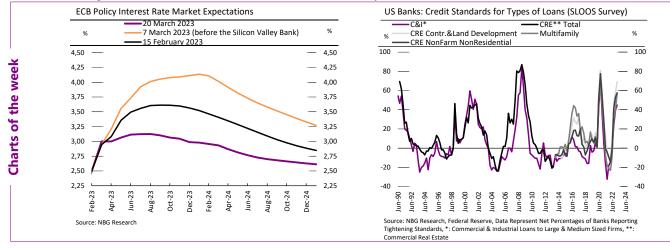
Global Markets Roundup

National Bank of Greece | Economic Research Division | March 21, 2023

Odds are tilting toward an interest rate hike of 25 basis points by the Federal Reserve

- The Federal Reserve, due on Wednesday, is expected to increase interest rates by +25 bps to a range of 4.75% 5.0%. However, the likelihood of staying on hold is not zero, given recent concerns about the US banking sector, the cumulative tightening of 450 basis points in the past twelve months and bank stress leading to tighter lending standards and slower lending growth (see graph below).
- The Federal Reserve had circa \$320 billion in loans outstanding to depository institutions (1.8% of total domestic deposits, as of March 16th) from \$15 billion two weeks ago, suggesting that liquidity needs of smaller banks have increased. The Fed has lent \$153 billion in the primary lending program (where the Fed values securities collateral at fair value, with a variable cost ranging between 4.75% and 5.25% based on FFR), \$147 billion in the two FDIC-operated "bridge banks" (Silicon Valley and Signature) and \$12 billion in the newly announced Bank Term Funding Program, where the Fed values securities collateral at nominal value, with a variable cost of 1-Year USD OIS plus 10 basis points, currently at 4.37%.
- The European Central Bank stayed the course, increasing interest rates by +50 bps to 3.0% (DFR) and separating the monetary policy concern (inflation) from the financial stability concern (Silicon Valley Bank, Credit Suisse). The ECB dropped its hawkish forward guidance regarding the interest rate path, due to elevated financial uncertainty, highlighting the importance of a data-depended, meeting-by-meeting approach to interest rate decisions.
- Having said that, President Lagarde underlined that if the baseline economic scenario (see Economics) were to persist when the uncertainty lessens, interest rates would have to increase further given strong core inflation pressures. Market pricing (according to overnight index swaps) now points to roughly additional hikes of +25 bps for euro policy interest rates, from additional hikes of +100 bps two weeks ago. Finally, the ECB stands ready to act, if needed, to provide liquidity support to the euro area financial institutions, amid the current turmoil.
- Following massive and rapid outflows of funds, confidence in Credit Suisse has been eroded very quickly (see graph page 3). As a result, on Sunday, UBS announced it would acquire Credit Suisse in full for CHF 3 billion (60% below CS's market capitalization on Friday) or CHF 0.76/ share, with CS' shareholders receiving 1 UBS share for every 22.48 CS shares, with the deal not being subject to shareholder approval, as the Swiss Government has exercised its emergency powers. The deal is backed by Swiss Authorities (SNB, Swiss Government) with abundant liquidity (CHF 200 billion or 60% of pro-forma UBS/CS deposits) and a federal guarantee of CHF 9 billion (1.1% of GDP) to support UBS in bearing losses arising from the takeover of Credit Suisse.
- In addition, according to FINMA, the extraordinary Swiss Government support triggered a 100% write-down of the nominal value of all AT1 shares of Credit Suisse (circa CHF 16 billion), with the decision transmitting pressures to other AT1 and high-yield issuers (see graph page 3). However, pressures eased after the ECB Banking Supervision, the Single Resolution Board and the European Banking Authority issued a statement that common equity instruments are the first ones to absorb losses, and only after their full use would Additional Tier 1 be required to be written down.



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

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

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

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

Table of Contents

Overview_p1 Economics & Markets_p2,3 Forecasts & Outlook_p4 Event Calendar_p5 Markets Monitor_p6 ChartRoom_p7,8 Market Valuation_p9,10

NATIONAL BANK OF GREECE

US CPI inflation was roughly in line with expectations in February, with a sharp momentum for the core

• Headline CPI inflation remained elevated in February, albeit decelerating for an 8th consecutive month. Specifically, the annual pace of growth came out at +6.0%, in line with consensus estimates and compared with +6.4% in January (and a peak of +9.1% in June 2022). Note that the deceleration was in a big part due to base effects (on a monthly basis, the index had increased by +0.7% in February 2022 seasonally adjusted | "sa"). Indeed, the momentum was resilient in February 2023 (+0.4% mom). The energy index decreased by -0.6% mom (sa) following a +2.0% mom in January and the annual growth decelerated to +5.2% from +8.7% previously (also due to base effects | Energy prices had risen by +2.7% mom sa in February 2022). In a contrarian note, food prices maintained a strong momentum, albeit easing, in view also of declining international prices of food. Indeed, the Food Price Index from the Food and Agriculture Organization of the United Nations decreased by -0.6% mom in February and has fallen by -4.0% since past November. In all, US CPI food prices increased by +0.4% mom (sa) from +0.5% mom in January (average monthly pace since June 2021: +0.8% mom versus a 20-year average of +0.2% mom). Still, mostly base effects (+1.0% mom sa in February 2022), led to a deceleration in the annual pace of growth, to +9.5% from +10.1% in January (peak of +11.4% in August, the highest since May 1979). Importantly, the impetus for core CPI was sharp, up by +0.5% mom (sa) from +0.4% mom in January and above consensus for +0.4% mom (20-year average of +0.2% mom). Core CPI's annual pace of growth decelerated only slightly, by -0.1 pp to +5.5% in February, largely in line with consensus estimates (peak of +6.6% yoy in September 2022).

Looking forward, the Federal Reserve Bank of Cleveland's Inflation Nowcasting model points to a deceleration to +5.2% yoy for the headline CPI in March (mostly due to base effects though, with monthly expected gains of +0.3%) and to an acceleration to +5.7%yoy for the core index (in view of a continued sharp momentum, with monthly expected gains of +0.5%).

ECB macroeconomic projections are surrounded by higher uncertainty than usual due to recent developments

- Regarding macroeconomic projections, the ECB proceeded with mixed revisions at its real GDP profile (compared with December), to the upside in the short-term by +0.5 pps to +1.0%, on the back of carry-over effects from positive data surprises in H2:2022 and a more benign outlook for the energy market, and to the downside later. Overall, the envisaged level of real GDP in 2025 is +0.2% above the one in the December projections.
- On inflation, the more benign outlook for energy prices was the main factor behind a downward revision across the forecast horizon (-1.0 pp to +5.3% on average in 2023, -0.5 pps to +2.9% in 2024 and -0.2 pps to +2.1% in 2025). Overall, the envisaged level of headline CPI in 2025 is -1.6% below the one in the December projection. The projected level of core CPI in 2025 is just -0.1% below the one in the December projections, with an upward revision in 2023 (+0.4 pps to +4.6% on average), followed by -0.3 pps to +2.5% in 2024 and by -0.2 pps to +2.2% in 2025.

