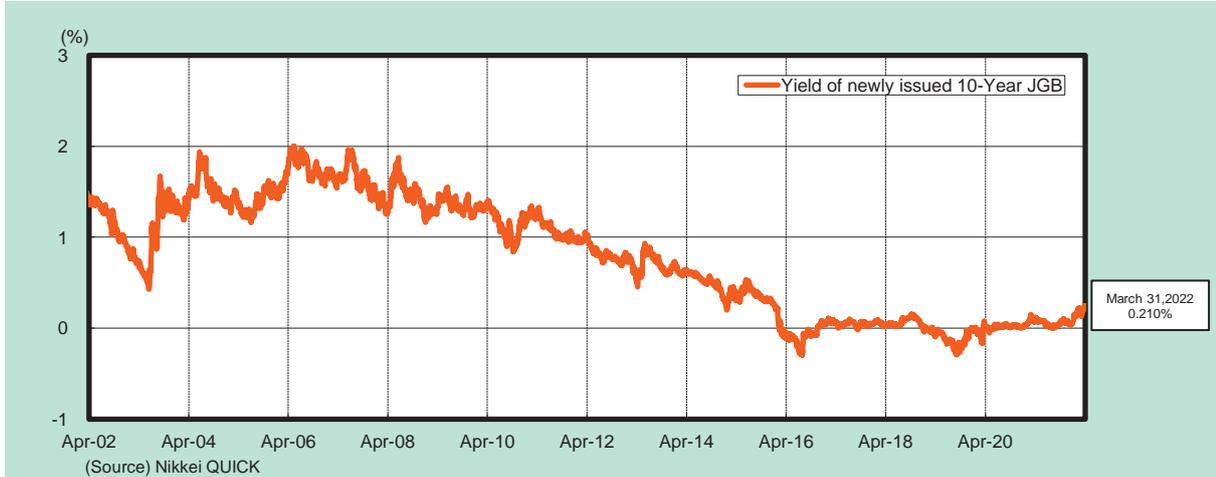
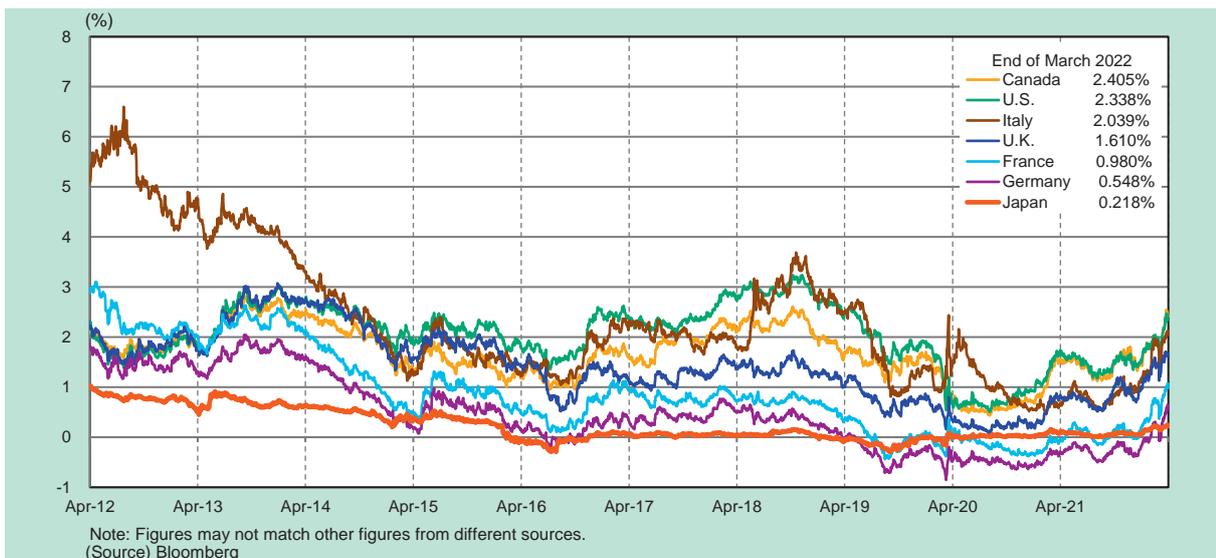


