

【NEWS RELEASE】

March 9, 2023
SMBC Nikko Securities Inc.

Quarterly Economic Outlook for FY2022-2023(Update)

March 9, 2023(JST), “SMBC NIKKO Japan Economic Outlook for FY2022-2023” has been released, responding to the second preliminary of GDP (October-December 2022 period)

Recovery as Consumption Normalizes, Terms of Trade Improve

- ◆ Real GDP: FY22 +1.4%, FY23 +2.0%
- ◆ Nominal GDP: FY22 +1.4%, FY23 +2.6%

Summary**• GDP growth outlook**

We revise our outlook to reflect the second preliminary Oct-Dec 2022 GDP data. Our forecasts for real GDP growth of 1.4% YoY in FY22 and 2.0% in FY23 are unchanged from last time (17 Feb 2023).

• **Economic outlook**

We forecast a solid recovery in the Japanese economy towards 2024 for five reasons.

Normalized consumption: Households are no longer fazed by the number of CV19 infections and recognize the limited danger of the virus, including the low fatality rate, so are loosening their purse-strings at last. The fatality rate of CV19 is currently around 0.04%, less than half that of influenza, so the real risk is low. We expect consumption to continue recovering as CV19 becomes less virulent.

Strong purchasing power: Households have held off on spending and increased savings during the pandemic, so purchasing power has reached around Y360tn, or around Y55tn higher than consumption, i.e. there is no need for households to reduce consumption. Households have sufficient purchasing power, so we do not expect income constraints to curb consumption.

Containing inflation: 75% of inflation in Japan comes from energy and food prices. International commodity prices are key, and crude oil and grain prices have already peaked out due to the Fed's QT (quantitative tightening) policy. We expect domestic inflation to slow sharply toward 2024 as commodity prices fall.

Wage growth: Spring labor negotiations reference the previous year's inflation rate. We estimate inflation in FY22 was around 3%, so that should lift base salary hikes. We forecast wage hikes (scheduled salary escalator + base salary hikes) of around 3.3%; we expect real wages to rise as inflation slows.

Better terms of trade: We expect the terms of trade to improve as QT by the Fed pushes down resource prices. Terms of trade could improve by up to around Y22tn. This should stem the outflow of income overseas and boost domestic incomes.

All told, we expect a solid recovery in the Japanese economy toward 2024 boosted by both domestic factors (weaker CV19 virulence, high purchasing power, subsiding inflation, rising wages) and overseas factors (improved terms of trade).

• **The BOJ's monetary policy**

Change in monetary policy: Kazuo Ueda has been nominated as the next BOJ governor; he has said that the 2% inflation target is still a long way off, the BOJ's current policy looks appropriate, and it needs to continue monetary easing. This suggests that monetary policy is unlikely to change any time soon.

YCC adjustment: Once achievement of the 2% inflation target comes into view, we see four options for future changes in monetary policy: 1) scrapping YCC; 2) hiking interest rates (IOER and/or long-term rate targets); 3) widening the permitted range for long-term yields; and 4) introducing a dot chart.

We think the BOJ could possibly widen the permitted range for long-term yields and introduce a dot chart to prevent disorderly increases in long-term yields. A wider range would be more effective than scrapping YCC altogether, assuming it is done smartly; for example, in 25bp increments with gaps of at least six months and in combination with things like 1) large JGB purchases/funds-supplying operations against pooled collateral, and 2) higher fee rates/lower upper limits on sales amount per issue under the securities lending facility.

The BOJ could hike rates in FY25 at the earliest, but until then we expect it to gradually normalize rates while keeping real rates negative (ie, keeping accommodative policy) by expanding the tolerated range for long-term rates. We expect monetary tightening in FY25 when inflation reaches 2%.

