-16.6	-14.4	9.5
Consumer Discretionary		329.0	-3.7	-25.5	-21.8	0.2	Consumer Discretionary	332.7	-3.6	-22.1	-17.5	6.3
Consumer Staples		256.5	-3.2	-12.5	-7.6	1.6	Consumer Staples	268.4	-3.0	-7.8	-1.9	7.7
Healthcare		321.0	-2.7	-13.2	-9.8	8.8	Healthcare	326.3	-2.6	-10.2	-6.2	13.4
Financials		124.2	-2.6	-16.8	-14.8	22.7	Financials	129.6	-2.2	-12.8	-10.1	29.1
IT		405.7	-6.1	-29.1	-24.5	5.2	IT	399.8	-6.0	-28.0	-22.9	7.7
Telecoms		72.3	-5.7	-32.3	-36.8	-13.0	Telecoms	77.8	-5.6	-30.3	-34.7	-9.9
Utilities		156.2	-3.2	-4.9	0.0	9.8	Utilities	166.1	-3.0	-0.8	5.3	15.5

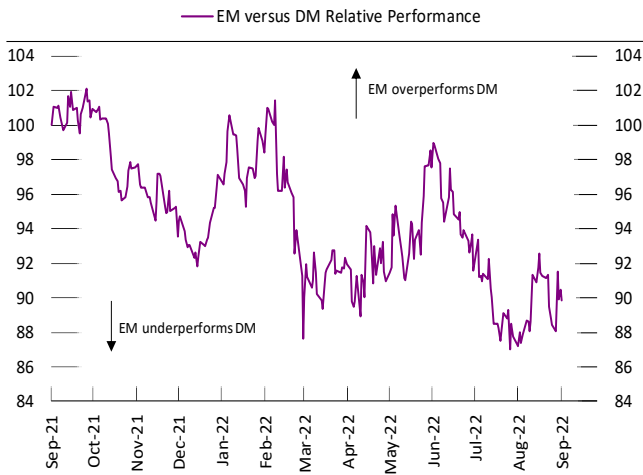
Bond Markets (%)

10-Year Government Bond Yields						Government Bond Yield Spreads (in bps)					
	Current	Last week	Year Start	One Year Back	10-year average		Current	Last week	Year Start	One Year Back	10-year average
US	3.45	3.32	1.51	1.33	2.09	US Treasuries 10Y/2Y	-52	-34	78	108	102
Germany	1.74	1.68	-0.18	-0.30	0.44	US Treasuries 10Y/5Y	-18	-13	25	50	52
Japan	0.25	0.23	0.07	0.04	0.21	Bunds 10Y/2Y	20	39	46	40	83
UK	3.12	3.08	0.97	0.72	1.43	Bunds 10Y/5Y	9	17	28	32	56
Greece	4.27	4.26	1.32	0.79	5.73						
Ireland	2.35	2.30	0.25	0.06	1.45	Corporate Bond Spreads (in bps)					
Italy	4.04	4.01	1.17	0.69	2.21		Current	Last week	Year Start	One Year Back	10-year average
Spain	2.90	2.85	0.57	0.35	1.78	EM Inv. Grade (IG)	167	167	139	134	191
Portugal	2.82	2.76	0.46	0.25	2.56	EM High yield	766	764	618	571	622
						US IG	148	147	98	90	133
US Mortgage Market (1. Fixed-rate Mortgage)						US High yield					
	Current	Last week	Year Start	One Year Back	10-year average		Current	Last week	Year Start	One Year Back	10-year average
30-Year FRM ¹ (%)	6.01	5.94	3.31	3.03	4.07	Euro area IG	195	192	98	84	118
vs 30Yr Treasury (bps)	243.1	244.7	138.9	113.3	134.1	Euro area High Yield	548	543	331	286	407