## 2 Secondary Market for Government Bonds

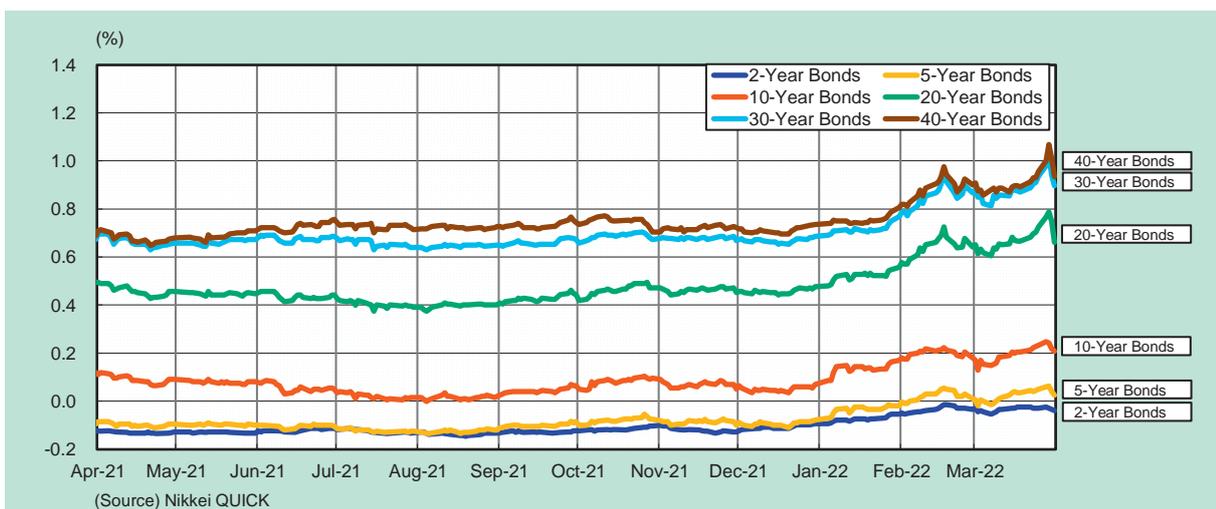
### (1) 10-Year JGB Yield



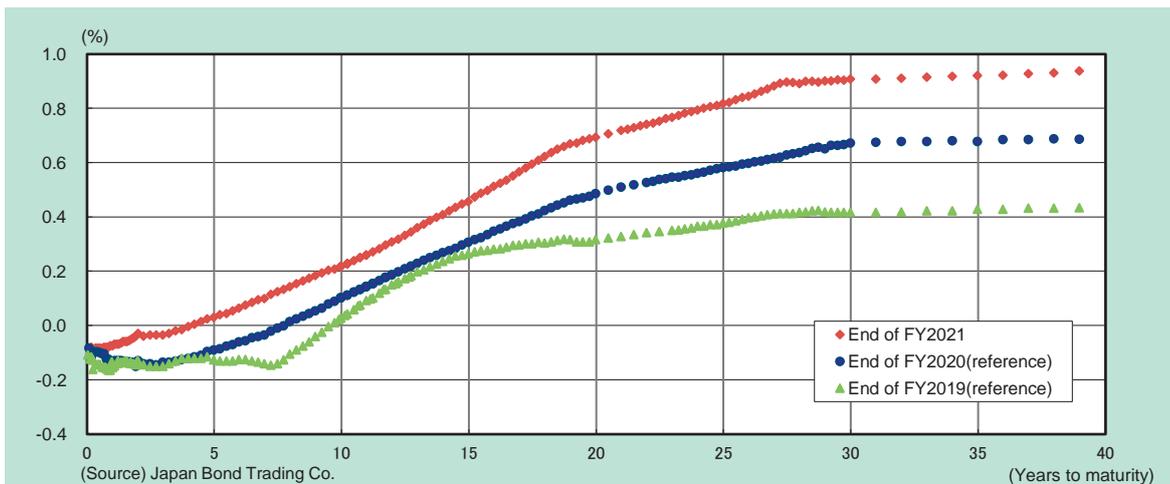
### (2) 10-Year Government Bonds Yields



