

# **JSE**

## **INTEREST RATE DERIVATIVES**

### **MONTHLY VIEW**

January 2023

Compiled by the IRC team

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## HIGHLIGHTS

The 2023 year started with contract volumes higher than the equivalent period last year

- The total IRD contracts traded in January was 2.6m, an increase of 14.0% over same period last year. The IRD Open interest at 2.0m contracts, was up 25.9% compared to the same period previous year
- Bond futures at 2.5m contracts was up 14% with Open interest at 1.8m contracts, up 26.3%
- The Bond Options volumes were up 12.4% while Open Interest was up 21.5% compared to previous year
- The Govi and Bond Index Futures value traded was at R22.7bln, down 4.3% over previous year, while Open Interest was 1.8% higher than the same point previous year

| Listed IRD CONTRACTS TRADED |           |          |          |           |           |          |           |
|-----------------------------|-----------|----------|----------|-----------|-----------|----------|-----------|
| YTD - Contracts             | Bond Fut  | Bond Opt | Govi Fut | Index Fut | JIBAR Fut | SWAP Fut | Total     |
| YTD 2022                    | 2,198,294 | 46,400   | 2,132    | 1,356     | -         | -        | 2,248,182 |
| YTD 2023                    | 2,506,348 | 52,135   | 1,825    | 1,601     | -         | -        | 2,561,909 |
| Growth                      | 14.0%     | 12.4%    | -14.4%   | 18.1%     |           |          | 14.0%     |

| IRD OPEN INTEREST CONTRACTS |           |          |          |           |           |          |           |
|-----------------------------|-----------|----------|----------|-----------|-----------|----------|-----------|
| Period                      | Bond Fut  | Bond Opt | Govi Fut | Index Fut | JIBAR Fut | SWAP Fut | Total     |
| 2022                        | 1,454,861 | 145,224  | 1,023    | 805       | 215       | -        | 1,602,128 |
| 2023                        | 1,838,132 | 176,379  | 937      | 923       | 415       | -        | 2,016,786 |
| Growth                      | 26.3%     | 21.5%    | -8.4%    | 14.7%     | 93.0%     |          | 25.9%     |

### The 2022 full-year stats revisited (previous year)

(Details provided in the December 2022 newsletter)

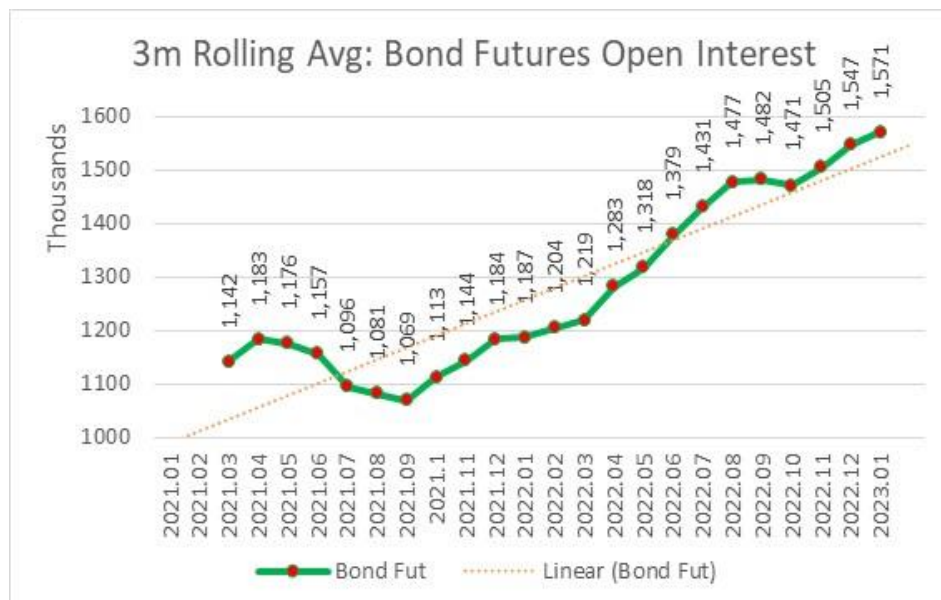
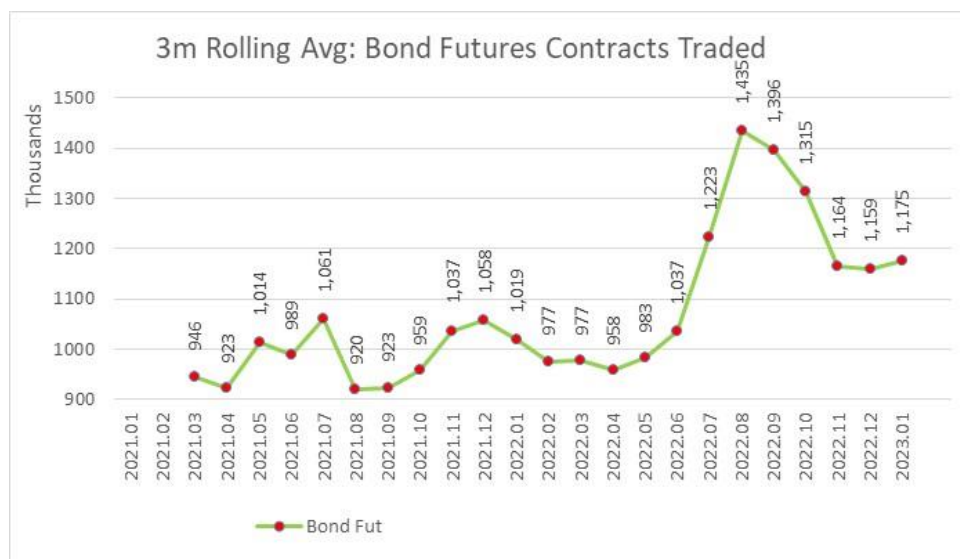
| Listed IRD CONTRACTS TRADED |            |          |          |           |           |          |            |
|-----------------------------|------------|----------|----------|-----------|-----------|----------|------------|
| YTD - Contracts             | Bond Fut   | Bond Opt | Govi Fut | Index Fut | JIBAR Fut | SWAP Fut | Total      |
| 2021                        | 11,749,191 | 604,424  | 8,004    | 9,271     | 261,815   | 51       | 12,632,756 |
| 2022                        | 13,705,750 | 655,620  | 9,017    | 7,492     | 1,456     | -        | 14,379,335 |
| Growth                      | 16.7%      | 8.5%     | 12.7%    | -19.2%    | -99.4%    | 0.0%     | 13.8%      |

| IRD OPEN INTEREST CONTRACTS |           |          |          |           |           |          |           |
|-----------------------------|-----------|----------|----------|-----------|-----------|----------|-----------|
| Period                      | Bond Fut  | Bond Opt | Govi Fut | Index Fut | JIBAR Fut | SWAP Fut | Total     |
| 2021                        | 1,069,111 | 126,584  | 987      | 721       | 215       | -        | 1,197,618 |
| 2022                        | 1,441,149 | 131,744  | 848      | 798       | 415       | -        | 1,574,954 |
| Growth                      | 34.8%     | 4.1%     | -14.1%   | 10.7%     | 93.0%     | -        | 31.5%     |

## CURRENT TRENDS IN BOND FUTURES ACTIVITY

Bond Futures tend to be traded as term instruments which results in large volumes trading into and around expiry dates and lower volumes in other periods. This manifests as a “see-saw” activity in the monthly volumes. To observe trends, we observe the Rolling 3m Average activity.

