

## The Fed is set to raise its policy rate by 50 basis points to +1.0%, as US inflation hit a 40-year high of 8.5% year-over-year

- Investors' attention is turning to the meeting of the Federal Reserve. An increase in the federal funds rate by 50 bps to +1.0% is expected on May 4<sup>th</sup>. In addition, the Fed will continue to anticipate that ongoing increases in the FFR will be appropriate (markets price-in circa 300 basis points of tightening over the next 12 months). Finally, the Fed is expected to announce the start of the reduction of its balance sheet (current: \$8.9T or 38% of US GDP) by circa \$1T per annum.
- The pace of monetary stimulus removal will accelerate, as the US labor market is tight and inflation pressures are broadening. The US labor market report (due on May 6<sup>th</sup>) is expected to show that job growth remained robust in April, with non-farm payrolls up by 400k (+431k in March) and the unemployment rate at 3.6% (3.5% prior to the pandemic).
- The Employment Cost Index, a quarterly measure of the change in the cost of labor, free from the influence of employment shifts among occupations and industries, rose by +1.4% qoq (+4.5% yoy) in Q1:2022, above expectations for +1.1% qoq (+4.3% yoy), recording its largest quarterly increase since 1989 (see graph below).
- The strong-demand/restrained-supply theme remains in place in the US, as also indicated by panelists' comments in recent business surveys. In the event, the manufacturing PMI for April from the Institute for Supply Management remained elevated (55.4), even with a decline of 1.7 pts from March's reading.
- Business surveys in China, pointed to significant headwinds for economic activity from pandemic-related local lockdowns. Indeed, April PMIs stood well below the expansion/contraction threshold of 50 in both manufacturing (Caixin: 46 | NBS: 47.4) and the services sectors (NBS: 40).
- The aggressive repricing of US real interest rates (above 0% for the first time since March 2020), alongside the protraction of international supply chain disruptions, exacerbated by the war in Ukraine and lockdowns in China, weigh on risk appetite (see graph page 3). Major heavyweights' (Amazon, Apple) earnings announcements also contributed to price weakness, either via disappointing Q1:2022 results or/and poor forward guidance.
- In all, with losses of 9% in April, the S&P 500 recorded its worst monthly performance since March 2020 and with a -13% since the start of 2022 (as of April 29<sup>th</sup>), the worst 4-month start in a year, since 1939.
- At the same time, government bond prices (US, Germany) have experienced their worst 4-month beginning in a year since 1974, with 10-year yields up by 138 bps to 2.89% and by 108 bps to +0.90%, respectively. Positive stock-bond correlation, if sustained, significantly lowers diversification benefits.
- The US Dollar has appreciated substantially so far in 2022, on the back, *inter alia*, of monetary policy divergence as the Federal Reserve is expected to proceed with a much speedier tightening compared with the ECB (+7% ytd against the euro to \$1.05, a 5-year high) and the Bank of Japan (+13% ytd against the Japanese Yen, to ¥129.56 as of April 29<sup>th</sup>, a 20-year high).

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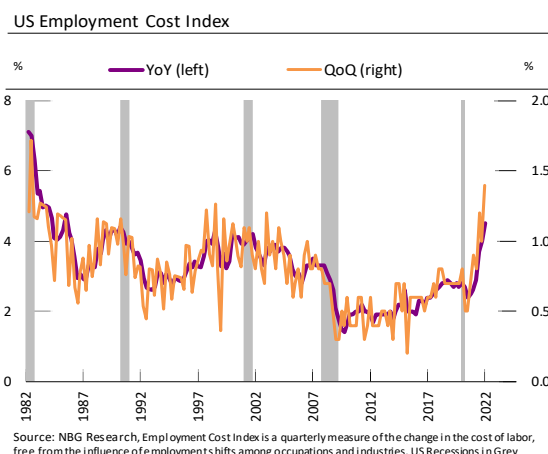
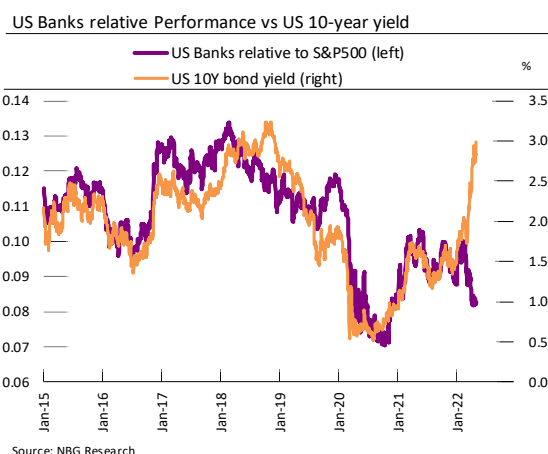
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### Charts of the week



### US real GDP unexpectedly declined in Q1:2022 in view, *inter alia*, of a further steep rise in imports

- **Real GDP decreased by 1.4% qoq saar in Q1:22 (+3.6% yoy), after a +6.9% qoq saar (+5.5% yoy) in the previous quarter, below consensus estimates for +1.1% qoq saar.** Regarding the composition of GDP growth, **personal consumption** rose by 2.7% qoq saar (+4.7% yoy) after a +2.4% qoq saar in Q4:21, contributing 1.8 pps to the headline figure. In addition, **business investment** increased by 9.2% qoq saar (+1.2 pps to overall GDP growth | +2.9% qoq saar in the previous quarter), with the annual pace of growth standing at +5.7% yoy. The solid performance was due to a sharp rise of spending on equipment (+15.3% qoq saar | +6.8% yoy) and continuing robust investment in intellectual property products (+8.1% qoq saar | +9.6% yoy), whereas investment in non-residential structures was little changed (-0.9% qoq saar | -4.1% yoy). **Residential investment** increased by 2.1% qoq saar in Q1:22 (-4.0% yoy), also contributing positively to overall GDP growth (+0.1 pp). On the other hand, **government consumption expenditures & gross investment** were down by 2.7% qoq saar (-0.5 pps | -1.6% yoy), after posting a -2.6% qoq saar in Q4:21. At the same time, **inventories** accounted for a large part of the quarterly deterioration of the headline GDP growth, posing a drag of 0.8 pps in Q1:22, following a sharp positive contribution in Q4:21 (+5.3 pps). Finally, **net exports** represented the major drag on overall quarterly GDP growth in Q1:22 (-3.2 pps), as imports continued to surge (+17.7% qoq saar from +17.9% in Q4:21 | +11.7% yoy) and exports declined (-5.9% qoq saar from +22.4% in Q4:21 | +4.1% yoy).

### Euro area headline inflation reached fresh record highs, with the core CPI substantially exceeding expectations

- **According to the “flash” estimate, the annual growth of CPI reached fresh record (since 1997) highs in April, at +7.5% from +7.4% in March, in line with consensus estimates.** Notably, energy prices fell on a monthly basis (-3.7% mom not seasonally adjusted – “nsa”) and as a result, the annual growth decelerated to +38.0% from +44.4% (3.7 pps contribution to the headline’s year-over-year increase). That development was due to a combination of: i) a partial easing for international prices of main energy commodities in April, with the crude oil benchmark Brent (spot) down by 6% mom on average and natural gas benchmarks (short-term contracts) declining by c. 22% mom on average in Europe; ii) government policy measures in many countries (including respective tax reductions, modifications of price regulations in both the wholesale and the retail energy markets, business subsidies). On the other hand, a sharp momentum remained in place for the prices of food, alcohol & tobacco, up by a record (since 1998) high of +1.9% mom nsa in April (+1.2% mom on average in the past four months versus an average of 0.2% mom since 1998), leading the annual growth to +6.4%, also the highest on record, from +5.0% previously (1.4 pps contribution).

- On core inflation (which excludes the effects of energy and food components), the momentum remained sharp as well (+1.1% mom nsa) and was broad based. In the event, the component of non-energy industrial goods increased by 1.1% mom and services prices rose by 1.0% mom. As a result, the annual growth of core inflation accelerated sharply anew, to a fresh record high of +3.5% from +2.9% in March, well above consensus estimates for +3.2%.