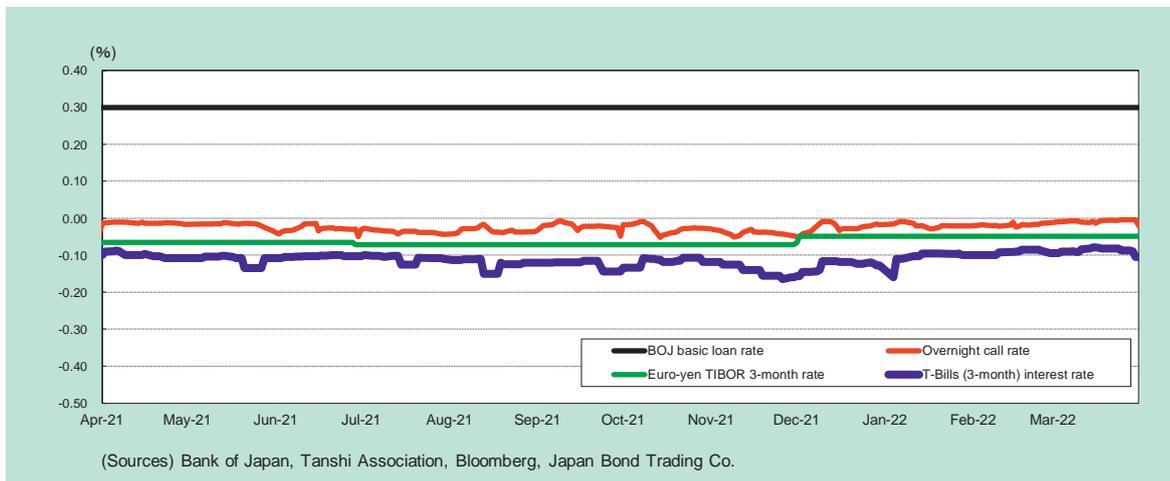
### (3) Yields of JGBs in FY2021



### (4) JGB Yield Curves



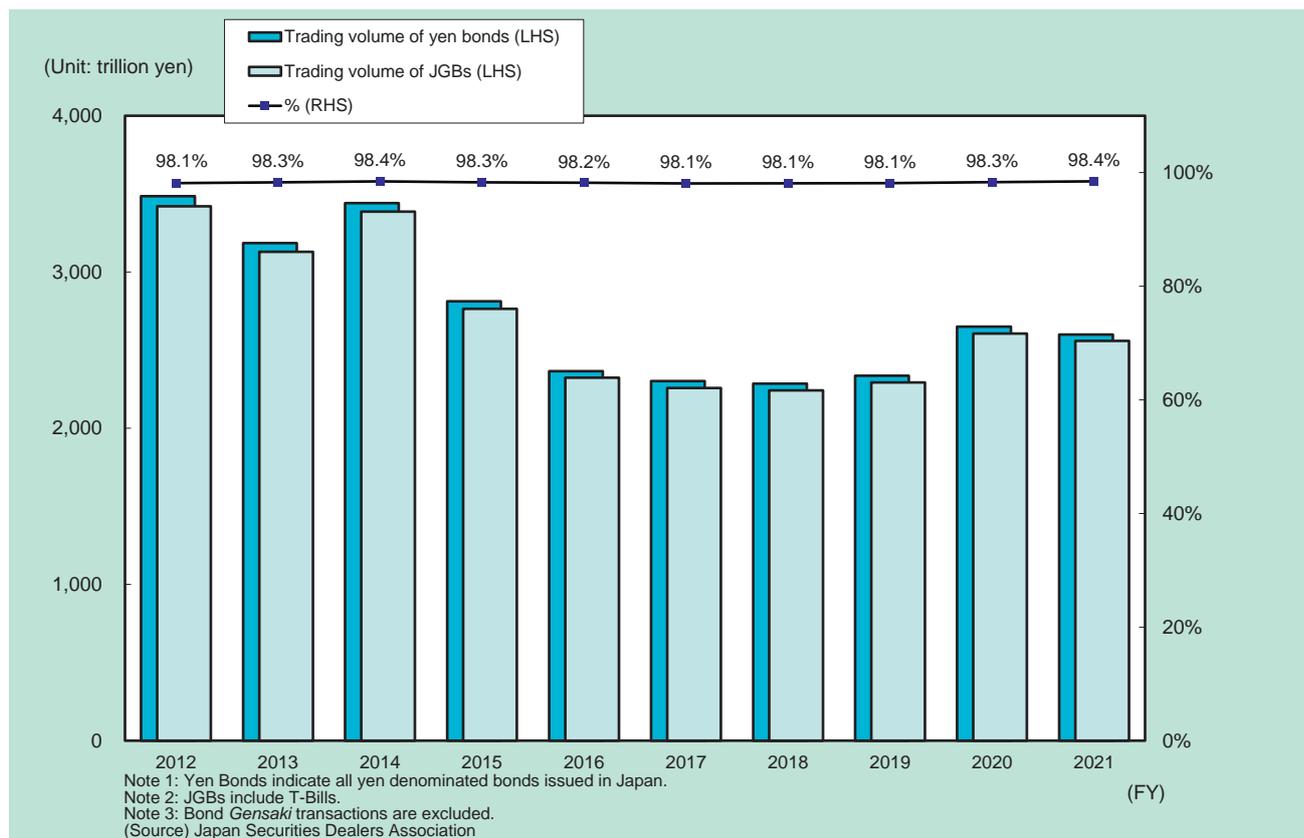
### (5) Various Rates in the Short-term Financial Market in FY2021



