

JSE
INTEREST RATE DERIVATIVES
MONTHLY VIEW

Including November 2021 Close-Out view

October 2021

Compiled by the IRC team

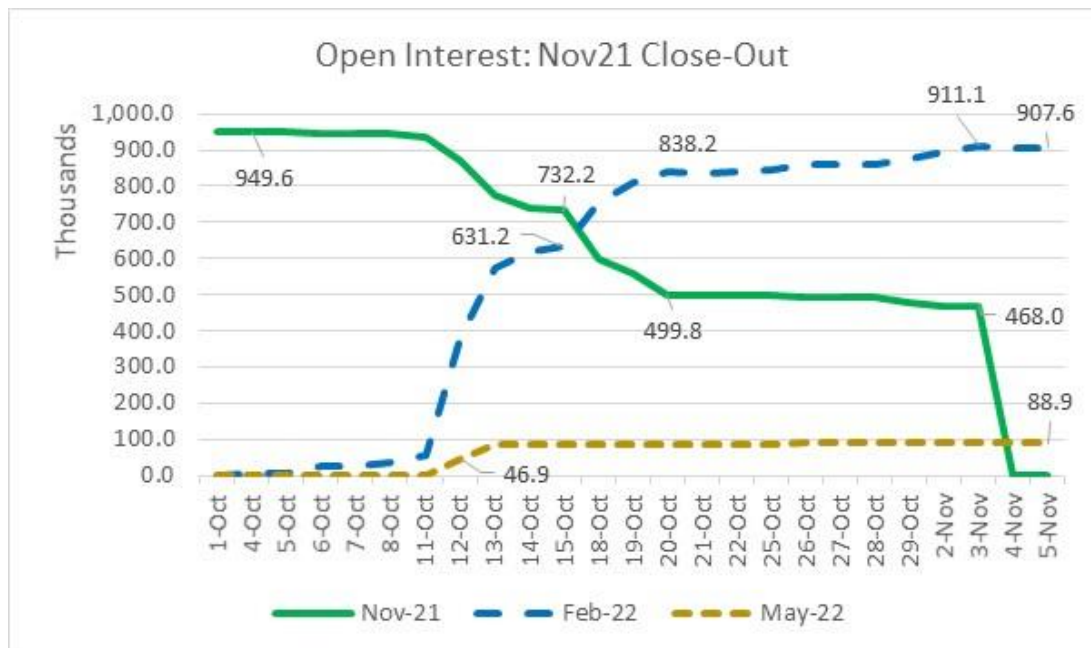
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NOVEMBER 2021 CLOSE-OUT ACTIVITY

The last close-out for 2021 took place on 4-Nov-2021. The activity from beginning October is shown. The large roll volumes took place on the 12th, 13th and 18th October with smaller volumes leading into the close-out. The 474k contracts closed out on expiration represented 48% of the maximum open interest seen in the November contract, implying that the excess was rolled or closed earlier. Open interest on the day after close-out was 8% above equivalent period last year.



HIGHLIGHTS

- The roll activity in **October 2021** saw several highlights:
 - Highest number of monthly Bond Futures contracts traded in 2021 (2.316m)
 - Second highest number of monthly Bond Futures contracts traded (Jan 2018 / 2.512m)
 - Open Interest is up relative to last year; IRD + 7.3% and bond futures +13,5%
- All IRD contracts traded ytd are 1.7% down
- Bond futures contracts traded ytd is 1.7% down
- Bond options activity has picked up over the past 2 months relative to last year, but ytd activity is 18.6% lower
- The Govi and Bond Index Futures value traded was R98bln ytd, down 17% from previous year
- Jibar futures contracts up double that of last year albeit off a low base

MONTHLY SNAPSHOT: CONTRACTS & OPEN INTEREST

Monthly Snapshot Contracts Traded 2021								
	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
Grand Total	10,890,827	182,948	330,615	7,785	9,017	211,740	-	11,632,932

Monthly Snapshot Open Interest 2021								
	Bond Fut	Calls	Puts	Govi Fut	Index Fut	Jibar Futures	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

INTEREST RATE DERIVATIVE CONTRACTS

IRD CONTRACTS TRADED

October activity has ensured that the number of IRD contracts traded YTD is now only 1.7% down compared to previous year (from 5-10% down seen all of 2021). However, bond options and index futures markets continue lower than same period last year.

Listed IRD CONTRACTS TRADED							
YTD - Contracts	Bond Fut	Bond Opt	Govi Fut	Index Fut	JIBAR Fut	SWAP Fut	Total
2020	11,075,211	630,701	9,417	14,680	110,085	-	11,840,094
2021	10,890,827	513,563	7,785	9,017	211,740	-	11,632,932
Growth	-1.7%	-18.6%	-17.3%	-38.6%	92.3%	0.0%	-1.7%

IRD VALUE TRADED

The value traded YTD is 2.0% lower than 2020 equivalent period with a total of R1,122bln notional.

