

The Bank of England will carry out unlimited UK Government bond purchases, with British Pound remaining under pressure due to large unfunded tax cut plans

- Gilt yields have surged and the British pound has depreciated sharply, in order to compensate for the higher United Kingdom's policy premium, as the unfunded fiscal easing leads to balance of payments concerns (see graph below).
- In an emergency decision (Wednesday 28th), however, the Bank of England announced that will purchase long-dated UK government bonds from September 28th to October 14th, on whatever scale is necessary, in order to restore orderly market conditions in UK financial assets. Gilt yields initially declined following the announcement (see intra-day graph below), albeit in the medium-term, the decision reveals the risk of fiscal dominance.
- The Bank of England has postponed, but not cancelled, the beginning of gilt sale operations that were due to commence next week. The Bank of England, on Thursday 22nd, has announced the reduction of gilt holdings by £80bn in the next 12 months, to £758bn (31% of GDP), including via sales. Since March 2022, a reduction by £37 bn has taken place, solely via non-reinvestment of maturing assets (passive quantitative tightening).
- The Bank of England may need to increase its policy rate significantly higher than expected, in order to offset higher inflation risks emanating from fiscal expansion and GBP's rapid depreciation. Investors' pricing based on sterling overnight index swap rates suggests a Bank Rate of 6% one-year ahead, versus 4.6% a week ago (see graph page 3, dot lines). The BoE has increased its policy interest rate by +50 bps to 2.25% in the past week (Fed: +75 bps, ECB: +75 bps)
- On Friday 23rd, a new fiscal package was announced (Growth Plan) which includes broad based reductions and cancellations of planned increases in taxes and social contributions. Estimates from UK's HM Treasury place the overall cost at £161bn (6.6% of GDP) over the next 5 years.
- The latest package comes on top of the one announced earlier in the month (Energy Price Guarantee) to alleviate households' and corporations' burden from high energy bills, with the HM Treasury foreseeing a £60bn cost in fiscal year 2022/23 alone (April 2022 to March 2023). Independent estimates for the full life period of the package, through fiscal year 2024/25, place the total at c. £150bn (or 6% of GDP).
- The HM Treasury has already revised up the Net Financing Requirement (NFR) in fiscal year 2022-23, from £162bn in April 2022 to £234.1 bn, to be financed by additional government bond (gilt) sales of £62bn and net Treasury bill sales for debt management purposes of £10bn. Note that UK net debt as percent of GDP was expected, before the latest fiscal expansion, to hover around 96% of GDP in fiscal year 2022/23 and 94% in fiscal year 2023/24, from 81% before the pandemic.
- UK Government bond yields have increased sharply by 101 bps since September 22nd to 4.51%, a 14-year high, in view of expectations for significantly higher government borrowing, while their short-term peers (2Y) have surged by 112 bps to 4.65%. At the same time, an acute depreciation of the British Pound took place, briefly hitting intra-day a record low of GBP/USD 1.04 on September 26th, before partly recovering towards GBP/USD 1.08 (-7% MtD and -20% YtD).

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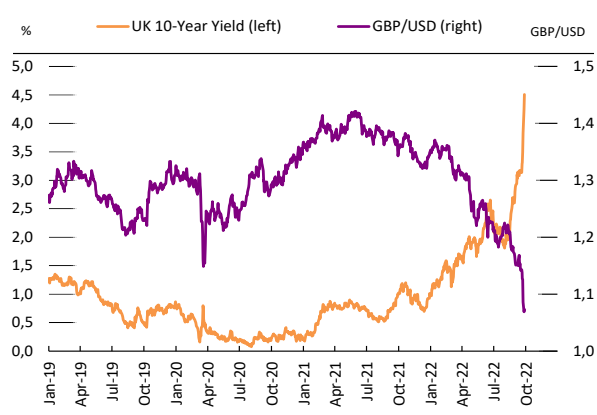
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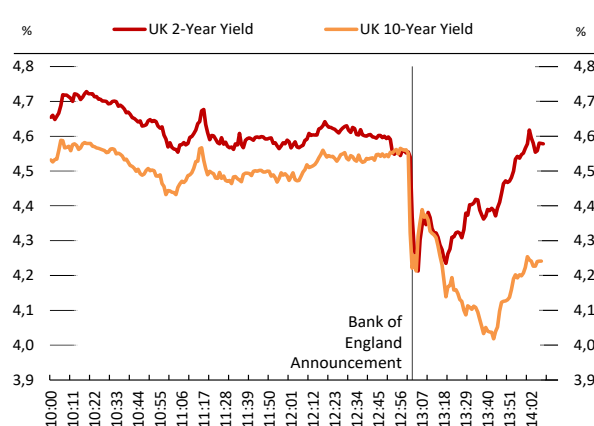
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Charts of the week

UK 10-Year Government Bond Yield & GBP/USD



UK Government Bond Yields Intraday Movement September 28



The Fed revised substantially down its projections for GDP and (modestly) up for inflation

- **The 19 participants in the Federal Open Market Committee (FOMC) lowered their anticipated trajectory for GDP compared with three months ago**, on account, *inter alia*, of lower real disposable incomes (in view of elevated inflation – see below) and tighter financial conditions (including due to higher interest rates), while also taking into account the economic activity slowdown in recent months. In all, the median estimate for 2022 GDP growth (Q4/Q4) was revised down by 1.5 pps to +0.2% yoy. Further ahead, the FOMC participants' projections were also brought down for Q4:23 (by 0.5 pps to +1.2% yoy) and for Q4:24 (-0.2 pps to +1.7% yoy), while the newly introduced estimate for Q4:25 stood at 1.8% yoy, matching the longer-run projection stable versus 3 months ago.
- The weaker path for GDP came alongside higher projections for the unemployment rate, albeit that development continues to be viewed by the FOMC members as constructive in the context of restoring the demand/supply balance (both in the labor market and the broader economy), hence safeguarding the long term health of the labor market. Regarding the latter, recall that the Fed continued to characterize it as “extremely tight”, highlighting, *inter alia*, the low unemployment rate (3.7% in August, near a 50-year low of 3.5%), particularly elevated job vacancies (the vacancy rate - i.e. the ratio of job openings to the number of unemployed excluding those on temporary layoff, stood at a record – since 2000 – high of 2.3x in July). In all, the projections for the unemployment rate were revised upwards by 0.1 pp to 3.8% on average in Q4:22, by 0.5 pps to 4.4% in Q4:23 and by 0.3 pps to 4.4% in Q4:24, while the newly introduced estimate for Q4:25 came out at 4.3%. At the same time, the longer-run estimate was maintained at 4.0%.
- **On inflation, the FOMC maintained the outlook for sharp price pressures, proceeding with (relatively more modest) upward revisions.** Indeed, headline PCE inflation is now anticipated at 5.4% yoy in 2022, 2.8% yoy in 2023 and at +2.3% yoy in 2024 (Q4 average, up by 0.2 pps, 0.2 pp and 0.1 pp, respectively, compared with June's projections). The respective estimate for Q4:25 was introduced at 2.0%, pointing to a return to the target and matching the longer-run projection (which was not altered). In a similar note, core PCE growth is now anticipated at +4.5% yoy in 2022 (Q4 average) versus +4.3% yoy previously, while the respective estimate for 2023 was revised up by 0.4 pps to +3.1% yoy and for 2024 it was left unchanged at +2.3% yoy (at 2.1% yoy for 2025). Notably, participants continue to view the balance of risks to inflation as tilted to the upside.
- **The aforementioned macroeconomic outlook is conditioned on the Fed proceeding much more aggressively with hikes in the Federal Funds Rate (FFR), including the one undertaken in the last meeting (+75 bps to a target range of 3.0% - 3.25% |** with the longer-term FFR estimate from FOMC participants ranging from 2.3% to 3.0%, the aforementioned level suggests that monetary policy has now entered restrictive territory). In the event, the median of FOMC participants' respective assumptions, points to 4.4% by end-2022 (suggesting cumulative increases of 125 bps in the next two meetings) instead of 3.4% previously, 4.6% instead of 3.8% for end-2023, while a (notably gradual) move towards “neutrality” is anticipated to start later on (3.9% for end-2024 versus June's assumption for 3.4% and 2.9% in end-2025, while the longer-run estimate was maintained at 2.5%).