Foreign Exchange & Commodities

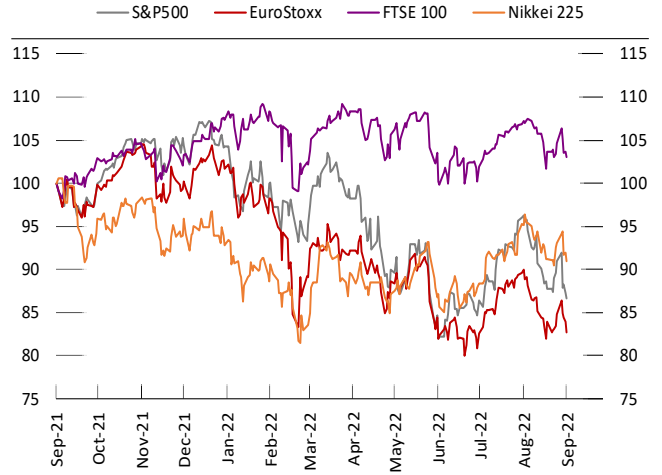
Foreign Exchange						Commodities					
	Current	1-week change (%)	1-month change (%)	1-Year change (%)	Year-to-Date change (%)		Current	1-week change (%)	1-month change (%)	1-Year change (%)	Year-to-Date change (%)
Euro-based cross rates						Agricultural	478	-0.9	5.5	16.5	7.5
EUR/USD	1.00	-0.1	-1.3	-14.7	-11.8	Energy	310	-4.1	-6.7	24.5	22.8
EUR/CHF	0.97	-0.1	-0.4	-11.3	-6.9	West Texas Oil (\$/bbl)	85	-1.9	-3.4	17.2	13.2
EUR/GBP	0.88	1.2	4.0	2.7	4.5	Crude Brent Oil (\$/bbl)	91	-1.6	-2.5	20.7	17.4
EUR/JPY	143.38	0.2	4.1	11.2	9.5	HH Natural Gas (\$/mmbtu)	7.8	-6.6	-18.4	40.7	103.2
EUR/NOK	10.23	2.7	3.6	0.6	2.0	TTF Natural Gas (EUR/mwh)	188	-9.3	-16.8	196.9	167.0
EUR/SEK	10.77	1.1	1.8	6.0	4.6	Industrial Metals	420	-0.2	-3.4	-13.5	-15.9
EUR/AUD	1.50	1.9	1.8	-7.5	-4.4	Precious Metals	2180	-2.1	-5.0	-5.3	-8.8
EUR/CAD	1.33	1.7	1.4	-10.8	-7.3	Gold (\$)	1673	-2.6	-5.0	-4.6	-8.2
USD-based cross rates						Silver (\$)	20	4.3	-1.2	-14.5	-15.5
USD/CAD	1.33	1.8	2.8	4.6	5.1	Baltic Dry Index	1553	28.0	11.4	-63.2	-30.0
USD/AUD	1.49	2.0	3.1	8.5	8.4	Baltic Dirty Tanker Index	1492	4.2	-3.6	142.2	89.8
USD/JPY	142.94	0.3	5.5	30.4	24.1						

EM vs DM Performance in \$



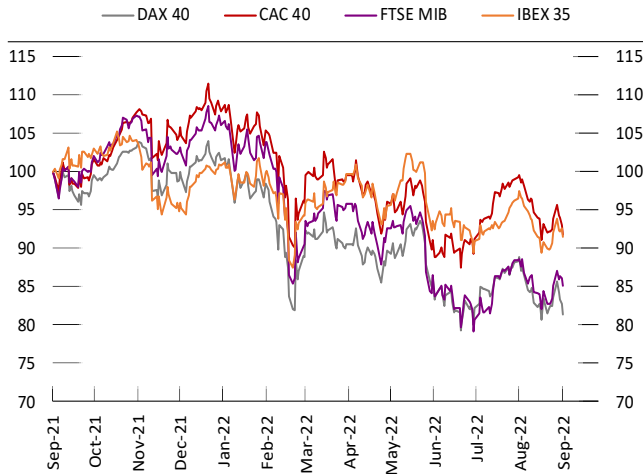
Data as of September 16th – Rebased @ 100