The UK economic outlook from the Office for Budget Responsibility, became less bleak compared with November

According to the Spring Statement, some room for targeted supportive fiscal measures opened up, as the Office for Budget Responsibility (OBR) expects less weakness for UK GDP compared with its previous forecasts in November. Better than previously expected GDP outcomes recently and lower expectations for wholesale gas prices and interest rates were the main factors for the upward revision. In the event, after real GDP declined by -0.2% gog in Q3:22 and was flat on a quarterly basis in Q4:22, the OBR in its latest (Economic and Fiscal Outlook - "EFO") central scenario expects a -0.4% gog in the current guarter, to be followed by a roughly unchanged GDP in Q2:23, before a recovery starts in Q3:23. Recall that in November, the OBR had adopted a particularly depressed view for economic activity, expecting a recession to last for a little more than a year starting in Q3:22, with a cumulative drop in GDP of -2.1% from Q3:22 to Q3:23. In all, the OBR now foresees a -0.2% for GDP in 2023 instead of -1.4% at the time of the Autumn 2022 Statement (in November) and +1.8% in 2024 instead of +1.3% .

On inflation, a more rapid decline in energy prices than previously assumed, led to a substantial downward revision for CPI inflation forecasts in the short term (-1.3 pps compared with the November EFO, to +6.1% yoy on average in 2023 | +10.1% yoy in January 2023). Further ahead, upward revisions took place, albeit more moderate (e.g. for 2024: +0.9% yoy instead of +0.6%), in view of more domestic price pressures on the back higher assumed demand.

• The aforementioned renewed assumptions for GDP and inflation, opened up an estimated fiscal space of £24.7 bn per year (c. 1% of nominal GDP) in the forecast horizon (up to fiscal year 2027–28, i.e. from April 6th of the first year to the 5th of April in the following one) relative to the Autumn 2022 Statement. That space comes on the back of both upward revisions for receipts (+£14.8 bn) and a downward one for public spending (-£9.9 bn, mostly related to lesser fiscal space (£15.6 per year on average in the forecast horizon) will be used for further policy support, mainly against the cost of living crisis, to facilitate labor force participation (e.g. via enhanced childcare support) and to boost business investment.

In all, the public sector borrowing (net) is now projected to average -3.5% of GDP from fiscal year 2022-23 to 2027-28 (estimated at -6.1% in fiscal year 2022-23) instead of -4.0% of GDP in the Autumn Statement projections. Finally, the public sector debt (net) is projected to peak at 103.1% of GDP in fiscal year 2023-24 and to decline to 96.9% by fiscal year 2027-28.

China: Economic activity in the beginning of the year improved, roughly as expected

Economic activity in January – February recovered, on the back of the phasing out of stringent restrictive measures related to Covid-19. In all, the annual growth of industrial production was +2.4% yoy in January-February cumulatively, from +1.3% yoy in December, versus consensus estimates for +2.6% yoy. Furthermore, retail sales (in value terms) came out at +3.5% yoy in January-February, from -1.8% yoy in December, in line with expectations. Finally, fixed asset investment growth was +5.5% yoy from +5.1% yoy, exceeding consensus estimates for +4.4%.



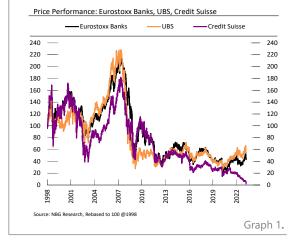
Equities

 After a volatile week with sizeable losses for bank stocks on both sides of the Atlantic (US: -10%, euro area: -11%) and gains for government bond prices as interest rates declined significantly amid a profound repricing of the expected monetary policy path (see graph page 1), global equity indices entered the current week in the green. Volatility will continue as financial markets digest the recent events (Silicon Valley Bank, Credit Suisse) and their economic implications. In the past week, the pan-European Stoxx600 ended lower by -3.9%, with Banks declining by -11.5% wow, recording their largest weekly decline since March 2022. Credit Suisse experienced a crisis of confidence, following a deposit's decline of \$111 billion in Q4:2022. During the weekend, it was announced that UBS will take over Credit Suisse in full for CHF 3 billion or CHF 0.76/ share, with CS' shareholders receiving 1 UBS share for every 22.48 CS shares. Furthermore, the Swiss National Bank can grant Credit Suisse a liquidity assistance loan of up to CHF 100 billion backed by a federal default guarantee. In addition, UBS and Credit Suisse can obtain a liquidity assistance loan with privileged creditor status in bankruptcy of up to CHF 100 billion, while also the Federal Government is providing a loss guarantee of a maximum of CHF 9 billion for a portfolio of difficult-to-assess assets from Credit Suisse that would be activated only after UBS bears the first CHF 5 billion of losses incurring on this portfolio.

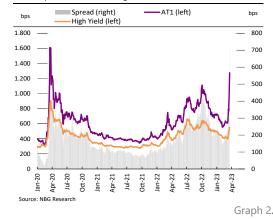
In the US, the S&P500 ended the week up by +1.4%, with Media sector overperforming (+8.1% wow), supported by news that a potential ban could be imposed to their Chinese rival TikTok in the US if the app's Chinese owners does not divest their share in the company. On the contrary, Banks declined by -11.2% wow, with the First Republic bank (FRC), the 14th largest US bank by asset size (\$213 billion), underperforming significantly (-71.8% wow). The announcement that a consortium of US largest banks would put \$30 billion in (uninsured) deposits to the FRC for a period of at least 120 days (\$5 billion by each of Bank of America, Citigroup, JPMorgan Chase and Wells Fargo, \$2.5 billion by each of Goldman Sachs and Morgan Stanley and \$1 billion by each of BNY Mellon, PNC Bank, State Street, Truist and U.S. Bank) led to a reversal of intra-day losses of -36% on Thursday to gains of +10%, nevertheless new downward pressures resurfaced on Friday and Monday (-64% cumulatively), following media reports that the bank plans to raise capital through the issuance of new shares. It should be noted that around 68% of FRC's \$176 billion in deposits in end-2022 were not covered by the federal insurance amount of \$250,000 per depositor.