Euro area PMIs went deeper into contractionary territory in September

- **The composite PMI decreased to 48.2 in September (a 20-month low | the lowest since May 2013 excluding pandemic-related lockdown periods), from 48.9 in August, in line with consensus expectations.** Demand headwinds from the rising cost of living and an increasing pessimism for economic prospects intensified. In the event, the new orders component (relatively more forward looking and particularly indicative of demand conditions), was substantially below the expansion/contraction threshold of 50.0 across the board, dropping at its lowest since April 2013 excluding lockdown periods (at the composite level). The aforementioned factors alongside higher interest rates as well as production hindrances due to soaring energy prices and some remaining supply chain shortages, were the main contributors to the decline in the composite PMI, which was broad based sector-wise. In the event, the services PMI was down by 0.9 pts to 48.9, with an output decrease particularly in travel, tourism, recreation, real estate and insurance. In a similar note, the manufacturing PMI fell by 1.1 pt to 48.5 with the output component (which is incorporated in the calculation of the headline composite index), continuing to under-perform (-0.3 pts to 46.2).
- **Regarding PMI performance by country, France over-performed Germany and the rest of the euro area** (where the composite PMI fell below 50 for the first time since February 2021 according to S&P Global). In France, the composite PMI rose by 0.8 pts to 51.2 in September, with an improvement in the services PMI (+1.8 pts to 53.0), more than offsetting a decrease in its manufacturing peer (-2.8 pts to 47.8, with the output component at 43.4). Meanwhile INSEE's (France's official statistics office) composite business climate indicator lost 1.4 points, at 102.1 (still above an average of 100 since 1990).
- **Germany's composite PMI fell by 1.0 pt to 45.9 in September.** Sector-wise, the deterioration was broad based (manufacturing: -0.8 pts to 48.3 | services: -2.3 pts to 45.4). Moreover, the IFO business survey deteriorated substantially further, with the business climate index down by 4.3 pts to 84.3, versus consensus estimates for 87.0 (average of 96.8 since 2005). The component regarding the assessment of current conditions declined by 3.0 pts to 94.5. The expectations component (expectations for business conditions in the next six months) fell by 5.3 pts to 75.2. The sharp deterioration was evident across sectors (manufacturing, services, retail trade, construction), with energy-intensive segments and hospitality being particularly pessimistic according to IFO.
- **Recall that demand challenges stemming from the rising cost of living are also evident in consumer surveys.** In the event, DG ECFIN's consumer confidence indicator was -28.8 in September from -25.0 in August, a record (since 1985) low and far below an average of -11.6 since 2001 (consensus: -25.8).

UK PMIs in September suggest a decline in activity across sectors

- **PMIs posted mixed changes in September.** Specifically, the PMI in the dominant services sector (c. 80% of UK GDP) fell by 1.7 pts to 49.2, undershooting consensus estimates for 50.0. At the same time, the manufacturing PMI rose by 1.2 pts to 48.5 (consensus: 47.5), with the output component continuing to under-perform (+1.7 pts to 44.4). Overall, the composite index fell by 1.2 pts to 48.4, with the negative effects from higher costs and a deteriorated economic outlook, being a key theme.

Equities

- Global equity markets were deep in the red in the past week, mainly in view of central banks' hawkishness (alongside pessimism for the economic outlook), with intensified geopolitical uncertainty (mostly due to concerns of further escalation in the Ukraine war) also weighing.** Overall, the MSCI ACWI ended the week down by 5.0% (-25% ytd), with Developed markets (-5.1% wow | -25% ytd) underperforming their Emerging Markets peers (-4.1% wow | -27% ytd). The S&P500 fell by 4.6% wow (-23% ytd), posting its 5th week with losses out of the past 6 (and with >3% weekly losses in 4 of them). Regarding sectors, Automobiles & Components underperformed (-9.8% wow), with Ford Motor Company shedding 16.4% wow, after the company announced that it expects to incur an extra \$1 bn in inflation-related supplier costs in Q3:22 and cited a higher than planned number of unfinished vehicles due to supply chain issues. On the other side of the Atlantic, the Eurostoxx fell by 4.6% (-23% ytd), with Real Estate continuing to lead the decline (-11.7% wow | -44%) as the sector is particularly weighed by the higher interest rate environment. Losses continued on Monday September 26th (S&P500: -1.0% | EuroStoxx: -0.2%). Italian bourses had a measured reaction to the results of the country's general elections (FTSE MIB: +0.7% on Monday). Finally, Russian bourses underperformed (MOEX: -14.2% wow) following, *inter alia*, the decision for partial mobilization in Russia and moves towards annexing occupied Ukrainian regions.

Fixed Income

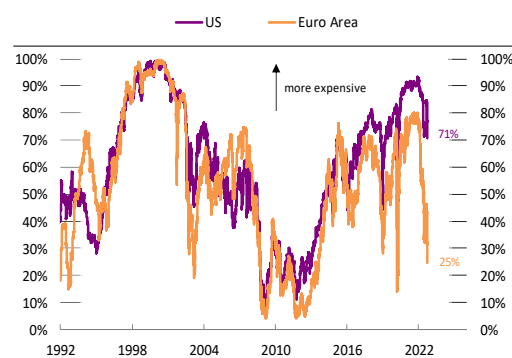
- Government bond yields rose in the past week, in view of broad based (and in some cases sharper than expected) interest rate hikes by major central banks and stronger expectations for restrictive monetary policies being established for longer.** Specifically, the US Treasury 10-year yield ended the week up by 24 bps and rose further by 18 bps on Monday to 3.88% (a 12-year high). At the same time, with the 2-year yield increasing by 35 bps wow and by 11 bps on Monday to 4.43% (a 15-year high), the 10/2 spread reached -55 bps (-62 bps on Friday, the lowest since April 1982). In Germany, the 10-Year yield rose by 25 bps wow and by further 9 bps on Monday to 2.08% (a 10-year high), while its UK Gilt peer surged by 64 bps wow and 42 on Monday to 4.18% (a 12-year high), in view also of fiscal loosening (and consequently of expectations for higher government borrowing). In Italy, the 10-year yield increased by 24 bps in the past week and its 2-year peer by 36 bps, with a further rise on Monday (by 21 bps and 17 bps to 4.48% and 3.12%, respectively, the latter being a 10-year high). **Corporate bond spreads widened in the US High Yield (HY) spectrum, in account of weak risk appetite.** In the event, US HY spreads rose by 12 bps to 512 bps and their euro area counterparts by 7 bps to 555 bps. In the Investment Grade spectrum, both spreads were up by 3 bps wow to 151 bps (USD) and 198 bps (EUR).