Equity Market Performance - G4



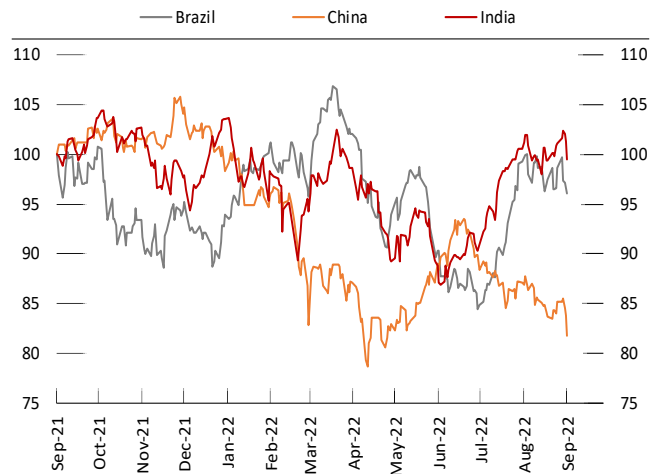
Data as of September 16th – Rebased @ 100

Equity Market Performance – Euro Area G4



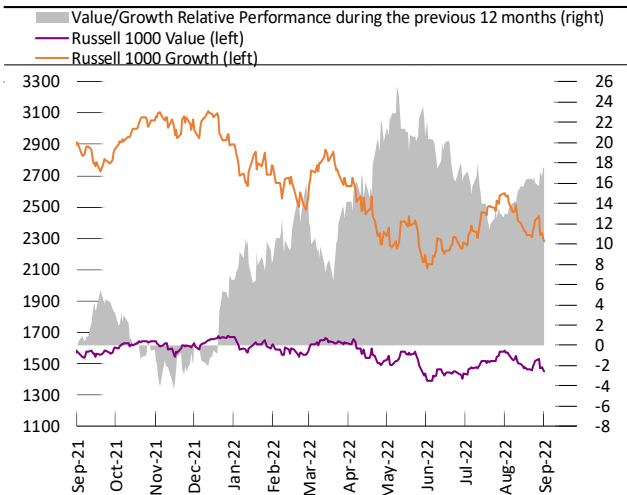
Data as of September 16th – Rebased @ 100

Equity Market Performance – Emerging Markets



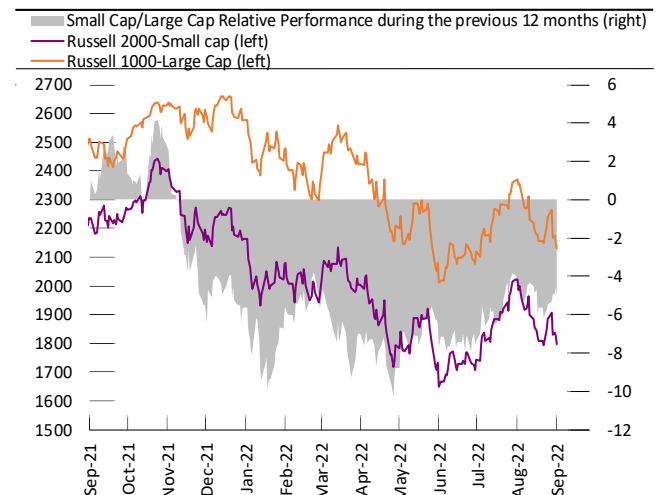
Data as of September 16th – Rebased @ 100

