

Outlook for 30Y JGB Auction

Smooth auction expected

- ✓ The 30Y JGB yield is the highest level since end-January 2019.
- ✓ Although a possible change in external environment warrants attention, JGB yields are unlikely to face strong upward pressure. Expectations on demand from investors remain strong as well. The BOJ is unlikely to cut purchases for JGBs in the zone over 10Y.
- ✓ We would like to think about our bidding stance, assuming that the 30Y JGB yield will move in the range centered at 0.60-0.65% over the next one month.
- ✓ It would be worth considering short-term switching out from the 20Y sector.

Strategic Memorandum DSTE296
FICC Research Dept.

Senior JGB Strategist
Keiko Onogi
+813 5555 8788
keiko.onogi@daiwa.co.jp
Daiwa Securities Co. Ltd.

Auction Details

Auction Date: March 7, 2019

Issue Date: March 8, 2019

Maturity Date: December 20, 2048

Offering Amount: About 700 billion yen

* New 30Y JGBs will be the final reopening of JX61 carrying a 0.7% coupon.

** On March 6, JX61 traded at 0.630-0.635% (-1.0 - -0.5bp v. previous day's close) and closed at 0.625% (-1.5bp).

Exp. Rating on Auction Results

1	2	3	4	5
Failed	Poor	Average	Good	Outstanding

The highest yield level since end-January 2019

After the previous 30Y JGB auction went well at the 0.585-0.590% level on February 7, the 30Y JGB yield temporarily rose to 0.620% on an intraday basis reflecting investors' selling superlong JGBs and a substantial cut in the BOJ's JGB purchase in the 10-25Y zone. Subsequently, the yield declined to 0.565% at one point, helped by strong swap receiving pressure in the superlong zone. In late February, market sentiment for superlong JGBs worsened, triggered by the poor result in the Liquidity Enhancement Auction for JGBs with remaining maturities of 15.5-39 years. Amid a clearer trend of higher stock prices/lower bond prices in the US market as well as further depreciation of the yen, the BOJ adjusted the purchase amount in the 5-10Y zone. In such a bond-unfriendly environment, the JGB market softened and the 30Y JGB yield temporarily rose to 0.635% (0.640% on a closing price basis) as well. As JX61 trades at 0.630-0.635% today, new 30Y JGBs are expected to be auctioned at the highest yield level since the end of January 2019.

Although possible change in external environment warrants attention, we still think that JGB yields will not face strong upward pressure

Let's check the environment surrounding 30Y JGBs. Recently, US stocks have been performing well as market participants are becoming more optimistic about US-China trade negotiations and also favor the Fed's patient stance for rate hikes. As witnessed by upside breakout of the 10Y Treasury yield from the recent range, US Treasuries have been softening as well. Those suggest a possible change in the external environment. However, we think that concerns about the global economy are lingering, given mixed US economic indicators in addition to sluggish European and Chinese data. The Fed's dovish shift is

rather supportive for the bond markets as well. We think that taking a dip-buying stance will work for JGBs.

Strong support expected in terms of supply/demand

In such an environment, strong support is expected for superlong JGBs, as shown by a strong tendency in March—major investors buy superlong JGBs the most in the month during the course of a fiscal year (Appendix 6). Although the absolute yield level is low, the 30Y JGB yield has risen close to 0.65%, the highest level since this January. Also given that JX61 is expected to generate the highest return among on-the-run issues in the superlong zone (Appendix 5), there are no strong concerns about demand from investors.

Possibility of trimming of JGB purchases in over 10Y zone appears low in the near term

In its JGB purchase operations on February 12, two business days after the previous 30Y JGB auction, the BOJ trimmed the offer amount in the 10-25Y zone to 180bn yen, down from 200bn yen in the previous operation. As the timing of the reduction came as a big surprise, market sentiment for superlong JGBs worsened. Then, the 30Y JGB yield rose to 0.620% at one point. As background, we presume that a clearer trend of higher equity prices/weaker yen motivated the BOJ to trim buying JGBs and also it was strongly aware of potential tightening in the supply/demand balance due to the reduction in the JGB issuance amount in the next fiscal year. If so, the possibility of further trimming of JGBs with over 10 years left to maturity appears low in the near term. That being said, it is difficult to completely deny the possibility as the BOJ is trying to conduct operations in a flexible manner. We thus need to remain cautious about the reduction.