FX and Commodities

- In foreign exchange markets, the Bank of Japan stood pat on September 22nd (short-term policy rate: -0.1%, yield curve control), leaving the BoJ as the sole central bank among its peers, maintaining negative rate policy.** Governor Kuroda's comments in the press conference suggested no intention to meaningfully alter the monetary policy. The large monetary policy divergence with other major central banks, has led to a sharp depreciation of the Yen. The pair reached intra-week a 24-year low, prompting an intervention from Japan's Ministry of Finance to support the Yen, for the first time in 24 years, offering little respite (¥144.74 | -26% year-to-date).

In commodities, oil prices declined on demand concerns. Specifically, the WTI was down by 7.5% wow and further by 2.6% on Monday September 26th to \$76.7/barrel (+8% ytd) and the Brent by 5.7% wow and further by 2.4% on Monday to \$84.1/barrel (+8% ytd). Finally, precious metals fell in view, *inter alia*, of a stronger USD, with gold prices down by 1.7% in the past week and further by 1.3% on Monday to \$1622/oz, its lowest level since April 2020.

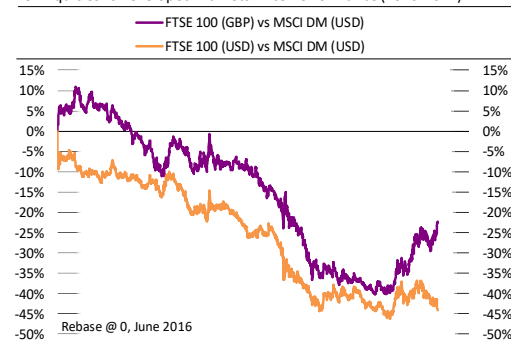
Equities: Valuation metrics (current print vs long-term averages)



Source: NBG Research, The graph presents the average percentile of 12-month forward P/E and Price/Book Value.

Graph 1.

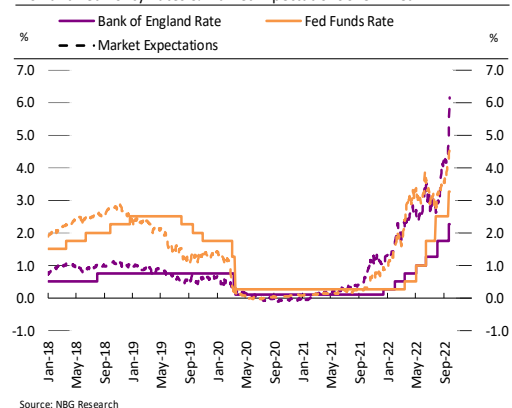
UK Equities vs Developed Markets Price Performance (2016-2022)



Source: NBG Research

Graph 2.

BoE and Fed Policy Rates & Market Expectations over 1 Year



Source: NBG Research

Graph 3.

Quote of the week: "Restoring price stability will likely require maintaining a restrictive policy stance for some time", **Fed Chair, Jerome Powell, September 21st 2022.**

Interest Rates & Foreign Exchange Forecasts

10-Yr Gov. Bond Yield (%)	September 23rd	3-month	6-month	12-month	Official Rate (%)	September 23rd	3-month	6-month	12-month
Germany	2.00	2.15	2.25	2.25	Euro area	0.75	2.00	2.25	2.25
US	3.69	4.00	4.10	4.10	US	3.25	4.50	4.50	4.50
UK	3.77	2.61	2.65	2.58	UK	2.25	3.40	4.00	4.05
Japan	0.24	0.22	0.23	0.31	Japan	-0.10	-0.10	-0.10	-0.10

Currency	September 23rd	3-month	6-month	12-month	September 23rd	3-month	6-month	12-month	
EUR/USD	0.97	1.02	1.05	1.10	USD/JPY	143	143	138	134
EUR/GBP	0.89	0.87	0.88	0.88	GBP/USD	1.09	1.17	1.20	1.25
EUR/JPY	139	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

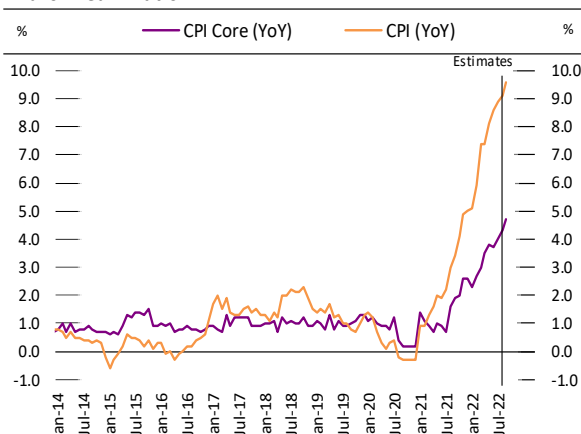
	US	Euro Area	Japan	UK
Equity Markets	<ul style="list-style-type: none"> + Households' balance sheets are healthy + Service-oriented sectors are re-opening + Sentiment (e.g. AAI) and positioning indicators are hitting extreme lows - Peaking profit margins - Recession risks are increasing - P/Es (Valuations) still remain above l-t means, despite the recent correction 	<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 	<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 	<ul style="list-style-type: none"> + Significant exposure to commodities + Undemanding valuations in relative terms relative to other regions - Elevated domestic policy uncertainty
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 	<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 	<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% 	<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
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 	<ul style="list-style-type: none"> + Current account surplus - Still negative interest rates - Global growth risks remain to the downside 	<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% 	<ul style="list-style-type: none"> + Valuations appear undemanding with REER below its 15-year average - Sizeable Current account deficit
	<ul style="list-style-type: none"> ● Broadly Flat USD against G10 FX 	<ul style="list-style-type: none"> ● Broadly Flat/Stronger EUR against the USD 	<ul style="list-style-type: none"> ▲ Slightly higher JPY 	<ul style="list-style-type: none"> ● Broadly stable GBP expected

Economic Calendar

In the US, the main macro event next week is the final estimate of GDP for Q:22, which is released on Thursday. GDP growth is expected to be unchanged compared with the previous estimate at -0.6% qoq saar. On Friday, August's personal income and consumption along with PCE data (the Fed's preferred measure for gauging inflation developments) for August will gather investors' attention. On Monday, ISM Manufacturing survey (latest: 52.8 | consensus of 52.9) will provide an update on business confidence.

In the Euro area, attention turns to inflation data for September. CPI is expected at 9.6% yoy from 9.1% in the previous month, while the core figure is expected at 4.7% yoy from 4.3%. On Friday, the unemployment rate for August is released and is expected stable at 6.6%.

