

【Fundamentals Navigator】

Japan industrial production Jun 2021: Results top expectations, positive growth in 2Q 2021

(original Japanese report issued on July 30, 2021)

Modest rise foreseen in July-August, capital goods buoyed by high orders, autos still impacted by chip shortage

Industrial production grew 6.2% MoM in June, beating market expectations. Production equipment and electronic parts/devices reversed the previous month's decline to continue their overall uptrend. Transportation equipment made the largest contribution to growth in June, but the impact was lower for the whole of 2Q 2021 due to the semiconductor shortage. METI forecasts a 2.2% retreat in July followed by a 1.7% upturn in August, which would leave the average for July-August 0.4% above the 2Q average. We expect capital goods to remain solid given order trends. In contrast, transportation equipment remains vulnerable to the chip shortage and could be revised downward in July. We believe a genuine recovery in that sector will take time.

(1) Overview: Industrial production grew 6.2% MoM in June after falling 6.5% in May. This beat the Bloomberg forecast of a 5.0% gain.

(2) Sectors: Transportation equipment production rose markedly. Rolling stock was down, but the upturn in automobile output boosted overall production by 2.73ppt. Production equipment and electronic parts/devices reversed the previous month's decline to continue their overall uptrend. Production for the quarter remained on the rise with a 1.0% QoQ gain in 2Q 2021 (1Q: +2.9%). The bullish performance of capital goods (including production equipment) and digital parts made up for the sluggishness in transportation equipment.

(3) Shipments/inventories: June shipments were up again after the previous month's decrease. The results were buoyed by capital goods excluding transportation equipment, indicating that capex remains steady. The lower growth in shipments versus production led to a relatively large rise in inventories in June, but this was due mainly to automobiles and electronic parts and should not be taken as a downturn in overall demand.

(4) Realization rate and forecast adjustment rate: The July forecast adjustment rate (current forecast divided by forecast as of the previous month) came to -1.3%. The rate worsened to -4.9% for transportation equipment (June: -3.3%). Automobiles lifted June production notably, but a number of auto makers have recently announced production cuts, suggesting a further impact ahead from the chip shortage.

(5) Forecasts: If the forecast indices for July (adjusted for predictive errors by METI) and August prove correct, average production in those months should exceed the 2Q average by 0.4%. Capital goods may slow somewhat but are likely to remain underpinned by the high level of orders. At the same time, a genuine comeback in transportation equipment looks to take time.

Results (preliminary)

IIP: +6.2% MoM

(Bloomberg forecast: +5.0%)

- Shipments: +4.3
- Inventories: +2.3%
- Inventory ratio: -0.3%

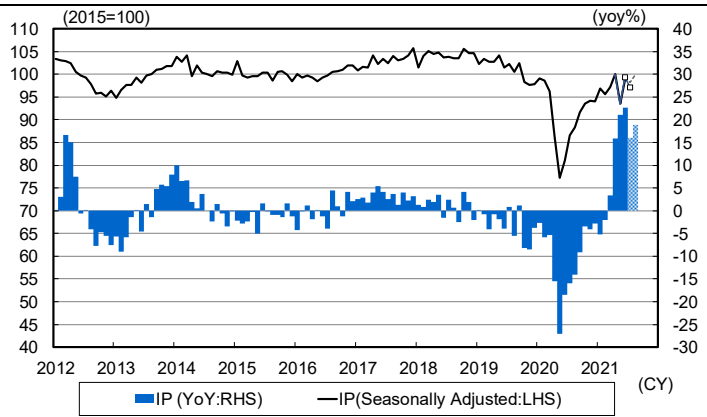
METI Survey of Production Forecast (MoM):

Jul 2021: -1.1% (adjusted to exclude prediction error: -2.2%)

Aug 2021: +1.7%

If distributed within the United States: This document is intended for institutional investors and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors. This report may not be independent of MUSA's and/or MUMSS' proprietary interests. MUSA and/or MUMSS trades the securities covered in this report for its own account and on a discretionary basis on behalf of certain clients. Such trading interests may be contrary to the recommendation(s) offered in this report. Please see the analyst certification and important disclosures at the end of this report.

