

Outlook for 10Y JGBi Auction

Bidding around 20bp in small lot

- ✓ BEI has declined to around 20bp, the lowest level since July 2016 and also the lower end of the range under QQE.
- ✓ Environment surrounding JGBis is not favorable due to anticipated weak inflation and lingering caution about slowdown in global economy. Investment timing is not optimum, either.
- ✓ However, as BEI is unlikely to fall below 0bp, we think that JGBis at around BEI of 20bp appear fully undervalued, given inflation forecasts over the next ten years.

Strategic Memorandum DSTE293
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Auction Details

Auction Date:	February 15, 2019
Issue Date:	February 18, 2019
Maturity Date:	March 10, 2028
Offering Amount:	About 400 billion yen
Auction Method:	Dutch auction on a no-inflation-adjusted price with the increment of 0.05 yen
Base CPI:	100.70 (December 2017)
Ref. CPI:	101.543 (on Feb. 18)
Index ratio:	1.00837 (on Feb. 18)

* New 10Y JGBis will be the final reopening of JBI23 carrying a 0.1% coupon.

** On Feb. 14, JBI23 traded at 103.50 yen (-0.10 yen v. previous day's close) and closed at 103.50 yen (-0.10 yen). The BEI of JBI23 is 21.6bp as of Feb. 14 close (down 1.5bp from previous day's close).

Exp. Rating on Auction Results

1	2	3	4	5
Failed	Poor	Average	Good	Outstanding

BEI has declined to around 20bp, the lowest level since July 2016

After the previous JGBi auction went well at the BEI of around 41bp in November 2018, the BEI of JGBis (on-the-run issue basis) declined close to 20bp, the lowest level since July 2016, amid increasing risk-off activities due to the emergence of caution about a slowdown in the global economy. The background factor appeared to be the combination of negative factors such as a plunge in crude oil prices, a sharp decline in the US TIPS BEI amid lingering concerns about downward pressure on prices due to a series of cuts in mobile phone charges, in addition to the decline in nominal yields of JGBs. Since the beginning of 2019, the BEI has mostly remained flat at around 20bp reflecting a pause in the downtrend of crude oil prices and the decline in the US TIPS BEI.

Environment surrounding JGBis is not favorable due to anticipated weak inflation and lingering caution about slowdown in global economy

Let's check the environment surrounding JGBis. First, we look at the trend in the observed inflation. According to the latest announcement on January 18, the nationwide core CPI increased by 0.7% y/y in December 2018. It was slightly undershot v. the market consensus, but posted inflation for 24 months in a row. Going forward, the y/y growth rate is expected to slow to around 0.5% toward this spring due to (1) the absence of the positive contribution from rising energy prices thus far and (2) the emergence of the impact from the plunge in crude oil prices since November 2018 with a time lag. We also need to pay attention to factors that would lower prices such as free early childhood education and reductions in mobile phone fees. Once the current subdued inflation is confirmed at the time of release of indicators, investor sentiment for JGBis may worsen. While the market participants appear to be rather strengthening caution about a slowdown in the global economy and crude oil prices are losing upward momentum at the \$50-55 level, we are unable to say that the environment surrounding JGBis is favorable.

Investment timing is not optimum, either

Here, we confirm the developments of the index ratio in line with forecasts for the nationwide core CPI growth rate. Going forward, the index ratio is expected to decline toward April and to remain flat by around summer. After that, the ratio is likely to show an uptrend toward February 2020 (charts 5-7). Under the long-term horizon, a positive return is expected from JBI23 even if the price remains unchanged. However, we are unable to expect JGBis to perform well in the near term (Chart 8). The investment timing is not optimum, either.

Scenario of BEI falling below 0bp is too pessimistic

In such an environment, if we have a pessimistic view about the BEI, a concern would be the fact that the BEI fell far below 0bp in the global financial crisis triggered by the Lehman Brothers bankruptcy (Chart 9). At that time, the JGBi market was apt to collapse substantially in the midst of the global recession because the principal of JGBis was not guaranteed and overseas investors held more JGBis than domestic investors. Meanwhile, there are currently some supportive factors as follows: (1) the principal of existing JGBis is guaranteed, (2) the amount of JGBis held by domestic investors is large, (3) sustainable purchases of JGBis from them are expected, and (4) purchases and buybacks by the BOJ and the MOF amount to around 190bn yen vs. the issuance amount of 400bn yen. The possibility of the BEI falling below 0bp appears very slim.