IRD VALUE TRADED YTD (Rm)							
Period	Bond Fut	Bond Opt	Govi Fut	Index Fut	JIBAR Fut	SWAP Fut	Total
2020	R 1,023,607	R 1,190	R 65,547	R 52,987	R 2,654	R 0	R 1,145,985
2021	R 1,018,734	R 875	R 60,596	R 37,539	R 5,081	R 0	R 1,122,825
Growth	-0.5%	-26.5%	-7.6%	-29.2%	91.4%	0.0%	-2.0%

IRD NOMINAL EXPOSURE*

LISTED IRD UNDERLYING NOMINAL EXPOSURE Rbln							
YTD - Nominal	Bond Fut	Bond Opt	Govi Fut val traded	Index Fut val traded	JIBAR Fut	SWAP Fut	Total
Contract size	100k	100k	1	1	100k	100k	
2020	1,107.5	63.1	65.5	53.0	11.0	-	1,300.1
2021	1,089.1	51.4	60.6	37.5	21.2	-	1,259.7
Growth	-1.7%	-18.6%	-7.6%	-29.2%	92.3%	0.0%	-3.1%
% Split	86.5%	4.1%	4.8%	3.0%	1.7%	0.0%	100.0%

*All the underlying nominals traded (in R billions) are represented by the contract size multiplied by the contracts traded, except for the Govi and Index futures which are represented by the value traded.

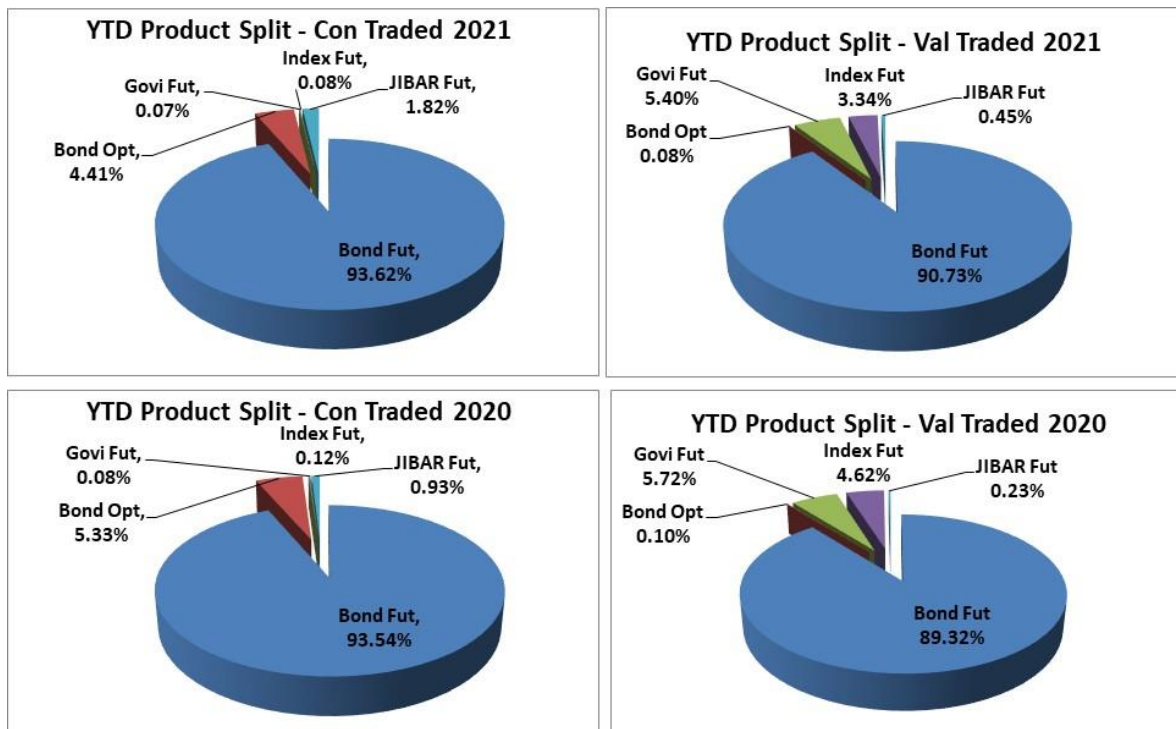
IRD OPEN INTEREST

The overall Open Interest has turned positive compared to previous year at 7.3% up and a +13.5% up on bond futures.

IRD OPEN INTEREST YTD							
Period	Bond Fut	Bond Opt	Govi Fut	Index Fut	JIBAR Fut	SWAP Fut	Total
2020	1,273,672	229,152	1,211	1,400	60,010	51	1,565,496
2021	1,445,779	182,356	1,098	829	50,140	51	1,680,253
Growth	13.5%	-20.4%	-9.3%	-40.8%	-16.4%	0.0%	7.3%

IRD PRODUCT SPLIT IN CONTRACTS AND VALUE TRADED

With a high nominal underlying per contract, **GOVI and Index Futures** represent only 1.5% of all contracts traded but 8.7% of value traded YTD.



