EHSAN KHOMAN
Head of MENA Research and Strategy

DIFC Branch – Dubai

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

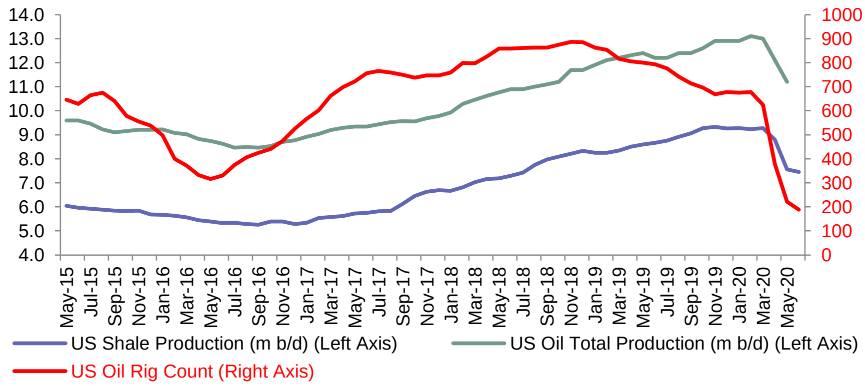
MUFG Bank, Ltd.
A member of MUFG, a global financial group

09 July 2020

Implications for global energy markets stemming from the US Presidential elections

- A second term for President Trump suggests a continuation of the status quo, US "energy dominance"" policy, while a Biden presidency points to a spectrum of policies in carbon and drilling taxation changes that could become significant disruptions – both positive and negative – for the energy sector. Should President Trump garner a second term, then markets can expect the continuation of the prevailing US energy dominance policy, signalling the least Federal government-led disruptions to hydrocarbon energy production, consumption or trade. Meanwhile, a Biden presidency would see a more middle ground approach anchored between a reengagement in US global leadership towards sustainable energy targets on the one hand, and the US energy dominance policy strategy on the other hand.
- Four months out, the outcome of the US presidential elections remain highly uncertain. Whilst we take no view on the outcome of the Presidential elections, we note Biden's significant advantage across all major polls (some in double-digits). However, according to our Washington based political analyst, Jordan Heiber, President Trump does retain a high floor of support, and his numbers have rebounded from missteps in the past.
- Oil price implications. The significant price and demand headwinds from the COVID-19 pandemic has created a crisis in the oil patch. The fallout will continue post the November elections. Any effort to project medium term oil prices should account for the multifaceted set of factors and expectations surrounding future policies as well as the fundamentals of future demand and supply trends. Factoring in either a Trump or Biden win, we believe that prices are likely to fluctuate in a corridor between USD45/b and USD60/b for Brent between 2020-24, with a long-term anchor near the industry's marginal cost of production and support of ~USD55/b. In the more immediate term, and as we recently documented, we remain resolutely bullish on oil prices (see here and here), with the market rebalancing underway leading oil prices to transition from relief rally to cyclical tightening. The structural outcome of the ongoing rebalancing leading our models to forecast Brent averaging USD43/b and USD55/b in 2020 and 2021, respectively.

US OIL (TOTAL AND SHALE) PRODUCTION (MILLION B/D) AND US RIG COUNT



Source: Bloomberg, EIA, MUFG MENA Research

Implications for global energy markets stemming from the US Presidential elections

Energy dominance vs. more green driven energy policies

The Trump “energy dominance” status quo is likely to mean a continued surge in production of oil and gas, driving exports of crude oil, refined products, NGLs, LNG, and petrochemical products, keeping global prices relatively low, and putting geopolitical pressure on OPEC+ producers. On the other hand, a Biden presidency could see tight regulations drive some magnitude of a slowdown for US hydrocarbon production and export growth, with likely job, trade and economic impacts in varying scale and scope, leading to higher global oil prices in the medium-term, and inevitably emboldening OPEC+ producers.

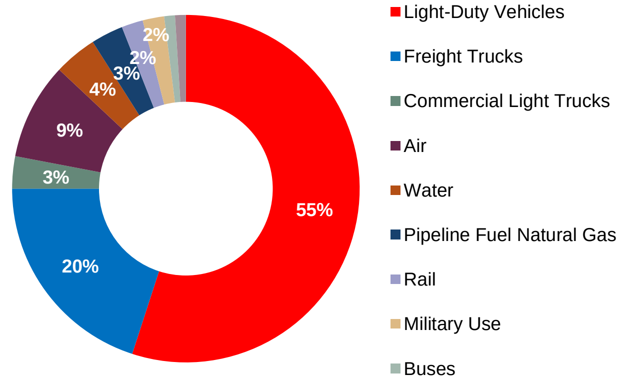
Status quo under Trump

If Trump garners a second term, then markets can expect more of the same on the international front. Trump will continue to focus upon US decoupling from China and pursuing international relationships that are more transactional in nature. This includes trade wars, shortening and reshoring of supply chains as well as pursuing of bilateral over multilateral trade deals. In general, investors should expect a continuation of the America first policies regarding trade, buy American initiatives for corporations and consumers, skepticism of transnational organisations like the WTO, greater international burden sharing under NATO, deglobalisation and protectionism. From an oil markets perspective, exporting US oil and gas would remain a priority. A continuation of various trade wars could pose downside risks to economic growth and oil demand, while also boosting some oil and gas trade flows over others, particularly US exports. US sanctions policy vis-à-vis Iran and Venezuela could remain volatile, adding geopolitical supply risks to oil markets. The Trump Administration could continue its recent hands-on approach to oil market management, pressuring OPEC+ to cut production should prices fall too low, hurting the US oil sector, but also potentially pressuring OPEC+ to raise production should prices move too high, hurting US consumers.

