

February 7, 2023

Middle East Strategy

Maya Issa

Senior Vice President,
Global Investment
Strategy

*With contributions from
Guillaume Menuet and
Jadiyah Amirthanathar.*

What can we expect in 2023?

SUMMARY

- Global asset classes saw broad-based declines in 2022, but for the economies of the Gulf Cooperation Council¹ (GCC), it was a different story.
- The aggregate GCC equity market index ended 2022 down 6.4%, compared with -19% for the S&P 500 index.
- The outbreak of the Russia-Ukraine war sent oil prices soaring in the first half of 2022, then dropped in the second half of the year amid slowing global growth.
- Still, elevated oil prices and hydrocarbon production support GCC economic growth. We expect aggregated GCC economic growth to rise by 7.7% in 2022, the fastest rate since 2011.
- The combined effect of a slowing global economy and the October OPEC+ production agreement will likely see regional GDP growth decelerate to around 3% in 2023, albeit still ahead of most global peers.
- While recession is likely to hit the EU and US this year, we believe the GCC region's largest economies should avoid recession – though geopolitical risks and oil price volatility are factors to watch.

SECTOR/MARKET PREFERENCES:

- Sustainably higher oil prices (above fiscal breakeven levels) provide better visibility for GCC economies and markets with fiscal surpluses supporting diversification efforts and reforms. We believe the UAE and Saudi Arabia are set to benefit in this aspect as they continue socio-economic reforms, which will ultimately filter through into stronger private sector activity driving non-oil sectors of the economy.
- In this higher interest rate environment, our outlook on GCC banks is positive, with profitability likely to improve over the course of 2023.
- Healthcare, a key theme in our [Wealth Outlook 2023](#), remains a vital growth sector in the GCC given the various government transformation plans.
- The accelerating shift to renewables, and ambitious green energy targets in the region, will likely see the GCC strengthen its foothold on the global energy system.

¹ The Gulf Cooperation Council is a group of six countries in the Gulf: Saudi Arabia, UAE, Kuwait, Bahrain, Qatar, and Oman.

2022 was a stellar year for the GCC. What can we expect in 2023?

For most investors 2022 was a year to forget.

It was a year that witnessed unprecedented events in global markets and geopolitics, rattling financial markets and leading to broad-based declines across all asset classes. However, the economies of the Gulf Cooperation Council (GCC) fared quite differently, outperforming on the global stage.

The first geopolitical shock of the year was the Russia/Ukraine conflict, which sent oil prices soaring 46% higher in the first half of the year, with Brent spot prices reaching a peak of \$139/barrel in intraday pricing in March 2022. Oil supply fears kept prices elevated, which contributed to a global surge in inflation and prompted central banks to tighten monetary policy. Since March 2022, the US Federal Reserve's Federal Open Market Committee (FOMC) has raised the Fed funds target range by a cumulative total of 450 basis points (bps), and GCC central banks have followed suit with matching interest rate hikes.

Critical uncertainties over the potential outcome of the Russia/Ukraine crisis initially led to a surge in commodity prices. The OPEC+ group of oil producers responded to market conditions by first expanding production levels, followed by cuts towards the end of the year. Oil prices plunged more than 25% in the June to September period amid slower global growth prospects. The Russia/Ukraine war, beyond its humanitarian consequences, is setting the stage for a radically reduced global role for Russia, the world's largest commodity exporting country, with multiple impacts for global geopolitics. Russia leaving the ranks of energy and non-energy superpowers shifted global investment and trade patterns and may potentially never regain its position as the world's number one exporter of so many critical materials.

China responded to the continuing effects of the COVID-pandemic initially by imposing strict lockdowns and curbs before abandoning its draconian policies late in the year on hopes of accelerating economic recovery. Oil prices have edged higher in recent weeks amid continued optimism about China's reopening and the potential for a soft landing for the US economy.

Elevated oil prices and hydrocarbon production supported GCC economic growth, with the aggregate economy projected to expand by 7.7% in 2022, the fastest growth since 2011 (Figure 1). The combined effect of a slowing global economy and the [October OPEC+ production](#) agreement will likely see regional GDP growth decelerate to around 3% in 2023, albeit still ahead of most global peers. GCC oil GDP growth is expected to slow markedly from about 12% in 2022 to 2.6% in 2023. In parallel, non-oil GDP is estimated to soften to around 3% in 2023, from 5.5% in 2022 (Figures 3-4).

Figure 1: GCC GDP Growth % year-on-year

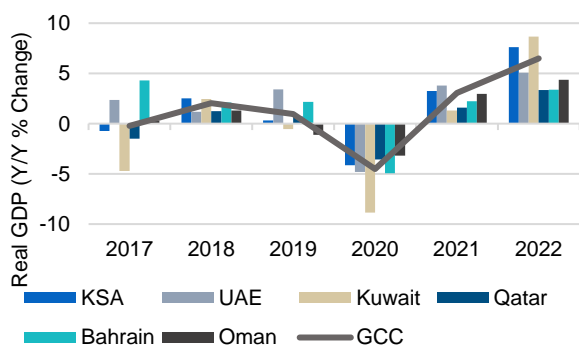
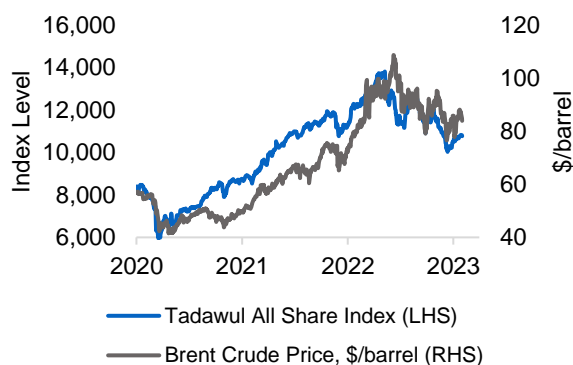


Figure 2: Oil prices vs Saudi Arabia's Tadawul Index



Source: Haver Analytics, Bloomberg, as of January 31, 2023. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Figure 3: GCC Oil GDP Growth

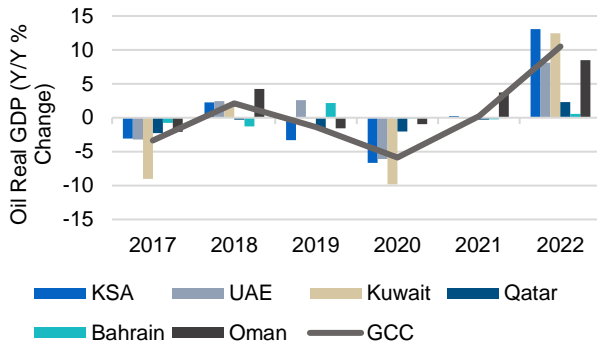
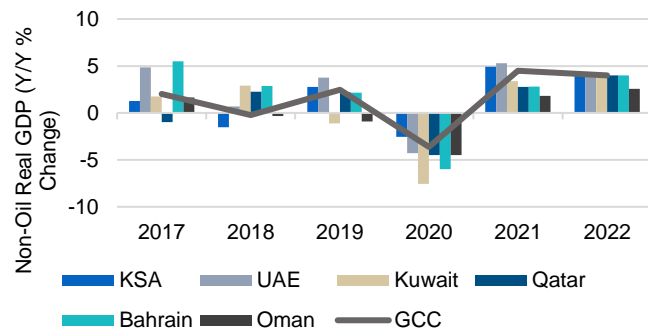


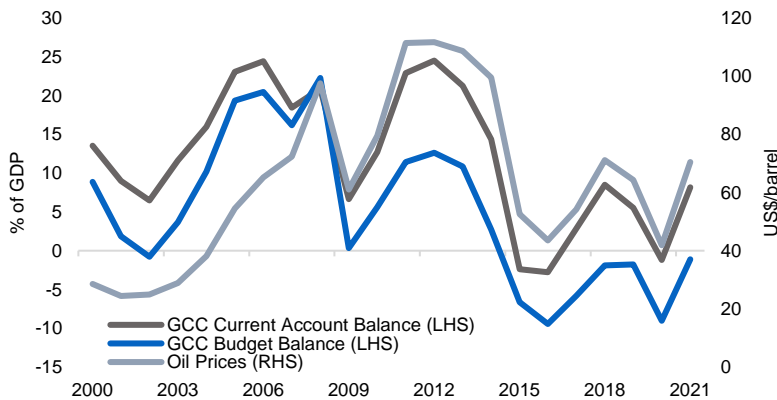
Figure 4: GCC Non-Oil GDP Growth:



Source: Haver Analytics, as of January 31, 2023

Because of the combination of cyclical revenue growth and ongoing fiscal reform efforts, the region's budget balance is expected to swing into a surplus of 4.2% of GDP in 2022, from a deficit of 2.7% in 2021, with a view to a narrower surplus of approximately 2% in 2023. Higher energy prices and production will likely widen the region's current account surplus to an estimated 16% of GDP in 2022 from 9.1% in 2021 before moderating to 13% in 2023 (Figure 5).