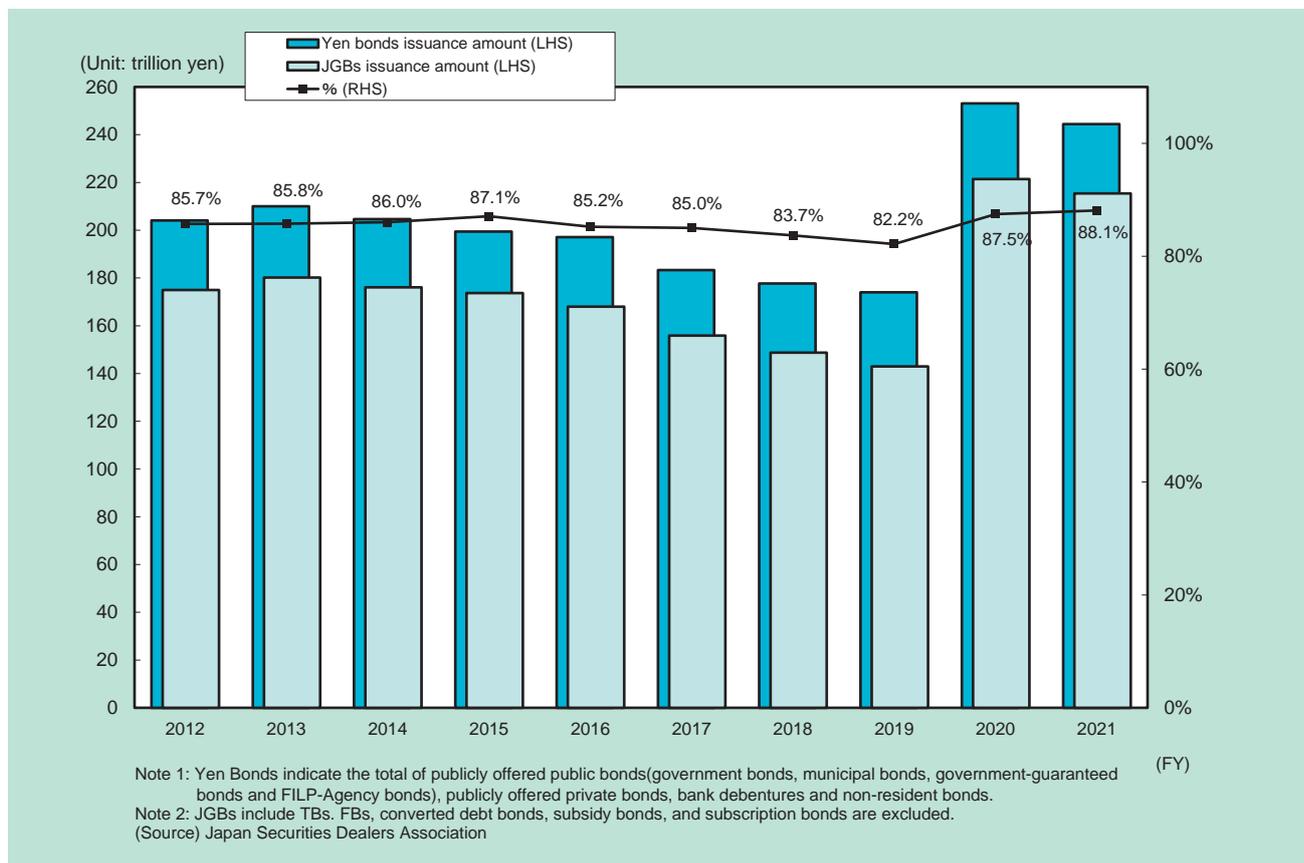
### (6) Break-Even-Inflation (BEI) Rate



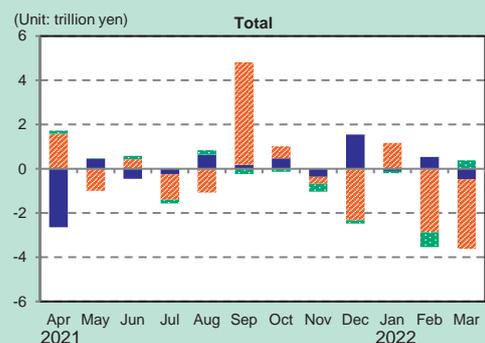
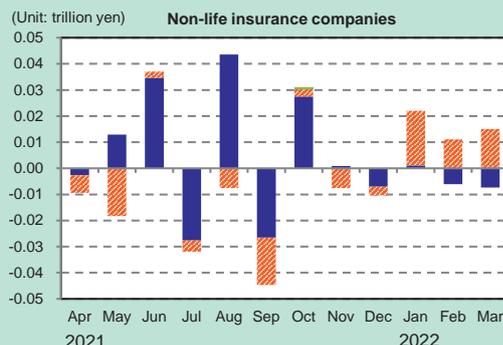
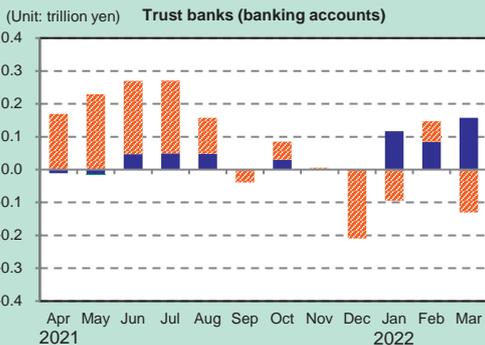
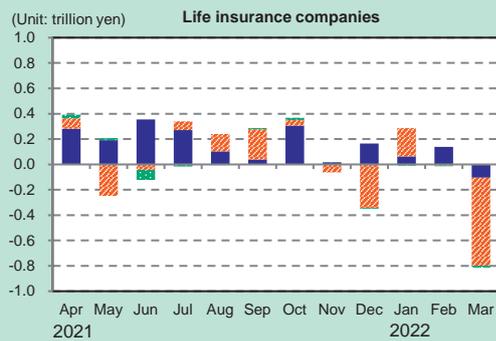
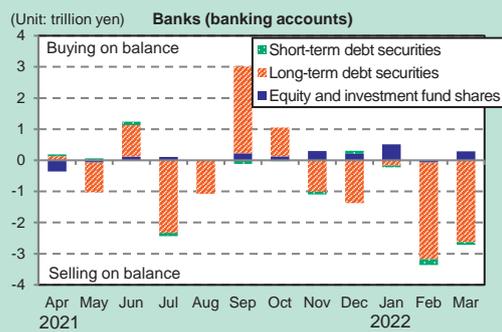
### (7) JGB Share in Total Trading Volume of Yen Bonds



### (8) JGB Share in Total Issuance Amount of Yen Bonds



### (9) Portfolio Investment Assets in FY2021



Note 1: Figures indicate the situation of investment by residents in securities issued by non-residents.