### Bond Futures Trends: Contracts Traded and Open Interest



Bond futures trends (based on 3m rolling avg contracts traded) currently flattening out following a strong 2022 mid-year increase. Open Interest remains on an upward trend since Sep-21.

## MONTHLY SNAPSHOT

### CONTRACTS TRADED

| Monthly Snapshot Contracts Traded 2021/22 |           |        |         |          |           |           |          |           |
|-------------------------------------------|-----------|--------|---------|----------|-----------|-----------|----------|-----------|
|                                           | Bond Fut  | Calls  | Puts    | Govi Fut | Index Fut | Jibar Fut | Swap Fut | Total     |
| 2021.01                                   | 2,064,147 | 21,004 | 17,677  | 1,941    | 2,888     | 40,001    | -        | 2,147,658 |
| 2021.02                                   | 647,370   | 24,856 | 21,684  | 101      | 582       | 40,470    | -        | 735,063   |
| 2021.03                                   | 127,022   | 21,895 | 15,812  | 29       | 60        | 400       | -        | 165,218   |
| 2021.04                                   | 1,995,098 | 13,289 | 27,516  | 1,517    | 1,720     | -         | -        | 2,039,140 |
| 2021.05                                   | 920,233   | 13,899 | 108,021 | 87       | 753       | -         | -        | 1,042,993 |
| 2021.06                                   | 50,847    | 12,776 | 24,800  | 17       | 161       | -         | -        | 88,601    |
| 2021.07                                   | 2,210,468 | 7,750  | 9,100   | 1,996    | 1,298     | -         | -        | 2,230,612 |
| 2021.08                                   | 497,888   | 14,332 | 25,619  | 30       | 138       | 69        | -        | 538,076   |
| 2021.09                                   | 61,417    | 18,400 | 22,650  | 11       | 31        | 130,000   | -        | 232,509   |
| 2021.10                                   | 2,316,337 | 34,747 | 57,736  | 2,056    | 1,386     | 800       | -        | 2,413,062 |
| 2021.11                                   | 734,640   | 25,520 | 63,241  | 213      | 254       | 50,075    | -        | 873,943   |
| 2021.12                                   | 123,724   | 2,100  | -       | 6        | -         | -         | 51       | 125,881   |
| 2022.01                                   | 2,198,294 | 8,260  | 38,140  | 2,132    | 1,356     | -         | -        | 2,248,182 |
| 2022.02                                   | 607,540   | 39,077 | 40,890  | 48       | 208       | -         | -        | 687,763   |
| 2022.03                                   | 126,385   | 29,435 | 10,026  | 3        | 5         | 222       | -        | 166,076   |
| 2022.04                                   | 2,139,536 | 10,546 | 29,023  | 2,264    | 1,262     | -         | -        | 2,182,631 |
| 2022.05                                   | 683,749   | 13,140 | 8,420   | 10       | 332       | 100       | -        | 705,751   |
| 2022.06                                   | 286,875   | 26,900 | 32,583  | 6        | 13        | -         | -        | 346,377   |
| 2022.07                                   | 2,699,371 | 36,982 | 18,065  | 2,318    | 1,926     | 100       | -        | 2,758,762 |
| 2022.08                                   | 1,319,225 | 59,807 | 61,514  | 19       | 43        | -         | -        | 1,440,608 |
| 2022.09                                   | 168,100   | 21,851 | 14,895  | 54       | 281       | -         | -        | 205,181   |
| 2022.10                                   | 2,457,306 | 5,500  | 19,022  | 2,110    | 1,639     | -         | -        | 2,485,577 |
| 2022.11                                   | 867,642   | 55,433 | 30,891  | 38       | 354       | 415       | -        | 954,773   |
| 2022.12                                   | 151,727   | 45,220 | -       | 15       | 73        | 619       | -        | 197,654   |
| 2023.01                                   | 2,506,348 | 32,900 | 19,235  | 1,825    | 1,601     | -         | -        | 2,561,909 |



## OPEN INTEREST

| Monthly Snapshot Open Interest 2021/22 |           |        |         |          |           |           |          |           |
|----------------------------------------|-----------|--------|---------|----------|-----------|-----------|----------|-----------|
|                                        | Bond Fut  | Calls  | Puts    | Govi Fut | Index Fut | Jibar Fut | Swap Fut | Total     |
| 2021.01                                | 1,368,771 | 54,416 | 117,177 | 977      | 1,365     | 50,001    | 51       | 1,592,758 |
| 2021.02                                | 1,012,584 | 45,247 | 96,085  | 975      | 1,212     | 30,471    | 51       | 1,186,625 |
| 2021.03                                | 1,043,823 | 52,181 | 103,536 | 1,001    | 1,196     | 30,471    | 51       | 1,232,259 |
| 2021.04                                | 1,493,709 | 61,680 | 114,125 | 1,003    | 1,270     | 30,471    | 51       | 1,702,309 |
| 2021.05                                | 989,485   | 31,963 | 76,593  | 987      | 726       | 30,471    | 51       | 1,130,276 |
| 2021.06                                | 986,432   | 38,363 | 82,093  | 981      | 581       | 30,471    | 51       | 1,138,972 |
| 2021.07                                | 1,311,466 | 41,313 | 91,193  | 997      | 631       | 30,471    | 51       | 1,476,122 |
| 2021.08                                | 946,280   | 36,714 | 85,050  | 986      | 594       | 30,540    | 51       | 1,100,215 |
| 2021.09                                | 948,396   | 48,514 | 98,050  | 993      | 625       | 50,540    | 51       | 1,147,169 |
| 2021.10                                | 1,445,779 | 64,705 | 117,651 | 1,098    | 829       | 50,140    | 51       | 1,680,253 |
| 2021.11                                | 1,036,547 | 56,870 | 67,614  | 983      | 721       | 215       | 51       | 1,163,001 |
| 2021.12                                | 1,069,111 | 58,970 | 67,614  | 987      | 721       | 215       | -        | 1,197,618 |
| 2022.01                                | 1,454,861 | 66,850 | 78,374  | 1,023    | 805       | 215       | -        | 1,602,128 |
| 2022.02                                | 1,088,101 | 66,830 | 74,984  | 989      | 718       | 215       | -        | 1,231,837 |
| 2022.03                                | 1,114,292 | 76,765 | 78,019  | 990      | 720       | 215       | -        | 1,271,001 |
| 2022.04                                | 1,645,940 | 76,742 | 85,496  | 1,115    | 669       | 215       | -        | 1,810,177 |
| 2022.05                                | 1,195,046 | 50,178 | 53,524  | 1,111    | 909       | 315       | -        | 1,301,083 |
| 2022.06                                | 1,297,146 | 66,578 | 62,424  | 1,111    | 913       | 315       | -        | 1,428,487 |
| 2022.07                                | 1,800,421 | 94,508 | 72,185  | 875      | 856       | 415       | -        | 1,969,260 |
| 2022.08                                | 1,332,947 | 84,705 | 77,297  | 870      | 839       | 415       | -        | 1,497,073 |
| 2022.09                                | 1,313,187 | 93,252 | 84,742  | 874      | 825       | 415       | -        | 1,493,295 |
| 2022.10                                | 1,767,793 | 89,752 | 83,742  | 866      | 931       | 415       | -        | 1,943,499 |
| 2022.11                                | 1,432,909 | 70,250 | 65,114  | 835      | 786       | 415       | -        | 1,570,309 |
| 2022.12                                | 1,441,149 | 66,630 | 65,114  | 848      | 798       | 415       | -        | 1,574,954 |
| 2023.01                                | 1,838,132 | 93,530 | 82,849  | 937      | 923       | 415       | -        | 2,016,786 |