Figure 5: GCC Current Account and Budget Balance as % of GDP vs Oil Prices



Source: Haver Analytics, as of January 26, 2023

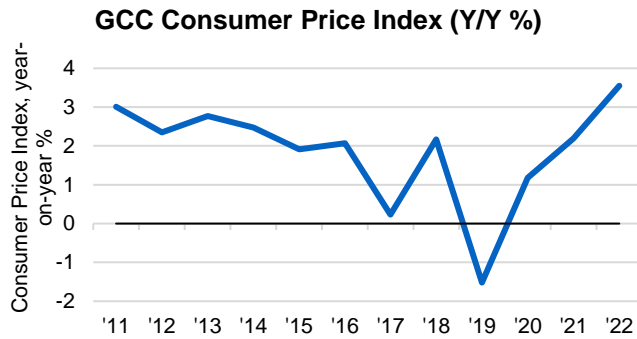
Economic backdrop looks different, commodity outlook crucial

While unprecedented shocks since 2020 steered the global economy away from a low-inflation environment, price pressures in the Gulf states remained relatively subdued with the aggregate inflation rate for the region at 3.5% for 2022 (Figure 6). Heading into 2023, the region's largest economies should avoid recession. The International Monetary Fund's (IMF) recent [World Economic Outlook Update, January 2023](#), expected GDP growth to remain positive in 2023, albeit at a slower pace, reflecting 'mainly lower oil production in line with an agreement through OPEC+, while non-oil growth is expected to remain robust.'

The OPEC+ October 2022 agreement outlining a 2-million barrel per day headline cut will have implications for GDP growth in 2023. The production targets of Saudi Arabia, the UAE and Kuwait have been reduced by 526,000 b/d, 160,000 b/d and 135,000 b/d, respectively.

Risks associated with this view are uncertainty around 2022's dollar strength (a challenge for the region's pegged currencies), geopolitical risks (via a re-alignment of energy supplies), and oil price volatility – all of which could significantly alter the region's growth outlook. Citi commodity strategists see oil prices averaging \$80/barrel for 2023. Their bear case could see oil fall to \$65/barrel by end of 2023, slightly below Saudi Arabia's fiscal breakeven (estimated at around \$67 – Figure 7) (See [GCC Economic Indicators table](#)).

Figure 6: CPI – inflation levels remain subdued



Source: Haver Analytics, as of January 26, 2023. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Figure 7: Fiscal Breakeven Oil Price, \$ per barrel:

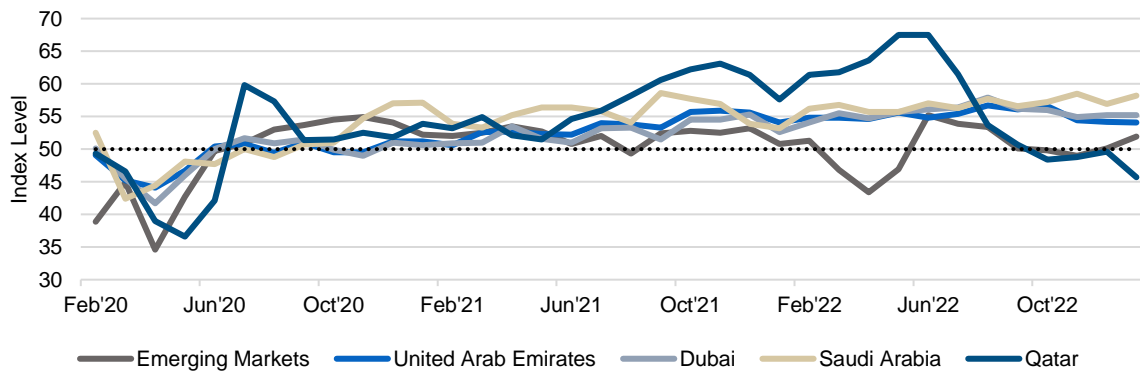


Source: Bloomberg, IMF, Haver Analytics as of January 31, 2023. Note: Fiscal breakeven oil price is oil price at which the fiscal balance is zero.

Purchasing Managers' Index (PMI) survey data (which provides insights into what business are doing in terms of orders, expansion plans, hiring etc.) for the region remain robust, with headline data for Saudi Arabia rising from 56.9 in December to 58.2 in January, while the UAE was down marginally to 54.1 in January from 54.2 in December (Figure 8). Qatar's headline PMI index fell to 45.7 in January from 49.6 in December (vs 57.6 in January 2022), marking the fourth consecutive month of contraction. A reading above 50.0 signals an expansion in businesses conditions on the previous month, whereas readings below 50.0 mark a contraction.

Beneath the surface, UAE businesses recorded a significant increase in new orders during January while also hiring more than in previous months. The UAE saw declines on the export side, attributed to weaker global conditions. Saudi Arabia's non-oil private sector rose in January, with output, new orders and purchasing activity rebounding strongly from December 2022.

Figure 8: Purchasing Managers' Index headline data



Source: Haver Analytics as of February 6, 2023. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Downside risks remain elevated. Weighing heavily on the region are an expanding global slowdown with an expected recession in the US and Europe, continued (but reduced) concerns about supply chain shocks, inflation and further central bank rate hikes (especially from the US Fed). On the back of stiff challenges clouding the global economy, the ongoing geopolitical re-alignment of energy supplies in the wake of the Russia-Ukraine crisis, and the possibility of political reactions to the OPEC+ cut, our views are subject to a high degree of uncertainty.

Equities

GCC equity markets outperformed weaker global markets in 2022 (Figure 9). Aided initially by higher oil prices, the aggregate GCC equity market index nevertheless ended 2022 lower but still outperformed other key indices. Gains of 22% made in the first four months of the year were more than offset by declines thereafter, tracking the oil price lower (Figure 10). Going forward, GCC valuations look reasonable though profits remain sensitive to economic slowdown and volatile commodity markets.

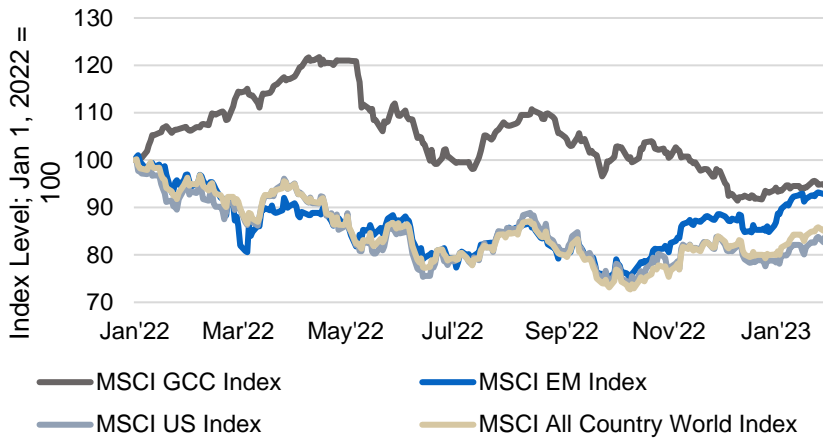
The aggregate GCC equity market index ended 2022 down -6.4%, compared with -19% for the S&P 500 index. Within the GCC, Abu Dhabi was the best performer reporting a 20.3% gain on the year, followed by Oman at 17.6%. Qatar posted the biggest decline of -7.6%, while Saudi Arabia's Tadawul Index posted its first decline in six years.