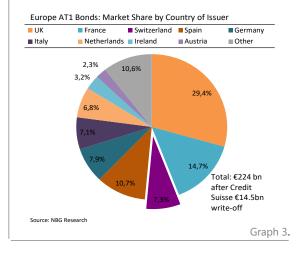
Fixed Income

• Fixed income market exhibited increased volatility as well. Indeed, US interest rate implied volatility as measured by the ICE BofAML MOVE index, has increased considerably, recording on Wednesday its highest level since December 2008. The 10-year US Treasury yield declined by 31 bps to 3.39%, while the 2-year yield, which is relatively more closely related to monetary policy prospects, ended the week down by 75 bps to 3.90%, due to, inter alia, the significant downward revision of investors' expectations regarding the Fed's policy rate path during 2023 by 60 bps, with investors estimating that the Fed could possibly start cutting policy rate as early as at the June meeting. In Germany, the 10-year yield ended the week down by -38 bps to 2.07% and the 2-year yield by 64 bps to 2.39%, with the ECB omitting forward guidance after deciding to raise policy rates by +50 bps in its March 16th meeting in the wake of recent markets turmoil. Corporate bond spreads widened in the past week as investors turned to "safe haven" assets. Indeed, USD HY bond spreads ended the week up by +56 bps wow to 517 bps and their EUR counterparts by +82 bps wow to 522 bps. In the investment grade spectrum, USD IG bond spreads widened by 25 bps to 162 bps and their EUR counterparts by +36 bps wow to 187 bps. Notably, on Monday EUR HY spreads widened by further +28 bps to 550 bps and EUR IG spreads by +8 bps to 195 bps, following the announcement that holders of "Additional-Tier 1 (AT-1)" bonds of Credit Suisse have been wiped out (CHF 16 billion).



Bond Spreads: AT1 & EUR High Yield





Quote of the week: "I believe that there is no trade-off between price stability and financial stability... We are addressing the price stability issue by raising interest rates by 50 basis points, which is what we had intended, and because inflation is projected to remain way above our target and for too long. Separate from that, we also are monitoring market tensions. We stand ready to provide any kind of additional facilities if needed.", ECB President, C. Lagarde, March 16th 2023.

Interest Rates & Foreign Exchange Forecasts



10-Yr Gov. Bond Yield (%)	March 17th	3-month	6-month	12-month	Official Rate (%)	March 17th	3-month	6-month	12-month
Germany	2,07	2,60	2,70	2,80	Euro area	3,00	3,00	3,25	3,25
US	3,39	4,00	4,10	4,10	US	4,75	5,00	5,00	5,00
UK	3,21	3,60	3,58	3,38	UK	4,00	4,25	4,40	4,35
Japan	0,30	0,47	0,71	0,70	Japan	-0,10	-0,10	-0,10	-0,10
Currency	March 17th	3-month	6-month	12-month		March 17th	3-month	6-month	12-month
EUR/USD	1,06	1,05	1,08	1,10	USD/JPY	132	131	128	126
EUR/GBP	0,88	0,90	0,90	0,91	GBP/USD	1,22	1,17	1,20	1,20
EUR/JPY	140	138	138	138					
Forecasts at end of period									

Forecasts at end of period

United States	2020 a	Q1:21a	Q2:21a	Q3:21a	Q4:21a	2021a	Q1:22a	Q2:22a	Q3:22a	Q4:22a	2022a
Real GDP Growth (YoY) (1)	-2,8	1,2	12,5	5,0	5,7	5,9	3,7	1,8	1,9	1,0	2,1
Real GDP Growth (QoQ saar) (2)	-	6,3	7,0	2,7	7,0	-	-1,6	-0,6	3,2	2,9	-
Private Consumption	-3,0	10,8	12,1	3,0	3,1	8,3	1,3	2,0	2,3	2,1	2,8
Government Consumption	2,6	6,5	-3,0	-0,2	-1,0	0,6	-2,3	-1,6	3,7	3,7	-0,6
Investment	-2,3	9,7	5,8	-1,1	0,6	7,4	4,8	-5,0	-3,5	-6,7	-0,3
Residential	7,2	11,6	-4,9	-5,8	-1,1	10,7	-3,1	-17,8	-27,1	-26,7	-10,7
Non-residential	-4,9	8,9	9,9	0,6	1,1	6,4	7,9	0,1	6,2	0,7	3,6
Inventories Contribution	-0,7	-3,0	-1,3	2,0	5,1	0,2	0,3	-2,1	-1,4	1,8	0,7
Net Exports Contribution	-0,2	-1,3	-0,8	-1,3	-0,6	-1,7	-3,8	1,2	3,3	0,7	-0,6
Exports	-13,2	0,4	4,9	-1,1	23,5	6,1	-4,6	13,8	14,6	-1,3	7,2
Imports	-9,0	7,6	7,9	6,6	18,6	14,1	18,4	2,2	-7,3	-4,6	8,1
Inflation (3)	1,2	1,9	4,9	5,4	6,7	4,7	8,0	8,7	8,3	7,1	8,0
Euro Area	2020a	Q1:21a	Q2:21a	Q3:21a	Q4:21a	2021a	Q1:22a	Q2:22a	Q3:22a	Q4:22a	2022a
Real GDP Growth (YoY)	-6,3	-0,8	14,2	4,0	4,8	5,3	5,5	4,4	2,4	1,8	3,5
Real GDP Growth (QoQ saar)	-	-0,1	8,1	9,4	2,2	-	2,5	3,6	1,5	-0,1	-
Private Consumption	-7,8	-7,6	13,8	18,8	1,1	3,7	0,4	4,3	3,7	-3,4	4,3
Government Consumption	1,0	-1,3	8,9	1,8	1,4	4,3	0,3	-0,3	-0,8	3,0	1,1
Investment	-6,4	-9,0	7,8	-2,5	14,3	3,9	-2,7	3,8	16,7	-13,6	3,8
Inventories Contribution	-0,3	2,6	-2,4	-0,2	3,0	0,2	-1,3	0,6	0,8	0,3	0,3
Net Exports Contribution	-0,5	3,7	0,1	0,4	-4,4	1,3	4,2	0,0	-4,4	4,0	-0,1
Exports	-9,2	4,9	10,9	7,1	10,7	10,5	5,8	7,1	7,0	0,3	7,2
Imports	-8,7	-2,9	12,0	6,8	22,8	8,3	-2,5	7,9	17,8	-7,4	8,0
Inflation	0.3	1.0	1.8	2.9	4.7	2.6	6.1	8,0	9,3	10.0	8.4