### Euro area PMIs point to services getting a strong boost from the improved pandemic situation, albeit manufacturing output struggled to grow in April

- **The composite PMI surprised to the upside in April, rising by 0.9 pts to 55.8 versus consensus estimates for 54.0, albeit the improvement was not broad based.** Indeed, the increase was solely due to the services PMI (+2.1 pts to 57.7) as activity posted a record surge in tourism & recreation in view of the improved epidemiological situation and the consequent easing of restrictive measures. In a contrarian note, the manufacturing PMI fell by 1.2 pts to 55.3, with the output component (which is incorporated in the calculation of the headline composite index) substantially underperforming (-2.7 pts to 50.4) as production struggled to increase, being restrained by supply chain hindrances (fresh disruptions related to the war in Ukraine and to lockdowns in China, exacerbated the already existing challenges). Notably, signs of easing demand emerged in the manufacturing survey (the new orders component stood at its lowest level since June 2020, only modestly above the expansion/contraction threshold of 50.0) on account of, *inter alia*, soaring prices, increased risk aversion and a shift of spending to services activities. Importantly, higher raw materials prices, energy costs and wages continue to inflict sharp upside pressures on firms’ input costs. At the same time, the component of average prices charged for goods and services accelerated markedly to a fresh record (since 1998) high in April, across sectors. That development continues to cloud the outlook for demand, particularly after the initial boost from the reopening of the economies, fades.
  - **Recall that the aforementioned headline resilience for business surveys, contrasts with depressed readings for consumer confidence.** In the event, DG ECFIN’s respective indicator stood at a particularly low -22.0 in April (-21.6 in March), versus an average of -11.3 since 2001.
  - **The latest data came after economic activity trod water for a 2<sup>nd</sup> consecutive quarter in Q1:22, largely as expected.** Indeed, real GDP was up by 0.2% qoq (+5.0% yoy) in Q1:22, from +0.3% qoq (+4.7% yoy) in Q4:21.
- ### The Bank of Japan continues its ultra-loose monetary policy
- **The Bank of Japan (BoJ) showed no intention to deviate from its ultra-accommodative policy stance** (continues quantitative easing, short-term policy rate of -0.1%, yield curve control so that the 10-year JGB yield is “around zero”). Furthermore, in a dovish surprise, the BoJ announced that it will offer on a daily basis to purchase 10-year JGBs at 0.25% through fixed-rate purchase operations (a further downside factor for the JPY through the exchange rate/interest rate differentials nexus).

## Equities

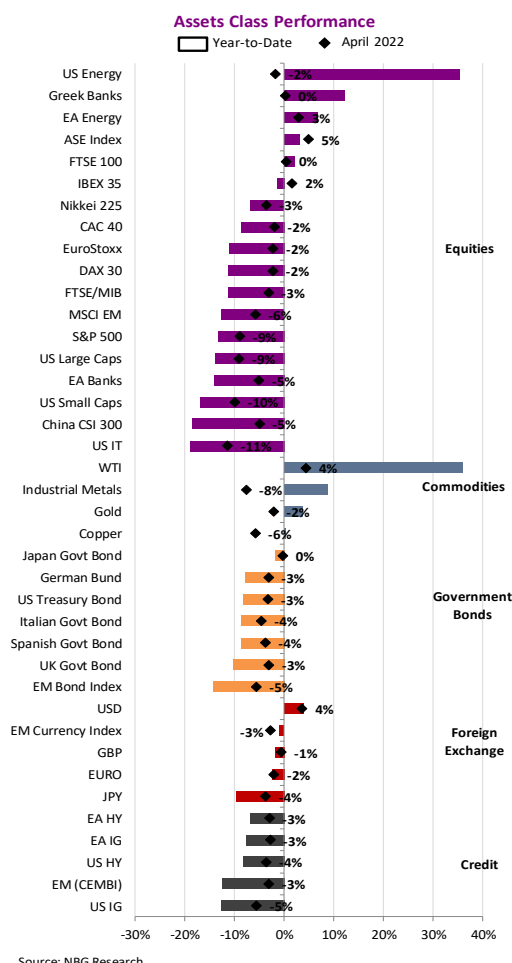
- Global equity markets lost ground in the past 2 weeks.** Specifically, the MSCI ACWI declined by -5.3% (-13% ytd), with Developed Markets underperforming (-5.5% | -14% ytd) their Emerging Markets peers (-3.3% | -13% ytd). In the US, S&P500 declined by 5.9%, recording its largest monthly decrease in April since March 2020 (-8.8%). The index posted a new closing low in 2022 on Friday (4132), following underwhelming EPS announcement from Amazon (-18.1%). Option-implied volatility (Cboe VIX Index) increased to 33% on Friday, compared with 23% on April 15<sup>th</sup>. Among sectors, Automobiles lagged (-10.6%), mainly due to Tesla (-11.6%), as according to Securities and Exchange Commission filings, its CEO, E. Musk, sold 9.6 mn shares worth c. \$8.5 bn, presumably to fund part of the \$44 bn deal for the acquisition of Twitter (+8.7%). Communication Services declined by 11.5%, after Netflix (-44.2%) and Alphabet (-10%) missed investors' earnings estimates. As far as the earnings season is concerned, out of the 297 companies that have reported results so far, 81% have surpassed analyst estimates. Consensus EPS expectations for Q1:22 stand at +7% yoy from +5% yoy 2 weeks ago (+10% yoy in 2022). In China, MSCI China fell by -1.4% (-17% ytd), on intensifying supply-chain and economic disruption concerns, due to the lockdown measures, with the trend reversing on Friday (+5.7%), following the Central Political Bureau meeting that pledged to provide additional policy support.

## Fixed Income

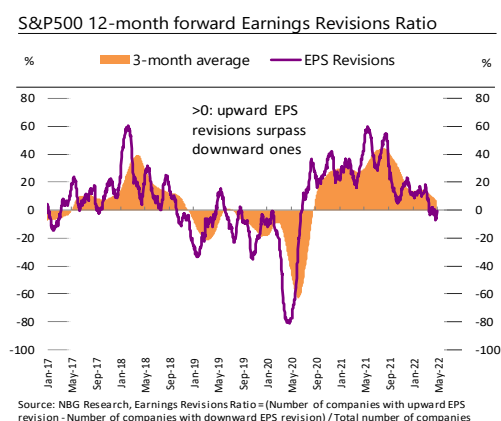
- Government bond yields are highly volatile.** Specifically, in the US, the 10-year yield rose by 6 bps to 2.89% and by further 11 bps on Monday to 3%, with expectations of aggressive interest rate hikes by the Federal Reserve to curb persistently high inflation driving the yield to its highest level since 2018. The 2-year yield, which is relatively more closely related to monetary policy prospects, rose by 24 bps to 2.64% (3.5-year high) following comments from the Fed Chair J. Powell that a 50-bps rate increase is possible at the forthcoming meeting (May 4<sup>th</sup>), with St. Louis Fed President J. Bullard not ruling out a 75-bps increase. In Germany, 10-Year yield rose by 7 bps to 0.90%, its highest level since 2015, after comments from the ECB Vice President L. de Guindos that a rate increase could occur as early as in the July meeting. Periphery government bond yields rose significantly, with spreads widening. Specifically, in Italy, the 10-year yield rose by 25 bps to 2.74% while in Spain, it increased by 16 bps to 1.92%. In Greece, it rose by 42 bps to 3.32%, while Standard & Poor's upgraded the country's credit rating to BB+ (from BB), only one step below the Investment Grade. **Corporate bond spreads widened in the past week,** especially in the High Yield spectrum, as investors were in risk-off mode. Specifically, US HY spreads rose by 25 bps to 393 bps, while their euro area counterparts rose by 37 bps to 454 bps. In the investment grade spectrum, the increase of spreads was less intense both in the US (+13 bps to 139 bps) and in the euro area (+16 bps to 148 bps).

## FX and Commodities

- In foreign exchange markets, the Japanese Yen depreciated substantially due to monetary policy divergence, reaching a 20-year low against the US dollar (¥131.02) on Thursday,** after the Bank of Japan offered to buy an unlimited amount of 10-year government bonds at +0.25%, in order to defend its yield-targeting policy. Overall, the Yen, declined by 2.9% to ¥129.56. **Finally, in commodities, oil prices declined in the past 2 weeks, due to ongoing concerns regarding the impact on oil demand of the lockdown measures in China,** although the downward pressures eased following reports that the European Union is moving toward adopting a 6<sup>th</sup> package of sanctions against Russia, which could include some form of oil embargo. Overall, the Brent and the WTI decreased by 2.1% to \$109.3/barrel (+41% ytd) and to \$104.7/barrel (+39% ytd), respectively. Meanwhile, the European natural gas prices rose in the past 2 weeks, with the Dutch contract TTF up by 4% to €99.5/MWh, following Russia's decision to cut off natural gas exports to Poland and Bulgaria because their payments were not made in rubles.



Graph 1.



Graph 2.

