

EHSAN KHOMAN
 Head of MENA Research and Strategy

DIFC Branch – Dubai

T: +971 (0)4 387 5033
 E: ehsan.khoman@ae.mufg.jp

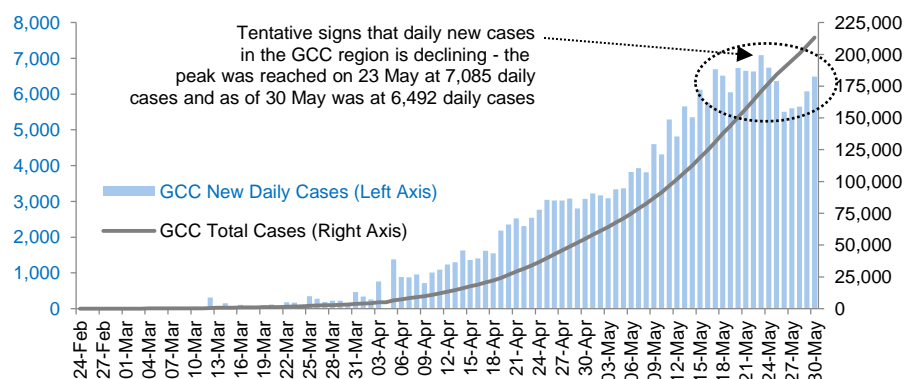
MUFG Bank, Ltd.
 A member of MUFG, a global financial group

01 June 2020

Contextualising the GCC regional reopenings – the path to the next normal

- Easing lockdown restrictions.** Lockdowns and social distancing measures are beginning to ease across the GCC countries given tentative signs that these economies are passed the peak with a flattening in the curve of new COVID-19 cases on the horizon. At the current juncture, it is too early to decipher whether the easing of lockdown is feeding through to a meaningful pick-up in economic activity. What is clear is that despite the phased easing in restrictions, the GCC region is by no means out of the woods. The past couple of months have been strenuous and destabilising. The region is steadily looking to life post-COVID-19 towards a path of a new normal but there currently remains more questions than answers. However, there's room for hope, tempered with caution.
- Lessons from early openers across the world.** Our examination of countries that have reopened more versus less speedily across the world thus far, offers three encouraging lessons. First, early reopeners have not witnessed higher confirmed COVID-19 incidences thus far. Second, corporates and broader financial markets have tentatively begun to reward the early reopeners with modestly higher asset returns and easier financial conditions – in contrast to the "peak lockdown" period of early April, when reopening was associated with lower asset returns and tighter financial conditions. Third, not all reopenings are homogeneous with heterogeneity abound across countries, and if medical outcomes can avoid left tails, corporates and markets may reward reopenings.
- Outlook.** Certain events split eras into times before and after. It is clear that our era will be defined by a fundamental division: what we knew as normal before COVID-19 and the new normal that will emerge in the post-viral era – the next normal. For the GCC economies, the conversation is beginning about what the next normal could entail and how sharply its contours will diverge from those that previously shaped the region. What is evident in the immediate term is that all these countries continue to grapple with both the demand-side evisceration shock caused by COVID-19 induced restrictions and the supply-side shock caused by the oil price collapse. Facing either one of these shocks would be unprecedented. The combination of the two, signals a sudden deep and acute recession this year, with risks skewed to the downside.

GCC DAILY NEW CASES AND TOTAL CASES OF COVID-19 INCIDENCES



Source: Bloomberg, ourworldindata.org, MUFG MENA Research

Contextualising the GCC regional reopenings – the path to the next normal

Easing lockdown restrictions but not out of the woods yet

There are tentative signs that we are over the worst in the GCC region. In the last couple of months, the region has grappled with two ultra-bearish shocks – demand-side evisceration caused by COVID-19 induced lockdowns and supply-side challenges caused by the oil price collapse. Facing either one of these shocks would be unprecedented. The combination of the two, signals a sudden deep and acute recession this year, with risks skewed to the downside.

Easing lockdown restrictions but not out of the woods yet

In recent weeks, containment measures across the GCC countries have eased as authorities outline their paths out of stringent COVID-19 lockdowns. Restrictions have taken a heavy toll on economic output and their loosening would offer a much needed boost to economic activity. Despite the phased easing in restrictions, the GCC region is by no means out of the woods. The past couple of months have been strenuous and destabilising. The region is steadily looking to life post-COVID-19 towards a path of a new normal, but there currently remains more questions than answers. However, there's room for hope, tempered with caution.

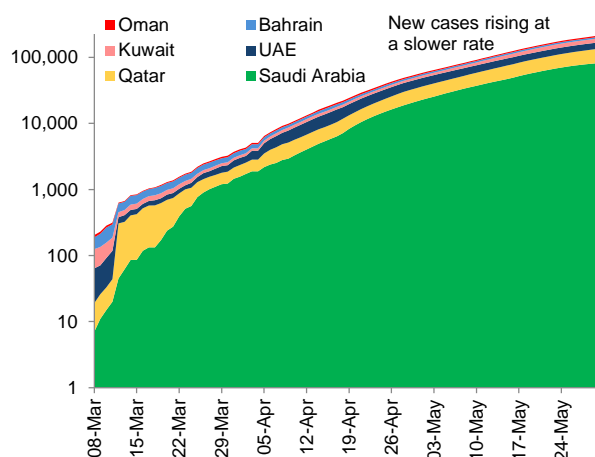
EASING ANNOUNCEMENTS AND ECONOMIC IMPLICATIONS

Not all reopenings have been homogeneous with large variations dependent on idiosyncratic country factors

Nearly all GCC countries have announced an easing of lockdowns:

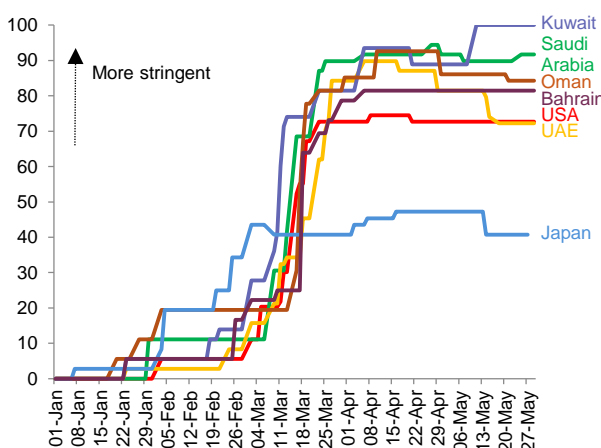
1. **Saudi Arabia.** The Kingdom has started implementing a three phased approach to easing restrictions, with all curfews to be lifted by 21 June. Since 28 May, curfews have been reduced, between 3pm to 6am and from 30 May between 8pm to 6am, when mosques can also resume prayers. Mecca will remain under stricter curfews while the rest of the country starts to open and Hajj and Umrah pilgrimages continue to be suspended. Domestic flights will resume from 1 June, but international flights remain suspended, possibly up to September.
2. **UAE.** Dubai has relaxed free movement, allowing business activity to resume during reduced curfews from 11pm to 6am. Since 27 May, Dubai airport began welcoming returning residents, subject to 14 day on arrival

DAILY NEW CASE GROWTH IN COVID-19 INCIDENCES IN THE GCC REGION



Source: ourworldindata.org, MUFG MENA Research

STRINGENCY INDEX (0-100; 0 = LEAST STRINGENT; 100 = MOST STRINGENT), GCC REGION, US AND JAPAN



Source: Oxford University, MUFG MENA Research

quarantine, and passengers on transit. The UAE aims to welcome tourists from July and is gradually allowing a resumption of retail and hospitality activity. On 21 May, Emirates airlines which has formally requested financial support from the government, resumed flights to nine destinations. Separately, Federal government employees in UAE have resumed work since 31 May, first phased at 30% capacity. In Dubai, half of government employees have returned to offices since 31 May, ahead of a full return by 14 June.