Thinking about our bidding stance to take only for covering

Overall, we would like to think about our bidding stance to take only for covering, assuming that the 30Y JGB yield would move in the range centered at 0.60-0.65% over the next one month. In terms of the relative value, we anticipate activities to switch out from the 20Y sector into the 30Y sector. This is partly because (1) the 20Y/30Y spread is the widest since the previous auction (appendixes 3a and 7) and (2) the 20Y JGB auction is scheduled for Tuesday, March 19.

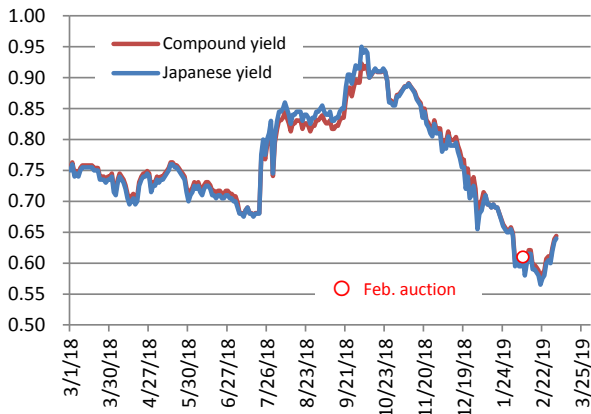
30Y JGB Auction Results

Auction Date	Issue #	Coupon (%)	Maturity	Amt Issued (billion yen)	B/C	Average Accepted Price (Yen)	Lowest Accepted Price (Yen)	Tail (Yen)	Average Accepted Yield (%)	Highest Accepted Yield (%)	Tail (%)	Allotment (%)	
3/7/19	61R	0.7	12/20/48	700*									
2/7/19	61R	0.7	12/20/48	699.1	4.72	102.85	102.80	0.05	0.587	0.589	0.002	63.1931	Good
1/10/19	61	0.7	12/20/48	762.2	4.03	99.62	99.60	0.02	0.715	0.716	0.001	87.3552	Good
12/11/18	60R	0.9	9/20/48	769.2	3.78	102.55	102.50	0.05	0.794	0.796	0.002	82.4455	Good
11/12/18	60R	0.9	9/20/48	758.3	3.99	100.60	100.55	0.05	0.874	0.876	0.002	64.4188	Good
10/11/18	60	0.9	9/20/48	706.4	3.92	100.04	100.00	0.04	0.898	0.900	0.002	69.4027	Good
9/11/18	59R	0.7	6/20/48	797.0	4.23	96.71	96.70	0.01	0.838	0.838	0.000	81.5511	Good
8/9/18	59R	0.7	6/20/48	744.1	4.68	96.41	96.35	0.06	0.850	0.853	0.003	73.4502	Avg
7/5/18	59	0.7	6/20/48	780.6	5.01	99.90	99.85	0.05	0.704	0.706	0.002	31.2024	Good
6/19/18	58R	0.8	3/20/48	785.1	4.22	102.27	102.20	0.07	0.707	0.710	0.003	39.1509	Avg
5/15/18	58R	0.8	3/20/48	795.6	4.41	101.31	101.30	0.01	0.746	0.746	0.000	91.8088	Good
4/12/18	58R	0.8	3/20/48	802.5	4.34	102.11	102.05	0.06	0.714	0.716	0.002	19.1148	Good
3/6/18	58	0.8	3/20/48	887.3	4.24	101.21	101.15	0.06	0.750	0.753	0.003	68.4310	Avg
2/8/18	57R	0.8	12/20/47	911.9	4.27	99.50	99.45	0.05	0.820	0.822	0.002	92.6464	Avg