Russell 1000 Value & Growth Index



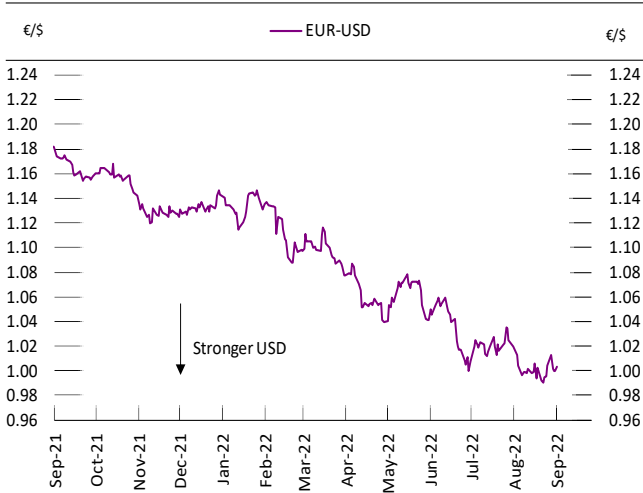
Data as of September 16th

Russell 2000 & Russell 1000 Index



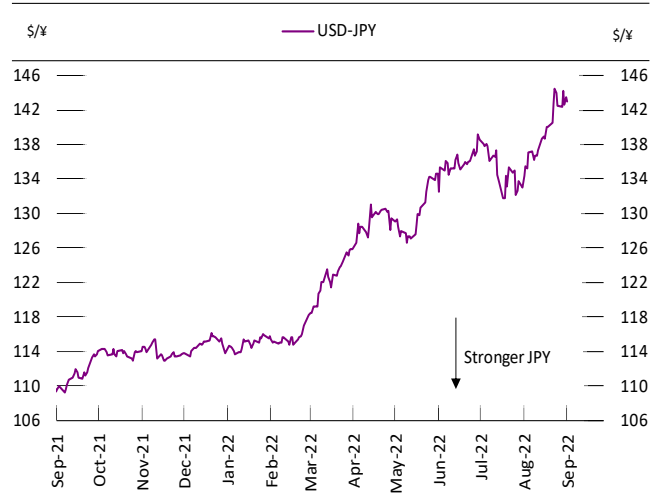
Data as of September 16th

EUR/USD



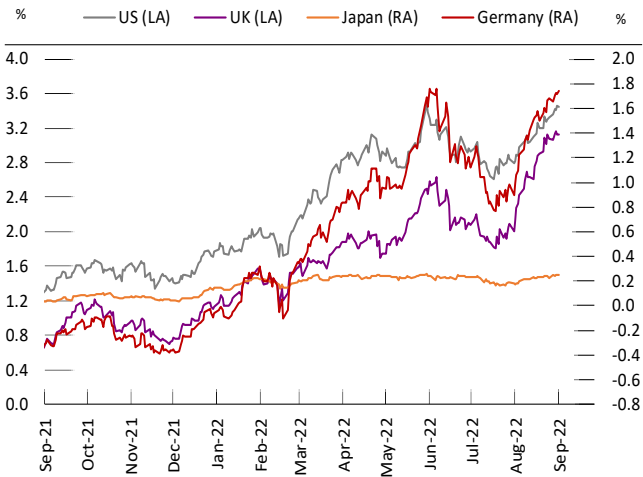
Data as of September 16th

JPY/USD



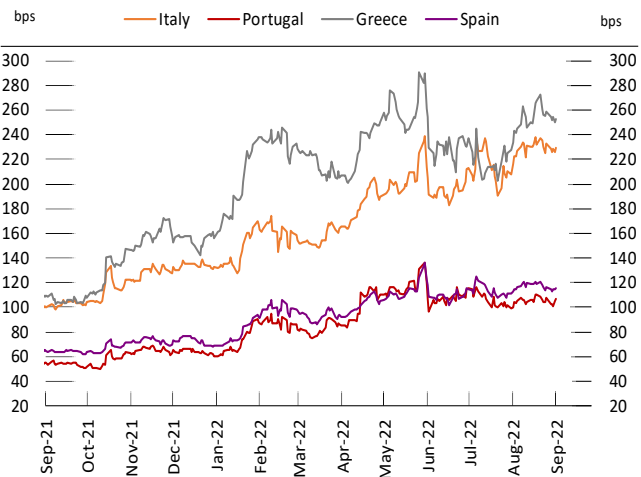
Data as of September 16th

10- Year Government Bond Yields



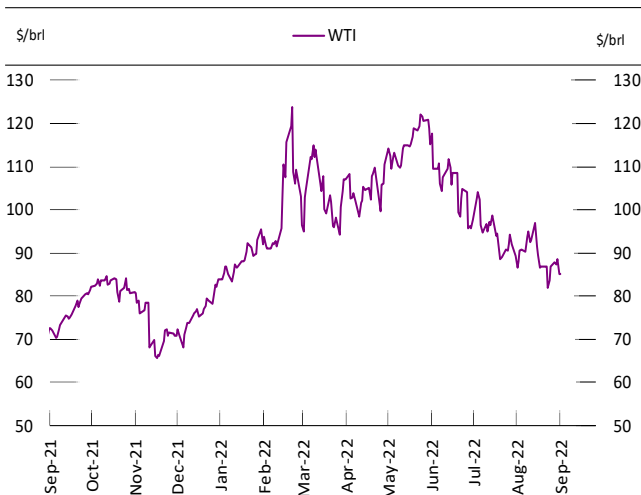
Data as of September 16th
LA:Left Axis RA:Right Axis