Figure 9: Equity Market Performance

GCC Equity Markets	Index Closing	2023 YTD Change %	2022 Return %	2021 Return %	2020 Return %	M-Cap (USD Bn)	P/E (X) TTM	P/B (X) TTM	Dividend Yield %
MSCI All Country World Index	642.4	6.1	-19.8	16.8	14.3	79,507.53	16.1	2.6	2.3
MSCI US Index	3823.3	5.0	-20.8	25.2	19.2	37,139.88	19.0	4.1	1.7
MSCI EM Index	1031.2	7.8	-22.4	-4.6	15.8	20,540.49	11.7	1.6	3.0
MSCI GCC Index	706.2	2.0	-6.4	34.9	-3.4	3,042.36	14.9	2.0	2.7
Saudi Arabia - Tadawul All Share Index	10792.9	3.0	-7.2	29.7	4.0	2,708.62	11.6	2.2	2.7
UAE Abu Dhabi Securities Market General Index	9811.6	-3.9	20.3	68.2	-0.6	663.61	21.5	2.8	2.1
UAE Dubai Financial Market General Index	3303.3	-1.0	4.4	28.2	-9.9	128.90	8.6	1.1	1.7
Kuwait - Premier Market Index	8085.4	-0.4	5.0	26.9	-13.6	120.69	16.7	2.2	2.5
Bahrain Bourse All Share Index	1928.2	1.7	5.5	20.6	-7.5	66.32	8.1	1.1	5.5
Qatar Exchange Index	10932.3	2.4	-7.6	11.9	-0.7	155.56	11.8	1.4	4.2
Oman - Muscat Securities MSM 30 Index	4703.4	-3.2	17.6	12.9	-8.5	16.37	12.4	0.7	3.6

Source: Haver Analytics as of February 6, 2023. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Figure 10: GCC market outperformed global peers in 2022



Source: Bloomberg as of February 1, 2023. Note: Data normalized to 100 as of 1/1/2022. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

GCC valuations are in line with long-term median:

Valuations have become more reasonable, with the GCC 12 month trailing P/E ratio falling from 2021’s peak of 26x to 15x, in line with the long-run median. Looking at individual country performance, Abu Dhabi is the most expensive (21x) on a 12m trailing basis, while Bahrain is cheapest (8.1x). Saudi Arabia (11.6x) is trading below its long-run median, and Qatar and Bahrain are trading roughly in line with their long-term medians (see Figures 11-19).

Elevated commodity prices boosted earnings forecasts for 2022. Globally we are forecasting an earnings recession, with earnings contracting by roughly 10% in 2023 – see [Wealth Outlook 2023](#). Nevertheless, earnings risks are likely to the downside this coming year, particularly as GCC profits are concentrated in cyclical sectors which tend to see profits fall during periods of global growth scarcity. However, the lagged impact of supply gains and global demand moderation could pressure Brent crude oil prices around the \$70 range by year-end. A less severe drawdown in oil would likely mean a more modest retrenchment in cyclical earnings this coming year than we’ve seen in typical recessions.

Figure 11: MSCI GCC Index vs Oil Price (\$/bbl)

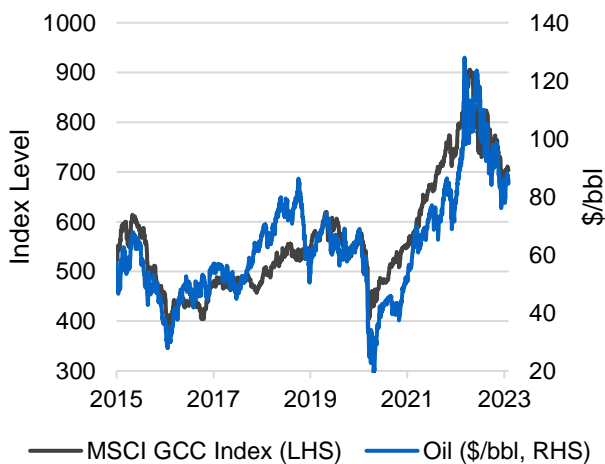
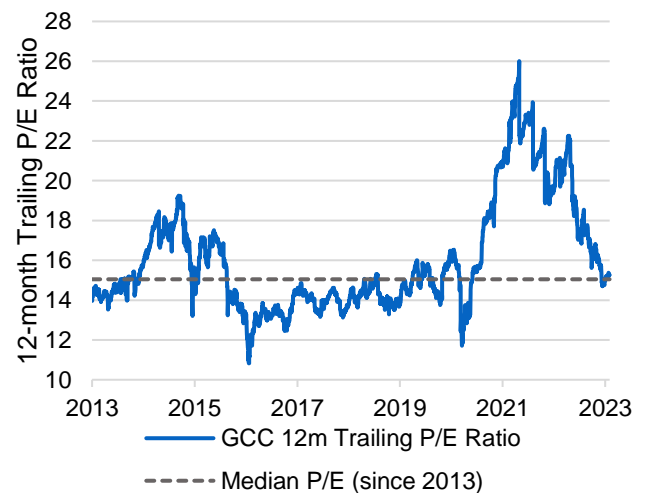


Figure 12: MSCI GCC Index 12m Trailing P/E ratio



Source: Bloomberg as of February 1, 2023. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Figure 13: Saudi Arabia 12m Trailing P/E Ratio

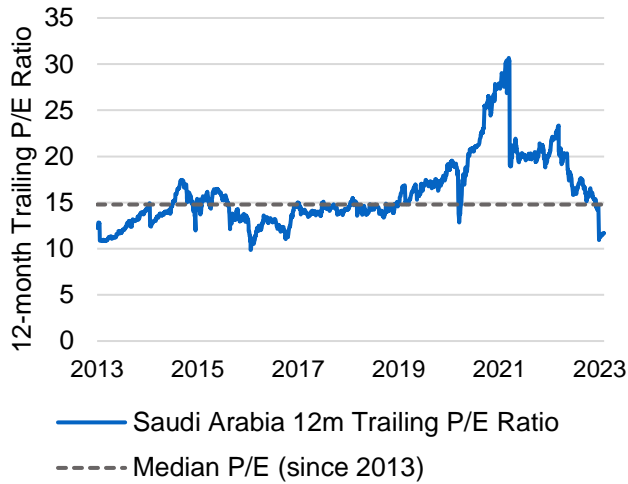
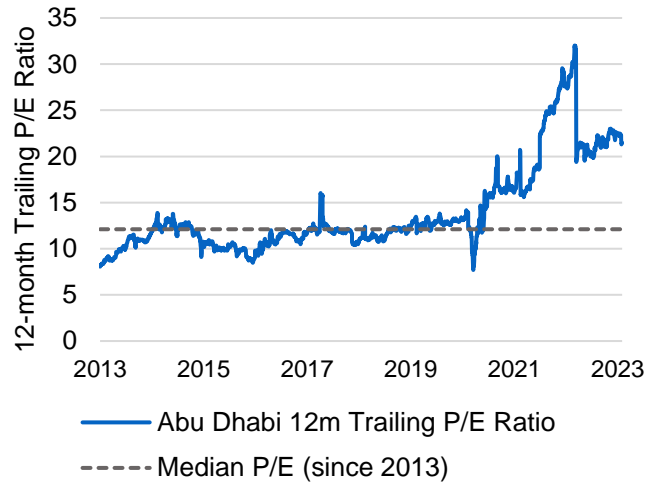


Figure 14: Abu Dhabi 12m Trailing P/E ratio



Source: Bloomberg as of February 1, 2023

Figure 15: Dubai 12m Trailing P/E Ratio

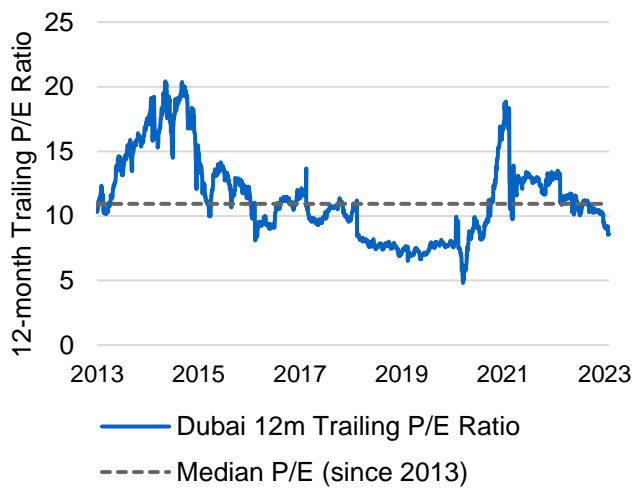
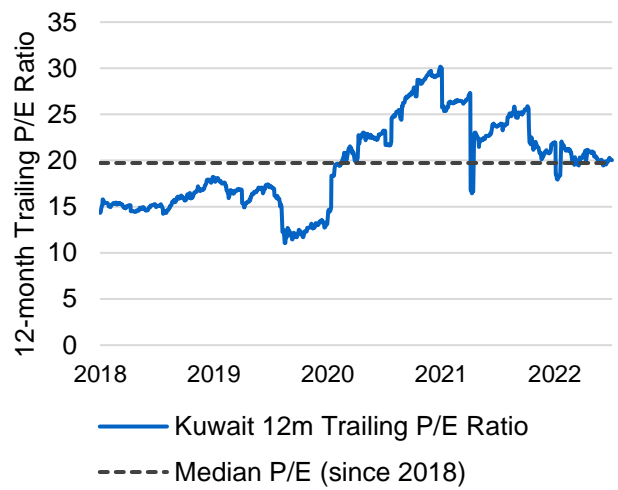


