

Statistical Data

(JGB OTC Transactions)

May 2018



JAPAN SECURITIES CLEARING CORPORATION

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[Explanatory Notes]

- These statistics data are subject to the JGB OTC transactions settlement business that we perform.
- Figures less than the indicated unit are omitted, and averages are rounded to the nearest number (sum of breakdown figures and total value may not match).

- Symbols in these statistical data are as follows:

- “r” Revised figures
- “...” Unknown or other

*r will be excluded from next publication.

- Clearing of JGB OTC Transactions

- Figures in Volume Cleared, Value Cleared and Number of Settlements are counted based on the date of trade assumption by JSCC. Deliveries from JSCC to buyers or borrowers and those from sellers or lenders to JSCC are counted separately. A set of start and end legs of Standard Repo Transactions, Subsequent Collateral Allocation Repo Transactions and Cash-secured Bond Lending Transactions is counted as two separate assumption of obligations for Volume Cleared and Value Cleared, but counted as one assumption of obligation for Number of Assumption of Obligations. When only end leg of transactions is assumed by JSCC, it is counted as one assumption of obligation. For Standard Repo Transactions, Transactions for closing the Original Repo Transaction in case of Substitution is excluded. For Volume Cleared (Face Amount) of Subsequent Collateral Allocation Repo Transactions, the amount equal to Clearing Value is counted. Clearing Value for Unwind/Rewind obligations is excluded.
- Clearing Volume by Transaction Type shows breakdown of Volume Cleared (Face Amount) and Value Cleared by four (4) type of transactions, i.e. Buy/Sell, Standard Repo Transactions, Subsequent Collateral Allocation Repo Transactions and Cash-secured Bond Lending Transactions. For Standard Repo Transactions and Cash-secured Bond Lending Transactions, “Start and End Legs” represents transactions of which JSCC has assumed both start and end legs, and “End Leg Only” represents transactions of which JSCC has assumed end leg only. For Subsequent Collateral Allocation Repo Transactions, breakdown and total value at each of first, second and third cleared timing are counted. Clearing Value for Unwind/Rewind obligations is excluded. JSCC has counted Clearing Value by Transaction Type since May 2018.

- Settlements

- Figures in DVP Settlement are counted on a settlement date basis. Figures in Volume and Value are the sum of both the delivering and receiving settlement transactions. For Subsequent Collateral Allocation Repo Transactions, breakdown figures and total value of first, second and third settlements are counted.
- DVP Settlement by Transaction Type shows breakdown of settlement related to Clearing by two (2) types of settlements (Buy/Sell, Standard Repo Transactions, and Cash-secured Bond Lending Transactions and Subsequent Collateral Allocation Repo Transactions).
- Analysis
Source: Bank of Japan

- Funds Only Settlements (FOS) are counted on a settlement date basis. Figures in Volume are the sum of both paying and receiving amount (FOS settlements: only funds for Variation Margin and other related funds are settled).
- Figures in Fails represent the cases when JSCC fails to receive securities from sellers or lenders.

- Netting Effect

- Figures in Volume Cleared and Value Cleared are counted on a settlement date basis. Deliveries from JSCC to buyers or borrowers and those from sellers or lenders to JSCC are counted separately. For Standard Repo Transactions and Cash-secured Bond Lending Transactions, volume and value of start legs are counted for the month when the start legs settle, and those of end legs are counted for the month when the end legs settle. For Subsequent Collateral Allocation Repo Transactions, value of start legs are counted for the month when the start legs settle, and those of end legs are counted for the month when the end legs settle. Clearing Value for Unwind/Rewind obligations for which settlement day arrives within the month is included.
- Figures in DVP Settlement Volume and DVP Settlement Value are counted based on the value dates designated by the assumed trades. Those figures represent the sum of volume and value expected to be settled on the value date, and not the sum of volume and value actually settled on that value date.
- DVP Settlement Volume and DVP Settlement Value of both delivering and receiving settlement transactions are counted separately.

[Note]

- These statistical data are published on JSCC website on 5th business day in each month, in principle.
- JSCC permits copying or citation of these statistical data only with an express indication of the source. In case of copying, etc. for commercial purpose, please contact JSCC in advance.
- While JSCC will take all possible measures to ensure accuracy of information contained in these statistical data, JSCC shall bear no liability against users of such information.