10- Year Government Bond Spreads



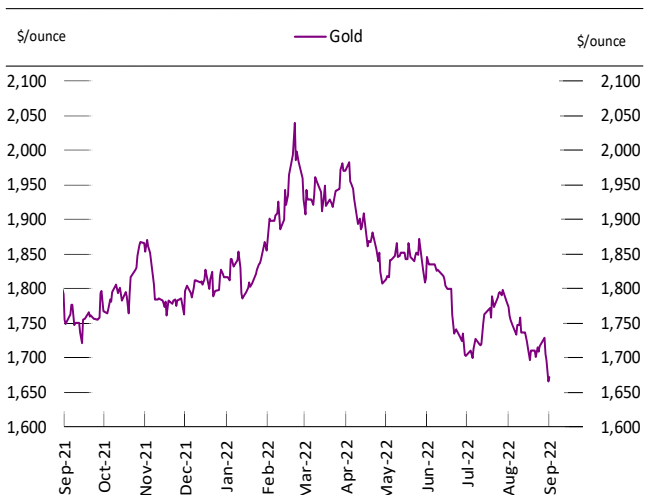
Data as of September 16th

West Texas Intermediate (\$/bbl)



Data as of September 16th

Gold (\$/ounce)



Data as of September 16th

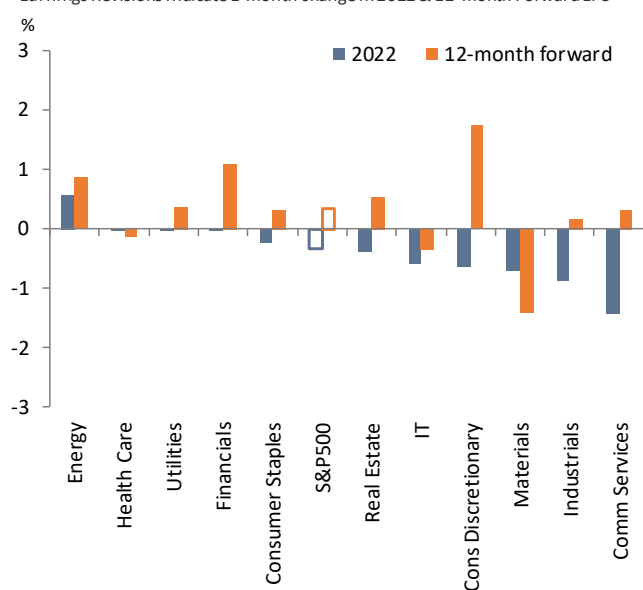
US Sectors Valuation

	Price (\$)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	16/9/22	% Weekly Change	%YTD	2022	2023	2022	2023	2022	2023	12m fwd	10Yr Avg	2022	2023	Current	10Yr Avg
S&P500	3873	-4.8	-18.7	7.9	8.3	1.7	1.8	17.4	16.1	16.5	17.3	3.7	3.4	3.5	3.0
Energy	596	-2.6	41.1	148.6	-13.2	3.5	3.2	7.6	8.8	8.5	15.7	2.2	2.0	2.0	1.7
Materials	457	-6.7	-19.8	15.4	-7.3	2.3	2.3	12.3	13.3	13.0	16.2	2.5	2.3	2.4	2.7
Financials															
Diversified Financials	909	-4.6	-16.9	-12.3	11.1	1.7	1.9	15.0	13.5	13.9	15.0	1.8	1.7	1.7	1.6
Banks	330	-2.9	-21.0	-16.5	16.3	3.1	3.4	10.2	8.8	9.2	11.5	1.1	1.0	1.0	1.1
Insurance	543	-3.5	-1.5	-2.5	16.1	2.1	2.3	13.9	12.0	12.5	11.8	1.9	1.7	1.7	1.3
Real Estate	251	-6.5	-22.6	10.6	6.7	3.3	3.5	18.2	17.1	17.4	18.8	3.1	3.2	3.2	3.3
Industrials															
Capital Goods	759	-5.6	-14.8	18.2	18.1	1.9	2.1	18.3	15.5	16.3	17.3	4.2	3.8	3.9	4.0
Transportation	896	-9.7	-20.6	119.6	18.0	2.0	2.2	15.4	13.1	N/A	14.0	5.1	4.3	4.5	4.2
Commercial Services	479	-4.0	-11.9	9.8	10.3	1.2	1.3	25.9	23.4	24.1	21.8	5.9	5.3	5.5	4.1
Consumer Discretionary															
Retailing	3161	-6.5	-25.2	-36.6	52.4	0.8	0.8	40.0	26.3	30.3	27.5	11.2	9.0	9.6	9.2
