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PROPERTY BAROMETER

FNB House Price Index

FNB's 2 measures of Real House Prices continue the gradual "correction"

In October 2017, the FNB House Price Index showed a further mild acceleration in year-on-year growth compared with revised September growth. However, at 4.3% the rate remains noticeably lower than both Consumer Price and Rental inflation, implying that FNB's 2 measures of "real" house prices, i.e. the Price-Rent Ratio Index and the Real (CPI-adjusted) FNB House Price Index continue their downward "corrections"

2 MEASURES OF FNB REAL HOUSE PRICES IN DECLINE

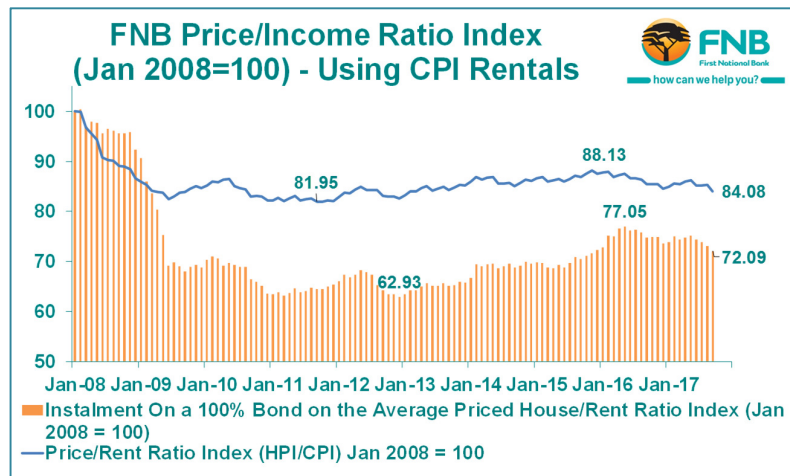
FNB HOUSE PRICE-RENT RATIO

According to StatsSA CPI (Consumer Price Index) figures, residential rental inflation has been outstripping average house price inflation of late. This has been instrumental in another aspect of the housing market's slow correction, i.e. lowering the Average House Price-Rent Ratio.

The Price-Rent Ratio is one important ratio in determining how costly the home buying option is relative to a key competing option, i.e. rental. It is merely another form of "real" house price calculation, comparing house prices against the competing rental option in much the same way as we compare house prices to competing consumer goods and services price levels when compiling what we usually call "real house prices".

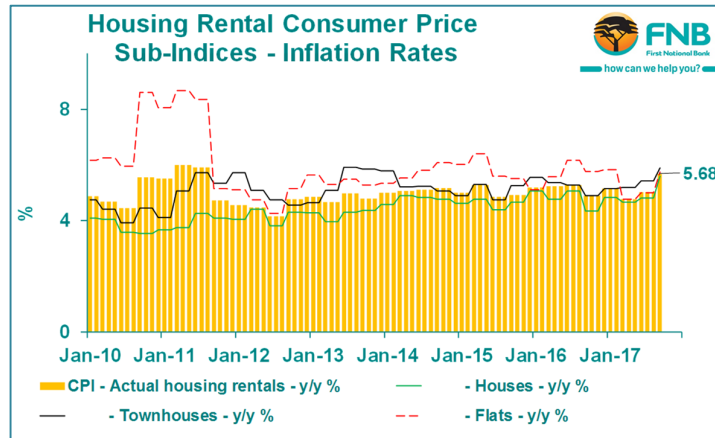
Analysts often become concerned when the Price-Rent Ratio is very high, as it can begin to make the rental option relatively more appealing, contributing at some stage to a drop in home buying and a fall in house prices. House price booms, or strong market periods at least, typically take this ratio higher.

To this effect, we use the FNB House Price Index and the CPI for Actual rentals to monitor this ratio. We show it in index form (because the CPI is an index), with January 2008=100.



In recent months, the FNB House Price-Rent Ratio Index has resumed its broad gradual declining trend that started early in 2016.

From a 9-year high of 88.13 (Base month January 2008 = 100), reached in November 2015, the House Price-Rent Index has declined by -4.6% cumulatively to reach an 84.08 level in September 2017.



This decline is the combination of average rental inflation, according to CPI Rental stats, accelerating to 5.68% year-on-year in the September CPI numbers, whereas average house price inflation for September was a slower 4.2% year-on-year.

This brings the cumulative longer term decline in the Price-Rent Ratio Index to -15.92% since January 2008, a time when the pre-2008 house price boom had left the Price-Rent Ratio at extreme highs by historic standards.