Quarterly forecasts for Japanese economy

	2021				2022				2023				2024	《A》→《F》 (Unit:%)			Comparison with previous forecasts (as at 17 Feb 2023)	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	FY21	FY22	FY23	FY22	FY23
Real GDP growth (QoQ)	-0.2	0.3	-0.4	1.1	-0.5	1.2	-0.3	0.0	0.9	0.6	0.5	0.5	0.4	2.6	1.4	2.0	0.0	0.0
(annual rate)	-0.7	1.4	-1.4	4.5	-1.8	4.7	-1.1	0.1	3.6	2.4	2.2	2.1	1.7	2.1	1.0	1.9	-0.1	0.0
(Calendar year base)																		
Domestic demand, contribution (QoQ)	-0.2	0.5	-0.5	1.1	0.0	1.0	0.3	-0.3	0.7	0.6	0.6	0.5	0.4	1.8	1.8	1.9	-0.1	0.0
Private consumption (QoQ)	-1.6	0.2	-1.1	3.0	-0.9	1.6	0.0	0.3	0.5	0.6	0.6	0.4	0.4	1.5	2.4	1.9	-0.1	-0.1
Capex (QoQ)	1.5	1.5	-1.6	-1.3	-1.7	-1.9	-0.4	0.0	0.0	0.5	0.7	0.7	0.7	-1.1	-4.4	1.5	0.1	0.1
Residential investment (QoQ)	1.5	1.4	-1.7	0.6	-0.3	2.1	1.5	-0.5	1.0	1.0	1.0	1.0	0.5	2.1	3.0	3.3	0.0	0.0
Public investment (QoQ)	0.1	-1.9	-3.4	-3.2	-3.2	0.6	0.7	-0.3	0.8	0.8	1.3	1.3	1.0	-6.4	-3.3	3.3	0.2	0.1
Foreign demand, contribution (QoQ)	0.1	-0.2	0.2	0.0	-0.5	0.1	-0.6	0.4	0.1	0.0	-0.1	0.0	0.0	0.7	-0.5	-0.1	0.0	0.0
Exports (QoQ)	2.5	3.1	-0.4	0.4	1.1	1.5	2.5	1.5	0.5	0.3	-0.1	0.5	0.5	12.3	5.4	2.3	0.1	0.0
Imports (QoQ)	2.1	4.4	-1.5	0.3	3.8	0.9	5.5	-0.4	-0.5	0.2	0.3	0.4	0.4	7.0	7.5	1.5	0.0	0.0
Nominal GDP growth (QoQ)	0.0	0.4	-0.5	0.7	0.2	1.0	-0.8	1.2	-0.2	1.0	0.9	0.8	0.9	2.4	1.4	2.6	0.0	0.0
Industrial production (YoY)	-1.8	18.4	6.6	1.1	-0.6	-3.6	4.0	0.6	-2.8	-0.1	-4.2	-0.2	4.1	5.9	-0.5	-0.2	-1.0	-2.8
Trade balance (Y tn, SAAR)	2.8	0.0	-3.5	-6.5	-11.7	-20.6	-25.8	-24.0	-20.9	-18.6	-15.8	-12.3	-8.8	-5.4	-22.8	-13.9	0.1	0.1
Unemployment rate (%)	2.8	2.9	2.8	2.7	2.7	2.6	2.6	2.5	2.4	2.4	2.4	2.3	2.3	2.8	2.5	2.4	0.0	-0.1
Core CPI (YoY)	-0.5	-0.6	0.0	0.4	0.6	2.1	2.7	3.8	3.3	2.1	1.3	1.0	1.2	0.1	3.0	1.4	0.0	0.0
IOER (Eop)	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0
YCC 10y JGB yields target (Eop)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
US real GDP growth (QoQ annualized)	6.3	7.0	2.7	7.0	-1.6	-0.6	3.2	2.7	-1.0	-0.5	0.0	1.0	1.5	5.9	2.1	0.6	0.0	0.0
US unemployment rate (%)	6.2	5.9	5.1	4.2	3.8	3.6	3.5	3.6	3.5	3.6	4.0	4.2	4.2	5.4	3.6	3.8	0.0	-0.3
US core CPI (YoY)	1.4	3.7	4.1	5.0	6.3	6.0	6.3	6.0	4.7	4.5	4.4	4.3	3.8	3.6	6.2	4.5	0.0	0.0
Fed rate (Eop)	0.125	0.125	0.125	0.125	0.375	1.625	3.125	4.375	5.125	5.375	5.375	5.375	5.375	0.125	4.375	5.375	0.00	0.25