**Quote of the week:** "There is something to be said for front-end loading any accommodation one thinks is appropriate...we're really going to be raising rates and getting expeditiously to levels that are more neutral and then that are actually tight", **Fed Chair, Jerome Powell, April 21<sup>st</sup> 2022.**

### Interest Rates & Foreign Exchange Forecasts

10-Yr Gov. Bond Yield (%)	April 29th	3-month	6-month	12-month	Official Rate (%)	April 29th	3-month	6-month	12-month
<b>Germany</b>	0.90	0.60	0.70	1.00	<b>Euro area</b>	-0.50	-0.50	-0.50	0.00
<b>US</b>	2.89	2.70	2.80	3.00	<b>US</b>	0.50	1.50	2.00	2.75
<b>UK</b>	1.87	1.75	1.81	1.81	<b>UK</b>	0.75	1.25	1.50	1.75
<b>Japan</b>	0.21	0.22	0.23	0.27	<b>Japan</b>	-0.10	-0.10	-0.10	-0.10

Currency	April 29th	3-month	6-month	12-month	April 29th	3-month	6-month	12-month	
<b>EUR/USD</b>	1.05	1.09	1.10	1.12	<b>USD/JPY</b>	130	125	124	123
<b>EUR/GBP</b>	0.84	0.84	0.85	0.86	<b>GBP/USD</b>	1.26	1.29	1.30	1.31
<b>EUR/JPY</b>	136	136	137	138					

Forecasts at end of period

### Economic Forecasts

United States	2020a	Q1:21a	Q2:21a	Q3:21a	Q4:21a	2021a	Q1:22f	Q2:22f	Q3:22f	Q4:22f	2022f
<b>Real GDP Growth (YoY) (1)</b>	-3.4	0.5	12.2	4.9	5.6	5.7	4.1	2.9	3.2	2.2	3.1
<b>Real GDP Growth (QoQ saar) (2)</b>	-	6.3	6.7	2.3	7.0	-	0.4	2.0	3.5	2.8	-
<b>Private Consumption</b>	-3.8	11.4	12.0	2.0	3.1	7.9	2.6	2.7	3.5	2.7	3.3
<b>Government Consumption</b>	2.5	4.2	-2.0	0.9	-2.6	0.5	1.3	1.6	1.7	1.8	0.4
<b>Investment</b>	-2.7	13.0	3.3	-0.9	2.6	7.8	7.8	5.8	4.5	3.4	4.4
<b>Residential</b>	6.8	13.3	-11.7	-7.7	1.0	9.1	7.5	1.7	1.1	0.3	0.7
<b>Non-residential</b>	-5.3	12.9	9.2	1.6	3.1	7.4	8.6	6.7	5.4	4.1	5.7
<b>Inventories Contribution</b>	-0.6	-3.7	-1.7	2.1	5.0	0.0	-2.1	-0.9	-0.1	0.0	0.3
<b>Net Exports Contribution</b>	-0.2	-2.0	-0.4	-1.5	-0.5	-1.8	-1.0	-0.3	0.0	0.1	-0.6
<b>Exports</b>	-13.6	-2.9	7.6	-5.3	23.6	4.6	0.5	2.2	4.5	4.5	5.2
<b>Imports</b>	-8.9	9.3	7.1	4.7	17.6	14.0	5.5	2.8	2.8	2.6	6.6
<b>Inflation (3)</b>	1.2	1.9	4.9	5.4	6.7	4.7	8.0	7.6	7.2	6.7	7.3

Euro Area	2020a	Q1:21a	Q2:21a	Q3:21a	Q4:21a	2021a	Q1:22f	Q2:22f	Q3:22f	Q4:22f	2022f
<b>Real GDP Growth (YoY)</b>	-6.5	-0.9	14.6	4.0	4.6	5.3	4.8	3.0	1.8	2.1	2.9
<b>Real GDP Growth (QoQ saar)</b>	-	-0.5	9.1	9.3	1.0	-	0.1	2.0	4.2	2.0	-
<b>Private Consumption</b>	-8.0	-8.9	16.5	19.1	-2.3	3.5	0.4	2.1	3.9	2.8	3.9
<b>Government Consumption</b>	1.1	-2.1	9.4	1.1	1.9	3.8	-0.1	0.7	0.9	0.9	1.3
<b>Investment</b>	-7.3	0.6	5.2	-3.7	14.9	4.3	3.7	-6.7	6.5	5.7	3.2
<b>Inventories Contribution</b>	-0.5	4.3	-2.2	-0.5	1.5	0.4	-0.3	-0.5	-0.5	0.2	-0.1
<b>Net Exports Contribution</b>	-0.4	0.4	0.0	0.9	-2.6	1.4	-0.7	2.7	1.1	-1.0	0.0
<b>Exports</b>	-9.4	5.1	11.8	7.0	12.1	10.9	2.1	2.2	6.0	1.6	5.6
<b>Imports</b>	-9.2	4.8	13.0	5.8	19.8	8.6	3.8	-3.2	4.2	4.1	6.0
<b>Inflation</b>	0.3	1.0	1.8	2.9	4.7	2.6	6.1	8.5	7.6	6.5	7.2

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
<b>Equity Markets</b>	<ul style="list-style-type: none"> <li>+ Massive Fiscal loosening will support the economy</li> <li>+ 2022 EPS growth expectations have further room to increase</li> <li>+ Share buybacks could resume</li> <li>- Peaking profit margins</li> <li>- High market cap concentration</li> <li>- P/Es (Valuations) approaching dot-com levels</li> </ul> <p>● Neutral/Positive</p>	<ul style="list-style-type: none"> <li>+ Still high equity risk premium relative to other regions</li> <li>+ Modest fiscal loosening in 2022</li> <li>+ 2022 EPS estimates remain strong</li> <li>- Political uncertainty (Italy, German Elections) could intensify</li> <li>- Logistic disruptions (vaccine) and renewed lockdowns delay the recovery</li> </ul> <p>● Neutral</p>	<ul style="list-style-type: none"> <li>+ Still aggressive QE and "yield-curve" targeting by the BoJ</li> <li>- Signs of policy fatigue regarding structural reforms and fiscal discipline</li> <li>- Strong appetite for foreign assets</li> <li>- JPY appreciation in a risk-off scenario could hurt exporters</li> </ul> <p>● Neutral</p>	<ul style="list-style-type: none"> <li>+ 65% of FTSE100 revenues from abroad</li> <li>+ Undemanding valuations in relative terms</li> <li>- Elevated Policy uncertainty to remain</li> </ul> <p>● Neutral/Negative</p>
<b>Government Bonds</b>	<ul style="list-style-type: none"> <li>+ Valuations appear rich with term-premium below 0%</li> <li>+ Sizeable fiscal deficit</li> <li>+ Underlying inflation pressures under Average Inflation Targeting</li> <li>- Global search for yield by non-US investors continues</li> <li>- Safe haven demand</li> <li>- Fed: End of asset purchases by mid-March 2022</li> </ul> <p>▲ Slightly higher yields expected</p>	<ul style="list-style-type: none"> <li>+ Valuations appear excessive compared with long-term fundamentals</li> <li>- Political Risks</li> <li>- Fragile growth outlook</li> <li>- Medium-term inflation expectations remain low</li> <li>- ECB: End of PEPP purchases in March 2022</li> <li>- ECB QE "stock" effect</li> </ul> <p>▲ Slightly higher yields expected</p>	<ul style="list-style-type: none"> <li>+ Sizeable fiscal deficits</li> <li>+ Restructuring efforts to be financed by fiscal policy measures</li> <li>- Safe haven demand</li> <li>- Extremely dovish central bank</li> <li>- Yield-targeting of 10-Year JGB at around 0%</li> </ul> <p>● Stable yields expected</p>	<ul style="list-style-type: none"> <li>+ Elevated Policy uncertainty to remain</li> <li>+ Inflation expectations could drift higher due to supply disruptions post Brexit</li> <li>- The BoE is expected to raise rates 4 times in 2022</li> <li>- Slowing economic growth post-Brexit</li> </ul> <p>▲ Slightly higher yields expected</p>
<b>Foreign Exchange</b>	<ul style="list-style-type: none"> <li>+ Safe-haven demand</li> <li>- Fed's interest rate differential disappeared following cuts to 0%-0.25%</li> <li>- Global political uncertainty to decline</li> </ul> <p>● Broadly Flat EUR against the USD</p>	<ul style="list-style-type: none"> <li>+ Reduced short-term tail risks</li> <li>+ Current account surplus</li> <li>- Sluggish growth</li> <li>- Deflation concerns</li> <li>- The ECB's monetary policy to remain loose (APP)</li> </ul> <p>● Broadly Flat EUR against the USD</p>	<ul style="list-style-type: none"> <li>+ Safe haven demand</li> <li>+ More balanced economic growth recovery (long-term)</li> <li>+ Inflation is bottoming out</li> <li>- Additional Quantitative Easing by the Bank of Japan if inflation does not approach 2%</li> </ul> <p>▲ Slightly higher JPY</p>	<ul style="list-style-type: none"> <li>+ Valuations appear undemanding with REER below its 15-year average</li> <li>- Sizeable Current account deficit</li> </ul> <p>▲ Higher GBP expected</p>