[Contact]

JGB Clearing Service
Japan Securities Clearing Corporation
Tel : +81-50-3361-1792
e-mail : jgb-plan@jpx.co.jp

I. Clearing of JGB OTC Transactions (Assumption of Obligations)

I. Clearing of JGB OTC Transactions (Face Amount, Value and Number of Transactions)

| Month -Year | Number of Business Days | Volume Cleared (Face Amount, JPY in Millions) | | Value Cleared (JPY in Millions) | | Number of Assumption of Obligations | |
|----------------|----------------------------|--------------------------------------------------|---------------|------------------------------------|---------------|-------------------------------------|---------------|
| | | | Daily Average | | Daily Average | | Daily Average |
| 2016 | 245 | 28,558,765,673 | 116,566,391 | 30,240,838,715 | 123,431,995 | 2,743,728 | 11,199 |
| 2017 | 247 | 30,956,300,700 | 125,329,153 | 32,229,215,561 | 130,482,654 | 3,041,104 | 12,312 |
| 2018 | 100 | 10,648,605,063 | 106,486,051 | 11,089,116,988 | 110,891,170 | 1,192,920 | 11,929 |
| May-17 | 20 | 2,704,087,700 | 135,204,385 | 2,816,747,425 | 140,837,371 | 241,154 | 12,058 |
| Jun-17 | 22 | 2,823,419,278 | 128,337,240 | 2,942,651,186 | 133,756,872 | 281,904 | 12,814 |
| Jul-17 | 20 | 2,361,292,484 | 118,064,624 | 2,457,748,790 | 122,887,440 | 235,154 | 11,758 |
| Aug-17 | 22 | 2,656,112,860 | 120,732,403 | 2,765,783,375 | 125,717,426 | 248,198 | 11,282 |
| Sep-17 | 20 | 2,419,297,919 | 120,964,896 | 2,520,162,189 | 126,008,109 | 265,290 | 13,265 |
| Oct-17 | 21 | 2,485,872,147 | 118,374,864 | 2,591,299,936 | 123,395,235 | 271,360 | 12,922 |
| Nov-17 | 20 | 2,228,970,113 | 111,448,506 | 2,326,103,843 | 116,305,192 | 263,202 | 13,160 |
| Dec-17 | 21 | 2,476,772,847 | 117,941,564 | 2,568,400,169 | 122,304,770 | 242,944 | 11,569 |
| Jan-18 | 19 | 2,181,667,631 | 114,824,612 | 2,261,461,557 | 119,024,292 | 216,294 | 11,384 |
| Feb-18 | 19 | 2,162,690,762 | 113,825,830 | 2,252,173,405 | 118,535,442 | 241,694 | 12,721 |
| Mar-18 | 21 | 2,076,717,654 | 98,891,317 | 2,171,861,860 | 103,421,993 | 253,580 | 12,075 |
| Apr-18 | 20 | 2,046,813,201 | 102,340,660 | 2,139,766,180 | 106,988,309 | 244,538 | 12,227 |
| May-18 | 21 | 2,180,715,813 | 103,843,610 | 2,263,853,984 | 107,802,571 | 236,814 | 11,277 |