3. **Oman.** Oman will allow business activity to resume and has ended the lockdown within the capital, Muscat since 29 May, allowing travel to resume in and out the city. However, Muttrah district, where the majority of COVID-19 cases have been recorded and where many low wage foreign workers live and work, remains sealed off. Since 31 May, half of government employees have returned to work.
4. **Bahrain.** Since 22 May, certain commercial and industrial business activities have reopened.
5. **Kuwait.** The Kuwaiti government did not extend its full curfew beyond 30 May and instead switched to a 12 hour partial curfew from 6pm to 6am commencing 31 May, as part of a five phase plan.
6. **Qatar.** There are few signs of an imminent easing of restrictions in Qatar as cases continue to edge up. Qatar's Minister of Health stated on 21 May that the country is entering the "peak stage" of its COVID-19 outbreak. New cases have averaged 1,757 a day since then, up from 1,483 a day in the previous seven day period.

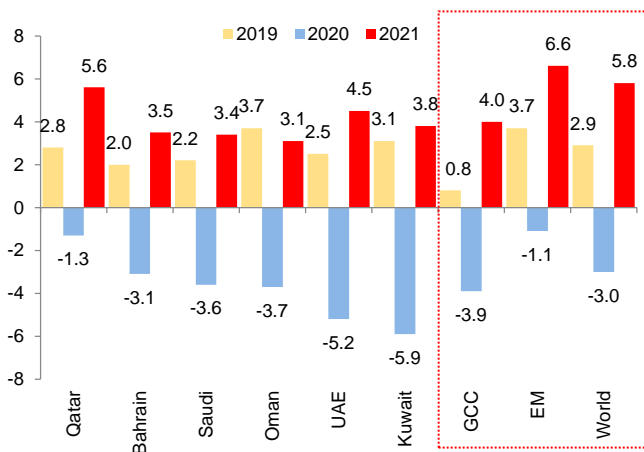
PMIs have registered a sharp downturn

High frequency data has demonstrated the scale of the challenge. Early activity data for April measured by the all-important Purchasing Managers Index (PMI) – the leading indicator and barometer of the health of an economy which is highly correlated with non-oil GDP growth – signalled that acute containment measures have taken an unprecedented toll on corporate output across the region.

Non-oil economic impact has varied country-to-country

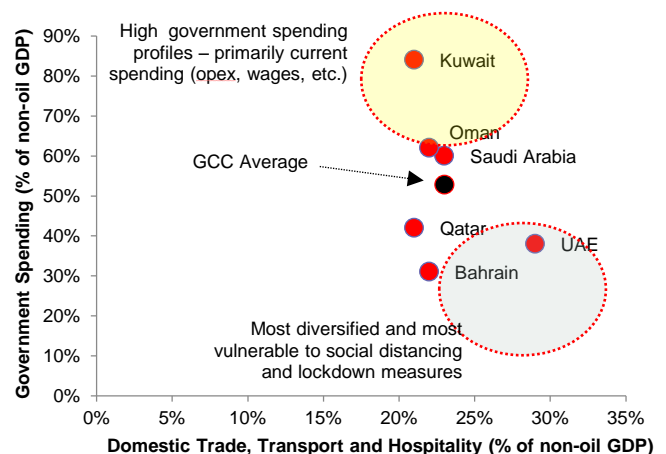
The impact of COVID-19 on the non-oil economy across the GCC region varies from country to country, in line with the share of economic activity in each that is most adversely impacted by government measures to control the spread of the disease. The lockdown measures are weighing heavily on activity in non-oil GDP sectors through three core transmission channels; (i) weaker global trade; (ii) travel restrictions (including consumers' reluctance to travel outright); and (ii) social distancing pressures on non-oil GDP sectors, primarily, wholesale and retail trade,

GCC REGION, EM AND GLOBAL REAL GDP GROWTH (%)



Source: Bloomberg, CEIC, IMF, MUFG Research

COVID-19 EFFECTS ON GOVERNMENT SPENDING AND SOCIAL DISTANCING/LOCKDOWN IMPACTED SECTORS



Source: GCC National Statistics, IMF, MUFG Research

transportation, recreation and hospitality (hotels and restaurants). All else equal, we calculate that this could mean a contraction of GCC non-oil GDP in the range of 5.4% in 2020:

1. **Global trade.** Containment measures put in place have caused corporates to close – disrupting global supply chains – and high frequency data have demonstrated a severe slowdown in trade volumes. The April PMI's were at record lows across the board in the region. A crude indicator of vulnerability to COVID-19 to softer global trade is to examine the size of non-hydrocarbon exports. On this basis, the UAE is the most vulnerable, reflecting Dubai's importance as a global logistics and re-processing hub.
2. **Travel restrictions.** International commercial flights across the region have been cancelled since mid-March. Statistics from the World Travel and Tourism Council (WTTC) show that, on average, tourism sectors contribute ~18% to GDP across the region through both direct and indirect effects, with the UAE being the most impacted.
3. **Lockdown and social distancing measures.** Regional authorities have implemented severe and prudent lockdown policies, albeit the first phase of reopening the economies are underway. Dubai remains the most impacted, with heavily squeezed sectors such as, wholesale and retail trade, transportation, recreation and hospitality (hotels and restaurants), accounting for nearly a third of overall GDP (32%).

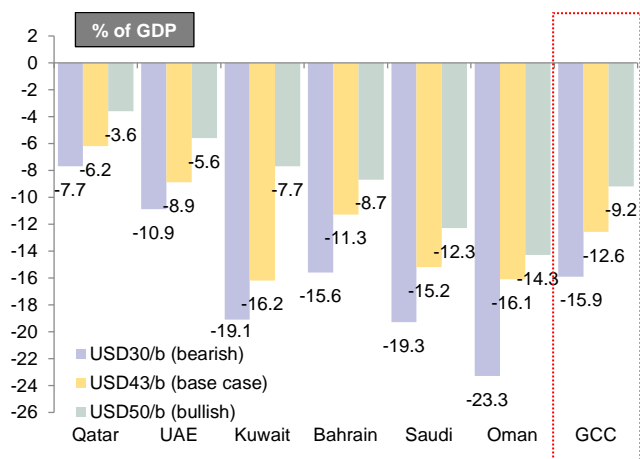
Austerity measures to navigate lower oil revenues

After recent warnings of painful, but necessary measures, the Saudi Ministry of Finance announced sharp austerity measures: (i) VAT to be tripled from 5% to 15% from 1 July; (ii) government will end a monthly cost-of-living allowance paid to public sector workers from 1 June; (iii) some operational and capital spending will be cancelled or delayed; (iv) some Vision 2030 targets (unannounced) will be re-prioritised; and (v) a committee will study the salaries and benefits given by state entities outside the civil service umbrella. With the oil price required for the budget to balance at just under USD80/b in 2020, these bold, decisive and necessary austerity measures are paramount to prevent a deterioration of buffers, though our forecasts continue to point towards a -15.2% of GDP fiscal deficit in 2020, as we had already factored the spending cuts into our estimates, while the revenue impact of the 10ppt increase in VAT to 15% will be dampened by contracting domestic demand.