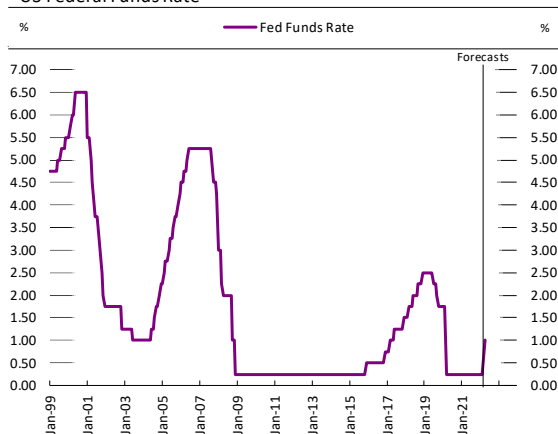
## Economic Calendar

In the US, the Federal Reserve meets on May 4<sup>th</sup> and is expected to increase its Federal Funds Rate (FFR) by 50 basis points to the 0.75%-1% range and to announce the start of the reduction of its balance sheet. On Friday, attention turns to the labor report for April. Consensus expects NFPs of +400k from +431k in March and stable unemployment rate of 3.6%.

In the euro area, retail sales for March are released on Wednesday. The monthly figure is expected to accelerate to 0.4% mom from 0.3% mom in February.

In the UK, the BoE meets on May 5<sup>th</sup> and is expected to increase its Bank Rate for a 4<sup>th</sup> consecutive meeting, to 1.00%.

US Federal Funds Rate



Source: NBG Research

**Economic News Calendar for the period: April 26 - May 9, 2022**

Tuesday 26					Wednesday 27					Thursday 28				
US	S	A	P		US	S	A	P		US	S	A	P	
S&P Case/Shiller house price index 20 (YoY)	February	19.2%	+ 20.2%	18.9%	Pending home sales (MoM)	March	-1.3%	+ -1.2%	-4.0%	GDP (QoQ, annualized)	Q1:22	1.1%	- -1.4%	6.9%
Conference board consumer confidence	April	108.4	- 107.3	107.6						Initial Jobless Claims (k)	April 23	180	180	185
New home sales (k)	March	768	- 763	835						Continuing Claims (k)	April 16	1430	+ 1408	1409
Durable goods orders (MoM)	March	1.1%	- 0.8%	-1.7%						<b>JAPAN</b>				
Durable goods orders ex transportation (MoM)	March	0.6%	+ 1.1%	-0.5%						Bank of Japan announces its intervention rate	April 28	-0.1%	-0.1%	-0.1%
<b>JAPAN</b>										Retail sales (MoM)	March	..	2.0%	-0.9%
Unemployment rate	March	2.7%	+ 2.6%	2.7%						Retail sales (YoY)	March	0.3%	+ 1.0%	-0.9%
										Industrial Production (MoM)	March	0.5%	- 0.3%	2.0%
										Industrial Production (YoY)	March	-1.9%	+ -1.7%	0.5%
										Construction Orders YoY	March	..	-21.2%	-2.3%
Friday 29					Monday 2									
US	S	A	P		US	S	A	P			S	A	P	
Personal income (MoM)	March	0.4%	+ 0.5%	0.7%	ISM Manufacturing	April	57.6	- 55.4	57.1					
Personal spending (MoM)	March	0.3%	+ 1.1%	0.6%	Construction spending (MoM)	March	0.7%	- 0.1%	0.6%					
PCE Deflator (YoY)	March	6.7%	- 6.6%	6.3%	<b>EURO AREA</b>									
PCE Core Deflator (YoY)	March	5.3%	- 5.2%	5.3%	Business Climate Indicator	April	2.0	2.0	1.7					
<b>UK</b>					Economic confidence indicator	April	108.0	- 105.0	106.7					
Nationwide House Px NSA YoY	March	..	12.1%	14.3%	<b>GERMANY</b>									
<b>EURO AREA</b>					Retail sales (MoM)	February	..	-0.1%	0.2%					
GDP (QoQ)	Q1:22	0.3%	- 0.2%	0.3%	Retail sales (YoY)	February	..	-2.7%	7.0%					
GDP (YoY)	Q1:22	5.0%	5.0%	4.7%	<b>CHINA</b>									
CPI estimate (YoY)	April	7.4%	+ 7.5%	7.4%	Manufacturing PMI	March	49.0	- 47.4	49.5					
Core CPI (YoY)	April	3.2%	+ 3.5%	2.9%	Caixin PMI Manufacturing	March	46.5	- 46.0	48.1					
M3 money supply (YoY)	March	6.3%	6.3%	6.4%										
<b>GERMANY</b>														
GDP (QoQ)	Q1:22	0.2%	0.2%	-0.3%										
GDP (wda, YoY)	Q1:22	3.8%	- 3.7%	1.8%										
Tuesday 3					Wednesday 4					Thursday 5				
US	S	A	P		US	S	A	P		US	S	A	P	
Factory Goods Orders (MoM)	March	1.1%	..	-0.5%	Fed announces its intervention rate	May 4	1.00%	..	0.50%	Initial Jobless Claims (k)	April 30	183	..	180
<b>EURO AREA</b>					ADP Employment Change (k)	April	375	..	455	Continuing Claims (k)	April 23	..	..	1408
Unemployment Rate	March	6.8%	..	6.9%	ISM Services Index	April	58.6	..	58.3	Unit labor costs (QoQ, annualized)	Q1:22	8.5%	..	0.9%
					Trade balance (\$bn)	March	-88.8	..	-89.2	<b>UK</b>				
					<b>EURO AREA</b>					BoE announces its intervention rate	May 5	1.00%	..	0.75%
					Retail sales (MoM)	March	0.4%	..	0.3%					
					Retail sales (YoY)	March	4.6%	..	5.0%					
Friday 6					Monday 9									
US	S	A	P		US	S	A	P			S	A	P	
Change in Nonfarm Payrolls (k)	April	400	..	431	Wholesale trade (MoM)	March	-0.1%	..	1.7%					
Change in Private Payrolls (k)	April	390	..	426	<b>CHINA</b>									
Unemployment rate	April	3.6%	..	3.6%	Exports YoY	April	..	..	14.7%					
Average weekly hours (hrs)	April	34.7	..	34.6	Imports YoY	April	..	..	-0.1%					
Average Hourly Earnings MoM	April	0.4%	..	0.4%										
Average Hourly Earnings YoY	April	5.6%	..	5.6%										
Labor Force Participation Rate	April	..	..	62.4%										
Underemployment Rate	April	..	..	6.9%										
<b>UK</b>														
S&P Global/CIPS UK Construction PMI	April	58.0	..	59.1										
<b>GERMANY</b>														
Industrial Production (sa, MoM)	March	-2.0%	..	0.2%										
Industrial Production (wda, YoY)	March	..	..	3.2%										

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 (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)	Emerging Markets		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)
US	<b>S&amp;P 500</b>	4132	-3.3	-13.3	-1.9	40.6	<b>MSCI Emerging Markets</b>	63100	0.8	-9.9	-17.2	
Japan	<b>NIKKEI 225</b>	26848	-0.9	-6.8	-7.6	35.8	<b>MSCI Asia</b>	956	1.4	-10.7	-19.9	
UK	<b>FTSE 100</b>	7545	0.3	2.2	8.4	23.4	<b>China</b>	69	5.4	-16.7	-37.2	
Canada	<b>S&amp;P/TSX</b>	20762	-2.0	-2.2	7.8	36.3	<b>Korea</b>	812	-0.1	-10.9	-18.3	
Hong Kong	<b>Hang Seng</b>	21089	2.2	-9.9	-28.0	-14.4	<b>MSCI Latin America</b>	93083	-3.3	0.8	-8.1	
Euro area	<b>EuroStoxx</b>	426	-1.0	-11.1	-3.7	29.5	<b>Brazil</b>	311276	-3.0	1.6	-16.1	
Germany	<b>DAX 40</b>	14098	-0.3	-11.2	-7.0	26.9	<b>Mexico</b>	47882	-3.7	-4.0	7.0	
France	<b>CAC 40</b>	6534	-0.7	-8.7	3.7	39.9	<b>MSCI Europe</b>	2493	-3.9	-64.0	-60.4	
Italy	<b>FTSE/MIB</b>	24252	-0.1	-11.3	-0.1	34.2	<b>Russia*</b>	2445	9.5	-35.4	-31.5	
Spain	<b>IBEX-35</b>	8584	-0.8	-1.5	-2.7	21.7	<b>Turkey</b>	2710383	-2.1	30.4	81.1	