Figure 16: Kuwait 12m Trailing P/E ratio



Source: Bloomberg as of February 1, 2023

Figure 17: Bahrain 12m Trailing P/E Ratio

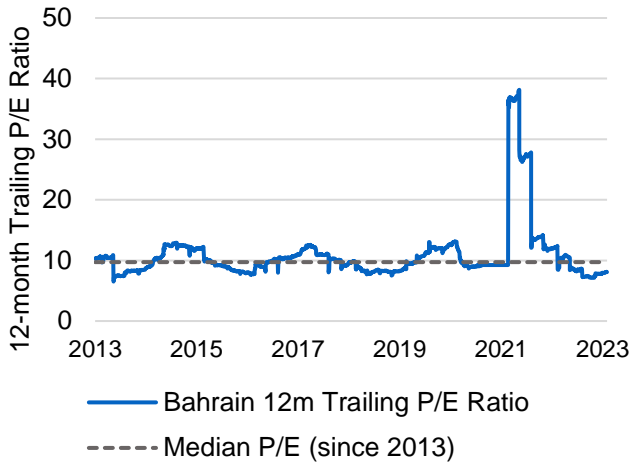
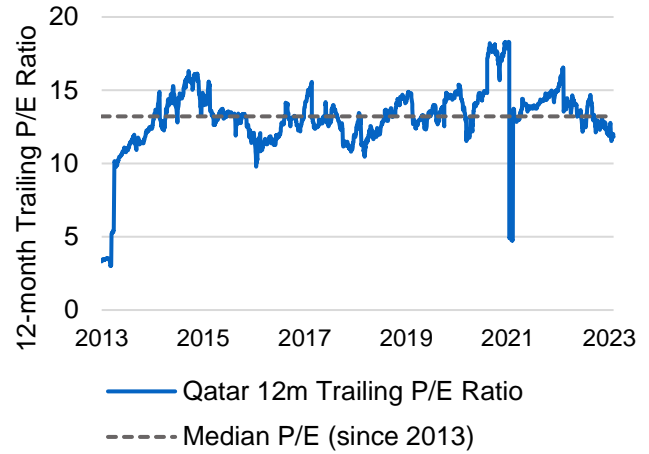
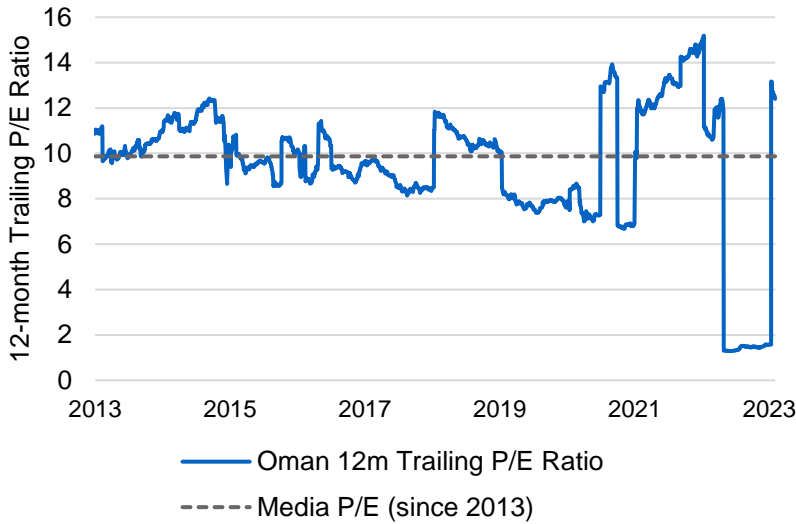


Figure 18: Qatar 12m Trailing P/E ratio



Source: Bloomberg as of February 1, 2023

Figure 19: Oman 12m Trailing P/E Ratio



Source: Bloomberg as of February 1, 2023. Note: Data normalized to 100 as of 1/1/2022