2. Clearing Volume by Transaction Type

| Month -Year | Buy/Sell | Standard Repo Transactions | | | Subsequent Collateral Allocation Repo Transactions | | | Cash-secured Bond Lending Transactions | | | |
|----------------|---------------|----------------------------|-------------------------------------------------------|-------------------------------------------------|----------------------------------------------------|-------------|------------|----------------------------------------|----------------|-------------------------------------------------------------------------|----------------------------------------------------------------|
| | | Monthly Total | Standard Repo Transactions (Start and End Legs) | Standard Repo Transactions (End Leg Only) | Monthly Total | 1st | 2nd | 3rd | Monthly Total | Cash-secured Bond Lending Transactions (Start and End Legs) | Cash-secured Bond Lending Transactions (End Leg Only) |
| 2016 | 1,262,640,895 | 1,135,833,280 | 1,122,913,200 | 12,920,080 | - | - | - | 26,160,291,497 | 26,048,198,751 | 112,092,746 | |
| 2017 | 1,387,726,660 | 1,407,467,640 | 1,402,869,200 | 4,598,440 | - | - | - | 28,161,106,400 | 28,060,785,036 | 100,321,364 | |
| 2018 | 531,937,681 | 940,626,526 | 928,631,524 | 11,995,002 | 430,693,747 | 315,658,191 | 86,022,820 | 29,012,735 | 8,745,347,107 | 8,690,429,176 | 54,917,931 |
| May-17 | 95,439,004 | 142,341,200 | 142,308,000 | 33,200 | - | - | - | 2,466,307,496 | 2,452,945,728 | 13,361,768 | |
| Jun-17 | 131,989,616 | 101,074,800 | 100,637,600 | 437,200 | - | - | - | 2,590,354,862 | 2,579,987,084 | 10,367,778 | |
| Jul-17 | 99,953,152 | 89,470,600 | 89,410,800 | 59,800 | - | - | - | 2,171,868,732 | 2,165,329,684 | 6,539,048 | |
| Aug-17 | 121,042,884 | 98,164,400 | 97,759,600 | 404,800 | - | - | - | 2,436,905,576 | 2,431,714,656 | 5,190,920 | |
| Sep-17 | 124,950,311 | 106,026,400 | 105,848,400 | 178,000 | - | - | - | 2,188,321,208 | 2,172,317,436 | 16,003,772 | |
| Oct-17 | 115,139,045 | 155,949,200 | 155,113,200 | 836,000 | - | - | - | 2,214,783,901 | 2,210,057,201 | 4,726,700 | |
| Nov-17 | 126,429,242 | 78,438,640 | 78,059,600 | 379,040 | - | - | - | 2,024,102,231 | 2,017,218,301 | 6,883,930 | |
| Dec-17 | 111,331,732 | 114,938,000 | 114,740,800 | 197,200 | - | - | - | 2,250,503,115 | 2,244,334,165 | 6,168,950 | |
| Jan-18 | 97,822,785 | 121,332,200 | 121,199,600 | 132,600 | - | - | - | 1,962,512,646 | 1,955,976,493 | 6,536,153 | |
| Feb-18 | 112,501,992 | 108,598,600 | 108,158,800 | 439,800 | - | - | - | 1,941,590,170 | 1,924,966,664 | 16,623,506 | |
| Mar-18 | 104,465,222 | 111,146,600 | 110,636,800 | 509,800 | - | - | - | 1,861,105,831 | 1,855,602,813 | 5,503,018 | |
| Apr-18 | 126,305,887 | 115,564,800 | 113,609,200 | 1,955,600 | - | - | - | 1,804,942,513 | 1,791,779,213 | 13,163,300 | |
| May-18 | 90,841,794 | 483,984,326 | 475,027,124 | 8,957,202 | 430,693,747 | 315,658,191 | 86,022,820 | 29,012,735 | 1,175,195,945 | 1,162,103,991 | 13,091,954 |

3. Clearing Value by Transaction Type

| Month -Year | Buy/Sell | Standard Repo Transactions | | | Subsequent Collateral Allocation Repo Transactions | | | | Cash-secured Bond Lending Transactions | | |
|----------------|-------------|----------------------------|----------------------------------------------------|----------------------------------------------|----------------------------------------------------|-------------|------------|------------|----------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|
| | | Monthly Total | Standard Repo Transactions (Start and End Legs) | Standard Repo Transactions (End Leg Only) | Monthly Total | 1st | 2nd | 3rd | Monthly Total | Cash-secured Bond Lending Transactions (Start and End Legs) | Cash-secured Bond Lending Transactions (End Leg Only) |
| 2018 | 542,679,326 | 963,676,576 | 951,586,370 | 12,090,206 | 430,693,747 | 315,658,191 | 86,022,820 | 29,012,735 | 9,152,067,337 | 9,096,605,962 | 55,461,374 |
| Jan-18 | 99,483,091 | 125,259,835 | 125,124,283 | 135,551 | - | - | - | - | 2,036,718,630 | 2,030,158,048 | 6,560,582 |
| Feb-18 | 114,425,790 | 110,273,170 | 109,832,827 | 440,342 | - | - | - | - | 2,027,474,445 | 2,010,799,503 | 16,674,942 |
| Mar-18 | 106,627,109 | 113,087,816 | 112,576,449 | 511,366 | - | - | - | - | 1,952,146,933 | 1,946,616,861 | 5,530,071 |
| Apr-18 | 129,454,565 | 117,687,961 | 115,727,722 | 1,960,239 | - | - | - | - | 1,892,623,652 | 1,879,250,687 | 13,372,965 |
| May-18 | 92,688,768 | 497,367,792 | 488,325,087 | 9,042,705 | 430,693,747 | 315,658,191 | 86,022,820 | 29,012,735 | 1,243,103,675 | 1,229,780,862 | 13,322,813 |