Deep recession in the GCC region

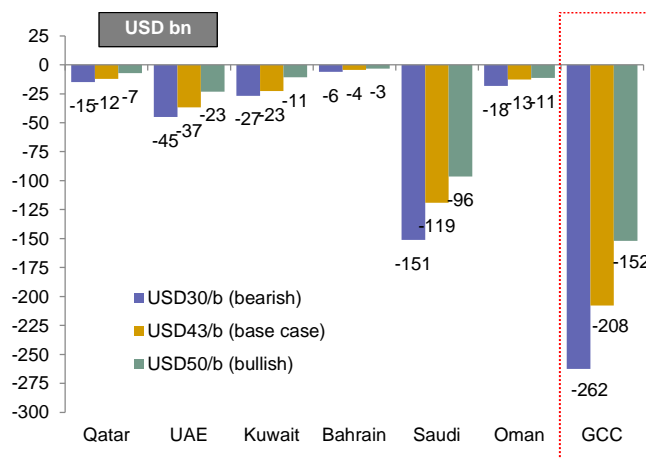
On the whole, record (and necessary) voluntary oil production cuts, as part of the OPEC+ and G20 energy ministers agreement on 12 April (see [here](#)), will weigh heavily on oil GDP growth rates in 2020, that have otherwise been flattered by a

GCC FISCAL BALANCE (% OF GDP) IN 2020, UNDER BASE CASE, BEARISH AND BULLISH OIL PRICE FORECASTS



Source: Bloomberg, CEIC, MUFG Research

GCC FISCAL BALANCE (USD BN) IN 2020, UNDER BASE CASE, BEARISH AND BULLISH OIL PRICE FORECASTS



Source: Bloomberg, CEIC, MUFG Research

promised surge in output levels back in early March. Incorporating the (i) mechanical volumetric impact of the oil output cuts on oil GDP; (ii) the severe impact of COVID-19 lockdowns on non-oil GDP through domestic demand contraction; and (iii) the most recent government stimulus as well as consolidation measures, into our econometric models, we forecast deep recessions across all GCC economies, with overall real GDP growth to contract in 2020 by -3.9% from +2.4% in 2019.

USD208bn (12.6% of GDP) fiscal deficit in the GCC region in 2020

On the fiscal side, we expect public finances to deteriorate sharply this year, mainly due to a decline in government revenues as a result of COVID-19 pandemic (reducing non-oil revenues) and the collapse in oil prices and lower oil production (reducing oil revenues). Of the two, it is the decline in oil prices and lower oil production which will have a more significant delta impact on public finances in 2020. Factoring in the latest fiscal stimulus and consolidation announcements, our estimates point to GCC financing requirements of USD208bn (12.6% of GDP) under our base case of Brent averaging USD43/b in 2020, with funding needs rising to USD263bn in our bearish (USD30/b) scenario, whilst narrowing to USD152bn in our bullish (USD50/b) scenario.

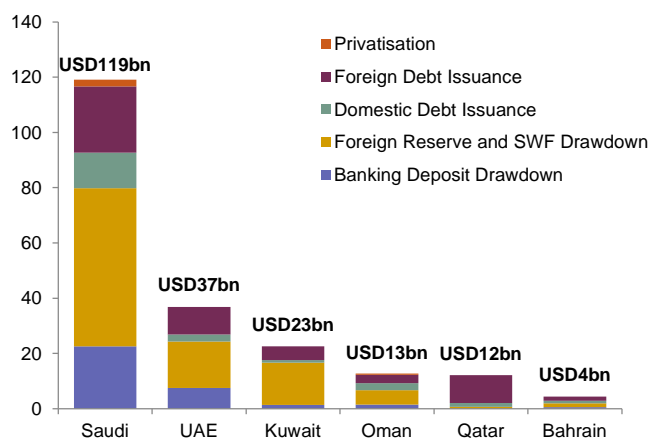
LESSONS FROM EARLY OPENERS ACROSS THE WORLD

Lessons from early openers across the world

Our examination of countries that have reopened more versus less speedily across the world thus far, offers three encouraging lessons:

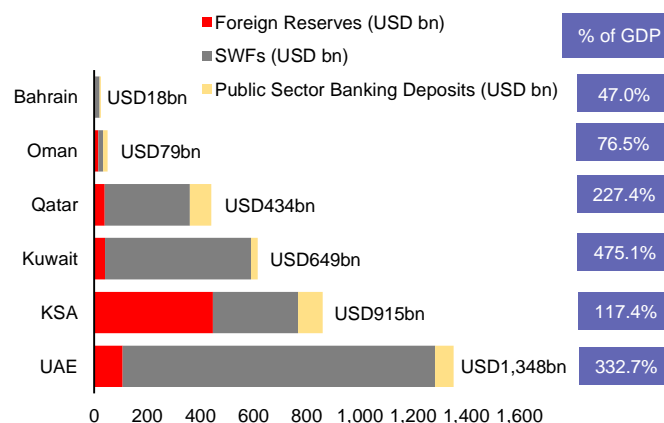
1. **Early reopeners have not witnessed higher confirmed COVID-19 incidences thus far.** Our examination finds little evidence that early openers have not – at least for now – witnessed higher virus incidences once opening up. Since the beginning of April, a near-universal global reopening has coincided with a near-universal fall in the daily rate of new confirmed cases. Moreover, the fall in a country's daily rate of new confirmed cases does not appear related to the pace of reopening so far across the world. Two caveats to our analysis. First, countries that have opened up assertively are likely to be those that have been “allowed to” by a declining trend of virus incidences. Second, early openers may be different in numerous behaviours than late openers, for instance, the Euro Area, has opened up relatively quickly and in a coordinated fashion, and may not be directly comparable to other parts of the world in terms of variables such as pre-existing trends of COVID-19

GCC COMPOSITION OF FISCAL FINANCING REQUIREMENTS IN 2020 (USD BN)



Source: GCC Ministries of Finance, IMF, MUFG Research

WEALTH BUFFERS: FX RESERVES, SWF ASSETS, BANKING DEPOSITS (USD BN; % OF GDP)



Source: IMF, SWFI, MUFG Research

incidences, availability of testing, contact tracing and healthcare capacity, etc. On net, these results are encouraging, but they do remain suggestive at this early stage.

2. **Corporates and broader financial markets have tentatively begun to reward the early reopeners with modestly higher asset returns and easier financial conditions.** With COVID-19 concerns slowly begin to moderate given limited evidence so far that opening up has triggered fresh medical apprehensions, financial markets have tentatively started to take a more positive view of reopening, which contrasts to the “height of the lockdown” period of early April, when opening up was associated with lower asset returns and tighter financial conditions. So our examination of all the countries that have taken reopening measures so far, signals that financial markets have now begun to reward reopening with modestly higher asset returns and easier financial conditions.
3. **Not all reopenings are homogeneous with heterogeneity abound across countries.** Our cross-country examination suggests that some reopenings may carry higher risks than others. Each country authority is weighing up the timing of reopening based on the number of infections alongside the economic impact and pressure on healthcare systems, and prudent judgement has been in order in determining the most optimal outcome – and indeed its not a one size fits all exercise, and heterogeneity across countries is in play here. Should medical outcomes can avoid left tails, markets may indeed begin to reward greater reopenings in the GCC region, such as Saudi Arabia, the UAE and Kuwait, relative to the more-limited reopenings of economies like India and parts of Latin America, which are yet to witness any deceleration of new cases and if medical outcomes can avoid left tails, corporates and markets are likely to reward reopenings.