Assumptions: Forex rate (annual mean): Y136/\$ in FY22 and Y132/\$ in FY23;

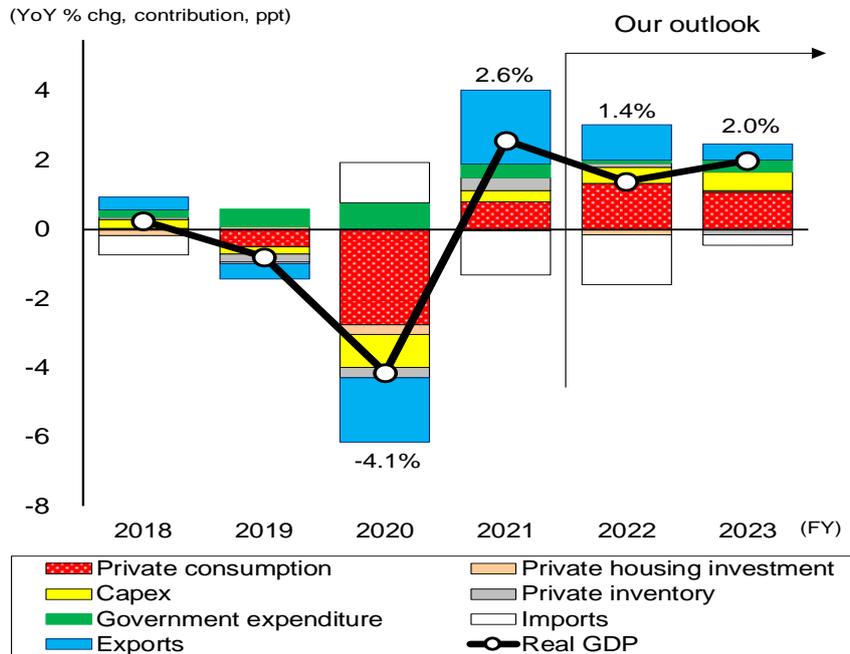
Crude oil price (WTI annual mean): \$84/bbl in FY22 and \$67/bbl in FY23.

Notes: 1) US GDP on a calendar basis, US unemployment rate is the average for the period, FF rate is at end of year.

2) Actual figures from Cabinet Office (CAO), Ministry of Internal Affairs and Communications (MIC), Ministry of Economy, Trade and Industry (METI), and Bank of Japan (BOJ). Estimates are SMBC NIKKO estimates.

Sources: CAO, MIC, METI, BOJ, SMBC NIKKO estimates

Outlook for real GDP growth



Sources: CAO, SMBC NIKKO estimates

APPENDIX

This research was prepared by non-U.S. analysts employed by SMBC Nikko Securities Inc., an unregistered broker-dealer located in Japan that is not a member of FINRA or SIPC. "SMBC NIKKO" refers to SMBC Nikko Securities Inc., its affiliate SMBC Nikko Securities America, Inc. ("SI"), a registered U.S. broker-dealer and member firm of FINRA and SIPC, and their other affiliates, as applicable by law. To the extent a non-U.S. analyst(s) was involved in the preparation of this research report, whether in whole or in part, he or she is not registered/qualified as a research analyst with FINRA. Any such non-U.S. analyst may not be an associated person of SI and therefore may not be subject to FINRA Rule 2241 and 2242 restrictions on communications with a subject company, public appearances and trading securities held in a research analyst account.