Figure 1. Industrial production (monthly)



Note: Seasonally adjusted figures for Jul-Aug 2021; dotted lines indicate MoM change in the forecast index; squares indicate estimates adjusted for prediction error. YoY changes based on forecast indices

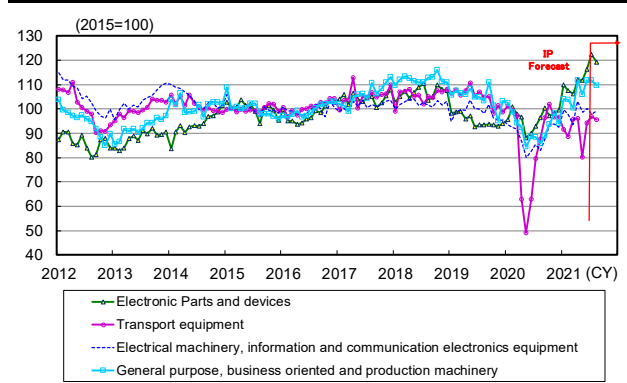
Source: MUMSS, from METI "Indices of Industrial Production" and "Indices of Industrial Production Forecast"

Figure 2. Industrial production by industry (by sector)

	Weight	Apr. MoM	May. MoM	Jun. MoM	Contribution
Mining and manufacturing	10000.0	2.9	-6.5	6.2	
Transport equipment	1,796.5	0.2	-16.6	17.7	2.73
Production machinery	708.0	7.7	-6.0	8.9	0.75
Electronic parts and devices	580.8	5.5	-0.2	3.9	0.27
Chemicals (excl. Medicine)	856.0	3.0	0.5	2.4	0.22
Iron, steel and Non-ferrous metals	624.8	0.4	-3.6	3.5	0.21
Plastic products	441.7	-0.8	-4.4	4.1	0.19
Other manufacturing	751.9	1.2	-2.0	2.8	0.19
Electrical/Information and communication electronics	839.3	10.4	-4.6	1.8	0.16
Fabricated metals	438.1	0.3	-2.5	3.6	0.15
General-purpose and business oriented machinery	728.6	15.7	-4.1	1.5	0.12
Petroleum/coal products	118.0	2.8	-5.4	7.8	0.07
Pulp, paper, paper products	226.5	5.7	-4.3	0.0	0.00
Mining	17.0	-0.2	2.5	-2.9	0.00
Ceramics, stone and clay products	322.0	3.0	-2.7	-0.7	-0.02

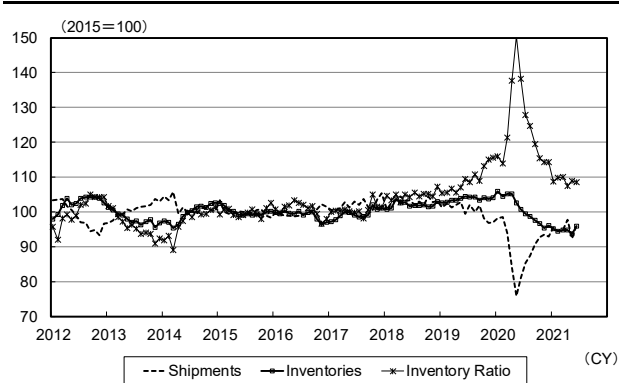
Source: MUMSS, from METI "Indices of Industrial Production Forecast"

Figure 3. Industrial production by sector (monthly, SA, 2015=100)



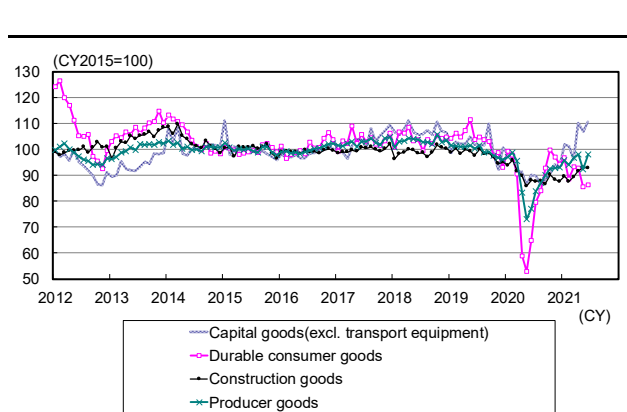
Source: MUMSS, from METI "Indices of Industrial Production" and "Indices of Industrial Production Forecast"

Figure 4. Shipments, inventories and inventory ratio



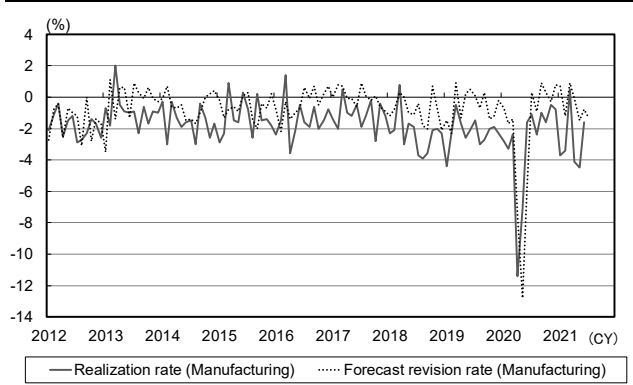
Source: MUMSS, from METI "Indices of Industrial Production Forecast"