THE PATH TO THE NEXT NORMAL

More questions than answers at the current juncture

Lockdowns and social distancing measures are beginning to ease across the GCC countries given tentative signs that these economies are passed the peak with a flattening in the curve of new COVID-19 cases on the horizon. At the current juncture, it is too early to decipher whether the easing of lockdown is feeding through to a meaningful pick-up in economic activity. What is clear is that despite the phased easing in restrictions, the GCC region is by no means out of the woods. The past couple of months have been strenuous and destabilising. The region is steadily looking to life post-COVID-19 towards a path of a new normal but there currently remains more questions than answers. However, there's room for hope, tempered with caution.








The path to the next normal

Certain events split eras into times before and after. It is clear that our era will be defined by a fundamental division: what we knew as normal before COVID-19 and the new normal that will emerge in the post-viral era – the next normal. For the GCC economies, the conversation is beginning about what the next normal could entail and how sharply its contours will diverge from those that previously shaped the region. What is evident in the immediate term is that all these countries continue to grapple with both the demand-side evisceration shock caused by COVID-19 induced restrictions and the supply-side shock caused by the oil price collapse. Facing either one of these shocks would be unprecedented. The combination of the two, signals a sudden deep and acute recession this year, with risks skewed to the downside.

Economic Weekly Round-up

- **Key data and events in the past week:**
- **Egypt** sold USD5bn in bonds in three tranches with maturities of 4, 12 and 30 years. Investor appetite was robust with more than USD6bn in demand for each of the 4 and 12-year tranches and USD7.6bn for the 30 year bonds.
- **Jordan's** request for emergency financial assistance from the IMF (Rapid Financial Instrument) amounting to about USD 396mn was approved. This is expected to cover about a quarter of Jordan's external financing needs.
- Public sector employees in **Jordan** began a phased return to work last week, after a state of emergency was declared mid-March.
- **Kuwait** eased its full-time curfew to 12 hours (from 6pm to 6am) and will last 3 weeks before the next phase of easing is introduced.
- **Lebanon's** discussions with the IMF continue – according to reports, the IMF wants the capital control law to be passed before discussing financial assistance. Meanwhile, Lebanese MPs want to include recommendations from the IMF in a draft law which blocks capital transfers from the country for all but limited reasons (including medical bills, loans, foreign taxes and purchase of essential goods).
- Funding raised by **Oman's** capital market for various projects and economic initiatives grew by 75% y/y to USD 8.2bn in 2019, according to Oman's Capital Market Authority.
- **Saudi's Central Bank (SAMA)** transferred USD40bn in FX reserves to the PIF between March and April, according to the Saudi Finance Minister, HE Mohammad Al Jadaan, HE Al Jadaan also stated that "returns on PIF investments would be available to support public finances when needed.
- Inflation in **Saudi Arabia** inched up by 1.3% y/y in April, on higher food prices.
- Foreign currency assets held by the Central Bank of the UAE edged up by 1.6% y/y to USD 101.2bn in April 2020, as both current account balances and deposits with foreign banks strengthened.
- **Key focus in the week ahead:**
 1. **Regional** PMI data for May 2020.
 2. In **oil markets**, OPEC's May crude production.

Economic Calendar and Forecasts

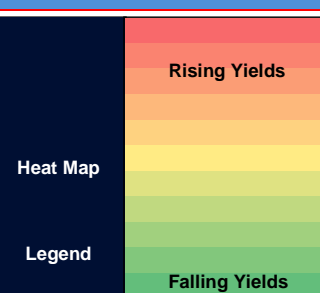
Upcoming Events and Data Releases								
Date		Country	Event	Period	Consensus	MUFG* Forecasts	Actual	Previous
01/06/2020		Turkey	PMI Manufacturing	May 2020	---	---		33.4
03/06/2020		Saudi Arabia	PMI Composite	May 2020	---	---		44.4
03/06/2020		Qatar	PMI Composite	May 2020	---	---		39.0
03/06/2020		UAE	PMI Composite	May 2020	---	---		44.1
06/06/2020		UAE	CPI, % y/y	Mar 2020	---	---		-1.6%
03/05/2020		Egypt	Gross Official Reserves (USD bn)	May 2020	---	---		USD37.0bn
10/05/2020		Egypt	PMI Composite	May 2020	---	---		29.7

* MUFG MENA Research
Source: Bloomberg, Refinitiv, MUFG MENA Research

MENA Market Indicators – Tables

Benchmark Bond Yields (% Local Currencies)

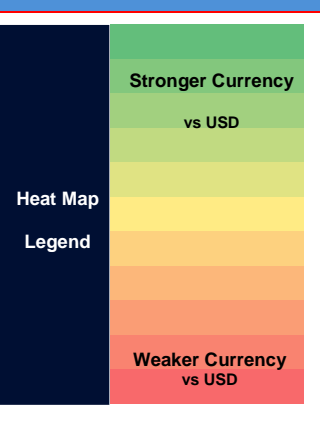
	Maturity	22-May	29-May	Change in Yield (bps)		
				Week	MTD*	YTD*
Advanced Countries						
US	10 yrs	0.66	0.65	-0.7	1.3	-126.5
Germany	10 yrs	-0.49	-0.45	4.0	13.9	-26.2
Italy	10 yrs	1.60	1.48	-12.1	-28.7	6.4
Japan	10 yrs	-	0.01	0.5	3.5	1.6
MENA Countries						
Bahrain***	3 yrs	5.05	5.00	-4.7	-81.0	200.9
Egypt	5 yrs	13.48	13.48	0.0	32.8	0.2
Qatar***	10 yrs	2.60	2.56	-3.8	-40.3	-9.3
Saudi Arabia**	10 yrs	2.42	2.40	-2.1	-2.7	-63.9
Abu Dhabi***	7 yrs	1.89	1.96	6.7	-18.6	-45.0
Dubai***	9 yrs	3.41	3.35	-6.1	-55.6	18.3



Note: * Month to Date and Year to Date; ** 10-year swap rate; *** USD denominated

Exchange Rates vs USD

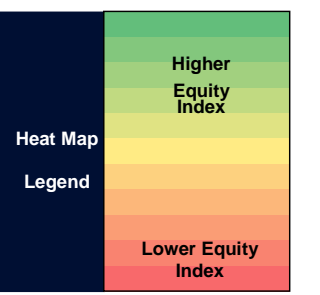
	22-May	29-May	Change (%)		
			Week	MTD	YTD
Advanced Countries					
US Dollar Index	99.863	98.344	-1.5	-0.7	2.0
Euro Area*	1.090	1.110	1.8	1.3	-1.0
Japan	107.640	107.830	-0.2	-0.6	0.7
MENA Countries					
Egypt	15.850	15.850	0.0	-0.7	1.4
Kuwait	0.309	0.309	0.0	0.0	-1.8
UAE 12M Forward	3.682	3.682	0.0	0.0	-0.1
Bahrain 12M Forward	0.378	0.378	0.0	0.2	-0.1
Oman 12M Forward	0.398	0.397	0.2	0.0	-2.4
Qatar 12M Forward	3.661	3.657	0.1	0.0	-0.4
Saudi Arabia 12M Forward	3.767	3.769	0.0	0.0	-0.4
UAE Spot	3.673	3.673	PEGGED		
Bahrain Spot	0.377	0.377			
Oman Spot	0.385	0.385			
Qatar Spot	3.641	3.641			
Saudi Arabia Spot	3.758	3.756			