TWO_MONTH CLOSE OUT PERIOD VOLUME (ALL IRD CONTRACTS)

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

ALL IRD CONTRACTS (in 2-mth periods) (in millions of contracts)									
Close-Out (2-mth)	2016	2017	2018	2019	2020	2021	% Chg 2020/19	% Chg 2021/20	
Close-Out 1 (Feb)	1.733	2.455	3.292	2.609	3.097	2.883	18.7%	-6.9%	
Close-Out 2 (May)	2.401	2.491	2.973	2.518	3.219	3.082	27.8%	-4.2%	
Close-Out 3 (Aug)	2.313	3.051	2.532	3.009	3.040	2.769	1.0%	-8.9%	
Close-Out 4 (Nov)	2.399	3.320	2.749	2.787	3.082	-	10.6%		

All (2-month) close-out periods in 2020 reported greater than 3m contracts and double-digit growth from previous year. The **August 2021 (2-mth) close-out period**, saw a total of 2.7 million contracts traded, 9% lower than the same close-out period in 2020.

Given October trading activity, a stronger activity is expected into the November closeout

BOND FUTURES

BOND FUTURES: CONTRACTS TRADED

October saw the highest number of contracts traded in 2021 at 2.316m and second highest overall (2.512m in Jan-2018). The **total cumulative contracts traded in Bond Futures** year-to-date, at 10.9m contracts, is 1.7% lower than equivalent period previous year.

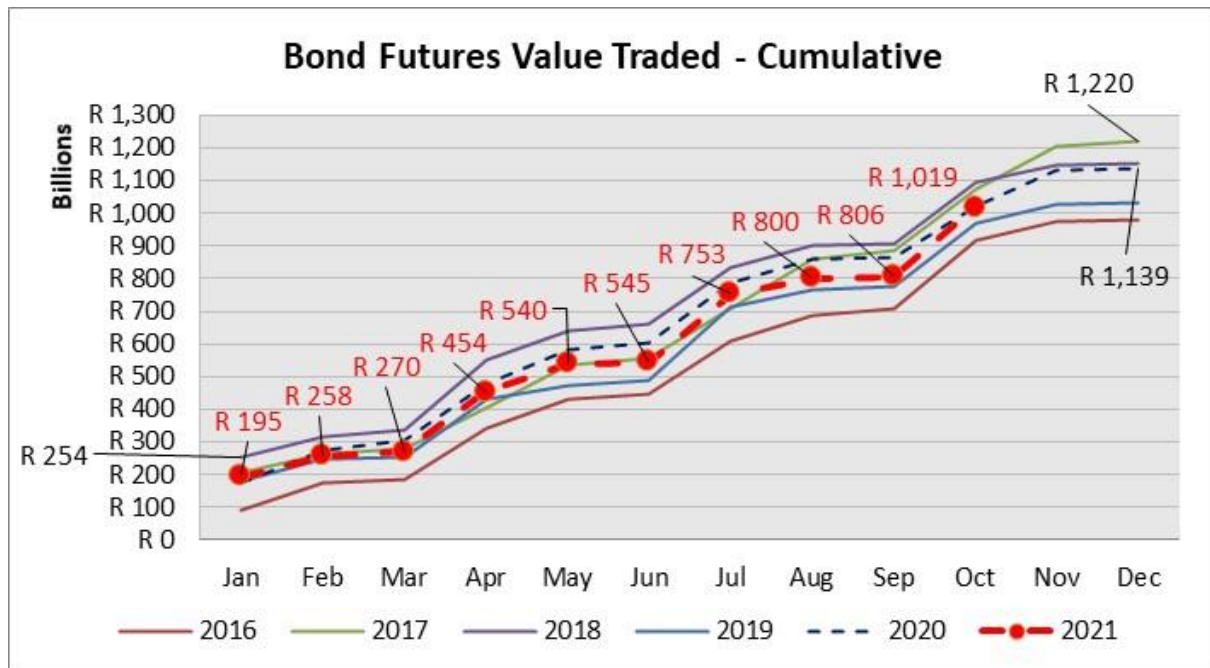


Bond Futures Contracts Traded								
Date	2016	2017	2018	2019	2020	2021	Chg 20/19	Chg 21/20
Jan	826,485	1,963,456	2,512,043	1,872,040	1,808,945	2,064,147	-3.4%	14.1%
Feb	883,377	493,725	622,760	654,730	994,022	647,370	51.8%	-34.9%
Mar	79,520	148,066	184,080	71,194	337,360	127,022	373.9%	-62.3%
Apr	1,490,182	1,168,792	2,071,717	1,778,197	1,984,879	1,995,098	11.6%	0.5%
May	854,135	1,322,123	868,973	434,577	1,152,932	920,233	165.3%	-20.2%
Jun	134,452	177,529	241,609	121,845	187,670	50,847	54.0%	-72.9%
Jul	1,542,365	1,475,383	1,770,507	2,232,039	2,022,009	2,210,468	-9.4%	9.3%
Aug	691,788	1,497,690	706,275	550,331	820,119	497,888	49.0%	-39.3%
Sep	207,021	235,816	53,904	85,331	59,877	61,417	-29.8%	2.6%
Oct	1,903,245	1,947,995	1,987,598	1,970,014	1,707,398	2,316,337	-13.3%	35.7%
Nov	477,584	1,304,500	599,247	610,292	1,210,516	98,400	98.4%	
Dec	77,224	180,041	69,157	57,887	64,811	12,000	12.0%	
TOTAL	9,167,378	11,915,116	11,687,870	10,438,477	12,350,538	10,890,827	18.3%	-1.7%
%Chg		30.0%	-1.9%	-10.7%	18.3%			