By acceptance of this report, each investor agrees that it will not distribute or provide this report to any other person. Any person in the US receiving this report, or any other US person, who would like to trade any of the securities discussed in this report should contact SI and should not contact SI's non-US affiliates. SI accepts responsibility for the content of this report when distributed in the US or to US persons.

ANALYST'S CERTIFICATION

Each analyst shown on the first page of this research report prepared and issued by SMBC NIKKO is primarily responsible for the preparation and content of this research report. Each analyst certifies that the opinions contained herein accurately reflect the analyst's individual views for the subject securities and issuers. Each analyst also certifies that no part of the analyst's compensation was in the past, at present, or in the future, directly or indirectly related to the specific recommendations or views expressed in this research report.

DISTRIBUTION OF INVESTMENT RATINGS

The following table shows (1) the distribution of investment ratings for all SMBC NIKKO coverage universe stocks and (2) the proportions of stocks of each rating to which SMBC NIKKO has provided investment banking (IB) services within the past 12 months (updated as of 08 March, 2023)

	1-Outperform	2-Neutral	3-Underperform	Others
(1) Companies under coverage	40%	55%	4%	1%
(2) Proportion of stocks of each rating in (1) with IB relationships	20%	21%	15%	13%

Note: For the purposes of mandatory regulatory disclosures, 1-Outperform corresponds to a "buy" rating, 2-Neutral to a "hold" rating, and 3-Underperform to a "sell" rating. However, SMBC NIKKO investment ratings are assigned relative to an analyst or analyst team's sector coverage as defined below and are thus different from "buy", "hold", and "sell" ratings as defined by FINRA. "Others" refers to Not Rated, Rating Suspended, and Restricted stocks.

EXPLANATION OF TARGET PRICES AND STOCK RATINGS

Target prices assigned by research analysts reflect the estimated share price level the analyst forecasts the stock to reach within the next six to 12 months. For valuation methodology and risks, please refer to the report or web disclosure: <https://researchdirect.smbcnikko.co.jp/disclosure/disclosure.php>

Each coverage stock is assigned an investment rating relative to the analyst or analyst team's coverage sector universe which encompasses said stock. Investment ratings are defined as below; the effective rating period is six to 12 months.

- 1-Outperform: An individual stock's investment return, as forecast by the research analyst, is expected to exceed the median investment return of all stocks within the coverage universe.
- 2-Neutral: An individual stock's investment return, as forecast by the research analyst, is expected to be in line with the median investment return of all stocks within the coverage universe.
- 3-Underperform: An individual stock's investment return, as forecast by the research analyst, is expected to be below the median investment return of all stocks within the coverage universe.
- NR: Not Rated
- RS: Rating Suspended

Sector ratings are defined as below; the effective rating period is six to 12 months. The market as it pertains to Japan is TOPIX.

- Overweight: The investment return of the sector coverage universe, as forecast by the research analyst, is expected to exceed the market average.
- Equal weight: The investment return of the sector coverage universe, as forecast by the research analyst, is expected to be in line with the market average.
- Underweight: The investment return of the sector coverage universe, as forecast by the research analyst, is expected to be below the market average.

Individual stock/sector recommendations and share price forecasts contained in SMBC NIKKO's technical analysis reports are based on a variety of technical analysis techniques that take historical share price performance, position analysis, and other technical factors into consideration, but are not based on a fundamental analysis of those stocks/sectors in question. Accordingly, stock/sector recommendations and share price forecasts based on the technical analysis of individual stocks/sectors that are also within the SMBC NIKKO fundamental equity research coverage universe do not necessarily correspond to, nor are intended to match, respectively, the fundamental investment/sector ratings and target prices determined by SMBC NIKKO's fundamental equity research analysts responsible for covering those same stocks/sectors.