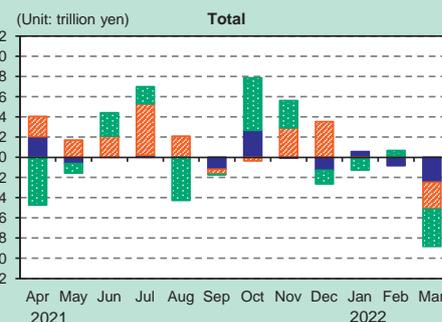
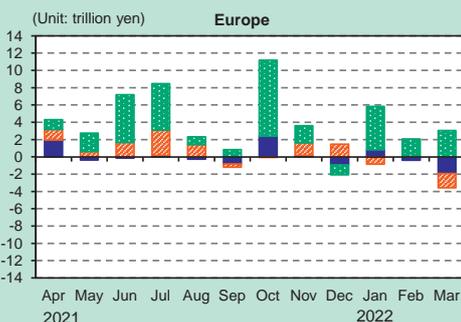
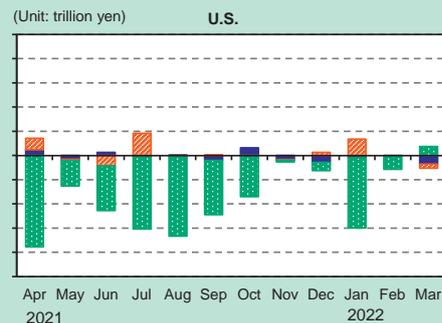
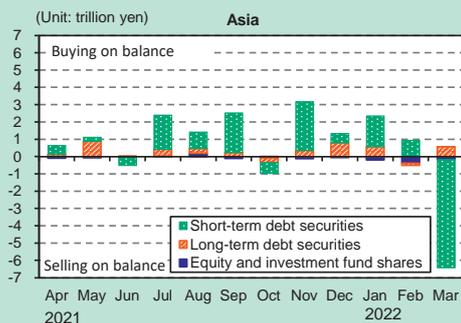
Note 2: "Long-term debt securities" are securities with an original maturity of more than one year and include central government bonds, government agency securities, supranational bonds, local government bonds, bank bonds, corporate bonds, Samurai bonds, etc.

Note 3: "Short-term debt securities" are securities with an original maturity of no more than one year and include T-Bills, commercial papers, etc.

Note 4: "Total" includes "General government", "Banks (trust accounts)" and "Trust banks (trust accounts)", etc. in addition to the data shown above.

(Source) Ministry of Finance

### (10) Portfolio Investment Liabilities in FY2021



Note 1: Figures indicate the situation of investment by non-residents in securities issued by residents.