II. Settlements

I. Delivery Versus Payment (DVP) Settlement

| Month -Year | Number of Business Days | DVP Settlement Volume (Face Amount, JPY in Millions) | | DVP Settlement Value (JPY in Millions) | | Number of Settlements | |
|----------------|-------------------------|---------------------------------------------------------|---------------|-------------------------------------------|---------------|-----------------------|---------------|
| | | | Daily Average | | Daily Average | | Daily Average |
| 2016 | 245 | 7,189,736,573 | 29,345,864 | 7,553,437,483 | 30,830,357 | 1,774,075 | 7,241 |
| 2017 | 247 | 7,459,277,913 | 30,199,506 | 7,760,365,692 | 31,418,485 | 1,855,115 | 7,511 |
| 2018 | 100 | 2,718,921,618 | 27,189,216 | 2,819,814,798 | 28,198,148 | 719,824 | 7,198 |
| May-17 | 20 | 667,486,174 | 33,374,309 | 695,527,516 | 34,776,376 | 161,528 | 8,076 |
| Jun-17 | 22 | 732,194,530 | 33,281,570 | 759,317,769 | 34,514,444 | 178,510 | 8,114 |
| Jul-17 | 20 | 639,583,809 | 31,979,190 | 663,296,352 | 33,164,818 | 157,750 | 7,888 |
| Aug-17 | 22 | 623,633,246 | 28,346,966 | 646,205,812 | 29,372,991 | 154,776 | 7,035 |
| Sep-17 | 20 | 577,353,257 | 28,867,663 | 599,197,684 | 29,959,884 | 145,998 | 7,300 |
| Oct-17 | 21 | 558,560,047 | 26,598,098 | 581,640,348 | 27,697,159 | 143,955 | 6,855 |
| Nov-17 | 20 | 496,846,922 | 24,842,346 | 516,658,717 | 25,832,936 | 130,286 | 6,514 |
| Dec-17 | 21 | 640,379,451 | 30,494,260 | 661,699,124 | 31,509,482 | 160,417 | 7,639 |
| Jan-18 | 19 | 588,048,185 | 30,949,904 | 605,182,761 | 31,851,724 | 143,765 | 7,567 |
| Feb-18 | 19 | 542,939,119 | 28,575,743 | 561,948,634 | 29,576,244 | 138,438 | 7,286 |
| Mar-18 | 21 | 485,505,000 | 23,119,286 | 503,940,481 | 23,997,166 | 127,971 | 6,094 |
| Apr-18 | 20 | 504,741,352 | 25,237,068 | 525,952,271 | 26,297,614 | 129,842 | 6,492 |
| May-18 | 21 | 597,687,960 | 28,461,331 | 622,790,648 | 29,656,698 | 179,808 | 8,562 |