Note: * Exchange rate quoted as amount of USD per currency in line with market convention, other exchange rates are amount per USD

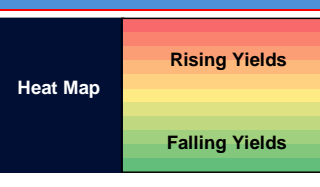
Equity Indices

	22-May	29-May	Change (%)		
			Week	MTD	YTD
Advanced Countries					
US (S&P 500)	2,955	3,044	3.0	4.5	-5.8
Europe (STOXX 50)	2,905	3,050	5.0	4.2	-18.6
Japan (Nikkei 225)	20,388	21,878	7.3	8.3	-7.5
MENA Countries					
Bahrain (BB)	1,257	1,276	1.5	-2.7	-20.8
Egypt (EGX 30)	10,357	10,110	-2.4	-4.2	-27.6
KSA (Tadawul)	7,050	7,051	0.0	-0.9	-16.0
Kuwait (KSE)	4,895	5,010	2.3	0.7	-20.3
Oman (Muscat 30)	3,387	3,534	4.3	-0.2	-11.2
Qatar (Doha 20)	8,856	8,824	-0.4	0.7	-15.4
UAE (Abu Dhabi)	4,131	4,134	0.1	-2.3	-18.5
UAE (Dubai)	1,933	1,970	1.9	-2.8	-28.8



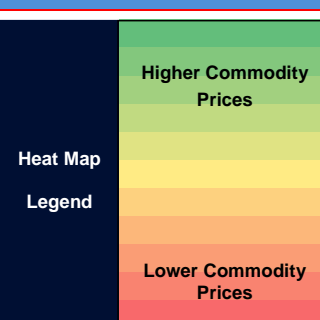
5 Year USD CDS Spreads

	22-May	29-May	Change in Yield (bps)		
			Week	MTD*	YTD*
MENA Countries					
Bahrain	428.44	425.93	-2.5	-61.9	249.9
Kuwait	89.90	87.88	-2.0	-17.2	51.2
Qatar	97.65	95.25	-2.4	-29.5	58.5
Saudi Arabia	143.47	139.47	-4.0	-29.8	82.6
UAE (Abu Dhabi)	97.79	95.23	-2.6	-29.6	59.1
UAE (Dubai)	232.27	220.99	-11.3	-73.6	130.0



Commodity Prices*

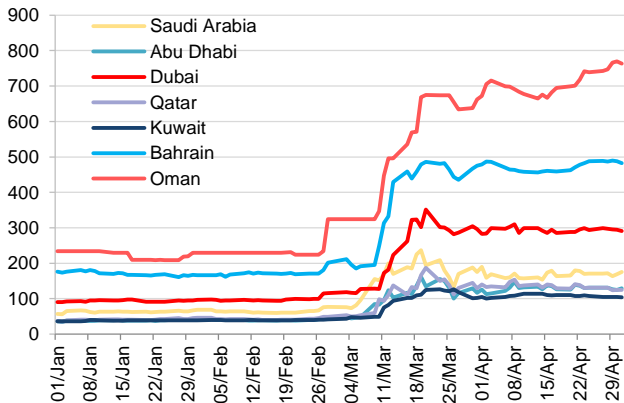
	22-May	29-May	Change (%)		
			Week	MTD	YTD
Energy					
Brent	35.1	37.8	7.7	49.7	-42.7
WTI	33.3	35.5	6.7	88.4	-41.9
LNG	1,427.3	1,462.6	2.5	3.9	41.6
Precious Metals					
Gold	1,735	1,730	-0.3	2.6	14.0
Silver	17.2	17.9	3.8	19.3	0.1
Industrial					
Copper	5,289	5,377	1.7	3.6	-12.9
Steel	472	513	8.7	9.6	-12.8
Aluminum	1,507	1,548	2.8	3.6	-14.5
Wheat	509	521	2.4	-1.7	-6.8



Note: * Spot prices or nearest expiring future

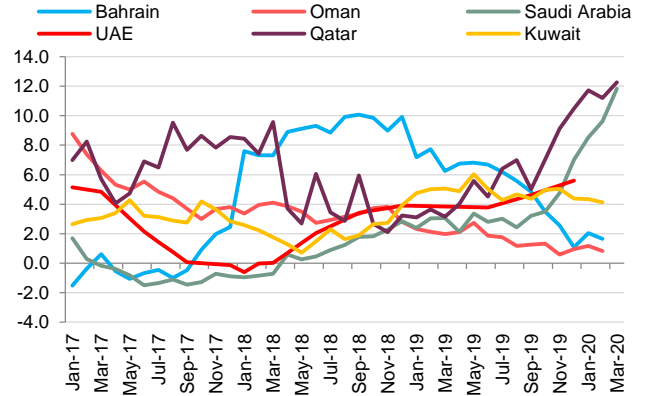
MENA Market Indicators – Charts

CHART 1. GCC 5 YEAR CDS SPREADS (BASIS POINTS)



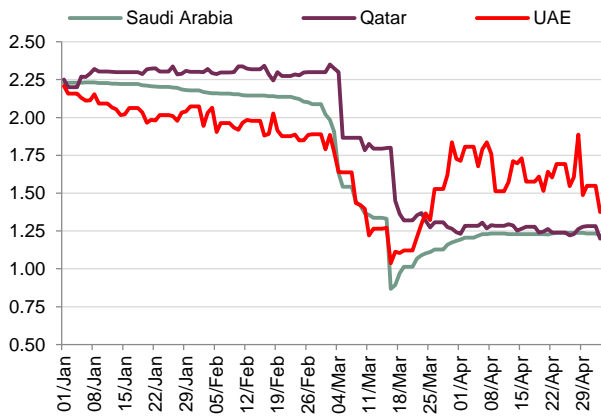
Source: Bloomberg, CEIC Database, MUFG MENA Research

CHART 2. GCC PRIVATE SECTOR CREDIT GROWTH (% Y/Y)



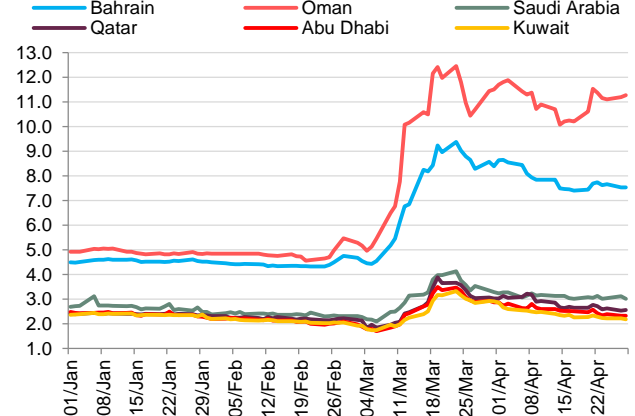
Source: Bloomberg, CEIC Database, MUFG MENA Research