6-12-Month View & Key Factors for Global Markets

_	US	Euro Area	Japan	UK
- + +	Households' balance sheets are healthy (low debt, still elevated excess savings) Sentiment (e.g. AAII) and positioning indicators are low, despite the recent rally Peaking profit margins Recession risks remain considerable P/Es (Valuations) above long-term means, with EPS consensus expectations (\$228 for EPS) only slightly lower compared with end Q3 (-3%)	 Higher equity risk premium (lower P/E ratio) relative to benchmark market (US) despite the recent rally of + 20% since October 2022 lows Fiscal policy will remain supportive in 2023 (plus RRF) China's covid policy pivot could accelerate an export-led recovery Geopolitical uncertainty (Ukraine-Russia, natural gas) could re-intensify 	 JPY appreciation from ¥150 to ¥130, if continues, could hurt exporters Signs of policy fatigue regarding structural 	 Significant exposure to commodities Undemanding valuations in relative terms relative to other regions Elevated domestic policy uncertainty The BOE is expected to continue increasing interest rates aggressively as inflation remains very high and labor market extremely tight
•	Neutral/Negative	Neutral/Positive	Neutral	Neutral
+ + + + + + + + +	Valuations appear somewhat rich despite the 237bps increase in 2022, with term-premium @ -0.5% (1% for 2000-2015) Fiscal deficits to remain sizeable in following years Underlying inflation pressures remain acute FED: passive (lower rollover) Quantitative Tightening Global search for yield by non-US investors (e.g. Japan, repatriation from EM Economies) could reverse Safe-haven demand bid to support prices assuming geopolitical risks re-intensify The FED is likely close to be done with rates	 Valuations still appear excessive compared with long-term fundamentals ECB to start unwinding its government and corporate bond holdings (APP) in March 2023 ECB to continue with interest rate hikes in 2023 as core inflation pressures remain strong Fragile economic growth outlook due to the war in Ukraine ECB QE "stock" effect, with government bond holdings of €4.2 trillion (32% of GDP) 	 The range of Yield-Targeting of 10-Year JGB at around 0% could widen further (current: +/- 50 bps) Safe-haven demand Monetary stance remains extremely dovish, 	 Inflation expectations could drift higher due t supply disruptions (persistent post Brexit, temporary due to China) The BOE is expected to continue increasing interest rates aggressively as inflation remain very high and labor market extremely tight BOE: active (sales) Quantitative Tightening Slowing economic growth post-Brexit
	Slightly higher yields	Slightly higher yields	Slightly Higher yields	Slightly Higher yields
- + + +	USD interest rate differential vs peers remain significant Weak global economic growth Safe-haven demand status Global political uncertainty to decline The FED is close to be done, which reduces potential USD upside	 ECB to continue with interest rate hikes in 2023 as core inflation pressures remain strong Lower geopolitical uncertainty (Ukraine-Russia, natural gas) is positive for EUR Global growth risks remain to the downside 	 Safe haven demand More balanced economic growth recovery (long- term) Higher core Inflation rates could accelerate the shift of monetary policy (less accommodative) 	 Valuations appear undemanding with REER below its 15-year average Sizeable Current account deficit
-	Broadly Flat USD against G10 FX	 Range-bound (around 1.05) with upside risks against the USD 	Stronger JPY	Broadly stable GBP



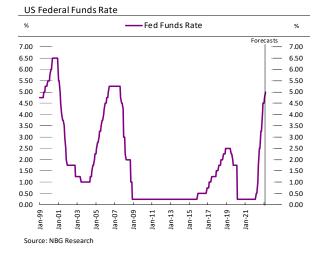
Economic Calendar

In the US, the Federal Reserve meets on March 22nd and is expected to increase its Federal Funds Rate (FFR) by 25 basis points to the 4.75%-5.00% range. The press conference though and the quarterly FOMC projections, will gather the attention for a better assessment of monetary policy prospects.

In the UK, the BoE meets on March 23rd and is expected to increase its Bank Rate by 25 bps to 4.25%. On Wednesday, attention turns to inflation data for February. CPI is expected at 9.9% yoy from 10.1% yoy in January, while the core figure is expected at 5.7% yoy from 5.8% yoy.

In the Euro area, attention turns to PMI and consumer confidence surveys for March, as they will provide valuable insight regarding the current economic momentum.

Economic News Calendar for the period: March 14 - March 27, 2022



Tuesday 14 US i hursday 16 JS inesday 15 US D -0.4% -0.1% etail sales (MoM) PI (YoY) 6.4% 5.6% uilding permits (k) 1340 1310 February 3.2% 2.4% February 1524 1450 1339 6.0% 5.5% etail sales ex-autos MoM ore CPI (YoY) February 5.5% 0.1% February March 11 February ousing starts (k) 1321 υĸ VAHB housing market itial Jobless Claims (k) 205 192 212 March 41 + 44 42 Continuing Claims (k) Philadelphia Fed Business LO Unemployment Rate January 3.8% ÷ 3.7% 3.7% onfidence index March 4 1715 1684 1713 Empire Manufacturing Net Long-term TIC Flows (\$ bn) EURO AREA March -24.6 31.9 -7.7 -5.8 -15.1 -23.2 -24.3 March January 152.8 Outlook EURO AREA 0.7% CB announces its intervention ndustrial Production (sa. MoM) January 0.4% -1.3% March 16 3.50% 3.50% 3.00% ndustrial Production (wda, YoY) Januar 0.3% 0.9% -2.0% CB announces its deposit facility CHINA March 16 3.00% 3.00% 2.50% Industrial production (YoY) Retail sales (YoY) February 2.6% 2.4% 1.3% JAPAN February 3.5% 3.5% -1.8% 12.2% 8.3% nports Yo February 17.5% ports YoY February 7.1% -6.5% 3.5% Friday 17 US EURO AREA ndustrial Production (MoM) Jniversity of Michigan 0.0% 0.3% -11.3 February 0.4% rade Balance SA (€ bn) January -8.9 . -13.4 67.0 67.0 63.4 March onfidence Tuesday 21 US ednesday 22 Thursday 23 US S А US S Α Ρ Ρ S Α ing home sales (mn) Februar 42 40 ed announces its intervention ew home sales (k) hitial Jobless Claims 640 670 Febru March 22 5.00% 475% itial Jobless Claims (k) ontinuing Claims (k) March 18 March 11 195 1690 192 1684 GERMANY , ns (k) March 45.0 -45.1 EW survey current situation **UK** CPI (YoY) ZEW survey expectations March 17.5 28.1 February 9.9% 10.1% ore CPI (YoY) February 5.7% 5.8% BoE announces its intervention March 23 4.25% 4.00% URO AREA sumer Confidence Indicato March -18.4 -19.0 Friday 24 US Monday 27 EURO AREA EURO AREA S А Ρ S А Ρ A M3 money supply (YoY) GERMANY S&P Global US Manufacturing S&P Global Eurozone February 3.0% 3.5% March 47.3 47.3 March 49.0 48.5 Manufacturing PMI S&P Global Eurozone Services PMI FO- Business Climate Indicator FO- Current Assesment Ourable goods orders (MoM) February 0.5% -4.5% March 91.1 March 52.5 52.7 Ourable goods orders ex 0.8% March March 93.9 88.5 0.3% February S&P Global Eurozone Composite ransportation (MoM) O-Expectations March 51.9 52.0 υĸ 6.4 PMI JAPAN PMI manufacturing CPI (YoY) &P Global/CIPS UK PMI 49.8 49.3 March 47.7 Manufacturing SA March February 4.4% 5&P Global/CIPS UK Services PMI March 53.0 53.5 Core CPI (YoY) - ex. Fresh Food February 4.3% Retail sales Ex Auto MoM February 0.0% 0.4% ore CPI (YoY) - ex. Fresh Food February 3.2% nd Energy