## YEAR-TO-DATE STATISTICS

### IRD CONTRACTS TRADED

| Listed IRD CONTRACTS TRADED |              |              |               |              |           |          |              |
|-----------------------------|--------------|--------------|---------------|--------------|-----------|----------|--------------|
| YTD - Contracts             | Bond Fut     | Bond Opt     | Govi Fut      | Index Fut    | JIBAR Fut | SWAP Fut | Total        |
| YTD 2022                    | 2,198,294    | 46,400       | 2,132         | 1,356        | -         | -        | 2,248,182    |
| YTD 2023                    | 2,506,348    | 52,135       | 1,825         | 1,601        | -         | -        | 2,561,909    |
| <b>Growth</b>               | <b>14.0%</b> | <b>12.4%</b> | <b>-14.4%</b> | <b>18.1%</b> |           |          | <b>14.0%</b> |

### IRD VALUE TRADED

| IRD VALUE TRADED YTD (Rm) |             |               |              |             |           |          |             |
|---------------------------|-------------|---------------|--------------|-------------|-----------|----------|-------------|
| Period                    | Bond Fut    | Bond Opt      | Govi Fut     | Index Fut   | JIBAR Fut | SWAP Fut | Total       |
| 2022                      | 204,686     | 102           | 17,537       | 6,234       | -         | -        | 228,559     |
| 2023                      | 221,224     | 77            | 16,021       | 6,727       | -         | -        | 244,050     |
| <b>Growth</b>             | <b>8.1%</b> | <b>-24.1%</b> | <b>-8.6%</b> | <b>7.9%</b> |           |          | <b>6.8%</b> |

### IRD TRADED NOMINAL EXPOSURE\*

| LISTED IRD UNDERLYING NOMINAL EXPOSURE RbIn |              |              |                |                 |             |             |               |
|---------------------------------------------|--------------|--------------|----------------|-----------------|-------------|-------------|---------------|
| YTD - Nominal                               | Bond Fut     | Bond Opt     | Govi Fut ValTr | Index Fut ValTr | JIBAR Fut   | SWAP Fut    | Total         |
| Contract size                               | 100k         | 100k         | 1              | 1               | 100k        | 100k        |               |
| YTD 2022                                    | 219.8        | 4.6          | 17.5           | 6.2             | -           | -           | 248.2         |
| YTD 2023                                    | 250.6        | 5.2          | 16.0           | 6.7             | -           | -           | 278.6         |
| <b>Growth</b>                               | <b>14.0%</b> | <b>12.4%</b> | <b>-8.6%</b>   | <b>7.9%</b>     |             |             | <b>12.2%</b>  |
| <b>% Split</b>                              | <b>90.0%</b> | <b>1.9%</b>  | <b>5.8%</b>    | <b>2.4%</b>     | <b>0.0%</b> | <b>0.0%</b> | <b>100.0%</b> |

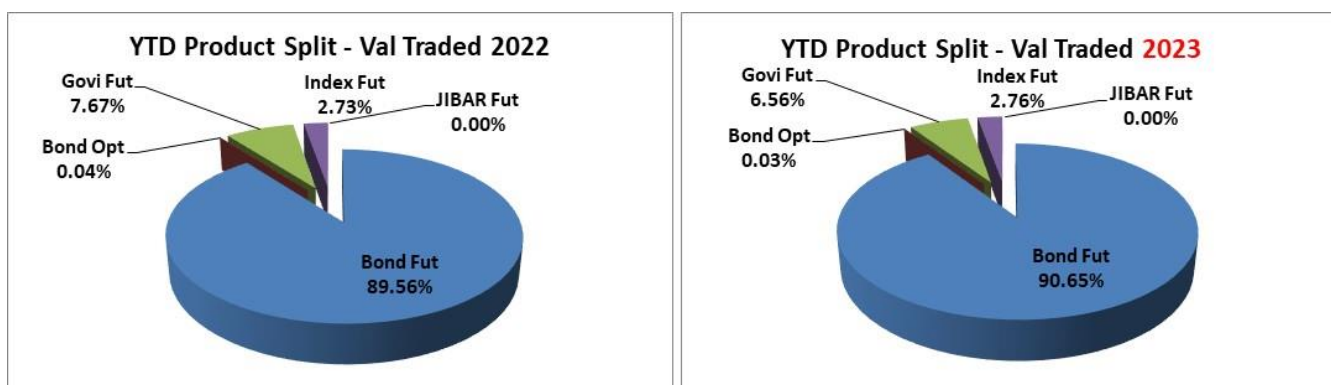
\*Effective nominal exposure (and value traded for indices) is used as comparable metric for activity across markets. Underlying nominals traded are represented by the contract size multiplied by the contracts traded, except for the Govi and Index futures which are represented by the actual value traded.

### IRD OPEN INTEREST

| IRD OPEN INTEREST CONTRACTS |              |              |              |              |              |          |              |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|----------|--------------|
| Period                      | Bond Fut     | Bond Opt     | Govi Fut     | Index Fut    | JIBAR Fut    | SWAP Fut | Total        |
| 2022                        | 1,454,861    | 145,224      | 1,023        | 805          | 215          | -        | 1,602,128    |
| 2023                        | 1,838,132    | 176,379      | 937          | 923          | 415          | -        | 2,016,786    |
| <b>Growth</b>               | <b>26.3%</b> | <b>21.5%</b> | <b>-8.4%</b> | <b>14.7%</b> | <b>93.0%</b> |          | <b>25.9%</b> |

## VALUE TRADED PRODUCT SPLIT

The **GOVI** and **Index Futures** represent **9.3%** of all **IRD** value traded **YTD** but only a small percentage (<1%) of all contracts traded due to the high nominal underlying per contract.



## CLOSE OUT VOLUME OVER TWO-MONTH PERIOD

Roll activity typically starts in the month prior to close-out. Thus, close-out activity is represented here by consolidating **volumes for the close-out month and the prior month as a 2-month period**.

| ALL IRD CONTRACTS (in 2-mth periods) (millions of contracts) |       |       |       |       |       |       |             |
|--------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------------|
| Close-Out (2-mth)                                            | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | % Chg 22/21 |
| Close-Out 1 (Feb)                                            | 2.455 | 3.292 | 2.609 | 3.097 | 2.883 | 2.936 | 1.8%        |
| Close-Out 2 (May)                                            | 2.491 | 2.973 | 2.518 | 3.219 | 3.082 | 2.888 | -6.3%       |
| Close-Out 3 (Aug)                                            | 3.051 | 2.532 | 3.009 | 3.040 | 2.769 | 4.199 | 51.7%       |
| Close-Out 4 (Nov)                                            | 3.320 | 2.749 | 2.787 | 3.082 | 3.287 | 3.440 | 4.7%        |

The February 2023 close-out will be included in the next month's newsletter

## BOND FUTURES

### BOND FUTURES: CONTRACTS TRADED

The Futures contracts traded in January were up over 14% on same period last year.