CHART 3. CORE GCC 3 MONTH INTERBANK RATES (%)



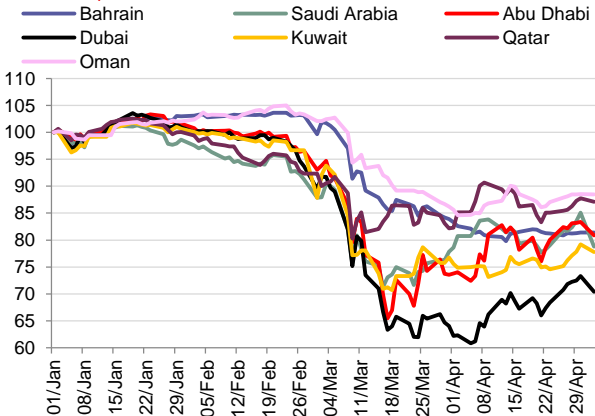
Source: Bloomberg, CEIC Database, MUFG MENA Research

CHART 4. GCC 10 YEAR SOVEREIGN BOND YIELDS (%)



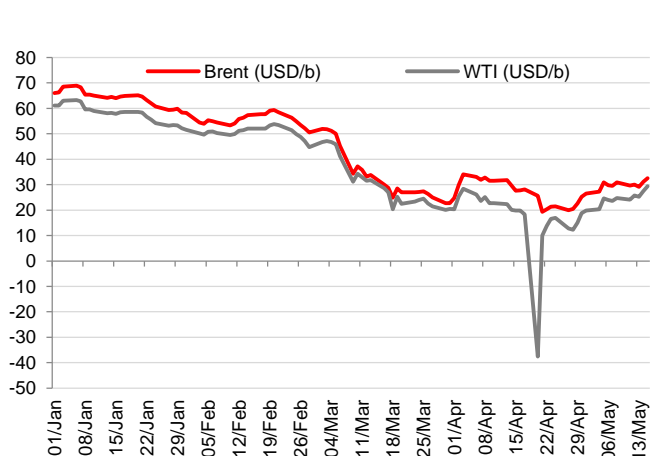
Source: Bloomberg, CEIC Database, MUFG MENA Research

CHART 5. GCC EQUITY MARKETS (REBASED JANUARY 2017 = 100)



Source: Bloomberg, CEIC Database, MUFG MENA Research

CHART 6. BRENT AND WTI CRUDE PRICES (USD/B)



Source: Bloomberg, CEIC Database, MUFG MENA Research

Global Markets Research

London:

MR DEREK HALPENNY
*Head of Research, Global Markets EMEA
& International Securities*
T: +44 (0)20 7577 1887

MR LEE HARDMAN
Currency Analyst
T: +44 (0)20 7577 1968

MS MOMOKO MIYACHI
Research Assistant
T: +44 (0)20 7577 1886

Hong Kong:

MR CLIFF TAN
East Asian Head of Global Markets Research
T: +852 2862 7005

New York:

MR JOHN HERRMANN
Rates Strategist
T: +1-212- 405-7447

MR MASAFUMI INOUE
Analyst
T: +1-212-782-6726

Dubai:

MR EHSAN KHOMAN
Head of MENA Research and Strategy
T: +971 (0)4 387 5033

Tokyo

MR MINORI UCHIDA
Tokyo Head of Global Markets Research
T: +81 (0) 3 6214 4147

MR TOSHIYUKI SUZUKI
Senior Market Economist
T: +81 (0) 3 6214 4148

MR TAKAHIRO SEKIDO
Japan Strategist
T: +81 (0) 3 6214 4150

MR MASASHI HASHIMOTO
Senior Analyst
T: +81 (0) 3 6214 4185

MS SUMINO KAMEI
Senior Analyst
T: +81 (0) 3 6214 4179

MR SHINJI ISHIMARU
Senior Analyst
T: +81 (0) 3 6214 4151

Singapore:

MS SOOK MEI LEONG
Asean Head of Global Markets Research
T: +65 6918 5536

MR TEPPEI INO
Senior Analyst
T: +65 6918 5538

MS SOPHIA NG
Analyst
T: +65 6918 5537

Sao Paulo:

MR CARLOS PEDROSO
Senior Economist
T: +55-11-3268-0245

MR MAURICIO NAKAHODO
Economist
T: +55-11-3268-0420

Disclaimer

This document has been prepared by MUFG Bank, Ltd. (the "Bank") for general distribution. It is only available for distribution under such circumstances as may be permitted by applicable law and is not intended for use by any person in any jurisdiction which restricts the distribution of this document. The Bank and/or any person connected with it may make use of or may act upon the information contained in this document prior to the publication of this document to its customers.

Neither the information nor the opinions expressed in this document constitute or are to be construed as, an offer, solicitation or recommendation to buy, sell or hold deposits, securities, futures, options or any other derivative products or any other financial products. This document has been prepared solely for informational purposes and does not attempt to address the specific needs, financial situation or investment objectives of any specific recipient. This document is based on information from sources deemed to be reliable but is not guaranteed to be accurate and should not be regarded as a substitute for the exercise of the recipient's own judgment. Historical performance does not guarantee future performance. The Bank may have or has had a relationship with or may provide or has provided financial services to any company mentioned in this document. Our group affiliates, from time to time, may have interests and/or underwriting commitments in the relevant securities mentioned in this document or related instruments and/or may have positions or holdings in such securities or related instruments.

All views in this document (including any statements and forecasts) are subject to change without notice and none of the Bank, its head office, branches, subsidiaries and affiliates is under any obligation to update this document.

The information contained in this document has been obtained from sources the Bank believed to be reliable but the Bank does not make any representation or warranty nor accepts any responsibility or liability as to its accuracy, timeliness, suitability, completeness or correctness. The Bank, its head office, branches, subsidiaries and affiliates and the information providers accept no liability whatsoever for any loss or damage of any kind arising out of the use of or reliance upon all or any part of this document.

The Bank retains copyright to this document and no part of this document may be reproduced or re-distributed without the written permission of the Bank. The Bank expressly prohibits the distribution or re-distribution of this document to private or retail clients, via the Internet or otherwise, and the Bank, its head office, branches, subsidiaries and affiliates accept no liability whatsoever to any third parties resulting from such distribution or re-distribution.

MUFG Bank, Ltd. ("MUFG Bank") is a limited liability stock company incorporated in Japan and registered in the Tokyo Legal Affairs Bureau (company no. 0100-01-008846). MUFG Bank's head office is at 7-1 Marunouchi 2-Chome, Chiyoda-Ku, Tokyo 100-8388, Japan. MUFG Bank's London branch is registered as a UK establishment in the UK register of companies (registered no. BR002013). MUFG Bank is authorised and regulated by the Japanese Financial Services Agency. MUFG Bank's London branch is authorised by the Prudential Regulation Authority (FCA/PRA no. 139189) and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of MUFG Bank London branch's regulation by the Prudential Regulation Authority are available from us on request.

This Presentation has been prepared by MUFG Bank. This Presentation is not intended for Retail Clients within the meaning of the United Kingdom PRA/FCA rules and should not be distributed to Retail Clients. This Presentation has been prepared for information purposes only and for the avoidance of doubt, nothing express or implied in this Presentation constitutes any commitment by MUFG Bank or any of its subsidiaries or affiliates to arrange and/or provide any party with any services and/or financing. This Presentation does not constitute legal, tax, accounting or investment advice.