2. Delivery Versus Payment (DVP) Settlement by Transaction Type

| Month -Year | DVP Settlement Volume(Face Amount, JPY in Millions) | | | | | DVP Settlement Value(JPY in Millions) | | | | | Number of Settlements | | | | |
|----------------|----------------------------------------------------------|---------------------------------------|------------|------------|-----------|----------------------------------------------------------|---------------------------------------|------------|------------|-----------|----------------------------------------------------------|---------------------------------------|--------|--------|-------|
| | Buy/Sell, Standard Repo, Cash-secured Bond Lending | Subsequent Collateral Allocation Repo | | | | Buy/Sell, Standard Repo, Cash-secured Bond Lending | Subsequent Collateral Allocation Repo | | | | Buy/Sell, Standard Repo, Cash-secured Bond Lending | Subsequent Collateral Allocation Repo | | | |
| | | Monthly Total | 1st | 2nd | 3rd | | Monthly Total | 1st | 2nd | 3rd | | Monthly Total | 1st | 2nd | 3rd |
| 2016 | 7189736573 | - | - | - | - | 7,553,437,483 | - | - | - | - | 1,774,075 | - | - | - | - |
| 2017 | 7,459,277,913 | - | - | - | - | 7,760,365,692 | - | - | - | - | 1,855,115 | - | - | - | - |
| 2018 | 2,565,614,921 | 153,306,696 | 81,370,636 | 62,155,517 | 9,780,543 | 2,661,396,120 | 158,418,677 | 84,145,865 | 64,422,366 | 9,850,445 | 657,171 | 62,653 | 37,939 | 22,067 | 2,647 |
| May-17 | 667,486,174 | - | - | - | - | 695,527,516 | - | - | - | - | 161,528 | - | - | - | - |
| Jun-17 | 732,194,530 | - | - | - | - | 759,317,769 | - | - | - | - | 178,510 | - | - | - | - |
| Jul-17 | 639,583,809 | - | - | - | - | 663,296,352 | - | - | - | - | 157,750 | - | - | - | - |
| Aug-17 | 623,633,246 | - | - | - | - | 646,205,812 | - | - | - | - | 154,776 | - | - | - | - |
| Sep-17 | 577,353,257 | - | - | - | - | 599,197,684 | - | - | - | - | 145,998 | - | - | - | - |
| Oct-17 | 558,560,047 | - | - | - | - | 581,640,348 | - | - | - | - | 143,955 | - | - | - | - |
| Nov-17 | 496,846,922 | - | - | - | - | 516,658,717 | - | - | - | - | 130,286 | - | - | - | - |
| Dec-17 | 640,379,451 | - | - | - | - | 661,699,124 | - | - | - | - | 160,417 | - | - | - | - |
| Jan-18 | 588,048,185 | - | - | - | - | 605,182,761 | - | - | - | - | 143,765 | - | - | - | - |
| Feb-18 | 542,939,119 | - | - | - | - | 561,948,634 | - | - | - | - | 138,438 | - | - | - | - |
| Mar-18 | 485,505,000 | - | - | - | - | 503,940,481 | - | - | - | - | 127,971 | - | - | - | - |
| Apr-18 | 504,741,352 | - | - | - | - | 525,952,271 | - | - | - | - | 129,842 | - | - | - | - |
| May-18 | 444,381,263 | 153,306,696 | 81,370,636 | 62,155,517 | 9,780,543 | 464,371,971 | 158,418,677 | 84,145,865 | 64,422,366 | 9,850,445 | 117,155 | 62,653 | 37,939 | 22,067 | 2,647 |

Analysis : Comparison with Total Volume (Face Amount) and Number of JGB DVP Settlements at Bank of Japan

| Month -Year | Number of Business Days | Volume of DVP Settlement (Daily Average, Face Amount, JPY in Millions) | | | Number of DVP Settlements (Daily Average) | | |
|----------------|-------------------------|---------------------------------------------------------------------------|--------------------------|------------|----------------------------------------------|--------------------------|------------|
| | | Volume of DVP Settlement via JSCC | Total BOJ Settlements | JSCC Share | Number of Settlements via JSCC | Total BOJ Settlements | JSCC Share |
| 2016 | 245 | 29,345,864 | 53,779,031 | 54.6% | 7,241 | 13,580 | 53.3% |
| 2017 | 247 | 30,199,506 | 52,810,092 | 57.2% | 7,511 | 13,394 | 56.1% |
| 2018 | 79 | 26,851,059 | 50,564,495 | 53.1% | 6,836 | 13,060 | 52.3% |
| May-17 | 20 | 33,374,309 | 57,565,305 | 58.0% | 8,076 | 13,896 | 58.1% |
| Jun-17 | 22 | 33,281,570 | 56,947,291 | 58.4% | 8,114 | 14,009 | 57.9% |
| Jul-17 | 20 | 31,979,190 | 53,975,640 | 59.2% | 7,888 | 13,726 | 57.5% |
| Aug-17 | 22 | 28,346,966 | 48,547,545 | 58.4% | 7,035 | 12,459 | 56.5% |
| Sep-17 | 20 | 28,867,663 | 50,209,270 | 57.5% | 7,300 | 13,060 | 55.9% |
| Oct-17 | 21 | 26,598,098 | 46,843,614 | 56.8% | 6,855 | 12,439 | 55.1% |
| Nov-17 | 20 | 24,842,346 | 45,230,160 | 54.9% | 6,514 | 12,249 | 53.2% |
| Dec-17 | 21 | 30,494,260 | 52,844,252 | 57.7% | 7,639 | 13,661 | 55.9% |
| Jan-18 | 19 | 30,949,904 | 54,394,979 | 56.9% | 7,567 | 13,749 | 55.0% |
| Feb-18 | 19 | 28,575,743 | 51,594,068 | 55.4% | 7,286 | 13,467 | 54.1% |
| Mar-18 | 21 | 23,119,286 | 47,222,000 | 49.0% | 6,094 | 12,396 | 49.2% |
| Apr-18 | 20 | 25,237,068 | 49,457,060 | 51.0% | 6,492 | 12,714 | 51.1% |
| May-18 | 21 | 28,461,331 | ... | ... | 8,562 | ... | ... |