OTHER IMPORTANT US DISCLOSURES

Analyst compensation, including the compensation of the analyst(s) directly involved in the preparation of this report, is based upon (among other factors) the overall profitability of SMBC NIKKO, which includes the overall profitability of investment banking services.

SMBC NIKKO is not aware of any other material conflict of interest of the research analyst or SMBC NIKKO that the research analyst or an associated person of SMBC NIKKO with the ability to influence the content of this research report knows or has reason to know at the time of the publication or distribution of this report.

The information contained herein is derived from sources that SMBC NIKKO believes to be reliable, but SMBC NIKKO does not guarantee the accuracy or completeness of said information. In some cases, such information may be incomplete or summarized. Prices, numbers, and similar data contained herein include past results, estimates, and forecasts, all of which may differ from actual data. These prices, numbers, and similar data may also change without prior notification. This research report does not guarantee future performance, and the information contained herein should, for whatever purpose, be used solely at the discretion and responsibility of the client.

This research report has been produced by SMBC NIKKO for informational purposes only. It does not constitute solicitation of the sale or purchase of securities or other investments. SMBC NIKKO does not accept any liability or responsibility for any results in connection with the use of such information. This research report does not take into account specific financial situations, needs, or investment objectives of any client, and it is not intended to provide tax, legal, or investment advice. Clients are responsible for making final investment decisions and should do so at their own discretion after careful examination of all documentation delivered prior to execution, explanatory documents pertaining to listed securities, etc., prospectuses, and other relevant documents. In the US the report is intended for distribution solely to institutional investors.

Non-research departments of SMBC NIKKO may provide commentary to clients and their proprietary trading departments that are inconsistent with or incompatible with investments or opinions recommended in this research report. SMBC NIKKO may make investment decisions on the basis of such commentary. In addition, SMBC NIKKO and its employees may trade in the securities mentioned in this research report, their derivatives, or other securities issued by the same issuing companies in this research report.

OTHER IMPORTANT NON-US DISCLOSURES

This research report has been produced by SMBC NIKKO for informational purposes only. It does not constitute solicitation of the sale or purchase of securities or other investments. SMBC NIKKO does not accept any liability or responsibility for any results in connection with the use of such information. This research report does not take into account specific financial situations, needs, or investment objectives of any client, and it is not intended to provide tax, legal, or investment advice. Clients are responsible for making final investment decisions and should do so at their own discretion after careful examination of all documentation delivered prior to execution, explanatory documents pertaining to listed securities, etc., prospectuses, and other relevant documents. Non-research departments of SMBC NIKKO may provide commentary to clients and their proprietary trading departments that are inconsistent with or incompatible with investments or opinions recommended in this research report. SMBC NIKKO may make investment decisions on the basis of such commentary. In addition, SMBC NIKKO, as well as its employees, may trade in the securities mentioned in this research report, their derivatives, or other securities issued by the same issuing companies in this research report. SMBC NIKKO is not a party to an agreement with the issuer(s) relating to production of a recommendation.

This research report is distributed by SMBC NIKKO. The information contained herein is for client use only. SMBC Nikko Securities Inc. holds the copyright on this research report. Any unauthorized use or transmission of any part of this research report for any reason, whether by digital, mechanical, or any other means, is prohibited. If you have any questions, please contact your sales representative. Additional information is available upon request.

Certain company names, product and/or service names that appear in this research report are trademarks or registered trademarks of SMBC NIKKO or other companies mentioned in the report.

Important notes concerning Article 37 of the Financial Instruments and Exchange Act (Advertising Regulations, etc.)