Euro Area Inflation



Source: NBG Research

Economic News Calendar for the period: September 20 - October 3, 2022

Tuesday 20					Wednesday 21					Thursday 22							
		S	A	P			S	A	P			S	A	P			
US					US					US							
Building permits (k)	August	1621	-	1517	1685	Fed announces its intervention rate	September 21	3.25%	3.25%	2.50%	Initial Jobless Claims (k)	September 17	220	+	213	208	
Housing starts (k)	August	1455	+	1575	1404	Existing home sales (mn)	August	4.70	+	4.80	4.82	Continuing Claims (k)	September 10	1400	+	1379	1401
JAPAN					JAPAN					UK							
CPI (YoY)	August	2.8%		3.0%	2.6%	BoE announces its intervention rate	September 22	2.25%	2.25%	1.75%	Bank of Japan announces its intervention rate	September 22	-0.10%	-0.10%	-0.10%		
Core CPI (YoY) - ex. Fresh Food	August	2.7%		2.8%	2.4%	EURO AREA					Consumer Confidence Indicator	September	-25.6	-	-28.8	-24.9	
Core CPI (YoY) - ex. Fresh Food and Energy	August	..		1.6%	1.2%												
Friday 23					Monday 26												
		S	A	P			S	A	P			S	A	P			
US					JAPAN												
S&P Global US Manufacturing PMI	September	51.2	+	51.8	51.5	PMI manufacturing	September	51.1	-	51.0	51.5						
UK					GERMANY												
S&P Global / CIPS UK PMI	September	46.9	+	48.5	47.3	IFO - Business Climate Indicator	September	87.0	-	84.3	88.6						
Manufacturing SA	September	49.0	-	48.9	49.8	IFO-Expectations	September	79.0	-	75.2	80.5						
S&P Global / CIPS UK Services PMI	September	50.0	-	49.2	50.9	IFO- Current Assessment	September	95.8	-	94.5	97.5						
EURO AREA																	
S&P Global Eurozone Manufacturing PMI	September	48.7	-	48.5	49.6												
S&P Global Eurozone Services PMI	September	49.0	-	48.9	49.8												
S&P Global Eurozone Composite PMI	September	48.2	-	48.2	48.9												
Tuesday 27					Wednesday 28					Thursday 29							
		S	A	P			S	A	P			S	A	P			
US					US					US							
S&P Case/Shiller house price index 20 (YoY)	July	17.3%	..	18.6%	Pending home sales (MoM)	August	-1.8%	..	-1.0%	GDP (QoQ, annualized)	Q2:22	-0.6%	..	-0.6%			
Conference board consumer confidence	September	104.0	..	103.2						Initial Jobless Claims (k)	September 24	217	..	213			
Durable goods orders (MoM)	August	-0.3%	..	-0.1%						Continuing Claims (k)	September 19	1403	..	1379			
Durable goods orders ex transportation (MoM)	August	0.2%	..	0.2%						UK							
New home sales (k)	August	495	..	511						Nationwide House Px NSA YoY	September	..	..	10.0%	
EURO AREA										EURO AREA							
M3 money supply (YoY)	August	5.4%	..	5.5%						Business Climate Indicator	September	0.7	..	0.8			
Friday 30					Monday 03												
		S	A	P			S	A	P			S	A	P			
US					EURO AREA					US							
PCE Deflator (YoY)	August	6.0%	..	6.3%	Unemployment Rate	August	6.6%	..	6.6%	ISM Manufacturing	September	52.9	..	52.8			
PCE Core Deflator (YoY)	August	4.7%	..	4.6%	CPI estimate (YoY)	September	9.6%	..	9.1%	Construction spending	August	0.0%	..	-0.4%			
Personal income (MoM)	August	0.3%	..	0.2%	Core CPI (YoY)	September	4.7%	..	4.3%	JAPAN							
Personal spending (MoM)	August	0.3%	..	0.1%	CHINA					Tankan - large manufacturers current index	Q3:22	..	..	9	
UK					Manufacturing PMI					September	49.7	..	49.4				
GDP (QoQ)	Q2:22	-0.1%	..	-0.1%	Caixin PMI Manufacturing	September	49.4	..	49.5	Tankan - large manufacturers outlook index							
GDP (YoY)	Q2:22	2.9%	..	2.9%						Q3:22	10				
JAPAN																	
Industrial Production (MoM)	August	0.2%	..	0.8%													
Industrial Production (YoY)	August	1.0%	..	-2.0%													
Retail sales (MoM)	August	..	..	0.7%											
Retail sales (YoY)	August	2.7%	..	2.4%													
Construction Orders YoY	August	..	..	2.8%											
Unemployment rate	August	2.5%	..	2.6%													

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	3693	-4.6	-22.5	-17.0	14.1	MSCI Emerging Markets	55763	-3.2	-20.4	-22.2	-9.6
Japan	NIKKEI 225	27154	-1.5	-5.7	-8.4	16.3	MSCI Asia	843	-3.5	-21.2	-23.2	-12.8
UK	FTSE 100	7019	-3.0	-5.0	-0.8	19.0	China	59	-5.4	-29.0	-34.0	-38.9
Canada	S&P/TSX	18481	-4.7	-12.9	-9.7	16.8	Korea	686	-3.5	-24.7	-27.5	-5.7
Hong Kong	Hang Seng	17933	-4.4	-23.4	-26.8	-24.5	MSCI Latin America	89044	0.0	-3.5	-8.2	10.6
Euro area	EuroStoxx	368	-4.6	-23.1	-21.4	4.7	Brazil	306361	2.0	0.0	-9.3	1.9
Germany	DAX 40	12284	-3.6	-22.7	-21.5	-2.8	Mexico	42698	-2.5	-14.4	-10.4	28.9
France	CAC 40	5783	-4.8	-19.1	-13.7	20.4	MSCI Europe	2216	-3.8	-68.0	-69.1	-57.1
Italy	FTSE/MIB	21067	-4.7	-23.0	-19.2	11.3	Russia*	2090	-14.2	-44.8	-48.4	-28.3
Spain	IBEX-35	7584	-5.0	-13.0	-14.6	14.0	Turkey	3420866	-4.1	64.6	116.7	164.9

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		203.9	-8.9	16.9	24.9	94.1	Energy	219.3	-7.8	23.9	33.3	102.7
Materials		265.1	-5.7	-26.4	-21.6	-2.7	Materials	273.0	-4.2	-20.0	-13.9	5.5
Industrials		259.8	-5.0	-25.9	-24.3	-0.4	Industrials	277.4	-4.0	-20.0	-17.3	8.8
Consumer Discretionary		306.4	-6.8	-30.6	-27.0	-2.7	Consumer Discretionary	311.8	-6.3	-27.0	-22.6	3.5
Consumer Staples		248.8	-3.0	-15.2	-9.9	1.1	Consumer Staples	263.4	-1.9	-9.6	-3.2	7.7
Healthcare		307.5	-4.2	-16.8	-13.9	7.1	Healthcare	314.6	-3.6	-13.4	-9.9	11.9
Financials		117.0	-5.8	-21.7	-19.9	23.6	Financials	123.5	-4.8	-16.9	-14.4	30.6
IT		389.8	-3.9	-31.9	-27.1	3.8	IT	385.0	-3.7	-30.6	-25.4	6.3
Telecoms		68.6	-5.1	-35.8	-38.8	-13.5	Telecoms	74.1	-4.8	-33.7	-36.5	-10.2
Utilities		149.9	-4.0	-8.7	-2.4	9.2	Utilities	161.0	-3.1	-3.9	3.8	15.4