**World Market Sectors** (MSCI Indices)

in US Dollar terms		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)	in local currency		Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)
<b>Energy</b>		222.4	-1.3	27.5	39.7	73.4	<b>Energy</b>		230.6	-0.7	30.2	45.4
<b>Materials</b>		345.0	-1.5	-4.2	-3.2	50.1	<b>Materials</b>		338.0	-0.6	-0.9	3.0
<b>Industrials</b>		299.1	-3.1	-14.6	-11.5	34.9	<b>Industrials</b>		306.9	-2.5	-11.5	-6.1
<b>Consumer Discretionary</b>		345.7	-6.3	-21.7	-16.0	36.6	<b>Consumer Discretionary</b>		342.7	-5.9	-19.8	-12.5
<b>Consumer Staples</b>		282.8	-1.5	-3.5	4.9	22.8	<b>Consumer Staples</b>		289.4	-0.8	-0.6	9.9
<b>Healthcare</b>		338.9	-2.4	-8.3	4.0	23.1	<b>Healthcare</b>		340.0	-1.9	-6.4	7.4
<b>Financials</b>		132.6	-4.1	-11.2	-7.0	42.2	<b>Financials</b>		135.2	-3.5	-9.0	-2.9
<b>IT</b>		452.6	-1.6	-20.9	-5.7	47.5	<b>IT</b>		442.9	-1.4	-20.2	-4.1
<b>Telecoms</b>		82.0	-3.8	-23.2	-24.0	14.7	<b>Telecoms</b>		87.0	-3.5	-22.0	-22.2
<b>Utilities</b>		159.4	-3.0	-2.9	1.3	18.1	<b>Utilities</b>		166.4	-2.4	-0.7	5.8

**Bond Markets (%)**

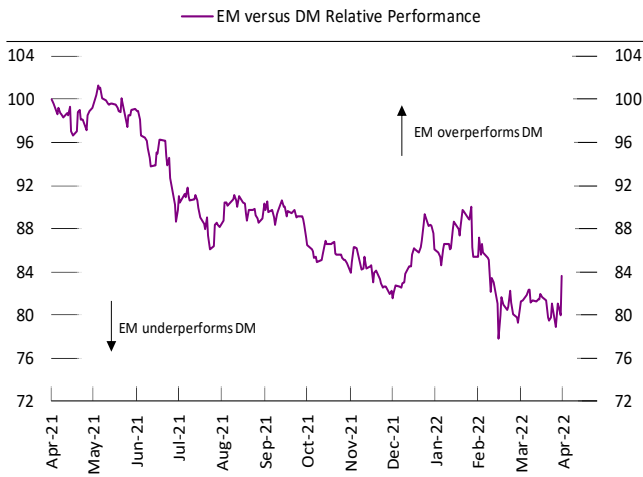
10-Year Government Bond Yields		Current	Last week	Year Start	One Year Back	10-year average	Government Bond Yield Spreads (in bps)		Current	Last week	Year Start	One Year Back
US		2.89	2.90	1.51	1.64	2.04	<b>US Treasuries 10Y/2Y</b>		25	23	78	147
Germany		0.90	0.93	-0.18	-0.19	0.44	<b>US Treasuries 10Y/5Y</b>		-3	-4	25	77
Japan		0.21	0.24	0.07	0.09	0.23	<b>Bunds 10Y/2Y</b>		65	70	46	50
UK		1.87	1.94	0.97	0.85	1.41	<b>Bunds 10Y/5Y</b>		25	23	28	38
Greece		3.32	2.98	1.32	0.98	6.58	<b>Corporate Bond Spreads (in bps)</b>		Current	Last week	Year Start	One Year Back
Ireland		1.59	1.53	0.25	0.17	1.69	<b>EM Inv. Grade (IG)</b>		165	160	139	157
Italy		2.74	2.64	1.17	0.88	2.31	<b>EM High yield</b>		682	659	618	507
Spain		1.92	1.90	0.57	0.48	1.93	<b>US IG</b>		139	133	98	94
Portugal		2.02	1.83	0.46	0.36	2.87	<b>US High yield</b>		393	365	310	324
<b>US Mortgage Market (1. Fixed-rate Mortgage)</b>		Current	Last week	Year Start	One Year Back	10-year average	<b>Euro area IG</b>		148	136	98	85
<b>30-Year FRM<sup>1</sup> (%)</b>		5.37	5.20	3.31	3.17	4.00	<b>Euro area High Yield</b>		454	409	331	293
<b>vs 30Yr Treasury (bps)</b>		242.8	225.4	138.9	86.1	128.9						

**Foreign Exchange & Commodities**

Foreign Exchange		Current	1-week change (%)	1-month change (%)	1-Year change (%)	Year-to-Date change (%)	Commodities		Current	1-week change (%)	1-month change (%)	1-Year change (%)
<b>Euro-based cross rates</b>							<b>Agricultural</b>		572	0.7	4.6	30.4
EUR/USD		1.05	-2.1	-5.5	-12.9	-7.2	<b>Energy</b>		375	3.9	2.2	72.5
EUR/CHF		1.02	-0.8	-0.6	-7.2	-1.2	<b>West Texas Oil (\$/bbl)</b>		105	2.6	-2.9	61.0
EUR/GBP		0.84	0.1	-0.8	-3.3	0.1	<b>Crude brent Oil (\$/bbl)</b>		109	2.5	-3.6	59.5
EUR/JPY		136.68	-1.3	0.3	3.6	4.4	<b>HH Natural Gas (\$/mmbtu)</b>		7.2	9.9	36.2	148.8
EUR/NOK		9.83	1.9	2.7	-1.2	-2.0	<b>TTF Natural Gas (EUR/mwh)</b>		99	4.8	-16.4	361.4
EUR/SEK		10.33	0.4	0.0	2.0	0.3	<b>Industrial Metals</b>		542	-4.9	-8.3	17.7
EUR/AUD		1.48	0.0	0.1	-4.8	-5.1	<b>Precious Metals</b>		2487	-1.6	-2.1	5.9
EUR/CAD		1.35	-1.6	-3.0	-9.5	-6.1	<b>Gold (\$)</b>		1897	-1.8	-1.9	7.1
<b>USD-based cross rates</b>							<b>Silver (\$)</b>		23	-5.4	-8.3	-12.9
USD/CAD		1.28	0.5	2.7	4.0	1.2	<b>Baltic Dry Index</b>		2404	4.2	1.5	-20.1
USD/AUD		1.41	2.1	5.9	9.3	2.3	<b>Baltic Dirty Tanker Index</b>		1253	-14.5	2.5	107.1
USD/JPY		129.56	0.9	6.2	18.9	12.5						

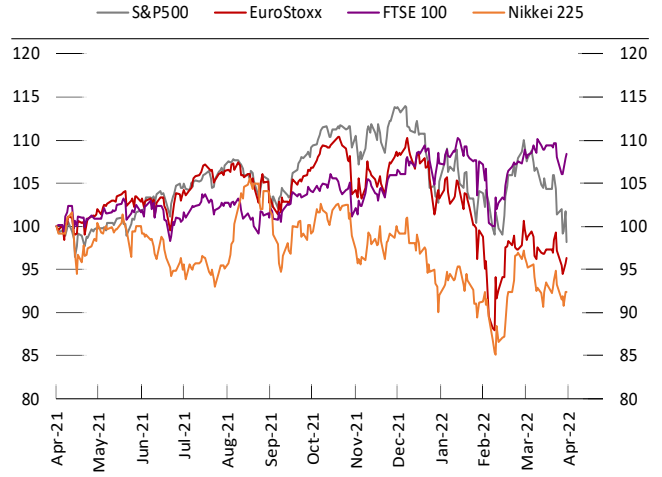
Source: NBG Research, Data as of April 29<sup>th</sup>, S&P/Goldman Sachs Indices for Agricultural, Energy, Industrial & Precious Metals, BofA/ML Indices for Corporate Bond Spreads, \*Stock trading on MOEX Index partially resumed on March 24<sup>th</sup> after being halted since February 25<sup>th</sup>