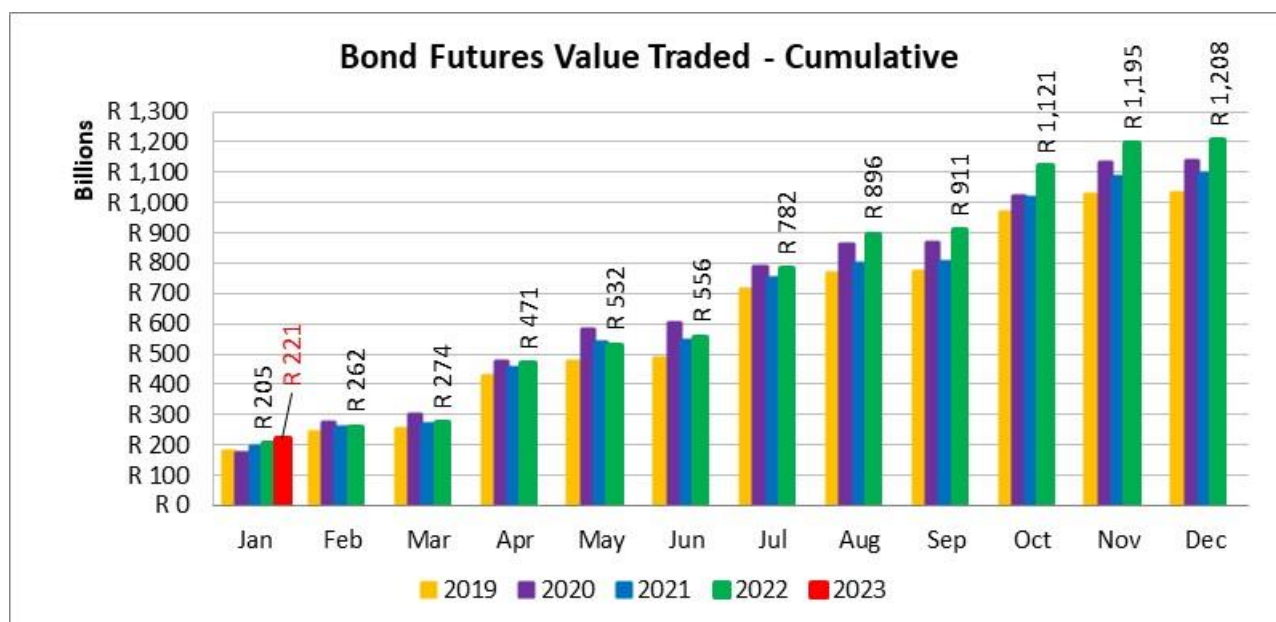


| Bond Futures Contracts Traded |                  |                   |                   |                   |                   |                   |                   |           |              |              |
|-------------------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------|--------------|--------------|
| Date                          | 2016             | 2017              | 2018              | 2019              | 2020              | 2021              | 2022              | 2023      | Chg 22/21    | Chg 23/22    |
| Jan                           | 826,485          | 1,963,456         | 2,512,043         | 1,872,040         | 1,808,945         | 2,064,147         | 2,198,294         | 2,506,348 | 6.5%         | 14.0%        |
| Feb                           | 883,377          | 493,725           | 622,760           | 654,730           | 994,022           | 647,370           | 607,540           |           | -6.2%        |              |
| Mar                           | 79,520           | 148,066           | 184,080           | 71,194            | 337,360           | 127,022           | 126,385           |           | -0.5%        |              |
| Apr                           | 1,490,182        | 1,168,792         | 2,071,717         | 1,778,197         | 1,984,879         | 1,995,098         | 2,139,536         |           | 7.2%         |              |
| May                           | 854,135          | 1,322,123         | 868,973           | 434,577           | 1,152,932         | 920,233           | 683,749           |           | -25.7%       |              |
| Jun                           | 134,452          | 177,529           | 241,609           | 121,845           | 187,670           | 50,847            | 286,875           |           | 464.2%       |              |
| Jul                           | 1,542,365        | 1,475,383         | 1,770,507         | 2,232,039         | 2,022,009         | 2,210,468         | 2,699,371         |           | 22.1%        |              |
| Aug                           | 691,788          | 1,497,690         | 706,275           | 550,331           | 820,119           | 497,888           | 1,319,225         |           | 165.0%       |              |
| Sep                           | 207,021          | 235,816           | 53,904            | 85,331            | 59,877            | 61,417            | 168,100           |           | 173.7%       |              |
| Oct                           | 1,903,245        | 1,947,995         | 1,987,598         | 1,970,014         | 1,707,398         | 2,316,337         | 2,457,306         |           | 6.1%         |              |
| Nov                           | 477,584          | 1,304,500         | 599,247           | 610,292           | 1,210,516         | 734,640           | 867,642           |           | 18.1%        |              |
| Dec                           | 77,224           | 180,041           | 69,157            | 57,887            | 64,811            | 123,724           | 151,727           |           | 22.6%        |              |
| <b>TOTAL</b>                  | <b>9,167,378</b> | <b>11,915,116</b> | <b>11,687,870</b> | <b>10,438,477</b> | <b>12,350,538</b> | <b>11,749,191</b> | <b>13,705,750</b> |           | <b>16.7%</b> | <b>14.0%</b> |
| <b>%Chg</b>                   |                  | <b>30.0%</b>      | <b>-1.9%</b>      | <b>-10.7%</b>     | <b>18.3%</b>      | <b>-4.9%</b>      | <b>16.7%</b>      |           |              |              |



## BOND FUTURES: VALUE TRADED

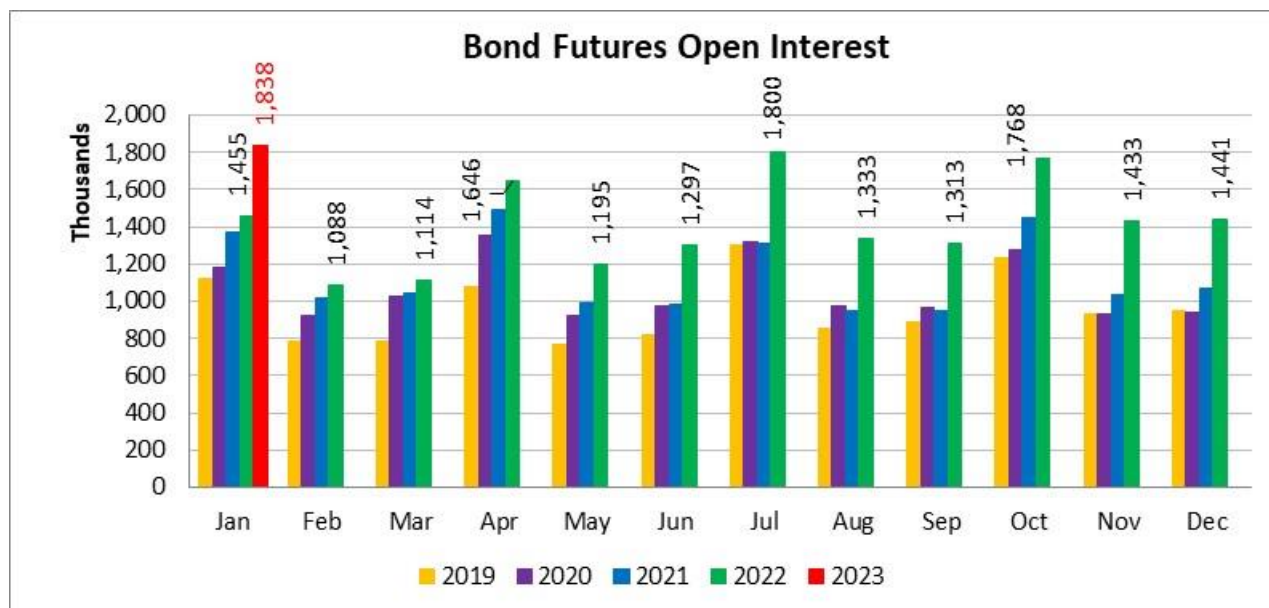
The value traded year-to-date is 8.1% UP compared to same period last year.