Commissions (below figures do not apply to certain customers, such as non-residents in Japan and professional investors under FIEA, for whom commissions are set on an individual basis)

When a trade is executed based on information contained in this research report, a predetermined brokerage commission may be charged. For example, when an order is placed at a branch to buy or sell a stock or other security on a securities exchange in Japan (with the exception of odd-lot remainders), a commission of up to a maximum of 1.265% of the contract settlement amount (Note: The minimum commission is 5,500 yen) is charged to the client for each product trade executed. Clients will only be charged for the purchase price of a bond, stock or other security in trades executed as part of a primary offering, secondary distribution, or with a counterparty (Note: In the case of bonds, the trade may require that the client pay accrued interest if separate from the purchase price). For trades involving products denominated in foreign currencies, an exchange of products denominated in yen and another currency, or an exchange of products denominated in different currencies, the applicable exchange rate will be determined by SMBC Nikko Securities Inc. For fees mentioned above that are subject to consumption tax, the rates and amounts include the consumption tax portion.

Risks

Each product entails the risk of a partial loss of the amount of invested capital (the risk of a partial loss of principal) or a loss equal to or greater than the amount of invested capital (the risk of a loss equal to or exceeding principal) due to a variety of factors, which may include price variance and fluctuations in stock markets, interest rates, exchange rates, real estate markets, and commodity markets, and deterioration in the creditworthiness (including the financial and management condition) of issuers of securities. When executing margin or derivative transactions ("derivatives"), there is a risk the amount of derivatives transaction exposure could exceed the client's margin collateral or margin deposit ("margin collateral amount"), and there is also a risk of loss exceeding the client's margin collateral should prices of securities or values of indexes underlying such transactions fluctuate (the risk of a loss equal to or exceeding principal). When executing over-the-counter derivative transactions, there may be a spread between the ask and bid prices on financial instruments quoted by SMBC Nikko Securities Inc. For asset-backed securities, interest, dividends, repayment of principal and other elements may be affected by changes in conditions in certain assets. Such changes may result in losses relating to early sale or redemption of such assets.

Aforementioned commissions and risks differ by financial instrument and clients should carefully examine all relevant documentation, including documentation delivered prior to execution, prospectuses, and other material provided. Clients may contact any SMBC Nikko Securities Inc. branch for questions regarding such documentation.

Company Name

SMBC Nikko Securities Inc. is a financial instruments dealer governed by the Financial Instruments and Exchange Act, registered with the Kanto Local Finance Bureau, Registration No. 2251.

Member Associations

SMBC Nikko Securities Inc. is a member of the Japan Securities Dealers Association, the Japan Investment Advisers Association, the Financial Futures Association of Japan, the Type II Financial Instruments Firms Association, and the Japan Security Token Offering Association.

Regional Specific Disclosures

Reports sent to clients outside Japan are intended only for institutional investors. The definition of 'institutional investor' varies from country to country. Neither this research report nor the information contained in it is intended to be an offer, an inducement or an attempt to induce any person to enter into any agreement to acquire, dispose of, subscribe for or underwrite securities.

Canada Under no circumstances should this material be construed as an offer or sale of securities. This material is a general discussion of the merits and risks of a security or securities only, and is not in any way meant to be tailored to the needs and circumstances of any recipient. This

material is not a recommendation to purchase a specific security, service, or product and should not be construed as such.

Hong Kong This document is distributed by SMBC Nikko Securities (Hong Kong) Limited and is intended to be distributed to professional investors (as defined in the Securities and Futures Ordinance and its subsidiary legislation) only. This research report has not been registered as a prospectus under the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) or reviewed or authorized by the Hong Kong Securities and Futures Commission nor has it been reviewed by any other regulatory authority in Hong Kong and, accordingly, this research report must be issued, circulated or distributed in Hong Kong only to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) and any rules made under that Ordinance. No person may issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the securities concerned, which are directed at or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) and any rules made under that Ordinance.

Nikko HK is licensed to engage in type 1, type 2, type 4, type 5 and type 6 regulated activities with the Securities and Futures Commission of Hong Kong and a subsidiary of SMBC Nikko Securities Inc., a company registered in Japan with its head office located at 3-1, Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-8325, Japan.