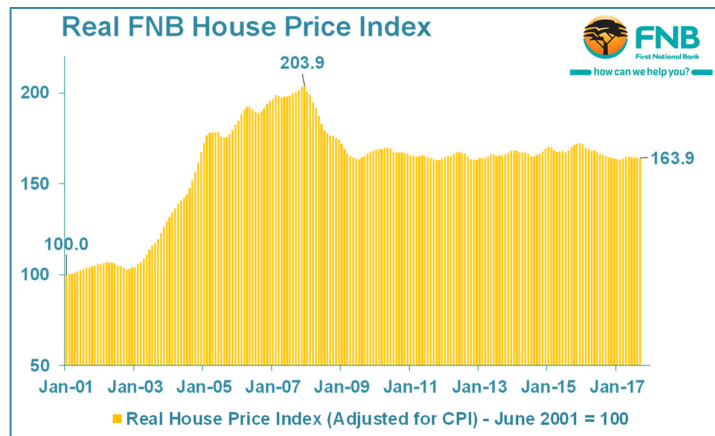
While 84.08 represents a noticeable correction in the Price-Rent Ratio Index since the 100 level

of January 2008, it is still believed to be a high number.

However, the other important ratio, i.e. the Instalment on a 100% bond on the average-priced house/Rent Ratio Index, remains somewhat lower at 71.6 (with January 2008 = 100 for this index too). It has been kept well below January 2008 levels by relatively low interest rates which, even despite a rise of 200 basis points since early 2014, remain significantly below mid-2008 peak levels. This index is a very significant -28.4% below January 2008 level, and in part explains why a still-high Price-Rent Ratio has not led to a very strong surge in demand for the rental option in recent years.

THE HOUSE PRICE-CONSUMER GOODS RATIO INDEX.....OTHERWISE KNOWN AS THE REAL HOUSE PRICE INDEX

Examining the real house price trends (house prices adjusted for overall CPI inflation), we see that the level as at September 2017 had lost-4.9% since a near 9-year high reached in December 2015.



Looking a bit further back to the all-time real house price peak at the end of 2007 (at the end of the pre-2008 housing boom period), on a cumulative basis real house prices were -19.6% down on that high as at September 2017.

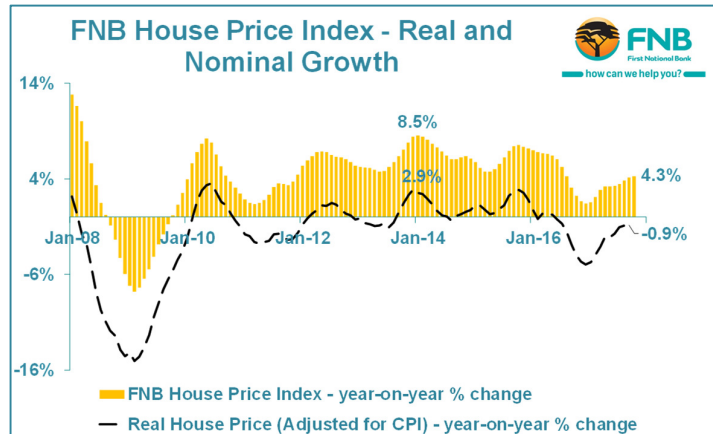
However, looking back further, despite a mediocre performance in recent years, the average real house price currently remains a massive 63.9% above the end-2000 level, almost 17 years ago, and a time back just before boom-time price inflation started to accelerate rapidly.

In short, we believe both of our versions of “real” house prices, i.e. the FNB House Price-Rent Ratio Index (Average house price-CPI-Rentals Ratio) and the FNB “Real” House Price Index (Average House Price-Overall CPI Ratio) to still be at relatively high levels, but in both indices the downward corrections continued in September 2017, and the cumulative corrections in both since end-2007, beginning-2008 have been significant at between -15% and -20%.

IT LOOKS LIKELY THAT REAL HOUSE PRICES WILL CONTINUE TO DECLINE IN THE NEAR TERM

YEAR-ON-YEAR HOUSE PRICE INFLATION REMAINS LOWER THAN CPI AND CPI-RENTAL INFLATION

Looking at the FNB House Price Index for October 2017, we saw growth of 4.3% year-on-year. This is a mild acceleration from the revised 4.2% for September, but still likely to be significantly below CPI and CPI-Rental inflation rates, both most recently above 5%.