EM vs DM Performance in \$



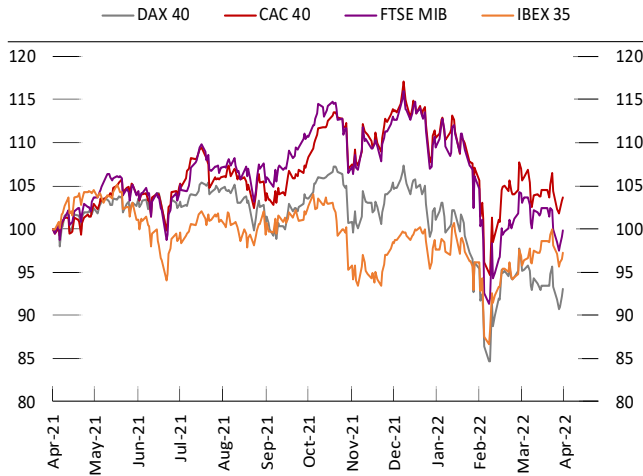
Data as of April 29<sup>th</sup> – Rebased @ 100

Equity Market Performance - G4



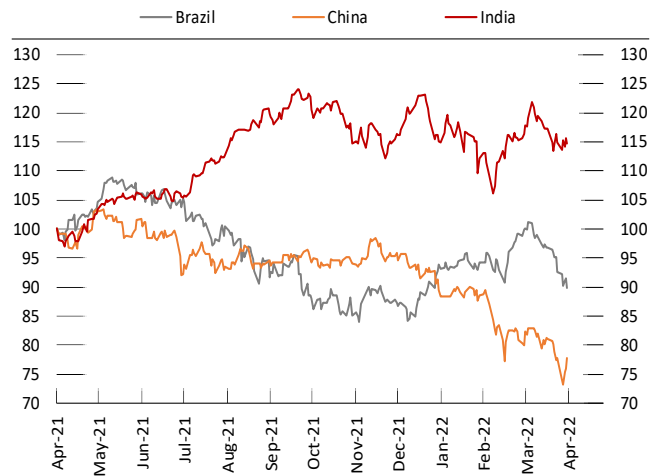
Data as of April 29<sup>th</sup> – Rebased @ 100

Equity Market Performance – Euro Area G4



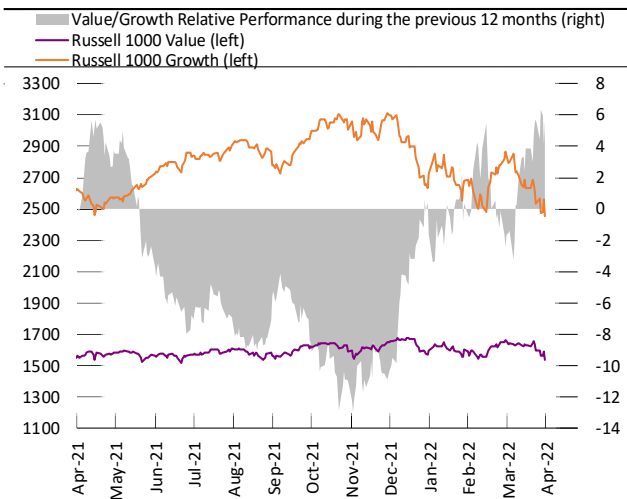
Data as of April 29<sup>th</sup> – Rebased @ 100

Equity Market Performance – Emerging Markets



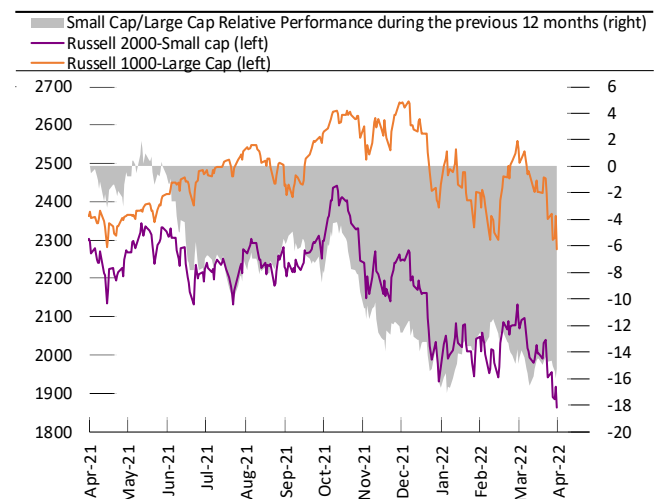
Data as of April 29<sup>th</sup> – Rebased @ 100

Russell 1000 Value & Growth Index



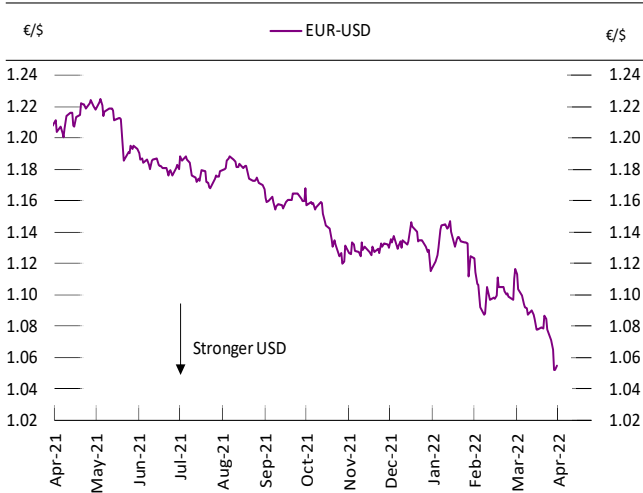
Data as of April 29<sup>th</sup>

Russell 2000 & Russell 1000 Index



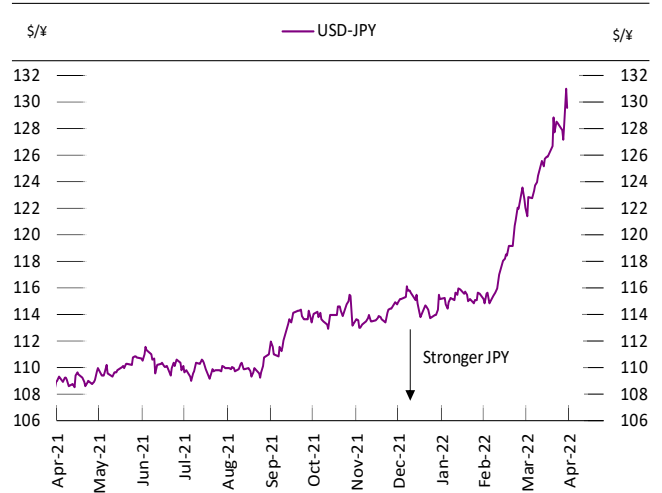
Data as of April 29<sup>th</sup>

EUR/USD



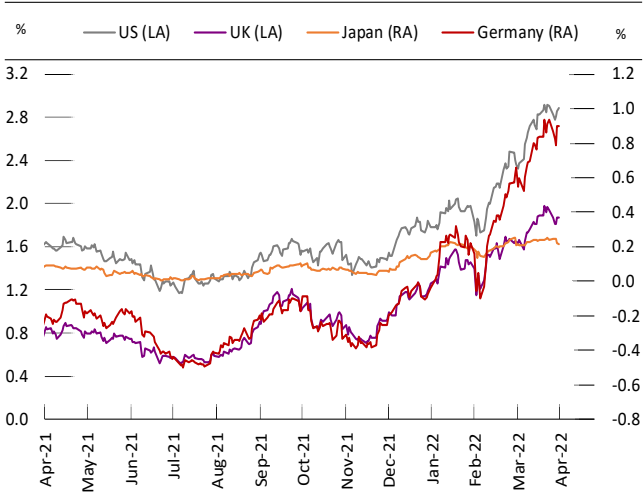
Data as of April 29<sup>th</sup>

JPY/USD



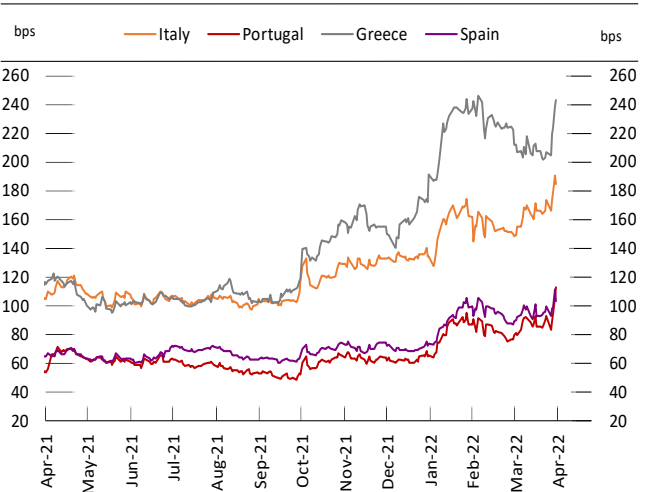
Data as of April 29<sup>th</sup>

10- Year Government Bond Yields



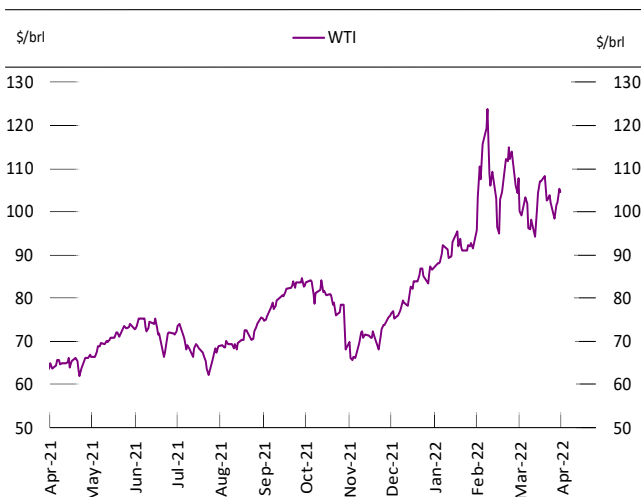
Data as of April 29<sup>th</sup>  
LA:Left Axis RA:Right Axis