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 (%)	2-year change (%)
US	S&P 500	3917	1.4	2.0	-11.2	-1.4	MSCI Emerging Markets	57513	-0.5	0.1	-10.9	-23.9
Japan	NIKKEI 225	27334	-2.9	4.7	2.6	-8.6	MSCI Asia	886	0.5	1.2	-9.5	-25.3
UK	FTSE 100	7335	-5.3	-1.6	-0.7	8.5	China	64	1.8	-0.2	-9.2	-42.6
Euro area	EuroStoxx	434	-4.2	5.8	0.4	1.8	Korea	731	0.7	9.0	-11.9	-24.9
Germany	DAX 40	14768	-4.3	6.1	2.6	1.2	MSCI Latin America	85148	-2.5	-3.5	-14.1	-15.2
France	CAC 40	6925	-4.1	7.0	4.7	14.4	Brazil	272075	-2.2	-7.9	-18.1	-24.8
Italy	FTSE/MIB	25495	-6.6	7.5	5.7	5.0	Mexico	48383	-2.1	7.4	-4.5	10.6
Spain	IBEX-35	8719	-6.1	6.0	3.7	1.4	MSCI Europe	2783	-5.0	-1.1	7.1	-55.5
Hong Kong	Hang Seng	19519	1.0	-1.3	-9.2	-32.8	Russia	2323	2.0	7.8	-6.0	-33.8
Greece	ASE	1020	-3.4	9.7	18.3	19.0	Turkey	5209106	-4.4	-3.3	111.0	207.4

World Market Sectors and Styles (MSCI Indices*)

in US Dollar terms	Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)	Investment Styles	Current Level	1-week change (%)	Year-to-Date change (%)	1-Year change (%)	2-year change (%)
Energy	218.6	-8.0	-11.2	1.0	33.9	Growth	3698.6	2.8	9.1	-11.7	-8.6
Materials	306.9	-3.0	-1.3	-13.0	-8.4	Value	2966.0	-2.9	-4.4	-10.8	-4.6
Industrials	303.8	-2.5	1.5	-7.2	-6.7	Large Cap	1664.9	0.4	2.6	-10.3	-4.3
Consumer Discretionary	318.0	0.4	9.2	-16.5	-19.2	Small Cap	461.2	-3.1	-0.7	-14.3	-19.2
Consumer Staples	265.8	0.8	-1.5	-3.5	3.1	US Growth	2457.2	2.7	4.1	-17.0	-6.2
Healthcare	324.9	1.0	-5.9	-7.5	4.5	US Value	1431.3	0.0	-0.2	-5.7	2.3
Financials	122.3	-6.5	-6.6	-16.6	-10.1	US Large Cap	2146.0	1.2	1.9	-11.9	-4.5
IT	450.9	4.9	14.6	-8.0	-0.3	US Small Cap	1725.9	-2.6	-2.0	-16.4	-26.1
Telecoms	75.1	5.2	12.6	-19.4	-27.1	US Banks	276.4	-11.2	-15.8	-31.3	-29.4
Utilities	147.7	2.4	-3.3	-7.4	-0.8	EA Banks	97.0	-13.4	1.2	5.6	9.2
Real Estate	191.4	-0.2	-2.6	-22.7	-15.0	Greek Banks	736.1	-7.2	14.9	21.9	30.2

Bond Markets (%) 10-Year Government One Year 10-year **Government Bond Yield** One Year 10-year Current Last week Year Start Current Last week Year Start **Bond Yields** Back Spreads (in bps) Back average average US 3.39 3.70 3.88 2.18 US Treasuries 10Y/2Y -94 -58 25 91 2.19 -51 -7 Germany 2.07 2.45 2.53 0.38 0.47 US Treasuries 10Y/5Y -25 -13 3 46 Japan 0.30 0.42 0.42 0.20 0.19 Bunds 10Y/2Y -32 -57 -16 72 75 UK 0 28 51 3.21 3.58 3.66 1.54 1.51 Bunds 10Y/5Y -2 -12 4.28 4.59 2.63 5.24 Greece 4.12 Ireland 2.58 2.92 3.06 0.97 1.17 **Corporate Bond Spreads** One Year 10-year Year Start Current Last week (in bps) Back average Italy 4.00 4.27 4.64 1.90 2.19 Spain 3.19 3.49 3.61 1.32 1.67 US IG 162 137 138 139 132 3.02 3.34 3.57 1.20 2.35 US High yield 517 461 481 381 447 Portugal 151 167 149 120 EM 4.88 5.01 5.04 4.48 0.00 Euro area IG 187 Euro area High Yield 440 498 444 404 522 388 One Year 10-year EM 319 286 295 144 US Mortgage Market Year Start Current Last week Back average **30-Year FRM**¹ (%) 6.71 679 6.42 4.27 4.22 305.9 305.7 240.1 178.5 144.2 vs 30Yr Treasury (bps)

