

Outlook for 10Y JGB Auction

Keeping an eye on support at around -0.04%

- ✓ Tomorrow's auction will likely be held at the highest bidding yield level since the auction in March 2019
- ✓ While the JGB market appears to be increasingly softening, bids may be placed in a cautious stance
- ✓ We would like to take a stance of carefully watching support at around -0.04%

[BOX] BOJ's JGB purchase plan for December 2019

Strategic Memorandum DSTE347
FICC Research Dept.

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

Auction Details

Auction Date: December 3, 2019
Issue Date: December 4, 2019
Maturity Date: September 20, 2029
Offering Amount: About 2.1 trillion yen

* New 10Y JGBs will likely be the final reopening of JB356 carrying a 0.1% coupon.

** On Dec. 2, JB356 traded at -0.075 - 0.050% (+1.0 - +3.5bp v. previous day's close) and closed at -0.055% (+3.0bp).

Exp. Rating on Auction Results

1	2	3	4	5
Failed	Poor	Average	Good	Outstanding

Tomorrow's auction will likely be held at the highest bidding yield level since the auction in March 2019

After the previous 10Y JGB auction went acceptably on November 6 at the -0.100% to -0.095% level amid the softening of the bond market, the 10Y JGB yield (conventional yield of on-the-run issue; the same hereinafter in this report) temporarily rose to -0.040% on an intraday basis on November 12. Since then, the yield momentarily declined to -0.130% on an intraday basis, while the JGB market tested a recovery. Since late November, the yield has been largely moving in a wide range centered at -0.1%. Today (Dec. 2), JGBs largely extended down amid intensified trends of weaker yen/higher stock prices/lower US Treasury futures, leading to a rise in the 10Y JGB yield to -0.050% at one point (+3.5bp vs. previous day's close; as of 15:00). If tomorrow's auction is held at the current level, the bidding yield would become the highest level since the auction in March 2019.

Taking a stance of testing support at around -0.04%

Since last week, the JGB market has been increasingly softening probably due to risk-on mode in overseas markets and also expectations for economic support via large-scale stimulus measures in Japan. In the longer term, however, there are many uncertain factors and therefore it would be difficult to fully eliminate worries about the global economy. In Europe and the US, a next step of monetary policies appears to be the status quo or additional easing (such as rate cuts). As such, in terms of fundamentals, it is now difficult to expect a major uptrend in JGB yields. Given the current level of 10Y JGBs, we think it is effective to find a good dip-buying opportunity. In such an environment, key points to think about the bidding stance at tomorrow's auction are as follows:

- ✓ **Short-covering by primary dealers does not appear strong:** Demand from investors would be the key for successful primary sale;
- ✓ **At the current level, demand from investors is uncertain:** It is difficult to gauge investor appetite for 10Y JGBs at the current level as investors have been seen the 10Y JGB yield declining from -0.04% to -0.130% since the previous 10Y JGB auction in November;
- ✓ **Undervalued vs. the superlong sectors, but...:** The 10Y sector is noticeably undervalued vs. the superlong sectors, such as 15Y, 20Y, and 30Y sectors (Appendix 3). Starting from this week's 30Y JGB auction, a series of supply is scheduled in the superlong zone. Given this, we can somewhat expect the correction in the 10Y cheapness. However, it is possible that bear flattening will intensify in the case of further market downtrend. Therefore, it is difficult to expect an aggressive entry at the current level;
- ✓ **The possibility of trimming in the 5-10Y zone appears low:** The 10Y JGB yield has been moving within "about double the range of between -0.1% and +0.1%." The current situation is unlikely to drive the BOJ to rush in trimming its purchase in the zone even under the flexible operation management.

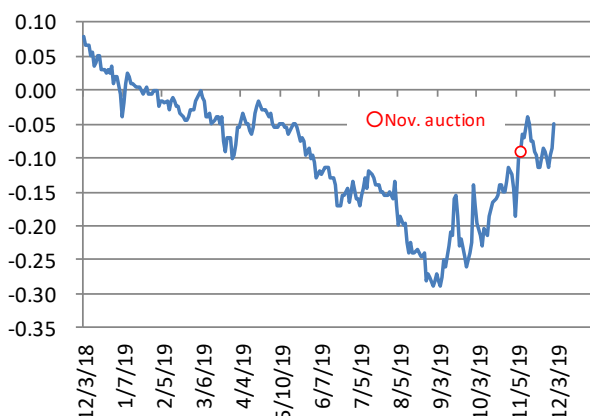
All in all, we would like to take a stance of carefully watching support at around -0.04%, assuming a high possibility that bids will be placed in a cautious stance. In terms of the relative value, it is difficult to aggressively build new positions. However, expectations for a reversal in the 10Y/20Y spread may strengthen if it tightens to around 30bp (Appendix 6). We would like to think about switching out from the 20Y sector around that level.