10- Year Government Bond Spreads



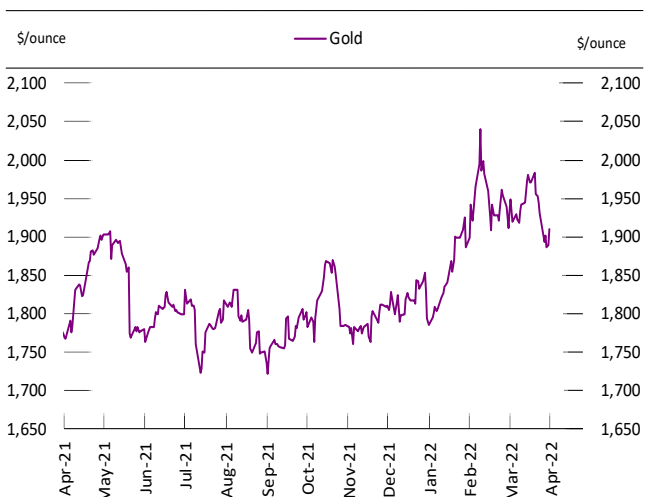
Data as of April 29<sup>th</sup>

West Texas Intermediate (\$/bbl)



Data as of April 29<sup>th</sup>

Gold (\$/ounce)



Data as of April 29<sup>th</sup>



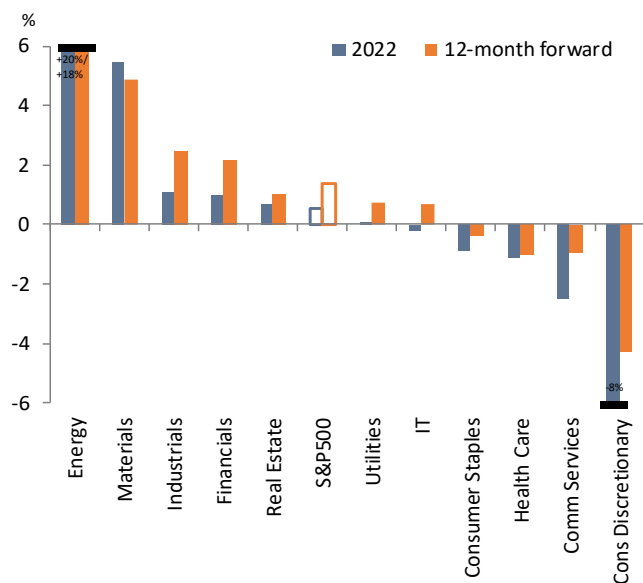
### US Sectors Valuation

	Price (\$)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	29/4/22	% Weekly Change	%YTD	2022	2023	2022	2023	2022	2023	12m fwd	10Yr Avg	2022	2023	Current	10Yr Avg
<b>S&amp;P500</b>	4132	-3.3	-13.3	9.9	10.0	1.5	1.6	18.2	16.6	17.7	17.1	3.9	3.5	3.8	3.0
<b>Energy</b>	572	-1.3	35.4	95.9	-12.0	3.2	3.3	9.3	10.6	9.7	15.6	2.2	2.0	2.1	1.7
<b>Materials</b>	534	-0.8	-6.3	14.2	-3.8	1.9	2.0	14.5	15.1	14.7	16.1	2.9	2.7	2.8	2.6
<b>Financials</b>															
<b>Diversified Financials</b>	975	-3.9	-10.9	-7.5	12.4	1.6	1.8	15.3	13.6	14.7	14.9	1.9	1.7	1.8	1.6
<b>Banks</b>	340	-5.4	-18.7	-16.2	16.6	3.1	3.4	10.4	8.9	9.9	11.5	1.1	1.0	1.1	1.1
<b>Insurance</b>	557	-4.8	1.1	-0.2	15.0	2.1	2.3	13.9	12.1	13.3	11.6	1.6	1.5	1.6	1.2
<b>Real Estate</b>	291	-5.7	-10.3	10.0	6.7	2.8	2.9	21.4	20.1	21.0	18.8	3.8	3.9	3.8	3.3
<b>Industrials</b>															
<b>Capital Goods</b>	804	-4.4	-9.8	22.1	17.4	1.7	1.9	18.9	16.1	18.0	17.2	4.2	3.8	4.1	3.9
<b>Transportation</b>	1006	-1.2	-10.8	120.9	27.7	1.7	1.9	17.2	13.5	N/A	13.9	5.6	4.6	5.3	4.1
<b>Commercial Services</b>	493	-0.8	-9.3	10.8	11.0	1.2	1.3	26.4	23.8	25.5	21.5	5.8	5.2	5.6	4.0
<b>Consumer Discretionary</b>															
<b>Retailing</b>	3273	-8.8	-22.6	-20.5	37.3	0.7	0.8	33.1	24.1	30.2	27.0	10.5	8.7	9.9	9.0
<b>Consumer Services</b>	1302	-1.9	-13.8	3411.4	85.1	1.2	1.3	38.5	20.8	N/A	28.7	23.2	16.8	21.1	10.2
<b>Consumer Durables</b>	398	-1.8	-25.4	21.4	8.4	1.6	1.7	11.6	10.7	11.3	17.5	3.0	2.6	2.9	3.4
<b>Automobiles and parts</b>	158	-12.0	-20.8	27.8	18.6	0.2	0.2	32.3	27.2	N/A	15.1	5.8	4.9	5.5	2.7
<b>IT</b>															
<b>Technology</b>	2960	-2.6	-13.3	9.0	7.0	0.8	0.9	22.1	20.7	21.6	15.3	14.9	12.9	14.2	6.4
<b>Software &amp; Services</b>	3163	0.3	-18.8	14.0	15.4	0.9	1.0	26.2	22.7	25.1	21.2	8.2	6.9	7.8	6.2
<b>Semiconductors</b>	1921	-2.8	-27.0	13.5	10.8	1.5	1.6	16.2	14.6	15.7	15.4	5.1	4.3	4.9	3.8
<b>Communication Services</b>	198	-4.1	-26.0	-0.4	16.3	0.9	0.9	16.5	14.2	15.8	19.1	2.9	2.6	2.8	3.2
<b>Media</b>	773	-3.6	-28.6	2.8	18.2	0.3	0.4	18.3	15.5	17.4	22.5	3.7	3.2	3.5	3.7
<b>Consumer Staples</b>															
<b>Food &amp; Staples Retailing</b>	699	-4.9	-0.3	7.1	7.6	1.4	1.5	23.2	21.6	22.7	18.2	5.0	4.5	4.9	3.6
<b>Food Beverage &amp; Tobacco</b>	862	-1.2	5.6	2.8	7.0	3.1	3.2	20.2	18.9	19.8	18.4	5.6	5.7	5.6	5.1
<b>Household Goods</b>	908	-1.2	-7.0	3.1	9.5	2.2	2.3	26.7	24.4	26.0	21.3	11.1	10.7	11.0	6.7
<b>Health Care</b>															
<b>Pharmaceuticals</b>	1211	-1.3	-6.8	7.9	-5.7	2.0	2.1	13.9	14.8	14.2	15.3	5.1	4.4	4.8	4.3
<b>Healthcare Equipment</b>	1828	-4.0	-8.7	3.6	10.1	1.1	1.2	19.6	17.8	19.0	16.8	3.7	3.4	3.6	3.0
<b>Utilities</b>	362	-4.1	-0.5	1.6	7.7	3.0	3.2	20.7	19.2	20.2	17.1	2.2	2.1	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