Material shift in energy strategy under Biden

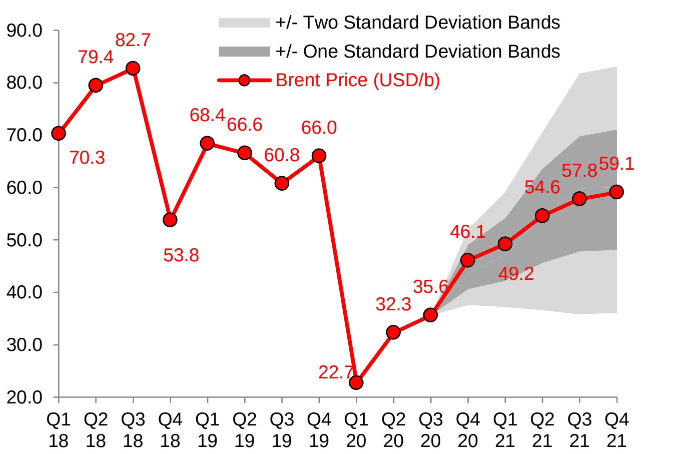
A Biden presidency would look quite different from the last four years and probably would be a return to traditional governance and global engagement. Regarding international policies, Biden will reengage the US in multilateralism and internationalism. From an oil markets perspective, investors will likely see a reversal of much of the deregulation that has occurred affecting the energy sector. Indeed,

ENERGY USE BY SECTOR IN THE US (% OF TOTAL)



Source: Bloomberg, EIA, MUFG MENA Research

BRENT QUARTER-END WITH STANDARD DEVIAITON BANDS (USD/B)



Source: Bloomberg, MUFG MENA Research

there likely will be more regulation with clean energy more front of mind. Biden's platform is light with respect to taxation policy though it does target the energy sector. Biden has stated that he would cut fossil fuels subsidies and use tax provisions to help finance green energy and infrastructure policies.

A greener future under Biden

By and large, Biden's energy policies are anchored between the Trump Administration's US energy dominance goal on the one hand, and policies advocating keeping all fossil fuels in the ground on the other. His main focus is upon investment in green infrastructure and energy. There is a greater likelihood of realisation of these policies should the Democrats win the White House and both chambers of Congress. On green energy, Biden aims to reengage the US in global leadership towards sustainable energy goals. Biden does support a 100% clean energy US economy and net zero emissions by 2050. However, he does intend to help the US energy sector to transition towards a greener future. Some of his actions could include:

1. Recommitting to the Paris Agreement on Climate Change
2. Investing in efficient buildings; clean energy: ethanol, biofuels, wind and solar energy, and nuclear energy
3. Investing in fuel efficient vehicles, electric vehicles and trucks; and bolstering the Clean Air Act
4. Advocating carbon capture and sequestration; lowering airline and shipping emissions; modifying royalties to account for climate costs

Sector implications are significant under a Biden presidency

Should Biden firm the position on fossil fuels production drawdown, this could prompt a material restructuring in non-energy sectors that use energy as an input. Clear sectors through a green future scenario include the transportation industry, which uses fossil fuels to propel passenger vehicles, planes, trucks and trains. A less obvious, though important example of the effects of a green future resulting in major changes in non-energy companies includes the plastics and chemicals sectors. Should fossil fuels are no longer allowed to be used for energy consumption, then energy companies might opt to take market share in the chemicals sector in the production of petrochemicals, where carbon content is not emitted, fuelling increased output, but capping prices.

Medium-term oil prices are likely to fluctuate between USD45/b and USD60/b

The significant price and demand headwinds from the COVID-19 pandemic has created a crisis in the oil patch. The fallout will continue post the November elections. Any effort to project medium term oil prices should account for the multifaceted set of factors and expectations surrounding future policies as well as the fundamentals of future demand and supply trends. Factoring in either a Trump or Biden win, we believe that prices are likely to fluctuate in a corridor between USD45/b and USD60/b for Brent between 2020-24, with a long-term anchor near the industry's marginal cost of production and support of ~USD55/b. In the more immediate term, and as we recently documented, we remain resolutely bullish on oil prices (see here and here), with the market rebalancing underway leading oil prices to transition from relief rally to cyclical tightening. Indeed, the sheer velocity of OPEC+ cuts and involuntary shut-ins, alongside the oil inventory draws will likely to drive a strengthening of the forward curve and a flip from contango to backwardation in the second half of this year. The structural outcome of the ongoing rebalancing leading our models to forecast Brent averaging USD43/b and USD55/b in 2020 and 2021, respectively.

Ranges & Outlook for the week ahead

BRENT – NEUTRAL BIAS – (38.00-48.00)

WTI – NEUTRAL BIAS – (36.00-46.00)

	Spot close 08.07.20	Q3 2020	Q4 2020	Q1 2021	Q2 2021
Brent	43.24	35.60	46.10	49.20	54.60
NYMEX	40.80	30.60	41.60	45.20	50.30
		Range	Range	Range	Range
Brent		28.35-54.85	35.10-57.10	37.70-60.70	43.10-66.10
NYMEX		23.35-49.85	30.60-52.60	33.70-56.70	38.80-61.80

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: l+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 Research and Strategist for MENA
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.

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 judgement.

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 (CBUAE) (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 CBUAE 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, CBUAE 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.

CERTIFICATION

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.

DISCLAIMERS

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 authorized 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(USA), 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 MIFID 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.

IRS 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", MUSS 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") i) to a "Financial Instruments Business Operator" engaged in "Securities-Related Business" as defined in the FIEA or ii) 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.

When distributed by Mitsubishi UFJ Morgan Stanley Securities Co., Ltd., this Note is intended for distribution to a "Professional Investor (tokutei-toushika)" as defined in the FIEA.

• 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..

dl