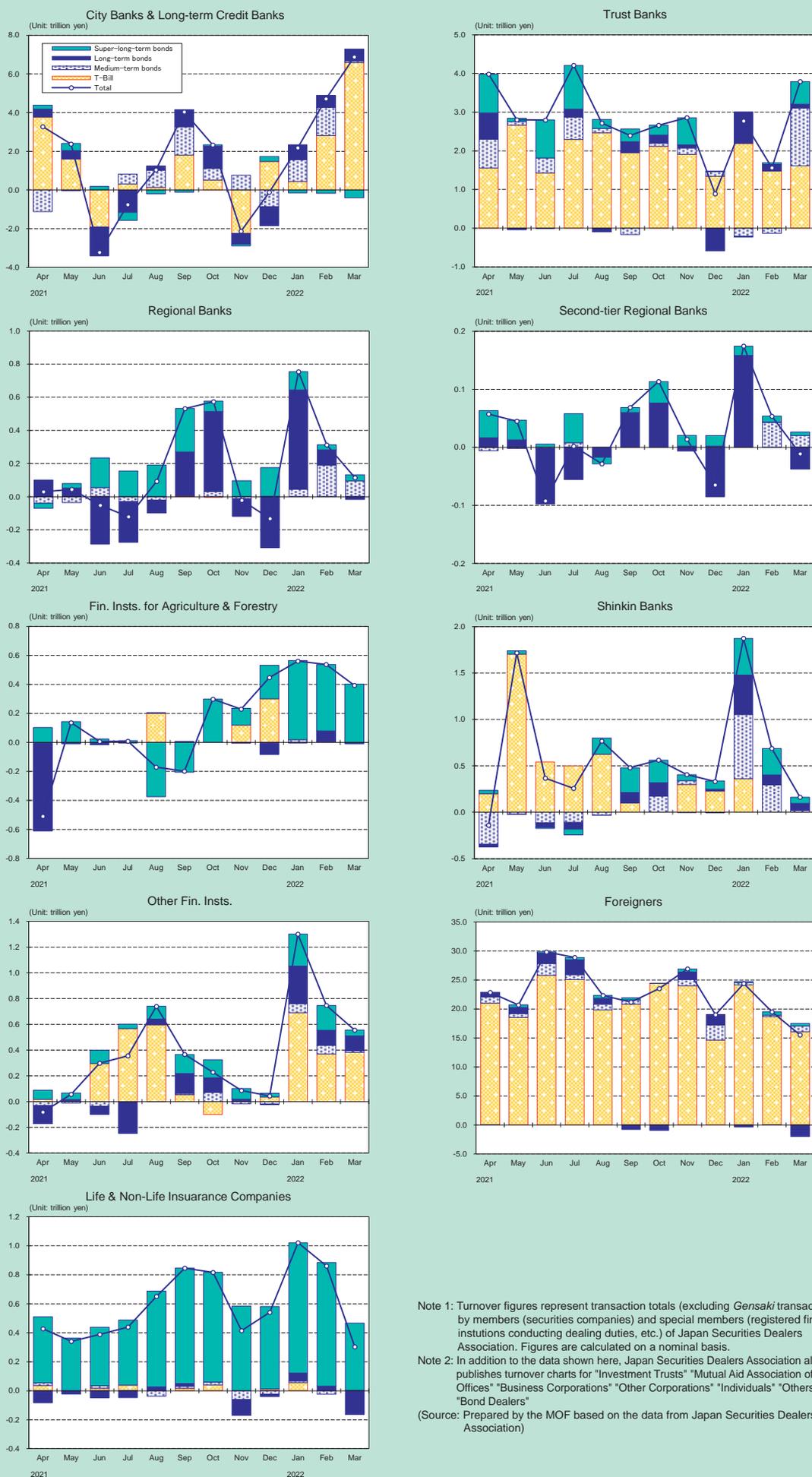
Note 2: "Long-term debt securities" are securities with an original maturity of more than one year and include central government bonds, government agency securities, supranational bonds, local government bonds, bank bonds, corporate bonds, and Samurai bonds, etc.

Note 3: "Short-term debt securities" are securities with an original maturity of no more than one year and include T-Bills, commercial papers, etc.

Note 4: "Total" includes "Central and South America", "Oceania" and "Middle East", etc. in addition to the data shown above.

(Source) Ministry of Finance, Bank of Japan

### (11) Trends in JGB Transactions (by investor type) in FY2021



Note 1: Turnover figures represent transaction totals (excluding *Gensaki* transactions) by members (securities companies) and special members (registered financial institutions conducting dealing duties, etc.) of Japan Securities Dealers Association. Figures are calculated on a nominal basis.  
 Note 2: In addition to the data shown here, Japan Securities Dealers Association also publishes turnover charts for "Investment Trusts" "Mutual Aid Association of Govt. Offices" "Business Corporations" "Other Corporations" "Individuals" "Others" and "Bond Dealers"  
 (Source: Prepared by the MOF based on the data from Japan Securities Dealers Association)

## (12) Trading Volume of Yen Bonds

(Unit: trillion yen)

	Yen Bonds	JGBs				
		Super long-term Bonds	Long-term Bonds	Medium-term Bonds	Short-term Bonds	
FY2012	3,485.5	3,420.4	383.1	846.7	986.2	1,204.4
FY2013	3,184.7	3,129.5	342.0	690.9	767.9	1,328.6
FY2014	3,440.1	3,386.7	413.5	698.4	999.9	1,274.9
FY2015	2,812.6	2,764.0	372.9	641.5	723.9	1,025.7
FY2016	2,365.5	2,322.8	389.1	471.5	696.2	766.0
FY2017	2,301.2	2,257.1	435.3	498.1	567.1	756.6
FY2018	2,285.4	2,242.0	459.3	525.1	495.9	761.7
FY2019	2,335.9	2,292.6	439.8	499.4	560.6	792.9
FY2020	2,650.4	2,605.6	429.1	441.7	454.9	1,279.9
FY2021	2,599.4	2,559.0	469.7	517.9	461.3	1,110.0

Note: Bond *Gensaki* transactions are excluded.  
(Source) Japan Securities Dealers Association

## (13) Trading Volume of JGB Futures

(Unit: trillion yen)

	Trading Volume	Open Interest (End of FY)	
		10-Year JGB Futures	20-Year JGB Futures
FY2012	948.3	948.1	–
FY2013	857.0	856.9	–
FY2014	904.9	903.9	–
FY2015	849.7	849.1	0.3
FY2016	700.0	699.9	0.0
FY2017	880.7	880.7	0.0
FY2018	1,023.5	1,023.4	0.0
FY2019	955.3	955.3	0.0
FY2020	712.7	712.7	–
FY2021	813.2	813.2	–

Note: Trading in 20-year JGB Futures had been suspended due to little demand but was re-launched based on JGB market conditions and discussions with investors in April 2014.  
(Source) Japan Securities Clearing Corporation