| Bond Futures Value Traded Rm |                |                  |                  |                  |                  |                  |                  |                |              |             |
|------------------------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------|--------------|-------------|
| Date                         | 2016           | 2017             | 2018             | 2019             | 2020             | 2021             | 2022             | 2023           | Chg 22/21    | Chg 23/22   |
| Jan                          | R 93,017       | R 207,419        | R 253,621        | R 180,384        | R 176,702        | R 194,789        | R 204,686        | R 221,224      | 5.1%         | 8.1%        |
| Feb                          | R 83,446       | R 54,107         | R 63,521         | R 65,075         | R 97,898         | R 62,982         | R 57,288         |                | -9.0%        |             |
| Mar                          | R 8,122        | R 15,689         | R 18,820         | R 7,378          | R 29,570         | R 12,063         | R 11,528         |                | -4.4%        |             |
| Apr                          | R 159,522      | R 128,361        | R 212,944        | R 177,545        | R 174,397        | R 184,453        | R 197,483        |                | 7.1%         |             |
| May                          | R 87,612       | R 131,736        | R 91,403         | R 44,429         | R 106,329        | R 85,790         | R 61,213         |                | -28.6%       |             |
| Jun                          | R 13,129       | R 19,049         | R 22,502         | R 11,983         | R 17,525         | R 5,349          | R 24,236         |                | 353.1%       |             |
| Jul                          | R 166,159      | R 151,742        | R 170,320        | R 225,830        | R 185,667        | R 207,191        | R 225,996        |                | 9.1%         |             |
| Aug                          | R 75,809       | R 152,914        | R 68,472         | R 53,410         | R 73,391         | R 47,531         | R 113,556        |                | 138.9%       |             |
| Sep                          | R 20,266       | R 24,072         | R 5,123          | R 8,239          | R 5,882          | R 6,139          | R 14,741         |                | 140.1%       |             |
| Oct                          | R 210,332      | R 191,314        | R 185,855        | R 194,759        | R 156,245        | R 212,448        | R 210,025        |                | -1.1%        |             |
| Nov                          | R 55,648       | R 126,095        | R 54,306         | R 59,502         | R 109,123        | R 67,490         | R 74,688         |                | 10.7%        |             |
| Dec                          | R 7,458        | R 17,391         | R 6,458          | R 5,516          | R 6,269          | R 11,623         | R 12,765         |                | 9.8%         |             |
| <b>TOTAL</b>                 | <b>980,519</b> | <b>1,219,888</b> | <b>1,153,345</b> | <b>1,034,049</b> | <b>1,138,999</b> | <b>1,097,847</b> | <b>1,208,205</b> | <b>221,224</b> | <b>10.1%</b> | <b>8.1%</b> |
| <b>%Chg</b>                  |                | <b>24.4%</b>     | <b>-5.5%</b>     | <b>-10.3%</b>    | <b>10.1%</b>     | <b>-3.6%</b>     | <b>10.1%</b>     |                |              |             |

## BOND FUTURES: OPEN INTEREST

**Bond Futures Open interest** at month end was 1.84m contracts, up 26% over equivalent period last year. **This represents a record for the end of any month-end period.**



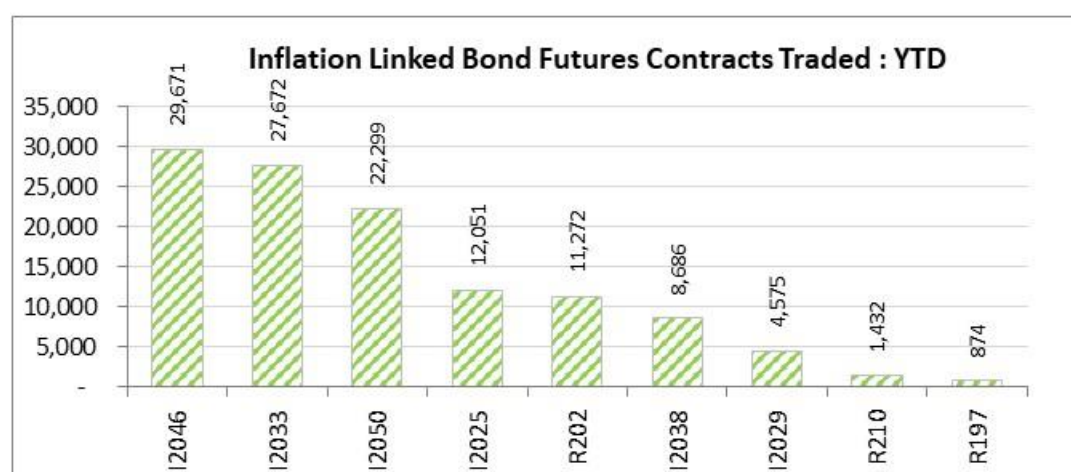
| Bond Futures Open Interest |         |           |           |           |           |           |           |           |           |           |
|----------------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Date                       | 2016    | 2017      | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | Chg 22/21 | Chg 23/22 |
| Jan                        | 713,913 | 1,137,425 | 1,372,543 | 1,118,795 | 1,183,158 | 1,368,771 | 1,454,861 | 1,838,132 | 6.3%      | 26.3%     |
| Feb                        | 633,062 | 770,321   | 1,037,493 | 784,852   | 921,269   | 1,012,584 | 1,088,101 |           | 7.5%      |           |
| Mar                        | 650,335 | 801,800   | 1,052,470 | 787,390   | 1,027,896 | 1,043,823 | 1,114,292 |           | 6.8%      |           |
| Apr                        | 890,406 | 1,037,427 | 1,126,181 | 1,073,638 | 1,349,483 | 1,493,709 | 1,645,940 |           | 10.2%     |           |
| May                        | 752,370 | 794,207   | 777,714   | 769,139   | 923,863   | 989,485   | 1,195,046 |           | 20.8%     |           |
| Jun                        | 753,049 | 868,162   | 870,652   | 817,539   | 971,675   | 986,432   | 1,297,146 |           | 31.5%     |           |
| Jul                        | 996,943 | 1,139,985 | 1,222,141 | 1,302,006 | 1,321,763 | 1,311,466 | 1,800,421 |           | 37.3%     |           |
| Aug                        | 655,211 | 977,327   | 798,912   | 849,438   | 973,254   | 946,280   | 1,332,947 |           | 40.9%     |           |
| Sep                        | 657,642 | 981,713   | 809,221   | 883,920   | 969,022   | 948,396   | 1,313,187 |           | 38.5%     |           |
| Oct                        | 999,507 | 1,383,649 | 1,201,141 | 1,231,132 | 1,273,672 | 1,445,779 | 1,767,793 |           | 22.3%     |           |
| Nov                        | 793,813 | 1,020,399 | 826,316   | 927,675   | 931,839   | 1,036,547 | 1,432,909 |           | 38.2%     |           |
| Dec                        | 798,552 | 1,016,463 | 827,458   | 944,806   | 936,762   | 1,069,111 | 1,441,149 |           | 34.8%     |           |
| %Chg                       |         | 27.3%     | -18.6%    | 14.2%     | -0.9%     | 14.1%     | 34.8%     |           |           | 26.3%     |
| Max Of                     | 999,507 | 1,383,649 | 1,372,543 | 1,302,006 | 1,349,483 | 1,493,709 | 1,800,421 | 1,838,132 |           |           |

## SINGLE BOND FUTURES ACTIVITY

### SINGLE BOND FUTURES: CONTRACTS TRADED PER INSTRUMENT

The most actively traded bond future YTD is the R2048 with a total of R55bln notional underlying.