Figure 5. Shipments by product category



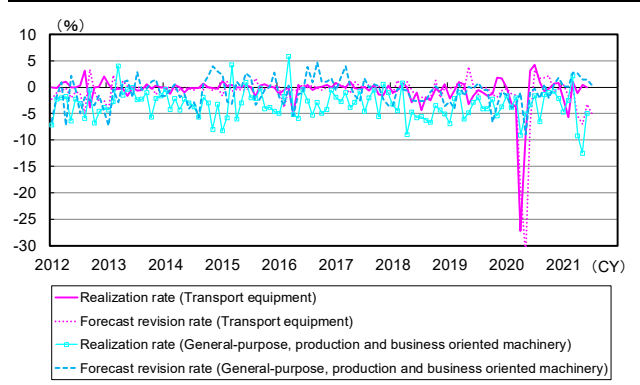
Source: MUMSS, from METI "Indices of Industrial Production"

Figure 6. Realization and amendment ratios based on forecast index



Source: MUMSS, from METI "Indices of Industrial Production"

Figure 7. Realization and amendment ratios based on forecast index (by sector)



Source: MUMSS, from METI "Indices of Industrial Production"

Shuji Tonouchi
Senior Market Economist
Lee Chiwoong
Chief Economist

Appendix A

Analyst Certification

The analyst(s) mentioned on the cover of this report hereby certify(ies) (or, where multiple analysts are responsible, individually certify with respect to each security that the analyst 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.

Required Disclosures

Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. ("MUMSS") has established organizational and administrative arrangements such as appropriate policies and procedures to monitor activities and/or communication between the research department and other business areas of MUMSS and to monitor correspondence and personal brokerage accounts of all those involved in the production of research.

MUMSS policy prohibits its analysts, persons reporting to analysts, and members of their households from owning securities of any company in the analysts' area of coverage or from serving as an officer, director, or advisory board member of such company. Individuals who are involved in the production of research who have knowledge of the timing or content of research which is not publicly available are prohibited from undertaking personal transactions in financial instruments to which the research relates (or in any financial instruments) until the intended recipients of the research have had a reasonable opportunity to act on it.

Analysts are paid in part based on the profitability of MUMSS, which includes investment banking revenues.

MUMSS and/or its affiliate(s) may have holdings in other financial interests or other products issued by the companies named in this report. MUMSS and/or its affiliate(s) may have a short or long position in respect to these financial interests or other products.

An officer (or officers) of MUMSS (member of the board, executive director or auditing officer as stipulated by the Company Act of Japan (Law no. 86 of 2005, as amended, the Company Act)) serve(s) as an officer (or officers) in Mitsubishi UFJ Financial Group

Disclaimers

This report has been prepared by MUMSS solely for the purpose of supplying information to the clients of MUMSS and/or its affiliate(s) to whom it is distributed. This report is not, and should not be construed as, a recommendation, solicitation or offer to buy or sell any securities or related financial products.

All statements in this report attributable to MUMSS are based only on publicly available information. The authors of this report are prohibited from using or even obtaining any insider information. As a subsidiary of Mitsubishi UFJ Financial Group, Inc. ("MUFG"), MUMSS does not, as a matter of corporate policy, cover MUFG for investment recommendation purposes.

This report has been prepared by MUMSS solely from publicly available information. The information contained herein is believed to be correct and reliable but has not been independently verified. This report does not purport to contain all the information that a prospective investor may require. MUMSS and/or its affiliate(s) do not make any guarantee, representation or warranty or accept any responsibility or liability as to the accuracy, reliability, completeness, adequacy or appropriateness of such information. Information contained herein may not be current due to, among other things, changes in the financial markets or economic environment.

Opinions reflected in this report are subject to change without notice. MUMSS and/or its affiliate(s) have no obligation to update the opinion and information contained in this report. Content presented herein is solely a reflection of the best judgment of MUMSS at the time of publication. MUMSS and/or its affiliates assume no responsibility for the content of any third-party websites located at URLs appearing in this report.

MUMSS may have issued, and may in the future issue, other communications that are inconsistent with, and reach different conclusions from, the information presented herein. MUMSS has prepared and published this report wholly independently of any of its affiliates, and thus any comments, views, outlook, ratings or target prices expressed in this report may differ substantially from any similar reports issued by affiliates which may be based upon different sources and methodologies.