* Amount the Ministry of Finance plans to issue

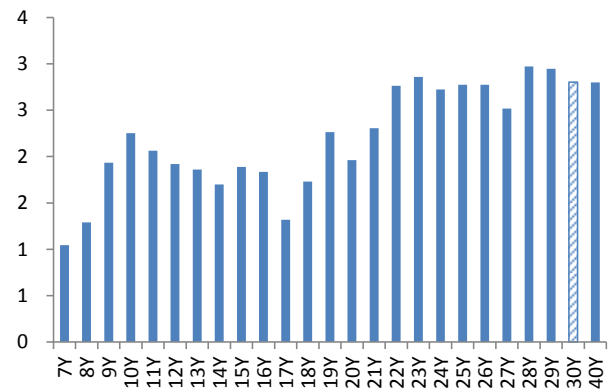
Source: Ministry of Finance (MOF), Daiwa Securities.

Appendix 1: 30Y JGB Yield (%)



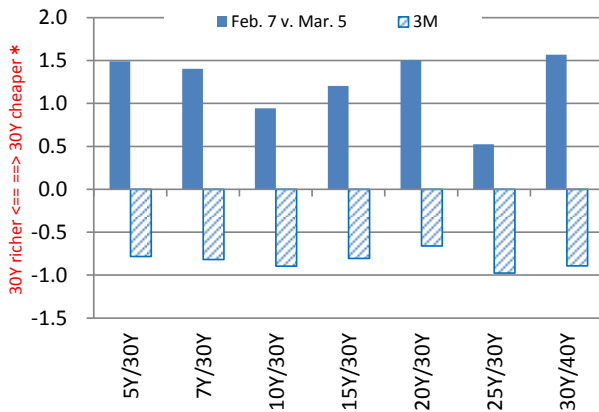
Source: Daiwa Securities.

Appendix 2: JGB Yield Change (Feb. 7 v. Mar. 5, bp)



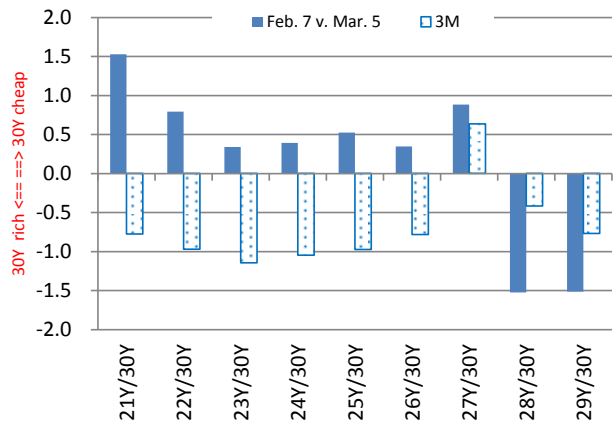
Source: Daiwa Securities.

Appendix 3a: Z-scores of JGB Yield Spreads



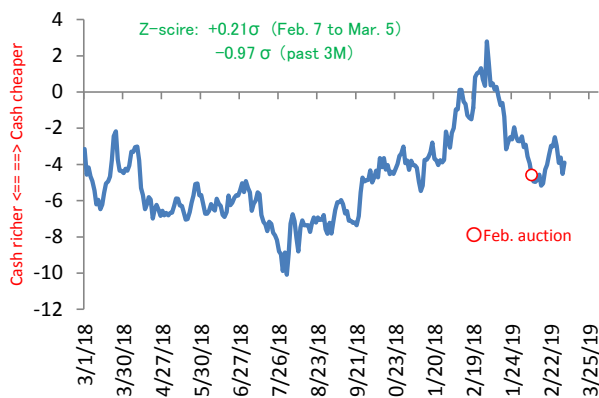
Note: For 30Y/40Y, 30Y richer at + and cheaper at - v. 40Y
Source: Daiwa Securities.