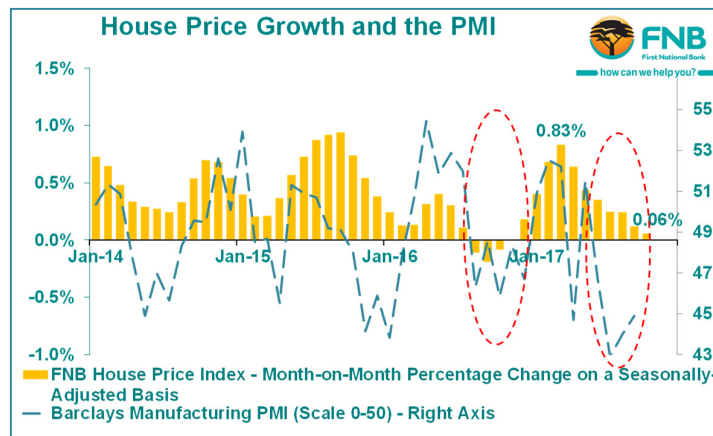


In real terms, when adjusting for CPI (Consumer Price Index) inflation, this translated into a decline of -0.9% year-on-year in September (October CPI data not yet available). This is a noticeably diminished real house price deflation rate from a low of -5% reached in December 2016.

The -0.9% real price decline in September was due to a CPI inflation rate of 5.1% in that month, remaining +0.9 of a percentage point above the 4.2% year-on-year house price inflation rate of the same month.

AND SLOWING MONTH-ON-MONTH HOUSE PRICE GROWTH SLOWS

While the year-on-year house price growth rate has still recently shown mild acceleration, a better way to be up to date on most recent house price growth momentum is to view it on a month-on-month seasonally-adjusted basis. And a steadily slowing month-on-month growth rate suggests that year-on-year house price growth should also start to slow soon, likely sustaining the recent period of real house price decline.



Calculating house price growth on a month-on-month basis we have seen a slowing price growth trend, which started in April 2017.

The month-on-month house price growth rate was a lowly 0.06% for October, down from the prior month's 0.12% and now well-down on the 2017 high of 0.83% reached in March.

Annualising the most recent month-on-month price growth rate of 0.06%, we see that, were that month-on-month growth to continue over the next year at the same lowly rate, the FNB House Price Index would achieve a mere 0.7% year-on-year growth 12 months from now. It is

thus likely that year-on-year house price growth will remain below the CPI inflation rate, and thus negative in real terms, in the near term.

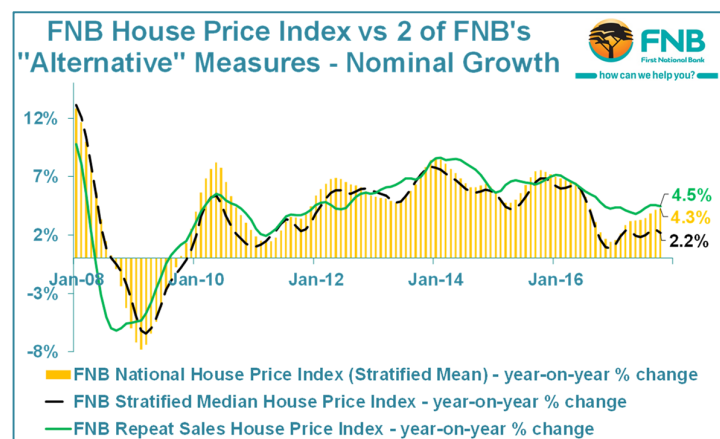
SLOWING IN MONTH-ON-MONTH HOUSE PRICE GROWTH MAY POINT TO RENEWED WEAKENING IN ECONOMY

This most recent month-on-month slowing house price growth trend once again has broadly coincided with a marked dip in the Absa Manufacturing Sector Purchasing Managers Index (PMI), suggesting that it is reflective of a renewed economic "dip" after a brief economic growth improvement in the 2nd quarter of 2017 which ended the prior 2-quarter recession.

Not only does the recent slowing month-on-month house price growth rate point to possible renewed weakening in the economy, but also to the likelihood that year-on-year house price growth may soon begin to slow once more. This would likely keep house price growth below rental and overall CPI inflation, sustaining the gradual real house price and Price-Rent Ratio corrections in the near term.

WHAT FNB'S ALTERNATIVE HOUSE PRICE INDEX MEASURES SAY?