MUFG Bank retains copyright to this Presentation and no part of this Presentation may be reproduced or redistributed without the prior written permission of MUFG Bank. MUFG Bank and its subsidiaries and affiliates accept no liability whatsoever to any third parties resulting from any unauthorised distribution. MUFG Bank and its subsidiaries, affiliates, directors and employees accept no liability whatsoever for any reliance on the information contained in the Presentation and make no representation or warranty as to its accuracy and completeness.

This Presentation is based on information from sources deemed by MUFG Bank to be reliable but is not guaranteed to be accurate and should not be regarded as a substitute for the exercise of the recipient's own judgment.

The views contained in this Presentation (including any statements and forecasts) are solely those of MUFG Bank and are subject to change without notice. MUFG Bank is under no obligation to correct any inaccuracies in the Presentation or update the information contained therein.

The provision of the service described in this Presentation is or will be subject to an agreement constituting terms of business ("the Agreement"). In the event of a conflict between information in this Presentation and the Agreement, the latter shall prevail.

The MUFG Bank Presentation and all claims arising in connection with it are governed by, and to be construed in accordance with, English law.

The Bank's DIFC branch - Dubai is part of the Mitsubishi UFJ Financial Group and is located at Level 3, East Wing, The Gate, Dubai International Financial Centre, Dubai, UAE. The Bank's Dubai branch is regulated by the Dubai Financial Services Authority (DFSA) (License number: F000470) and the Japanese Financial Services Agency.

The Bank's Doha office is part of the Mitsubishi UFJ Financial Group and is located at Suite A3, Mezzanine floor, Tornado Tower, West Bay, Doha, Qatar. The Bank's Doha branch is regulated by the Qatar Financial Centre Regulatory Authority (QFCRA) (Licence number: 00103) and the Japanese Financial Services Agency.

The Bank's Abu Dhabi branch is part of the Mitsubishi UFJ Financial Group and is located at 1st Floor, IPIC Square, Muroor Street, PO Box 2174, Abu Dhabi, UAE. The Bank's Abu Dhabi branch is regulated by the Central Bank of the U.A.E (CBAUE) (License number: CN-1002032) and the Japanese Financial Services Agency.

The Bank's Bahrain branch is part of the Mitsubishi UFJ Financial Group and is located at 12th Floor, West Tower, Bahrain Financial Harbor, Bahrain. The Bank's Bahrain branch is regulated Bahrain by the Central Bank of Bahrain (CBB) (License number WB/020) and the Japanese Financial Services Agency.

This presentation has been prepared by the Bank and is not intended for Retail Clients within the meaning of the PRA/FCA, the DFSA, QFCRA, CBB and CBAUE rules and should not be distributed to Retail Clients. This presentation has been prepared for information purposes only and, for the avoidance of doubt, nothing express or implied in this presentation constitutes any commitment by the Bank, its subsidiaries or affiliates to arrange and/or provide any party with any services and/or financing. This presentation does not constitute legal, tax, accounting or investment advice. The Bank retains copyright to this presentation and no part of this presentation may be reproduced or redistributed without the prior written consent of the Bank. The Bank and its subsidiaries and affiliates accept no liability whatsoever to any third party resulting from any unauthorised distribution. The Bank, its subsidiaries, affiliates and each of their respective directors and employees accept no liability whatsoever for any reliance on the information contained in the presentation and make no representation or warranty as to its accuracy and completeness. This presentation is based on information from sources considered by the Bank to be reliable but is not guaranteed to be accurate and should not be regarded as a substitute for the exercise of the recipient's own judgement. The views, opinions and other information contained in this presentation (including, without limitation, any statements or forecasts) are solely those of the Bank and are subject to change without notice.

Notwithstanding the foregoing, nothing contained herein shall be deemed to limit or exclude liability on the part of the Bank to the extent it is not permitted to exclude in accordance with the laws administered by the Dubai Financial Services Authority (DFSA).

The Bank is under no obligation to correct any inaccuracies or update the information contained in this presentation. The provision of the service described in this presentation is, or will be, subject to an agreement constituting terms of business. In the event of a conflict between information contained in this presentation and such terms of business, the latter shall prevail. This disclaimer is governed by English law.

This report shall not be construed as solicitation to take any action such as purchasing/selling/investing in financial market products. In taking any action, the reader is requested to act on the basis of his or her own judgment. This report is based on information believed to be reliable, but the Bank does not guarantee or accept any liability whatsoever for its accuracy. The Bank, its affiliates and subsidiaries and each of their respective officers, directors and employees accept no liability whatsoever for any loss or damage of any kind arising out of the use of all or any part of this report. The contents of the report may be revised without advance notice. The Bank retains copyright to this report and no part of this report may be reproduced or re-distributed without the Bank's written consent. The Bank expressly prohibits the re-distribution of this report to Retail Customers (within the meaning of the PRA/FCA, the DFSA, QFCRA, CBB, CBAUE rules), via the internet or otherwise and the Bank, its subsidiaries and affiliates accept no liability whatsoever to any third parties resulting from such re-distribution.

The author(s) mentioned on the cover of this report hereby certify(ies) (or, where multiple authors are responsible, individually certify with respect to each security that the author covers in this report) that the views expressed in this report accurately reflect their personal views about the subject company(ies) and its (their) securities, and also certify(ies) that they have not been, are not, and will not be receiving direct or indirect compensation in exchange for expressing any specific recommendation(s) or view(s) in this report.

This report has been prepared by the Global Markets Research, US Rates and Credit Strategy desks within MUFG Bank, Ltd. ("MUBK") and MUFG Securities EMEA plc ("MUS/EMEA") and may be distributed to you either by MUBK, MUS/EMEA or by another subsidiary of the Mitsubishi UFJ Financial Group ("MUFG").

Legal entities and branches

The securities related businesses within MUFG (together referred to in this presentation as "MUFG Securities") are: (1) MUFG SECURITIES EMEA PLC ("MUS/EMEA") which is authorised in the United Kingdom by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA (FS Registration Number 124512). MUS/EMEA has a branch office that is registered at Level 3, East Wing, The Gate, Dubai International Financial Centre, PO Box 506894, Dubai, UAE ("Dubai Branch"). The Dubai Branch is authorised to operate in the Dubai International Financial Centre ("DIFC") as a Non-DIFC Entity (Commercial License Number CL1656) and is regulated by the Dubai Financial Services Authority (Reference Number F002623); (2) (MUFG Securities (Europe) N.V. ("MUS (EU)"), which is authorised and regulated in the Netherlands by the Dutch Authority for the Financial Markets (AFM) and also regulated by De Nederlandsche Bank (DNB). MUS (EU) Paris Branch is regulated in France by the Autorité de contrôle prudentiel et de résolution (ACPR) and the Autorité des marchés financiers (AMF); (3) MUFG SECURITIES AMERICAS INC. ("MUS(USA)") which is registered in the United States with the Securities and Exchange Commission ("SEC") and regulated by the Financial Industry Regulatory Authority ("FINRA") (SEC# 8-43026; CRD# 19685); (4) MUFG SECURITIES (CANADA), LTD. ("MUS(CAN)"), which is registered in Canada with the Ontario Securities Commission ("OSC") and regulated by the Investment Industry Regulatory Organization of Canada ("IIROC"); (5) MUFG SECURITIES ASIA LIMITED ("MUS(ASIA)") which is incorporated in Hong Kong, licensed under the Hong Kong Securities and Futures Ordinance and regulated by the Hong Kong Securities and Futures Commission (Central Entity Number AAA889). MUS(ASIA) is registered as a foreign company under the Corporations Act 2001 of Australia ARBN No. 169 329 453; and (6) MUFG Securities Asia (Singapore) Limited ("MUS(SPR)"), which is licensed as an approved merchant bank by the Monetary Authority of Singapore. In respect of the financial services provided to wholesale clients in Australia, MUS(ASIA), MUS(EMEA), MUS(USA) and MUS(SPR) are each exempt from the requirement to hold an Australian financial services licence under the Corporations Act 2001 of Australia under the Australian Securities and Investments Commission Class Order Exemption CO 03/1099, CO 03/1103, CO 03/1100, and CO 03/1102, respectively. Each of MUS(ASIA), MUS(EMEA), MUS(CAN), and MUS(SPR) are regulated under the laws of Hong Kong, the United Kingdom, the United States, Canada and Singapore respectively, which differ from Australian laws.