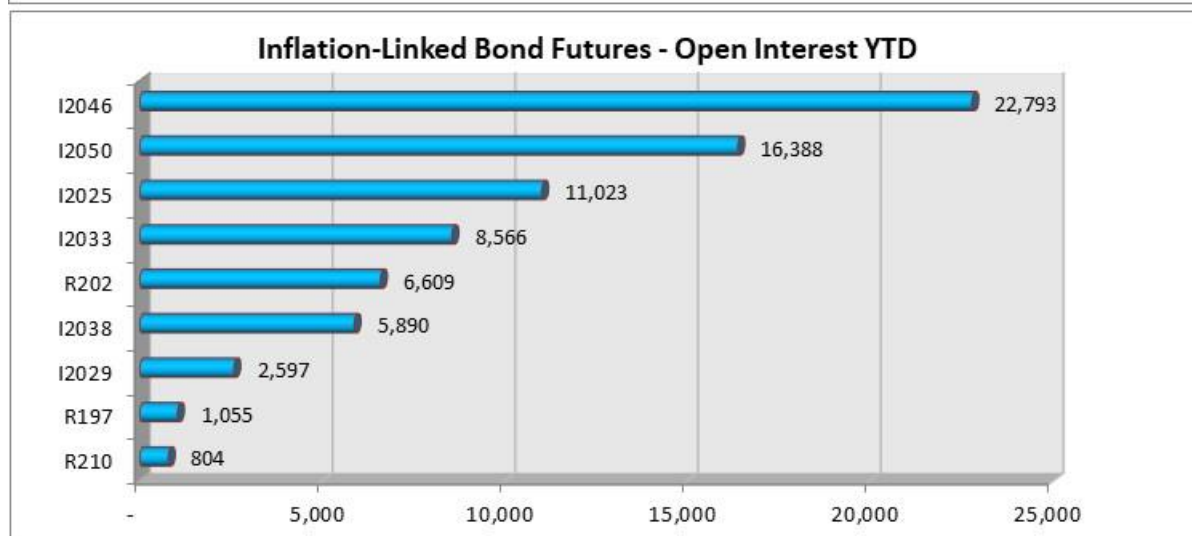
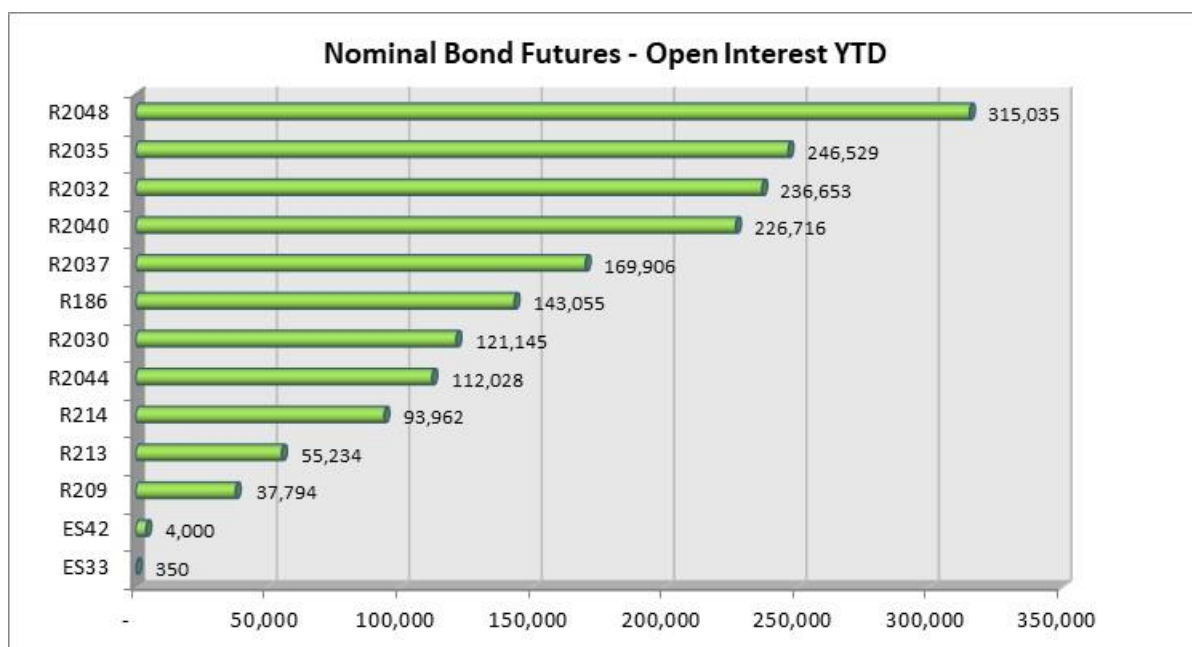
| Total Contracts Traded ytd |              |                   |           |
|----------------------------|--------------|-------------------|-----------|
|                            | Nominal Bond | Inflation-Linkers | Total     |
| <b>Contracts</b>           | 2,387,816    | 118,532           | 2,506,348 |
| <b>Nominal Value Rm</b>    | 238,782      | 11,853            | 250,635   |
| <b>% Split</b>             | 95.3%        | 4.7%              | 100.0%    |



## SINGLE BOND FUTURES: OPEN INTEREST PER INSTRUMENT

The total options open interest is based on R183bln underlying notional. The largest open position is in the R2048 at R31bln nominal and the R2032, R2035 and R2040 are all above R20bln open underlying notional.

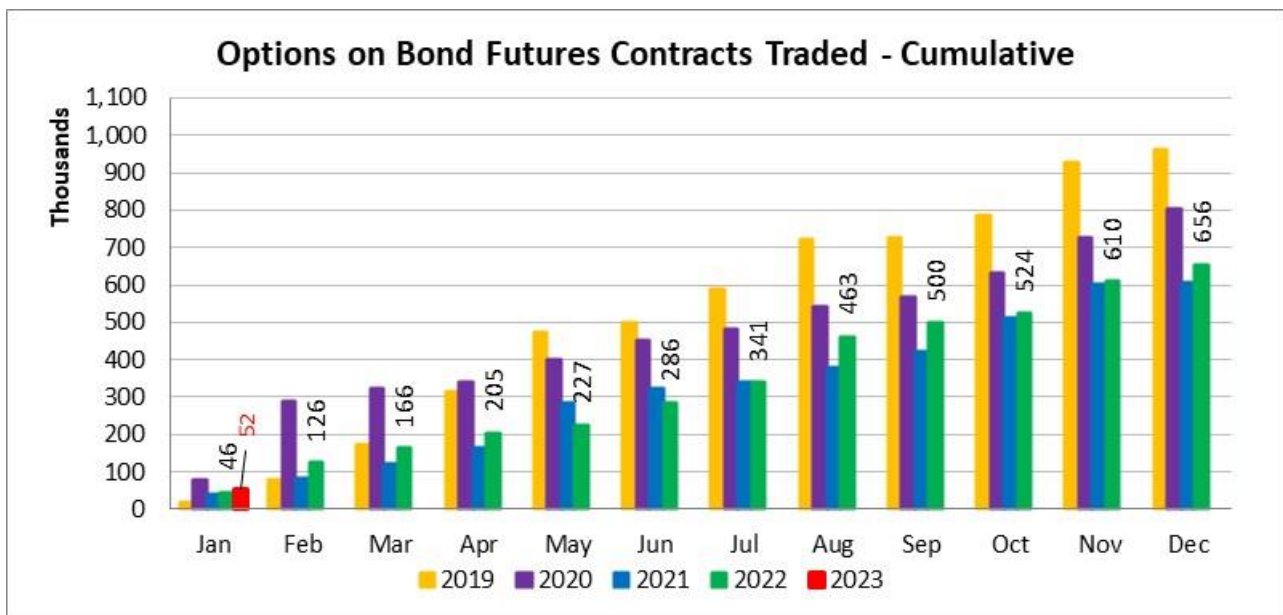
| Open Interest Table: YTD |              |                   |           |
|--------------------------|--------------|-------------------|-----------|
|                          | Nominal Bond | Inflation-Linkers | Total     |
| <b>Contracts</b>         | 1,762,407    | 75,725            | 1,838,132 |
| <b>Nominal Value Rm</b>  | 176,241      | 7,573             | 183,813   |
| <b>% Split</b>           | 95.9%        | 4.1%              | 100.0%    |



## OPTIONS ON BOND FUTURES

### OPTIONS: TOTAL CONTRACTS TRADED

The Bond Options contracts traded ytd is up 12.4% over the same period last year.