GCC Economic Indicators

	2016	2017	2018	2019	2020	2021	2022	2023F
BAHRAIN								
Gross Domestic Product (Bil.US\$)	32.23	35.47	37.80	38.65	34.72	38.87	43.54	45.03
Real Gross Domestic Product (Y/Y % Change)	3.56	4.29	2.11	2.17	-4.94	2.23	3.37	2.98
Non Oil Real GDP (Y/Y % Change)	4.46	5.49	2.87	2.17	-5.97	2.79	4.00	3.60
Oil Real GDP (Y/Y % Change)	-0.06	-0.75	-1.27	2.18	-0.11	-0.26	0.55	0.09
Breakeven Fiscal Oil Price (US\$ per Barrel)	106.17	111.97	114.28	98.95	120.74	131.85	127.58	124.14
Consumer Price Index (Y/Y % Change)	2.79	1.39	2.09	1.01	-2.32	-0.61	3.50	3.40
Current Account Balance as % of GDP (%)	-4.63	-4.09	-6.44	-2.05	-9.34	6.70	8.57	4.95
Central Government Fiscal Balance as % of GDP (%)	-17.43	-14.03	-11.80	-8.96	-17.86	-11.10	-4.66	-6.00
General Government Gross Debt as % of GDP (%)	81.33	88.13	94.61	101.64	129.73	128.50	119.50	121.67
KUWAIT								
Gross Domestic Product (Bil.US\$)	109.38	120.69	138.20	136.19	105.95	135.76	183.57	172.59
Real Gross Domestic Product (Y/Y % Change)	2.93	-4.71	2.44	-0.55	-8.86	1.31	8.67	2.58
Non Oil Real GDP (Y/Y % Change)	1.45	1.74	2.90	-1.11	-7.54	3.39	3.90	3.40
Oil Real GDP (Y/Y % Change)	3.94	-9.02	2.09	-0.13	-9.84	-0.28	12.44	1.98
Breakeven Fiscal Oil Price (US\$ per Barrel)	41.64	52.84	54.82	57.63	80.08	67.74	56.71	57.83
Consumer Price Index (Y/Y % Change)	3.48	1.51	0.58	1.10	2.11	3.40	4.32	2.36
Current Account Balance as % of GDP (%)	-4.62	7.96	14.40	12.53	3.21	16.31	29.05	22.95
Central Government Fiscal Balance as % of GDP (%)	0.78	2.28	7.05	2.89	-12.86	-0.35	14.11	14.13
General Government Gross Debt as % of GDP (%)	10.02	20.48	15.10	11.64	11.71	8.68	7.13	6.93
OMAN								
Gross Domestic Product (Bil.US\$)	75.13	80.86	91.51	88.06	73.97	85.87	108.97	110.79
Real Gross Domestic Product (Y/Y % Change)	5.05	0.30	1.29	-1.13	-3.20	2.95	4.36	4.08
Non Oil Real GDP (Y/Y % Change)	6.01	1.66	-0.32	-0.90	-4.49	1.80	2.56	2.62
Oil Real GDP (Y/Y % Change)	3.39	-2.07	4.22	-1.54	-0.94	3.74	8.51	6.39
Breakeven Fiscal Oil Price (US\$ per Barrel)	103.81	81.89	76.67	64.68	86.40	76.74	70.92	75.05
Consumer Price Index (Y/Y % Change)	1.11	1.60	0.88	0.13	-0.90	1.55	3.11	1.94
Current Account Balance as % of GDP (%)	-16.69	-13.41	-4.21	-4.50	-16.99	-6.07	6.17	3.65
Central Government Fiscal Balance as % of GDP (%)	-19.62	-10.46	-6.72	-4.83	-16.08	-3.24	5.50	2.33
General Government Gross Debt as % of GDP (%)	29.34	40.11	44.69	52.46	69.68	62.92	45.37	41.06
QATAR								
Gross Domestic Product (Bil.US\$)	151.73	161.10	183.33	176.37	144.41	179.68	221.37	234.03
Real Gross Domestic Product (Y/Y % Change)	3.06	-1.50	1.23	0.69	-3.56	1.59	3.35	2.42
Non Oil Real GDP (Y/Y % Change)	5.84	-0.99	2.25	2.19	-4.49	2.77	3.99	2.72
Oil Real GDP (Y/Y % Change)	-0.85	-2.26	-0.31	-1.66	-2.04	-0.28	2.30	1.94
Breakeven Fiscal Oil Price (US\$ per Barrel)	48.88	47.07	49.50	50.49	50.49	48.98	48.09	49.87
Consumer Price Index (Y/Y % Change)	2.69	0.40	0.30	-0.70	-2.72	2.25	4.48	3.31
Current Account Balance as % of GDP (%)	-5.45	3.99	9.08	2.42	-1.98	14.71	21.17	22.12
Central Government Fiscal Balance as % of GDP (%)	-9.20	-6.82	2.26	0.99	-2.14	0.26	9.05	12.33
General Government Gross Debt as % of GDP (%)	46.71	51.57	52.18	62.09	72.61	58.36	46.92	43.42
SAUDI ARABIA								
Gross Domestic Product (Bil.US\$)	644.93	688.59	816.58	803.62	703.37	833.54	1010.59	996.39
Real Gross Domestic Product (Y/Y % Change)	1.67	-0.74	2.51	0.33	-4.14	3.24	7.60	3.67
Non Oil Real GDP (Y/Y % Change)	0.23	1.26	-1.54	2.76	-2.53	4.90	4.16	3.84
Oil Real GDP (Y/Y % Change)	3.60	-3.09	2.28	-3.29	-6.65	0.21	13.08	3.33
Breakeven Fiscal Oil Price (US\$ per Barrel)	86.51	83.65	88.53	81.83	76.31	84.64	73.33	66.77
Consumer Price Index (Y/Y % Change)	2.07	-0.84	2.46	-2.09	3.45	3.06	2.70	2.23
Current Account Balance as % of GDP (%)	-3.70	1.52	8.81	4.76	-3.24	5.32	15.98	12.31
Central Government Fiscal Balance as % of GDP (%)	-14.10	-9.23	-5.65	-4.40	-11.15	-2.35	5.49	3.87
General Government Gross Debt as % of GDP (%)	13.09	17.16	18.28	22.49	32.40	30.01	24.75	25.10
UNITED ARAB EMIRATES								
Gross Domestic Product (Bil.US\$)	357.05	385.61	422.22	417.22	358.87	419.76	503.91	519.05
Real Gross Domestic Product (Y/Y % Change)	2.98	2.37	1.19	3.41	-4.80	3.80	5.05	4.20
Non Oil Real GDP (Y/Y % Change)	3.15	4.84	0.68	3.76	-4.30	5.30	4.00	3.90
Oil Real GDP (Y/Y % Change)	2.61	-3.20	2.45	2.58	-6.10	-0.10	8.09	4.96
Breakeven Fiscal Oil Price (US\$ per Barrel)	55.16	61.44	67.44	62.48	61.45	61.27	63.94	65.76
Consumer Price Index (Y/Y % Change)	1.62	1.97	3.07	-1.93	-2.08	0.18	5.22	3.61
Current Account Balance as % of GDP (%)	3.70	7.13	9.77	8.95	5.88	11.42	14.72	12.48
Central Government Fiscal Balance as % of GDP (%)	-0.44	0.34	0.92	1.05	0.28	0.37	0.29	0.32
General Government Gross Debt as % of GDP (%)	19.37	21.62	20.88	27.09	39.67	34.74	30.74	29.51

Source: International Monetary Fund – Regional Economic Outlook, Haver Analytics, Citi Global Wealth Investments as of January 31, 2023. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

Disclosures

In any instance where distribution of this communication (“Communication”) is subject to the rules of the US Commodity Futures Trading Commission (“CFTC”), this communication constitutes an invitation to consider entering into a derivatives transaction under US CFTC Regulations §§ 1.71 and 23.605, where applicable, but is not a binding offer to buy/sell any financial instrument.

This Communication is prepared by Citi Global Wealth Investments (“CGWI”) which is comprised of the Investments and Capital Markets capabilities of Citi Private Bank, Citi Global Wealth at Work, Citi Personal Wealth Management and International Personal Bank U.S.

Citi Private Bank, Citi Global Wealth at Work, Citi Personal Wealth Management are businesses of Citigroup Inc. (“Citigroup”), which provide clients access to a broad array of products and services available through bank and non-bank affiliates of Citigroup. Not all products and services are provided by all affiliates or are available at all locations. In the U.S., investment products and services are provided by Citigroup Global Markets Inc. (“CGMI”), member FINRA and SIPC, Citi Private Advisory, LLC (“CPA”), member FINRA and SIPC, and Citi Global Alternatives, LLC (“CGA”). CPA acts as distributor of certain alternative investment products to certain eligible clients segments. CGMI accounts are carried by Pershing LLC, member FINRA, NYSE, SIPC. Investment management services (including portfolio management) are available through CGMI, CGA, Citibank, N.A. and other affiliated advisory businesses. Insurance is offered by Citi Personal Wealth Management through Citigroup Life Agency LLC (“CLA”). In California, CLA does business as Citigroup Life Insurance Agency, LLC (license number 0G56746). CGMI, CPA, CGA, CLA and Citibank, N.A. are affiliated companies under the common control of Citigroup.

Outside the U.S., investment products and services are provided by other Citigroup affiliates. Investment Management services (including portfolio management) are available through CGMI, CGA, Citibank, N.A. and other affiliated advisory businesses. These Citigroup affiliates, including CGA, will be compensated for the respective investment management, advisory, administrative, distribution and placement services they may provide.

International Personal Bank U.S. (“IPB U.S.”), is a business of Citigroup which provides its clients access to a broad array of products and services available through Citigroup, its bank and non-bank affiliates worldwide (collectively, “Citi”). Through IPB U.S. prospects and clients have access to the Citigold® Private Client International, Citigold® International, International Personal, Citi Global Executive Preferred, and Citi Global Executive Account Packages. Investment products and services are made available through Citi Personal Investments International (“CPII”), a business of Citigroup which offers securities through CGMI, member FINRA and SIPC, an investment advisor and broker-dealer registered with the Securities and Exchange Commission CGMI and investment accounts are carried by Pershing LLC, member FINRA, NYSE, and SIPC. Insurance is offered by CPII through CLA. In California, CLA does business as Citigroup Life Insurance Agency, LLC (license number 0G56746). Citibank, N.A., CGMI and CLA are affiliated companies under common control of Citigroup Inc.

CGWI personnel are not research analysts, and the information in this Communication is not intended to constitute “research”, as that term is defined by applicable regulations. Unless otherwise indicated, any reference to a research report or research recommendation is not intended to represent the whole report and is not in itself considered a recommendation or research report.

This Communication is provided for information and discussion purposes only, at the recipient’s request. The recipient should notify CGWI immediately should it at any time wish to cease being provided with such information. Unless otherwise indicated, (i) it does not constitute an offer or recommendation to purchase or sell any security, financial instrument or other product or service, or to attract any funding or deposits, and (ii) it does not constitute a solicitation if it is not subject to the rules of the CFTC (but see discussion above regarding communication subject to CFTC rules) and (iii) it is not intended as an official confirmation of any transaction.

Unless otherwise expressly indicated, this Communication does not take into account the investment objectives, risk profile or financial situation of any particular person and as such, investments mentioned in this document may not be suitable for all investors. Citi is not acting as an investment or other advisor, fiduciary or agent. The information contained herein is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Recipients of this Communication should obtain advice based on their own individual circumstances from their own tax, financial, legal and other advisors about the risks and merits of any transaction before making an investment decision, and only make such decisions on the basis of their own objectives, experience, risk profile and resources.