10Y JGB Auction Results

Auction Date	Issue#	Coupon %	Maturity Date	Issue Size (billion yen)	Bid/Cover	Average Accepted Price	Lowest Accepted Price	Tail (yen)	Average Accepted Yield	Highest Accepted Yield	Tail (%)	Allotment %	
12/3/19	356R*	0.1	9/20/29	2,100**									
11/6/19	356R	0.1	9/20/29	2,100	3.62	101.99	101.94	0.05	-0.099	-0.094	0.005	80.6774	Avg
10/1/19	356	0.1	9/20/29	2,100	3.42	102.62	102.33	0.29	-0.158	-0.130	0.028	6.1227	Poor
9/3/19	355R	0.1	6/20/29	2,412	3.60	103.68	103.66	0.02	-0.265	-0.264	0.001	99.4435	Avg
8/1/19	355R	0.1	6/20/29	2,099	3.76	102.53	102.51	0.02	-0.152	-0.150	0.002	1.7771	Avg
7/2/19	355	0.1	6/20/29	2,099	3.92	102.42	102.40	0.02	-0.139	-0.137	0.002	93.8948	Avg
6/4/19	354R	0.1	3/20/29	2,099	3.99	102.04	102.01	0.03	-0.106	-0.103	0.003	15.1237	Poor
5/8/19	354R	0.1	3/20/29	2,099	4.44	101.59	101.57	0.02	-0.060	-0.058	0.002	36.0139	Avg
4/2/19	354	0.1	3/20/29	2,412	5.07	101.61	101.60	0.01	-0.060	-0.059	0.001	37.4603	Good
3/5/19	353R	0.1	12/20/28	2,233	4.25	101.00	100.98	0.02	-0.002	0.000	0.002	74.5124	Poor
2/5/19	353R	0.1	12/20/28	2,528	4.80	101.12	101.11	0.01	-0.013	-0.012	0.001	61.9168	Good
1/8/19	353	0.1	12/20/28	2,235	4.04	100.84	100.83	0.01	0.015	0.016	0.001	39.9871	Good
12/4/18	352R	0.1	9/20/28	2,526	3.82	100.25	100.22	0.03	0.074	0.077	0.003	8.7628	Poor
11/1/18	352R	0.1	9/20/28	2,513	4.33	99.95	99.93	0.02	0.135	0.137	0.002	12.9543	Avg

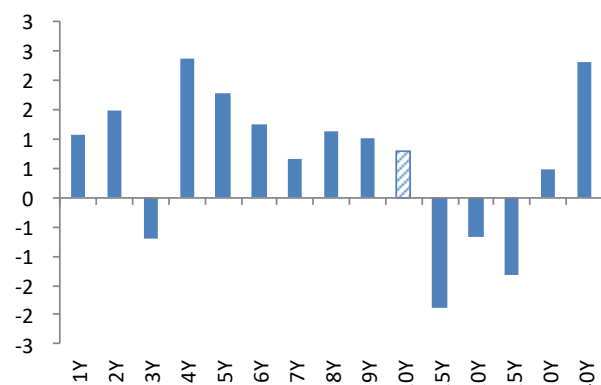
* Daiwa forecast as of Dec. 2 ** Amount the MOF plans to issue
 Source: Ministry of Finance (MOF), Daiwa Securities.

Appendix 1: 10Y JGB Yield (%)



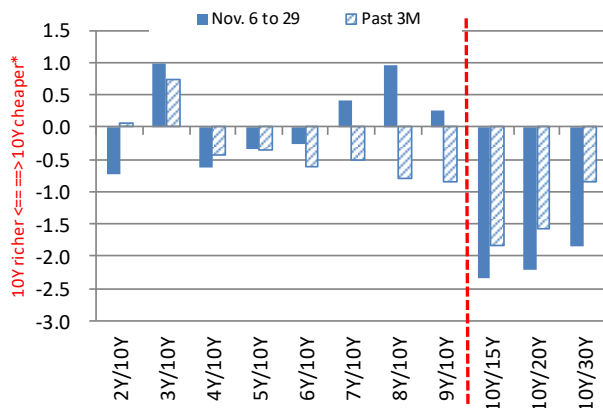
Note: as of Dec. 2 close
 Source: Daiwa Securities.

Appendix 2: JGB Yield Change (bp, Nov. 6 v. Nov. 29)



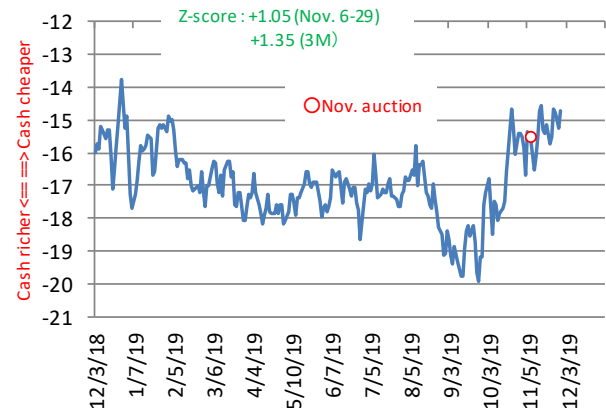
Source: Daiwa Securities.