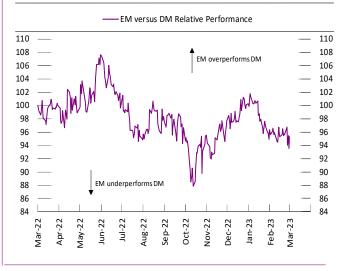
Foreign Exchange & Commodities

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 (%)	Year-to-Date change (%)
Euro-based cross rates											
EUR/USD	1.06	-0.4	-0.3	-4.2	-0.3	Agricultural	448	1.3	-4.4	-18.9	-4.9
EUR/CHF	0.99	0.6	0.1	-4.8	0.1	Energy	238	-10.4	-12.9	-31.1	-17.4
EUR/GBP	0.88	-0.7	-1.4	3.9	-1.2	West Texas Oil (\$/bbl)	67	-13.0	-15.1	-35.2	-16.8
EUR/JPY	140.55	-2.1	-2.0	6.8	-0.2	Crude brent Oil (\$/bbl)	73	-11.9	-14.5	-31.6	-15.1
EUR/NOK	11.40	0.9	4.4	16.8	8.4	HH Natural Gas (\$/mmbtu)	2.3	-2.6	-4.6	-51.3	-33.6
EUR/SEK	11.18	-1.5	0.3	7.0	0.5	TTF Natural Gas (EUR/mwh)	43	-18.9	-21.7	-59.2	-43.8
EUR/AUD	1.59	-1.2	2.6	5.9	1.2	Industrial Metals	433	-1.8	-4.3	-26.5	-4.0
EUR/CAD	1.46	-0.6	2.2	4.3	1.2	Precious Metals	2574	6.1	7.4	0.7	7.4
USD-based cross rates						Gold (\$)	1989	6.5	8.3	2.4	9.0
USD/CAD	1.38	-0.2	2.5	8.8	1.5	Silver (\$)	23	10.3	4.3	-10.8	-5.6
USD/AUD	1.50	-0.8	2.9	10.5	1.5	Baltic Dry Index	1535	7.8	183.7	-40.7	1.3
USD/JPY	132.03	-1.7	-1.7	11.5	0.1	Baltic Dirty Tanker Index	1579	6.2	30.3	28.9	-15.7

Source: NBG Research, Data as of March 17th, S&P/Goldman Sachs Indices for Agricultural, Energy, Industrial & Precious Metals, BofA/ML Indices for Corporate Bond Spreads, *: Unless otherwise noted, ¹ Fixed-rate Mortgage

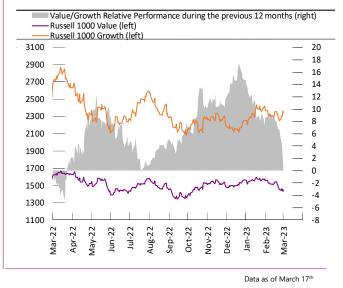


EM vs DM Performance in \$

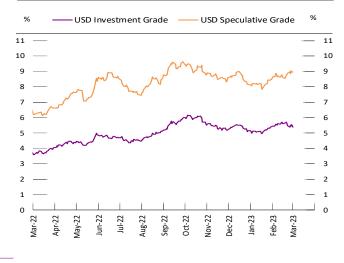


Data as of March 17th – Rebased @ 100

Russell 1000 Value & Growth Index

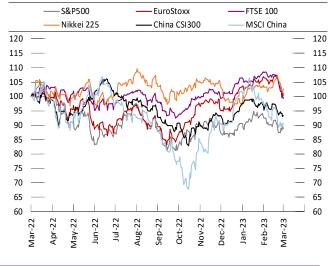


USD Corporate Bond Yields



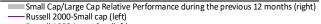
Data as of March 17"

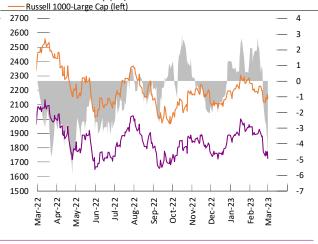




Data as of March 17th – Rebased @ 100

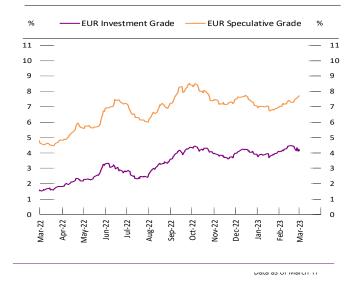
Russell 2000 & Russell 1000 Index





Data as of March 17th

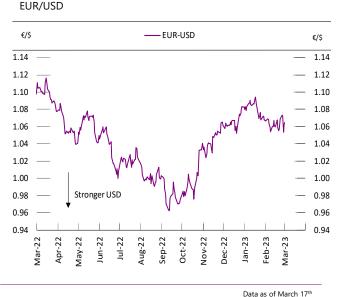
EUR Corporate Bond Yields

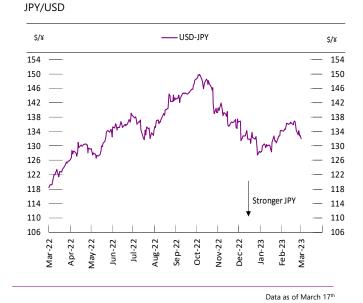




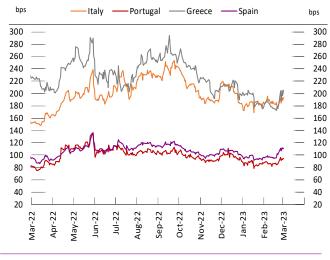




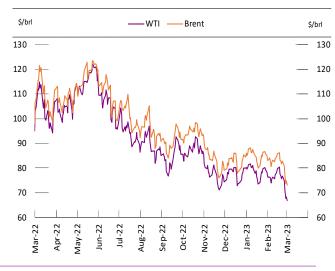




10- Year Government Bond Spreads



Data as of March 17th



West Texas Intermediate and Brent (\$/brl)