3. Funds Only Settlement (FOS)

| Month -Year | Number of Business Days | FOS Volume (JPY in Millions) | |
|----------------|-------------------------|---------------------------------|---------------|
| | | | Daily Average |
| 2016 | 245 | 11,657,281 | 47,581 |
| 2017 | 247 | 5,812,710 | 23,533 |
| 2018 | 100 | 1,861,059 | 18,611 |
| May-17 | 20 | 479,282 | 23,964 |
| Jun-17 | 22 | 463,576 | 21,072 |
| Jul-17 | 20 | 476,068 | 23,803 |
| Aug-17 | 22 | 344,444 | 15,657 |
| Sep-17 | 20 | 633,187 | 31,659 |
| Oct-17 | 21 | 328,128 | 15,625 |
| Nov-17 | 20 | 461,549 | 23,077 |
| Dec-17 | 21 | 338,085 | 16,099 |
| Jan-18 | 19 | 347,491 | 18,289 |
| Feb-18 | 19 | 349,020 | 18,369 |
| Mar-18 | 21 | 400,779 | 19,085 |
| Apr-18 | 20 | 385,200 | 19,260 |
| May-18 | 21 | 378,567 | 18,027 |

4. Number of DVP Settlement per Hour

Buy/Sell, Standard Repo and Cash-secured Bond Lending

| | 9:00~9:30 | 9:30~10:00 | 10:00~10:30 | 10:30~11:00 | 11:00~11:30 | 11:30~12:00 | 12:00~12:30 | 12:30~13:00 | 13:00~13:30 | 13:30~ | Average Time Taken for Each Settlement (in Minutes) |
|--------------------|-----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------|-----------------------------------------------------|
| Receiving JGBs | 50,490 | 3,705 | 2,695 | 837 | 614 | 236 | 134 | 219 | 20 | 2 | 1.4 |
| Delivering JGBs | 44,083 | 5,296 | 4,729 | 1,723 | 1,104 | 475 | 316 | 423 | 41 | 13 | 2.3 |
| Total | 94,573 | 9,001 | 7,424 | 2,560 | 1,718 | 711 | 450 | 642 | 61 | 15 | |
| Percentage Settled | 80.7% | 88.4% | 94.7% | 96.9% | 98.3% | 99.0% | 99.3% | 99.9% | 99.9% | 100.0% | |

Subsequent Collateral Allocation Repo

| | 9:00~9:30 | 9:30~10:00 | 10:00~10:30 | 10:30~ | Average Time Taken for Each Settlement (in Minutes) |
|--------------------|-----------|------------|-------------|--------|-----------------------------------------------------|
| Receiving JGBs | 18,709 | 429 | 452 | 0 | 1.8 |
| Delivering JGBs | 16,975 | 736 | 580 | 58 | 2.5 |
| Total | 35,684 | 1,165 | 1,032 | 58 | |
| Percentage Settled | 94.0% | 97.1% | 99.8% | 100.0% | |

| | 11:00~11:30 | 11:30~12:00 | 12:00~12:30 | 12:30~13:00 | 13:00~13:30 | 13:30~ | Average Time Taken for Each Settlement (in Minutes) |
|--------------------|-------------|-------------|-------------|-------------|-------------|--------|-----------------------------------------------------|
| Receiving JGBs | 10,730 | 221 | 11 | 7 | 0 | 0 | 0.1 |
| Delivering JGBs | 10,185 | 569 | 28 | 316 | 0 | 0 | 9.0 |
| Total | 20,915 | 790 | 39 | 323 | 0 | 0 | |
| Percentage Settled | 94.8% | 98.4% | 98.5% | 100.0% | 100.0% | 100.0% | |