BOND FUTURES: VALUE TRADED

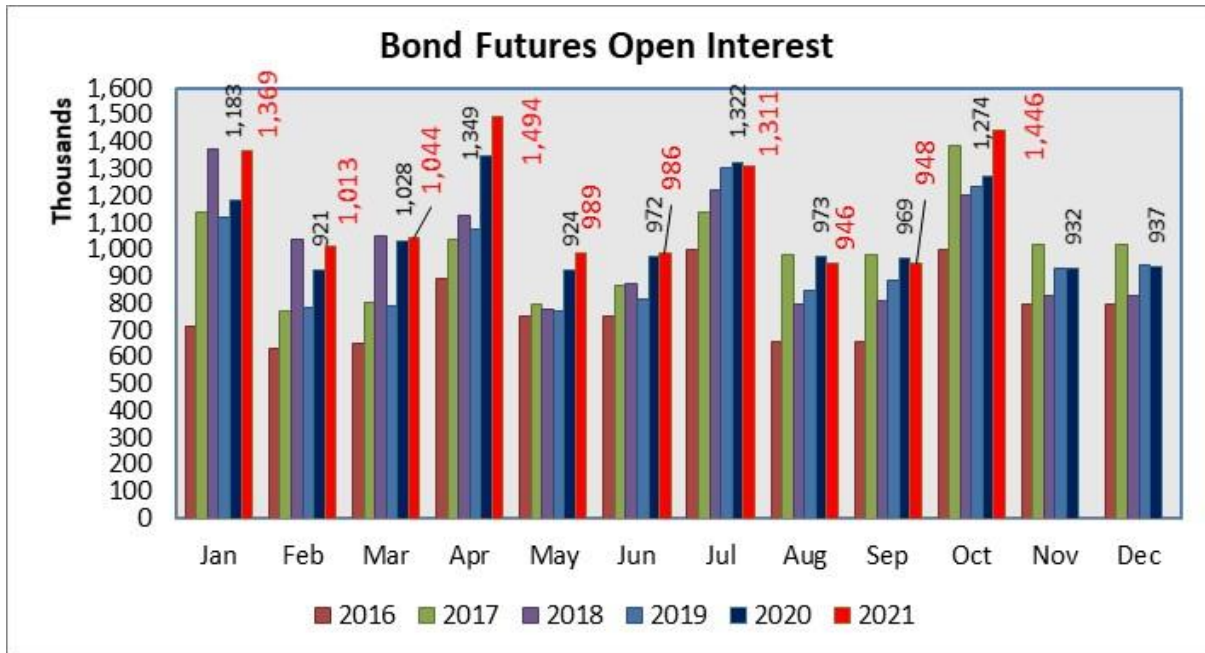
The cumulative value traded largely the same as last year with only a 0.5% decline in value traded to R1,018 bln year-to-date compared to value traded in 2020.



Bond Futures Value Traded Rm								
Date	2016	2017	2018	2019	2020	2021	Chg 20/19	Chg 21/20
Jan	R 93,017	R 207,419	R 253,621	R 180,384	R 176,702	R 194,789	-2.0%	10.2%
Feb	R 83,446	R 54,107	R 63,521	R 65,075	R 97,898	R 62,982	50.4%	-35.7%
Mar	R 8,122	R 15,689	R 18,820	R 7,378	R 29,570	R 12,063	300.8%	-59.2%
Apr	R 159,522	R 128,361	R 212,944	R 177,545	R 174,397	R 184,453	-1.8%	5.8%
May	R 87,612	R 131,736	R 91,403	R 44,429	R 106,329	R 85,790	139.3%	-19.3%
Jun	R 13,129	R 19,049	R 22,502	R 11,983	R 17,525	R 5,349	46.2%	-69.5%
Jul	R 166,159	R 151,742	R 170,320	R 225,830	R 185,667	R 207,191	-17.8%	11.6%
Aug	R 75,809	R 152,914	R 68,472	R 53,410	R 73,391	R 47,531	37.4%	-35.2%
Sep	R 20,266	R 24,072	R 5,123	R 8,239	R 5,882	R 6,139	-28.6%	4.4%
Oct	R 210,332	R 191,314	R 185,855	R 194,759	R 156,245	R 212,448	-19.8%	36.0%
Nov	R 55,648	R 126,095	R 54,306	R 59,502	R 109,123		83.4%	
Dec	R 7,458	R 17,391	R 6,458	R 5,516	R 6,269		13.7%	
TOTAL	980,519	1,219,888	1,153,345	1,034,049	1,138,999	1,018,734	10.1%	-0.5%
%Chg		24.4%	-5.5%	-10.3%	10.1%			

BOND FUTURES: OPEN INTEREST

Bond Futures Open interest at month end was 1,446k contracts, 13.5% up on the equivalent month in previous year.