Jul-22 Aug-22 Sep-22 Oct-22

10- Year Government Bond Yields

— ик

Japan

Nov-22

Dec-22

Jan-23 Fe b- 23

- Germany

%

4.8

4.4

4.0

3.6

3.2

2.8

2.4

2.0

1.6

0.8

0.4

0.0

-0.4

-0.8

____ 1.2

Mar-23

Data as of March 17th

–US

%

4.8

4.4

4.0 ____

3.6

3.2

2.8

2.4

1.6

1.2

0.8

0.4

0.0

-0.4

-0.8

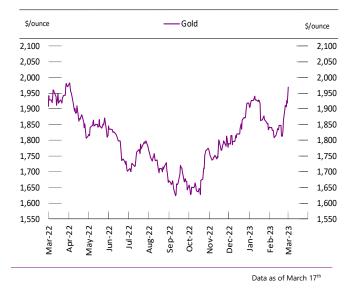
Mar-22

70 2.0

> Apr-22 May-22 Jun-22

> > Data as of March 17th

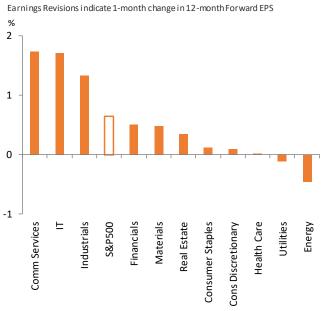




US Sectors Valuation

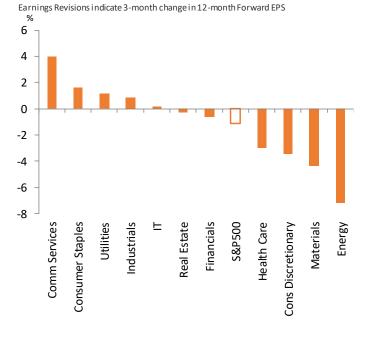
		Price (\$)		EPS Gro	wth (%)	Dividend	Yield (%)		P/	'E Ratio		P/BV Ratio			
	17/3/23	% Weekly Change	%YTD	2022	2023	2022	2023	2022	2023	12m fwd	20Yr Avg	2022	2023	Current	20Yr Avg
S&P500	3917	1.4	2.0	4.8	2.2	1.7	1.8	18.4	17.7	17.3	15.7	3.9	3.6	3.8	2.9
Energy	585	-7.0	-13.0	154.5	-17.6	3.4	3.5	8.1	9.0	9.1	15.2	2.3	1.9	2.2	2.0
Materials	474	-3.5	-3.2	5.3	-16.1	2.2	2.2	14.6	16.1	15.8	15.2	2.9	2.5	2.8	2.8
Financials															
Diversified Financials	904	-2.9	-5.5	-15.9	8.5	1.6	1.9	17.0	14.4	14.0	14.6	2.0	1.7	1.9	2.0
Banks	276	-11.2	-15.8	-20.7	10.2	3.0	4.0	11.2	8.0	7.9	11.9	1.2	0.9	1.1	1.3
Insurance	532	-5.3	-10.7	-13.1	29.0	1.7	2.2	17.2	11.8	11.5	11.1	2.2	1.8	2.1	1.4
Real Estate	226	0.1	-2.6	11.9	0.1	3.7	3.9	18.0	17.0	16.7	18.7	2.7	2.8	2.7	2.7
Industrials															
Capital Goods	850	-3.2	-2.6	13.1	14.4	1.7	1.9	22.7	18.9	18.4	16.1	5.0	4.3	4.8	3.6
Transportation	907	-1.6	0.1	123.7	9.7	1.9	2.2	16.0	14.0	N/A	15.1	5.5	4.4	5.3	3.7
Commercial Services	478	1.2	-1.7	10.6	2.8	1.1	1.2	27.9	27.0	26.2	20.8	6.0	5.5	5.9	3.8
Consumer Discretionary															
Retailing	2879	3.8	4.5	-42.2	40.8	0.9	0.9	40.1	28.4	27.3	21.8	10.1	8.5	9.8	7.0
Consumer Services	1352	-0.5	6.5	N/A	174.5	1.1	1.3	69.6	24.8	N/A	27.0	457.1	568.2	N/A	12.7
Consumer Durables	385	2.2	3.9	3.7	-19.6	1.7	1.7	13.0	16.3	15.9	16.1	3.2	3.0	3.2	3.2
Automobiles and parts	105	1.4	34.0	28.6	-9.5	0.3	0.4	24.2	23.6	N/A	11.0	4.7	3.7	4.5	2.8
IT															
Technology	2918	3.8	16.0	5.0	0.6	0.9	0.9	21.8	22.5	22.0	16.0	15.8	14.3	15.5	5.4
Software & Services	3104	6.4	9.2	9.9	10.7	1.0	1.0	25.5	24.1	23.5	19.0	8.3	7.3	8.1	6.0
Semiconductors	2139	6.8	28.8	-5.7	-13.9	1.4	1.4	20.2	25.1	24.1	18.4	5.1	5.3	5.2	3.8
Communication Services	183	6.9	14.5	-20.2	15.3	1.0	0.9	18.0	16.4	15.9	17.5	2.8	2.7	2.8	2.8
Media	716	8.1	18.1	-22.8	19.8	0.3	0.3	20.9	18.7	18.0	21.6	3.3	3.1	3.2	3.2
Consumer Staples															
Food & Staples Retailing	628	2.0	1.3	3.2	1.4	1.6	1.6	21.8	21.4	21.0	17.5	5.1	4.7	5.0	3.7
Food Beverage & Tobacco	820	0.2	-4.9	6.0	2.4	3.1	3.3	18.6	18.1	17.8	16.9	5.2	4.8	5.1	4.7
Household Goods	818	3.1	-5.3	-3.4	4.2	2.5	2.6	25.2	24.7	24.2	19.6	9.6	9.5	9.6	6.1
Health Care															
Pharmaceuticals	1189	1.1	-8.2	5.5	-16.3	2.0	2.1	14.1	16.7	16.4	14.6	5.3	4.8	5.2	4.2
Healthcare Equipment	1716	1.5	-7.2	4.3	3.0	1.2	1.3	18.7	17.7	17.3	15.8	3.9	3.5	3.8	3.2
Utilities	338	3.9	-5.7	1.2	6.8	3.2	3.3	18.5	17.8	17.6	15.3	1.9	2.0	1.9	1.7