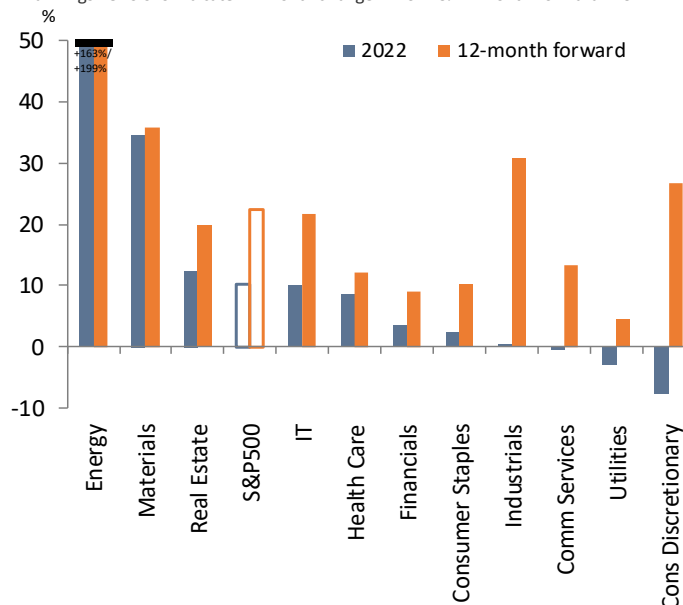
Earnings Revisions indicate 1-month change in 2022 & 12-month Forward EPS



Data as of April 29<sup>th</sup>  
12-month forward EPS are 67% of 2022 EPS and 33% 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 April 29<sup>th</sup>  
12-month forward EPS are 67% of 2022 EPS and 33% of 2023 EPS

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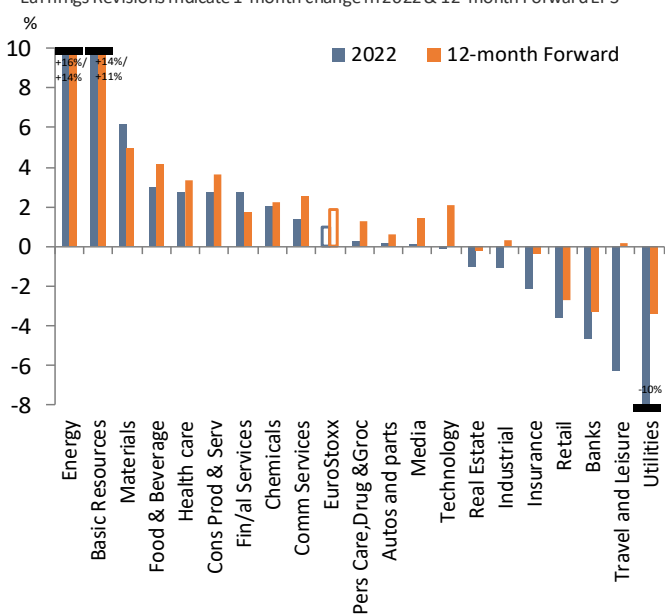
### Euro Area Sectors Valuation

	Price (€)			EPS Growth (%)		Dividend Yield (%)		P/E Ratio				P/BV Ratio			
	29/4/22	% Weekly Change	%YTD	2022	2023	2022	2023	2022	2023	12m fwd	10Yr Avg	2022	2023	Current	10Yr Avg
<b>EuroStoxx</b>	426	-1.0	-11.1	8.4	10.1	3.1	3.4	13.9	12.6	13.5	14.5	1.6	1.5	1.6	1.5
<b>Energy</b>	308	1.8	6.8	63.6	-13.3	4.9	5.2	6.5	7.5	6.9	13.1	1.2	1.1	1.2	1.2
<b>Materials</b>	999	1.3	-4.2	1.7	-10.2	2.6	2.7	12.5	13.9	12.9	15.7	1.8	1.7	1.7	1.7
<b>Basic Resources</b>	251	-0.8	1.2	-5.6	-34.0	2.8	3.0	4.9	7.4	5.7	10.0	0.7	0.7	0.7	0.8
<b>Chemicals</b>	1444	1.6	-4.9	6.5	3.7	2.6	2.7	16.9	16.3	16.7	16.7	2.3	2.2	2.3	2.3
<b>Financials</b>															
<b>Fin/Al Services</b>	533	-1.0	-8.0	26.2	-9.4	2.8	3.2	11.6	12.8	12.0	14.5	1.4	1.4	1.4	1.2
<b>Banks</b>	86	-4.5	-14.1	-5.9	11.3	6.0	7.2	7.8	7.0	7.5	9.9	0.6	0.5	0.5	0.7
<b>Insurance</b>	303	-2.7	-1.1	1.9	11.8	5.5	5.8	9.9	8.8	9.5	9.6	0.9	0.9	0.9	0.9
<b>Real Estate</b>	196	-2.8	-12.3	8.1	7.7	4.3	5.3	14.9	13.8	14.6	17.0	0.7	0.7	0.7	1.0
<b>Industrial</b>	989	-1.1	-15.6	19.5	15.8	2.3	2.7	17.8	15.4	17.0	17.2	2.6	2.4	2.5	2.6
<b>Consumer Discretionary</b>															
<b>Media</b>	266	-2.2	-7.0	12.0	14.5	2.3	2.6	21.1	18.4	20.2	17.3	2.8	2.6	2.7	2.2
<b>Retail</b>	453	-2.5	-34.6	-1.4	10.7	4.8	5.1	18.4	16.6	17.8	26.2	3.5	3.4	3.5	5.7
<b>Automobiles and parts</b>	540	0.6	-14.4	-2.6	9.9	5.6	5.9	6.0	5.4	5.8	8.6	0.8	0.7	0.8	1.0
<b>Travel and Leisure</b>	166	-0.2	-14.1	N/A	86.2	1.3	1.9	27.4	14.7	N/A	N/A	2.2	2.1	2.2	2.2
<b>Technology</b>	760	-1.0	-22.7	9.4	23.3	1.1	1.2	23.0	18.6	21.5	21.2	3.4	3.1	3.3	3.6
<b>Communication Services</b>	298	0.3	3.4	15.2	13.4	3.7	4.0	16.6	14.7	16.0	14.4	1.6	1.5	1.6	1.7
<b>Consumer Staples</b>															
<b>Food, Beverage &amp; Tobacco</b>	183	1.6	-4.6	14.5	12.7	1.8	2.1	20.6	18.3	19.8	20.0	2.2	2.1	2.2	2.6
<b>Personal Care, Drug &amp; Grocery</b>	187	1.1	-7.1	2.0	10.4	2.5	2.6	17.1	15.5	16.5	17.5	2.4	2.2	2.3	2.4
<b>Consumer Products &amp; Services</b>	421	-2.4	-20.2	10.1	13.7	1.7	1.9	26.7	23.5	25.7	24.4	5.8	5.1	5.5	4.0
<b>Health care</b>	885	-2.6	-5.1	8.7	9.1	2.2	2.3	17.3	15.9	16.9	16.6	2.2	2.1	2.2	2.3
<b>Utilities</b>	372	1.0	-5.6	-29.3	47.2	4.2	4.8	19.4	13.2	17.4	13.7	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

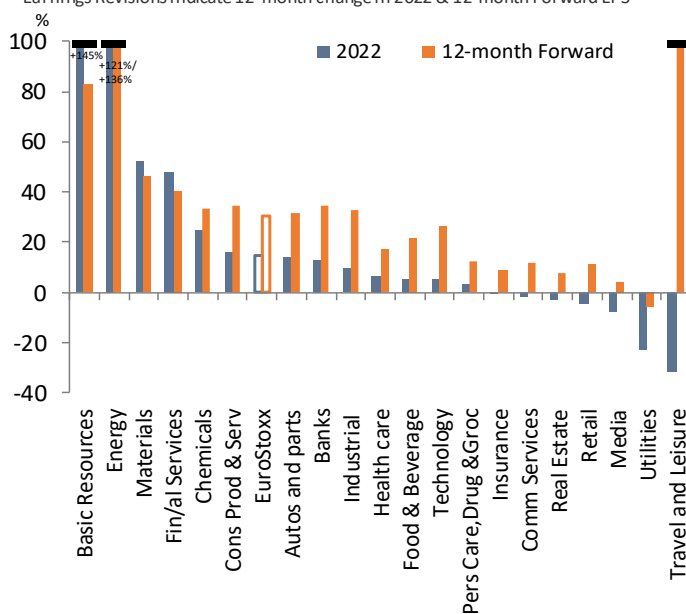


Data as of April 29<sup>th</sup>

12-month forward EPS are 67% of 2022 EPS and 33% 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 April 29<sup>th</sup>

12-month forward EPS are 67% of 2022 EPS and 33% of 2023 EPS

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

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