Consumer Services	1247	-1.7	-17.5	2545.9	123.9	1.2	1.3	48.9	21.9	N/A	29.2	46.2	33.0	N/A	11.0
Consumer Durables	339	-6.2	-36.5	11.9	-3.6	1.9	2.0	10.6	11.0	10.9	16.9	2.6	2.3	2.4	3.3
Automobiles and parts	164	0.4	-17.7	27.8	17.7	0.2	0.2	33.6	28.5	N/A	15.9	6.3	5.3	5.6	2.8
IT															
Technology	2807	-4.4	-17.7	6.7	5.1	0.9	0.9	21.4	20.4	20.7	15.7	15.4	13.3	13.9	6.9
Software & Services	2863	-7.3	-26.5	11.9	13.6	1.0	1.1	24.2	21.3	22.1	21.6	7.6	6.4	6.7	6.3
Semiconductors	1642	-6.0	-37.6	1.9	5.5	1.7	1.8	15.4	14.6	14.8	15.5	4.1	3.8	3.9	3.9
Communication Services	176	-6.4	-34.2	-11.6	16.4	1.0	1.0	16.6	14.2	14.9	19.1	2.8	2.5	2.6	3.2
Media	682	-7.0	-37.1	-10.5	18.2	0.3	0.4	18.5	15.7	16.5	22.6	3.3	2.9	3.0	3.7
Consumer Staples															
Food & Staples Retailing	631	-5.0	-9.9	1.4	8.2	1.6	1.6	22.2	20.5	21.0	18.5	4.7	4.3	4.4	3.7
Food Beverage & Tobacco	805	-3.6	-1.4	3.2	6.1	3.2	3.4	18.9	17.9	18.2	18.5	5.0	4.6	4.7	5.0
Household Goods	800	-2.4	-18.0	-1.3	7.0	2.5	2.6	24.6	23.0	23.5	21.6	9.5	9.0	9.2	6.9
Health Care															
Pharmaceuticals	1183	-2.2	-8.9	4.9	-5.5	2.0	2.1	14.0	14.8	14.6	15.4	5.0	4.5	4.6	4.4
Healthcare Equipment	1780	-2.6	-11.1	3.3	7.8	1.2	1.3	19.0	17.7	18.1	16.9	3.8	3.4	3.5	3.0
Utilities	376	-3.8	3.4	4.8	4.9	2.9	3.0	20.9	19.9	20.2	17.3	2.3	2.2	2.2	1.8

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 2022 & 12-month Forward EPS