JGBis at around BEI of 20bp appear fully undervalued

Since the BOJ introduced the "Quantitative and Qualitative Monetary Easing" with the 2% price stability target in April 2013 and the MOF started to issue principal-guaranteed JGBis in October 2013, the lowest BEI is 10-20bp level (Chart 13). According to the latest survey by Quick, meanwhile, the forecast for the nationwide core CPI growth rate (incl. effects of consumption tax hike) over the next ten years in average is 0.9%. The figure has been 0.8-1.0% even under the yield curve control policy (Chart 12). Although we are unable to deny the possibility that near-term inflation will be weak, JGBis at around the BEI of 20bp appear fully undervalued under the assumption of the BEI in the 0-100bp level.

All in all, we would like to place our bids at the level around 20bp as of BEI in small lot.

10Y JGBi Auction Results

Auction Date	Issue #	Coupon (%)	Maturity Date	Issue Size (billion yen)	B/C	Lowest Accepted Price/Issue Price (Yen) (Note 1)	Highest Accepted Yield (%)	Issue Price Before Multiplied by Index Ratio (Note 2)	Allotment (%)	BEI Before Auction (Note 3)	BEI on Auction Day (bp) (Note 3)	Change from p.d. (bp) (Note 3)	Market Expectation of Lowest Accepted Price (Yen) (Note 4)	Expected range
2/15/19	23R	0.1	3/10/28	400*						23.1				
11/6/18	23R	0.1	3/10/28	435.4	3.70	103.90	-0.305	-	43.0272	41.1	41.1	0.0	103.85	103.75-103.90
8/7/18	23R	0.1	3/10/28	418.4	3.12	104.05	-0.309	-	6.3636	48.0	41.0	-7.0	104.00	103.75-104.30
5/10/18	23	0.1	3/10/28	447.1	4.02	106.35	-0.513	-	32.0441	56.5	58.7	2.2	106.20	106.10-106.30
2/6/18	22R	0.1	3/10/27	440.8	3.38	105.35	-0.464	-	5.0000	62.4	55.7	-6.7	106.25	106.00-106.30
10/5/17	22R	0.1	3/10/27	446.4	3.10	104.50	-0.361	-	55.6088	38.8	39.9	1.1	104.40	104.30-104.50
8/3/17	22R	0.1	3/10/27	419.3	3.19	104.55	-0.358	104.048	69.4877	36.0	38.5	2.5	104.45	103.70-104.50
4/11/17	22	0.1	3/10/27	453.9	3.64	105.00	0.385	105.210	50.5643	44.0	46.7	2.7	104.80	104.65-105.00
2/7/17	21R	0.1	3/10/26	412.2	2.61	105.10	0.439	105.406	25.7142	62.9	58.2	-4.7	105.30	105.00-105.50
10/6/16	21R	0.1	3/10/26	425.1	3.21	104.80	-0.391	105.316	40.0537	30.9	37.1	6.2	104.75	104.50-104.90
8/4/16	21R	0.1	3/10/26	454.3	2.85	104.20	-0.324	104.509	72.0520	30.0	31.0	1.0	103.80	103.40-104.05
4/12/16	21	0.1	3/10/26	435.6	2.84	104.90	-0.376	105.629	80.0000	35.0	36.7	1.7	104.70	104.30-105.40
1/13/16	20R	0.1	3/10/25	542.9	2.47	104.40	-0.364	104.088	20.5882	57.5	52.8	-4.7	104.35	104.00-104.55
11/10/15	20R	0.1	3/10/25	501.6	2.21	105.45	-0.459	105.240	96.8750	76.7	74.2	-2.5	105.50	105.00-105.65
7/7/15	20R	0.1	3/10/25	541.2	2.33	106.70	-0.555	106.593	20.0000	106.0	99.2	-6.8	106.80	106.60-107.00
5/8/15	20	0.1	3/10/25	553.7	2.65	107.20	-0.589	107.847	4.4444	112.4	108.5	-3.9	106.95	106.20-107.20
1/8/15	19R	0.1	9/10/24	559.1	2.97	106.10	-0.501	105.888	83.0708	77.7	79.2	1.5	105.80	105.60-106.10
10/8/14	19	0.1	9/10/24	532.7	2.11	108.05	-0.658	107.942	81.6000	116.4	117.8	1.4	108.00	107.60-108.30
7/8/14	18R	0.1	3/10/24	400.0	2.54	0.00	-0.952	108.594	90.0000	124.9	128.2	3.3	111.25	110.75-111.80
4/3/14	18	0.1	3/10/24	421.7	2.89	108.20	-0.671	108.417	60.6012	124.9	135.4	6.5	107.55	107.20-108.00
1/9/14	17R	0.1	9/10/23	303.0	2.87	105.90	-0.482	105.164	6.5934	106.5	110.5	4.0	105.65	104.70-105.90
10/8/13	17	0.1	9/10/23	343.7	3.74	104.65	-0.352	104.545	46.4000	78.9	101.2	-8.9	102.55	101.70-103.15