Appendix 3: Z-scores of JGB Yield Spreads



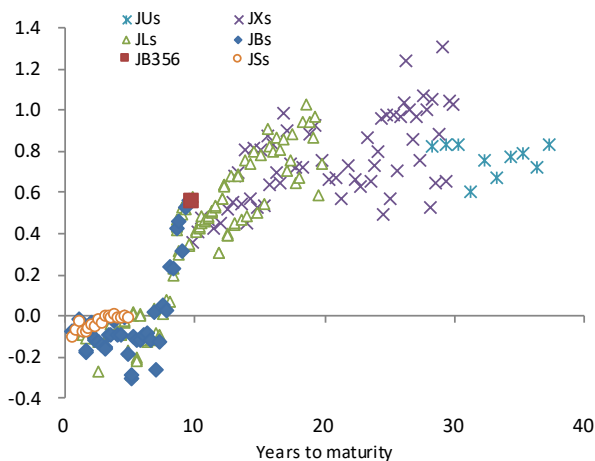
Note: + (-) 10Y richer (cheaper) for 10Y/15Y, 10Y/20Y and 10Y/30Y
 Source: Daiwa Securities.

Appendix 4: 10Y JGB Asset Swap Spread (bp)



* Yen LIBOR basis
 Source: Daiwa Securities.

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



Note: Based on JGB yield curve on Nov. 29; assuming that those yield curve shapes do not change and factoring roll-down effect etc.
 Source: Daiwa Securities

Appendix 6: JGB 10Y/20Y Spread (bp)



Note: On-the-run issue basis as of 11am JST on Dec. 2
 Source: Daiwa Securities

[BOX] BOJ JGB Purchase in December 2019

On November 29, the BOJ announced its JGB purchase plan for December by updating the Outline of Outright Purchases of Japanese Government Securities. Changes from the November plan are as follows:

- ✓ Cut in the upper limit of the offer range in the 10-25Y zone (200bn yen → 150bn yen) .
- ✓ Reduction in the number of monthly offers from seven times in November to six times.

In November's first operation in the 10-25Y zone, the BOJ cut its offer amount from 120bn yen to 100bn yen. Therefore, we think that the revision was aimed at setting the median of the range at 100bn yen. In December's first operation in the zone today (Dec 2), the offer amount was kept unchanged at 100bn yen, the same as the figure in the final operation in November.

In December, operations to outright buy JGB floaters are scheduled. There is thus still a possibility that the number of monthly offers will become seven times. However, if we limit operations for JGBs with residual maturity of more than one year, the number of offer can be six, the smallest throughout this year. This can be regarded as a move in a series of flexible operations. We will carefully watch whether the pace of offers will be kept in January and beyond. For reference, this month, the BOJ is scheduled to announce the Outline of

Outright Purchases of Japanese Government Securities at 17:00 on Thursday, December 26.

BOJ JGB Purchase and MOF Issuance (Yen billions)

(Yen billions)

			Offer size per operation	Number of Offers (per month)	Offer size at the first operation in Oct. 2019	Offer size at the last operation in Nov.	Monthly Total exp. in October (a)	MOF issuance per month in FY2019** (b)	(a)-(b)
			Mid						
JGBs ex Linkers and Floaters									
Up to 1 year			About 10-100	55	2	50	50	100	-
Over 1 to 5 years	Over 1 to 3 years	About 300-550	425	4	420	420	1,680	2,000	-320
	Over 3 to 5 years	About 200-450	325		340	340	1,360	1,900	-540
Over 5 to 10 years			About 200-500	350	4	350	350	1,400	-700
Over 10 years	Over 10 to 25 years	About 50-150	100	3	100	100	300	900	-600
	Over 25 years	About 0-50	25		30	30	90	700 - 1,100	-630 to -1,010
Linkers			About 30	-	2	25	25	60	400
Floaters (in even months)			About 100	-	1	100	100	100	-
TOTAL:							4,990 to 5,090	7,600 to 8,400	-2,610 to -3,310

(Note) "Offer size per operation" and "Number of offers (per month)" are as released by the BOJ on Nov. 29 * Excluding NPC1 and AEL; JGB linkers issued 4 times per year ** Factoring in the BOJ purchase conducted every month and the MOF quarterly issuance *** Actual for over 1 to 5 years and over 10 years as of Dec. 2