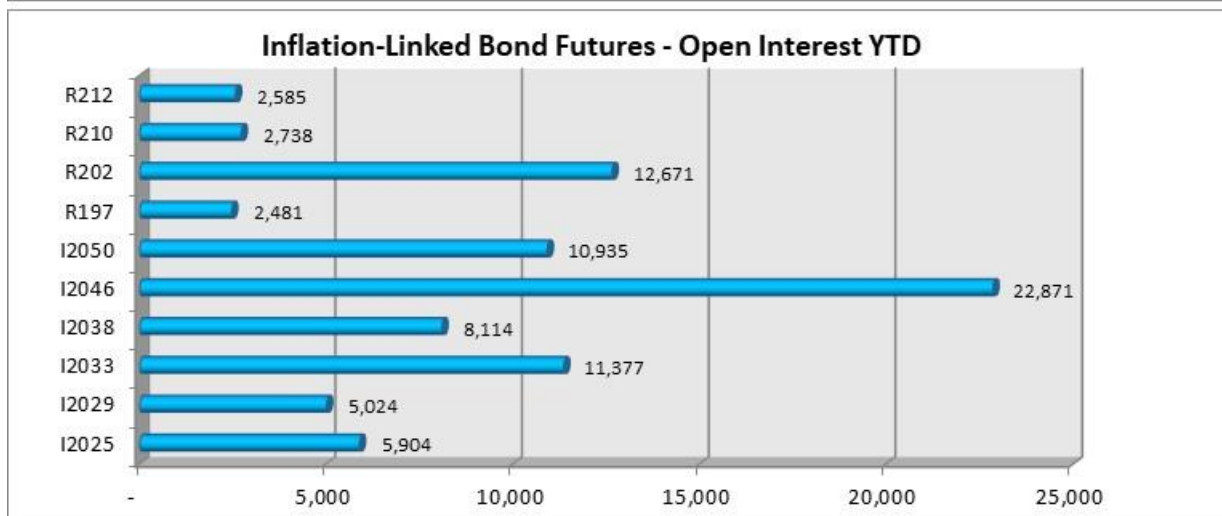
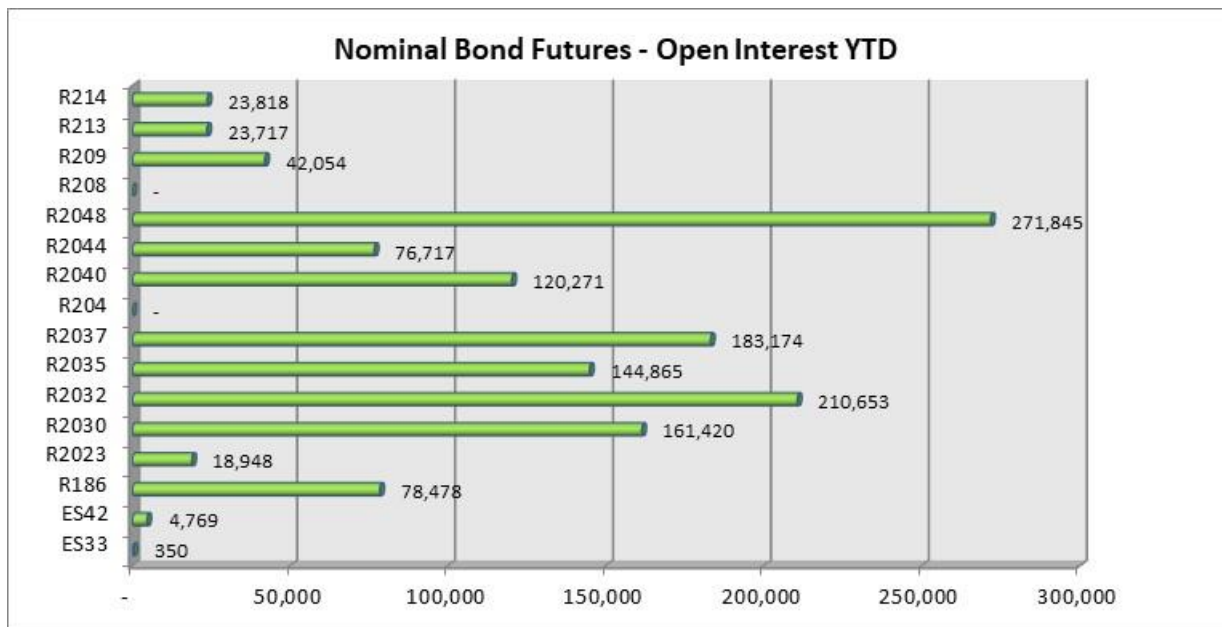