## (14) Trading Volume of Bond *Gensaki*

(Unit: trillion yen)

	Trading Volume			Outstanding (End of FY)	
	Yen Bonds (excluding JGB baskets)	JGBs	JGB Baskets	Transactions Other Than Subsequent Collateral Allocation Repos (Standard Repos, etc.)	Subsequent Collateral Allocation Repos
FY2012	5,035.6	5,002.7	–	23.5	–
FY2013	6,275.4	6,238.0	–	26.4	–
FY2014	7,064.3	7,004.9	–	30.8	–
FY2015	7,582.8	7,486.9	–	30.5	–
FY2016	6,918.4	6,887.5	–	33.4	–
FY2017	7,622.2	7,579.0	–	40.2	–
FY2018	13,575.8	13,537.7	3,112.7	101.6	14.8
FY2019	17,259.1	17,222.5	6,450.2	133.6	22.7
FY2020	18,843.3	18,837.1	9,085.0	120.6	27.8
FY2021	20,160.0	20,146.9	8,924.9	155.9	22.6

Note 1: Trading Volume is the total amount of buying and selling.

Note 2: The Outstanding at the end of fiscal year is the total outstanding of securities companies and financial institutions for dealing.

Note 3: JGB Baskets and Subsequent Collateral Allocation Repos are traded price base (otherwise nominal).

Note 4: Yen Bonds are all bonds except JGBs for retail investors, corporate bonds with equity-purchase warrants and foreign currency bonds.

(Source) Japan Securities Dealers Association

**(15) Trading Volume of Bond-Lending**

(Unit: trillion yen)

	Lending			Borrowings		
		With collateral	Without Collateral		With Collateral	Without Collateral
FY2012	6,397.5	6,378.9	18.6	4,550.3	4,472.1	78.2
FY2013	6,965.7	6,946.1	19.5	5,271.8	5,186.7	85.1
FY2014	8,347.4	8,328.5	18.8	6,616.5	6,547.9	68.5
FY2015	8,228.7	8,213.1	15.6	5,809.2	5,736.5	72.7
FY2016	8,547.9	8,535.8	12.1	5,966.5	5,893.2	73.3
FY2017	8,548.4	8,442.5	105.9	5,627.7	5,557.3	70.5
FY2018	5,622.5	5,291.4	331.1	3,601.8	3,518.8	83.0
FY2019	3,090.5	2,781.8	308.7	2,003.5	1,921.6	81.9
FY2020	2,782.6	2,371.9	410.7	1,476.7	1,403.0	73.7
FY2021	2,107.1	1,749.3	357.7	1,305.4	1,233.6	71.8

Note: Trading volume is the total of contracts by both members of Japan Securities Dealers Association (Securities Companies) and special members (registered financial institutions for dealing).

(Source) Japan Securities Dealers Association

**(16) Trading Volume of JGBs Option by OTC**

(Unit: trillion yen)

	Total	Call Options		Put Options	
		Bid	Offer	Bid	Offer
FY2012	100.6	46.0	18.3	15.8	20.5
FY2013	114.3	39.9	22.3	24.6	27.5
FY2014	102.3	41.5	18.2	19.9	22.6
FY2015	65.8	32.8	9.1	11.3	12.6
FY2016	68.9	26.8	11.8	15.0	15.3
FY2017	97.9	31.2	20.6	22.6	23.6
FY2018	119.6	35.3	28.9	29.9	25.5
FY2019	131.8	36.1	31.7	33.2	30.8
FY2020	81.0	25.1	18.2	18.8	18.8
FY2021	81.4	25.4	18.0	18.4	19.5

Note 1: Trading volume is the total transaction of securities companies and financial institutions for dealing.

Note 2: Trading volume is on a nominal basis.

(Source) Japan Securities Dealers Association

(17) Trading Volume of JGB Futures Options

(Unit: trillion yen)

	Trading Volume		Open Interest (End of FY)	
	Call	Put	Call	Put
FY2012	220.4	76.0	144.4	2.0
FY2013	145.0	49.7	95.3	2.2
FY2014	118.7	33.1	85.5	1.4
FY2015	102.5	31.3	71.2	0.9
FY2016	92.5	28.0	64.5	1.4
FY2017	86.2	30.2	56.1	1.6
FY2018	70.9	25.7	45.2	0.9
FY2019	64.4	31.1	33.4	0.0
FY2020	24.6	11.7	12.9	0.1
FY2021	16.0	7.5	8.5	0.1

(Source) Japan Exchange Group, Inc.