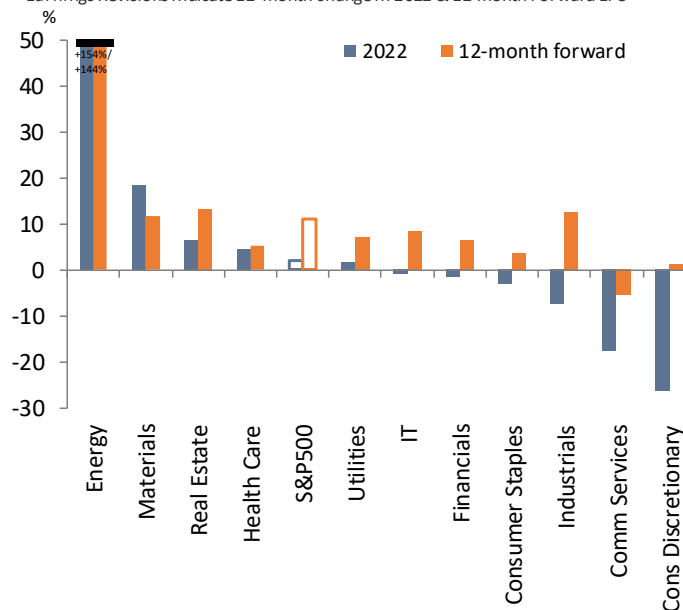
Earnings Revisions indicate 1-month change in 2022 & 12-month Forward EPS



Data as of September 16th
12-month forward EPS are 29% of 2022 EPS and 71% of 2023 EPS

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

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



Data as of September 16th
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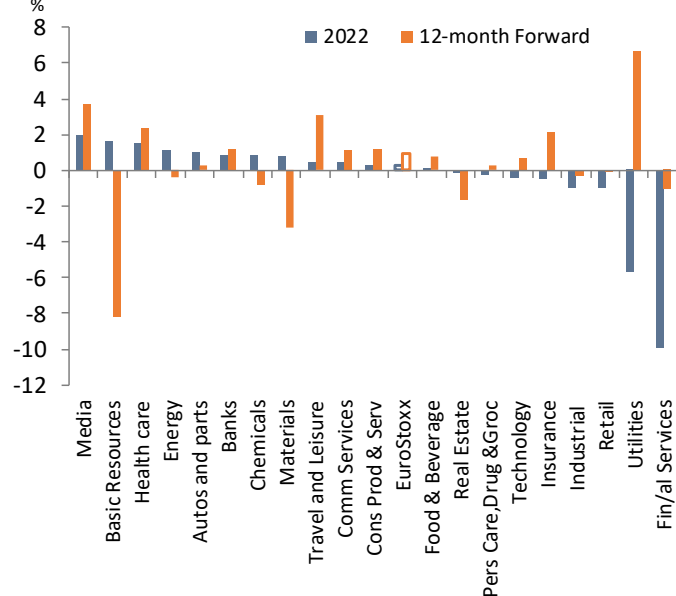
Euro Area Sectors Valuation