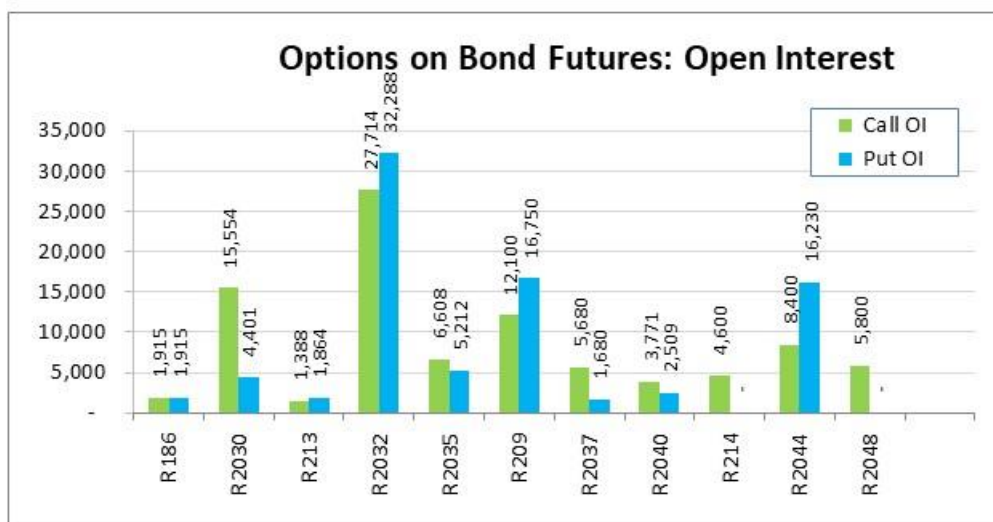
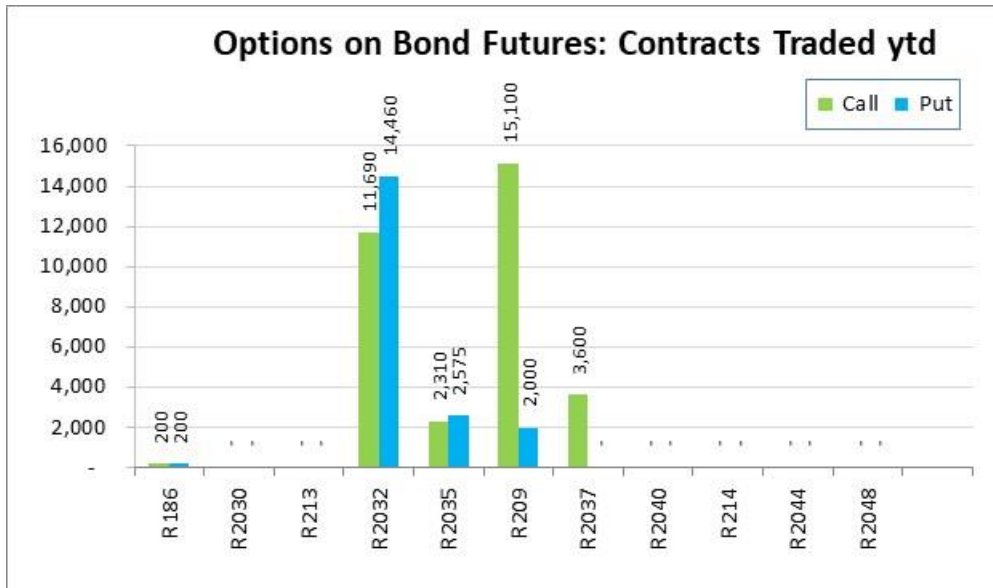


| Options on Bond Futures Contracts Traded |                |                |                |                |                |                |                |               |             |              |
|------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------|--------------|
| Date                                     | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023          | Chg 22/21   | Chg 23/22    |
| Jan                                      | -              | 14,483         | 60,405         | 19,110         | 77,201         | 38,681         | 46,400         | 52,135        | 20.0%       | 12.4%        |
| Feb                                      | 17,536         | 11,415         | 54,977         | 59,033         | 210,210        | 46,540         | 79,967         |               | 71.8%       |              |
| Mar                                      | 8,812          | 25,538         | 28,832         | 95,276         | 36,940         | 37,707         | 39,461         |               | 4.7%        |              |
| Apr                                      | 22,435         | 5,400          | 5,558          | 143,016        | 17,731         | 40,805         | 39,569         |               | -3.0%       |              |
| May                                      | 29,048         | 8,862          | 20,150         | 157,005        | 56,719         | 121,920        | 21,560         |               | -82.3%      |              |
| Jun                                      | 5,775          | 23,320         | 34,432         | 26,470         | 53,416         | 37,576         | 59,483         |               | 58.3%       |              |
| Jul                                      | 18,285         | 8,019          | 28,655         | 88,896         | 30,101         | 16,850         | 55,047         |               | 226.7%      |              |
| Aug                                      | 54,921         | 63,882         | 17,260         | 131,864        | 61,600         | 39,951         | 121,321        |               | 203.7%      |              |
| Sep                                      | 36,208         | 22,555         | 19,612         | 7,489          | 25,183         | 41,050         | 36,746         |               | -10.5%      |              |
| Oct                                      | 12,419         | 26,394         | 78,210         | 58,639         | 61,600         | 92,483         | 24,522         |               | -73.5%      |              |
| Nov                                      | 50             | 34,036         | 63,736         | 140,504        | 96,308         | 88,761         | 86,324         |               | -2.7%       |              |
| Dec                                      | 50             | 63,418         | 16,886         | 34,609         | 76,656         | 2,100          | 45,220         |               | 2053.3%     |              |
| <b>TOTAL</b>                             | <b>205,539</b> | <b>307,322</b> | <b>428,713</b> | <b>961,911</b> | <b>803,665</b> | <b>604,424</b> | <b>655,620</b> | <b>52,135</b> | <b>8.5%</b> | <b>12.4%</b> |
| <b>%Chg</b>                              |                | <b>49.5%</b>   | <b>39.5%</b>   | <b>124.4%</b>  | <b>-16.5%</b>  | <b>-24.8%</b>  | <b>8.5%</b>    |               |             |              |

## OPTIONS: ACTIVITY PER INSTRUMENT

The largest volume and open interest was traded in the R2032 and R209 options.