Bond Futures Open Interest								
Date	2016	2017	2018	2019	2020	2021	Chg 20/19	Chg 21/20
Jan	713,913	1,137,425	1,372,543	1,118,795	1,183,158	1,368,771	5.8%	15.7%
Feb	633,062	770,321	1,037,493	784,852	921,269	1,012,584	17.4%	9.9%
Mar	650,335	801,800	1,052,470	787,390	1,027,896	1,043,823	30.5%	1.5%
Apr	890,406	1,037,427	1,126,181	1,073,638	1,349,483	1,493,709	25.7%	10.7%
May	752,370	794,207	777,714	769,139	923,863	989,485	20.1%	7.1%
Jun	753,049	868,162	870,652	817,539	971,675	986,432	18.9%	1.5%
Jul	996,943	1,139,985	1,222,141	1,302,006	1,321,763	1,311,466	1.5%	-0.8%
Aug	655,211	977,327	798,912	849,438	973,254	946,280	14.6%	-2.8%
Sep	657,642	981,713	809,221	883,920	969,022	948,396	9.6%	-2.1%
Oct	999,507	1,383,649	1,201,141	1,231,132	1,273,672	1,445,779	3.5%	13.5%
Nov	793,813	1,020,399	826,316	927,675	931,839	931,839	0.4%	
Dec	798,552	1,016,463	827,458	944,806	936,762	936,762	-0.9%	
%Chg		27.3%	-18.6%	14.2%	-0.9%	13.5%		

BOND FUTURES: OPEN INTEREST PER INSTRUMENT

The open interest is spread across several contacts, with R2030, R2032, R2037 and R2048 ranging from 150k to 270k open contracts (~R15 bln to R27 bln nominal).

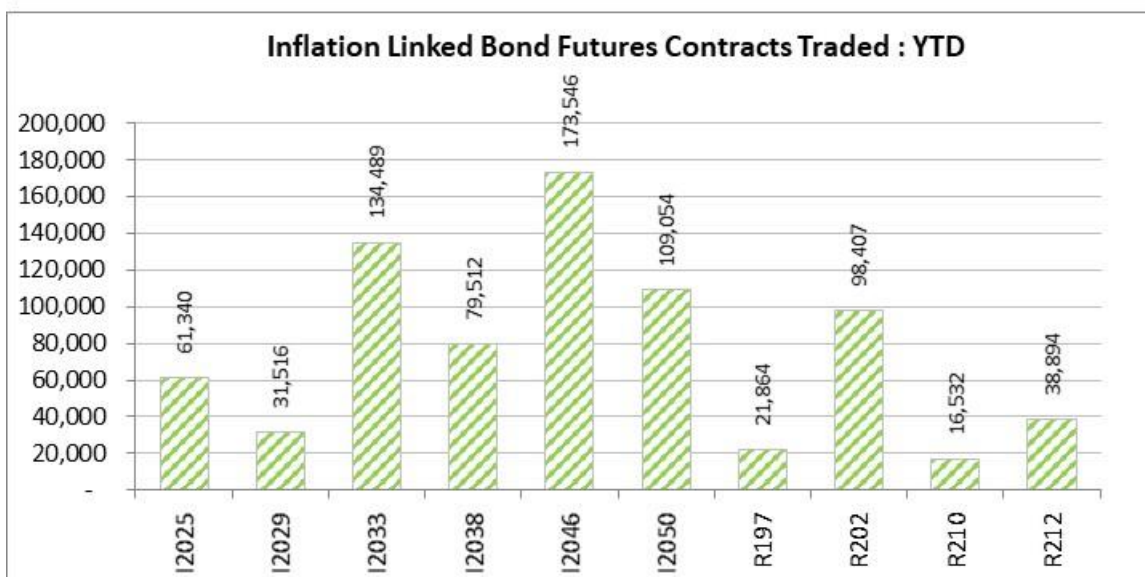
Open Interest Table: YTD			
	Nominal Bond	Inflation-Linkers	Total
Contracts	1,361,079	84,700	1,445,779
Nominal Value Rm	136,108	8,470	144,578
% Split	94.1%	5.9%	100.0%



SINGLE BOND FUTURE CONTRACTS

The chart shows an **even spread of trading activity ytd** across Nominal and Inflation Bond Futures.