	Price (€)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	16/9/22	% Weekly Change	%YTD	2022	2023	2022	2023	2022	2023	12m fwd	10Yr Avg	2022	2023	Current	10Yr Avg
EuroStoxx	386	-2.4	-19.4	13.2	5.9	3.5	3.7	12.1	11.4	11.6	14.6	1.5	1.4	1.4	1.5
Energy	299	-2.5	3.5	131.4	-19.9	5.3	5.4	4.5	5.6	5.3	13.0	1.1	0.9	1.0	1.2
Materials	857	-2.7	-17.8	14.6	-25.1	3.5	3.4	9.4	12.6	11.6	15.7	1.5	1.4	1.4	1.7
Basic Resources	216	-0.1	-13.1	12.3	-50.6	3.4	3.6	3.5	7.1	6.1	9.9	0.6	0.5	0.6	0.8
Chemicals	1239	-3.0	-18.4	17.9	-10.8	3.5	3.3	12.7	14.2	13.8	16.8	1.9	1.8	1.9	2.2
Financials															
Banks	86	2.9	-14.0	6.4	4.2	6.7	7.2	6.9	6.6	6.7	9.9	0.6	0.5	0.5	0.7
Insurance	279	1.6	-8.7	-5.3	22.1	6.0	6.4	9.8	8.0	8.5	9.7	1.0	0.9	1.0	0.9
Financial Services	492	-0.7	-15.0	19.5	-5.4	3.2	3.3	11.3	11.9	11.8	14.7	1.3	1.4	1.4	1.2
Real Estate	141	-4.4	-36.8	6.4	3.1	6.2	7.0	10.9	10.6	10.7	17.0	0.5	0.5	0.5	1.0
Industrials															
Industrial Goods & Services	865	-4.8	-26.1	16.7	14.5	2.6	3.0	16.0	14.0	14.6	17.4	2.3	2.0	2.1	2.6
Construction & Materials	445	-3.0	-18.1	-5.1	3.8	4.0	4.2	11.3	10.9	11.0	14.9	1.5	1.4	1.4	1.5
Consumer Discretionary															
Retail	434	2.0	-37.3	-5.3	7.9	4.8	5.2	18.3	17.0	17.4	26.1	3.6	3.5	3.5	5.6
Automobiles and parts	501	0.6	-20.6	7.0	-2.6	6.5	6.1	5.0	5.2	5.1	8.0	0.7	0.7	0.7	1.0
Travel and Leisure	169	-1.5	-12.9	N/A	57.6	1.1	1.3	24.6	15.6	N/A	N/A	2.1	1.9	2.0	2.2
Consumer Products & Services	410	-3.3	-22.3	9.7	13.6	1.7	1.9	26.1	23.0	23.9	24.8	5.6	4.9	5.1	4.1
Media	241	-2.0	-15.5	17.6	15.3	2.7	2.9	18.2	15.8	16.5	17.7	2.5	2.3	2.4	2.2
Technology	669	-5.7	-31.9	-1.6	24.6	1.2	1.3	22.4	18.0	19.2	21.5	3.1	2.8	2.9	3.6
Consumer Staples															
Food, Beverage & Tobacco	163	-2.5	-15.1	16.8	10.0	1.9	2.3	18.0	16.3	16.8	20.1	2.0	1.8	1.9	2.6
Personal Care, Drug & Grocery	173	-1.1	-13.9	1.4	7.9	2.5	2.7	16.1	14.9	15.2	17.6	2.3	2.2	2.2	2.3
Health care	755	-3.0	-19.1	9.8	6.8	2.5	2.7	14.7	13.8	14.0	16.7	1.9	1.8	1.8	2.3
Communication Services	276	-3.9	-4.2	22.4	9.6	4.1	4.4	14.8	13.5	13.9	15.3	1.4	1.4	1.4	1.7
Utilities	342	-1.2	-13.1	-54.3	126.4	4.6	5.1	27.6	12.2	16.7	14.0	1.6	1.5	1.6	1.2

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 2022 & 12-month Forward EPS

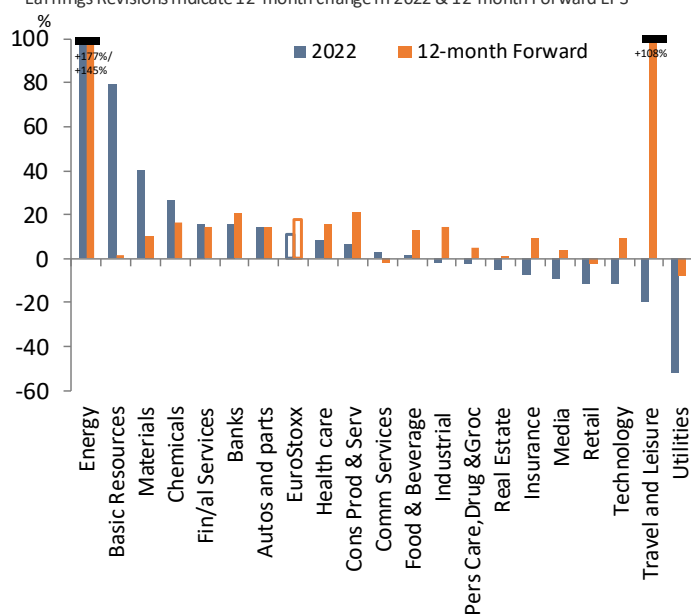
Earnings Revisions indicate 1-month change in 2022 & 12-month Forward EPS



Data as of September 16th
12-month forward EPS are 29% of 2022 EPS and 71% of 2023 EPS

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

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



Data as of September 16th
12-month forward EPS are 29% of 2022 EPS and 71% of 2023 EPS

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