* Planned by MoF (Note 1) Inflation adjusted price until August 2017 and inflation unadjusted price from October 2017 (Note 2) Daiwa calculation (Note 3) Closing price; WI basis for new issues; as of Feb. 13 for the Feb. 2019 auction (Note 4) Bloomberg

Source: Ministry of Finance, Daiwa Securities

Image of Bidding Price at Auction

		Nominal bond yield (% , JB350)									
		-0.085	-0.080	-0.075	-0.070	-0.065	-0.060	-0.055	-0.050	-0.045	-0.040
BEI (bp)	26	104.10	104.05	104.00	103.96	103.91	103.86	103.81	103.77	103.72	103.67
	25	104.00	103.96	103.91	103.86	103.81	103.77	103.72	103.67	103.63	103.58
	24	103.91	103.86	103.81	103.77	103.72	103.67	103.63	103.58	103.53	103.49
	23	103.81	103.77	103.72	103.67	103.63	103.58	103.53	103.49	103.44	103.39
	22	103.72	103.67	103.63	103.58	103.53	103.49	103.44	103.39	103.35	103.30
	21	103.63	103.58	103.53	103.49	103.44	103.39	103.35	103.30	103.25	103.21
	20	103.53	103.49	103.44	103.39	103.35	103.30	103.25	103.21	103.16	103.11
	19	103.44	103.39	103.35	103.30	103.25	103.21	103.16	103.11	103.07	103.02
	18	103.35	103.30	103.25	103.21	103.16	103.11	103.07	103.02	102.97	102.93
	17	103.25	103.21	103.16	103.11	103.07	103.02	102.97	102.93	102.88	102.84
	16	103.16	103.11	103.07	103.02	102.97	102.93	102.88	102.84	102.79	102.74
	15	103.07	103.02	102.97	102.93	102.88	102.84	102.79	102.74	102.70	102.65
14	102.97	102.93	102.88	102.84	102.79	102.74	102.70	102.65	102.60	102.56	

Note: actual bidding with the increment of 0.05 yen; nominal bond yield supposed to be as on Feb. 15 with the settlement on Feb. 18

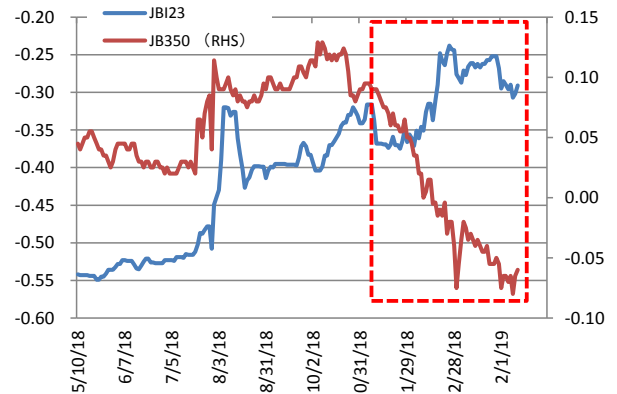
Source: Daiwa Securities

Chart 1: JGBi BEIs (bp)



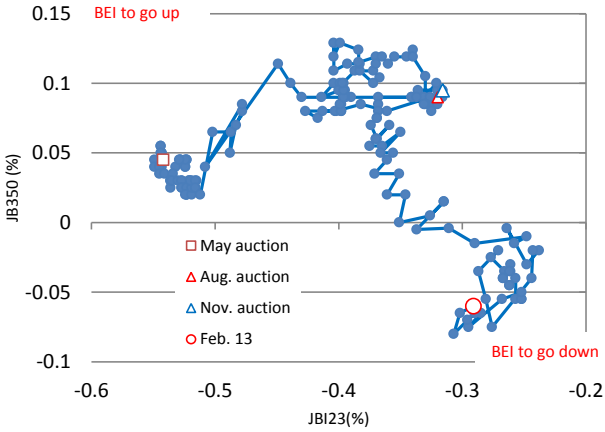
Source: Daiwa Securities

Chart 2: JBI23 and JB350 Yields (%)