Given that house price statistics and indices are never an exact science, we often like to test our main house price index against our alternative house price index methodologies. Recently, all of them point to market weakness,



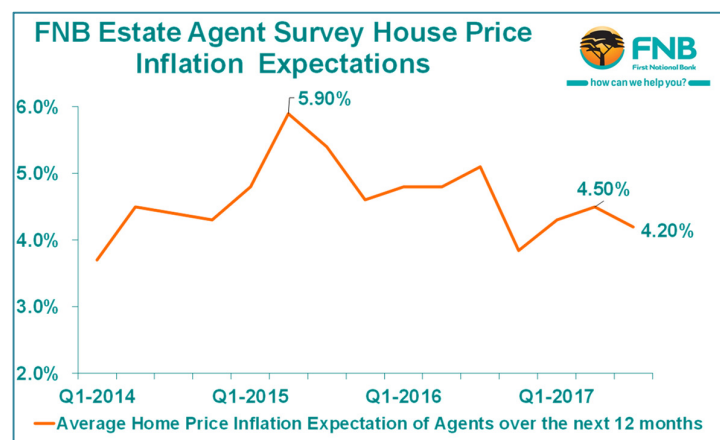
moving in a very narrow range. Whereas we term our main house price index a “stratified mean”, where sub-segments of the index are averages with their weights fixed in the overall index, our FNB Stratified Median House Price Index is the average of the sub-segments’ median prices.

The Stratified Median House Price Index showed slightly slower (than the “official” index) house price growth of 2.2% in October, slower than the previous month’s 2.5%, while our FNB Repeat Sales House Price Index showed slightly faster (than the “official” index) growth of 4.46%, but

also slightly slower than its own prior month’s 4.55%.

Therefore, the 2 alternative FNB House Price Indices mentioned here also show lower single-digit house price growth below the CPI and CPI Rental inflation rates, supporting the likelihood of decline in real house prices. In addition, though, the 2 alternative house price indices have already seen their recent year-on-year price growth slowing. Our “official” FNB House Price Index hasn’t yet reverted to year-on-year growth slowing, but the month-on-month slowing rate suggests that this is coming.

WHAT DO ESTATE AGENTS EXPECT LOOKING FORWARD



As a matter of interest, in the FNB Estate Agent Survey, amongst the sample of agents surveyed quarterly we see that these agents appear to anticipate recent low single-digit house price growth rates to continue over the next 12 months.

In the 3rd quarter 2017 survey, on average they expected house price growth over the next 12 months to amount to 4.2%. This is mildly less optimistic than the previous quarter’s 4.5%, and now noticeably lower than the multi-year high expectation of 5.9% reached in the 2nd quarter 2015 survey.

In recent times, agents surveyed have reported heightened levels of “Economic Stress/General Pessimism” in the markets in which they operate, while a diminished number report “Positive Consumer Sentiment”.

Monthly FNB House Price Index (Jan 2001 = 100)



how can we help you?