The information contained in this Communication is based on generally available information and, although obtained from sources believed by Citi to be reliable, its accuracy and completeness cannot be assured, and such information may be incomplete or condensed. Any assumptions or information contained in this Communication constitute a judgment only as of the date of this document or on any specified dates and is subject to change without notice. Insofar as this Communication may contain historical and forward looking information, past performance is neither a guarantee nor an indication of future results, and future results may not meet expectations due to a variety of economic, market and other factors. Further, any projections of potential risk or return are illustrative and should not be taken as limitations of the maximum possible loss or gain. Any prices, values or estimates provided in this Communication (other than those that are identified as being historical) are indicative only, may change without notice and do not represent firm quotes as to either price or size, nor reflect the value Citi may assign a security in its inventory. Forward looking information does not indicate a level at which Citi is prepared to do a trade

and may not account for all relevant assumptions and future conditions. Actual conditions may vary substantially from estimates which could have a negative impact on the value of an instrument.

Views, opinions and estimates expressed herein may differ from the opinions expressed by other Citi businesses or affiliates, and are not intended to be a forecast of future events, a guarantee of future results, or investment advice, and are subject to change without notice based on market and other conditions. Citi is under no duty to update this document and accepts no liability for any loss (whether direct, indirect or consequential) that may arise from any use of the information contained in or derived from this Communication.

Investments in financial instruments or other products carry significant risk, including the possible loss of the principal amount invested. Financial instruments or other products denominated in a foreign currency are subject to exchange rate fluctuations, which may have an adverse effect on the price or value of an investment in such products. This Communication does not purport to identify all risks or material considerations which may be associated with entering into any transaction.

Structured products can be highly illiquid and are not suitable for all investors. Additional information can be found in the disclosure documents of the issuer for each respective structured product described herein. Investing in structured products is intended only for experienced and sophisticated investors who are willing and able to bear the high economic risks of such an investment. Investors should carefully review and consider potential risks before investing.

OTC derivative transactions involve risk and are not suitable for all investors. Investment products are not insured, carry no bank or government guarantee and may lose value. Before entering into these transactions, you should: (i) ensure that you have obtained and considered relevant information from independent reliable sources concerning the financial, economic and political conditions of the relevant markets; (ii) determine that you have the necessary knowledge, sophistication and experience in financial, business and investment matters to be able to evaluate the risks involved, and that you are financially able to bear such risks; and (iii) determine, having considered the foregoing points, that capital markets transactions are suitable and appropriate for your financial, tax, business and investment objectives.

This material may mention options regulated by the US Securities and Exchange Commission. Before buying or selling options you should obtain and review the current version of the [Options Clearing Corporation booklet](#), Characteristics and Risks of Standardized Options. A copy of the booklet can be obtained upon request from Citigroup Global Markets Inc., 390 Greenwich Street, 3rd Floor, New York, NY 10013.

If you buy options, the maximum loss is the premium. If you sell put options, the risk is the entire notional below the strike. If you sell call options, the risk is unlimited. The actual profit or loss from any trade will depend on the price at which the trades are executed. The prices used herein are historical and may not be available when you order is entered. Commissions and other transaction costs are not considered in these examples. Option trades in general and these trades in particular may not be appropriate for every investor. Unless noted otherwise, the source of all graphs and tables in this report is Citi. Because of the importance of tax considerations to all option transactions, the investor considering options should consult with his/her tax advisor as to how their tax situation is affected by the outcome of contemplated options transactions.

None of the financial instruments or other products mentioned in this Communication (unless expressly stated otherwise) is (i) insured by the Federal Deposit Insurance Corporation or any other governmental authority, or (ii) deposits or other obligations of, or guaranteed by, Citi or any other insured depository institution.

Citi often acts as an issuer of financial instruments and other products, acts as a market maker and trades as principal in many different financial instruments and other products, and can be expected to perform or seek to perform investment banking and other services for the issuer of such financial instruments or other products. The author of this Communication may have discussed the information contained therein with others within or outside Citi, and the author and/or such other Citi personnel may have already acted on the basis of this information (including by trading for Citi's proprietary accounts or communicating the information contained herein to other customers of Citi). Citi, Citi's personnel (including those with whom the author may have consulted in the preparation of this communication), and other customers of Citi may be long or short the financial instruments or other products referred to in this Communication, may have acquired such positions at prices and market conditions that are no longer available, and may have interests different from or adverse to your interests.

IRS Circular 230 Disclosure: Citi and its employees are not in the business of providing, and do not provide, tax or legal advice to any taxpayer outside Citi. Any statement in this Communication regarding tax matters is not intended or written to be used, and cannot be used or relied upon, by any taxpayer for the purpose of avoiding tax penalties. Any such taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

Neither Citi nor any of its affiliates can accept responsibility for the tax treatment of any investment product, whether or not the investment is purchased by a trust or company administered by an affiliate of Citi. Citi assumes that, before making any commitment to invest, the investor and (where applicable, its beneficial owners) have taken whatever tax, legal or other advice the investor/beneficial owners consider

necessary and have arranged to account for any tax lawfully due on the income or gains arising from any investment product provided by Citi.

This Communication is for the sole and exclusive use of the intended recipients, and may contain information proprietary to Citi which may not be reproduced or circulated in whole or in part without Citi's prior consent. The manner of circulation and distribution may be restricted by law or regulation in certain countries. Persons who come into possession of this document are required to inform themselves of, and to observe such restrictions. Citi accepts no liability whatsoever for the actions of third parties in this respect. Any unauthorized use, duplication, or disclosure of this document is prohibited by law and may result in prosecution.

Other businesses within Citigroup Inc. and affiliates of Citigroup Inc. may give advice, make recommendations, and take action in the interest of their clients, or for their own accounts, that may differ from the views expressed in this document. All expressions of opinion are current as of the date of this document and are subject to change without notice. Citigroup Inc. is not obligated to provide updates or changes to the information contained in this document.

The expressions of opinion are not intended to be a forecast of future events or a guarantee of future results. Past performance is not a guarantee of future results. Real results may vary.

Although information in this document has been obtained from sources believed to be reliable, Citigroup Inc. and its affiliates do not guarantee its accuracy or completeness and accept no liability for any direct or consequential losses arising from its use. Throughout this publication where charts indicate that a third party (parties) is the source, please note that the attributed may refer to the raw data received from such parties. No part of this document may be copied, photocopied or duplicated in any form or by any means, or distributed to any person that is not an employee, officer, director, or authorized agent of the recipient without Citigroup Inc.'s prior written consent.

Citigroup Inc. may act as principal for its own account or as agent for another person in connection with transactions placed by Citigroup Inc. for its clients involving securities that are the subject of this document or future editions of the document.

Bonds are affected by a number of risks, including fluctuations in interest rates, credit risk and prepayment risk. In general, as prevailing interest rates rise, fixed income securities prices will fall. Bonds face credit risk if a decline in an issuer's credit rating, or creditworthiness, causes a bond's price to decline. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. Finally, bonds can be subject to prepayment risk. When interest rates fall, an issuer may choose to borrow money at a lower interest rate, while paying off its previously issued bonds. As a consequence, underlying bonds will lose the interest payments from the investment and will be forced to reinvest in a market where prevailing interest rates are lower than when the initial investment was made.

Bond rating equivalence			
Alpha and/or numeric symbols used to give indications of relative credit quality. In the municipal market, these designations are published by the rating services. Internal ratings are also used by other market participants to indicate credit quality.			
Bond credit quality ratings	Rating agencies		
Credit risk	Moody's ¹	Standard and Poor's ²	Fitch Ratings ²
Investment Grade			
Highest quality	Aaa	AAA	AAA
High quality (very strong)	Aa	AA	AA
Upper medium grade (Strong)	A	A	A
Medium grade	Baa	BBB	BBB
Not Investment Grade			
Lower medium grade (somewhat speculative)	Ba	BB	BB
Low grade (speculative)	B	B	B
Poor quality (may default)	Caa	CCC	CCC
Most speculative	Ca	CC	CC
No interest being paid or bankruptcy petition filed	C	D	C
In default	C	D	D

1 The ratings from Aa to Ca by Moody's may be modified by the addition of a 1, 2, or 3 to show relative standing within the category.
2 The ratings from AA to CC by Standard and Poor's and Fitch Ratings may be modified by the addition of a plus or a minus to show relative standing within the category.

(MLP's) - Energy Related MLPs May Exhibit High Volatility. While not historically very volatile, in certain market environments Energy Related MLPS may exhibit high volatility.