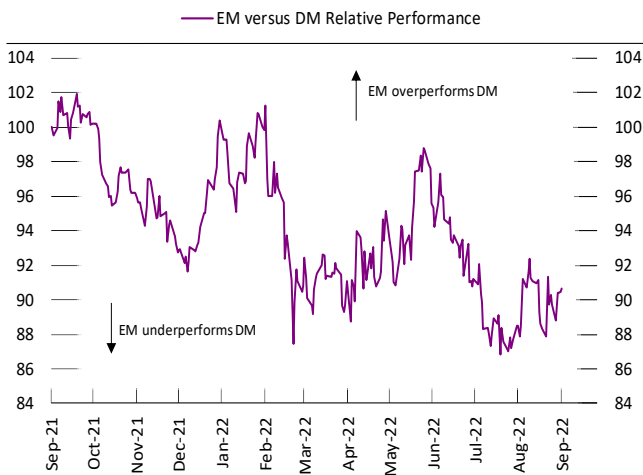
Bond Markets (%)

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	3.69	3.45	1.51	1.40	2.09	US Treasuries 10Y/2Y	-62	-52	78	111	102
Germany	2.00	1.74	-0.18	-0.27	0.44	US Treasuries 10Y/5Y	-29	-18	25	48	52
Japan	0.24	0.25	0.07	0.03	0.21	Bunds 10Y/2Y	11	20	46	42	82
UK	3.77	3.12	0.97	0.79	1.44	Bunds 10Y/5Y	2	9	28	32	56
Greece	4.55	4.27	1.32	0.76	5.70	Corporate Bond Spreads (in bps)					
Ireland	2.59	2.35	0.25	0.11	1.43						
Italy	4.27	4.04	1.17	0.71	2.21	EM Inv. Grade (IG)	164	167	139	133	191
Spain	3.13	2.90	0.57	0.36	1.77	EM High yield	788	766	618	592	623
Portugal	3.04	2.82	0.46	0.26	2.55	US IG	151	148	98	89	133
US Mortgage Market (1. Fixed-rate Mortgage)						US High yield	512	500	310	303	449
						30-Year FRM ¹ (%)	6.25	6.01	3.31	3.03	4.08	Euro area IG	198	195	98	84	118
vs 30Yr Treasury (bps)	259.1	243.1	138.9	108.4	134.4	Euro area High Yield	555	548	331	290	407

Foreign Exchange & Commodities

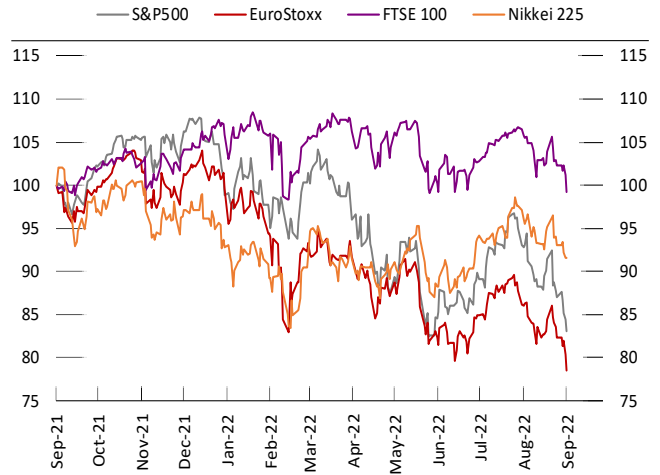
Foreign Exchange						Commodities					
	Current	1-week change (%)	1-month change (%)	1-Year change (%)	Year-to-Date change (%)		Current	1-week change (%)	1-month change (%)	1-Year change (%)	Year-to-Date change (%)
Euro-based cross rates						Agricultural	478	-0.1	0.5	16.4	7.4
EUR/USD	0.97	-3.2	-2.9	-17.4	-14.7	Energy	293	-5.4	-17.6	16.7	16.2
EUR/CHF	0.95	-1.3	-1.2	-12.1	-8.0	West Texas Oil (\$/bbl)	79	-7.5	-17.0	7.4	4.7
EUR/GBP	0.89	1.5	5.3	4.1	6.0	Crude Brent Oil (\$/bbl)	86	-5.7	-14.9	11.5	10.8
EUR/JPY	139.07	-3.0	1.8	7.5	6.2	HH Natural Gas (\$/mmbtu)	6.8	-15.8	-26.3	38.2	78.7
EUR/NOK	10.30	0.6	6.8	2.4	2.7	TTF Natural Gas (EUR/mwh)	185	-1.2	-36.5	166.2	163.7
EUR/SEK	10.93	1.5	3.4	7.9	6.2	Industrial Metals	402	-4.3	-7.9	-17.5	-19.5
EUR/AUD	1.48	-0.8	2.7	-7.7	-5.1	Precious Metals	2143	-1.7	-5.5	-6.5	-10.4
EUR/CAD	1.32	-1.0	1.7	-11.2	-8.2	Gold (\$)	1644	-1.7	-6.1	-5.7	-9.8
USD-based cross rates						Silver (\$)	19	-3.6	-1.5	-16.2	-18.6
USD/CAD	1.36	2.3	4.7	7.4	7.6	Baltic Dry Index	1816	16.9	49.7	-61.0	-18.1
USD/AUD	1.53	2.6	5.8	11.8	11.2	Baltic Dirty Tanker Index	1498	0.4	-2.9	144.0	90.6
USD/JPY	143.29	0.2	4.8	30.1	24.4						

EM vs DM Performance in \$



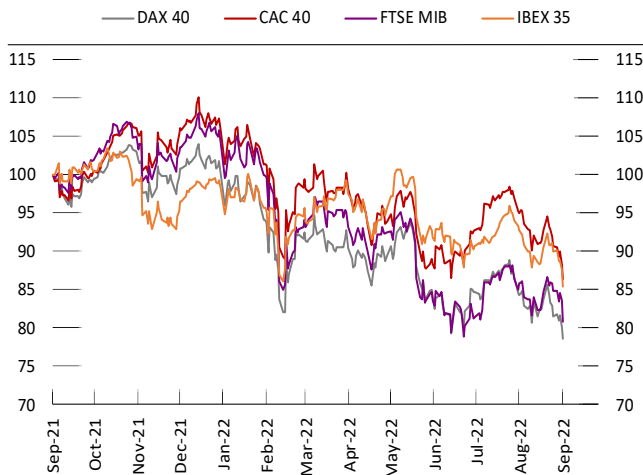
Data as of September 23rd – Rebased @ 100

Equity Market Performance - G4



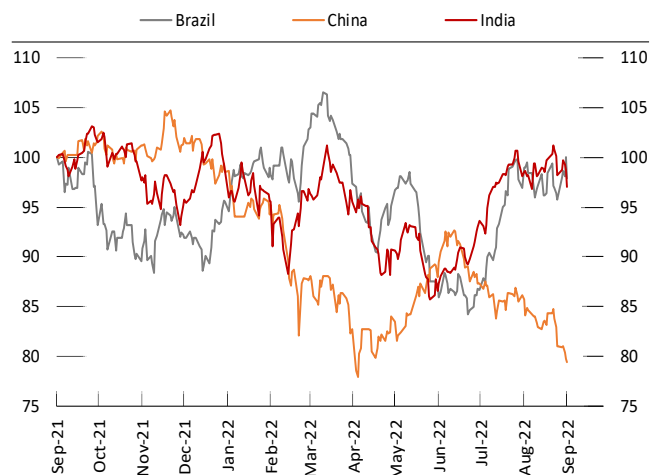
Data as of September 23rd – Rebased @ 100