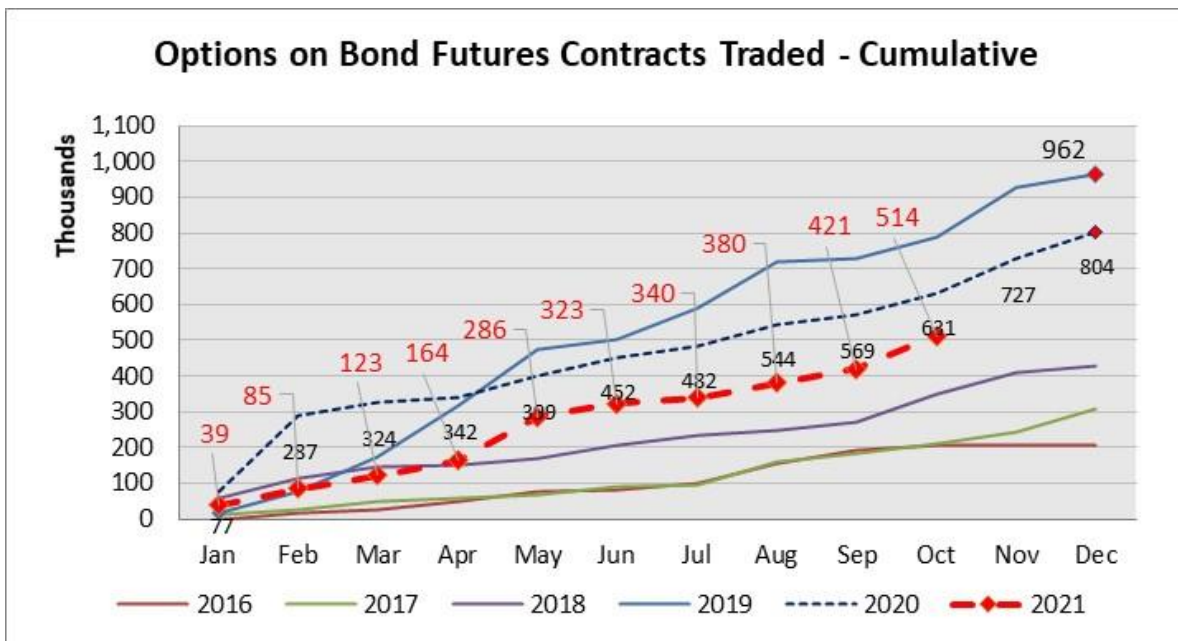
Total Contracts Traded ytd			
	Nominal Bond	Inflation-Linkers	Total
Contracts	10,125,673	765,154	10,890,827
Nominal Value Rm	1,012,567	76,515	1,089,083
% Split	93.0%	7.0%	100.0%



OPTIONS ON BOND FUTURES

OPTIONS ON BOND FUTURES: CONTRACTS TRADED YTD

Overall option activity is showing a 18% decline in contracts ytd. While still relatively low, this represents a better outcome than earlier in the year which saw ytd activity down 62% (ytd end Mar) and down 28% (ytd end Jun)

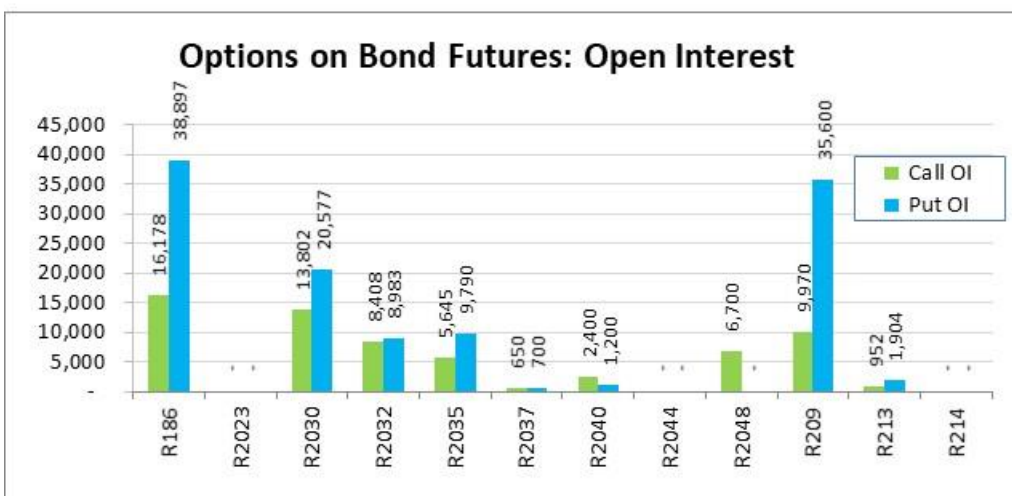
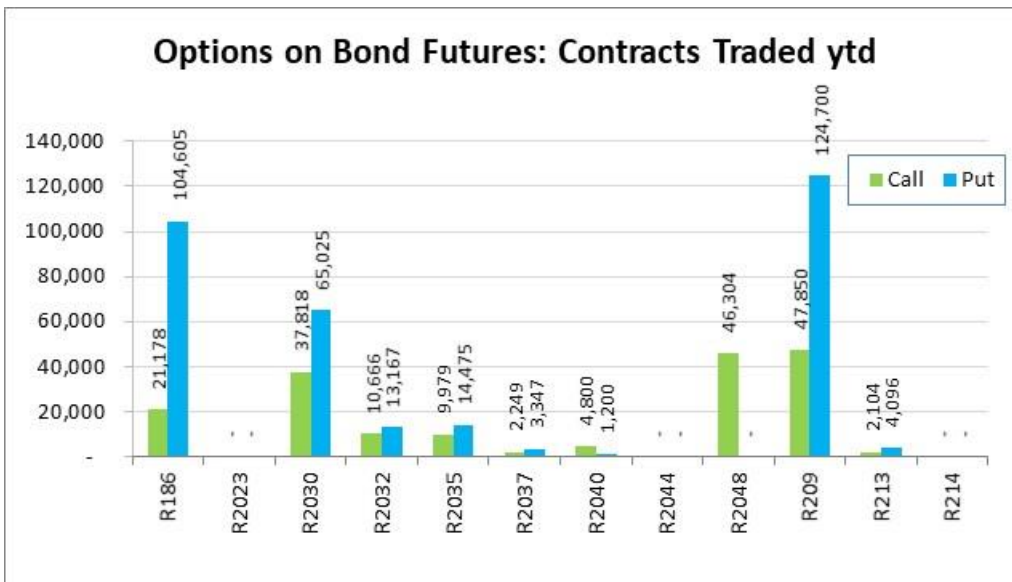