Changes in Regulatory or Tax Treatment of Energy Related MLPs. If the IRS changes the current tax treatment of the master limited partnerships included in the Basket of Energy Related MLPs thereby subjecting them to higher rates of taxation, or if other regulatory authorities enact regulations which negatively affect the ability of the master limited partnerships to generate income or distribute dividends to holders of common units, the return on the Notes, if any, could be dramatically reduced. Investment in a basket of Energy Related MLPs may expose the investor to concentration risk due to industry, geographical, political, and regulatory concentration.

Mortgage-backed securities ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk).

Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

Alternative investments referenced in this report are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in the fund, potential lack of diversification, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and advisor risk.

Asset allocation does not assure a profit or protect against a loss in declining financial markets.

The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to US investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Factors affecting commodities generally, index components composed of futures contracts on nickel or copper, which are industrial metals, may be subject to a number of additional factors specific to industrial metals that might cause price volatility. These include changes in the level of industrial activity using industrial metals (including the availability of substitutes such as manmade or synthetic substitutes); disruptions in the supply chain, from mining to storage to smelting or refining; adjustments to inventory; variations in production costs, including storage, labor and energy costs; costs associated with regulatory compliance, including environmental regulations; and changes in industrial, government and consumer demand, both in individual consuming nations and internationally. Index components concentrated in futures contracts on agricultural products, including grains, may be subject to a number of additional factors specific to agricultural products that might cause price volatility. These include weather conditions, including floods, drought and freezing conditions; changes in government policies; planting decisions; and changes in demand for agricultural products, both with end users and as inputs into various industries.

The information contained herein is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Readers interested in the strategies or concepts should consult their tax, legal, or other advisors, as appropriate.

Diversification does not guarantee a profit or protect against loss. Different asset classes present different risks.

Citibank, N.A., Hong Kong / Singapore organized under the laws of U.S.A. with limited liability. This communication is distributed in Hong Kong by Citi Private Bank operating through Citibank N.A., Hong Kong Branch, which is registered in Hong Kong with the Securities and Futures Commission for Type 1 (dealing in securities), Type 4 (advising on securities), Type 6 (advising on corporate finance) and Type 9 (asset management) regulated activities with CE No: (AAP937) or in Singapore by Citi Private Bank operating through Citibank, N.A., Singapore Branch which is regulated by the Monetary Authority of Singapore. Any questions in connection with the contents in this communication should be directed to registered or licensed representatives of the relevant aforementioned entity. The contents of this communication have not been reviewed by any regulatory authority in Hong Kong or any regulatory authority in Singapore. This communication contains confidential and proprietary information and is intended only for recipient in accordance with accredited investors requirements in Singapore (as defined under the Securities and Futures Act (Chapter 289 of Singapore) (the "Act")) and professional

investors requirements in Hong Kong (as defined under the Hong Kong Securities and Futures Ordinance and its subsidiary legislation). For regulated asset management services, any mandate will be entered into only with Citibank, N.A., Hong Kong Branch and/or Citibank, N.A. Singapore Branch, as applicable. Citibank, N.A., Hong Kong Branch or Citibank, N.A., Singapore Branch may sub-delegate all or part of its mandate to another Citigroup affiliate or other branch of Citibank, N.A. Any references to named portfolio managers are for your information only, and this communication shall not be construed to be an offer to enter into any portfolio management mandate with any other Citigroup affiliate or other branch of Citibank, N.A. and, at no time will any other Citigroup affiliate or other branch of Citibank, N.A. or any other Citigroup affiliate enter into a mandate relating to the above portfolio with you. To the extent this communication is provided to clients who are booked and/or managed in Hong Kong: No other statement(s) in this communication shall operate to remove, exclude or restrict any of your rights or obligations of Citibank under applicable laws and regulations. Citibank, N.A., Hong Kong Branch does not intend to rely on any provisions herein which are inconsistent with its obligations under the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission, or which mis-describes the actual services to be provided to you.

Citibank, N.A. is incorporated in the United States of America and its principal regulators are the US Office of the Comptroller of Currency and Federal Reserve under US laws, which differ from Australian laws. Citibank, N.A. does not hold an Australian Financial Services License under the Corporations Act 2001 as it enjoys the benefit of an exemption under ASIC Class Order CO 03/1101 (remade as ASIC Corporations (Repeal and Transitional) Instrument 2016/396 and extended by ASIC Corporations (Amendment) Instrument 2022/623).

In the United Kingdom, Citibank N.A., London Branch (registered branch number BR001018), Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB, is authorized and regulated by the Office of the Comptroller of the Currency (USA) and authorized by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. The contact number for Citibank N.A., London Branch is +44 (0)20 7508 8000.

Citibank Europe plc (UK Branch), is a branch of Citibank Europe plc, which is authorised and regulated by the Central Bank of Ireland and the European Central Bank. Authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Citibank Europe plc, UK Branch is registered as a branch in the register of companies for England and Wales with registered branch number BR017844. Its registered address is Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB. VAT No.: GB 429 6256 29. Citibank Europe plc is registered in Ireland with number 132781, with its registered office at 1 North Wall Quay, Dublin 1. Citibank Europe plc is regulated by the Central Bank of Ireland. Ultimately owned by Citigroup Inc., New York, USA.

Citibank Europe plc, Luxembourg Branch, registered with the Luxembourg Trade and Companies Register under number B 200204, is a branch of Citibank Europe plc. It is subject to the joint supervision of the European Central bank and the Central Bank of Ireland. It is furthermore subject to limited regulation by the Commission de Surveillance du Secteur Financier (the CSSF) in its role as host Member State authority and registered with the CSSF under number B00000395. Its business office is at 31, Z.A. Bourmicht, 8070 Bertrange, Grand Duchy of Luxembourg. Citibank Europe plc is registered in Ireland with company registration number 132781. It is regulated by the Central Bank of Ireland under the reference number C26553 and supervised by the European Central Bank. Its registered office is at 1 North Wall Quay, Dublin 1, Ireland.

This document is communicated by Citibank (Switzerland) AG, which has its registered address at Hardstrasse 201, 8005 Zurich, Citibank N.A., Zurich Branch, which has its registered address at Hardstrasse 201, 8005 Zurich, or Citibank N.A., Geneva Branch, which has its registered address at 2, Quai de la Poste, 1204 Geneva. Citibank (Switzerland) AG and Citibank, N.A., Zurich and Geneva Branches are authorised and supervised by the Swiss Financial Supervisory Authority (FINMA).

In Jersey, this document is communicated by Citibank N.A., Jersey Branch which has its registered address at PO Box 104, 38 Esplanade, St Helier, Jersey JE4 8QB. Citibank N.A., Jersey Branch is regulated by the Jersey Financial Services Commission. Citibank N.A. Jersey Branch is a participant in the Jersey Bank Depositors Compensation Scheme. The Scheme offers protection for eligible deposits of up to £50,000. The maximum total amount of compensation is capped at £100,000,000 in any 5 year period. Full details of the Scheme and banking groups covered are available on the States of Jersey website www.gov.je/dcs, or on request.

In Canada, Citi Private Bank is a division of Citibank Canada, a Schedule II Canadian chartered bank. References herein to Citi Private Bank and its activities in Canada relate solely to Citibank Canada and do not refer to any affiliates or subsidiaries of Citibank Canada operating in Canada. Certain investment products are made available through Citibank Canada Investment Funds Limited ("CCIFL"), a wholly owned subsidiary of Citibank Canada. Investment Products are subject to investment risk, including possible loss of principal amount invested. Investment Products are not insured by the CDIC, FDIC or depository insurance regime of any jurisdiction and are not guaranteed by Citigroup or any affiliate thereof.

This document is for information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any securities to any person in any jurisdiction. The information set out herein may be subject to updating, completion, revision, verification and amendment and such information may change materially.

Citigroup, its affiliates and any of the officers, directors, employees, representatives or agents shall not be held liable for any direct, indirect, incidental, special, or consequential damages, including loss of profits, arising out of the use of information contained herein, including through errors whether caused by negligence or otherwise.

CCIFL is not currently a member, and does not intend to become a member of the Mutual Fund Dealers Association of Canada ("MFDA"); consequently, clients of CCIFL will not have available to them investor protection benefits that would otherwise derive from membership of CCIFL in the MFDA, including coverage under any investor protection plan for clients of members of the MFDA.