Appendix 3b: Z-scores of JGB Yield Spreads



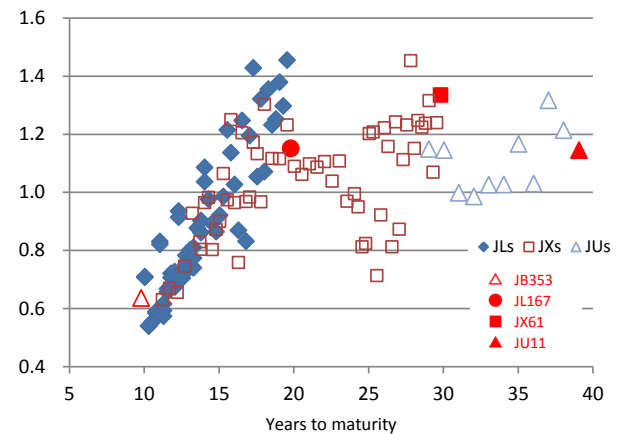
Source: Daiwa Securities.

Appendix 4: 30Y JGB Asset Swap Spread (bp)



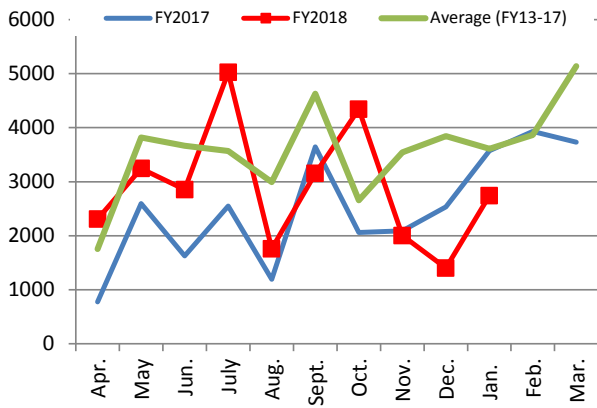
Note: 6M Yen LIBOR basis.
Source: Daiwa Securities.

Appendix 5: JGB 3M Total Return Curve (%)



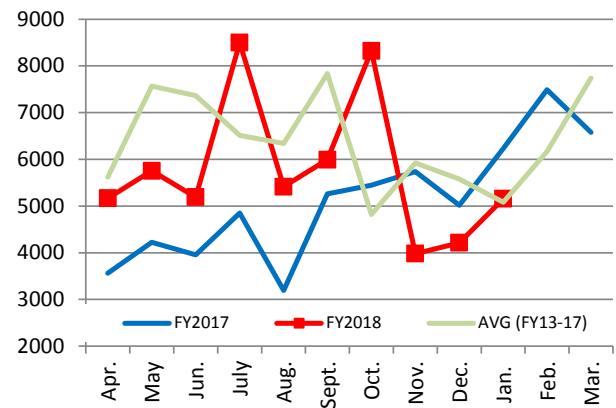
Note: Based on JGB yield curve on Mar. 5; assuming that the yield curve shape does not change and factoring roll-down effect etc.
Source: Daiwa Securities

Appendix 6a: Trend of Life and Non-life Insurers' Net Purchase of Superlong JGBs (Yen 100M)



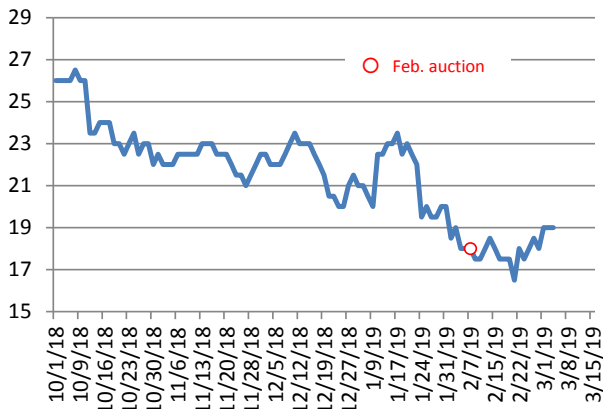
Source: JSDA

Appendix 6b: Trend of Life and Non-life Insurers' Gross Purchase of Superlong JGBs (Yen 100M)