Equity Market Performance – Euro Area G4



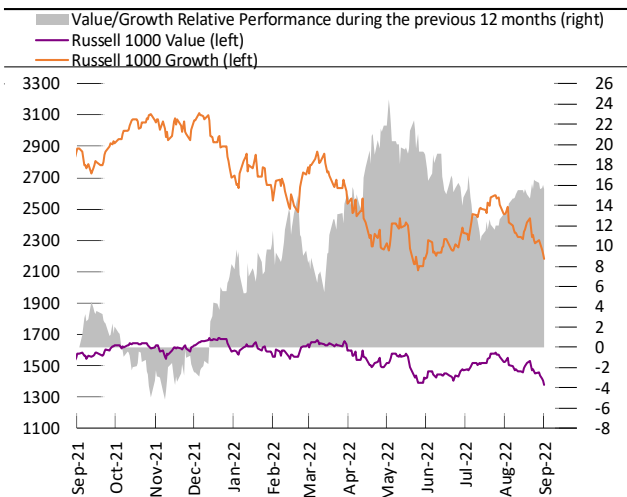
Data as of September 23rd – Rebased @ 100

Equity Market Performance – Emerging Markets



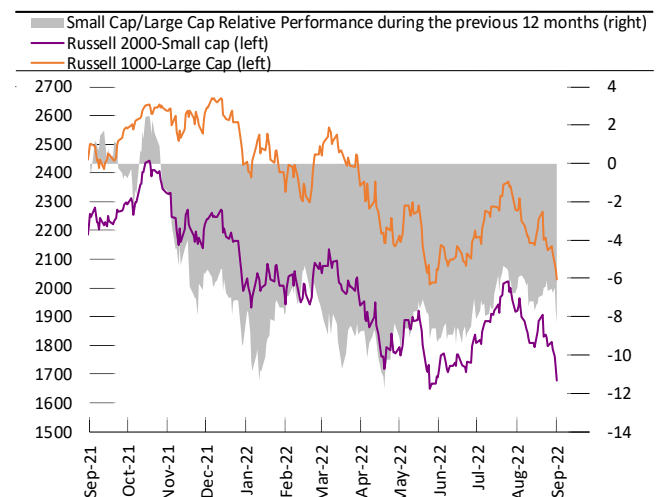
Data as of September 23rd – Rebased @ 100

Russell 1000 Value & Growth Index

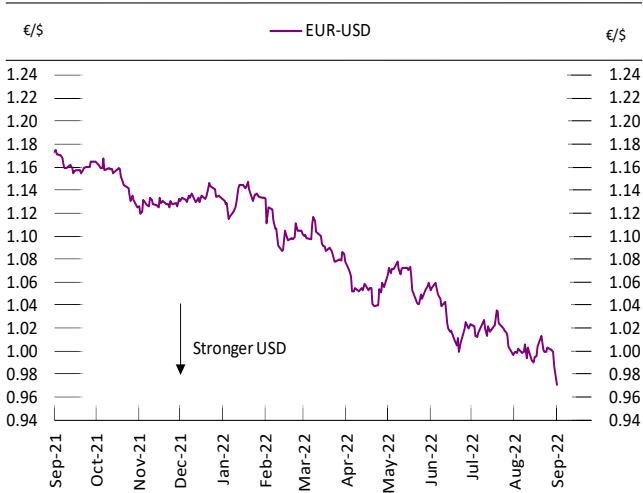
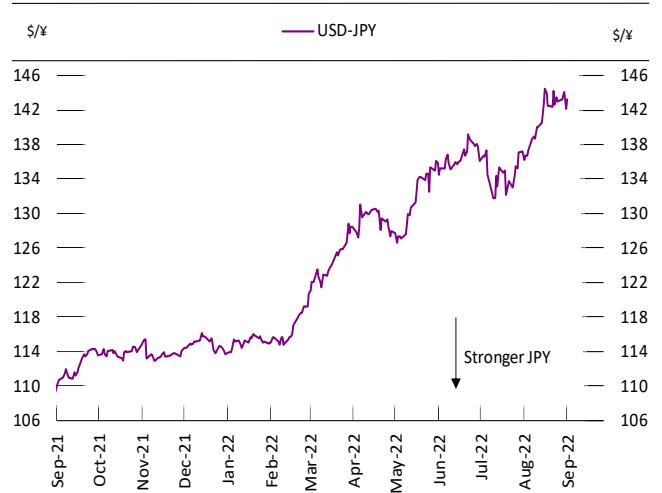
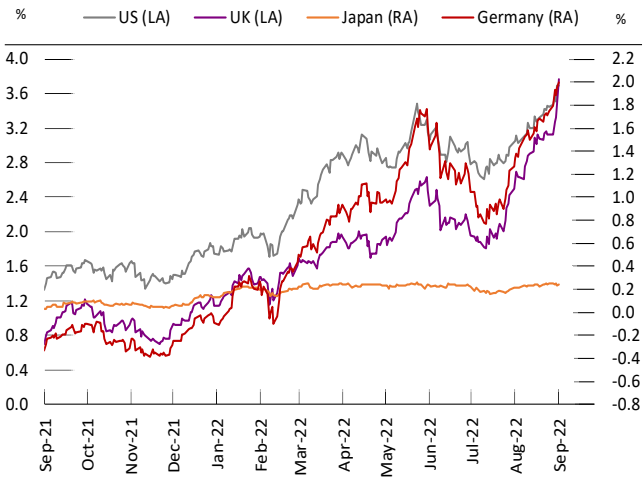


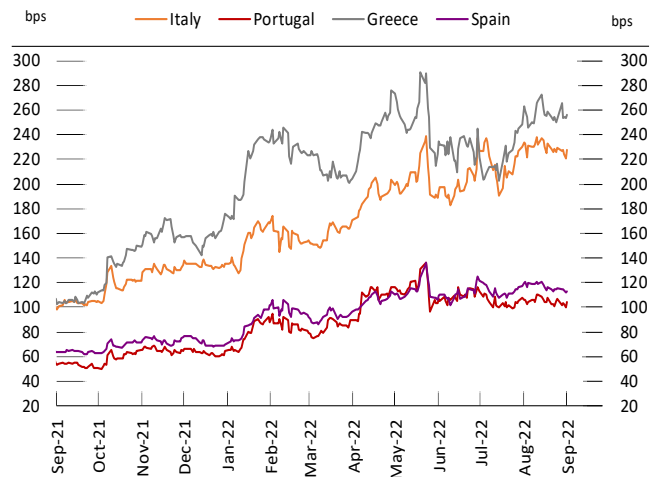
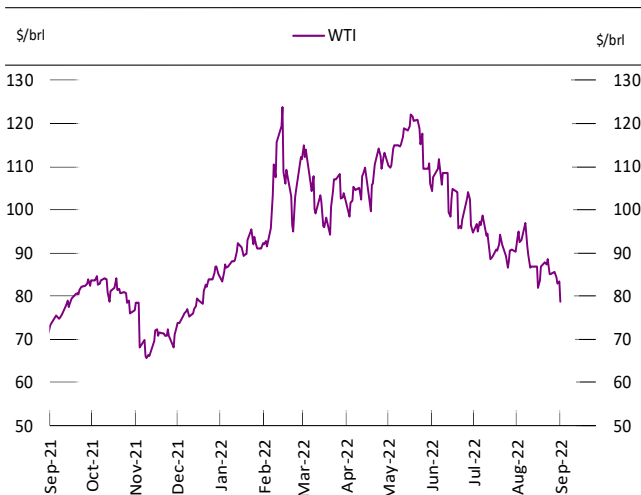
Data as of September 23rd