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

BOJ Purchase Schedule for Dec. 2019

BOJ offer day / JGB auction day	(BOJ start day/ MOF settlement day)	Up to 1 year	Over 1 to 3 years	Over 3 to 5 years	Over 5 to 10 years	Over 10 to 25 years	Over 25 years	JGB Linker	JGB Floater	TDBs	MOF Buyback
12/2/19 M	12/3/19		420.4	340.7		101.3	30.2				
12/3/19 T	12/4/19	10Y JGB Auction								○	
12/4/19 W	12/5/19	○						○			
12/5/19 TH	12/6/19	30Y JGB Auction									
12/6/19 F	12/9/19		◎	◎	◎					3M	
12/9/19 M	12/10/19					◎	◎		○	6M	
12/10/19 T	12/11/19	5Y JGB Auction									
12/11/19 W	12/12/19									○	
12/12/19 TH	12/13/19	AEL (20Y, 30Y and 40Y JGBs with over 15.5 less than 39 years to maturity)									
12/13/19 F	12/16/19		◎	◎	◎					3M	
12/16/19 M	12/17/19										○
12/17/19 T	12/18/19									○	
12/18/19 W	12/19/19	○	◎	◎	◎					1Y	
12/19/19 TH	-	BOJ MPM (Day 2)									
12/20/19 F	12/23/19	AEL (10Y and 20Y JGBs with over 5 to 15.5 years to maturity)								3M	
12/23/19 M	12/24/19										
12/24/19 T	1/6/20	2Y JGB Auction								○	
12/25/19 W	12/26/19				◎	◎	◎	○			
12/26/19 TH	12/27/19										
12/27/19 F	12/30/19										
12/30/19 M	1/6/20										
12/31/19 T	-	Bank Holiday									

Note: ◎ Scheduled by BOJ, ○ Daiwa forecast as of Dec. 2; Figures for actual as of Dec. 2 in Yen billions; BOJ MPM in blue
Source: Ministry of Finance (MOF), 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.

Conflicts of Interest: Daiwa Securities Co. Ltd. may currently provide or may intend to provide investment banking services or other services to the company referred to in this report. In such cases, said services could give rise to conflicts of interest for Daiwa Securities Co. Ltd.

Daiwa Securities Co. Ltd. and Daiwa Securities Group Inc.: Daiwa Securities Co. Ltd. is a subsidiary of Daiwa Securities Group Inc.

Other Disclosures Concerning Individual Issues:

- 1) As of 26 April 2016, Daiwa Securities Co. Ltd., its parent company Daiwa Securities Group Inc., GMO Financial Holdings, Inc., and its subsidiary GMO CLICK Securities, Inc. concluded a basic agreement for the establishment of a business alliance between the four companies.
As of end-December 2017, Daiwa Securities Group Inc. owned shares in GMO Financial Holdings, Inc. equivalent to approximately 9.3% of the latter's outstanding shares. Given future developments in and benefits from the prospective business alliance, Daiwa Securities Group Inc. could boost its stake in GMO Financial Holdings, Inc. to up to 20% of outstanding shares.
- 2) Daiwa Real Estate Asset Management is a subsidiary of Daiwa Securities Group Inc. and serves as the asset management company for the following J-REITS: Daiwa Office Investment Corporation (8976), Nippon Healthcare Investment Corporation (3308), Japan Rental Housing Investments (8986).
- 3) Samty Residential Investment became a consolidated subsidiary of Daiwa Securities Group Inc. effective 10 September 2019.
- 4) On 30 May 2019, Daiwa Securities Group Inc. formalized an equity/business alliance with Samty, and as of 14 June 2019 it owned 16.95% of shares outstanding in Samty along with convertible bonds with a par value of ¥10bn. Conversion of all of said convertible bonds into common shares would bring the stake of Daiwa Securities Group Inc. in Samty to 27.28%.
- 5) Daiwa Securities Group and Credit Saison Co., Ltd. entered into a capital and business alliance, effective 5 September 2019. In line with this alliance, Daiwa Securities Group is to acquire up to 5.01% of Credit Saison's total common shares outstanding (as of 31 Jul 2019), while Credit Saison is to purchase up to ¥2bn worth of Daiwa Securities Group's common stock.
- 6) NEC (6701): NOTICE REGARDING U.S. PERSONS: This report is not intended for distribution to or use by any person in the United States. Securities issued by NEC Corporation have been suspended from registration in the U.S. and are subject to an order of the U.S. Securities and Exchange Commission dated June 17, 2008, pursuant to Section 12(j) of the Securities Exchange Act of 1934. This document is not a recommendation or inducement of any purchase or sale of such securities by any person or entity located in the U.S. Daiwa Securities Co. Ltd. disclaims any responsibility to any such person with respect to the content of this document. Any U.S. person receiving a copy of this report should disregard it.

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 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