| | 14:00~14:30 | 14:30~15:00 | 15:00~15:30 | 15:30~ | Average Time Taken for Each Settlement (in Minutes) |
|--------------------|-------------|-------------|-------------|--------|-----------------------------------------------------|
| Receiving JGBs | 1,242 | 45 | 0 | 0 | 0.1 |
| Delivering JGBs | 1,271 | 89 | 0 | 0 | 4.8 |
| Total | 2,513 | 134 | 0 | 0 | |
| Percentage Settled | 94.9% | 100.0% | 100.0% | 100.0% | |

5. Fails

| Month -Year | Number of Business Days | Volume of Fails (Face Amount, JPY in Millions) | | Number of Transactions | |
|-------------|-------------------------|------------------------------------------------|---------------|------------------------|---------------|
| | | | Daily Average | | Daily Average |
| 2016 | 245 | 1,280,513 | 5,227 | 338 | 1.4 |
| 2017 | 247 | 661,599 | 2,679 | 211 | 0.9 |
| 2018 | 100 | 332,137 | 3,321 | 113 | 1.1 |
| May-17 | 20 | 8,058 | 403 | 3 | 0.2 |
| Jun-17 | 22 | 32,299 | 1,468 | 13 | 0.6 |
| Jul-17 | 20 | 28,900 | 1,445 | 13 | 0.7 |
| Aug-17 | 22 | 23,210 | 1,055 | 7 | 0.3 |
| Sep-17 | 20 | 69,748 | 3,487 | 27 | 1.4 |
| Oct-17 | 21 | 99,600 | 4,743 | 25 | 1.2 |
| Nov-17 | 20 | 90,523 | 4,526 | 26 | 1.3 |
| Dec-17 | 21 | 28,151 | 1,341 | 15 | 0.7 |
| Jan-18 | 19 | 86,233 | 4,539 | 24 | 1.3 |
| Feb-18 | 19 | 60,200 | 3,168 | 15 | 0.8 |
| Mar-18 | 21 | 74,557 | 3,550 | 25 | 1.2 |
| Apr-18 | 20 | 66,008 | 3,300 | 24 | 1.2 |
| May-18 | 21 | 45,139 | 2,149 | 25 | 1.2 |