Date	Index	y/y % change	Date	Index	y/y % change	Date	Index	y/y % change	Date	Index	y/y % change
Jan-01	100.0		Jul-05	218.0	26.3%	Jan-10	284.6	4.0%	Jul-14	356.75	6.4%
Feb-01	100.7		Aug-05	218.1	23.5%	Feb-10	287.2	5.6%	Aug-14	357.23	6.1%
Mar-01	101.4		Sep-05	219.1	20.6%	Mar-10	289.6	6.8%	Sep-14	359.11	6.1%
Apr-01	102.4		Oct-05	221.3	17.9%	Apr-10	291.2	7.7%	Oct-14	361.81	6.2%
May-01	103.6		Nov-05	224.1	15.1%	May-10	292.0	8.2%	Nov-14	364.65	6.4%
Jun-01	104.7		Dec-05	227.8	13.0%	Jun-10	291.4	7.8%	Dec-14	366.99	6.1%
Jul-01	105.4		Jan-06	232.0	11.4%	Jul-10	290.0	6.5%	Jan-15	368.95	5.7%
Aug-01	106.0	9.2%	Feb-06	236.6	10.7%	Aug-10	289.3	5.3%	Feb-15	370.45	5.2%
Sep-01	106.5	8.9%	Mar-06	240.8	10.8%	Sep-10	289.6	4.3%	Mar-15	371.90	4.8%
Oct-01	107.1	8.9%	Apr-06	244.0	11.4%	Oct-10	290.0	3.7%	Apr-15	373.36	4.7%
Nov-01	107.9	9.3%	May-06	245.5	12.0%	Nov-10	289.9	3.1%	May-15	374.92	5.0%
Dec-01	109.3	10.1%	Jun-06	245.9	12.5%	Dec-10	289.7	2.4%	Jun-15	376.74	5.6%
Jan-02	110.9	10.9%	Jul-06	246.4	13.0%	Jan-11	289.9	1.9%	Jul-15	379.12	6.3%
Feb-02	112.9	12.1%	Aug-06	247.6	13.5%	Feb-11	291.5	1.5%	Aug-15	382.05	6.9%
Mar-02	114.8	13.2%	Sep-06	249.6	13.9%	Mar-11	293.6	1.4%	Sep-15	385.85	7.4%
Apr-02	116.2	13.6%	Oct-06	252.0	13.8%	Apr-11	295.5	1.5%	Oct-15	389.10	7.5%
May-02	117.1	13.1%	Nov-06	254.8	13.7%	May-11	297.2	1.8%	Nov-15	391.57	7.4%
Jun-02	117.5	12.2%	Dec-06	258.2	13.3%	Jun-11	298.3	2.4%	Dec-15	393.34	7.2%
Jul-02	117.7	11.7%	Jan-07	261.4	12.7%	Jul-11	299.1	3.1%	Jan-16	394.66	7.0%
Aug-02	117.9	11.3%	Feb-07	264.1	11.6%	Aug-11	299.5	3.5%	Feb-16	395.71	6.8%
Sep-02	118.2	11.0%	Mar-07	266.1	10.5%	Sep-11	299.7	3.5%	Mar-16	396.80	6.7%
Oct-02	118.8	10.9%	Apr-07	267.9	9.8%	Oct-11	299.8	3.4%	Apr-16	398.09	6.6%
Nov-02	119.5	10.7%	May-07	270.1	10.0%	Nov-11	300.7	3.7%	May-16	399.16	6.5%
Dec-02	120.5	10.3%	Jun-07	273.1	11.1%	Dec-11	302.6	4.5%	Jun-16	399.51	6.0%
Jan-03	121.9	9.9%	Jul-07	276.1	12.0%	Jan-12	305.5	5.4%	Jul-16	399.15	5.3%
Feb-03	123.9	9.7%	Aug-07	279.0	12.7%	Feb-12	308.8	5.9%	Aug-16	398.32	4.3%
Mar-03	126.3	10.0%	Sep-07	282.2	13.1%	Mar-12	312.4	6.4%	Sep-16	397.76	3.1%
Apr-03	129.0	11.0%	Oct-07	285.9	13.5%	Apr-12	315.6	6.8%	Oct-16	397.79	2.2%
May-03	131.6	12.3%	Nov-07	290.0	13.8%	May-12	317.6	6.9%	Nov-16	398.14	1.7%
Jun-03	134.1	14.2%	Dec-07	293.3	13.6%	Jun-12	318.6	6.8%	Dec-16	399.00	1.4%
Jul-03	136.8	16.2%	Jan-08	295.0	12.8%	Jul-12	318.6	6.5%	Jan-17	400.86	1.6%
Aug-03	139.1	17.9%	Feb-08	294.9	11.6%	Aug-12	318.5	6.3%	Feb-17	404.09	2.1%
Sep-03	141.3	19.6%	Mar-08	292.7	10.0%	Sep-12	318.3	6.2%	Mar-17	408.09	2.8%
Oct-03	144.0	21.3%	Apr-08	289.2	7.9%	Oct-12	318.0	6.1%	Apr-17	410.78	3.2%
Nov-03	147.1	23.1%	May-08	285.3	5.6%	Nov-12	318.0	5.7%	May-17	412.05	3.2%
Dec-03	150.7	25.0%	Jun-08	282.1	3.3%	Dec-12	318.9	5.4%	Jun-17	412.67	3.3%
Jan-04	154.4	26.7%	Jul-08	280.1	1.5%	Jan-13	321.5	5.3%	Jul-17	412.95	3.5%
Feb-04	158.3	27.8%	Aug-08	279.8	0.3%	Feb-13	324.8	5.2%	Aug-17	413.65	3.8%
Mar-04	162.0	28.3%	Sep-08	279.7	-0.9%	Mar-13	328.4	5.1%	Sep-17	414.29	4.2%
Apr-04	165.1	27.9%	Oct-08	279.1	-2.4%	Apr-13	331.1	4.9%	Oct-17	414.80	4.3%
May-04	167.5	27.3%	Nov-08	277.7	-4.3%	May-13	332.7	4.8%			
Jun-04	169.8	26.6%	Dec-08	275.8	-6.0%	Jun-13	334.0	4.8%			
Jul-04	172.5	26.2%	Jan-09	273.7	-7.2%	Jul-13	335.3	5.2%			
Aug-04	176.6	27.0%	Feb-09	271.9	-7.8%	Aug-13	336.8	5.8%			
Sep-04	181.7	28.6%	Mar-09	271.1	-7.4%	Sep-13	338.6	6.4%			
Oct-04	187.8	30.4%	Apr-09	270.5	-6.5%	Oct-13	340.5	7.1%			
Nov-04	194.7	32.3%	May-09	269.8	-5.4%	Nov-13	342.8	7.8%			
Dec-04	201.7	33.9%	Jun-09	270.4	-4.2%	Dec-13	345.8	8.4%			
Jan-05	208.2	34.9%	Jul-09	272.2	-2.9%	Jan-14	348.9	8.5%			
Feb-05	213.7	34.9%	Aug-09	274.8	-1.8%	Feb-14	352.3	8.4%			
Mar-05	217.4	34.2%	Sep-09	277.5	-0.8%	Mar-14	354.9	8.1%			
Apr-05	219.1	32.7%	Oct-09	279.7	0.2%	Apr-14	356.4	7.7%			
May-05	219.2	30.8%	Nov-09	281.3	1.3%	May-14	357.0	7.3%			
Jun-05	218.6	28.8%	Dec-09	282.8	2.5%	Jun-14	356.9	6.9%			