Regarding any securities or related financial products mentioned either directly or indirectly in this report, there is risk that investors may, upon a sale of investments, receive less than the originally invested capital due to factors including fluctuations in share price, changes to issuers' management and/or financial profiles, related changes to external evaluations, and changes in interest and/or foreign exchange rates.

This report does not constitute, and should not be used as a substitute for, tax, legal or investment advice. The report does not constitute a personal recommendation and has been prepared without regard to the individual financial circumstances, needs or objectives of persons who receive it. The securities and investments related to any securities or related financial products discussed in this report may not be suitable for all investors. Readers should independently evaluate particular investments and strategies, and seek the advice of their own professional and financial advisers as to the legal, business, financial, tax and other aspects before making any investment or entering into any transaction in relation to the securities mentioned in this report.

MUMSS and/or its affiliate(s) shall not be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance on or usage of this report and accepts no legal responsibility to any investor who directly or indirectly receives this material.

The final investment decision must be made by the investor and the responsibility for the investment must be taken by the investor.

Past performance should not be taken as an indication or guarantee of future performance. Unless otherwise attributed, forecasts of future performance represent analysts' estimates based on factors they consider relevant. Actual performance may vary. Consequently, no express or implied warranty can be made regarding future performance.

MUMSS or any other company affiliated with MUFG or any of their directors, associates, connected parties and/or employees may deal in or otherwise have a financial interest in securities referred to in this report, or derivatives of such securities or other securities issued

by companies mentioned in this report, for their own account or the accounts of others, may enter into transactions contrary to any recommendations contained herein, may act as market maker or may supply or seek to supply a wide range of financial services to the issuers of such securities or to their affiliates. In reviewing this report, an investor should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. MUMSS is prohibited under Article 135 of the Company Act from dealing in the shares of MUFG for its own account.

The securities referred to in this report may not be eligible for sale in all jurisdictions or to all categories of investors. 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 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.

European Economic Area (EEA): This report is distributed in the EEA, by MUFG Securities (Europe) N.V. ("MUS (EU)") and / or MUS (EU), Paris Branch. MUS (EU) is a member of MUFG, contact number +31 (0) 20 799 02 00. MUS (EU) is authorised and regulated by the Dutch Authority for the Financial Markets ("AFM") and also regulated by De Nederlandsche Bank ("DNB") in the Netherlands, 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).

For the avoidance of doubt this report is prepared for a "professional client" or "eligible counterparty" and not intended for a "retail client" as those terms are defined in the MIFID II Directive (2014/65/EU) and should not be passed on to any such persons. This report may be distributed to professional investors (or equivalent) in member states of the EEA by MUS (EU). This report has been prepared in accordance with MUS (EU)'s organisational and administrative arrangements for managing conflicts of interest. Such arrangements include policies which set out guidelines relating to the production of research including (but not limited to) restrictions on access to information, personal dealing and inducements.

United Kingdom: This report is distributed in the United Kingdom, by MUFG Securities EMEA plc. ("MUS(EMEA)"), a member of MUFG, contact number +44-207-628-5555. MUS(EMEA) is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and PRA in the UK (FS Registration Number 124512). For the avoidance of doubt this report is prepared for a "professional client" or "eligible counterparty" and not intended for a "retail client" as those terms are defined in the FCA rules and should not be passed on to any such persons.

This report has been prepared in accordance with MUS(EMEA)'s organisational and administrative arrangements for managing conflicts of interest. Such arrangements include policies which set out guidelines relating to the production of research including (but not limited to) restrictions on access to information, personal dealing and inducements.

United States of America: MUFG SECURITIES AMERICAS INC. ("MUSA") which is registered in the United States with the Securities and Exchange Commission and regulated by the Financial Industry Regulatory Authority ("FINRA") (SEC# 8-43026; CRD# 19685).

This report, when distributed by MUSA, is intended for Institutional Investors ("Institutional Accounts" as defined by FINRA Rule 4512(c)). When distributed by a non-US affiliate of MUSA, 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 MUSA 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: MUSA 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 MUSA of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

Canada: MUFG SECURITIES (CANADA), LTD. ("MUS(CAN)") is an investment dealers registered in Canada with the Ontario Securities Commission ("OSC") and in each province and territory of Canada, a member of the Investment Industry Regulatory Organization of Canada ("IIROC"), and a member of the Canadian Investor Protection Fund ("CIPF"). Customers' accounts are protected by CIPF within the specified limits.