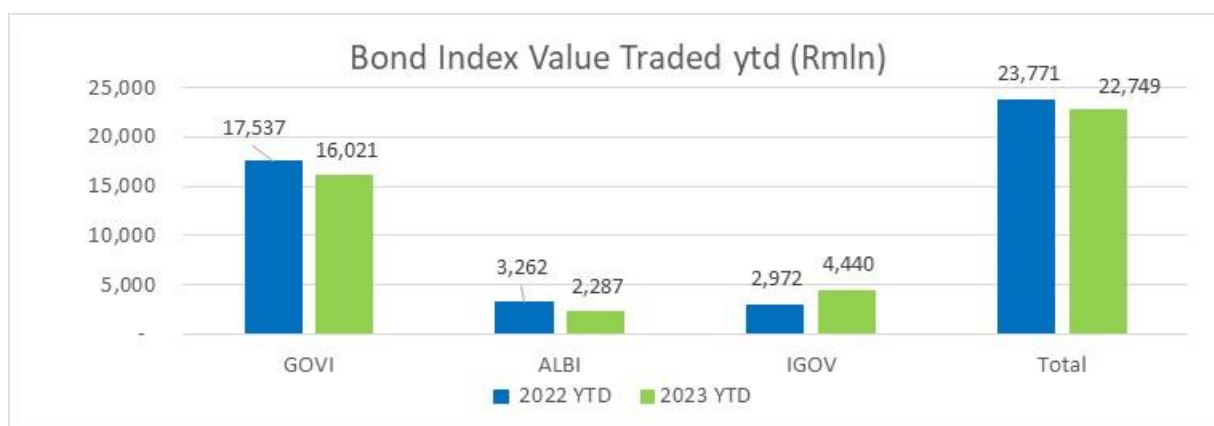
| Options on Bond Futures |               |        |               |        |
|-------------------------|---------------|--------|---------------|--------|
|                         | Contracts ytd |        | Open Interest |        |
| <b>Calls</b>            | 32,900        | 63.1%  | 93,530        | 53.0%  |
| <b>Puts</b>             | 19,235        | 36.9%  | 82,849        | 47.0%  |
| <b>Total</b>            | 52,135        | 100.0% | 176,379       | 100.0% |



## BOND INDEX FUTURES

The Bond Index Future value traded<sup>1</sup> at R107bln, is DOWN 4.3% over same period previous year with Open Interest 1.8% UP compared to same period

| Value Traded Rm         |        |           |       |        |
|-------------------------|--------|-----------|-------|--------|
|                         | GOVI   | ALBI      | IGOV  | Total  |
| 2022 YTD                | 17,537 | 3,262     | 2,972 | 23,771 |
| 2023 YTD                | 16,021 | 2,287     | 4,440 | 22,749 |
| % Change                | -8.6%  | -29.9%    | 49.4% | -4.3%  |
| Open Interest Contracts |        |           |       |        |
|                         | GOVI   | ALBI+IGOV | Total |        |
| 2022 YTD                | 1023   | 805       | 1,828 |        |
| 2023 YTD                | 937    | 923       | 1,860 |        |
| % Change                | -8.4%  | 14.7%     | 1.8%  |        |



<sup>1</sup> Bond index activity represented by value traded rather than contracts which have a large nominal exposure contract equivalent to (100k \* Index level)

| VALUE TRADED Rm |        |        |       |            |             |
|-----------------|--------|--------|-------|------------|-------------|
|                 | GOVI   | ALBI   | IGOV  | Val Traded | Roll 12m Av |
| Jan-19          | 5,683  | 11,086 | 2,674 | 19,442     |             |
| Feb-19          | 497    | 4,005  | 327   | 4,828      |             |
| Mar-19          | 2,086  | 1,092  | 118   | 3,296      |             |
| Apr-19          | 5,676  | 16,580 | 4,658 | 26,914     |             |
| May-19          | 538    | 115    | 50    | 702        |             |
| Jun-19          | 74     | 138    | -     | 211        |             |
| Jul-19          | 11,167 | 11,628 | 4,418 | 27,214     |             |
| Aug-19          | 797    | 482    | 271   | 1,550      |             |
| Sep-19          | 339    | 21     | 878   | 1,238      |             |
| Oct-19          | 18,183 | 5,601  | 7,265 | 31,049     |             |
| Nov-19          | 2,362  | 2,695  | 884   | 5,941      |             |
| Dec-19          | 55     | 14     | -     | 69         | 10,205      |
| Jan-20          | 17,443 | 5,266  | 6,425 | 29,134     | 11,012      |
| Feb-20          | 1,283  | 2,316  | 663   | 4,262      | 10,965      |
| Mar-20          | 73     | 624    | 74    | 771        | 10,755      |
| Apr-20          | 13,806 | 4,444  | 5,987 | 24,237     | 10,532      |
| May-20          | 2,966  | 805    | 1,845 | 5,616      | 10,941      |
| Jun-20          | 300    | 50     | 461   | 812        | 10,991      |
| Jul-20          | 14,676 | 4,597  | 6,436 | 25,710     | 10,866      |
| Aug-20          | 349    | 915    | 552   | 1,816      | 10,888      |
| Sep-20          | 43     | 238    | 39    | 320        | 10,811      |
| Oct-20          | 14,608 | 5,155  | 6,094 | 25,857     | 10,379      |
| Nov-20          | 1,824  | 1,228  | 868   | 3,920      | 10,210      |
| Dec-20          | 67     | 30     | 8     | 105        | 10,213      |
| Jan-21          | 14,739 | 4,375  | 6,347 | 25,461     | 9,907       |
| Feb-21          | 778    | 1,715  | 1,003 | 3,496      | 9,843       |
| Mar-21          | 216    | 181    | 100   | 498        | 9,821       |
| Apr-21          | 11,671 | 3,020  | 3,841 | 18,532     | 9,345       |
| May-21          | 667    | 2,130  | 1,351 | 4,149      | 9,223       |
| Jun-21          | 134    | 274    | 372   | 780        | 9,220       |
| Jul-21          | 15,780 | 2,933  | 2,711 | 21,424     | 8,863       |
| Aug-21          | 239    | 1,073  | 18    | 1,330      | 8,822       |
| Sep-21          | 88     | -      | 92    | 181        | 8,811       |
| Oct-21          | 16,282 | 2,948  | 3,056 | 22,286     | 8,513       |
| Nov-21          | 1,703  | 1,510  | 193   | 3,406      | 8,470       |
| Dec-21          | 49     | -      | -     | 49         | 8,466       |
| Jan-22          | 17,537 | 3,262  | 2,972 | 23,771     | 8,325       |
| Feb-22          | 399    | 1,753  | 3     | 2,155      | 8,213       |
| Mar-22          | 25     | 17     | 9     | 51         | 8,176       |
| Apr-22          | 18,758 | 2,199  | 3,207 | 24,164     | 8,645       |
| May-22          | 83     | 324    | 937   | 1,343      | 8,412       |
| Jun-22          | 48     | 99     | 3     | 151        | 8,359       |
| Jul-22          | 18,825 | 3,675  | 4,710 | 27,210     | 8,841       |
| Aug-22          | 158    | 232    | 51    | 441        | 8,767       |
| Sep-22          | 447    | 1,058  | 499   | 2,005      | 8,919       |
| Oct-22          | 17,243 | 1,946  | 4,507 | 23,695     | 9,037       |
| Nov-22          | 314    | 982    | 762   | 2,058      | 8,924       |
| Dec-22          | 125    | 69     | 203   | 397        | 8,953       |
| Jan-23          | 16,021 | 2,287  | 4,440 | 22,749     | 8,868       |

End of report.