III. Netting Effect

Buy/Sell, Standard Repo and Cash-secured Bond Lending

| Month -Year | Number of Business Days | DVP Settlement Volume (Face Amount, JPY in Millions) | | Volume Cleared (Face Amount, JPY in Millions) | | Netting Effect Ratio (Settlement Volume vs Volume Cleared) | DVP Settlement Value (JPY in Millions) | | Value Cleared (JPY in Millions) | | Netting Effect Ratio (Settlement Value vs Value Cleared) |
|----------------|-------------------------|---------------------------------------------------------|---------------|--------------------------------------------------|---------------|------------------------------------------------------------------|-------------------------------------------|---------------|------------------------------------|---------------|----------------------------------------------------------------|
| | | | Daily Average | | Daily Average | | | Daily Average | | Daily Average | |
| 2016 | 245 | 7,189,832,173 | 29,346,254 | 28,495,600,913 | 116,308,575 | 25.2% | 7,553,535,985 | 30,830,759 | 30,175,839,562 | 123,166,692 | 25.0% |
| 2017 | 247 | 7,459,234,713 | 30,199,331 | 30,952,163,248 | 125,312,402 | 24.1% | 7,760,320,171 | 31,418,300 | 32,225,027,532 | 130,465,699 | 24.1% |
| 2018 | 100 | 2,565,614,921 | 25,656,149 | 10,344,503,418 | 103,445,034 | 24.8% | 2,661,396,120 | 26,613,961 | 10,789,439,833 | 107,894,398 | 24.7% |
| May-17 | 20 | 667,486,174 | 33,374,309 | 2,689,974,284 | 134,498,714 | 24.8% | 695,527,516 | 34,776,376 | 2,803,015,541 | 140,150,777 | 24.8% |
| Jun-17 | 22 | 732,194,530 | 33,281,570 | 2,828,164,338 | 128,552,924 | 25.9% | 759,317,769 | 34,514,444 | 2,947,720,363 | 133,987,289 | 25.8% |
| Jul-17 | 20 | 639,583,809 | 31,979,190 | 2,394,798,204 | 119,739,910 | 26.7% | 663,296,352 | 33,164,818 | 2,493,088,064 | 124,654,403 | 26.6% |
| Aug-17 | 22 | 623,670,446 | 28,348,657 | 2,613,243,301 | 118,783,786 | 23.9% | 646,249,532 | 29,374,979 | 2,720,716,764 | 123,668,944 | 23.8% |
| Sep-17 | 20 | 577,316,057 | 28,865,803 | 2,429,479,901 | 121,473,995 | 23.8% | 599,153,964 | 29,957,698 | 2,531,881,366 | 126,594,068 | 23.7% |
| Oct-17 | 21 | 558,569,247 | 26,598,536 | 2,514,040,116 | 119,716,196 | 22.2% | 581,649,953 | 27,697,617 | 2,621,637,711 | 124,839,891 | 22.2% |
| Nov-17 | 20 | 496,945,322 | 24,847,266 | 2,226,916,094 | 111,345,805 | 22.3% | 516,757,711 | 25,837,886 | 2,323,404,023 | 116,170,201 | 22.2% |
| Dec-17 | 21 | 640,271,851 | 30,489,136 | 2,483,647,145 | 118,268,912 | 25.8% | 661,590,525 | 31,504,311 | 2,576,294,847 | 122,680,707 | 25.7% |
| Jan-18 | 19 | 588,048,185 | 30,949,904 | 2,184,042,544 | 114,949,608 | 26.9% | 605,182,761 | 31,851,724 | 2,263,028,729 | 119,106,775 | 26.7% |
| Feb-18 | 19 | 542,939,119 | 28,575,743 | 2,171,113,689 | 114,269,142 | 25.0% | 561,948,634 | 29,576,244 | 2,260,165,727 | 118,956,091 | 24.9% |
| Mar-18 | 21 | 485,505,000 | 23,119,286 | 2,071,472,783 | 98,641,561 | 23.4% | 503,940,481 | 23,997,166 | 2,167,720,246 | 103,224,774 | 23.2% |
| Apr-18 | 20 | 504,741,352 | 25,237,068 | 2,121,940,950 | 106,097,048 | 23.8% | 525,952,271 | 26,297,614 | 2,217,947,676 | 110,897,384 | 23.7% |
| May-18 | 21 | 444,381,263 | 21,161,013 | 1,795,933,450 | 85,520,641 | 24.7% | 464,371,971 | 22,112,951 | 1,880,577,453 | 89,551,307 | 24.7% |

Subsequent Collateral Allocation Repo

| Month -Year | Number of Business Days | DVP Settlement Value (JPY in Millions) | | Value Cleared (for Netting Effect calculation) (JPY in Millions) | | Netting Effect Ratio (Settlement Value vs Value Cleared) |
|----------------|-------------------------|-------------------------------------------|---------------|------------------------------------------------------------------------|---------------|----------------------------------------------------------------|
| | | | Daily Average | | Daily Average | |
| 2016 | 245 | - | - | - | - | - |
| 2017 | 247 | - | - | - | - | - |
| 2018 | 100 | 158,418,677 | 1,584,187 | 749,024,695 | 35,667,843 | 21.1% |
| May-17 | 20 | - | - | - | - | - |
| Jun-17 | 22 | - | - | - | - | - |
| Jul-17 | 20 | - | - | - | - | - |
| Aug-17 | 22 | - | - | - | - | - |
| Sep-17 | 20 | - | - | - | - | - |
| Oct-17 | 21 | - | - | - | - | - |
| Nov-17 | 20 | - | - | - | - | - |
| Dec-17 | 21 | - | - | - | - | - |
| Jan-18 | 19 | - | - | - | - | - |
| Feb-18 | 19 | - | - | - | - | - |
| Mar-18 | 21 | - | - | - | - | - |
| Apr-18 | 20 | - | - | - | - | - |
| May-18 | 21 | 158,418,677 | 7,543,747 | 749,024,695 | 35,667,843 | 21.1% |