Source: JSDA

Appendix 7: JGB 20Y/30Y Spread (bp)



Note: On-the-run yield basis
Source: Daiwa Securities

Explanatory Document of Unregistered Credit Ratings

In order to ensure the fairness and transparency in the markets, Credit Rating Agencies became subject to the Credit Rating Agencies' registration system based on the Financial Instruments and Exchange Act. In accordance with this Act, in soliciting customers, Financial Instruments Business Operators, etc. shall not use the credit ratings provided by unregistered Credit Rating Agencies without informing customers of the fact that those Credit Rating Agencies are not registered, and shall also inform customers of the significance and limitations of credit ratings, etc.

■ The Significance of Registration

Registered Credit Rating Agencies are subject to the following regulations:

- 1) Duty of good faith.
- 2) Establishment of control systems (fairness of the rating process, and prevention of conflicts of interest, etc.).
- 3) Prohibition of the ratings in cases where Credit Rating Agencies have a close relationship with the issuers of the financial instruments to be rated, etc.
- 4) Duty to disclose information (preparation and publication of rating policies, etc. and public disclosure of explanatory documents).

In addition to the above, Registered Credit Rating Agencies are subject to the supervision of the Financial Services Agency ("FSA"), and as such may be ordered to produce reports, be subject to on-site inspection, and be ordered to improve business operations, whereas unregistered Credit Rating Agencies are free from such regulations and supervision.

■ Credit Rating Agencies

[Standard & Poor's]

The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: S&P Global Ratings ("Standard & Poor's")

The name and registration number of the Registered Credit Rating Agency in the group: S&P Global Ratings Japan Inc. (FSA commissioner (Rating) No.5)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Unregistered Rating Information" (<http://www.standardandpoors.co.jp/unregistered>) in the "Library and Regulations" section on the website of S&P Global Ratings Japan Inc. (<http://www.standardandpoors.co.jp>)

Assumptions, Significance and Limitations of Credit Ratings

Credit ratings assigned by Standard & Poor's are statements of opinion on the future credit quality of specific issuers or issues as of the date they are expressed and they are not indexes which show the probability of the occurrence of the failure to pay by the issuer or a specific debt and do not guarantee creditworthiness. Credit ratings are not a recommendation to purchase, sell or hold any securities, or a statement of market liquidity or prices in the secondary market of any issues.

Credit ratings may change depending on various factors, including issuers' performance, changes in external environment, performance of underlying assets, creditworthiness of counterparties and others. Standard & Poor's conducts rating analysis based on information it believes to be provided by the reliable source and assigns credit ratings only when it believes there is enough information in terms of quality and quantity to make a conclusion. However, Standard & Poor's does not perform an audit, due diligence or independent verification of any information it receives from the issuer or a third party, or guarantee its accuracy, completeness or timeliness of the results by using the information. Moreover, it needs to be noted that it may incur a potential risk due to the limitation of the historical data that are available for use depending on the rating.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of March 7th, 2017, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of S&P Global Ratings Japan Inc. (<http://www.standardandpoors.co.jp>)

[Moody's]

The Name of the Credit Rating Agencies Group, etc

The name of the Credit Rating Agencies group: Moody's Investors Service ("MIS")

The name and registration number of the Registered Credit Rating Agency in the group: Moody's Japan K.K. (FSA commissioner (Rating) No.2)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Unregistered Rating explanation" in the section on "The use of Ratings of Unregistered Agencies" on the website of Moody's Japan K.K. (The website can be viewed after clicking on "Credit Rating Business" on the Japanese version of Moody's website (https://www.moody.com/pages/default_ja.aspx))