Source: Daiwa Securities

Chart 3: Correlation between JBI23 and JB350



Source: Daiwa Securities

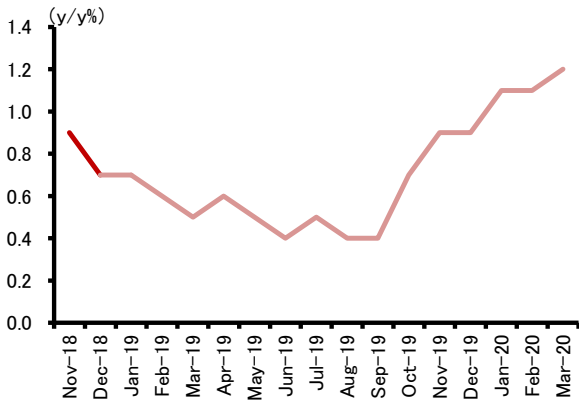
Chart 4: BOJ Purchase and MOF Buyback Results

	Previous Day's Close (Yen)	Pro-rata Price Spread (Yen)	Average Successful Price Spread (Yen)	Allotment on Pro-rata (%)	B/C	Close Price (Yen)
10/5/18	104.85	-0.060	-0.062	96.4	5.79	104.85
10/12/18	104.65	-0.110	-0.133	76.0	5.10	104.50
10/19/18	104.35	-0.050	-0.089	20.0	4.95	104.25
11/12/18	104.45	-0.070	-0.086	76.2	5.47	104.45
11/28/18	104.40	-0.160	-0.203	54.5	5.81	104.25
12/5/18	104.45	-0.120	-0.141	88.6	4.83	104.25
12/17/18	104.10	-0.330	-0.363	80.0	7.82	103.85
12/19/18	103.65	-0.410	-0.446	95.6	6.73	103.25
1/9/19	103.60	-0.100	-0.106	93.6	5.48	103.45
1/25/19	103.30	-0.110	-0.134	67.0	4.93	103.30
2/6/19	103.60	0.050	-0.050	100.0	4.72	103.65

Note: Previous Day's Close and Close Price are based on JBI23; buybacks by the Ministry of Finance on Oct. 12 and Dec. 17, 2018

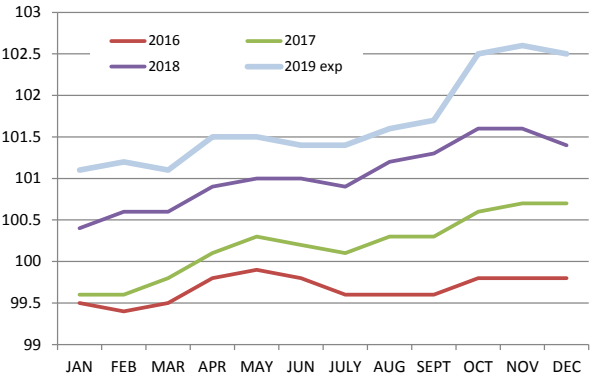
Source: Bank of Japan, Ministry of Finance, Daiwa Securities

Chart 5: Nationwide Core-CPI Growth Outlook (y/y %)



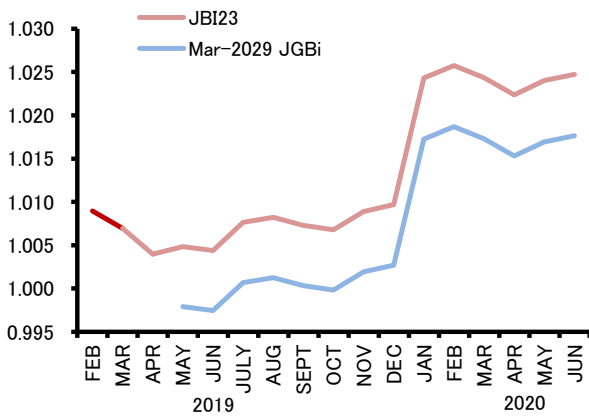
Note: Actual for Nov.-Dec. 2018
Source: Daiwa Securities