ADDENDUM - NOTES:

Note on The FNB Average House Price Index: Although also working on the average price principle (as opposed to median or repeat sales), the FNB House Price Index differs from a simple average house price index in that it could probably be termed a “fixed weight” average house price index.

One of the practical problems we have found with house price indices is that relative short term activity shifts up and down the price ladder can lead to an average or median price index rising or declining where there was not necessarily “genuine” capital growth on homes. For example, if “Full Title 3 Bedroom volumes remain unchanged from one month to the next, but Sectional Title 1 Bedroom and Less (the cheapest segment on average) transaction volumes hypothetically double, the overall national average price could conceivably decline due to this relative activity shift.

This challenge of activity shifts between segments is faced by all constructors of house price indices. In an attempt to reduce this effect, we decided to fix the weightings of the FNB House Price Index’s sub-segments in the overall national index. This, at best, can only be a partial solution, as activity shifts can still take place between smaller segments within the sub-segments. However, it does improve the situation.

With our 2013 re-weighting exercise, we have begun to segment not only according to room number, but also to segment according to building size within the normal segments by room number, in order to further reduce the impact of activity shifts on average price estimates.

The FNB House Price Index’s main segments are now as follows:

- The weightings of the sub-segments are determined by their relative transaction volumes over the past 5 years, and will now change very slowly over time by applying a 5-year moving average to each new price data point. The sub-segments are:
 - Sectional Title:
 - Less than 2 bedroom – Large
 - Less than 2 bedroom – Medium
 - Less than 2 bedroom – Small
 - 2 Bedroom – Large
 - 2 bedroom – Medium
 - 2 bedroom – Small
 - 3 Bedroom and More - Large
 - 3 Bedroom and More - Medium
 - 3 Bedroom and More - Small
 - Full Title:
 - 2 Bedrooms and Less - Large
 - 2 Bedrooms and Less - Medium
 - 2 Bedrooms and Less - Small
 - 3 Bedroom - Large
 - 3 Bedroom - Medium
 - 3 Bedroom - Small
 - 4 Bedrooms and More - Large
 - 4 Bedrooms and More - Medium
 - 4 Bedrooms and More – Small

The size cut-offs for “small”, medium” and “large” differ per room number sub-segment. “Large” would refer to the largest one-third of homes within a particular room number segment over the past 5 year period, “Medium” to the middle one-third, and “Small” to the smallest one-third of homes within that segment.

- The Index is constructed using transaction price data from homes financed by FNB.
- The minimum size cut-off for full title stands is 200 square metres, and the maximum size is 4000 square metres
- The maximum price cut-off is R10m, and the lower price cut-off is R20,000 (largely to eliminate major outliers and glaring inputting errors).
- The index is very lightly smoothed using a Hodrick-Prescott smoothing function with a Lambda of 5.