Russell 2000 & Russell 1000 Index



Data as of September 23rd

EUR/USD

 Data as of September 23rd
JPY/USD

 Data as of September 23rd
10- Year Government Bond Yields

 Data as of September 23rd
 LA:Left Axis RA:Right Axis

10- Year Government Bond Spreads

 Data as of September 23rd
West Texas Intermediate (\$/bbl)

 Data as of September 23rd
Gold (\$/ounce)

 Data as of September 23rd

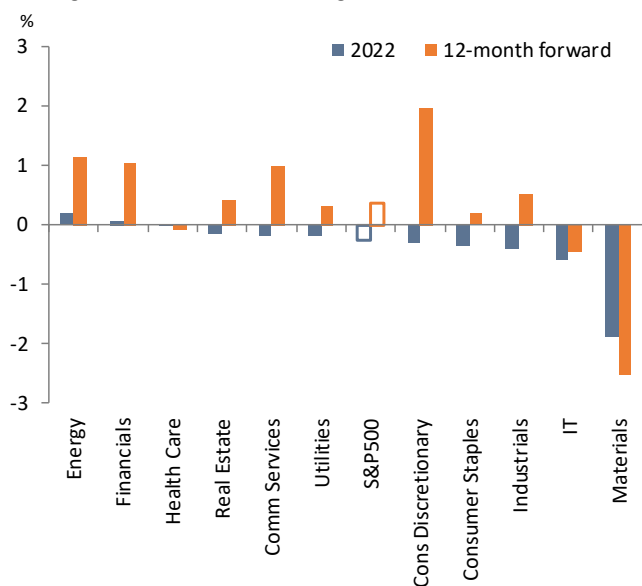
US Sectors Valuation

	Price (\$)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	23/9/22	% Weekly Change	%YTD	2022	2023	2022	2023	2022	2023	12m fwd	10Yr Avg	2022	2023	Current	10Yr Avg
S&P500	3693	-4.6	-22.5	7.8	8.3	1.8	1.9	16.6	15.4	15.7	17.3	3.6	3.2	3.3	3.0
Energy	543	-9.0	28.4	147.9	-12.5	3.9	3.5	7.0	8.0	7.7	15.7	2.0	1.8	1.8	1.7
Materials	431	-5.7	-24.4	14.0	-7.4	2.4	2.5	11.7	12.7	12.4	16.2	2.4	2.2	2.3	2.7
Financials															
Diversified Financials	861	-5.3	-21.3	-12.0	11.0	1.8	2.0	14.2	12.8	13.2	15.0	1.7	1.6	1.6	1.6
Banks	308	-6.9	-26.5	-16.5	16.2	3.4	3.6	9.5	8.2	8.5	11.5	1.0	0.9	1.0	1.1
Insurance	521	-3.9	-5.3	-2.5	16.1	2.2	2.4	13.3	11.5	12.0	11.8	1.8	1.6	1.7	1.3
Real Estate	235	-6.4	-27.6	10.8	6.3	3.5	3.7	17.0	16.0	16.3	18.8	2.9	2.9	2.9	3.3
Industrials															
Capital Goods	726	-4.3	-18.5	18.1	18.1	2.0	2.2	17.6	14.9	15.6	17.3	4.0	3.6	3.7	4.0
Transportation	841	-6.1	-25.4	118.5	17.5	2.2	2.3	14.6	12.4	N/A	14.0	4.8	4.1	4.3	4.2
Commercial Services	465	-3.0	-14.5	14.2	10.3	1.2	1.3	25.1	22.7	23.4	22.8	5.7	5.2	5.3	4.1
Consumer Discretionary															
Retailing	2979	-5.8	-29.5	-36.5	52.4	0.8	0.9	37.7	24.7	28.2	27.5	10.5	8.5	9.1	9.2
Consumer Services	1153	-7.5	-23.7	12542.4	125.4	1.3	1.5	46.0	20.4	N/A	35.8	57.5	38.4	N/A	11.7
Consumer Durables	321	-5.1	-39.7	10.7	-5.4	2.0	2.1	10.2	10.8	10.7	17.0	2.6	2.3	2.4	3.4
Automobiles and parts	148	-9.8	-25.8	27.7	17.7	0.2	0.3	30.3	25.7	N/A	15.9	5.7	4.8	5.0	2.8
IT															
Technology	2771	-1.3	-18.8	6.6	5.1	0.9	1.0	21.2	20.1	20.4	15.7	15.2	13.1	13.7	6.9
Software & Services	2742	-4.2	-29.6	11.9	13.4	1.0	1.1	23.1	20.4	21.1	21.6	7.2	6.1	6.4	6.3
Semiconductors	1543	-6.0	-41.3	1.7	4.9	1.8	2.0	14.5	13.8	14.0	15.5	3.9	3.5	3.6	3.9
Communication Services	167	-5.1	-37.5	-11.5	16.4	1.0	1.1	15.7	13.5	14.1	19.1	2.6	2.4	2.4	3.2
Media	647	-5.2	-40.3	-10.5	18.2	0.3	0.4	17.6	14.9	15.6	22.6	3.1	2.7	2.8	3.7
Consumer Staples															
Food & Staples Retailing	600	-5.0	-14.4	0.8	8.4	1.7	1.7	21.2	19.5	20.0	18.5	4.5	4.1	4.2	3.7
Food Beverage & Tobacco	797	-1.0	-2.4	3.2	6.1	3.3	3.4	18.8	17.7	18.0	18.5	4.9	4.6	4.7	5.0
Household Goods	785	-1.9	-19.6	-1.4	6.9	2.5	2.7	24.2	22.6	23.0	21.6	9.3	8.9	9.0	6.9
Health Care															
Pharmaceuticals	1154	-2.5	-11.2	4.9	-5.5	2.1	2.2	13.7	14.4	14.2	15.4	4.9	4.4	4.5	4.4
Healthcare Equipment	1698	-4.6	-15.2	3.3	7.8	1.2	1.3	18.2	16.8	17.2	17.0	3.6	3.3	3.4	3.0
Utilities	365	-3.0	0.3	4.6	5.0	3.0	3.1	20.3	19.3	19.6	17.3	2.2	2.1	2.1	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

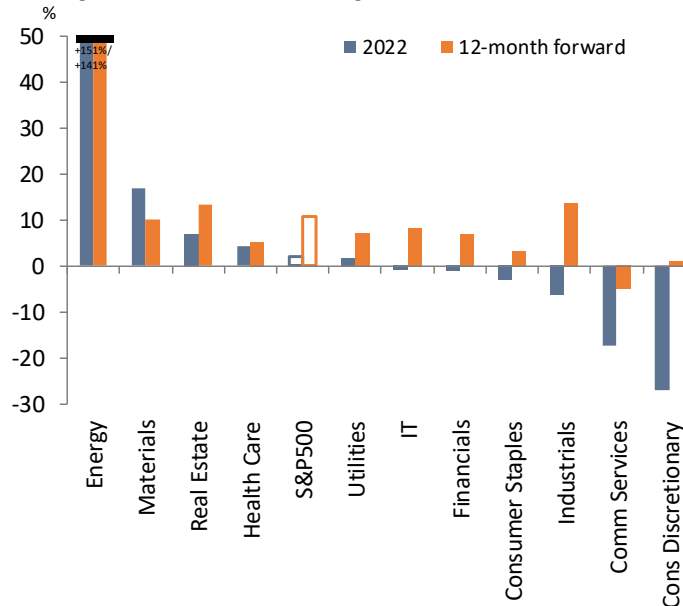
Earnings Revisions indicate 1-month change in 2022 & 12-month Forward EPS