Chart 6: Seasonality of Nationwide Core-CPI



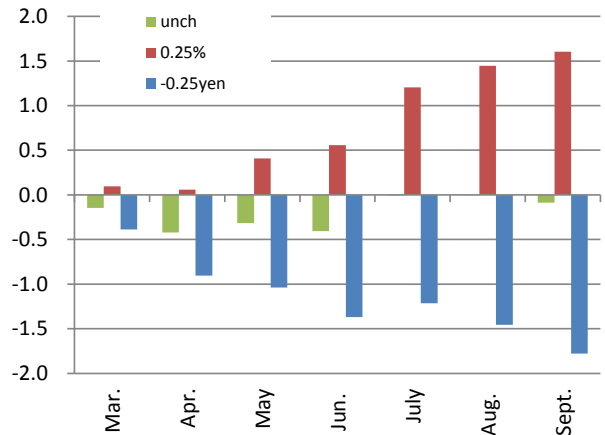
Source: Ministry of Internal Affairs and Communications, compiled by Daiwa Securities

Chart 7: Index Ratio Forecast



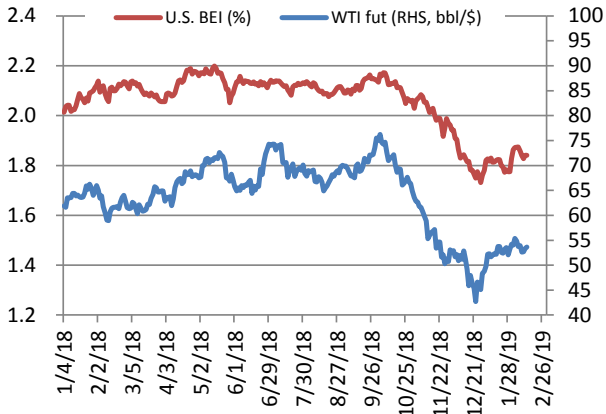
Note: Actual for Feb.-Mar. 2019; based on inflation outlook in Chart 5; for the Mar-2029 JGBis, assuming that it will be issued in May 2019 and its base CPI will be Dec. 2018
Source: Daiwa Securities

Chart 8: JBI23 HPR Analysis (%)



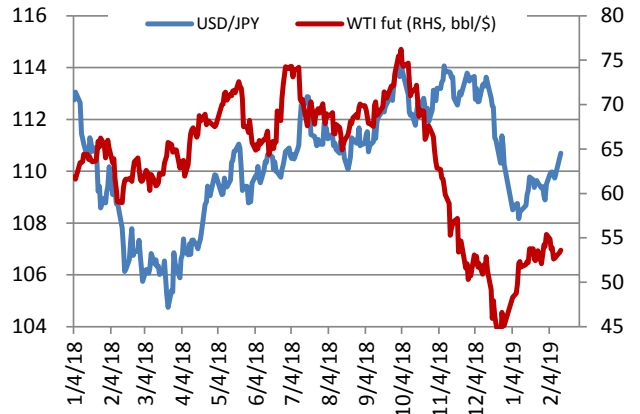
Note: From the issuance day (Feb. 18) to the 10th or the following business day, if the 10th is a holiday, of each month; factoring in index ratio in Chart 7; price at the end of period is assumed to be (1) unchanged, (2) increased by 0.25 yen each month and (3) decreased by 0.25 yen each month from the issuance day
Source: Daiwa Securities