(18) Outstanding Amount of STRIPS-Principal-Only Book-entry Transfer JGBs

(Unit: billion yen)

	40-Year Bonds		30-Year Bonds		20-Year Bonds		10-Year Bonds		5-Year Bonds		2-Year Bonds		Total	
	Value	(Change)	Value	(Change)	Value	(Change)	Value	(Change)	Value	(Change)	Value	(Change)	Value	(Change)
FY2012	35.8	(6,636.1)	136.7	(43,847.1)	21.2	(121,769.9)	158.9	(295,827.6)	25.3	(143,536.1)	0.6	(68,497.0)	378.6	(680,113.8)
FY2013	39.3	(8,493.4)	143.1	(53,274.0)	23.8	(139,142.0)	152.5	(299,174.5)	24.6	(153,383.2)	—	(70,172.0)	383.3	(723,639.1)
FY2014	39.6	(10,445.5)	143.3	(64,211.4)	24.5	(157,000.2)	138.5	(298,055.7)	16.6	(158,260.0)	—	(69,152.9)	362.6	(757,125.7)
FY2015	49.6	(13,133.4)	146.4	(76,987.9)	23.9	(174,841.3)	119.3	(301,008.5)	12.1	(160,806.5)	—	(63,932.8)	351.3	(790,710.4)
FY2016	49.6	(16,597.6)	146.4	(88,628.2)	20.7	(192,056.6)	94.4	(302,813.6)	6.5	(160,409.4)	—	(60,419.9)	317.5	(820,925.1)
FY2017	49.6	(20,283.7)	146.4	(100,696.1)	20.6	(208,335.0)	66.4	(308,203.8)	3.6	(156,681.3)	—	(57,975.4)	286.7	(852,175.2)
FY2018	49.6	(23,191.4)	146.4	(111,350.1)	20.6	(226,008.7)	46.1	(314,323.3)	1.2	(147,403.4)	—	(55,436.4)	263.9	(877,713.3)
FY2019	49.7	(26,504.6)	146.4	(121,641.1)	20.6	(243,077.3)	23.0	(313,956.3)	0.4	(138,030.0)	—	(52,360.6)	240.0	(895,569.8)
FY2020	49.7	(30,453.0)	146.4	(133,637.9)	20.6	(261,715.0)	13.9	(316,538.4)	—	(135,198.7)	—	(60,130.9)	230.6	(937,673.9)
FY2021	49.9	(35,098.5)	146.4	(146,955.0)	20.6	(281,354.0)	6.0	(320,319.2)	—	(136,099.3)	—	(71,542.0)	222.8	(991,368.0)

<Key> Outstanding Amount of Principal-Only Book-entry Transfer JGBs at the end of each period (Outstanding amount of JGBs qualified for STRIPS)  
 Note: Figures may not sum up to the total because of rounding.

### (19) Japan's Sovereign Rating by Major Credit Rating Agencies

(Long-term debt denominated in home currency on Apr. 28, 2022)

Moody's	S&P	Fitch	R&I	JCR
Nov. 17, 98 Aaa	Feb. 22, 01 AAA	Jun. 29, 00 AAA	Dec. 21, 11 AAA	Oct. 31, 00 AAA
Sep. 8, 00 Aa1	Nov. 27, 01 AA+	Nov. 26, 01 AA+	AA+	AA+
Dec. 4, 01 Aa2	Apr. 15, 02 AA	Nov. 21, 02 AA	AA	AA
May 18, 09 Aa3	Apr. 22, 07 AA-	Nov. 21, 02 AA-	AA-	AA-
Jun. 30, 08 A1	Jan. 27, 11 A+	May 22, 12 A+	A+	A+
May 31, 02 A2	Sep. 16, 15 A	Apr. 27, 15 A	A	A
Oct. 11, 07 A3	A-	A-	A-	A-
Baa1	BBB+	BBB+	BBB+	BBB+
Baa2	BBB	BBB	BBB	BBB
Baa3	BBB-	BBB-	BBB-	BBB-

**[Outlook]**

Stable (Dec. 1, 2014)	Stable (Jun. 9, 2020)	Stable (Mar. 25, 2022)	Stable (Aug. 30, 2018)	Stable (Aug. 9, 2018)
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### (20) List of Sovereign Ratings by Major Credit Rating Agencies

(Long-term debt denominated in home currency on Apr. 28, 2022)

	Moody's	S&P	Fitch	R&I	JCR
Aaa/AAA	U.S. Germany Canada	Germany Canada	U.S. (↓) Germany	U.S. U.K. Germany France	Japan U.S. U.K. Germany France Canada
Aa1/AA+		U.S.	Canada	Japan	
Aa2/AA	France Korea	U.K. France Korea	France (↓)		Spain
Aa3/AA-	U.K.	Ireland	Korea Ireland U.K.	China Korea Ireland	China Korea
A1/A+	Japan China	Japan China	China		
A2/A	Ireland (↑)	Spain	Japan	Spain	Italy Portugal
A3/A-			Spain		
Baa1/BBB+	Spain			Italy	
Baa2/BBB	Portugal	Italy (↑) Portugal	Portugal Italy	Portugal	
Baa3/BBB-	Italy				
Ba1/BB+		Greece			
Ba2/BB			Greece (↑)	Greece	
Ba3/BB-	Greece				
B1/B+					
B2/B					
B3/B-					
Caa1/CCC+					
Caa2/CCC					
Caa3/CCC-					
Ca/CC					
C					
SD/RD					

" (↑) "shows that the outlook is positive.  
" (↓) "shows that the outlook is negative.