This document does not constitute "investment research", as such term is defined under the Code of Conduct for Persons licensed by or Registered with the SFC and should not be construed as such.

China The distribution of this document has not been approved by the People's Republic of China ("PRC") regulators and this document is not meant to be distributed directly or indirectly to investors in China, except that, subject to the applicable laws and regulations, this document will be sent to certain investors in China on an invitation basis from offshore. This document shall only be addressed to the identified Qualified Domestic Institutional Investor in PRC and shall not be copied or redistributed in PRC. This document does not constitute "securities investment consulting", "asset appraisal", "credit rating", "financial consulting", "securities transaction services" or any other related or similar services or activities, as each such term is referred to in the Securities Law of the PRC issued by the Standing Committee of the National People's Congress of the PRC and should not be construed as such.

Taiwan We have taken all reasonable care in producing the information and trust that the information is reliable and suitable for your situation at the date of publication or delivery, but no representation or warranty of accuracy or completeness is given. To the extent that we have exercised the due care of a good administrator, we accept no responsibility for any errors, omissions, or misstatements in the information. We do not guarantee any investment results and do not guarantee that the strategies employed will improve investment performance or achieve your investment objectives. The distribution of this research report from the jurisdiction outside of Taiwan has not been licensed or approved by the regulators of Taiwan. This research report will not be distributed in Taiwan. This research report does not constitute "investment advice", as such term is referred to in the Securities and Exchange Act issued by the Financial Supervisory Commission and should not be construed as such.

U.K., Europe, Middle East and Africa ("EMEA") This material and any attached presentations from third parties is distributed within the EMEA region by SMBC Nikko Capital Markets Limited ("CMLN") or SMBC Bank EU AG ("SMBC EU"). For the avoidance of doubt, unless otherwise specifically agreed with the relevant client, distribution to any UK incorporated client is made by CMLN only. The materials contains the current opinions of the writer but not necessarily of CMLN and/or SMBC EU (as applicable). CMLN and SMBC EU may or may not own the securities referenced and, if such securities are owned, no representation is being made that such securities will continue to be held. SMBC Nikko Capital Markets Limited, 100 Liverpool Street, London EC2M 2AT, Tel +44 (0)20 4507 1000. Registered in England No.02418137. Authorised and regulated by the Financial Conduct Authority, 12 Endeavour Square, London, E20 1JIN.

<https://www.smbcgroup.com/emea/notices-reporting/mifid-ii>

SMBC Bank EU AG is a company incorporated under the laws of Germany (HRB 110214 AG Frankfurt) and has its registered office at Neue Mainzer Straße 52-58, 60311 Frankfurt, Germany. The company is authorised and regulated by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin")).

<https://www.smbcgroup.com/emea/group-companies/smbc-bank-eu-ag/>

<https://www.smbcgroup.com/emea/notices-reporting/mifid-ii>

United Arab Emirates: This information does not constitute or form part of any offer to issue or sell, or any solicitation of any offer to subscribe for or purchase, any securities or investment products in the UAE (including the Dubai International Financial Centre) and accordingly should not be construed as such. Furthermore, this information is being made available on the basis that the recipient acknowledges and understands that the entities and securities to which it may relate have not been approved, licensed by or registered with the UAE Central Bank, Emirates Securities and Commodities Authority or the Dubai Financial Services Authority or any other relevant licensing authority or governmental agency in the UAE. The content of this report has not been approved by or filed with the UAE Central Bank or Dubai Financial Services Authority.

Hong Kong (in respect of recipients who are Private Wealth Clients of SMBC Nikko Securities (Singapore) Pte Ltd.) This research report is distributed by SMBC Nikko Securities (Singapore) Pte Ltd., which is an entity licensed with the Monetary Authority of Singapore, from Singapore. It is intended to be distributed to Accredited Investors (as defined in the Securities and Futures Act 2001 and its subsidiary legislation) only. The report has been provided solely at the recipient's request for informational purposes only and shall not be copied or redistributed to any other person without the prior written consent of SMBC Nikko Securities Inc. or its affiliates.