Chart 9: U.S. 10Y BEI and Oil Price



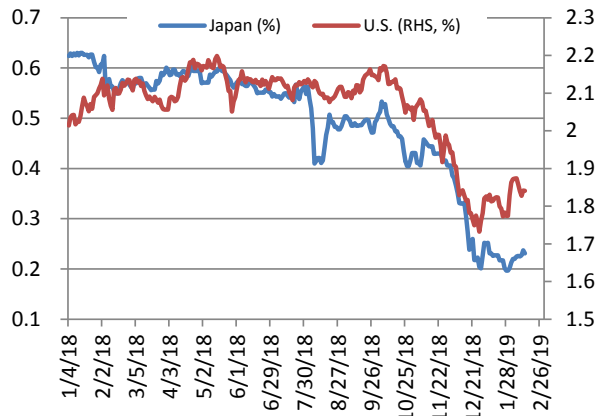
Source: Bloomberg

Chart 10: USD/JPY and Oil Price



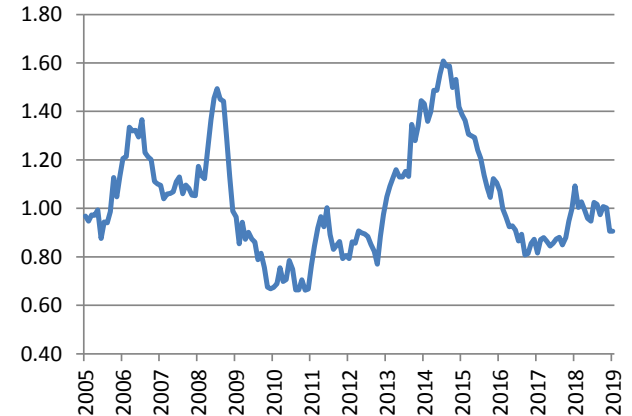
Source: Bloomberg

Chart 11: 10Y BEI -- U.S. v. Japan



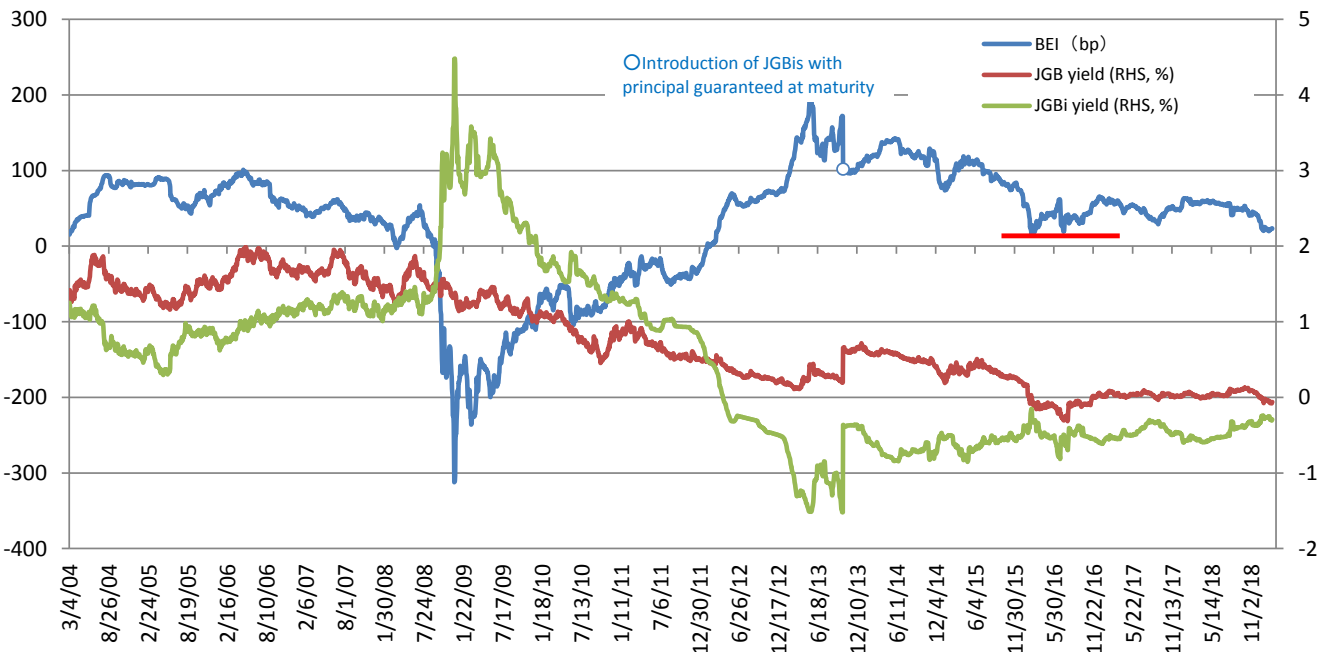
Source: Bloomberg

Chart 12: Nationwide Core-CPI Growth Forecast (%) Over next 10 years average



Source: Quick

Chart 13: BEI from March 2004 to January 2019



Note: on-the-run issue basis
Source: Daiwa Securities.

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[Standard & Poor's]

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- 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