Data as of September 23rd
12-month forward EPS are 27% of 2022 EPS and 73% 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 23rd
12-month forward EPS are 27% of 2022 EPS and 73% of 2023 EPS
National Bank of Greece | Economic Research Division | Global Markets Analysis

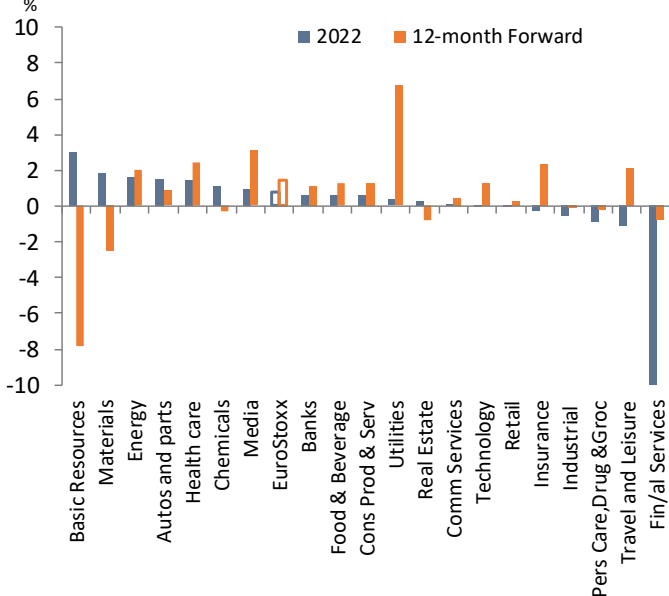
Euro Area Sectors Valuation

	Price (€)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	23/9/22	% Weekly Change	%YTD	2022	2023	2022	2023	2022	2023	12m fwd	10Yr Avg	2022	2023	Current	10Yr Avg
EuroStoxx	368	-4.6	-23.1	13.8	6.1	3.6	3.9	11.6	10.9	11.1	14.7	1.4	1.3	1.4	1.5
Energy	281	-5.9	-2.6	134.9	-16.9	5.7	5.8	4.2	5.0	4.8	13.0	1.0	0.9	0.9	1.2
Materials	831	-3.1	-20.3	16.3	-25.4	3.6	3.5	9.0	12.0	11.2	15.7	1.4	1.3	1.4	1.7
Basic Resources	201	-6.9	-19.1	14.8	-51.0	3.7	3.8	3.2	6.5	5.6	9.9	0.5	0.5	0.5	0.8
Chemicals	1208	-2.5	-20.5	18.8	-10.8	3.6	3.4	12.3	13.8	13.4	16.8	1.9	1.8	1.8	2.2
Financials															
Banks	83	-3.8	-17.3	6.4	5.2	7.0	7.5	6.7	6.4	6.4	9.9	0.5	0.5	0.5	0.7
Insurance	269	-3.6	-12.0	-5.2	22.2	6.2	6.6	9.4	7.7	8.2	9.7	1.0	0.9	0.9	0.9
Financial Services	467	-5.0	-19.3	31.2	-5.5	3.4	3.5	10.7	11.3	11.1	16.0	1.2	1.3	1.3	1.3
Real Estate	124	-11.7	-44.2	5.7	4.2	7.0	7.9	9.7	9.3	9.4	17.0	0.5	0.5	0.5	1.0
Industrials															
Industrial Goods & Services	826	-4.5	-29.5	16.6	14.1	2.7	3.1	15.3	13.4	14.0	17.4	2.2	2.0	2.0	2.6
Construction & Materials	413	-7.2	-24.0	-5.8	3.7	4.3	4.5	10.5	10.2	10.3	14.8	1.4	1.3	1.3	1.5
Consumer Discretionary															
Retail	406	-6.6	-41.4	-5.4	7.5	5.1	5.5	17.2	16.0	16.3	26.1	3.4	3.2	3.3	5.6
Automobiles and parts	474	-5.3	-24.8	7.2	-2.6	6.9	6.4	4.8	4.9	4.8	8.0	0.7	0.6	0.6	1.0
Travel and Leisure	156	-7.5	-19.4	N/A	57.9	1.2	1.4	22.9	14.5	N/A	N/A	1.9	1.8	1.8	2.2
Consumer Products & Services	390	-4.9	-26.1	9.7	13.3	1.8	2.0	24.8	21.9	22.7	24.8	5.3	4.7	4.8	4.1
Media	234	-2.9	-18.0	17.4	17.2	2.6	2.9	18.8	16.0	16.8	18.4	2.5	2.4	2.4	2.1
Technology	635	-5.0	-35.4	-0.9	24.6	1.3	1.4	21.1	16.9	18.1	21.9	2.9	2.7	2.8	3.7
Consumer Staples															
Food, Beverage & Tobacco	160	-1.8	-16.7	17.8	10.0	2.0	2.4	17.6	16.0	16.4	20.1	1.9	1.8	1.8	2.6
Personal Care, Drug & Grocery	164	-5.3	-18.5	1.2	8.0	2.6	2.9	15.2	14.1	14.4	17.6	2.2	2.1	2.1	2.3
Health care	713	-5.5	-23.5	10.0	6.8	2.7	2.8	13.9	13.0	13.2	16.7	1.8	1.7	1.7	2.3
Communication Services	263	-4.7	-8.7	22.7	9.0	4.3	4.6	14.1	12.9	13.2	15.3	1.4	1.3	1.3	1.7
Utilities	331	-3.2	-16.0	-53.9	117.1	4.6	5.0	27.0	12.4	16.4	14.1	1.6	1.5	1.5	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

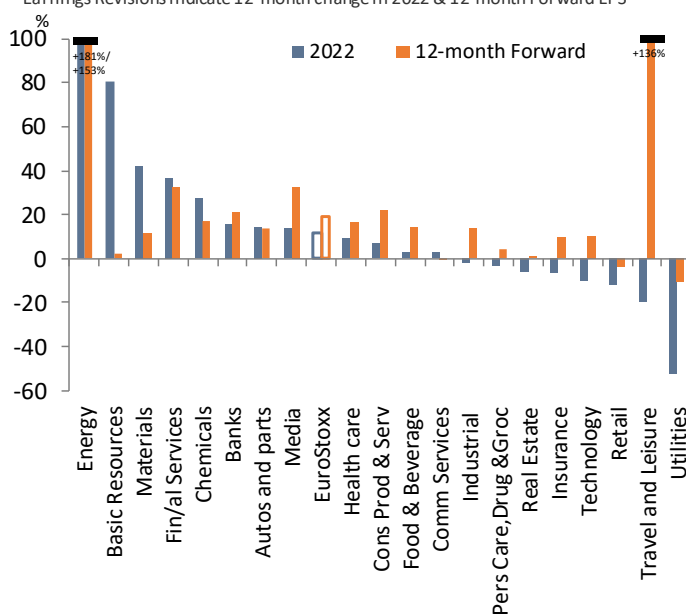
Earnings Revisions indicate 1-month change in 2022 & 12-month Forward EPS



Data as of September 23rd
12-month forward EPS are 27% of 2022 EPS and 73% 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 23rd
12-month forward EPS are 27% of 2022 EPS and 73% of 2023 EPS

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