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



1-month revisions to 12-month Forward EPS

3-month revisions to 12-month Forward EPS



Data as of March 17th

12-month forward EPS are 79% of 2023 EPS and 21% of 2024 EPS

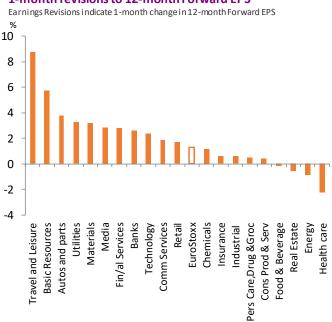
Data as of March 17th

12-month forward EPS are 79% of 2023 EPS and 21% of 2024 EPS

Euro Area Sectors Valuation

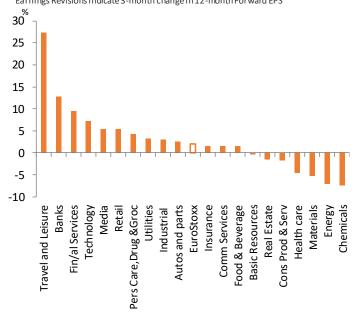
		Price (€)		EPS Gro	owth (%)	Dividend	Yield (%)		P/	E Ratio		P/BV Ratio				
	17/3/23	% Weekly Chan	ge %YTD	2022	2023	2022	2023	2022	2023	12m fwd	20Yr Avg	2022	2023	Current	20Yr Avg	
EuroStoxx	434	-4.2	5.8	14.9	4.2	3.1	3.4	14.0	12.8	12.6	13.2	1.8	1.6	1.7	1.6	
Energy	318	-8.1	-8.4	123.5	-19.8	5.7	5.6	5.2	5.9	6.0	11.2	1.3	1.0	1.2	1.6	
Materials	934	-4.5	1.3	13.5	-35.3	3.8	3.7	8.9	12.8	12.5	13.4	1.4	1.2	1.3	1.6	
Basic Resources	214	-9.3	-4.5	-11.2	-49.3	2.9	3.4	5.0	8.7	8.5	10.6	0.8	0.6	0.7	0.9	
Chemicals	1372	-3.5	2.4	28.7	-27.3	4.0	3.8	11.1	14.5	14.2	14.2	1.7	1.6	1.7	2.1	
Financials																
Banks	97	-13.4	1.2	18.4	9.0	5.3	7.5	8.6	6.4	6.3	10.0	0.8	0.6	0.7	1.0	
Insurance	296	-9.2	-3.8	-17.3	41.5	5.2	6.1	13.3	8.4	8.3	9.5	1.5	1.3	1.5	1.1	
Financial Services	498	-3.4	2.3	40.2	-3.7	2.9	3.3	11.1	11.0	10.8	15.6	1.2	1.2	1.2	1.3	
Real Estate	124	-5.1	-5.9	4.9	-1.7	5.7	6.9	11.3	9.9	9.9	16.3	0.6	0.5	0.6	1.0	
Industrials																
Industrial Goods & Services	1031	-4.2	7.1	20.3	12.2	2.2	2.6	19.5	16.6	16.2	15.2	2.8	2.4	2.7	2.3	
Construction & Materials	517	-4.9	11.9	1.0	-1.9	3.4	3.7	12.8	12.6	12.3	13.5	1.7	1.6	1.7	1.6	
Consumer Discretionary																
Retail	572	-2.9	11.7	2.5	9.5	3.7	4.3	23.1	20.4	20.0	22.5	4.7	4.4	4.6	5.6	
Automobiles and parts	570	-6.7	12.6	9.4	-15.1	4.9	4.9	5.9	6.6	6.5	8.5	0.9	0.9	0.9	1.1	
Travel and Leisure	210	-4.0	14.5	N/A	36.9	1.1	1.5	22.7	16.3	N/A	N/A	2.3	2.0	2.2	2.2	
Consumer Products & Services	486	-1.6	13.8	1.8	12.7	1.4	1.6	33.6	29.7	28.7	21.0	6.8	6.0	6.6	3.7	
Media	282	-2.3	8.3	21.4	15.2	2.2	2.5	22.5	19.0	18.6	15.5	3.0	2.9	3.0	2.0	
Technology	829	0.7	16.1	-3.5	24.8	1.0	1.1	28.1	22.7	21.8	21.3	3.9	3.8	3.9	3.6	
Consumer Staples																
Food, Beverage & Tobacco	174	-0.9	5.7	11.7	5.9	1.8	2.1	20.2	19.1	18.6	17.5	2.2	2.0	2.1	2.5	
Personal Care, Drug & Grocery	177	-1.9	5.9	6.6	2.5	2.4	2.6	16.1	15.3	15.0	16.2	2.3	2.1	2.3	2.6	
Health care	785	-0.9	0.9	6.5	-1.0	2.4	2.5	16.0	15.9	15.5	15.0	2.0	1.9	2.0	2.2	
Communication Services	291	-2.3	11.2	27.1	0.0	3.8	4.0	15.3	15.2	14.8	13.8	1.6	1.5	1.6	2.0	
Utilities	353	-0.6	0.9	-58.2	155.6	4.6	4.8	32.3	12.4	12.3	13.4	1.7	1.6	1.7	1.5	

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



1-month revisions to 12-month Forward EPS

3-month revisions to 12-month Forward EPS Earnings Revisions indicate 3-month change in 12-month Forward EPS



Data as of March 17th

12-month forward EPS are 79% of 2023 EPS and 21% of 2024 EPS

Data as of March 17th

12-month forward EPS are 79% of 2023 EPS and 21% of 2024 EPS



DISCLOSURES:

This report has been produced by the Economic Research Division of the National Bank of Greece, which is regulated by the Bank of Greece, and is provided solely as a sheer reference for the information of experienced and sophisticated investors who are expected and considered to be fully able to make their own investment decisions without reliance on its contents, i.e. only after effecting their own independent enquiry from sources of the investors' sole choice. The information contained in this report does not constitute the provision of investment advice and under no circumstances is it to be used or considered as an offer or an invitation to buy or sell or a solicitation of an offer or invitation to buy or sell or enter into any agreement with respect to any security, product, service or investment. No information or opinion contained in this report shall constitute any representation or warranty as to future performance of any financial instrument, credit, currency rate or other market or economic measure. Past performance is not necessarily a reliable guide to future performance. National Bank of Greece and/or its affiliates shall not be liable in any matter whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance on or usage of this report and accepts no legal responsibility to any investor who directly or indirectly receives this report. The final investment decision must be made by the investor and the responsibility for the investment must be taken by the investor.

Any data provided in this report has been obtained from sources believed to be reliable but has not been independently verified. Because of the possibility of error on the part of such sources, National Bank of Greece does not guarantee the accuracy, timeliness or usefulness of any information. Information and opinions contained in this report are subject to change without notice and there is no obligation to update the information and opinions contained in this report. The National Bank of Greece and its affiliate companies, its representatives, its managers and/or its personnel or other persons related to it, accept no responsibility, or liability as to the accuracy, or completeness of the information contained in this report, or for any loss in general arising from any use of this report including investment decisions based on this report. This report does not constitute investment research or a research recommendation and as such it has not been prepared in accordance with legal requirements designed to promote investment research independence. This report does not purport to contain all the information that a prospective investor may require. Recipients of this report should independently evaluate particular information and opinions and seek the advice of their own professional and financial advisers in relation to any investment, financial, legal, business, tax, accounting or regulatory issues before making any investment or entering into any transaction in relation to information and opinions discussed herein.

National Bank of Greece has prepared and published this report wholly independently of any of its affiliates and thus any commitments, views, outlook, ratings or target prices expressed in these reports may differ substantially from any similar reports issued by affiliates which may be based upon different sources and methodologies.

This report is not directed to, or intended for distribution to use or use by, any person or entity that is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to any law, regulation or rule.

This report is protected under intellectual property laws and may not be altered, reproduced or redistributed, or passed on directly or indirectly, to any other party, in whole or in part, without the prior written consent of National Bank of Greece.

ANALYST CERTIFICATION:

The research analyst denoted by an "AC" on page 1 holds the certificate (type Δ) of the Hellenic Capital Market Commission/Bank of Greece which allows her/him to conduct market analysis and reporting and hereby certifies that all of the views expressed in this report accurately reflect his or her personal views solely, about any and all of the subject issues. Further, each of these individuals also certifies that no part of any of the report analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this report. Also, all opinions and estimates are subject to change without notice and there is no obligation for update.