In Canada, MUS(EMEA) and MUSA each operate under an International Dealer Exemption ("the exemption") and exempt from registration with the securities regulators. MUS(EMEA) operates under the exemption in Alberta, British Columbia, Manitoba, Ontario and Québec. MUSA operates under the exemption in all Canadian Provinces and Territories. When distributed by MUS(EMEA) or MUSA, 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. When distributed by MUS(CAN), this report is only intended for an "institutional client" as that term is defined under the IIROC dealer member rules 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 report, when distributed in Japan, is distributed by MUMSS, a member of MUFG, a Financial Services Agency registrant.

Japanese equity transactions totaling JPY193,000 or less are subject to a maximum commission of JPY2,750 (tax included). Japanese equity transactions in excess of JPY193,000 are subject to a commission of up to 1.43% (tax included) of the transaction amount.

No additional fees are charged on fixed income transactions, as the equivalent markup or markdown values are included in the quoted price.

Material on foreign equities is based on securities filings or other public information that, under the laws of the relevant country, would be equivalent to a Form 10-K or similar disclosure, such as an annual report, quarterly report, or earnings release. The material does not contain any ratings, investment opinions, or earnings forecasts by MUMSS. Figures in this material may defer from those in foreign securities disclosures owing to differences in the scope of available data or when the materials were prepared.

The business activities of foreign securities mentioned in these materials are not disclosed under Japan's Financial Instruments and Exchange Act (unless any such company is subject to the stipulations of the Financial Instruments and Exchange Act). The information in these materials about the relevant foreign securities is based on disclosure rules of the countries where the main exchanges for the securities are located.

Foreign equity transactions are subject to both local and domestic brokerage fees. The local brokerage fee is determined based on market conditions and local circumstances at the time, and the amount cannot be recorded in advance. For details, please contact the branch office through which you make your transactions. The domestic brokerage fee is up to 1.1% (including tax) of the contracted transaction amount. Foreign equities may incur losses based on fluctuations in foreign exchange rates and other factors.

When MUMSS purchases unlisted bonds (government bonds, municipal bonds, government-secured bonds, and corporate bonds) as the counter-party, only the purchase price will be paid. Bond prices may vary depending on fluctuations in interest rates and other factors, and bond transactions may incur losses. Foreign bonds may incur losses based on fluctuations in foreign exchange rates and other factors.

Singapore: This report is distributed in Singapore under an arrangement with the Singapore branch ("MUFG Securities Asia Limited Singapore Branch") of MUFG Securities Asia Limited ("MUS(ASIA)") (a company incorporated under the laws of Hong Kong and regulated by the Hong Kong Securities and Futures Commission (Central Entity Number AAA889)). MUS(ASIA) Singapore Branch has a capital markets services licence ("CMS Licence") under the Securities and Futures Act ("SFA") in 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 only 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", MUS(ASIA) Singapore Branch 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). Recipients of this report are to contact MUS(ASIA) Singapore Branch in respect of any matters arising from, or in connection with, this report.

Hong Kong: This report is distributed in Hong Kong under an arrangement with MUFG Securities Asia Limited ("MUS(ASIA)", a member of MUFG, contact number +852-2860-1500. MUS(ASIA) is licensed under the Hong Kong Securities and Futures Ordinance and regulated in Hong Kong by the Securities and Futures Commission (Central Entity Number AAA889). 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.

Other: In Australia, this report is distributed by MUS(ASIA) or MUS(ASIA) Singapore Branch. MUS(ASIA) is exempt under the Australian Securities and Investment Commission ("ASIC") Class Order Exemption CO 03/1103, and MUS(ASIA) Singapore Branch is exempt under the ASIC Class Order Exemption CO 03/1102, from the requirement to hold an Australian financial services licence for any financial services that it is deemed to be providing under the Corporations Act 2001. This report is only intended for distribution to a "wholesale client" as that term is defined under the Corporations Act 2001 in Australia.

This report may not be copied, published or distributed in Indonesia. This report may not be copied, published or distributed in the People's Republic of China (not including Hong Kong Special Administrative Region, Macau Special Administrative Region or Taiwan, the "PRC"), except under circumstances that will result in compliance with any applicable PRC laws and regulations.

Copyright © Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. All rights reserved.

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

Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

Otemachi Financial City Grand Cube, 1-9-2, Otemachi, Chiyoda-ku, Tokyo 100-8127, Japan

MUMSS is a financial instruments firm registered under the Financial Instruments and Exchange Act of Japan, with the registered number 2336, issued by the Director, Kanto Local Finance Bureau.

MUMSS is a member of the Japan Securities Dealers Association, the Japan Investment Advisers Association, the Financial Futures Association of Japan, and the Type II Financial Instruments Firms Association..