MUFG Bank Ltd ("MUBK") is a limited liability stock company incorporated in Japan and registered in the Tokyo Legal Affairs Bureau (company no. 0100-01-008846). MUBK's head office is at 7-1 Marunouchi 2-Chome, Chiyoda-Ku, Tokyo 100-8388, Japan. MUBK's London branch is at Ropemaker Place, 25 Ropemaker Street, London EC2Y 9AN, and is registered as a UK establishment in the UK register of companies (registered no. BR002013). MUBK is authorised and regulated by the Japanese Financial Services Agency. MUBK's London branch is authorised by the UK Prudential Regulation Authority ("PRA") and regulated by the UK Financial Conduct Authority ("FCA") with limited regulation by the PRA.

General disclosures

This report is for information purposes only and should not be construed as investment research as defined by MFID 2 or a solicitation of any offer to buy or sell any security, commodity, futures contract or related derivative (hereafter "instrument") or to participate in any trading strategy. This report does not constitute a personal recommendation and does not take into account the individual financial circumstances, needs or objectives of the recipients. Recipients should therefore seek their own financial, legal, tax or other advice before deciding to invest in any of the instruments mentioned in this report.

Certain information contained in this report has been obtained or derived from third party sources and such information is believed to be correct and reliable but has not been independently verified. MUFG Securities does not make any guarantee, representation, warranty or undertaking, express or implied, as to the fairness, accuracy, reliability, completeness, adequacy or appropriateness of any information or comments contained in this report. Furthermore the information may not be current due to, among other things, changes in the financial markets or economic environment. MUFG Securities has no obligation to update any such information contained in this report.

This report is not intended to forecast or predict future events. Past performance is not a guarantee or indication of future results. Any prices provided herein (other than those identified as being historical) are indicative only and do not represent firm quotes as to either price or size.

This report is proprietary to MUFG Securities and may not be quoted, circulated or otherwise referred to without our prior written consent. Notwithstanding this, MUFG Securities shall not be liable in any manner whatsoever for any consequences or loss (including but not limited to any direct, indirect or consequential loss, loss of profits and damages) arising from any reliance on or usage of this report and accepts no legal responsibility to any investor who directly or indirectly receives this material.

Country and region specific disclosures

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or is 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.

In this regard, please note the following in relation to the jurisdictions in which MUFG Securities has a local presence:

- United Kingdom / European Economic Area (EEA): This report is intended for distribution to a "professional client" or "eligible counterparty" as those terms are defined in the rules of the FCA and PRA. In other EEA countries, this report is intended only for persons regarded as professional investors (or equivalent) in their home jurisdiction.

- United States of America: This report, when distributed by MUS(USA), is intended for Institutional Investors ("Institutional Accounts" as defined by FINRA Rule 4512(c)). When distributed by a non-US affiliate of MUS(USA), this report is intended for distribution solely to "major U.S. institutional investors" or "U.S. institutional investors" pursuant to Rule 15a-6 under the U.S. Securities Exchange Act of 1934, as amended. Securities referenced in this report may have been underwritten by MUS(USA) and/or its affiliates. Nothing in this report should be considered an offer or solicitation of an offer to buy or sell securities or any other financial product or a commitment of any kind with respect to any transaction.

- IR3 Circular 230 Disclosure: MUFG Securities does not provide tax advice. Accordingly, any discussion of U.S. tax matters included herein (including any attachments) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone not affiliated with MUS(USA) of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

- Hong Kong: This report is only intended for distribution to a "professional investor" as that term is defined in the Securities and Futures Ordinance and should not be passed onto any other person.

- Singapore: This report is only intended for distribution to an "institutional investor", "accredited investor" or "expert investor" as those terms are defined under regulation 2 of the Financial Advisers Regulation. It is solely for the use of such investors and shall not be distributed, forwarded, passed on or disseminated to any other person. Investors should note that, as a result of exemptions that apply when this report is distributed to "accredited investors" and "expert investors", MUFG is exempt from complying with certain requirements under the Financial Advisers Act, including section 25 of the Financial Advisers Act (which requires a financial adviser to disclose all material information on certain investment products), section 27 (which requires a financial adviser to have a reasonable basis for making recommendations on investments) and section 36 (which requires a financial adviser to disclose any interests that it holds in securities that it recommends).

- Canada: When distributed in Canada, this report is distributed by MUS(EMEA) or MUSA. MUS(EMEA) operates under an International Dealer Exemption from registration with the securities regulators in Alberta, British Columbia, Manitoba, Ontario and Québec. MUSA operates under an International Dealer Exemption from registration with the securities regulators in all Canadian Provinces and Territories. This report is only intended for a "permitted client" as that term is defined under the National Instrument 31-103 in Canada and is not intended for re-distribution to any other person. The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Under no circumstance is the information contained herein to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient.

- Japan: This Note, when distributed by MUFG Securities affiliates located outside of Japan, is intended for distribution in accordance with Article 58-2 of the Financial Instruments Exchange Act 1948 ("FIEA") to a "Financial Instruments Business Operator" engaged in "Securities-Related Business" as defined in the FIEA or to the government, the Bank of Japan, a qualified financial institution defined in Article 209 of the Cabinet Office Ordinance Concerning Financial Instruments Business, etc., or an Investment Manager.

- United Arab Emirates: This report is only intended for distribution to a "Professional Client" or "Market Counterparty" as those terms are defined under the rules of the Dubai Financial Services Authority and only a person meeting the criteria for these terms should act upon this report.

- Australia: This Note is only intended for distribution to persons in Australia who are sophisticated or professional investors for the purposes of section 708 of the Corporations Act of Australia, and are wholesale clients for the purposes of section 761G of the Corporations Act of Australia. This Note is not intended to be distributed or passed on, directly or indirectly, to any other class of persons in Australia.

Other jurisdictions:

MUFG Securities also relies on local registrations or regulatory exemptions in order to undertake certain securities business in other countries. In Thailand, MUS(EMEA) has a derivatives dealer registration with the Securities and Exchange Commission, Thailand. In Canada, MUS(EMEA) and MUS(USA) each operate under an international dealer exemption registered with the securities regulators. MUS(EMEA) operates under the exemption in Alberta, Quebec, Ontario, British Columbia and Manitoba. MUS(USA) operates under the exemption in all Canadian Provinces and Territories.