Singapore This research report is distributed by SMBC Nikko Securities (Singapore) Pte Ltd. ("NKSG"), an exempt financial adviser as defined under the Financial Advisers Act (Cap 110) ("FAA") of Singapore, among other things, and regulated by the Monetary Authority of Singapore. NKSG may distribute this research report produced by its foreign affiliates pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations ("FAR"). By accepting this research report, the recipient confirms they are an "institutional investor", "accredited investor" and/or "expert investor" (each as defined under the FAR) and agree to be bound by the foregoing limitations. The recipient acknowledges that NKSG is exempted from complying with certain compliance requirements under the FAA, the FAR and the relevant Notices and Guidelines issued thereunder, in respect of any financial advisory service which NKSG may provide. These include exemptions from complying with: (i) Section 25 of the FAA (pursuant to Regulation 33(1) of the FAR); (ii) Section 27 of the FAA (pursuant to Regulation 34(1) of the FAR); and (iii) Section 36 of the FAA (pursuant to Regulation 35(1) of the FAR). Neither this research report nor the information contained in it is intended to be an offer to make with any person, or to induce or attempt to induce any person to enter into or to offer to enter into any agreement for or with a view to acquiring, disposing of, subscribing for or underwriting securities in Singapore. Recipients of this research report in Singapore should contact NKSG in respect of any matters arising from, or in connections with, this research report.

Thailand This research report is intended for the recipient only and no other person may act upon it. It has been provided solely at the request of

the recipient for informational purposes only and shall not be copied or redistributed to any other person without the prior consent of SMBC Nikko Securities Inc. or its affiliates. No information has been approved or registered with the Securities and Exchange Commission of Thailand or any other regulatory authorities of Thailand. It is not intended to be and in no way constitutes an offer, solicitation, advertisement, invitation for subscription, sale, or advice of, or in relation to, the relevant securities or products specified herein, or a solicitation to use any services, by SMBC Nikko Securities Inc. or its affiliates in Thailand. Neither SMBC Nikko Securities Inc., any of its representatives, directors, employees, nor any other entities involved with SMBC Nikko Securities Inc. make any representations or warranties, expressed or implied, with respect to the completeness or accuracy of any of the information contained in this research report or any other information, whether communicated in written oral form, transferred or made available to the recipients.

Malaysia This research report is distributed in Malaysia on a cross-border basis. Any services provided to residents of Malaysia are provided solely on an offshore basis from outside Malaysia, as a result of “reverse enquiry” on the part of the Malaysian residents arising from a specific request to provide such services and thus this research report is not to be further distributed. As an integral part of the provision of such services from outside Malaysia, SMBC Nikko Singapore may from time to time make available to such residents documents and information making reference to capital markets products in such documents and information and nothing in this report constitutes the making available, or offer for subscription or purchase, or invitation to subscribe for or purchase, or sale of the products described therein in Malaysia. The distribution of this report and the material therein has not been reviewed or approved by the Securities Commission of Malaysia.

Indonesia The information in this research report contains general information only and shall not be in any way construed as an offer or sale or recommendation to purchase or subscribe for any specific securities (as defined in the Indonesian capital markets laws and regulations), or any financial services or products within Indonesian territories. It is not in any way meant to be tailored to the needs and circumstances of any recipient. The content of this research report is neither licensed, approved, nor confirmed (on its validity or adequacy), by the relevant authorities in Indonesia.

Clients may request all relevant and current disclosures by contacting a SMBC NIKKO or branch representative, or by sending a request to the following postal address: Equity Research Division, SMBC Nikko Securities Inc., 1-5-1 Marunouchi, Chiyoda-ku, Tokyo, 100-6519