Global Consumer Bank (Asia Pacific and EMEA):

"Citi analysts" refer to investment professionals within Citi Research ("CR"), Citi Global Markets Inc. ("CGMI"), Citi Global Wealth Investments ("CGWI") and voting members of the Citi Global Investment Committee. Citibank N.A. and its affiliates / subsidiaries provide no independent research or analysis in the substance or preparation of this document.

The information in this document has been obtained from reports issued by CGMI and CGWI. Such information is based on sources CGMI and CGWI believe to be reliable. CGMI and CGWI, however, do not guarantee its accuracy and it may be incomplete or condensed. All opinions and estimates constitute CGMI and CGWI's judgment as of the date of the report and are subject to change without notice. This document is for general information purposes only and is not intended as a recommendation or an offer or solicitation for the purchase or sale of any security or currency. No part of this document may be reproduced in any manner without the written consent of Citibank N.A. Information in this document has been prepared without taking account of the objectives, financial situation, or needs of any particular investor. Any person considering an investment should consider the appropriateness of the investment having regard to their objectives, financial situation, or needs, and should seek independent advice on the suitability or otherwise of a particular investment. Investments are not deposits, are not obligations of, or guaranteed or insured by Citibank N.A., Citigroup Inc., or any of their affiliates or subsidiaries, or by any local government or insurance agency, and are subject to investment risk, including the possible loss of the principal amount invested. Investors investing in funds denominated in non-local currency should be aware of the risk of exchange rate fluctuations that may cause a loss of principal. Past performance is not indicative of future performance, prices can go up or down. Investment products are not available to US persons. Investors should be aware that it is his/her responsibility to seek legal and/or tax advice regarding the legal and tax consequences of his/her investment transactions. If an investor changes residence, citizenship, nationality, or place of work, it is his/her responsibility to understand how his/her investment transactions are affected by such change and comply with all applicable laws and regulations as and when such becomes applicable. Citibank does not provide legal and/or tax advice and is not responsible for advising an investor on the laws pertaining to his/her transaction.

Citi Research (CR) is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

For more information, please refer to https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

Market Specific Disclosures

Hong Kong: This This communication is distributed in Hong Kong by Citibank (Hong Kong) Limited ("CHKL") and/or Citibank, N.A., Hong Kong Branch ("CBNA HK", Citibank, N.A. is organized under the laws of U.S.A. with limited liability). CHKL and CBNA HK provide no independent research or analysis in the substance or preparation of this communication. Although information in this communication has been obtained from sources believed to be reliable, CHKL and CBNA HK do not guarantee its accuracy or completeness and accept no liability for any direct or consequential losses arising from its use.

This communication is for general information only, is not intended as a recommendation or an offer or solicitation for the purchase or sale of any products or services and should not be relied upon as financial advice. The information herein has not taken account of the objectives, financial situation or needs of any particular investor. Any person considering an investment should consider the suitability of the investment having regard to their objectives, financial situation and needs, and should seek independent advice before making an investment decision. You should obtain and consider the relevant product terms and conditions and risk disclosure statement, and consider if it's suitable for your objectives, financial situation or needs before making any investment decision. Investors are advised to obtain independent legal, financial and taxation advice prior to investing. Investments are not deposits, are not protected by the Deposit Protection Scheme in Hong Kong and are subject to investment risk including the possible loss of the principal amount invested.

This communication does not constitute the distribution of any information in any jurisdiction in which it is unlawful to distribute such information to any person in such jurisdiction.

India: Citibank N.A. India ("Citi") does NOT provide investment advisory services in any manner or form. Investment Products distributed by Citi (i) are not bank deposits or obligations of or guaranteed by Citibank, N.A. or Citigroup, Inc or any of its affiliates or subsidiaries; and (ii) are subject to investment risks, including the possible loss of the principal amount invested. Past performance is not indicative of future results, The ownership of any investment decision(s) shall exclusively vest with the Investor after analysing all possible risk factors and by

exercise of his/her/its independent discretion and Citi shall not be liable or held liable for any consequences thereof. Investment products are not available to US and Canada persons and may not be available in all jurisdictions. Investment products are distributed by Citi on a non-discretionary and non-participation basis.

This document does not constitute the distribution of any information or the making of any offer or solicitation by anyone in any jurisdiction in which such distribution or offer is not authorized or to any person to whom it is unlawful to distribute such a document or make such an offer or solicitation. Please exercise diligence by reading & understanding the Key Information Memorandum(s)/Scheme Investment Document(s) & Statement of Additional Information/Term Sheet/Prospectus/ Offer Documents carefully before investing and no claim whatsoever shall be made against Citibank N.A. or any of its affiliates or subsidiaries and / or employees claiming any influence/recommendation/advice/responsibility/liability as against your decision to invest in any investment product.

Investor should ensure to understand, accept the identities of different parties and the roles that they play in relation to the various Investment Product(s). Investor acknowledges that, there may be various actual or potential conflicts of interest between Citi, Citigroup Capital Markets Ltd., Citigroup Inc. or their affiliates or subsidiaries (collectively "Connected Persons") and that of an investor itself, as a result of the various investment and/or commercial businesses and/or activities of the Connected Persons.

Singapore: This communication is distributed in Singapore by Citibank Singapore Limited ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this communication. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this communication. Investment products are not insured under the provisions of the Deposit Insurance and Policy Owners' Protection Schemes Act of Singapore and are not eligible for deposit insurance coverage under the Deposit Insurance Scheme.

This communication is for general information only and should not be relied upon as financial advice. The information herein has no regard to the specific objectives, financial situation and particular needs of any specific person and is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Any person interested in the strategies or concepts mentioned herein should consult their independent tax, legal, financial or other advisors, as appropriate. This communication does not constitute the distribution of any information or the making of any offer or solicitation by anyone in any jurisdiction in which such distribution or offer is not authorized or to any person to whom it is unlawful to distribute such information or make any offer or solicitation.

Before making any investment, each investor must obtain the investment offering materials, which include a description of the risks, fees and expenses and the performance history, if any, which may be considered in connection with making an investment decision. Interested investors should seek the advice of their financial adviser about the issues discussed herein as appropriate. Should investors choose not to seek such advice, they should carefully consider the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's investment objectives and assess whether the investment product is suitable for themselves. Although information in this document has been obtained from sources believed to be reliable, CSL does not guarantee its accuracy or completeness and accept no liability for any direct or consequential losses arising from its use.

UAE: This document is distributed in UAE by Citibank, N.A. UAE. Citibank N.A. UAE is licensed by UAE Securities and Commodities Authority ("SCA") to undertake the financial activity as Promoter under license number 602003.

Citibank N.A. UAE is registered with Central Bank of UAE under license numbers BSD/504/83 for Al Wasl Branch Dubai, 13/184/2019 for Mall of the Emirates Branch Dubai, BSD/2819/9 for Sharjah Branch, and BSD/692/83 for Abu Dhabi Branch.

This is not an official statement of Citigroup Inc. and may not reflect all of your investments with or made through Citibank. For an accurate record of your accounts and transactions, please consult your official statement. Before making any investment, each investor must obtain the investment offering materials, which include a description of the risks, fees and expenses and the performance history, if any, which may be considered in connection with making an investment decision. Each investor should carefully consider the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's investment objectives. At any time, Citigroup companies may compensate affiliates and their representatives for providing products and services to clients.

United Kingdom: This document is distributed in the U.K. by Citibank UK Limited and in Jersey by Citibank N.A., Jersey Branch.

Citibank UK Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Our firm's Financial Services Register number is 805574. Citibank UK Limited is a company limited by shares registered in England and Wales with registered address at Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB, Companies House Registration No. 11283101.

Citibank N.A., Jersey Branch is regulated by the Jersey Financial Services Commission. Citi International Personal Bank is registered in Jersey as a business name of Citibank N.A. The address of Citibank N.A., Jersey Branch is P.O. Box 104, 38 Esplanade, St Helier, Jersey JE4 8QB. Citibank N.A. is incorporated with limited liability in the USA. Head office: 399 Park Avenue, New York, NY 10043, USA.

© All rights reserved Citibank UK Limited and Citibank N.A. (2023).

© 2023 Citigroup Inc. Citi, Citi and Arc Design and other marks used herein are service marks of Citigroup Inc. or its affiliates, used and registered throughout the world.

**INVESTMENT PRODUCTS: NOT FDIC INSURED · NOT CDIC INSURED ·
NOT GOVERNMENT INSURED · NO BANK GUARANTEE · MAY LOSE VALUE**