Options on Bond Futures Contracts Traded								
Date	2016	2017	2018	2019	2020	2021	Chg 20/19	Chg 21/20
Jan	-	14,483	60,405	19,110	77,201	38,681	304.0%	-49.9%
Feb	17,536	11,415	54,977	59,033	210,210	46,540	256.1%	-77.9%
Mar	8,812	25,538	28,832	95,276	36,940	37,707	-61.2%	2.1%
Apr	22,435	5,400	5,558	143,016	17,731	40,805	-87.6%	130.1%
May	29,048	8,862	20,150	157,005	56,719	121,920	-63.9%	115.0%
Jun	5,775	23,320	34,432	26,470	53,416	37,576	101.8%	-29.7%
Jul	18,285	8,019	28,655	88,896	30,101	16,850	-66.1%	-44.0%
Aug	54,921	63,882	17,260	131,864	61,600	39,951	-53.3%	-35.1%
Sep	36,208	22,555	19,612	7,489	25,183	41,050	236.3%	63.0%
Oct	12,419	26,394	78,210	58,639	61,600	92,483	5.0%	50.1%
Nov	50	34,036	63,736	140,504	96,308		-31.5%	
Dec	50	63,418	16,886	34,609	76,656		121.5%	
TOTAL	205,539	307,322	428,713	961,911	803,665	513,563	-16.5%	-18.6%
%Chg		49.5%	39.5%	124.4%	-16.5%			

OPTIONS ON BOND FUTURES: CONTRACTS TRADED AND OPEN INTEREST

The option activity in 2021 is focussed on the bonds R186, R2030 and R209 (exp 2036). The total open interest represents options on R18.2 bln underlying nominal value, with twice as many open puts relative to open calls. The largest open contracts are in the R186 and R209 puts.

Options on Bond Futures				
	Contracts ytd		Open Interest	
Calls	182,948	35.6%	64,705	35.5%
Puts	330,615	64.4%	117,651	64.5%
Total	513,563	100.0%	182,356	100.0%



BOND INDEX FUTURES

This October saw the highest contracts traded in a month in 2021. However, the total Bond Index futures value traded ytd was R98bln, down 17% from last year.

VALUE TRADED Rm				
	GOVI	ALBI	IGOV	Total
2020 YTD	65,547	24,410	28,576	118,533
2021 YTD	60,596	18,648	18,891	98,135
% Change	-8%	-24%	-34%	-17%



VALUE TRADED Rm					
	GOVI	ALBI	IGOV	Val Traded	%Chg YoY
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	
Jan-20	17,443	5,266	6,425	29,134	50%
Feb-20	1,283	2,316	663	4,262	-12%
Mar-20	73	624	74	771	-77%
Apr-20	13,806	4,444	5,987	24,237	-10%
May-20	2,966	805	1,845	5,616	699%
Jun-20	300	50	461	812	284%
Jul-20	14,676	4,597	6,436	25,710	-6%
Aug-20	349	915	552	1,816	17%
Sep-20	43	238	39	320	-74%
Oct-20	14,608	5,155	6,094	25,857	-17%
Nov-20	1,824	1,228	868	3,920	-34%
Dec-20	67	30	8	105	52%
Jan-21	14,739	4,375	6,347	25,461	-13%
Feb-21	778	1,715	1,003	3,496	-18%
Mar-21	216	181	100	498	-35%
Apr-21	11,671	3,020	3,841	18,532	-24%
May-21	667	2,130	1,351	4,149	-26%
Jun-21	134	274	372	780	-4%
Jul-21	15,780	2,933	2,711	21,424	-17%
Aug-21	239	1,073	18	1,330	-27%
Sep-21	88	-	92	181	-43%
Oct-21	16,282	2,948	3,056	22,286	-14%

For any queries, please contact irc@jse.co.za