Assumptions, Significance and Limitations of Credit Ratings

Credit ratings are Moody's Investors Service's ("MIS") current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities. MIS defines credit risk as the risk that an entity may not meet its contractual, financial obligations as they come due and any estimated financial loss in the event of default. Credit ratings do not address any other risk, including but not limited to: liquidity risk, market value risk, or price volatility. Credit ratings do not constitute investment or financial advice, and credit ratings are not recommendations to purchase, sell, or hold particular securities. No warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any such rating or other opinion or information, is given or made by MIS in any form or manner whatsoever.

Based on the information received from issuers or from public sources, the credit risks of the issuers or obligations are assessed. MIS adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MIS considers to be reliable. However, MIS is not an auditor and cannot in every instance independently verify or validate information received in the rating process.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of April 16th, 2018, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Moody's Japan K.K. (https://www.moody.com/pages/default_ja.aspx)

[Fitch]

The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: Fitch Ratings ("Fitch")

The name and registration number of the Registered Credit Rating Agency in the group: Fitch Ratings Japan Limited (FSA commissioner (Rating) No.7)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Outline of Rating Policies" in the section of "Regulatory Affairs" on the website of Fitch Ratings Japan Limited (<https://www.fitchratings.co.jp/web/>)

Assumptions, Significance and Limitations of Credit Ratings

Ratings assigned by Fitch are opinions based on established criteria and methodologies. Ratings are not facts, and therefore cannot be described as being "accurate" or "inaccurate". Credit ratings do not directly address any risk other than credit risk. Credit ratings do not comment on the adequacy of market price or market liquidity for rated instruments. Ratings are relative measures of risk; as a result, the assignment of ratings in the same category to entities and obligations may not fully reflect small differences in the degrees of risk. Credit ratings, as opinions on relative ranking of vulnerability to default, do not imply or convey a specific statistical probability of default.

In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The assignment of a rating to any issuer or any security should not be viewed as a guarantee of the accuracy, completeness, or timeliness of the information relied on in connection with the rating or the results obtained from the use of such information. If any such information should turn out to contain misrepresentations or to be otherwise misleading, the rating associated with that information may not be appropriate. Despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

For the details of assumption, purpose and restriction of credit ratings, please refer to "Definitions of ratings and other forms of opinion" on the website of Fitch Rating Japan Limited.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of May 13th, 2016, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Fitch Rating Japan Limited (<https://www.fitchratings.co.jp/web/>)

May 2018

IMPORTANT

This report is provided as a reference for making investment decisions and is not intended to be a solicitation for investment. Investment decisions should be made at your own discretion and risk. Content herein is based on information available at the time the report was prepared and may be amended or otherwise changed in the future without notice. We make no representations as to the accuracy or completeness. Daiwa Securities Co. Ltd. retains all rights related to the content of this report, which may not be redistributed or otherwise transmitted without prior consent.

Notification items pursuant to Article 37 of the Financial Instruments and Exchange Law

(This Notification is only applicable to where report is distributed by Daiwa Securities Co. Ltd.)

If you decide to enter into a business arrangement with our company based on the information described in this report, we ask you to pay close attention to the following items.

- In addition to the purchase price of a financial instrument, our company will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction. In some cases, our company also may charge a maximum of ¥ 2 million (including tax) per year as a standing proxy fee for our deposit of your securities, if you are a non-resident.
- For derivative and margin transactions etc., our company may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements**.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by our company.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.

* The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

** The ratio of margin requirements etc. to the amount of the transaction cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with our company.

Corporate Name:	Daiwa Securities Co. Ltd.
Registered:	Financial Instruments Business Operator Chief of Kanto Local Finance Bureau (Kin-sho) No.108
Memberships:	Japan Securities Dealers Association The Financial Futures Association of Japan Japan Investment Advisers Association Type II Financial Instruments Firms Association